

Latest Products from...

DC/DC Converters



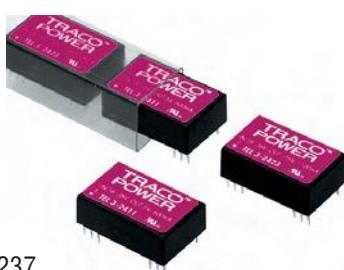
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POLA DC/DC Converters



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PCB Mount - DC/DC Converters



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Medical Power Supplies



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Electromagnetic Compatibility - Component Power

Definition of Use

Component Power Supplies are designed to be incorporated in other equipment. They are not intended for use in free standing applications or to be accessible to the final user of the equipment. They are classed as components in the context of the EMC Directive.

All items within this section are deemed to be components with the exception of both the plug top adaptors and the bench power supplies.

The enclosure of the final equipment shall provide:

- (i) protection against Electrostatic Discharge (ESD);
- (ii) protection against personal contact with live parts;
- (iii) some screening of radiated Electromagnetic Interference

Component Power Supplies will not be 'CE' marked under the EMC Directive, but information on EMC performance will be provided.

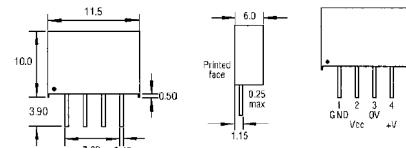
This follows the guidelines of the United Kingdom Power Supply Manufacturers' Association (PSMA).

213448

PCB Mount - DC to DC Converters

250mW - DC/DC Converters

Subminiature - 1kV isolation



- High efficiency for low power applications
- 1kVdc isolation in a SIL plastic package
- Power Density 0.36W/cm³
- UL 94V-0 fully encapsulated package material
- No heatsink required
- No external components required

Nominal input voltage 5, 12V Output voltage accuracy +10%, -7.5% (10% to 100% load)

Input voltage range ±10% Output ripple and noise 50mV pk to pk
Load voltage regulation +10% -7.5% Efficiency Up to 75%
(min. load 10%)

Vin	Vo	Mfrs. List No.	Order Code	Vin	Vo	Mfrs. List No.	Order Code
5	5	LME0505SC	102-1402	12	5	LME1205SC	102-1405
5	12	LME0512SC	102-1403	12	12	LME1212SC	102-1406
5	15	LME0515SC	102-1404	12	15	LME1215SC	102-1407

205800

Order Code	1+	10+	30+	40+	50+	Price Each
102-1402●	6.77	6.40	6.19	5.89	5.45	
102-1403●	6.77	6.40	6.19	5.89	5.45	
102-1404●	6.77	6.40	6.19	5.89	5.45	
102-1405●	6.77	6.40	6.19	5.89	5.45	
102-1406●	6.77	6.40	6.19	5.89	5.45	
102-1407●	6.77	6.40	6.19	5.89	5.45	

Isolated 1W Single Output Surface Mount



NTE Series



Pin out specification

- Pin 1 GND Pin 8 + V
- Pin 3 Vin Pin 10 NA
- Pin 5 NA Pin 12 NA
- Pin 7 OV Pin 14 NA
- NA - Not available for electrical connection

- Wide temperature performance at full load -40°C to 85°C
- Single isolated output
- 1kVDC isolation
- Efficiency to 78%
- 3V, 5V & 12V input
- 5V, 9V, 12V and 15V output
- Toroidal magnetics
- Internal SMD construction
- No heatsink required
- UL 94V-0 package material
- Lead free compatible
- Lead frame technology

Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
3.3	3.3	303	NTE0303MC	161-0436
3.3	5	200	NTE0305MC	161-0437
5	5	200	NTE0505MC	102-1599
5	9	111	NTE0509MC	102-1600
5	12	83	NTE0512MC	102-1601
5	15	66	NTE0515MC	102-1602
12	5	200	NTE1205MC	102-1603
12	9	111	NTE1209MC	102-1604
12	12	83	NTE1212MC	102-1605
12	15	66	NTE1215MC	102-1607

205874

NTE Series	Order Code	1+	10+	25+	50+	100+	Price Each
NTE Series	All Order Codes●	6.33	6.00	5.75	5.32	4.77	

205874

3kVDC Isolated 1 W Dual Output SMD

NTV Series



Pin out specification
Pin 1 Gnd
Pin 3 Vin
Pin 5 N/A
Pin 9 OV
Pin 11 -V

Pin 12 N/A
Pin 14 +V
Pin 18 N/A
Pin 20 N/A
Pin 22 N/A

- Efficiency to 82%
- 3kVDC isolation (1 minute)
- 5V & 12V input
- 5V, 9V, 12V and 15V output
- Dual isolated outputs
- Wide temperature range at full 1W load -40°C to 85°C

- Internal SMD construction
- Toroidal magnetics
- UL 94V-0 package material
- No heatsink required
- MTTF up to 2.1 million hours
- Lead free compatible

Voltage (V)	Output Voltage (V)	Output current (mA)	Mfrs List No.	Order Code
5	5	±100	NTV0505MC	102-1608
5	9	±55	NTV0509MC	102-1609
5	12	±42	NTV0512MC	102-1610
5	15	±33	NTV0515MC	102-1611
12	5	±100	NTV1205MC	102-1612
12	9	±55	NTV1209MC	102-1613
12	12	±42	NTV1212MC	102-1614
12	15	±33	NTV1215MC	102-1615

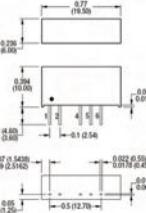
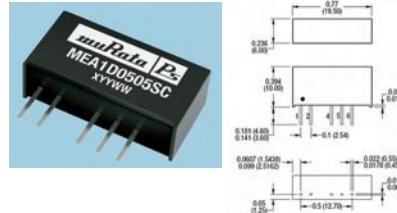
227651

NTV Series	Order Code	1+	25+	50+	100+	Price Each
All Order Codes●	7.69	7.50	6.74	6.32		

1 Watt Isolated DC/DC Converters



New



The MEA series offers improved regulation performance ≤5% for applications where a wide output voltage variation can not be tolerated. They are ideally suited for providing dual rail supplies with the added benefit of galvanic isolation to reduce switching noise. All of the rated power may be drawn from a single output providing the total load does not exceed 1 watt.

- Power density 0.85W/cm³
- Wide temperature performance at full 1 Watt load, -40°C to 85°C
- 1 Watt load, -40°C to 85°C
- Power sharing on output
- 5V & 12V input
- 5V, 9V, 12V, & 15V output
- Fully encapsulated with toroidal magnetics
- No external components required
- No electrolytic or tantalum capacitors
- Industry standard pinout

Mfrs. List No.	Input Voltage	Output 1	Output 2	Efficiency	Order Code
MEA1D0505SC	5V	5V / 100mA	-5V / -100mA	84%	167-1256
MEA1D0509SC	5V	9V / -55mA	-9V / 55mA	86%	167-1257
MEA1D0512SC	5V	12V / -42mA	-12V / 42mA	87%	167-1258
MEA1D0515SC	5V	15V / -33mA	-15V / 33mA	87%	167-1259
MEA1D1205SC	12V	5V / 100mA	-5V / -100mA	83.5%	167-1260
MEA1D1209SC	12V	9V / -55mA	-9V / 55mA	86%	167-1262
MEA1D1212SC	12V	12V / -42mA	-12V / 42mA	84%	167-1263
MEA1D1215SC	12V	15V / -33mA	-15V / 33mA	87%	167-1264

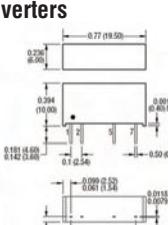
526333

MEA Series	Order Code	1+	10+	25+	50+	Price Each
All Order Codes●	5.80	5.32	4.82	4.76		

1 Watt Isolated DC/DC Converters



New



The MEV series is a high performance DC/DC converter. Offering improved regulation performance ≤5% for applications where a wide output voltage variation can not be tolerated. They are ideally suited for providing local supplies on control system boards with the added benefit of 3kVDC galvanic isolation to reduce switching noise.



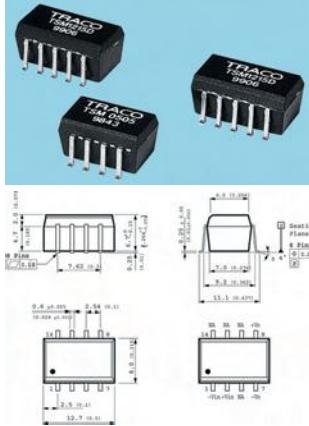
- Power density 0.85W/cm³
- Wide temperature performance at full load -40°C to 85°C
- 1 Watt load, -40°C to 85°C
- UL 94V-0 package material
- No heatsink required
- Industry standard pinout

- 3kVDC isolation (1 minute)
- 5V & 12V input
- 5V, 9V, 12V, & 15V output
- Fully encapsulated with toroidal magnetics
- No external components required
- No electrolytic or tantalum capacitors

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Efficiency (%)	Order Code
MEVIS0505SC	5	5	200	84	167-1246
MEVIS0509SC	5	9	111	86	167-1247
MEVIS0512SC	5	12	84	87	167-1249
MEVIS0515SC	5	15	67	87	167-1251
MEVIS1205SC	12	5	200	83.5	167-1252
MEVIS1209SC	12	9	111	86	167-1253
MEVIS1212SC	12	12	84	84	167-1254
MEVIS1215SC	12	15	67	87	167-1255

526327

MEV Series	Order Code All Order Codes●	Price Each		
		1+	5+	10+ 25+ 50+ 100+
		7.69	7.35	7.18 6.69

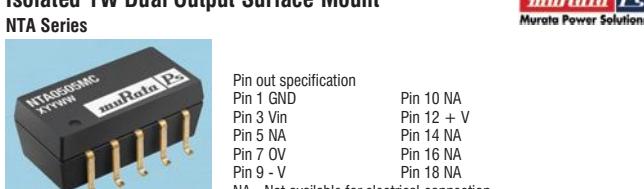
TSM Series, 1 WattTRACO®
POWER

Input Variation	Not regulated	V/O Isolation	1000V dc
Load Variation	±10% Max.	Operating Temperature	-40°C to +85°C, (no derating)
Efficiency	80% typ.	Reflow Solder Temp	185°C for 90 sec max. (Peak 230°C)
Ripple & Noise	120mV pk-pk typ.		

Input Voltage	Output Voltage	Output Current	Mfrs. List No.	Order Code
5V dc ±10%	5V	200mA	TSM 0505S	120-5072
5V dc ±10%	12V	80mA	TSM 0512S	120-5074
5V dc ±10%	±5V	±100mA	TSM 0505D	120-5071
5V dc ±10%	±12V	±40mA	TSM 0512D	120-5073
5V dc ±10%	±15V	±30mA	TSM 0515D	120-5075
12V dc ±10%	5V	200mA	TSM 1205S	120-5077
12V dc ±10%	12V	80mA	TSM 1212S	120-5082
12V dc ±10%	±5V	±100mA	TSM 1205D	120-5076
12V dc ±10%	±12V	±40mA	TSM 1212D	120-5081
12V dc ±10%	±15V	±30mA	TSM 1215D	120-5083

337911

Mfrs. List No.	Order Code	1+	5+	10+	25+
TSM 0505S	120-5072●	5.80	5.45	5.22	5.00
TSM 0512S	120-5074●	5.80	5.62	5.32	4.86
TSM 0505D	120-5071●	6.35	5.97	5.71	5.46
TSM 0512D	120-5073●	6.35	5.97	5.71	5.46
TSM 0515D	120-5075●	6.35	5.97	5.71	5.46
TSM 1205S	120-5077●	5.80	5.62	5.32	4.86
TSM 1212S	120-5082●	5.80	5.62	5.32	4.86
TSM 1205D	120-5076●	6.35	5.97	5.71	5.46
TSM 1212D	120-5081●	6.35	5.97	5.71	5.46
TSM 1215D	120-5083●	6.35	5.97	5.71	5.46

Isolated 1W Dual Output Surface MountmuRata P_S
Murata Power Solutions

- Wide temperature performance at full load -40°C to 85°C
- Dual isolated output
- 1kVDC isolation
- Efficiency to 80%
- 5V & 12V inputs
- Toroidal magnetics

- Pin out specification
- | | |
|-----------|------------|
| Pin 1 GND | Pin 10 NA |
| Pin 3 Vin | Pin 12 + V |
| Pin 5 NA | Pin 14 NA |
| Pin 7 0V | Pin 16 NA |
| Pin 9 - V | Pin 18 NA |
- NA - Not available for electrical connection

- 5V, 9V, 12V, and 15V output
- Internal SMD construction
- No heatsink required
- UL 94V-0 package material
- Lead free compatible
- Lead frame technology

Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
5	5	±100	NTA0505MC	102-1591
5	9	±55	NTA0509MC	102-1592
5	12	±42	NTA0512MC	102-1593
5	15	±33	NTA0515MC	102-1594
12	5	±100	NTA1205MC	102-1595
12	12	±42	NTA1212MC	102-1597
12	15	±33	NTA1215MC	102-1598

205875

Order Code All Order Codes●	1+	10+	25+	50+	100+
	6.33	6.00	5.75	5.32	4.77

1W DC/DC Converters - Single O/PmuRata P_S
Murata Power Solutions

NMJ Series



- UL 60950 Recognised
- Single output
- 5.2kVDC isolation
- 5V & 12V input
- 5V, 9V, 12V and 15V output
- Toroidal magnetics
- Internal SMD construction
- No heatsink required
- UL 94V-0 package material
- SIP package style

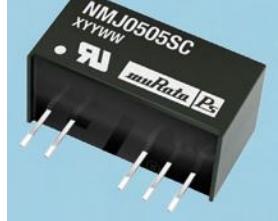
Pin out specification	Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
Pin 1 Vin	5	5	100	NMJ0505SAC	137-1585
Pin 2 GND	5	9	55	NMJ0509SAC	137-1586
Pin 5 -V	5	12	42	NMJ0512SAC	137-1588
Pin 7 +V	5	15	33	NMJ0515SAC	137-1589
	12	5	100	NMJ1205SAC	137-1590
	12	9	55	NMJ1209SAC	137-1591
	12	12	42	NMJ1212SAC	137-1592
	12	15	33	NMJ1215SAC	137-1593

474662

Order Code All Order Codes●	1+	10+	25+	50+	100+
	9.84	9.40	9.10	8.38	7.60

1W DC/DC Converters - Dual O/PmuRata P_S
Murata Power Solutions

NMJ Series



- UL 60950 Recognised
- Dual output
- 5.2kVDC isolation
- Efficiency to 70%
- 5V & 12V input
- 5V, 9V, 12V and 15V output
- Power sharing
- Toroidal magnetics
- SIP package style

Pin out specification	Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
Pin 1 Vin	5	±5	±100	NMJ0505SC	102-1510
Pin 2 GND	5	±9	±55	NMJ0509SC	102-1511
Pin 5 -V	5	±12	±42	NMJ0512SC	102-1512
Pin 6 OV	5	±15	±33	NMJ0515SC	102-1513
Pin 7 +V	12	±5	±100	NMJ1205SC	102-1514
	12	±9	±55	NMJ1209SC	102-1516
	12	±12	±42	NMJ1212SC	102-1517
	12	±15	±33	NMJ1215SC	102-1518

205876

Order Code All Order Codes●	1+	10+	25+	50+	100+
	9.84	9.40	9.10	8.38	7.60

1W - Single Output NME SeriesmuRata P_S
Murata Power Solutions

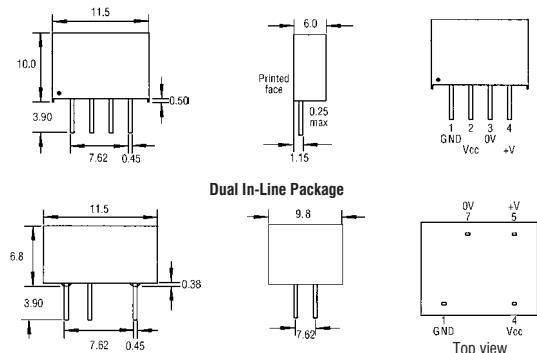
Single In-Line Package

- SIL and DIL package styles
- Power density 1.45W cm³
- 1kVdc isolation single output
- UL 94V-0 package material
- Efficiency to 80%
- No heatsink or external components required

PCB Mount - DC to DC Converters - continued

1W - Single Output NME Series - continued

Subminiature - 1kV Isolation - continued



Nominal input voltage	5, 12, 24V	Output voltage accuracy	+10%, -7.5% (10% to 100% load)
Input voltage range	±10%	Output ripple and noise	110mV pk to pk (5, 12, 24V)
Load voltage regulation	±(5, 12, 24V) (min. load 10%)		

Vin	Vo	Mfrs. List No.	Order Code	Mfrs. List No.	Order Code
5	5	NME0505C	102-1456	NME0505DC	102-1455
5	12	NME0512SC	102-1458	NME0512DC	102-1457
5	15	NME0515SC	102-1460	NME0515DC	102-1459
5	24	NME0524SC	161-0431	—	—
12	5	NME1205SC	102-1463	NME1205DC	102-1462
12	12	NME1212SC	102-1465	NME1212DC	102-1464
12	15	NME1215SC	102-1466	—	—
24	5	NME2405SC	102-1468	NME2405DC	102-1467
24	12	NME2412SC	102-1470	NME2412DC	102-1469
24	15	NME2415SC	102-1472	NME2415DC	102-1471

205909

	Order Code	1+	10+	25+	50+	100+	Price Each
NME05 Series	All Order Codes●	5.81	5.32	4.82	4.68	4.44	
NME12 Series	All Order Codes●	5.81	5.32	4.82	4.68	4.44	
NME24 Series	All Order Codes●	6.02	5.54	5.04	4.89	4.64	

36

1W Isolated DC/DC Converters

Single Output - IE Series



A new low cost range of 1W isolated dc/dc converters. The IE series has single outputs ranging from 5 Vdc to 15 Vdc with inputs of 5, 12, or 24 Vdc. The units are available in both SIP and DIP package styles and feature short circuit protection.

- Low cost
- Industry standard pin-out
- 1 kVdc isolation
- -40 °C to +85°C @ full load
- UL94V-0 material
- 3 year warranty

SIP Package	DIP Package	Input Range	Nominal ±10%
		Line Regulation	1.2%/1% ΔVin
		Load Regulation	±10% 20-100% load
		Ripple & Noise	60 mV pk-pk
		Short Circuit Protection	1 s max
		Operating Temperature	-40°C to +85°C
		Storage Temperature	-40°C to +125°C
		Isolation Voltage	1000 Vdc min
		Efficiency	Up to 78%

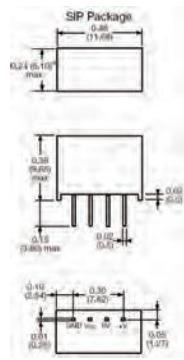
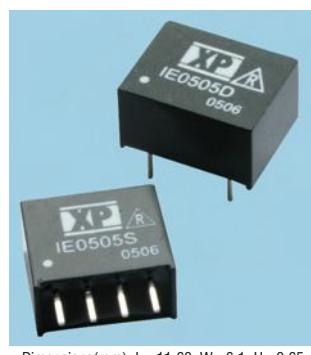
Input	Output	Output	SIP Package	DIP Package
Voltage	Voltage	Current	Mfrs. List No.	Order
5 Vdc	5 Vdc	200 mA	IE0505S	872-7694
5 Vdc	12 Vdc	84 mA	IE0512S	872-7716
5 Vdc	15 Vdc	66 mA	IE0515S	872-7732
12 Vdc	5 Vdc	200 mA	IE1205S	872-7759
12 Vdc	12 Vdc	84 mA	IE1212S	872-7775
12 Vdc	15 Vdc	66 mA	IE1215S	872-7783
24 Vdc	5 Vdc	200 mA	IE2405S	872-7805
24 Vdc	12 Vdc	84 mA	IE2412S	872-7821
24 Vdc	15 Vdc	66 mA	IE2415S	872-7848

385692

Mfrs.	Order Code	1+	10+	25+	50+	100+	Price Each
IE05 Series	All Order Codes●	3.79	3.56	3.41	3.22	3.03	
IE12 Series	All Order Codes●	3.99	3.75	3.59	3.39	3.19	
IE24 Series	All Order Codes●	4.59	4.31	4.13	3.90	3.67	

1W 3kV Isolated DC/DC Converters

Single Output - IE-H Series



Dimensions(mm): L=11.68, W=6.1, H=9.65

An industry standard SIP pinout converter, offering 3000VDC input to output isolation as standard and a high MTBF of >2million hours. Nominal input voltages of 3.3, 5, 12 & 24VDC and output voltages from 3.3VDC to 24VDC makes this a very versatile converter.

- Nominal input voltage 3.3, 5, 12 & 24VDC
- 3000VDC Isolation
- Output voltage 3.3 to 24VDC
- Industry standard pin out
- Short Circuit Protection
- 3 year warranty

Input Voltage Range	Nominal ±10%
Line Regulation	1.2%/1% change of Vin
Load Regulation	±10% 20-100% load change (3.3 V models ±20%)
Ripple & Noise	60 mV pk-pk
Isolation Voltage	3000 VDC
MTBF	>2 Mhrs
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +125°C

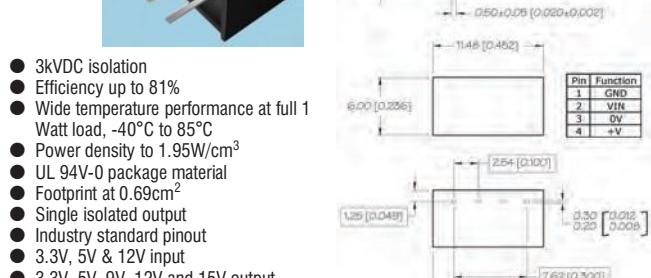
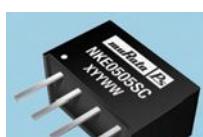
Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Order Code
IE0303S-H	3.3	3.3	300	143-6114
IE0305S-H	3.3	5	200	143-6115
IE0309S-H	3.3	9	111	143-6116
IE0312S-H	3.3	12	84	143-6117
IE0315S-H	3.3	15	66	143-6118
IE0324S-H	3.3	24	42	143-6121
IE0503S-H	5	3.3	300	143-6122
IE0505S-H	5	5	200	143-6123
IE0509S-H	5	9	111	143-6124
IE0512S-H	5	12	84	143-6125
IE0515S-H	5	15	66	143-6126
IE0524S-H	5	24	42	143-6127
IE1203S-H	12	3.3	300	143-6128
IE1205S-H	12	5	200	143-6129
IE1209S-H	12	9	111	143-6130
IE1212S-H	12	12	84	143-6131
IE1215S-H	12	15	66	143-6133
IE1224S-H	12	24	42	143-6134
IE2403S-H	24	3.3	300	143-6135
IE2405S-H	24	5	200	143-6136
IE2409S-H	24	9	111	143-6137
IE2412S-H	24	12	84	143-6138
IE2415S-H	24	15	66	143-6139
IE2424S-H	24	24	42	143-6140

482163

Order Code	1+	5+	10+	25+
All Order Codes●	4.75	4.61	4.47	4.28

Isolated 1W Single Output DC/DC Converters

NKE Series



- 3kVDC isolation
- Efficiency up to 81%
- Wide temperature performance at full 1 Watt load, -40°C to 85°C
- Power density to 1.95W/cm³
- UL 94V-0 package material
- Footprint at 0.69cm²
- Single isolated output
- Industry standard pinout
- 3.3V, 5V & 12V input
- 3.3V, 5V, 9V, 12V and 15V output
- No heatsink required
- Internal SMD construction
- Fully encapsulated with toroidal magnetics
- No external components required
- No Electrolytic or Tantalum capacitors
- MTTF up to 2.4 million hours

Nominal Input Voltage	Output Voltage	Output Current	Dimensions (mm)	Mfrs.	List No.	Order Code
3.3V dc (2.97 - 3.63V dc)	3.3V	303mA	11.48x7.46x6.00	NKE0303SC	117-5765	
3.3V dc (2.97 - 3.63V dc)	5V	200mA	11.48x7.46x6.00	NKE0305SC	161-0426	
5V dc (4.5 - 5.5V dc)	3.3V	303mA	11.48x7.46x6.00	NKE0503SC	117-5767	
5V dc (4.5 - 5.5V dc)	5V	200mA	11.48x7.46x6.00	NKE0505SC	117-5757	
5V dc (4.5 - 5.5V dc)	9V	111mA	11.48x7.46x6.00	NKE0509SC	117-5768	
5V dc (4.5 - 5.5V dc)	12V	83mA	11.48x7.46x6.00	NKE0512SC	117-5754	
5V dc (4.5 - 5.5V dc)	15V	66mA	11.48x7.46x6.00	NKE0515SC	117-5759	
12V dc (10.8 - 13.2V dc)	9V	111mA	11.48x7.46x6.00	NKE1209SC	117-5769	
12V dc (10.8 - 13.2V dc)	12V	83mA	11.48x7.46x6.00	NKE1212SC	117-5758	
12V dc (10.8 - 13.2V dc)	15V	66mA	11.48x7.46x6.00	NKE1215SC	117-5760	

386092

Specific versions are available for use with flash memory devices. All units feature a control pin, used to control the flash memory programming voltage.

- 1kVdc isolation
- Compact size
- UL 94V-0 package material
- No heatsink or external components required
- Fully encapsulated
- Power density 0.85W/cm³

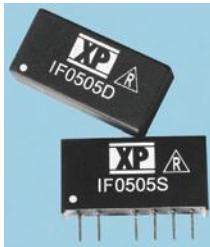
Nominal input voltage	5, 12, 24V	Output voltage accuracy	+10%, -7.5% (10% to 100% load)
Input voltage range	±5%	Output ripple and noise	60mV pk to pk
Load voltage regulation (10% to 100% full load)	1.5% max	Efficiency	>50%

205917

Price Each				
Vin	Vo	Mfrs.	List No.	Order Code
5	5	NMF0505SC	102-1474●	6.45
5	12	NMF0512SC	102-1475●	6.45
5	15	NMF0515SC	102-1476●	6.45
12	5	NMF1205SC	102-1477●	6.45
12	12	NMF1212SC	102-1478●	6.45
12	15	NMF1215SC	102-1479●	6.45
24	5	NMF2405SC	102-1480●	7.41
24	12	NMF2412SC	102-1481●	7.41
24	15	NMF2415SC	102-1482●	7.41

1W Regulated DC/DC Converters

Single Output - IF Series

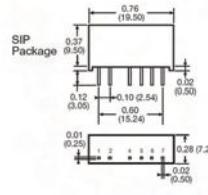


A new range of isolated and fully regulated DC/DC converters, with output voltages of 3.3V to 15V from nominal input voltages of 5V, 12V and 24V. These converters have 1000VDC input to output isolation and operate from -40°C to +85°C without derating.

- Fully Regulated Output
- Industry Standard Pinout
- Low Ripple and Noise
- 1000VDC Isolation
- MTBF >2million hours
- 3 year warranty

Dimensions(mm): L=19.5, W=7.2, H=10

PIN CONNECTIONS	
Pin	Standard
1	+Vin
2	-Vin
4	-Vout
5	No Pin
6	+Vout
7	No Pin



Input Voltage Range	Nominal ±10%
Line Regulation	±0.5% maximum
Load Regulation	±0.5% maximum
Ripple & Noise	50 mV pk-pk max, 20MHz BW
Isolation Voltage	1000 VDC
MTBT	>2 MHrs
Operating Temperature	-40°C to +85°C (no derating)
Storage Temperature	-40°C to +125°C

Mfrs.	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Order Code
IIF0503S	5	3.3	333	143-5372
IIF0505S	5	5	200	143-5373
IIF0509S	5	9	111	143-5374
IIF0512S	5	12	84	143-5375
IIF0515S	5	15	67	143-5376
IIF1203S	12	3.3	333	143-5377
IIF1205S	12	5	200	143-5378
IIF1209S	12	9	111	143-5379
IIF1212S	12	12	84	143-5380
IIF1215S	12	15	67	143-5381
IIF2403S	24	3.3	333	143-5382
IIF2405S	24	5	200	143-5384
IIF2409S	24	9	111	143-5385
IIF2412S	24	12	84	143-5386
IIF2415S	24	15	67	143-5387

480055

Order Code	Price Each
All Order Codes●	1+ 5.82 10+ 5.64 25+ 5.40

NMA Series 1W DC/DC converters - Dual o/p

5, 12, 24 or 48V Input - 1kV Isolation

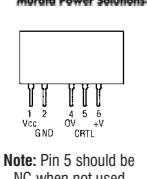


- Dual output from a single input rail
- Industry standard pinout
- SIL and DIL package styles
- Efficiency to 78%
- Power sharing on output
- Power density 0.85W/cm³
- UL 94V-0 package material
- No heatsink or external components required

Single-In-Line Package

NMF series 1W DC/DC converters

Regulated Output - 1kV Isolation



Note: Pin 5 should be NC when not used

RoHS Compliant
Non-compliant

08447 11 11 11

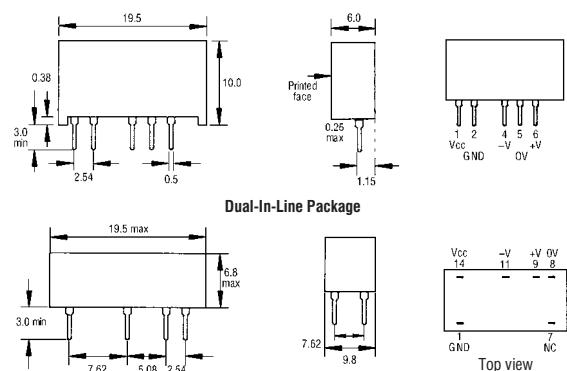
Fax: 08447 11 11 12 1239



PCB Mount - DC to DC Converters - continued

NMA Series 1W DC/DC converters - Dual o/p - continued

5, 12, 24 or 48V Input - 1kV Isolation - continued



Nominal input voltage 5, 12, 24, 48V
Input voltage range $\pm 10\%$
(10% to 100% load)
Output ripple and noise 75mV pk to pk
(5, 12, 24, 48V)

Output voltage accuracy $\pm 10\%$, -7.5%
Load voltage regulation $\pm 10\%$ (5, 12, 24, 48V)
(min. load 10%)

SIL Package

Vin	Vo	Mfrs. List No.	Order Code	Mfrs. List No.	Order Code
5	± 5	NMA05SSC	102-1428	NMA0505DC	102-1427
5	± 9	NMA0509SC	102-1429		
5	± 12	NMA0512SC	102-1431	NMA0512DC	102-1430
5	± 15	NMA0515SC	102-1433	NMA0515DC	102-1432
12	± 5	NMA1205SC	102-1435	NMA1205DC	102-1434
12	± 9	NMA1209SC	102-1437		
12	± 12	NMA1212SC	102-1439	NMA1212DC	102-1438
12	± 15	NMA1215SC	102-1441	NMA1215DC	102-1440
15	± 5	NMA1505SC	156-2182	NMA1505DC	156-2185
15	± 12	NMA1512SC	156-2183	NMA1512DC	156-2187
15	± 15	NMA1515SC	156-2184	NMA1515DC	156-2188
24	± 5	NMA2405SC	102-1443	NMA2405DC	102-1442
24	± 12	NMA2412SC	102-1445	NMA2412DC	102-1444
24	± 15	NMA2415SC	102-1447	NMA2415DC	102-1446
48	± 5	NMA4805SC	102-1449		
48	± 12	NMA4812SC	102-1451		

205903

Price Each					
Order Code	1+	10+	25+	50+	100+
Single-In-Line Package					
NMA05 Series	All Order Codes	5.28	4.83	4.38	4.25
NMA12 Series	All Order Codes	5.28	4.83	4.38	4.12
NMA15 Series	New All Order Codes	5.38	4.91	4.44	4.30
NMA24 Series	All Order Codes	5.49	4.99	4.50	4.36
NMA48 Series	All Order Codes	6.68	5.89	5.10	4.81
Dual-In-Line Package					
NMA05 Series	All Order Codes	5.28	4.83	4.38	4.12
NMA12 Series	All Order Codes	5.28	4.83	4.38	4.12
NMA15 Series	New All Order Codes	5.38	4.91	4.44	4.30
NMA24 Series	All Order Codes	5.49	4.99	4.50	4.36

NMR Series 1W DC/DC Converters



- Full 1 watt output power
- 1kVDC isolation
- Efficiency from 80%
- 5V, 12V & 24V input
- 5V, 12V & 15V output
- Industry standard pinout
- No electrolytic or tantalum capacitors
- UL 94V-0 package material
- Fully encapsulated with toroidal magnetics
- Pin compatible with NMG series

New

Pin out specification

Pin 1 +Vin, Pin 2 -Vin, Pin 4 -Vout, Pin 6 +Vout

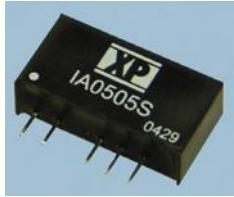
Mfrs. List No.	Nominal Input Voltage (V)	Voltage (V)	Output Current (mA)	Efficiency (%)
NMR100C	5	5	200	69
NMR101C	5	12	83	77
NMR102C	5	15	67	79
NMR106C	12	5	200	69
NMR107C	12	12	83	76
NMR108C	12	15	67	76
NMR118C	24	5	200	70
NMR119C	24	12	83	78
NMR120C	24	15	67	80

516820

Mfrs. List No.	Order Code	1+	10+	25+	50+	100+
NMR100C	162-3828●	5.81	5.32	4.82	4.68	4.44
NMR101C	162-3829●	5.81	5.32	4.82	4.68	4.44
NMR102C	162-3830●	5.13	4.70	4.26	4.13	3.92
NMR106C	162-3831●	5.13	5.32	4.82	4.68	4.44
NMR107C	162-3832●	5.81	5.32	4.82	4.68	4.44
NMR108C	162-3833●	5.81	5.32	4.82	4.68	4.44
NMR118C	162-3834●	6.02	5.54	5.04	4.89	4.64
NMR119C	162-3835●	6.02	5.54	5.04	4.89	4.64
NMR120C	162-3836●	6.02	5.54	5.04	4.89	4.64

1W Isolated DC/DC Converters

Dual Output - IA Series



A new low cost range of 1W isolated dc/dc converters. The IA series has dual outputs ranging from ± 5 Vdc to ± 15 Vdc with inputs of 5, 12, 24 or 48Vdc. The units are available in both SIP and DIP package styles and feature short circuit protection.

- Low cost
- Industry standard pin-out
- 1 kVdc isolation
- 3 year warranty

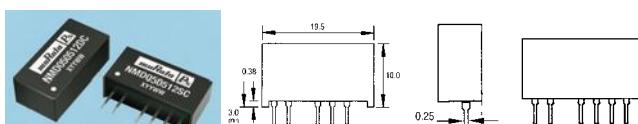
SIP Package		DIP Package	
^{+5Vdc Vin 48 V is 7.37 max}		^{Input Range}	^{Nominal $\pm 10\%$}
6.10 max*	19.81 max	Line Regulation	$1.2\% / 1\% \Delta V_{in}$
0.38	2.54	Load Regulation	$\pm 10\%$ 20-80% load
3.05 min	7.62	Ripple & Noise	60 mV pk-pk
0.25 max	12.70	Short Circuit Protection	1s max
4.57	4.57	Operating Temperature	-40°C to +85°C
		Storage Temperature	-40°C to +125°C
		Isolation Voltage	1000 Vdc min
		Efficiency	75% Typical
SIP Package		DIP Package	
Input Voltage	Output Voltage	Mfrs. Order	Mfrs. Order
Voltage	Current	List No. Code	List No. Code
5 Vdc	± 100 mA	IA0505S 872-7473	IA0505D 872-7465
5 Vdc	± 55 mA	IA0509S 872-7481	-
5 Vdc	± 42 mA	IA0512S 872-7503	IA0512D 872-7490
5 Vdc	± 33 mA	IA0515S 872-7520	-
12 Vdc	± 100 mA	IA1205S 872-7546	IA1205D 872-7538
12 Vdc	± 55 mA	IA1209S 872-7554	-
12 Vdc	± 42 mA	IA1212S 872-7570	IA1212D 872-7562
12 Vdc	± 33 mA	IA1215S 872-7597	IA1215D 872-7589
24 Vdc	± 100 mA	IA2405S 872-7619	IA2405D 872-7600
24 Vdc	± 42 mA	IA2412S 872-7635	IA2412D 872-7627
24 Vdc	± 33 mA	IA2415S 872-7651	IA2415D 872-7643
48 Vdc	± 42 mA	IA4812S 872-7678	-

385691

Mfrs. List No.	Order Code	1+	10+	25+	50+	100+
IA05 Series	All Order Codes	3.79	3.56	3.41	3.22	3.03
IA12 Series	All Order Codes	3.79	3.56	3.41	3.22	3.03
IA24 D Series	All Order Codes	4.37	4.11	3.93	3.71	3.50
IA24 S Series	All Order Codes	3.79	3.56	3.41	3.22	3.03
IA48 Series	All Order Codes	3.50	3.29	3.14	2.97	2.80

NMD Series 1W DC/DC Converters

1kV Isolation, Input to Output & Output to Output



- Twin independent outputs
- Output/output isolation 1kV dc
- Power sharing on outputs
- Input/output isolation 1kV dc
- Efficiency to 80%
- Power density $0.85\text{W}/\text{cm}^3$
- UL 94V-0 package material
- No heatsink or external components required

Vout	0/P1	0/P2	Mfrs. List No.	Order Code	1+	10+	25+	50+	100+
5	5	5	NMD050505SC	102-1452●	7.38	6.97	6.76	6.23	5.59
5	15	15	NMD050515SC	102-1454●	7.38	6.97	6.76	6.23	5.59

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Over 480,000 products online

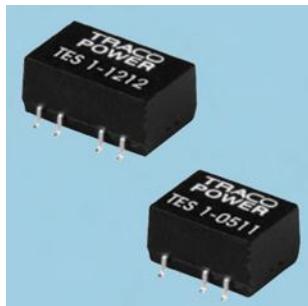


PCB Mount - DC to DC Converters - continued**TMA Series - continued**

1 Watt - continued

415104

Mfrs. List No.	Order Code	1+	5+	10+	25+
5V dc Input Voltage					
TMA 0505S	100-7511●	5.20	4.90	4.46	4.07
TMA 0512S	100-7512●	5.20	4.90	4.46	4.07
TMA 0515S	100-7513●	5.20	4.90	4.46	4.07
TMA 0505D	100-7514●	5.20	4.90	4.46	4.07
TMA 0512D	100-7515●	5.20	4.90	4.46	4.07
TMA 0515D	100-7516●	5.20	4.90	4.46	4.07
12V dc Input Voltage					
TMA 1205S	100-7517●	5.20	4.90	4.46	4.07
TMA 1212S	100-7519●	5.20	4.90	4.46	4.07
TMA 1215S	100-7521●	5.20	4.90	4.46	4.07
TMA 1205D	100-7522●	5.20	4.90	4.46	4.07
TMA 1212D	100-7523●	5.20	4.90	4.46	4.07
TMA 1215D	100-7524●	5.20	4.90	4.46	4.07
15V dc Input Voltage					
TMA 1505S	100-7525●	5.20	4.90	4.46	4.07
TMA 1512S	100-7526●	5.20	4.90	4.46	4.07
TMA 1515S	100-7527●	5.20	4.90	4.46	4.07
TMA 1505D	100-7528●	5.20	4.90	4.46	4.07
TMA 1512D	100-7529●	5.20	4.90	4.46	4.07
TMA 1515D	100-7530●	5.20	4.90	4.46	4.07
24V dc Input Voltage					
TMA 2405S	100-7532●	5.38	4.98	4.61	4.18
TMA 2412S	100-7533●	5.38	4.98	4.61	4.18
TMA 2415S	100-7534●	5.38	4.98	4.61	4.18
TMA 2405D	100-7535●	5.38	4.98	4.61	4.18
TMA 2412D	100-7536●	5.38	4.98	4.61	4.18
TMA 2415D	100-7537●	5.38	4.98	4.61	4.18

TES-1 series
SMD, 1Watt**TRACO POWER****New**

- Small SMD package with industry standard footprint
- Single and dual output models
- Operating temperature range -40°C to +85°C
- High accuracy of pin co-planarity
- 3 years product warranty

Regulation:

- Line variation: 1.2 %/1 % change Vin (non regulated)
- Load variation: +10 % / -5 % max.

Short circuit protection:

limited 0.5 sec. max

Operating temperature range:

-40°C to +85°C

I/O isolation:

1500 VDC

Case:

plastic (UL94 V-0 rated)

Manuf part no	Output (W/V/mA)	Order Code	Manuf part no	Output (W/V/mA)	Order Code
TES 1-0511	1/5/200	163-5248	TES 1-1221	1/5/100	163-5258
TES 1-0512	1/12/85	163-5249	TES 1-1222	1/12/40	163-5259
TES 1-0513	1/15/65	163-5250	TES 1-1223	1/15/35	163-5260
TES 1-0521	1/5/100	163-5251	TES 1-2411	1/5/200	163-5261
TES 1-0522	1/+12/40	163-5252	TES 1-2412	1/12/85	163-5262
TES 1-0523	1/15/35	163-5253	TES 1-2413	1/15/65	163-5263
TES 1-1211	1/5/200	163-5254	TES 1-2421	1/5/100	163-5264
TES 1-1212	1/12/85	163-5255	TES 1-2422	1/12/40	163-5265
TES 1-1213	1/15/65	163-5257	TES 1-2423	1/15/35	163-5266

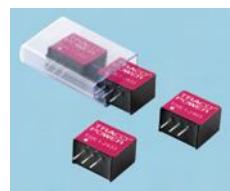
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Manuf part no	Order Code	1+	5+	10+	25+
TES 1-0511	SMD 163-5248●	5.40	5.18	4.92	4.68
TES 1-0512	SMD 163-5249●	5.40	5.18	4.92	4.68
TES 1-0513	SMD 163-5250●	5.40	5.18	4.92	4.68
TES 1-0521	SMD 163-5251●	6.20	5.95	5.65	5.37
TES 1-0522	SMD 163-5252●	6.20	5.95	5.65	5.37
TES 1-0523	SMD 163-5253●	6.20	5.95	5.65	5.37
TES 1-1211	SMD 163-5254●	5.40	5.18	4.92	4.68
TES 1-1212	SMD 163-5255●	5.40	5.18	4.92	4.68
TES 1-1213	SMD 163-5257●	5.40	5.18	4.92	4.68
TES 1-1221	SMD 163-5258●	6.20	5.95	5.65	5.37
TES 1-1222	SMD 163-5259●	6.20	5.95	5.65	5.37
TES 1-1223	SMD 163-5260●	6.20	5.95	5.65	5.37
TES 1-2411	SMD 163-5261●	5.90	5.66	5.38	5.11
TES 1-2412	SMD 163-5262●	5.90	5.66	5.38	5.11
TES 1-2413	SMD 163-5263●	5.90	5.66	5.38	5.11
TES 1-2421	SMD 163-5264●	6.80	6.52	6.20	5.89
TES 1-2422	SMD 163-5265●	6.80	6.52	6.20	5.89
TES 1-2423	SMD 163-5266●	6.80	6.52	6.20	5.89

519088

TSR-1 series, Switching Regulator

1 A

TRACO POWER**New**

- High performance switching regulator
- High efficiency up to 96 %
- Low standby current
- Wide input voltage range
- Operating temperature range -40°C to +85°C
- Pin compatible with LM78xx linear regulator
- Short circuit protection
- 3 years product warranty

Regulation:

- Line variation: 0.2 %

- Load variation: 0.4 %

<50 mV pk-pk for models up to 6.5 VDC output (20 MHz BW)

<75 mV pk-pk for models higher 6.5 VDC output (20 MHz BW)

internal capacitors

Short circuit protection: continuous, automatic recovery

Operating temperature range: -40°C to +85°C, above 60°C derating 2.4%/K

I/O isolation: non-isolated

Case: plastic (UL94 V-0 rated)

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Order Code
TSR 1-24120	15-32	12	1	167-2130
TSR 1-24150	18-32	15	1	167-2131

525926

Mfrs. List No.	Order Code	1+	25+	Price Each
TSR 1-24120	167-2130●	6.05	5.93	5.82
TSR 1-24150	167-2131●	6.05	5.93	5.82

50+

1W Wide Input DC/DC Converters

Regulated Single Output - IW Series

XPDimensions(mm):
L=21.85, W=9.2, H=11.1

PIN CONNECTIONS	
Pin	Single Output
1	-Vin
2	+Vin
3	Optional ROF*
5	No Pin/N.C*
6	+Vout
7	-Vout
8	N.C

*When optional ROF is present pin 5 is N.C. When not present pin 3 & 5 are N.O.

A new range of fully isolated and regulated DC/DC converters with output voltages of 3.3V to 24V. The wide 2:1 input range covers 4.5-9V, 9-18V and 18-36V. Input to output isolation is 1000VDC as standard and all models have continuous short circuit protection.

- Fully Regulated Output
- Wide Input Range (2:1)
- Continuous Short Circuit Protection
- 1000VDC Isolation
- Industry standard pinout
- 3 year warranty

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Order Code
IW0503SA	4.5 - 9	3.3	303	143-5388
IW0505SA	4.5 - 9	5	200	143-5389
IW0509SA	4.5 - 9	9	111	143-5390
IW0512SA	4.5 - 9	12	84	143-5391
IW0515SA	4.5 - 9	15	67	143-5392
IW0524SA	4.5 - 9	24	42	143-5393
IW1203SA	9 - 18	3.3	303	143-5394
IW1205SA	9 - 18	5	200	143-5396
IW1209SA	9 - 18	9	111	143-5397
IW1212SA	9 - 18	12	84	143-5398
IW1215SA	9 - 18	15	67	143-5399
IW1224SA	9 - 18	24	42	143-5400
IW2403SA	18 - 36	3.3	303	143-5402
IW2405SA	18 - 36	5	200	143-5403
IW2409SA	18 - 36	9	111	143-5404
IW2412SA	18 - 36	12	84	143-5405
IW2415SA	18 - 36	15	67	143-5406
IW2424SA	18 - 36	24	42	143-5407

480071

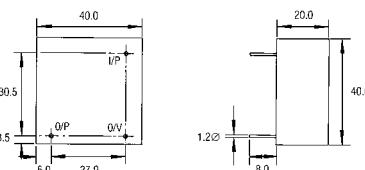
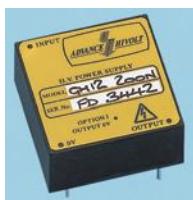
Order Code All Order Codes●	1+	5+	10+	25+
	8.00	7.76	7.52	7.20

7.20

Over 480,000 products online

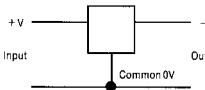
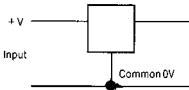
QGD

1.5W DC/DC Converters - 12V Input, 200V to 1500V Output - Non-Isolated



The GM Series are general purpose high voltage dc to dc converters which provide positive or negative output voltages up to 1.5kV from a single 12V supply.

Designed for direct PCB mounting, these non-isolated units will provide 1.5W of continuous output power at typical efficiencies of 60%.



Max. input voltage (all models)	12V dc dc	Mfrs. List No.	Order Code
Max. output voltage	200V dc	GMA12-200-PE	118-7129
500V	GMA500P	GMA500P	118-7172
-500V	GMA500N	GMA500N	118-7173
1000V	GMA1000P	GMA1000P	118-7174
1500V	GMA12-1500-P	GMA12-1500-P	118-7130

The converters are vacuum encapsulated in an ABS case to ensure maximum reliability and safety with 100,000 hours MTBF.

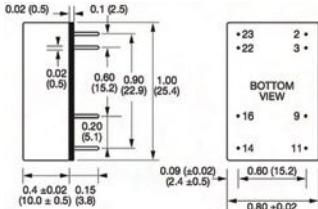
Output power	3W surge, 1.5W continuous
Output ripple	1% pk-pk
Load regulation (output change for a zero to full load)	10%
Operating temperature	0°C to 40°C
Weight	60g

205907

Mfrs. List No.	Order Code	Price Each
GMA12-200-PE	118-7129●	47.45
GMA500P	118-7172●	52.72
GMA500N	118-7173●	47.45
GMA1000P	118-7174●	55.19
GMA12-1500-P	118-7130●	52.15

2 Watt Single and Dual Output DC/DC Converters

Industry Standard Pinout, Smaller Package Size



Dimensions(mm): L=25.4, W=20.3, H=10.0

PIN CONNECTIONS		
Pin	Single Output	Dual Output
2	-Vin (GND)	-Vin (GND)
3	-Vin (GND)	-Vin (GND)
9	No pin	Common
11	N/C	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin (Vcc)	+Vin (Vcc)
23	+Vin (Vcc)	+Vin (Vcc)

Input Voltage Range 5 V (4.5-9.0 VDC), 12 V (9-18 VDC), 24 V (18-36 VDC), 48 V (36-75 VDC)
 Undervoltage Lockout Turn On at -5% to -10% of rated input. Turn Off at -20% of rated input
 Line Regulation ±0.3% max (high line to low line)
 Load Regulation <±1% for all models from 10% to 100% load
 Ripple & Noise 50 mV pk-pk, 20MHz BW
 Isolation 500 VDC Input to Case, 500 VDC Output to Case, 1500 VDC Input to Output, basic insulation

Operating Temperature -40°C to +100°C, output power derates from 100% load at +75 °C linearly to 0% load at 100°C

Safety Approvals EN60950-1: 2001, UL60950-1, CSA C22-2 No. 60950-1-03, CE Mark LVD
 Emissions EN55022, level A conducted (level B with external components), Level B radiated

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JCA0205S03	4.5 to 9 Vdc	3.3V, 600mA	—	128-9145
JCA0205S05	4.5 to 9 Vdc	5V, 400mA	—	128-9146
JCA0205S12	4.5 to 9 Vdc	12V, 170mA	—	128-9148
JCA0205S15	4.5 to 9 Vdc	15V, 140mA	—	128-9149
JCA0205D01	4.5 to 9 Vdc	5V, 200mA	-5V, 200mA	128-9150
JCA0205D02	4.5 to 9 Vdc	12V, 85mA	-12V, 85mA	128-9151
JCA0205D03	4.5 to 9 Vdc	15V, 70mA	-15V, 70mA	128-9152
JCA0212S03	9 to 18 Vdc	3.3V, 600mA	—	128-9153
JCA0212S05	9 to 18 Vdc	5V, 400mA	—	128-9154
JCA0212S12	9 to 18 Vdc	12V, 170mA	—	128-9155
JCA0212S15	9 to 18 Vdc	15V, 140mA	—	128-9156

JCA0212D01	9 to 18 Vdc	5V, 200mA	-5V, 200mA	128-9157
JCA0212D02	9 to 18 Vdc	12V, 85mA	-12V, 85mA	128-9158
JCA0212D03	9 to 18 Vdc	15V, 70mA	-15V, 70mA	128-9161
JCA0224S03	18 to 36 Vdc	3.3V, 600mA	—	128-9162
JCA0224S05	18 to 36 Vdc	5V, 400mA	—	128-9163
JCA0224S12	18 to 36 Vdc	12V, 170mA	—	128-9164
JCA0224S15	18 to 36 Vdc	15V, 140mA	—	128-9165
JCA0224D01	18 to 36 Vdc	5V, 200mA	-5V, 200mA	128-9166
JCA0224D02	18 to 36 Vdc	12V, 85mA	-12V, 85mA	128-9167
JCA0224D03	18 to 36 Vdc	15V, 70mA	-15V, 70mA	128-9168
JCA0248S03	36 to 75 Vdc	3.3V, 600mA	—	128-9169
JCA0248S05	36 to 75 Vdc	5V, 400mA	—	128-9170
JCA0248S12	36 to 75 Vdc	12V, 170mA	—	128-9171
JCA0248S15	36 to 75 Vdc	15V, 140mA	—	128-9173
JCA0248D01	36 to 75 Vdc	5V, 200mA	-5V, 200mA	128-9174
JCA0248D02	36 to 75 Vdc	12V, 85mA	-12V, 85mA	128-9175
JCA0248D03	36 to 75 Vdc	15V, 70mA	-15V, 70mA	128-9176

449220

Order Code	Price Each			
	1+	5+	10+	25+
Single Output All Order Codes●	10.25	9.94	9.64	9.23
Dual Output All Order Codes●	11.50	11.16	10.81	10.35

NMG Series 2W DC/DC Converters



New



- Full 2 watt output power
- 1kVDC isolation
- Efficiency from 81%
- 5V & 12V input
- 5V, 9V, 12V, & 15V output
- Industry standard pinout
- No electrolytic or tantalum capacitors
- UL 94V-0 package material
- No external components required
- Fully encapsulated with toroidal magnetics
- Pin compatible with NMR series

Pin out specification

Pin 1 +Vin, Pin 2 -Vin, Pin 4 -Vout, Pin 6 +Vout

Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
5	5	400	NMG0505SC	161-5942
5	9	222	NMG0509SC	161-5943
5	12	167	NMG0512SC	161-5945
5	15	133	NMG0515SC	161-5946
12	5	400	NMG1205SC	161-5947
12	9	222	NMG1209SC	161-5948
12	12	167	NMG1212SC	161-5949
12	15	133	NMG1215SC	161-5950

515012

Order Code	Price Each			
	1+	10+	25+	50+
NMG Series All Order Codes●	7.53	6.88	6.68	6.48

NML Series 2W DC/DC Converters



Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
5	5	400	NML0505SC	102-1519
5	9	222	NML0509SC	102-1520
5	12	167	NML0512SC	102-1521
5	15	133	NML0515SC	102-1522
12	5	400	NML1205SC	102-1523
12	9	222	NML1209SC	102-1524
12	12	167	NML1212SC	102-1525
12	15	133	NML1215SC	102-1526

Pin out specification

Pin 1 GND, Pin 2 Vin, Pin 3 0V, Pin4 +V

- Full 2 watt output power
- Single isolated output
- 1kVDC isolation
- Efficiency to 85%
- 5V & 12V input
- 5V, 9V, 12V and 15V output
- Toroidal magnetics
- Internal SMD construction
- No heatsink required
- UL 94V-0 package material
- SIP package style
- No external components required

205873

Order Code	Price Each			
	1+	10+	25+	50+
NML Series All Order Codes●	9.84	9.39	9.10	8.38

Technical information at your fingertips

Over 352,000 technical datasheets available online.

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PCB Mount - DC to DC Converters - continued

2W Isolated DC/DC Converters

Single Output - IL Series



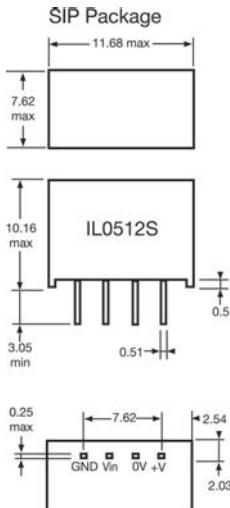
A new low cost range of 2W isolated dc/dc converters. The IL series comes in one of the smallest packages available today and has single outputs ranging from 5 Vdc to 15 Vdc with inputs of 5 or 12 Vdc. The units are available in a SIP package style and feature short circuit protection.

- Low cost
- Industry standard pin-out
- 1 kVdc isolation
- -40°C to +85°C @ full load
- UL94V-0 material
- 3 year warranty

Input Range	Nominal ±10%	Operating Temperature	-40°C to +85°C
Line Regulation	1.2%/1% ΔVin	Storage Temperature	-40°C to +125°C
Load Regulation	±10% 20-100% load	Isolation Voltage	1000 Vdc min
Ripple & Noise	60 mV pk-pk max	Efficiency	Up to 75%
Short Circuit Protection	1 s max		

Input Voltage	Output Voltage	Output Current	Mfrs. List No.	Order Code
5 Vdc	5 Vdc	400 mA	IL0505S	872-8097
5 Vdc	9 Vdc	222 mA	IL0509S	872-8100
5 Vdc	12 Vdc	168 mA	IL0512S	872-8119
5 Vdc	15 Vdc	132 mA	IL0515S	872-8127
12 Vdc	5 Vdc	400 mA	IL1205S	872-8135
12 Vdc	9 Vdc	222 mA	IL1209S	872-8143
12 Vdc	12 Vdc	168 mA	IL1212S	872-8151
12 Vdc	15 Vdc	132 mA	IL1215S	872-8160
24 Vdc	5 Vdc	400 mA	IL2405S	155-0992

385694



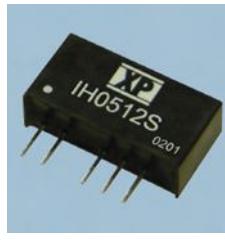
SIL Package	DIL Package		
Vin	Vo		
5	±5	Mfrs. List No.	Order Code
5	±9	NMH0505SC	102-1484
5	±12	NMH0512SC	102-1487
5	±15	NMH0515SC	102-1489
12	±5	NMH1205SC	102-1491
12	±9	NMH1209SC	102-1495
12	±12	NMH1212SC	102-1498
12	±15	NMH1215SC	102-1500
24	±5	NMH2405SC	102-1502
24	±9	NMH2409SC	102-1505
24	±12	NMH2412SC	102-1507
24	±15	NMH2415SC	102-1509

205915

Price Each				
Order Code	1+	10+	25+	50+ 100+
NMH05 Series	All order codes	7.53	6.88	6.68 6.48
NMH12 Series	All order codes	7.53	6.88	6.68 6.28
NMH24 Series	All order codes	8.24	7.42	7.04 6.68 6.35

2W Isolated DC/DC Converters

Dual Output - IH Series



A new low cost range of 2W isolated dc/dc converters. The IH series has dual outputs ranging from ±5 Vdc to ±15 Vdc with inputs of 5, 12 or 24 Vdc. The units are available in both SIP and DIP package styles and feature short circuit protection.

- Low cost
- Industry standard pin-out
- 1 kVdc isolation
- -40°C to +85°C @ full load
- UL94V-0 material
- 3 year warranty

SIP Package	DIP Package
Input Range	Nominal ±10%
Line Regulation	1.2%/1% ΔVin
Load Regulation	±10% 20-100% load
Ripple & Noise	60 mV pk-pk max
Short Circuit Protection	1 s max
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +125°C
Isolation Voltage	1000 Vdc min
Efficiency	Up to 82%

SIP Package	DIP Package
Input Voltage	Output Voltage
5 Vdc	±5 Vdc
5 Vdc	±9 Vdc
5 Vdc	±12 Vdc
5 Vdc	±15 Vdc
12 Vdc	±5 Vdc
12 Vdc	±12 Vdc
24 Vdc	±5 Vdc
24 Vdc	±12 Vdc
24 Vdc	±15 Vdc

385693

Mfrs.	Order Code	1+	10+	25+	50+	100+
IL0505S	872-8097	4.82	4.53	4.34	4.10	3.86
IL0509S	872-8100	4.82	4.53	4.34	4.10	3.86
IL0512S	872-8119	4.82	4.53	4.34	4.10	3.86
IL0515S	872-8127	4.82	4.53	4.34	4.10	3.86
IL1205S	872-8135	4.82	4.53	4.34	4.10	3.86
IL1209S	872-8143	4.82	4.53	4.34	4.10	3.86
IL1212S	872-8151	4.82	4.53	4.34	4.10	3.86
IL1215S	872-8160	4.82	4.53	4.34	4.10	3.86
IL2405S	155-0992	4.82	4.68	4.53	4.33	--

Mfrs.	Order Code	1+	10+	25+	50+	100+
IH05 Series	All Order Codes	6.08	5.72	5.47	5.17	4.86
IH12 Series	All Order Codes	6.08	5.72	5.47	5.17	4.86
IH24 Series	All Order Codes	6.99	6.57	6.29	5.94	5.59

2W - Dual Output NMH Series

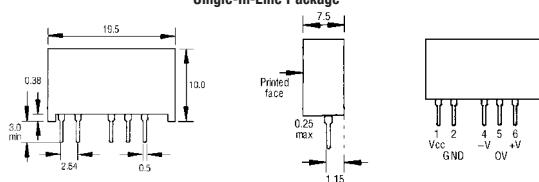
1kV Isolation



murata

- Miniature 2W dual output
- Efficiency to 86%
- 1kV dc isolation
- Power density 1.42W/cm³
- SIL and DIL packages styles
- UL94V-0 package material
- No heatsink or external components required

Single-In-Line Package



150mV pk to pk

Input voltage range
Load voltage regulation
(min. load 10%)

±10%
±10%

Output ripple and noise

2W Isolated DC/DC Converter

Dual Output - IH-H Series



- Nominal input voltage 5, 12 & 24VDC
- Output voltage 3.3 to 24VDC
- Short Circuit Protection
- 3000VDC Isolation
- Industry standard pin out
- 3 year warranty



Dimensions(mm): L=19.81, W=7.62, H=10.16

An industry standard SIP pinout converter, offering 3000VDC input to output isolation as standard and a high MTBF of >1million hours. Nominal input voltages of 5, 12 & 24VDC and output voltages from 3.3VDC to 24VDC makes this a very versatile converter.

Input Voltage Range

Nominal ±10%

Line Regulation 1.2%/1% change of Vin

Load Regulation ±10% 20-100% load change (3.3 V models ±20%)

Ripple & Noise 60 mV pk-pk

Isolation Voltage 3000 VDC

MTBF >1 MHrs

Operating Temperature -40°C to +85°C

Storage Temperature -40°C to +125°C

Mfrs.	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Order Code
IH0503S-H	5	± 3.3	± 200	143-6141
IH0505S-H	5	± 5	± 200	143-6142
IH0509S-H	5	± 9	± 111	143-6143
IH0512S-H	5	± 12	± 84	143-6145
IH0515S-H	5	± 15	± 66	143-6146
IH0524S-H	5	± 24	± 42	143-6147
IH1203S-H	12	± 3.3	± 200	143-6148
IH1205S-H	12	± 5	± 200	143-6149
IH1209S-H	12	± 9	± 111	143-6150
IH1212S-H	12	± 12	± 84	143-6151
IH1215S-H	12	± 15	± 66	143-6152
IH1224S-H	12	± 24	± 42	143-6153
IH2403S-H	24	± 3.3	± 200	143-6154
IH2405S-H	24	± 5	± 200	143-6155
IH2409S-H	24	± 9	± 111	143-6157
IH2412S-H	24	± 12	± 84	143-6158
IH2415S-H	24	± 15	± 66	143-6159
IH2424S-H	24	± 24	± 42	143-6160

482145

Order Code	1+	5+	10+	25+	Price Each
All Order Codes●	8.50	8.25	7.99	7.65	

NMK Series 2W DC/DC Converters


muRata P.S.
Murata Power Solutions

New

- Full 2 watt output power
- 3kVDC isolation (1 minute)
- Efficiency from 78%
- 5V & 12V input
- 5V, 9V, 12V and 15V output
- Industry standard pinout
- No heatsink required
- UL 94V-0 package material
- SIP package style
- No external components required
- Fully encapsulated with toroidal magnetics

Pin out specification

Pin 1 +Vin, Pin 2 -Vin, Pin 3 -Vout, Pin 4 +Vout

Mfrs.	List No.	Input Voltage	Output 1	Output 2	Efficiency	Order Code
NMK0505SAC	5V	5V, 400mA	—	—	83%	156-0020
NMK0509SAC	5V	9V, 222mA	—	—	86%	156-0021
NMK0512SAC	5V	12V, 167mA	—	—	87%	156-0022
NMK0515SAC	5V	15V, 133mA	—	—	87%	156-0023
NMK0505SC	5V	5V, 200mA	-5V, -200mA	83%	167-3891	
NMK0509SC	5V	9V, 111mA	-9V, -111mA	86%	167-3892	
NMK0512SC	5V	12V, 83mA	-12V, -83mA	87%	167-3893	
NMK0515SC	5V	15V, 67mA	-15V, -67mA	87%	167-3894	
NMK1205SAC	12V	5V, 400mA	—	—	83%	156-0024
NMK1209SAC	12V	9V, 222mA	—	—	87%	156-0026
NMK1212SAC	12V	12V, 167mA	—	—	88%	156-0027
NMK1215SAC	12V	15V, 133mA	—	—	89%	156-0028
NMK1205SC	12V	5V, 200mA	-5V, -200mA	84%	167-3895	
NMK1209SC	12V	9V, 111mA	-9V, -111mA	87%	167-3896	
NMK1212SC	12V	12V, 83mA	-12V, -83mA	87%	167-3897	
NMK1215SC	12V	15V, 67mA	-15V, -67mA	87%	167-3898	

503495

Order Code	1+	10+	25+	50+	Price Each
Single Output All Order Codes●	5.36	5.09	4.84	4.60	
Dual Output All Order Codes●	10.05	9.93	9.82	9.58	

NMS Series 2W DC/DC Converters


muRata P.S.
Murata Power Solutions

- 6kV dc input/output isolation
- High efficiency (typical 75%)
- Fully encapsulated
- No heat sink required for rated performance
- Low profile package
- Power density 0.45W/cm³
- Packaged to UL94V-0
- UL60950 Recognised

Mfrs.	Input Voltage	Output 1	Output 2	Order Code	Connections
Vin	Vo	List No.	Each Output	Code	
5	± 5	NMS0505C	200	102-1528	Pin 1 +Vin Pin 2 -Vin
5	± 9	NMS0509C	111	102-1529	Pin 2 -Vin
5	± 12	NMS0512C	83	102-1530	Pin 8 & 17 -Output
5	± 15	NMS0515C	67	102-1531	Pin 9 & 16 NC
12	± 5	NMS1205C	200	102-1532	Pin 10 & 15 Common
12	± 9	NMS1209C	111	102-1533	Pin 11 & 14 NC
12	± 12	NMS1212C	83	102-1534	Pin 12 & 13 +Output
12	± 15	NMS1215C	67	102-1535	Pin 23 & 24 NC

Input voltage range $\pm 10\%$ Output ripple/noise 200mV pk to pk max.

Load regulation 15% max. Operating temperature 0°C to 70°C

For full specification and further pin out details contact our Data Department

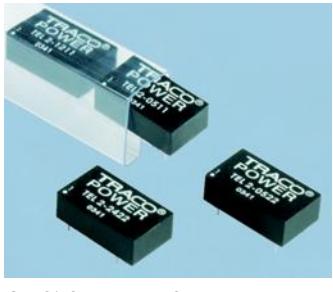
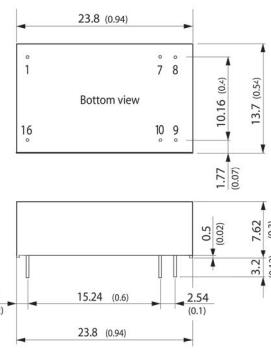
205847

Order Code	1+	10+	25+	50+	100+	Price Each
All Order Codes●	15.75	15.24	14.71	14.36	13.08	

Over 480,000 products online



TEL-2 Series, 2 Watt


TRACO
POWER


- DC/DC converter in SMD design
- Wide 2:1 input range
- Input filter meets EN55022, Class A
- High efficiency
- Indefinite short circuit protection
- Ultra compact 16-pin plastic package
- 3 year manufacturer's warranty

Input Variation $\pm 0.5\%$ Max.
Load Variation $\pm 0.75\%$ Max. (Single output models)
 $\pm 2.0\%$ max. (dual output models)

Efficiency 75% typ.
Ripple & Noise 50mV pk-pk typ.
Operating Temp. -25°C to +75°C (no derating)
Isolation Voltage 1500 V
Conducted EMI EN55022, Class A

Input Voltage	Output Voltage	Output Current	Mfrs.	List No.	Order Code
4.5 - 9V	5V	400mA	TEL	2-0511	100-7023
4.5 - 9V	12V	167mA	TEL	2-0512	100-7025
4.5 - 9V	$\pm 5V$	$\pm 200mA$	TEL	2-0521	100-7027
4.5 - 9V	$\pm 12V$	$\pm 83mA$	TEL	2-0522	100-7028
4.5 - 9V	$\pm 15V$	$\pm 67mA$	TEL	2-0523	100-7029
9 - 18V	5V	400mA	TEL	2-1211	100-7030
9 - 18V	12V	167mA	TEL	2-1212	100-7031
9 - 18V	$\pm 5V$	$\pm 200mA$	TEL	2-1221	100-7032
9 - 18V	$\pm 12V$	$\pm 83mA$	TEL	2-1222	100-7033
9 - 18V	$\pm 15V$	$\pm 67mA$	TEL	2-1223	100-7034
18 - 36V	5V	400mA	TEL	2-2411	100-7035
18 - 36V	12V	167mA	TEL	2-2412	100-7037
18 - 36V	$\pm 5V$	$\pm 200mA$	TEL	2-2421	100-7039
18 - 36V	$\pm 12V$	$\pm 83mA$	TEL	2-2422	100-7040
18 - 36V	$\pm 15V$	$\pm 67mA$	TEL	2-2423	100-7042
36 - 72V	5V	400mA	TEL	2-4811	100-7043
36 - 72V	12V	167mA	TEL	2-4812	100-7044
36 - 72V	$\pm 5V$	$\pm 200mA$	TEL	2-4821	100-7045
36 - 72V	$\pm 12V$	$\pm 83mA$	TEL	2-4822	100-7046
36 - 72V	$\pm 15V$	$\pm 67mA$	TEL	2-4823	100-7047

417396

Mfrs.	Order Code	1+	5+	10+	25+	Price Each
TEL 2-0511	100-7023●	10.60	9.96	9.54	9.14	
TEL 2-0512	100-7025●	10.60	9.96	9.54	9.14	
TEL 2-0521	100-7027●	12.34	11.85	11.23	10.25	
TEL 2-0522	100-7028●	11.05	10.38	9.94	9.52	
TEL 2-0523	100-7029●	11.05	10.38	9.94	9.52	
TEL 2-1211	100-7030●	10.60	9.96	9.54	9.14	
TEL 2-1212	100-7031●	10.60	9.96	9.54	9.14	
TEL 2-1221	100-7032●	12.34	11.85	11.23	10.25	
TEL 2-1222	100-7033●	11.05	10.38	9.94	9.52	
TEL 2-2411	100-7035●	10.60	9.96	9.54	9.14	
TEL 2-2421	100-7037●	10.60	9.96	9.54	9.14	
TEL 2-2422	100-7039●	12.34	11.85	11.23	10.25	
TEL 2-2423	100-7041●	11.05	10.38	9.94	9.52	
TEL 2-4811	100-7042●	11.05	10.38	9.94	9.52	
TEL 2-4812	100-7044●	10.60	9.96	9.54	9.14	
TEL 2-4821	100-7045●	7.90	7.58	7.18	6.56	
TEL 2-4822	100-7046●	8.84	8.30	7.95	7.62	
TEL 2-4823	100-7047●	11.05	10.38	9.94	9.52	

- Wide 2:1 input voltage range
- Ultracompact SMD housing
- I/O isolation 1500 V DC
- Input filter in accordance with EN 55022, Class A
- Control errors:
Input voltage change: $\pm 0.5\%$ max.
Load change: $\pm 0.75\%$ max. ($\pm 2\%$ max. dual models)
- Residual ripple: 50 mVpk-pk (20 MHz bandwidth)
- Resistant to sustained short circuits
- Operating temperature range: -40°C to +71°C (no derating)
- 3 years warranty

Farnell
RoHS Compliant
Non-compliant

08447 11 11 11

Fax: 08447 11 11 12 1245

PCB Mount - DC to DC Converters - continued**TES 2N Series - continued****SMD - 2 watts, Single/Dual - continued**

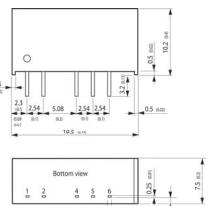
Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Order Code
TES 2N-0511	4.5-9	V DC	mA (max.)	
		5	400	100-7048
		12	165	100-7049
		15	135	100-7050
		±5	±200	100-7052
		±12	±85	100-7053
		±15	±65	100-7054
		5	400	100-7055
		12	165	100-7056
		15	135	100-7057
TES 2N-1211	9-18	±5	±200	100-7058
		±12	±85	100-7059
		±15	±65	100-7060
		5	400	100-7061
		12	165	100-7062
		15	135	100-7064
TES 2N-2411	18-36	±5	±200	100-7065
		±12	±85	100-7066
		±15	±65	100-7067
		5	400	100-7061
		12	165	100-7062
		15	135	100-7064

Pinning
 Pin Single Dual
 1 -Uin (GND) -Uin (GND)
 7 no function no function
 8 no function Common

Pinning
 9 +Uout
 10 -Uout
 16 +Uin

417394

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
TES 2N-0511	100-7048●	13.00	12.22	11.70
TES 2N-0512	100-7049●	13.00	12.22	11.70
TES 2N-0513	100-7050●	13.55	13.01	12.33
TES 2N-0521	100-7052●	13.45	12.64	12.11
TES 2N-0522	100-7053●	13.45	12.64	12.11
TES 2N-0523	100-7054●	13.45	12.64	12.11
TES 2N-1211	100-7055●	13.00	12.22	11.70
TES 2N-1212	100-7056●	13.00	12.22	11.70
TES 2N-1213	100-7057●	13.55	13.01	12.33
TES 2N-1221	100-7058●	13.45	12.64	12.11
TES 2N-1222	100-7059●	13.45	12.64	12.11
TES 2N-1223	100-7060●	13.45	12.64	12.11
TES 2N-2411	100-7061●	13.00	12.22	11.70
TES 2N-2412	100-7062●	13.00	12.22	11.70
TES 2N-2413	100-7064●	13.55	13.01	12.33
TES 2N-2421	100-7065●	13.45	12.64	12.11
TES 2N-2422	100-7066●	13.45	12.64	12.11
TES 2N-2423	100-7067●	13.45	12.64	12.11

TMH Series
2 Watt

- DC/DC converter in a Single-in-Line package
- Isolated single and dual output
- High efficiency up to 83%

- Industry standard pinout
- 3 year product warranty

Further specifications:

Regulation:
 Input variation
 Load variation

unregulated
 ±10% max.

Ripple and noise (20MHz Bandwidth):

75mV pk-pk typ. (5 Vin models)

I/O Isolation:

150mV pk-pk typ. (12/24 Vin models)

Operating temperature:

1000V dc

-40°C to +85°C above 70°C

power reduction 3%/K

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Efficiency typ.	Order Code
	V dc	V dc	(max.) mA	(%)	
TMH 0505S	5 ± 10%	5	400	76	100-7551
		12	165	80	100-7552
		15	130	80	100-7553
		±5	±200	77	100-7554
		±12	±80	79	100-7556
		±15	±65	79	100-7557

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Efficiency typ.	Order Code	
	V dc	V dc	mA	(%)		
TMH 1205S	12 ± 10%	5	400	78	100-7558	
		12	165	82	100-7559	
		15	130	83	100-7560	
		±5	±200	79	100-7561	
		±12	±80	82	100-7562	
	24 ± 10%	±15	±65	82	100-7563	
		5	400	77	100-7564	
		12	165	81	100-7565	
		15	130	82	100-7566	
		±5	±200	79	100-7568	
TMH 2405D		±12	±80	81	100-7569	
		±15	±65	82	100-7570	

Mfrs. List No.	Order Code	1+	5+	10+	25+
5V dc Input Voltage					
TMH 0505S	100-7551●	7.00	6.73	6.40	5.86
TMH 0512S	100-7552●	7.00	6.73	6.40	5.86
TMH 0515S	100-7553●	5.36	5.14	4.88	4.45
TMH 0505D	100-7554●	7.50	7.21	6.86	6.27
TMH 0512D	100-7556●	7.50	7.21	6.86	6.27
TMH 0515D	100-7557●	7.50	7.21	6.86	6.27
12V dc Input Voltage					
TMH 1205S	100-7558●	7.00	6.73	6.40	5.86
TMH 1212S	100-7559●	7.00	6.73	6.40	5.86
TMH 1215S	100-7560●	7.00	6.73	6.40	5.86
TMH 1205D	100-7561●	6.48	6.22	5.90	5.37
TMH 1212D	100-7562●	7.50	7.21	6.86	6.27
TMH 1215D	100-7563●	7.50	7.21	6.86	6.27
24V dc Input Voltage					
TMH 2405S	100-7564●	7.00	6.73	6.40	5.86
TMH 2412S	100-7565●	7.00	6.73	6.40	5.86
TMH 2415S	100-7566●	7.00	6.73	6.40	5.86
TMH 2405D	100-7568●	7.50	7.21	6.86	6.27
TMH 2412D	100-7569●	7.50	7.21	6.86	6.27
TMH 2415D	100-7570●	7.50	7.21	6.86	6.27

415123

2W - Single Output NDL Series**Wide Input**

- 1kV dc input/output isolation
- Miniature SIP package
- Short circuit protection
- Continuous short circuit protection with current foldback
- 2:1 wide input range
- External control
- Low noise
- Power density 0.9W/cm³
- Packaged to UL94V-0

Mfrs. List No.	Order Code	Connections
NDL24 Series	161-0418	Pin 1 GND Pin 5 NE
NDL48 Series	161-0419	Pin 2 +Vin Pin 6 +V out
	161-0420	Pin 3 CTRL Pin 7 0V out
	102-1408	Pin 4 Not fitted Pin 8 Cs
	102-1409	
	102-1410	
	102-1411	NE = No external conn. allowed
	102-1413	Cs = Opt external capacitor
	102-1414	
	102-1415	
	102-1416	
Line Regulation	0.4%	Operating temperature
Load Regulation	0.75%	-40°C to 85°C

For full specification and further pin out details contact our Data Department

213450

Order Code	1+	10+	25+	50+	100+
All Order Codes●	10.17	9.56	9.27	8.99	8.72
All Order Codes●	10.17	9.56	9.27	8.99	8.72



See our pick of the hottest products and latest technologies in 'What's New?' at www.farnell.co.uk

2W Wide Input DC/DC Converters

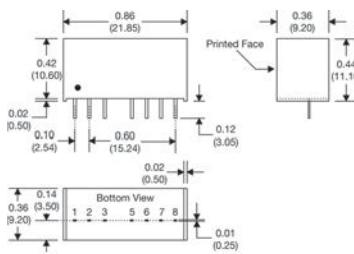
Regulated Single Output - IU Series

Dimensions(mm):
L=21.85, W=9.2, H=11.1

PIN CONNECTIONS	
Pin	Single Output
1	-Vin
2	+Vin
3	Optional ROF*
5	No Pin/N.C.*
6	+Vout
7	-Vout
8	N.C.

A new range of 2 Watt, fully regulated and isolated DC/DC converters featuring a wide 2:1 input range. Input voltage ranges are 4.5-9V, 9-18V, 18-36V and 36-72V with output voltages from 3.3V to 24V. Input to output isolation is 1000VDC as standard and all models have continuous short circuit protection

- Fully Regulated Output
- Wide Input Range (2:1)
- Continuous Short Circuit Protection
- 1000VDC Isolation
- Industry Standard pinout
- 3 year warranty



*When optional ROF is present pin 5 is N.C. When not present pins 3 & 5 are No Pin.

Input Voltage Range

2:1 Nominal 5V, 12V, 24V, 48V

Line Regulation

±0.5% maximum

Load Regulation

±1% for 25-100% load change

Ripple & Noise

80 mV pk-pk max, 20MHz BW

Efficiency

60-78%

Isolation Voltage

1000 VDC standard

Operating Temperature

-40°C to +100°C, derate from +85°C

Storage Temperature

-40°C to +125°C

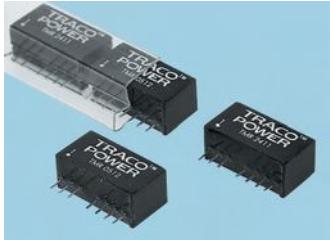
Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Order Code
IU0503SA	4.5 - 9	3.3	500	143-5408
IU0505SA	4.5 - 9	5	400	143-5409
IU0509SA	4.5 - 9	9	222	143-5410
IU0512SA	4.5 - 9	12	167	143-5411
IU0515SA	4.5 - 9	15	133	143-5412
IU0524SA	4.5 - 9	24	83	143-5414
IU1203SA	9 - 18	3.3	500	143-5415
IU1205SA	9 - 18	5	400	143-5416
IU1209SA	9 - 18	9	222	143-5417
IU1212SA	9 - 18	12	167	143-5418
IU1215SA	9 - 18	15	133	143-5419
IU1224SA	9 - 18	24	83	143-5420
IU2403SA	18 - 36	3.3	500	143-5421
IU2405SA	18 - 36	5	400	143-5422
IU2409SA	18 - 36	9	222	143-5423
IU2412SA	18 - 36	12	167	143-5424
IU2415SA	18 - 36	15	133	143-5426
IU2424SA	18 - 36	24	83	143-5427
IU4803SA	36 - 72	3.3	500	143-5428
IU4805SA	36 - 72	5	400	143-5429
IU4809SA	36 - 72	9	222	143-5430
IU4812SA	36 - 72	12	167	143-5431
IU4815SA	36 - 72	15	133	143-5432
IU4824SA	36 - 72	24	83	143-5433

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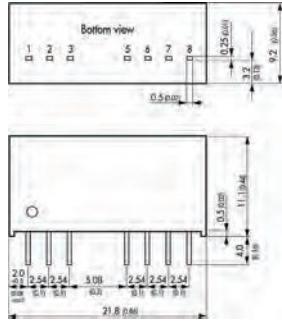
Order Code	1+	5+	10+	25+
All Order Codes●	8.50	8.25	7.99	7.65

TMR Series

2 watts



- 2 watts in miniature SIL housing
- Regulated output
- 2:1 wide-range input
- No external capacitors required

TRACO®
POWER

- Low residual ripple
- Resistant to sustained short-circuits
- External On/Off
- 2 years' guarantee

Regulation:

-Input variation Vin: ±0.5% max.

-Load variation: ±0.75% max. (Single output models) / ±1.0% max. (Dual output models)

<50 mVpk-pk (20 MHz BW)

continuous, autom. recovery

1000 VDC

Efficiency:

78% typ.

Models with 5 V Input: 74% typ.

-40°C...+85°C (no derating)

Case material:

plastic (UL94V-0)

MTBF:

>2.3 Mio. h @ +25°C

Remote On/Off:

max 1mA (OFF standby input current)

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Order Code
TMR 0510	4.5-9	3.3	500	120-5061
TMR 0511		5	400	120-5062
TMR 0512		12	167	120-5063
TMR 0521		±5	±200	124-2693
TMR 0522		±12	±83	124-2694
TMR 0523		±15	±67	124-2695
TMR 1210	9-18	3.3	500	120-5064
TMR 1211		5	400	120-5065
TMR 1212		12	167	124-2572
TMR 1221		±5	±200	124-2697
TMR 1222		±12	±83	124-2698
TMR 1223		±15	±67	124-2699
TMR 2410	18-36	3.3	500	120-5066
TMR 2411		5	400	120-5068
TMR 2412		12	167	120-5069
TMR 2421		±5	±200	124-2700
TMR 2422		±12	±83	124-2701
TMR 2423		±15	±67	124-2704
TMR 4811	36-75	5	400	120-5070
TMR 4821		±5	±200	124-2705
TMR 4822		±12	±83	124-2706

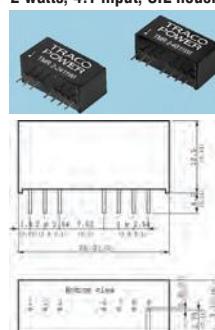
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Mfrs. List No.	Order Code	1+	25+	50+
TMR 0510	120-5061●	9.97	9.57	9.08
TMR 0511	120-5062●	9.45	8.89	8.50
TMR 0512	120-5063●	9.45	8.89	8.51
TMR 0521	124-2693●	9.95	9.35	8.95
TMR 0522	124-2694●	9.95	9.35	8.96
TMR 0523	124-2695●	9.95	9.35	8.96
TMR 1210	120-5064●	9.97	9.57	9.08
TMR 1211	120-5065●	9.45	8.89	8.50
TMR 1212	124-2572●	9.45	8.89	8.51
TMR 1221	124-2697●	9.95	9.35	8.95
TMR 1222	124-2698●	9.95	9.35	8.96
TMR 1223	124-2699●	9.95	9.35	8.96
TMR 2410	120-5066●	9.97	9.57	9.08
TMR 2411	120-5068●	9.45	8.89	8.50
TMR 2412	120-5069●	9.45	8.89	8.50
TMR 2421	124-2700●	9.95	9.35	8.95
TMR 2422	124-2701●	9.95	9.35	8.96
TMR 2423	124-2704●	9.95	9.35	8.96
TMR 4811	120-5070●	9.45	8.89	8.50
TMR 4821	124-2705●	9.95	9.35	8.95
TMR 4822	124-2706●	9.95	9.35	8.96

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TMR 2WI series

2 watts, 4:1 input, SIL housing

TRACO®
POWER

- 2W DC/DC Converter in a miniature SIL housing
- Very wide 4:1 input voltage range
- Regulated output
- Input filter according to EN 55022, Class A and FCC, Level A
- Low residual ripple
- Resistant to sustained short circuits
- External In/Out
- 3 year guarantee

Further specifications:

Control deviations:

±0.5% max.

on change in input ±0.75% max. (single model)

on change in power ±1.0% max. (dual model)

Residual ripple:

50mV pk-to-pk typ. (20 MHz bandwidth)

I/O isolation: 1000V dc

Operating temperature range: -40°C to +75°C (without power reduction)

External In/Out: Current consumption in the shut-down state: 0.2 mA

PCB Mount - DC to DC Converters - continued

TMR 2WI series - continued

2 watts, 4:1 input, SIL housing - continued

Mfrs' List No.	Input voltage	Output voltage	Output current	Efficiency	Order Code
	V dc	V dc	(max.)	(%)	
TMR 2-2411WI	9 - 36	5	400	80	128-4245
TMR 2-2412WI		12	165	83	128-4246
TMR 2-2422WI		±12	±85	81	128-4247
TMR 2-2423WI		±15	±65	83	128-4248
TMR 2-4811WI	18 - 75	5	400	80	128-4249
TMR 2-4812WI		12	165	83	128-4250
TMR 2-4822WI		±12	±85	81	128-4251
TMR 2-4823WI		±15	±65	83	128-4252

Pinning

Pin	Single	Dual
1	- Vin (GND)	- Vin (GND)
2	+ Vin (Vcc)	+ Vin (Vcc)
3	External In/Out	External In/Out
6	+ Vout	+ Vout
7	No function	Common
8	No function	No function
9	- Vout	- Vout

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Mfrs' List No.	Order Code	1+	5+	Price Each	10+	25+
TMR 2-2411WI	128-4245●	11.69	10.98		10.52	9.93
TMR 2-2412WI	128-4246●	11.69	10.98		10.52	9.93
TMR 2-2422WI	128-4247●	12.59	11.84		11.33	10.71
TMR 2-2423WI	128-4248●	12.59	11.84		11.33	10.71
TMR 2-4811WI	128-4249●	11.69	10.98		10.52	9.93
TMR 2-4812WI	128-4250●	11.69	10.98		10.52	9.93
TMR 2-4822WI	128-4251●	12.59	11.84		11.33	10.71
TMR 2-4823WI	128-4252●	12.59	11.84		11.33	10.71

Price Each



Dimensions(mm): W=31.75, H=10.4, D=20.32

- 1600VAC Basic Isolation
- 60°C Operation with no derating
- 2µA Patient leakage current
- DIP-24 Metal Package
- EN55011 Level A with no external components

PIN CONNECTIONS	Single Output	Dual Output
2	-Vin	-Vin
3	-Vin	-Vin
9	No Pin	Common
10	No Pin	Not Connected
11	Not Connected	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin

Input Voltage Range

12V (10-17 VDC), 24V (20-30 VDC)

Line Regulation

±0.3%

Ripple & Noise

1% pk-pk

Short Circuit Protection

5000 VDC for 10ms, 1600 VAC basic isolation for 1 min.

Isolation Voltage

>-20°C to +60°C, no derating

Operating Temperature

-40°C to +100°C

Storage Temperature

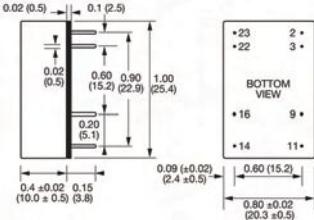
-40°C to +100°C

Mfrs' List No.	Input Voltage	Output 1	Output 2	Order Code
JHM0312S05	10 to 17 V	5V, 600mA	—	167-3359
JHM0312S12	10 to 17 V	12V, 250mA	—	167-3360
JHM0312S15	10 to 17 V	15V, 200mA	—	167-3362
JHM0312D12	10 to 17 V	12V, 125mA	-12V, -125mA	167-3363
JHM0312D15	10 to 17 V	15V, 100mA	-15V, -100mA	167-3364
JHM0324S05	20 to 30 V	5V, 600mA	—	167-3365
JHM0324S12	20 to 30 V	12V, 250mA	—	167-3366
JHM0324S15	20 to 30 V	15V, 200mA	—	167-3368
JHM0324D12	20 to 30 V	12V, 125mA	-12V, -125mA	167-3369
JHM0324D15	20 to 30 V	15V, 100mA	-15V, -100mA	167-3370

Order Code	1+	5+	10+	25+	Price Each
Single Output All Order Codes●	17.00	16.49	16.32	15.30	
Dual Output All Order Codes●	18.00	17.46	17.28	16.20	

3 Watt Single and Dual Output DC/DC Converters

Industry Standard Pinout, Smaller Package Size



Dimensions(mm): L=25.4, W=20.3, H=10.0

PIN CONNECTIONS	Pin	Single Output	Dual Output
2	-Vin (GND)	-Vin (GND)	-Vin (GND)
3	-Vin (Vcc)	+Vin (Vcc)	+Vin (Vcc)
9	No pin	Common	Common
11	N/C	-Vout	-Vout
14	+Vout	+Vout	+Vout
16	-Vout	Common	Common
22	+Vin (Vcc)	+Vin (Vcc)	+Vin (Vcc)
23	+Vin (Vcc)	+Vin (Vcc)	+Vin (Vcc)

An innovative range of space saving DC/DC converters which have industry standard 24pin DIL pinout configuration but have a smaller package size, whilst providing the same power.

- Wide 2:1 input range
- Fully regulated outputs
- 24 Pin metal case
- 1.5kVDC isolation
- Undervoltage lockout
- Indefinite short cct protection
- Input Pi filter to EN55022 level A
- UL & TUV approval
- 3 year warranty

Input Voltage Range 5 V (4.5-9.0 VDC), 12 V (9-18 VDC), 24 V (18-36 VDC), 48 V (36-75 VDC)
Undervoltage Lockout Turn On at -5% to -10% of rated input. Turn Off at -20% of rated input
Line Regulation ±0.3% max (high line to low line)
Load Regulation ±1% for all models from 10% to 100% load
Ripple & Noise 50 mV pk-pk, 20MHz BW
Isolation 500 VDC Input to Case, 500 VDC Output to Case, 1500 VDC Input to Output, basic insulation

Operating Temperature -40°C to +100°C, output power derates from 100% load

at +75 °C linearly to 0% load at 100°C

Safety Approvals EN60950-1:2001, UL60950-1, CSA C22-2 No. 60950-1-03, CE Mark LVD EN55022, level A conducted (level B with external components), Level B radiated

Mfrs' List No.	Input Voltage	Output 1	Output 2	Order Code
JCA0305S03	4.5 to 9 Vdc	3.3V, 910mA	—	128-9177
JCA0305S05	4.5 to 9 Vdc	5V, 600mA	—	128-9178
JCA0305S12	4.5 to 9 Vdc	12V, 260mA	—	128-9179
JCA0305S15	4.5 to 9 Vdc	15V, 200mA	—	128-9180
JCA0305D01	4.5 to 9 Vdc	5V, 300mA	-5V, 300mA	128-9181
JCA0305D02	4.5 to 9 Vdc	12V, 130mA	-12V, 130mA	128-9182
JCA0305D03	4.5 to 9 Vdc	15V, 100mA	-15V, 100mA	128-9183
JCA0312S03	9 to 18 Vdc	3.3V, 910mA	—	128-9185
JCA0312S05	9 to 18 Vdc	5V, 600mA	—	128-9186
JCA0312S12	9 to 18 Vdc	12V, 260mA	—	128-9187
JCA0312S15	9 to 18 Vdc	15V, 200mA	—	128-9188
JCA0312D01	9 to 18 Vdc	5V, 300mA	-5V, 300mA	128-9189
JCA0312D02	9 to 18 Vdc	12V, 130mA	-12V, 130mA	128-9190
JCA0312D03	9 to 18 Vdc	15V, 100mA	-15V, 100mA	128-9191
JCA0324S03	18 to 36 Vdc	3.3V, 910mA	—	128-9192
JCA0324S05	18 to 36 Vdc	5V, 600mA	—	128-9193
JCA0324S12	18 to 36 Vdc	12V, 260mA	—	128-9194
JCA0324S15	18 to 36 Vdc	15V, 200mA	—	128-9195
JCA0324D01	18 to 36 Vdc	5V, 300mA	-5V, 300mA	128-9197
JCA0324D02	18 to 36 Vdc	12V, 130mA	-12V, 130mA	128-9198
JCA0324D03	18 to 36 Vdc	15V, 100mA	-15V, 100mA	128-9199
JCA0348S03	36 to 75 Vdc	3.3V, 910mA	—	128-9200
JCA0348S05	36 to 75 Vdc	5V, 600mA	—	128-9201
JCA0348S12	36 to 75 Vdc	12V, 260mA	—	128-9203
JCA0348S15	36 to 75 Vdc	15V, 200mA	—	128-9204
JCA0348D01	36 to 75 Vdc	5V, 300mA	-5V, 300mA	128-9205
JCA0348D02	36 to 75 Vdc	12V, 130mA	-12V, 130mA	128-9206
JCA0348D03	36 to 75 Vdc	15V, 100mA	-15V, 100mA	128-9207

449229

Order Code	1+	5+	10+	25+	Price Each
Single Output All Order Codes●	11.50	11.16	10.81	10.35	
Dual Output All Order Codes●	13.00	12.61	12.22	11.70	

3 Watt Ultra Wide Input DC/DC Converters

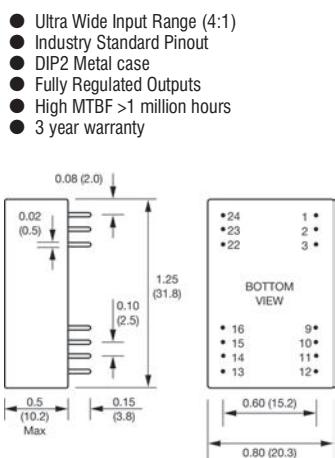
Single and Dual Output - JTB03 Series



Dimensions(mm): L=31.8, W=20.3, H=10.2

A high specification, high reliability DC/DC converter featuring ultra wide 4:1 input ranges (9-36VDC and 18-72VDC) and MTBF > 1million hours.

PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	+Vin	+Vin
2	N/C	-Vout
3	N/C	Common
9	No Pin	No Pin
10	-Vout	Common
11	+Vout	+Vout
12	-Vin	-Vin
13	-Vin	-Vin
14	+Vout	+Vout
15	-Vout	Common
16	No Pin	No Pin
22	N/C	Common
23	N/C	-Vout
24	+Vin	+Vin



Input Voltage Range 24V (9-36 VDC), 48V (18-72 VDC)
 Line Regulation ±0.5% maximum (high line to low line)
 Load Regulation ±0.5% max single output models, ±1% max for dual output models
 Ripple & Noise 100 mV or 1% pk-pk, whichever is greater, 20 MHz BW
 Short Circuit Protection Continuous with auto recovery
 Isolation Voltage 500 VDC Input to Output
 MTBF 1million Hrs to MIL-HDBK-217F
 Operating Temperature -25°C to +100°C, derate from +70°C
 Storage Temperature -40°C to +100°C

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Order Code
JTB0324S3V3	9 - 36	3.3	600	143-5434
JTB0324S505	9 - 36	5	600	143-5435
JTB0324S12	9 - 36	12	250	143-5436
JTB0324S15	9 - 36	15	200	143-5438
JTB0324D05	9 - 36	±5	±300	143-5439
JTB0324D12	9 - 36	±12	±125	143-5440
JTB0324D15	9 - 36	±15	±100	143-5441
JTB0348S3V3	18 - 72	3	600	143-5442
JTB0348S05	18 - 72	5	600	143-5443
JTB0348S12	18 - 72	12	250	143-5444
JTB0348S15	18 - 72	15	200	143-5445
JTB0348D05	18 - 72	±5	±300	143-5446
JTB0348D12	18 - 72	±12	±125	143-5447
JTB0348D15	18 - 72	±15	±100	143-5448

492949

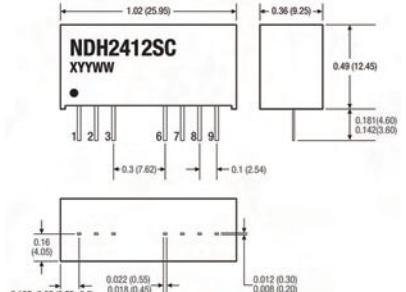
Price Each				
Order Code	1+	5+	10+	25+
Single Output All Order Codes●	14.50	14.06	13.63	13.05
Dual Output All Order Codes●	16.00	15.52	15.04	14.40

3W NDT Series Miniature Dual Output DC/DC Converters



The NDH Series is a range of high performance miniature DC/DC converters. The outputs are regulated over a wide temperature range. The input voltage range is 2:1 with input to output isolation of 1kVdc.

- Compact SIP form factor
- 2:1 wide range voltage input
- Continuous short circuit protection with current foldback
- Operating temperature: -40°C to 85°C



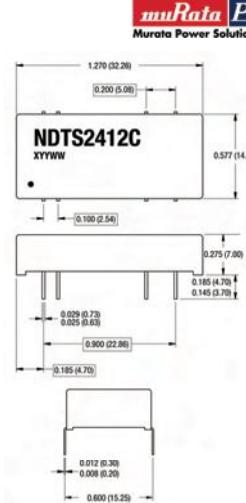
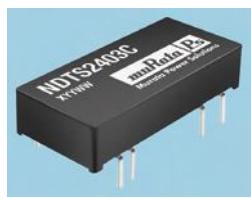
- 0.5% Load Regulation
- Power density 1.00W/cm³
- Remote on/off
- No electrolytic capacitors
- Low Noise

Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
Single Output				
24	12	32	NDH2412SC	129-3610
24	15	25	NDH2415SC	129-3611
Dual Output				
48	±12	±32	NDH4812SC	129-3612
48	±15	±25	NDH4815SC	129-3613

449611

Order Code	1+	10+	25+	50+	100+
All Order Codes●	12.45	11.76	11.49	11.12	10.33

3W NDT Series Single & Dual Output DC/DC Converters



The NDTs series are a range of low profile, isolated single output DC/DC converters over a 2:1 input voltage range. They deliver 3W output power across a wide temperature range, without heatsinking. A flyback oscillator design with isolated feedback is used to give regulation over the full operating range of 25% to 100% of full load.

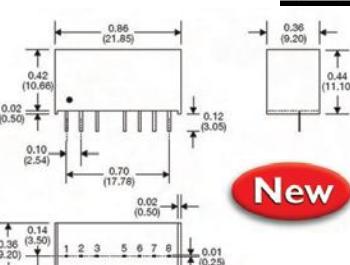
- Industry standard footprint
- Single or dual isolated output
- Short circuit protection
- Operating temperature: -40°C to 85°C
- Low profile 24 pin case
- 2:1 Wide input range
- No heatsink required
- Fully encapsulated

Nominal Input Voltage (V)	Output Voltage (V)	Output Current (mA)	Mfrs. List No.	Order Code
Single Output				
5	3.3	227	NDTS0503C	129-3573
5	5	150	NDTS0505C	129-3574
5	12	63	NDTS0512C	129-3575
5	15	50	NDTS0515C	129-3577
12	3.3	227	NDTS1203C	129-3578
12	5	150	NDTS1205C	129-3579
12	12	63	NDTS1212C	129-3580
12	15	50	NDTS1215C	129-3581
24	3.3	227	NDTS2403C	129-3582
24	5	150	NDTS2405C	129-3584
24	12	63	NDTS2412C	129-3585
24	15	50	NDTS2415C	129-3586
48	3.3	227	NDTS4803C	129-3587
48	5	150	NDTS4805C	129-3589
48	12	63	NDTS4812C	129-3591
48	15	50	NDTS4815C	129-3592
Dual Output				
5	±3.3	±113	NDTD0503C	129-3593
5	±5	±75	NDTD0505C	129-3594
5	±12	±31	NDTD0512C	129-3595
5	±15	±25	NDTD0515C	129-3596
12	±3.3	±113	NDTD1203C	129-3597
12	±5	±75	NDTD1205C	129-3598
12	±12	±31	NDTD1212C	129-3599
12	±15	±25	NDTD1215C	129-3600
24	±3.3	±113	NDTD2403C	129-3601
24	±5	±75	NDTD2405C	129-3602
24	±12	±31	NDTD2412C	129-3603
24	±15	±25	NDTD2415C	129-3604
48	±3.3	±113	NDTD4803C	129-3605
48	±5	±75	NDTD4805C	129-3607
48	±12	±31	NDTD4812C	129-3608
48	±15	±25	NDTD4815C	129-3609

449608

Order Code	1+	10+	25+	50+	100+
Single Output All Order Codes●	8.22	7.83	7.53	7.12	6.62
Dual Output All Order Codes●	7.44	7.09	6.82	6.45	6.00

3 Watt Single and Dual Output DC/DC Converters Wide 2:1 Input Range



Dimensions(mm): H=10.66, W=21.85, D=9.20

PCB Mount - DC to DC Converters - continued

3 Watt Single and Dual Output DC/DC Converters - continued

Wide 2:1 Input Range - continued

PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	-Vin	-Vin
2	+Vin	+Vin
3	Remote On/Off	Remote On/Off
5	N.C.	N.C.
6	+Vout	+Vout
7	-Vout	Common
8	N.C.	-Vout

Fully regulated 3 Watt DC/DC converter in a SIP package with a wide 2:1 input range, single and dual outputs, 1600VDC isolation (input to output) and continuous short circuit protection.

- Wide 2:1 Input Range
- Compact SIP Package
- 1600 VDC Isolation
- Regulated Output
- Efficiency up to 84%
- Continuous Short Circuit Protection
- -40°C to 70°C Operating Temperature
- 3 year warranty

Input Voltage Range 5 V (4.5 - 9.0 V), 12 V (9.0 - 18.0 V), 24 V (18.0 - 36.0 V), 48 V (36.0 - 72.0 V)

Line Regulation ±0.5% max.

Load Regulation ±1.0% max from 25-100% load

Ripple & Noise 75 mV pk-pk, 20MHz BW

Isolation Voltage 1600 VDC

Operating Temperature -40°C to +70°C, derate from 100% load at 70°C to 0% load at 100°C

Short Circuit Protection Continuous with auto recovery

MTBF >2.4 Mhrs to MIL-STD-217F

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
IZ0503SA	4.5 to 9.0 Vdc	3.3V, 700mA	—	163-7815
IZ0505SA	4.5 to 9.0 Vdc	5V, 600mA	—	163-7816
IZ0512SA	4.5 to 9.0 Vdc	12V, 250mA	—	163-7817
IZ0515SA	4.5 to 9.0 Vdc	15V, 200mA	—	163-7818
IZ0505SS	4.5 to 9.0 Vdc	5.0V, 300mA	-5.0V, -300mA	163-7819
IZ0512S	4.5 to 9.0 Vdc	12V, 125mA	-12V, -125mA	163-7820
IZ0515S	4.5 to 9.0 Vdc	15V, 100mA	-15V, -100mA	163-7821
IZ1203SA	9.0 to 18 Vdc	3.3V, 700mA	—	163-7822
IZ1205SA	9.0 to 18 Vdc	5V, 600mA	—	163-7823
IZ1212SA	9.0 to 18 Vdc	12V, 250mA	—	163-7825
IZ1215SA	9.0 to 18 Vdc	15V, 200mA	—	163-7826
IZ1205SS	9.0 to 18 Vdc	5.0V, 300mA	-5.0V, -300mA	163-7827
IZ1212S	9.0 to 18 Vdc	12V, 125mA	-12V, -125mA	163-7828
IZ1215S	9.0 to 18 Vdc	15V, 100mA	-15V, -100mA	163-7829
IZ2403SA	18 to 36 Vdc	3.3V, 700mA	—	163-7830
IZ2405SA	18 to 36 Vdc	5V, 600mA	—	163-7831
IZ2412SA	18 to 36 Vdc	12V, 250mA	—	163-7832
IZ2415SA	18 to 36 Vdc	15V, 200mA	—	163-7833
IZ2405SS	18 to 36 Vdc	5.0V, 300mA	-5.0V, -300mA	163-7834
IZ2412S	18 to 36 Vdc	12V, 125mA	-12V, -125mA	163-7835
IZ2415S	18 to 36 Vdc	15V, 100mA	-15V, -100mA	163-7837
IZ4803SA	36 to 72 Vdc	3.3V, 700mA	—	163-7838
IZ4805SA	36 to 72 Vdc	5V, 600mA	—	163-7839
IZ4812SA	36 to 72 Vdc	12V, 250mA	—	163-7840
IZ4815SA	36 to 72 Vdc	15V, 200mA	—	163-7841
IZ4805SS	36 to 72 Vdc	5.0V, 300mA	-5.0V, -300mA	163-7842
IZ4812S	36 to 72 Vdc	12V, 125mA	-12V, -125mA	163-7843
IZ4815S	36 to 72 Vdc	15V, 100mA	-15V, -100mA	163-7844

520437

Order Code	1+	5+	10+	25+	Price Each
Single Output All Order Codes●	9.50	9.22	8.93	8.55	
Dual Output All Order Codes●	10.00	9.70	9.40	9.00	

NDY Series 3W DC/DC Converters



- 1KV dc input/output isolation
- Short circuit protection
- 2:1 wide input range
- Fully encapsulated
- No heat sink required
- Low profile package
- High efficiency to 83%
- Power density 0.90W/cm³
- Packaged to UL94V-0

H = 7.00 (excl. pins)

W = 14.66, L = 32.26

(Nom) Vin	Output	Mfrs. List No.	Order Code	Connections
5 4.5-9	5V 600mA	NDY0505C	102-1417	Pin 1, 24 Vin
5 4.5-9	12V 250mA	NDY0512C	102-1418	Pin 10, 15 0V
5 4.5-9	15V 200mA	NDY0515C	102-1419	Pin 11 & 14 +V
12 9-18	5V 600mA	NDY1205C	102-1420	Pin 12 & 13 GND
12 9-18	12V 250mA	NDY1212C	102-1421	
12 9-18	15V 200mA	NDY1215C	102-1422	
24 18-36	5V 600mA	NDY2405C	102-1423	
24 18-36	12V 250mA	NDY2412C	102-1425	
24 18-36	15V 250mA	NDY2415C	102-1426	
48 36-72	5V 600mA	NDY4805C	161-0421	

Load and line regulation 0.5% max. Operating temperature -40°C to 85°C

205851

Order Code	1+	10+	25+	50+	100+	Price Each
NDY05 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	
NDY12 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	
NDY24 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	
NDY48 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	

205851

Order Code 1+ 10+ 25+ 50+ 100+ Price Each

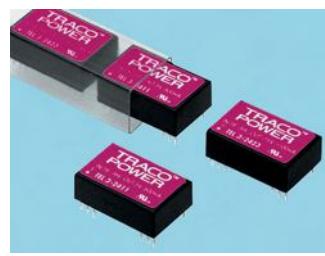
NDY05 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

NDY12 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

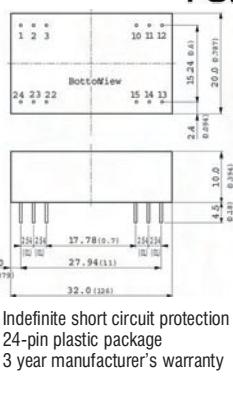
NDY24 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

NDY48 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

TEL-3 Series, 3 Watt



TRACO POWER



- DC/DC convertor in SMD design
- Wide 2:1 input range
- High efficiency

- Indefinite short circuit protection
- 24-pin plastic package
- 3 year manufacturer's warranty

Input Voltage	Output Voltage	Output Current	Mfrs. List No.	Order Code
4.5 - 9V dc	5V	600mA	TEL 3-0511	120-4952
4.5 - 9V dc	±12V	±125mA	TEL 3-0522	120-4953
4.5 - 9V dc	±15V	±100mA	TEL 3-0523	120-4954
9 - 18V dc	5V	600mA	TEL 3-1211	120-4955
9 - 19V dc	12V	250mA	TEL 3-1212	120-4957
9 - 18V dc	±12V	±125mA	TEL 3-1222	120-4958
9 - 18V dc	±15V	±100mA	TEL 3-1223	120-4959
10 - 30V dc	5V	600mA	TEL 3-2011	120-4960
10 - 30V dc	±12V	±250mA	TEL 3-2012	120-4961
10 - 30V dc	±12V	±125mA	TEL 3-2022	120-4962
10 - 30V dc	±15V	±100mA	TEL 3-2023	120-4963
18 - 36V dc	5V	600mA	TEL 3-2411	120-4964
18 - 36V dc	12V	250mA	TEL 3-2412	120-4965
18 - 36V dc	±12V	±125mA	TEL 3-2422	120-4966
36 - 75V dc	5V	600mA	TEL 3-4811	119-6486
36 - 75V dc	12V	250mA	TEL 3-4812	119-6487
36 - 75V dc	±12V	±125mA	TEL 3-4822	119-6488
36 - 75V dc	±15V	±100mA	TEL 3-4823	119-6489

337878

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
TEL 3-0511	120-4952●	11.15	10.48	10.03	9.60	
TEL 3-0522	120-4953●	11.45	10.78	10.31	9.86	
TEL 3-0523	120-4954●	11.45	10.78	10.31	9.86	
TEL 3-1211	120-4955●	11.15	10.48	10.03	9.60	
TEL 3-1212	120-4957●	11.15	10.48	10.03	9.60	
TEL 3-1222	120-4958●	11.45	10.78	10.31	9.86	
TEL 3-1223	120-4959●	11.45	10.78	10.31	9.86	
TEL 3-2011	120-4960●	12.20	11.60	11.11	10.64	
TEL 3-2012	120-4961●	12.20	11.60	11.11	10.64	
TEL 3-2022	120-4962●	12.75	12.11	11.61	11.13	
TEL 3-2023	120-4963●	12.75	12.11	11.61	11.13	
TEL 3-2411	120-4964●	11.15	10.48	10.03	9.60	
TEL 3-2412	120-4965●	11.15	10.48	10.03	9.60	
TEL 3-2422	120-4966●	11.45	10.78	10.31	9.86	
TEL 3-4811	119-6486●	11.15	10.48	10.03	9.60	
TEL 3-4812	119-6487●	11.15	10.48	10.03	9.60	
TEL 3-4822	119-6488●	11.45	10.78	10.31	9.86	
TEL 3-4823	119-6489●	11.45	10.78	10.31	9.86	

Order Code	1+	10+	25+	50+	100+	Price Each
NDY05 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	
NDY12 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	
NDY24 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	
NDY48 Series All Order Codes●	11.38	11.06	10.82	10.45	9.60	

Order Code 1+ 10+ 25+ 50+ 100+ Price Each

NDY05 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

NDY12 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

NDY24 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

NDY48 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

Order Code 1+ 10+ 25+ 50+ 100+ Price Each

NDY05 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

NDY12 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

NDY24 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

Order Code 1+ 10+ 25+ 50+ 100+ Price Each

NDY05 Series All Order Codes● 11.38 11.06 10.82 10.45 9.60

Mfrs List No	Input Voltage	Output Voltage	Output Current max.	Efficiency	Order Code
	V DC	V DC	mA	(%)	
THB 3-0511	4.5 - 6	5	600	70	144-1203
THB 3-0512		12	250	75	144-1204
THB 3-0515		24	125	76	144-1205
THB 3-0522		±12	±125	75	144-1207
THB 3-0523		±15	±100	75	144-1208
THB 3-1211	9 - 18	5	600	74	144-1209
THB 3-1212		12	250	80	144-1210
THB 3-1215		24	125	81	144-1211
THB 3-1222		±12	±125	80	144-1212
THB 3-1223		±15	±100	80	144-1213
THB 3-2411	18 - 36	5	600	78	144-1214
THB 3-2412		12	250	83	144-1215
THB 3-2415		24	125	84	144-1216
THB 3-2422		±12	±125	83	144-1217
THB 3-2423		±15	±100	83	144-1219
THB 3-4811	36 - 75	5	600	78	144-1221
THB 3-4812		12	250	83	144-1222
THB 3-4815		24	125	84	144-1223
THB 3-4822		±12	±125	83	144-1224
THB 3-4823		±15	±100	83	144-1225

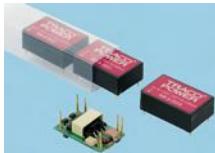
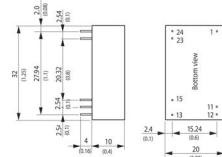
Pin-out	Pin	Single	Dual	Pin-out	+Vout	-Vout
Pin	1	+Vin (Vcc)	+Vin (Vcc)	13	+Vout	-Vout
	11	No Pin	Common	15	No Pin	+Vout
	12	-Vout	No Pin	23	-Vin (GND)	-Vin (GND)

481850

Mfrs List No	Order Code	1+	5+	10+	25+	Price Each
THB 3-0511	144-1203●	28.26	26.80	24.18	23.17	
THB 3-0512	144-1204●	28.26	26.80	24.18	23.17	
THB 3-0515	144-1205●	28.26	26.80	24.18	23.17	
THB 3-0522	144-1207●	29.62	27.81	25.19	24.18	
THB 3-0523	144-1208●	29.62	27.81	25.19	24.18	
THB 3-1211	144-1209●	28.26	26.80	24.18	23.17	
THB 3-1212	144-1210●	28.26	26.80	24.18	23.17	
THB 3-1215	144-1211●	28.26	26.80	24.18	23.17	
THB 3-1222	144-1212●	29.62	27.81	25.19	24.18	
THB 3-1223	144-1213●	29.62	27.81	25.19	24.18	
THB 3-2411	144-1214●	28.26	26.80	24.18	23.17	
THB 3-2424	144-1215●	28.26	26.80	24.18	23.17	
THB 3-2425	144-1216●	28.26	26.80	24.18	23.17	
THB 3-2422	144-1217●	29.62	27.81	25.19	24.18	
THB 3-2423	144-1218●	29.62	27.81	25.19	24.18	
THB 3-4811	144-1219●	22.61	21.44	19.34	18.54	
THB 3-4812	144-1220●	28.26	26.80	24.18	23.17	
THB 3-4815	144-1221●	28.26	26.80	24.18	23.17	
THB 3-4822	144-1222●	23.70	22.25	20.15	19.34	
THB 3-4823	144-1223●	23.70	22.25	20.15	19.34	

THP 3 Series DC/DC Conductor

3 Watt, High Isolation

TRACO
POWER

- Ultra wide 4:1 input ranges
- Input voltages up to 160 V dc
- I/O Isolation 4000 V ac
- Basic, supplementary and reinforced insulation for working voltages up to 420V dc / 300V ac
- Safety standards for the medical and railway industries
- Clearance and creeping distances min. 2.0mm
- Plastic package
- Input filter meets EN 55022, Class A and FCC, Level A without external components
- Continuous short circuit protection
- Safety standards: cUL/UL 60950, IEC/EN 60950, EN 50124-1&2, IEC/EN/UL 60601-1, CSA C22.2 (covering 300 V ac/420 V dc working voltages)
- 3 year product warranty

Further specifications:

Regulation:
 Input variation ±0.5% max.
 Load variation ±1.0% max.
 Ripple and noise: 100mV pk-pk typ. (20 MHz Bandwidth)
 4000V ac eff. (60 sec., 50 Hz)
 I/O Isolation: -40°C to +85°C; above 75°C power reduction 4% / K

Mfrs List No	Input Voltage	Output Voltage	Output Current	Efficiency typ.	Order Code
	V dc	V dc	(max.) mA	(%)	
THP 3-2411	9 - 40	5	600	78	100-7498
THP 3-2412		12	250	83	100-7499
THP 3-2422		±12	±125	83	100-7500
THP 3-2423		±15	±100	83	100-7501
THP 3-4811		5	600	78	100-7502
THP 3-4812	18 - 80	12	250	83	100-7503
THP 3-4822		±12	±125	83	100-7504
THP 3-4823		±15	±100	83	100-7505
THP 3-7211		5	600	78	100-7507
THP 3-7212	36 - 160	12	250	83	100-7508
THP 3-7222		±12	±125	83	100-7509
THP 3-7223		±15	±100	83	100-7510

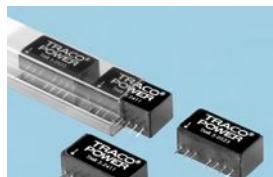
Pinout	Pin	Single	Dual	Pinout	Pinout
				13	13
	1	+Vin (Vcc)	+Vin (Vcc)	13	+Vout
	11	No Pin	Common	15	No Pin
	12	-Vout	No Pin	23	-Vin (GND)
				24	-Vin (GND)

415102

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
THP 3-2411	100-7498●	34.150	32.780	31.080	28.350	
THP 3-2412	100-7499●	34.150	32.780	31.080	28.350	
THP 3-2422	100-7500●	29.260	28.090	26.620	24.290	
THP 3-2423	100-7501●	36.570	35.110	33.280	30.360	
THP 3-4811	100-7502●	34.150	32.780	31.080	28.350	
THP 3-4812	100-7503●	34.150	32.780	31.080	28.350	
THP 3-4822	100-7504●	36.570	35.110	33.280	30.360	
THP 3-4823	100-7505●	21.940	21.060	19.970	18.934	
THP 3-7211	100-7507●	34.150	32.780	31.080	28.350	
THP 3-7212	100-7508●	36.340	34.940	33.650	31.890	
THP 3-7222	100-7509●	36.570	35.110	33.280	30.360	
THP 3-7223	100-7510●	36.570	35.110	33.280	30.360	

TMR 3 Series

3 watts, SIL housing

TRACO
POWER

PIN CONNECTIONS		
Pin	Single	Dual
1	- Vin (GND)	- Vin (GND)
2	+ Vin (Vcc)	+ Vin (Vcc)
3	External In/Out	External In/Out
5	No function	No function
6	+ Vout	+ Vout
7	- Vout	Common
8	No function	- Vout

Further specifications:

Control deviations:
 on a change in input
 on a change in load

Residual ripple:
 I/O isolation:
 Operating temperature range:
 External In/Out:
 Reliability, calculated MTBF:

Mfrs List No	Input Voltage	Output Voltage	Current	Efficiency	Order Code
	V dc	V dc	(max.) mA	(%)	
TMR 3-0511	4.5 - 9	5	600	77	128-4231
TMR 3-0512		12	250	79	128-4232
TMR 3-0522		±12	±125	79	128-4233
TMR 3-0523		±15	±100	80	128-4234
TMR 3-1211	9 - 18	5	600	78	128-4236
TMR 3-1212		12	250	80	128-4237
TMR 3-1222		±12	±125	81	128-4238
TMR 3-1223		±15	±100	81	128-4239
TMR 3-2411	18 - 36	5	600	78	128-4240
TMR 3-2412		12	250	80	128-4242
TMR 3-2422		±12	±125	81	128-4243
TMR 3-2423		±15	±100	81	128-4244

PCB Mount - DC to DC Converters - continued

TMR 3 Series - continued

3 watts, SIL housing - continued

448581

Mfrs List No.	Order Code	1+	5+	10+	25+	Price Each
TMR 3-0511	128-4231●	12.59	11.84	11.33	10.71	
TMR 3-0512	128-4232●	12.59	11.84	11.33	10.71	
TMR 3-0522	128-4233●	13.40	12.59	12.06	11.40	
TMR 3-0523	128-4234●	13.40	12.59	12.06	11.40	
TMR 3-1211	128-4236●	12.59	11.84	11.33	10.71	
TMR 3-1212	128-4237●	12.59	11.84	11.33	10.71	
TMR 3-1222	128-4238●	13.40	12.59	12.06	11.40	
TMR 3-1223	128-4239●	13.40	12.59	12.06	11.40	
TMR 3-2411	128-4240●	12.59	11.84	11.33	10.71	
TMR 3-2412	128-4242●	12.59	11.84	11.33	10.71	
TMR 3-2422	128-4243●	13.40	12.59	12.06	11.40	
TMR 3-2423	128-4244●	13.40	12.59	12.06	11.40	

TMR-3WI Series

3 Watt, 4:1 Input range, SIP



**TRACO
POWER**

New

- Highest power density in SIP package
- Ultra wide 4:1 input range
- Regulated outputs
- Low ripple and noise
- Short circuit protection
- Remote on/off
- 3 Years warranty

Regulation:

- Line variation: ±0.2% max.
- Load regulation: ±1.0% max. all models

I/O isolation:

1500 VDC

Operating temperature range:

-40°C to +85°C, Derating: 3.5%/K above 70°C

Remote on/off:

Input current in standby operation: 2.5mA

Reliability, calculated MTBF:

> 1.7 Mio. h at +25°C

Mfrs. List No.	Input voltage VDC	Output voltage VDC	Output current mA (max.)	Efficiency (%)
TMR 3-2411WI	9 - 36	5	600	78
TMR 3-2412WI		12	250	80
TMR 3-2421WI	±5	±300	80	
TMR 3-2422WI	±12	±125	81	
TMR 3-2423WI	±15	±100	81	
TMR 3-4811WI	18 - 75	5	600	78
TMR 3-4812WI		12	250	80
TMR 3-4821WI	±5	±300	80	
TMR 3-4822WI	±12	±125	81	
TMR 3-4823WI	±15	±100	81	

519090

Price each					
Mfrs. List No.	Order code	1+	5+	10+	25+
TMR 3-2411WI	163-5267●	16.00	15.36	14.59	13.86
TMR 3-2412WI	163-5269●	16.00	15.36	14.59	13.86
TMR 3-2421WI	163-5271●	17.50	16.80	15.96	15.16
TMR 3-2422WI	163-5272●	17.50	16.80	15.96	15.16
TMR 3-2423WI	163-5273●	17.50	16.80	15.96	15.16
TMR 3-4811WI	163-5274●	16.00	15.36	14.59	13.86
TMR 3-4812WI	163-5275●	16.00	15.36	14.59	13.86
TMR 3-4821WI	163-5276●	17.50	16.80	15.96	15.16
TMR 3-4822WI	163-5277●	17.50	16.80	15.96	15.16
TMR 3-4823WI	163-5282●	17.50	16.80	15.96	15.16

519090

3W DC/DC Converter - Single O/P

Murata Power Solutions

New



- 7:1 Wide range voltage input, 9-60VDC
- Operating temperature range -40°C to 85°C
- 0.05% Typical load regulation
- 1kVDC Isolation
- Efficiency from 79% at 36VIN
- UL 94V-0 Package materials
- Low noise

Dimensions(mm): W=32, H=10, D=25

The NDW3 series is suitable for use in applications in railway, industry or telecommunication where variable input voltages are present. With an ultra wide input voltage range of 9-60VDC, making this suitable for use with nominal 12V, 24V or 48V systems. Housed in an industry standard package with a standard pinout.

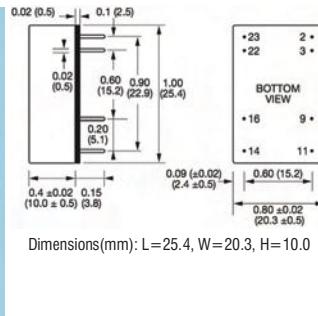
Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Efficiency
NDW3S3612C	36V	12V	250mA	79%

526243

Mfrs. List No.	Order Code	1+	5+	10+	25+	50+
NDW3S3612C	167-3899●	15.29		13.87	12.45	11.32

4 Watt Single and Dual Output DC/DC Converters

JCA04 Series, Industry Standard Pinout, Smaller Package Size



An innovative range of space saving DC/DC converters which have industry standard 24pin DIL pinout configuration but have a smaller package size, whilst providing the same power.

- Wide 2:1 input range
- Fully regulated outputs
- 24 Pin metal case
- 1.5kVDC isolation
- Undervoltage lockout
- Indefinite short cct protection
- Input Pi filter
- UL & TUV approval
- 3 year warranty

PIN CONNECTIONS		
Pin	Single Output	Dual Output
2	-Vin (GND)	-Vin (GND)
3	-Vin (GND)	-Vin (GND)
9	No pin	Common
11	N/C	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin (Vcc)	+Vin (Vcc)
23	+Vin (Vcc)	+Vin (Vcc)

Input Voltage Range 5 V (4.5-9.0 VDC), 12 V (9-18 VDC), 24 V (18-36 VDC), 48 V (36-75 VDC)

Undervoltage Lockout Turn On at >90%-95% of rated input. Turn Off at <80% of rated input

±0.3%

Line Regulation ±1%

Load Regulation 50 mV pk-pk, 20MHz BW

500 VDC Input to Case, 500 VDC Output to Case, 1500 VDC Input to Output, basic insulation

Operating Temperature -40°C to +100°C, output power derates from 100% load at +75 °C linearly to 0% load at 100°C

Safety Approvals EN60950 2001, UL60950-1, CSA C22-2 No. 60950-1-03, CE Mark LVD

EN55022, level A conducted & radiated (level B with external components)

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JCA0405S03	4.5 to 9 Vdc	3.3V, 1.22A		133-7094
JCA0405S05	4.5 to 9 Vdc	5V, 800mA		133-7095
JCA0405S12	4.5 to 9 Vdc	12V, 340mA		133-7096
JCA0405S15	4.5 to 9 Vdc	15V, 280mA		133-7097
JCA0405D01	4.5 to 9 Vdc	5V dc, 0.4A	-5V dc, 0.4A	133-7098
JCA0405D02	4.5 to 9 Vdc	12V dc, 0.17A	-12V dc, 0.17A	133-7100
JCA0405D03	4.5 to 9 Vdc	15V dc, 0.14A	-15V dc, 0.14A	133-7101
JCA0412503	9 to 18 Vdc	3.3V, 1.22A		133-7102
JCA0412505	9 to 18 Vdc	5V, 800mA		133-7103
JCA0412512	9 to 18 Vdc	12V, 340mA		133-7104
JCA0412515	9 to 18 Vdc	15V, 280mA		133-7106
JCA0412D01	9 to 18 Vdc	5V dc, 0.4A	-5V dc, 0.4A	133-7107
JCA0412D02	9 to 18 Vdc	12V dc, 0.17A	-12V dc, 0.17A	133-7108
JCA0412D03	9 to 18 Vdc	15V dc, 0.14A	-15V dc, 0.14A	133-7109
JCA0424503	18 to 36 Vdc	3.3V, 1.22A		133-7110
JCA0424505	18 to 36 Vdc	5V, 800mA		133-7111
JCA0424S12	18 to 36 Vdc	12V, 340mA		133-7112
JCA0424D01	18 to 36 Vdc	5V dc, 0.4A	-5V dc, 0.4A	133-7114
JCA0424D02	18 to 36 Vdc	12V dc, 0.17A	-12V dc, 0.17A	133-7115
JCA0424D03	18 to 36 Vdc	15V dc, 0.14A	-15V dc, 0.14A	133-7116
JCA0448S03	36 to 75 Vdc	3.3V, 1.22A		133-7118
JCA0448S05	36 to 75 Vdc	5V, 800mA		133-7119
JCA0448S12	36 to 75 Vdc	12V, 340mA		133-7120
JCA0448S15	36 to 75 Vdc	15V, 280mA		133-7121
JCA0448D01	36 to 75 Vdc	5V dc, 0.4A	-5V dc, 0.4A	133-7122
JCA0448D02	36 to 75 Vdc	12V dc, 0.17A	-12V dc, 0.17A	133-7123
JCA0448D03	36 to 75 Vdc	15V dc, 0.14A	-15V dc, 0.14A	133-7124

461174

Order Code	1+	5+	10+	25+
All Order Codes●	17.00	16.49	15.98	15.30
All Order Codes●	17.50	16.98	16.45	15.75

4 Watt Ultra Wide Input DC/DC Converters

Single and Dual Output - JTC04 Series



Dimensions(mm): L=31.75, W=21.35, H=10.5

Prices are in £ sterling & exclusive of VAT

PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	-Vin	-Vin
2	-Vin	-Vin
9	No Pin	Common
11	N/C	-Vout
14	+Vout	+Vout
16	-Vout	Common
23	+Vin	+Vin
24	+Vin	+Vin

A new range of high specification converters with an ultra wide, 4:1 input range and output voltages from 3.3 to 15VDC with extremely low ripple and noise compared to many DC/DC converters. The metal case reduces radiated emissions and ensures an even heat dissipation in all directions and helps ensure stable operation at high ambient temperatures. 1500VDC input to output isolation and continuous short circuit protection are standard

- Ultra Wide Input Range (4:1)
- Fully Regulated Outputs
- DIP2 Metal Case

- High MTBF >1 million hours
- Continuous Short Circuit Protection
- 1500VDC Isolation
- 3 year warranty

Input Voltage Range 24V (9-36 VDC), 48V (18-72 VDC)

Line Regulation ±0.5% max

Load Regulation ±0.5% max

Ripple & Noise 60 mV pk-pk for 3.3 V to 15 V models, 100 mV pk-pk for 18 V models, 150 mV pk-pk for 24 V models, 20 MHz BW

Short Circuit Protection Trip & restart (hiccup) with auto recovery

Efficiency 75-83%

Isolation Voltage 1500 VDC Input to Output

MTBF >1 Mhrs to MIL-STD-217F

Operating Temperature -40°C to +100°C, derate from 100% load at +85°C to no load at +100°C

Case Temperature +100°C max

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Current	Order Code
JTC0424S3V3	9 - 36	3.3	1.2A	143-5451
JTC0424S05	9 - 36	5	800mA	143-5452
JTC0424S12	9 - 36	12	333mA	143-5453
JTC0424S15	9 - 36	15	267mA	143-5454
JTC0424D03	9 - 36	±3.3	±600mA	143-5455
JTC0424D05	9 - 36	±5	±400mA	143-5456
JTC0424D12	9 - 36	±12	±167mA	143-5457
JTC0424D15	9 - 36	±15	±134mA	143-5458
JTC0448S3V3	18 - 72	3.3	1.2A	143-5459
JTC0448S05	18 - 72	5	800mA	143-5460
JTC0448S12	18 - 72	12	333mA	143-5461
JTC0448S15	18 - 72	15	267mA	143-5463
JTC0448D03	18 - 72	±3.3	±600mA	143-5464
JTC0448D05	18 - 72	±5	±400mA	143-5465
JTC0448D12	18 - 72	±12	±167mA	143-5466
JTC0448D15	18 - 72	±15	±134mA	143-5467

49273

Order Code	1+	5+	10+	25+
Single Output All Order Codes	19.50	18.91	18.33	17.55
Dual Output All Order Codes	20.50	19.86	19.27	18.45

4W, 20/40IMX Series

Single/Dual



- Extremely wide input voltage range
- Galvanic isolation, single and dual outputs
- High efficiency (typ 82%)
- No load and short circuit proof
- High reliability, no derating
- Operating temperature -40°C to 85°C
- DIL 24 case with 8.5mm profile

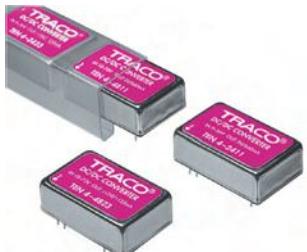
Mfrs. List No.	Input voltage	Output 1	Output 2	Order Code
20IMX4-05-8	8.4-36	5V, 700mA	—	121-5424
40IMX4-12-8	16.8-75	12V, 340mA	—	121-5428
20IMX4-0505-8	8.4-36	+5V, 350mA	-5V, 350mA	121-5429
20IMX4-1212-8	8.4-36	+12V, 170mA	-12V, 170mA	121-5430
20IMX4-1515-8	8.4-36	+15V, 80mA	-15V, 80mA	121-5431
20IMX4-2424-8	8.4-36	+24V, 80mA	-24V, 80mA	121-5432
40IMX4-2424-8	16.8-75	+24V, 80mA	-24V, 80mA	121-5434

For full specifications and Pin out details contact our Data Department.

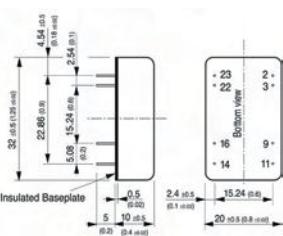
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Order Code	1+	5+	10+	20+	30+	50+
Single Output All Order Codes	42.72	42.16	40.45	39.47	37.41	35.87
Dual Output All Order Codes	42.72	41.97	40.45	39.57	37.41	36.00

TEN-4 Series, 4 Watt



TRACO POWER



- DC/DC converter in SMD design
- Ultrawide 4:1 input range
- High efficiency
- Indefinite short circuit protection

Input Variation ±0.3% Max. I/O Isolation 1500V dc
Load Variation ±1.0% Max. Operating Temperature -40°C to +75°C (no derating)
Ripple & Noise 50mV pk-pk typ. Safety Standards/Approval EN/IEC 60950, UL/cUL 1950 recognised Efficiency 77% typ.

Input Voltage	Output Voltage	Output Current	Mfrs. List No.	Order Code
9 - 36V dc	3.3V	900mA	TEN 4-2410	119-6490
9 - 36V dc	5V	660mA	TEN 4-2411	124-2565
9 - 36V dc	12V	330mA	TEN 4-2412	120-5001
9 - 36V dc	±12V	±165mA	TEN 4-2422	124-2566
9 - 36V dc	±15V	±130mA	TEN 4-2423	120-5003
18 - 75V dc	5V	660mA	TEN 4-4811	120-5004
18 - 75V dc	12V	330mA	TEN 4-4812	124-2567
18 - 75V dc	±12V	±165mA	TEN 4-4822	120-5007
18 - 75V dc	±15V	±130mA	TEN 4-4823	120-5008

33792

Mfrs. List No.	Order Code	1+	5+	10+	25+
TEN 4-2410	119-6490●	20.70	19.88	18.84	17.19
TEN 4-2411	124-2565●	20.70	19.88	18.84	17.19
TEN 4-2412	120-5001●	20.70	19.88	18.84	17.19
TEN 4-2422	124-2566●	21.51	20.65	19.58	17.85
TEN 4-2423	120-5003●	21.51	20.65	19.58	17.85
TEN 4-4811	120-5004●	20.70	19.88	18.84	17.19
TEN 4-4812	124-2567●	20.70	19.88	18.84	17.19
TEN 4-4822	120-5007●	21.51	20.65	19.58	17.85
TEN 4-4823	120-5008●	21.51	20.65	19.58	17.85

5 Watt Ultra Wide Input DC/DC Converters

Single and Dual Output - JTB05 Series

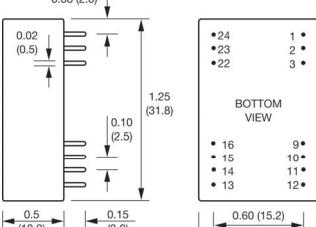


Dimensions(mm): L=31.8, W=20.3, H=10.2

PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	No Pin	No Pin
2	-Vin	-Vin
3	-Vin	-Vin
9	N/C	Common
10	N/C	N/C
11	N/C	-Vout
12	No Pin	No Pin
13	No Pin	No Pin
14	+Vout	+Vout
15	N/C	N/C
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin
24	No Pin	No Pin

A high specification, high reliability DC/DC converter featuring ultra wide 4:1 input ranges (9-36VDC and 18-72VDC) and MTBF > 1million hours. The 5 sided metal case reduces radiated emissions and ensures even dissipation of heat into the air around the converter and aids long term reliability. Continuous short circuit protection is a standard feature

- Ultra Wide Input Range (4:1)
- Industry Standard Pinout
- DIP 24 Metal Case
- Fully Regulated Outputs
- High MTBF > 1 million hours
- 3 year warranty



Input Voltage Range 24V (9-36 VDC), 48V (18-72 VDC)
Line Regulation ±0.5% maximum (high line to low line)

Load Regulation ±0.5% single output models, ±1% max for dual output models
Ripple & Noise 100 mV or 1% pk-pk, whichever is greater, 20 MHz BW

Short Circuit Protection Continuous with auto recovery

Isolation Voltage 500 VDC Input to Output

MTBF 1million Hrs to MIL-HDBK-21F

Operating Temperature -25°C to +100°C (see derating curve)

Storage Temperature -40°C to +100°C

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Current	Order Code
JTB0524S3V3	9 - 36	3.3	1A	143-5485
JTB0524S05	9 - 36	5	1A	143-5487
JTB0524S12	9 - 36	12	470mA	143-5488
JTB0524S15	9 - 36	15	400mA	143-5489
JTB0524D05	9 - 36	±5	±500mA	143-5490
JTB0524D12	9 - 36	±12	±230mA	143-5491
JTB0524D15	9 - 36	±15	±190mA	143-5492
JTB0548S3V3	18 - 72	3.3	1A	143-5493
JTB0548S05	18 - 72	5	1A	143-5494
JTB0548S12	18 - 72	12	470mA	143-5495
JTB0548S15	18 - 72	15	400mA	143-5496
JTB0548D05	18 - 72	±5	±500mA	143-5497
JTB0548D12	18 - 72	±12	±230mA	143-5499
JTB0548D15	18 - 72	±15	±190mA	143-5500

492775

Order Code	1+	5+	10+	25+
Single Output All Order Codes	18.50	17.95	17.39	16.65
Dual Output All Order Codes	19.50	18.91	18.33	17.55

Over 480,000 products online



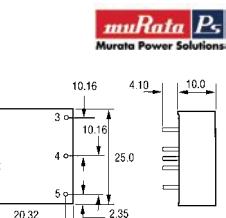
PCB Mount - DC to DC Converters - continued

NMXU Series 5W DC/DC Converters

Small Outline



Connections	
Single O/P	Dual O/P
1GND	GND
2+I/P	+I/P
3+O/P	+O/P
40V	OV
5-O/P	-O/P



Pin dia=1.02

- Fully encapsulated
- Industry standard pinout
- Pin compatible with NMXS0 series
- 1 kV dc isolation
- Single or dual output
- Low profile package

- Efficiency to 85%
- 5.88cm² footprint
- No heatsink required
- UL94-VO package
- No external components required
- Internal SMD construction

Input voltage range (nominal 5, 12V)

±10%

Load voltage regulation (10% to 100% full load)

5V output types

7% typ.

12 and 15V output types

5% typ.

Line voltage regulation (10% to 100% full load)

1.1%

Output voltage accuracy

5%, -2.5%

Output ripple and noise

125mV pk to pk

Operating temperature

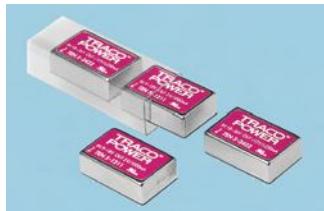
-25°C to 70°C

V in (Nominal)	V out	Output Current	Mfrs. List No.	Order Code
Single Output				
5	5	1A	NMXS0505UC	102-1565
5	12	417mA	NMXS0512UC	102-1567
5	15	333mA	NMXS0515UC	102-1569
12	5	1A	NMXS1205UC	102-1571
12	12	417mA	NMXS1212UC	102-1573
12	15	333mA	NMXS1215UC	102-1575
Dual Output				
5	5	500mA	NMXD0505UC	102-1551
5	12	208mA	NMXD0512UC	102-1554
5	15	167mA	NMXD0515UC	102-1556
12	5	500mA	NMXD1205UC	102-1558
12	12	208mA	NMXD1212UC	102-1560
12	15	167mA	NMXD1215UC	102-1562

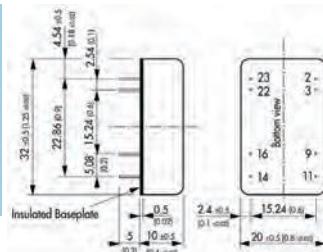
205813

Order Code	1+	5+	Price Each	10+	25+	50+
Single Output All Order Codes●	20.23	19.34	18.92	17.62	16.32	
Dual Output All Order Codes●	22.37	21.35	20.90	19.47	18.04	

TEN-5 Series, 5 Watt



TRACO POWER



- Surface mounting using SMD technology with ceramic capacitors
- Further input voltage range
- High power density
- High efficiency (up to 86%)
- Input filter for radio suppression in accordance with EN 55022, Class A
- Screened metal housing with insulated baseplate
- Industry standard pinning
- 2 years' guarantee
- In accordance with UL/UL1950, EN60950 and cUL/UL1950

Further Specifications:

continuous short circuit protection

-40/85 Working Temperature: °C to + °C, above 70°C derating 3.5 %/K

Isolation Voltage I/O:1500V dc

Mfrs.	Input-	Output-	Output-	
List No.	Voltage (Vdc)	Voltage (V dc)	Current max.	Order Code
TEN 5-1211	9-18	5	1A	120-5009
TEN 5-1212	9-18	12	500mA	120-5010
TEN 5-1222	9-18	12±	250±mA	120-5011
TEN 5-1223	9-18	15±	200±mA	120-5012
TEN 5-2411	18-36	5	1A	126-7037
TEN 5-2412	18-36	12	500mA	120-5013
TEN 5-2422	18-36	12±	250±mA	126-7038
TEN 5-2423	18-36	15±	200±mA	120-5014

STRO170G/240466

Mfrs. List No.

Order Code

Price Each

TEN 5-1211	120-5009●	18.95
TEN 5-1212	120-5010●	18.95
TEN 5-1222	120-5011●	20.65
TEN 5-1223	120-5012●	20.65
TEN 5-2411	126-7037●	18.95
TEN 5-2412	120-5013●	18.95
TEN 5-2422	126-7038●	20.65
TEN 5-2423	120-5014●	20.65

TRACO POWER

TES 5 Series

5 Watt, SMD



- Compact SMD-Package

- Wide 2:1 Input range

- Short circuit protection

- High efficiency up to 85%

- Reflow solder profile according IPC/JEDEC-J-STD-020C

- Input filter to meet EN 55022, class A

- Remote on/off

- 3 Year product warranty

Further specifications:

Regulation:

±0.3% max.

Input variation: ±1.0% max. (Single output models)

Load variation: ±2% max. (Dual output models)

Ripple & Noise: 85mV pk-pk typ. (20 MHz Bandwidth)

I/O isolation: 1500V dc

Operating temperature range: -40°C to +85°C; above 70°C derating: 3.5% / K

Mfrs List No	Input Voltage	Output Voltage	Output Current	Efficiency	Order Code
	V DC	V DC	Current max	(%)	
TES 5-1211	9 - 18	5	1A	80	144-1195
		12	420mA	83	144-1196
		±12	±210mA	83	144-1197
		±15	±165mA	83	144-1198
TES 5-2411	24 - 18	5	1A	82	144-1199
		12	420mA	85	144-1200
		±12	±210mA	85	144-1201
		±15	±165mA	85	144-1202

Pin-out	Pin	Single	Dual	Pin-out	Pin	Single	Dual
	1	Remote on/off	Remote on/off	13	No function	No function	No function
	2	-Vin (GND)	-Vin (GND)	14	+Vout	+Vout	+Vout
	3	-Vin (GND)	-Vin (GND)	15	No function	No function	No function
	9	No function	Common	16	-Vout	Common	Common
	10	No function	No function	22	+Vin (Vcc)	+Vin (Vcc)	+Vin (Vcc)
	11	No function	-Vout	23	+Vin (Vcc)	+Vin (Vcc)	+Vin (Vcc)
	12	No function	No function	24	No function	No function	No function

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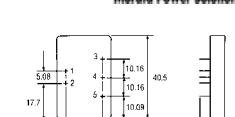
Mfrs List No	Order Code	1+	5+	10+	25+	Price Each
TES 5-1211	SMD144-1195●	20.45	18.64	17.63	16.73	
TES 5-1212	SMD144-1196●	20.45	18.64	17.63	16.73	
TES 5-1222	SMD144-1197●	21.66	19.85	18.84	17.93	
TES 5-1223	SMD144-1198●	21.66	19.85	18.84	17.93	
TES 5-2411	SMD144-1199●	20.45	18.64	17.63	16.73	
TES 5-2412	SMD144-1200●	20.45	18.64	17.63	16.73	
TES 5-2422	SMD144-1201●	21.66	19.85	18.84	17.93	
TES 5-2423	SMD144-1202●	21.66	19.85	18.84	17.93	

NMXS0 Series 5/6W DC/DC Converters

Small Outline



Connections	Single O/P	Dual O/P
Single 0/P	1+I/P	+I/P
1+V	2GND	GND
3+O/P	+O/P	OV
40V	OV	-O/P
50V	-O/P	



Pin dia.=1.02 Underside view

- Industry standard pinout
- 1kV dc isolation
- Power density 0.53w/cm³
- No heatsink required
- UL94-V-0 package material
- Single or dual output
- Pi input filter
- Efficiency to 75%

Input voltage range (nominal 5, 12V) ±10% Output voltage accuracy ±4%

Load voltage regulation (10% to 100% full load) ±0.5% Output ripple and noise ±0.5% Operating temperature -25°C to 70°C

Vin (Nominal)	Vout	Output Current	Mfrs. List No.	Order Code
Single Output				
5	5	1A	NMXS0505SOC	102-1563
5	15	400mA	NMXS0515SOC	102-1568
5	12	470mA	NMXS0512SOC	102-1566
5	15	400mA	NMXS0515SOC	102-1568
12	5	1A	NMXS1205SOC	102-1570
12	12	470mA	NMXS1212SOC	102-1572
12	15	400mA	NMXS1215SOC	102-1574

Vin (Nominal)	Vout	Output Current	Mfrs. List No.	Order Code
Dual Output				
5	±5	500mA	NMXD0505SOC	102-1550
5	±12	235mA	NMXD0512SOC	102-1553
5	±15	200mA	NMXD0515SOC	102-1555
12	±5	500mA	NMXD1205SOC	102-1557
12	±12	235mA	NMXD1212SOC	102-1559
12	±15	200mA	NMXD1215SOC	102-1561

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		Price Each				
	Order Code	1+	5+	10+	25+	50+
Single Output	All Order Codes	24.81	23.69	23.19	21.59	20.01
Dual Output	All Order Codes	31.23	29.81	29.18	27.17	25.17

6 Watt Single and Dual Output DC/DC Converters

Medical Approved



- 1600VAC Basic Isolation
- 60°C Operation with no derating
- 2µA Patient leakage current
- DIP-24 Metal Package
- EN55011 Level A with no external components

Dimensions(mm): W=31.75, H=10.4, D=20.32



PIN CONNECTIONS	Single Output	Dual Output
Pin	-Vin	-Vin
2	-Vin	-Vin
3	-Vin	-Vin
9	No Pin	Common
10	No Pin	Not Connected
11	Not Connected	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin

Input Voltage Range 12V (10-17 VDC), 24V (20-30 VDC)

Line Regulation ±0.3%

Ripple & Noise 1% pk-pk

Short Circuit Protection

5000 VDC for 10ms, 1600 VAC basic isolation for 1 min.

Isolation Voltage

-20°C to +60°C, no derating

Operating Temperature

-40°C to +100°C

Storage Temperature

Mfrs. List No.	Input Voltage	Output 1	Output 2	Efficiency	Order Code
JHM0612S05	10 to 17 V	5V, 1200mA	—	78%	167-3371
JHM0612S12	10 to 17 V	12V, 500mA	—	80%	167-3372
JHM0612S15	10 to 17 V	15V, 400mA	—	83%	167-3374
JHM0612D12	10 to 17 V	12V, 250mA	-12V, -250mA	83%	167-3375
JHM0612D15	10 to 17 V	15V, 200mA	-15V, -200mA	84%	167-3376
JHM0624S05	20 to 30 V	5V, 1200mA	—	78%	167-3377
JHM0624S12	20 to 30 V	12V, 500mA	—	83%	167-3378
JHM0624S15	20 to 30 V	15V, 400mA	—	85%	167-3379
JHM0624D12	20 to 30 V	12V, 250mA	-12V, -250mA	83%	167-3380
JHM0624D15	20 to 30 V	15V, 200mA	-15V, -200mA	83%	167-3381

526084

Order Code	1+	5+	10+	25+
Single Output All Order Codes	19.50	18.92	18.72	17.55
Dual Output All Order Codes	21.00	20.37	20.16	18.90

Technical information at your fingertips

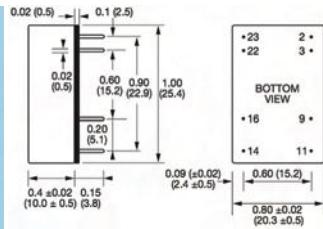
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Over 480,000 products online

**6 Watt Single and Dual Output DC/DC Converters**

JCA06 Series, Industry Standard Pinout, Smaller Package Size



Dimensions(mm): L=25.4, W=20.3, H=10.0

PIN CONNECTIONS	Single Output	Dual Output
Pin	-Vin (GND)	-Vin (GND)
2	-Vin (GND)	-Vin (GND)
3	-Vin (GND)	-Vin (GND)
9	No pin	Common
11	N/C	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin (Vcc)	+Vin (Vcc)
23	+Vin (Vcc)	+Vin (Vcc)

An innovative range of space saving 6W DC/DC converters which have industry standard 24pin DIL pinout configuration but have a smaller package size, whilst providing the same power.

- Wide 2:1 input range
- Fully regulated outputs
- 24 Pin metal case
- 1.5kVDC isolation
- Undervoltage lockout
- Indefinite short cct protection
- Input Pi filter
- UL & TUV approval
- 3 year warranty

Input Voltage Range 5 V (4.5-9.0 VDC), 12 V (9-18 VDC), 24 V (18-36 VDC), 48 V (36-75 VDC)

Undervoltage Lockout Turn On at >90% -95% of rated input. Turn Off at <80% of rated input

Line Regulation ±0.3%

Load Regulation ±1%

Ripple & Noise 50 mV pk-pk, 20MHz BW

Isolation 500 VDC Input to Case, 500 VDC Output to Case, 1500 VDC Input to Output, basic insulation

Operating Temperature -40°C to +100°C, output power derates from 100% load at +75 °C linearly to 0% load at 100°C

Safety Approvals EN60950 2001, UL60950-1, CSA C22-2 No. 60950-1-03, CE Mark LVD

Emissions EN55022, level A conducted & radiated (level B with external components)

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JCA0605S03	4.5 to 9 Vdc	3.3V, 1.52A	—	133-7125
JCA0605S05	4.5 to 9 Vdc	5V, 1A	—	133-7126
JCA0605S12	4.5 to 9 Vdc	12V, 500mA	—	133-7127
JCA0605S15	4.5 to 9 Vdc	15V, 400mA	—	133-7128
JCA0605D01	4.5 to 9 Vdc	5V dc, 0.5A	-5V dc, 0.5A	133-7131
JCA0605D02	4.5 to 9 Vdc	12V dc, 0.25A	-12V dc, 0.25A	133-7132
JCA0605D03	4.5 to 9 Vdc	15V dc, 0.2A	-15V dc, 0.2A	133-7133
JCA0612S03	9 to 18 Vdc	3.3V, 1.52A	—	133-7134
JCA0612S05	9 to 18 Vdc	5V, 1A	—	133-7135
JCA0612S12	9 to 18 Vdc	12V, 500mA	—	133-7136
JCA0612S15	9 to 18 Vdc	15V, 400mA	—	133-7137
JCA0612D01	9 to 18 Vdc	5V dc, 0.5A	-5V dc, 0.5A	133-7138
JCA0612D02	9 to 18 Vdc	12V dc, 0.25A	-12V dc, 0.25A	133-7139
JCA0612D03	9 to 18 Vdc	15V dc, 0.2A	-15V dc, 0.2A	133-7140
JCA0624S03	18 to 36 Vdc	3.3V, 1.52A	—	133-7141
JCA0624S05	18 to 36 Vdc	5V, 1A	—	133-7143
JCA0624S12	18 to 36 Vdc	12V, 500mA	—	133-7144
JCA0624S15	18 to 36 Vdc	15V, 400mA	—	133-7145
JCA0624D01	18 to 36 Vdc	5V dc, 0.5A	-5V dc, 0.5A	133-7146
JCA0624D02	18 to 36 Vdc	12V dc, 0.25A	-12V dc, 0.25A	133-7147
JCA0624D03	18 to 36 Vdc	15V dc, 0.2A	-15V dc, 0.2A	133-7148
JCA0648S03	36 to 75 Vdc	3.3V, 1.52A	—	133-7149
JCA0648S05	36 to 75 Vdc	5V, 1A	—	133-7150
JCA0648S12	36 to 75 Vdc	12V, 500mA	—	133-7151
JCA0648S15	36 to 75 Vdc	15V, 400mA	—	133-7152
JCA0648D01	36 to 75 Vdc	5V dc, 0.5A	-5V dc, 0.5A	133-7153
JCA0648D02	36 to 75 Vdc	12V dc, 0.25A	-12V dc, 0.25A	133-7155
JCA0648D03	36 to 75 Vdc	15V dc, 0.2A	-15V dc, 0.2A	133-7156

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Order Code	1+	5+	10+	25+
Single Output All Order Codes	17.50	16.98	16.45	15.75
Dual Output All Order Codes	18.00	17.46	16.92	16.20

6 Watt Ultra Wide Input DC/DC Converters

Single and Dual Output - JTC06 Series



Dimensions(mm): L=31.75, W=21.35, H=10.5

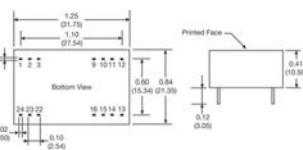


PCB Mount - DC to DC Converters - continued

6 Watt Ultra Wide Input DC/DC Converters - continued

Single and Dual Output - JTC06 Series - continued

PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	-Vin	-Vin
2	-Vin	-Vin
9	No Pin	Common
11	N/C	-Vout
14	+Vout	+Vout
16	-Vout	Common
23	+Vin	+Vin
24	+Vin	+Vin



A new range of high specification converters with an ultra wide, 4:1 input range and output voltages from 3.3 to 24VDC with extremely low ripple and noise compared to many DC/DC converters. The metal case reduces radiated emissions and ensures an even heat dissipation in all directions and helps ensure stable operation at high ambient temperatures. 1500VDC input to output isolation and continuous short circuit protection are standard

- Ultra Wide Input Range (4:1)
- Fully Regulated Outputs
- High MTBF >1 million hours
- Continuous Short Circuit Protection
- Dip-24 Metal Case
- 1500VDC Isolation
- 3 year warranty

Input Voltage Range 24V (9-36 VDC), 48V (18-72 VDC)
 Line Regulation $\pm 0.5\%$ max
 Load Regulation $\pm 0.5\%$ max
 Ripple & Noise 60 mV pk-pk for 3.3 V to 15 V models, 100 mV pk-pk for 18 V models,
 150 mV pk-pk for 24 V models, 20 MHz BW
 Short Circuit Protection Trip & restart (hiccup) with auto recovery
 Efficiency 74-84%
 Isolation Voltage 1500 VDC Input to Output
 MTBF >1 MHrs to MIL-STD-217F
 Operating Temperature -40°C to +100°C, derate from 100% load at +85°C to no load at +100°C
 Case Temperature +100°C max

Mfrs.	Input Voltage (V)	Output Voltage (V)	Output Current	Order Code
JTC062453V3	9 - 36	3.3	1.4A	143-5468
JTC0624S05	9 - 36	5	1.2A	143-5469
JTC0624S12	9 - 36	12	500mA	143-5470
JTC0624S15	9 - 36	15	400mA	143-5471
JTC0624D03	9 - 36	± 3.3	$\pm 900\text{mA}$	143-5472
JTC0624D05	9 - 36	± 5	$\pm 600\text{mA}$	143-5473
JTC0624D12	9 - 36	± 12	$\pm 250\text{mA}$	143-5475
JTC0624D15	9 - 36	± 15	$\pm 200\text{mA}$	143-5476
JTC0648S3V3	18 - 72	3.3	1.4A	143-5477
JTC0648S05	18 - 72	5	1.2A	143-5478
JTC0648S12	18 - 72	12	500mA	143-5479
JTC0648S15	18 - 72	15	400mA	143-5480
JTC0648D03	18 - 72	± 3.3	$\pm 900\text{mA}$	143-5481
JTC0648D05	18 - 72	± 5	$\pm 600\text{mA}$	143-5482
JTC0648D12	18 - 72	± 12	$\pm 250\text{mA}$	143-5483
JTC0648D15	18 - 72	± 15	$\pm 200\text{mA}$	143-5484

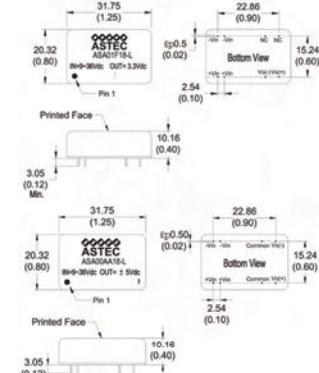
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Price Each

Order Code	1+	5+	10+	25+
Single Output All Order Codes	20.00	19.40	18.80	18.00
Dual Output All Order Codes	21.00	20.37	19.74	18.90

6W ASA Series DC/DC Converters

Single and Dual Output



- Encapsulated
- Wide 4:1 input range
- 1500 Vdc I/O isolation
- DIP package
- Single and Dual output available

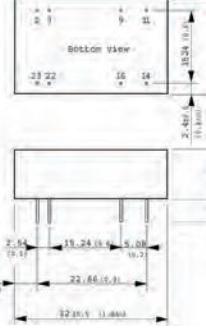
Line Regulation	0.5%	Isolation Voltage	1500 Vdc min	
Load Regulation	$\pm 0.5\%$	Efficiency	81%	
Operating Temperature	-40°C to +71°C			
Mfrs List No.	Input Voltage	Output 1	Output 2	
ASA01A18-L	9V dc - 36V dc	5V, 1A	—	121-4851
ASA00B18-L	9V dc - 36V dc	12V, 500mA	—	126-1943
ASA00C18-L	9V dc - 36V dc	15V, 400mA	—	121-4852
ASA00AA18-L	9V dc - 36V dc	5V, 500mA	-5V, 500mA	126-1944
ASA00BB18-L	9V dc - 36V dc	12V, 250mA	-12V, 250mA	126-1945
ASA00CC18-L	9V dc - 36V dc	15V, 200mA	-15V, 200mA	121-4853

ASA01A36-L	18V dc - 75V dc	5V, 1A	—	126-1947
ASA00B36-L	18V dc - 75V dc	12V, 500mA	—	126-1948
ASA00C36-L	18V dc - 75V dc	15V, 400mA	—	126-1949
ASA00BB36-L	18V dc - 75V dc	12V, 250mA	-12V, 250mA	126-1951
ASA00CC36-L	18V dc - 75V dc	15V, 200mA	-15V, 200mA	126-1953

444753

Mfrs.	Order Code	1+	5+	10+	20+	50+
ASA01A18-L	121-4851●	15.80	14.85	14.22	13.43	12.96
ASA00B18-L	126-1943●	15.80	14.85	14.22	13.43	12.96
ASA00C18-L	121-4852●	15.80	14.85	14.22	13.43	12.96
ASA00AA18-L	126-1944●	17.35	16.31	15.61	14.75	14.23
ASA00BB18-L	126-1945●	17.35	16.31	15.61	14.75	14.23
ASA00CC18-L	121-4853●	17.35	16.31	15.61	14.75	14.23
ASA01A36-L	126-1947●	15.80	14.85	14.22	13.43	12.96
ASA00B36-L	126-1948●	15.80	14.85	14.22	13.43	12.96
ASA00C36-L	126-1949●	15.80	14.85	14.22	13.43	12.96
ASA00BB36-L	126-1951●	17.35	16.31	15.61	14.75	14.23
ASA00CC36-L	126-1953●	17.35	16.31	15.61	14.75	14.23

TEL-5 Series, 6 Watt



- DC/DC convertor in SMD design
- Wide 2:1 input range
- High efficiency
- Indefinite short circuit protection
- 24-pin plastic package
- 3 year manufacturer's warranty

Input Variation	Output Voltage	Output Current	Mfrs. List No.	Order Code
±0.3% Max.	3.3V	1.2A	TEL 5-1210	119-6491
±1.0% Max. (single output models)	5V	1A	TEL 5-1211	120-4967
±1.0% max. (dual output models)	12V	500mA	TEL 5-1212	120-4969
75mV pk-pk typ.	±12V	±250mA	TEL 5-1222	120-4971
77 typ.	±15V	±200mA	TEL 5-1223	120-4972
1500V dc	12V	1.2A	TEL 5-2410	119-6493
-25°C to +71°C (no derating)	5V	1A	TEL 5-2411	124-2622
EN/IEC 60950, UL/cUL 1950 recognised	12V	500mA	TEL 5-2412	124-2624
	±12V	±250mA	TEL 5-2422	120-4973
	±15V	±200mA	TEL 5-2423	120-4974

337979

Mfrs.	Order Code	1+	5+	10+	25+
TEL 5-1210	119-6491●	15.90	14.72	13.83	12.99
TEL 5-1211	120-4967●	15.90	14.72	13.83	12.99
TEL 5-1212	120-4969●	15.90	14.72	13.83	12.99
TEL 5-1222	120-4971●	17.80	16.47	15.49	14.57
TEL 5-1223	120-4972●	17.80	16.47	15.49	14.57
TEL 5-2410	119-6493●	15.90	14.72	13.83	12.99
TEL 5-2411	124-2622●	15.90	14.72	13.83	12.99
TEL 5-2412	124-2624●	15.90	14.72	13.83	12.99
TEL 5-2422	120-4973●	17.80	16.47	15.49	14.57
TEL 5-2423	120-4974●	17.80	16.47	15.49	14.57

Price Each

Mfrs List No.	Input Voltage	Output 1	Output 2	Order Code
ASA01A18-L	9V dc - 36V dc	5V, 1A	—	121-4851
ASA00B18-L	9V dc - 36V dc	12V, 500mA	—	126-1943
ASA00C18-L	9V dc - 36V dc	15V, 400mA	—	121-4852
ASA00AA18-L	9V dc - 36V dc	5V, 500mA	-5V, 500mA	126-1944
ASA00BB18-L	9V dc - 36V dc	12V, 250mA	-12V, 250mA	126-1945
ASA00CC18-L	9V dc - 36V dc	15V, 200mA	-15V, 200mA	121-4853

Further specifications:	Regulation:	$\pm 0.3\%$ max.
	Input variation:	$\pm 2.0\%$ max.
	Load variation:	75mV pk-pk typ. (20 MHz Bandwidth)
	Ripple and noise:	1500V dc
	I/O Isolation:	-40°C bis +85°C; above 70°C power reduction 3.5% / K
	Operating temperature:	Prices are in £ sterling & exclusive of VAT

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Efficiency typ.	Order Code
TEN 5-2410WI	V dc	V dc	(max.)	(%)	
TEN 5-2411WI	9 - 36	3.3	1.2A	76	100-7472
TEN 5-2412WI		5	1A	79	100-7473
TEN 5-2412WI		12	500mA	84	100-7474
TEN 5-2421WI		±5	±500mA	79	100-7475
TEN 5-2422WI		±12	±250mA	84	100-7477
TEN 5-2423WI		±15	±200mA	83	100-7478
TEN 5-4810WI	18 - 75	3.3	1.2A	76	100-7479
TEN 5-4811WI		5	1A	79	100-7480
TEN 5-4812WI		12	500mA	84	100-7481
TEN 5-4821WI		±5	±500mA	79	100-7482
TEN 5-4822WI		±12	±250mA	84	100-7483
TEN 5-4823WI		±15	±200mA	83	100-7484

Pinout	Pin	Single	Dual	Pinout	+Vout	+Vout
	2	-Vin (GND)	-Vin (GND)	14	+Vout	+Vout
	3	-Vin (GND)	-Vin (GND)	16	-Vout	Common
	9	No Pin	Common	22	+Vin (Vcc)	+Vin (Vcc)
	11	No Function	-Vout	23	+Vin (Vcc)	+Vin (Vcc)

415100

Price Each					
Mfrs. List No.	Order Code	1+	5+	10+	25+
TEN 5-2410WI	100-7472●	24.15	22.70	21.74	20.82
TEN 5-2411WI	100-7473●	20.35	19.13	18.31	17.53
TEN 5-2412WI	100-7474●	20.35	19.13	18.31	17.53
TEN 5-2421WI	100-7475●	20.65	19.83	18.80	17.15
TEN 5-2422WI	100-7477●	21.55	20.25	19.39	18.57
TEN 5-2423WI	100-7478●	21.55	20.25	19.39	18.57
TEN 5-4810WI	100-7479●	24.33	23.35	22.15	20.19
TEN 5-4811WI	100-7480●	20.35	19.13	18.31	17.53
TEN 5-4812WI	100-7481●	20.35	19.13	18.31	17.53
TEN 5-4821WI	100-7482●	20.65	19.83	18.80	17.15
TEN 5-4822WI	100-7483●	21.55	20.25	19.39	18.57
TEN 5-4823WI	100-7484●	21.55	20.25	19.39	18.57

415100

7W DC/DC Converters Single and Dual Output



H=10.5, W=25.4, D=50.8

- High specification
- Wide input voltage
- Output voltage adjustment
- Inhibit control
- No load and short circuit proof
- Input-output isolation 1500V dc
- Load regulation ±1% ±3% (dual outputs)
- Line regulation ±1%
- Operating temperature -25°C to +71°C
- Emissions EN55022 level B safety EN60950

Mfrs	List No.	(nominal) Vin	Output 1	Output 2
20IMX7-05-8	24V dc 8.4-36V dc	5.1V 1.2A	—	
20IMX7-05-05-8	24V dc 8.4-36V dc	5V 600mA	5V 600mA	
20IMX7-12-12-8	24V dc 8.4-36V dc	12V 250mA	12V 250mA	
40IMX7-05-8	48V dc 16.8-75V dc	5.1V 1.2A	—	
40IMX7-1212-8	48V dc 16.8-75V dc	12V 300mA	12V 300mA	

For full specification and pin out details contact our Data Department.

205826

Mfrs. List No.	Order Code	1+	5+	10+	20+	30+	50+	Price Each
20IMX7-05-8	121-5419	55.09	53.98	52.35	50.83	48.13	46.43	
20IMX7-05-05-8	121-5420	55.09	53.98	52.35	50.83	48.13	46.43	
20IMX7-12-12-8	121-5421	55.09	53.98	52.35	50.83	48.13	46.43	
40IMX7-05-8	121-5422	55.09	53.98	52.35	50.83	48.13	46.43	
40IMX7-1212-8	121-5423	55.09	53.98	52.35	50.83	48.13	46.43	

7-20W DC/DC Converter - Dual O/P



BWR Series



- Proven SMT-on-pcb construction
- Qual tested; HALT tested; EMC tested
- Designed to meet UL/EN60950
- Industry-standard pinouts
- Fully isolated, 1500Vdc guaranteed
- Guaranteed efficiencies to 82%
- 40 to 100°C operating temperature
- Output voltages: ±5, ±12 or ±15 Volts
- Wide input voltage ranges: 4.7-7.25V, 9-

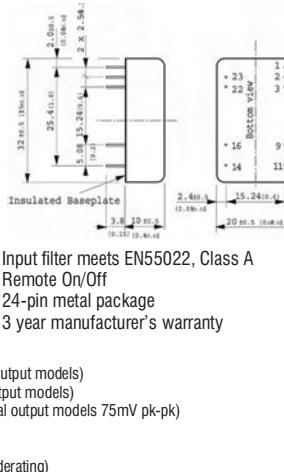
18V or 18-75V

Nominal Input Voltage	Output Voltage	Output Current	Dimensions (WxhxD)	Mfrs.	List No.	Order Code
5V dc (4.7 - 7.25V dc)	±5V	±700mA	25x51x9.5	BWR	5-700-D5A-C	142-3455
5V dc (4.7 - 7.25V dc)	±15V	±275mA	25x51x9.5	BWR	5-275-D5A-C	142-3450
12V dc (9 - 18V dc)	±15V	±330mA	25x51x9.5	BWR	15-330-D12A-C	142-3451
24V dc (9 - 36V dc)	±12V	±830mA	51x51x14.4	BWR	12-830-D12A-C	142-3449
24V dc (9 - 36V dc)	±15V	±670mA	51x51x14.4	BWR	15-670-D12A-C	142-3453
48V dc (18 - 75V dc)	±12V	±415mA	25x51x9.5	BWR	12-415-D48A-C	142-3448
48V dc (18 - 75V dc)	±15V	±330mA	25x51x9.5	BWR	15-330-D48A-C	142-3454
48V dc (18 - 75V dc)	±15V	±670mA	51x51x14.4	BWR	15-670-D48A-C	142-3455

479390

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
BWR-12/415-D48A-C	142-3448●	40.46	39.30	38.21	
BWR-12/830-D12A-C	142-3449●	70.05	68.10	66.21	
BWR-15/275-D5A-C	142-3450●	57.83	56.18	54.63	
BWR-15/330-D12A-C	142-3451●	57.83	56.18	54.63	
BWR-15/330-D48A-C	142-3452●	57.26	55.61	54.07	
BWR-15/670-D12A-C	142-3453●	70.10	68.10	66.21	
BWR-15/670-D48A-C	142-3454●	75.37	73.21	71.18	
BWR-5/700-D5A-C	142-3455●	57.83	56.18	54.63	

TEN-8 Series, 8 Watt



- DC/DC converter in SMD design
- Wide 2:1 input range
- High efficiency
- Indefinite short circuit protection
- Input filter meets EN55022, Class A
- Remote On/Off
- 24-pin metal package
- 3 year manufacturer's warranty

Input Variation	±0.2% Max.
Load Variation	±0.2% Max. (single output models)
Ripple & Noise	±1.0% max. (dual output models)
Efficiency	50mV pk-pk typ. (dual output models) 75mV pk-pk
I/O Isolation	1500V dc
Operating Temperature	-40°C - +85°C, (no derating)
Safety Standards/Approval	EN/IEC 60950, UL/cUL 1950 recognised

Mfrs.	Order Code	1+	5+	10+	25+	Price Each
TEN 8-1211	120-5015●	20.15	18.95	18.14	17.37	
TEN 8-1212	120-5017●	20.15	18.95	18.14	17.37	
TEN 8-1222	124-2569●	22.30	20.97	20.07	19.21	
TEN 8-1223	120-5021●	22.30	20.97	20.07	19.21	
TEN 8-2410	119-6494●	24.73	23.75	22.51	20.53	
TEN 8-2411	120-5022●	20.15	18.95	18.14	17.37	
TEN 8-2412	120-5023●	20.15	18.95	18.14	17.37	
TEN 8-2422	120-5025●	22.30	20.97	20.07	19.21	
TEN 8-2423	120-5026●	22.30	20.97	20.07	19.21	
TEN 8-4810	119-6495●	24.73	23.75	22.51	20.53	
TEN 8-4811	120-5027●	22.37	21.47	20.35	18.57	
TEN 8-4812	120-5028●	22.37	21.47	20.35	18.57	
TEN 8-4822	120-5029●	24.73	23.75	22.51	20.53	

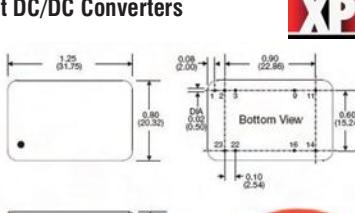
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8 Watt Single and Dual Output DC/DC Converters

Compact DIP-24 Package



Dimensions(mm): H=10.40, W=31.75, D=20.32



PIN CONNECTIONS
Pin Single Output Dual Output
2 -Vin -Vin
3 -Vin -Vin
9 No Pin Common
11 Not Connected -Vout
14 +Vout +Vout
16 -Vout Common
22 +Vin +Vin
23 +Vin +Vin

- 2:1 Input Range
- DIP-24 Metal Package
- 1500 VDC Isolation
- Efficiency up to 85%
- Continuous Short Circuit Protection
- 40°C to 100°C Operating Temperature
- 3 year warranty



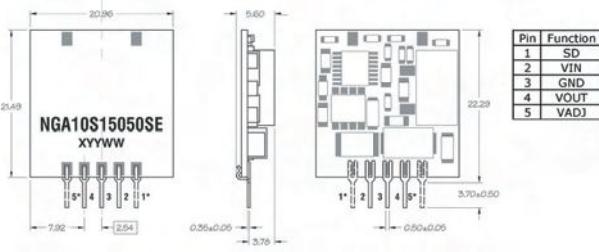
PCB Mount - DC to DC Converters - continued

8 Watt Single and Dual Output DC/DC Converters - continued

Compact DIP-24 Package - continued

Input Voltage Range 12 V (9-18 VDC), 24 V (18-36 VDC), 48 V (36-75 VDC)
 Line Regulation $\pm 0.5\%$ max.
 Load Regulation $\pm 0.7\%$ for 3.3 V models, $\pm 0.5\%$ for all other models
 Ripple & Noise 75 mV pk-pk, 20MHz BW
 Isolation Voltage 1500 VDC Input to Output, 1000 VDC Input to Case, 1000 VDC Output to Case
 Operating Temperature -40°C to $+100^{\circ}\text{C}$, derate from 100% load at $+60^{\circ}\text{C}$ to no load at $+100^{\circ}\text{C}$
 Short Circuit Protection Trip & restart (hiccup) with auto recovery
 MTBF >0.9 MHrs to MIL-STD-217F

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JCJ0812S3V3	9.0 to 18 Vdc	3.3V, 2A	—	163-7845
JCJ0812S05	9.0 to 18 Vdc	5V, 1.5A	—	163-7846
JCJ0812S12	9.0 to 18 Vdc	12V, 665mA	—	163-7847
JCJ0812S15	9.0 to 18 Vdc	15V, 535mA	—	163-7849
JCJ0812D05	9.0 to 18 Vdc	5.0V, 0.800A	-5.0V, -0.800A	163-7851
JCJ0812D12	9.0 to 18 Vdc	12V, 0.335A	-12V, -0.335A	163-7852
JCJ0812D15	9.0 to 18 Vdc	15V, 0.265A	-15V, -0.265A	163-7853
JCJ0824S3V3	18 to 36 Vdc	3.3V, 2A	—	163-7854
JCJ0824S05	18 to 36 Vdc	5V, 1.5A	—	163-7855
JCJ0824S12	18 to 36 Vdc	12V, 665mA	—	163-7856
JCJ0824S15	18 to 36 Vdc	15V, 535mA	—	163-7857
JCJ0824D05	18 to 36 Vdc	5.0V, 0.800A	-5.0V, -0.800A	163-7858
JCJ0824D12	18 to 36 Vdc	12V, 0.335A	-12V, -0.335A	163-7859
JCJ0824D15	18 to 36 Vdc	15V, 0.265A	-15V, -0.265A	163-7860
JCJ0848S3V3	36 to 75 Vdc	3.3V, 2A	—	163-7862
JCJ0848S05	36 to 75 Vdc	5V, 1.5A	—	163-7863
JCJ0848S12	36 to 75 Vdc	12V, 665mA	—	163-7864
JCJ0848S15	36 to 75 Vdc	15V, 535mA	—	163-7865
JCJ0848D05	36 to 75 Vdc	5.0V, 0.800A	-5.0V, -0.800A	163-7866
JCJ0848D12	36 to 75 Vdc	12V, 0.335A	-12V, -0.335A	163-7867
JCJ0848D15	36 to 75 Vdc	15V, 0.265A	-15V, -0.265A	163-7868



S - Version (pins 1 & 5 not fitted)

Nominal Voltage Power	Voltage Output	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
15V dc (7 - 28V dc)	5V	0.0A	2.0A	21x21.5x6	NGA10S15050SC 38598

Mfrs. List No.	Order Code	1+	10+	25+	50+
NGA10S15050SC	117-5766●	16.78	16.44	16.12	15.81

Isolated 10W Single Output DC/DC Converters

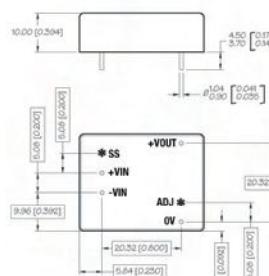
NPH10S Series



Nominal Input Voltage 24 V
 Input Voltage Range 18-36 V
 Load Voltage Regulation 1% (max)
 Output Ripple & Noise 70mV (typ.)
 Efficiency 79-87%
 Operating Temperature 110° (case)



- Surge rating to 12W
- Output voltage adjust
- Versatile control options
- Uses no electrolytic capacitors
- Fixed frequency
- High efficiency
- Operation to zero load
- Industry standard pinout
- NPH10S "Ei" range offers two additional pins with the functionalities of voltage trim, remote on/off and synchronisation



Nominal Input Voltage	Output Voltage	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
24V dc	3.4V dc	2.94A	32x10x25	NPH10S2403ICi	117-5761
24V dc	5.1V dc	1.96A	32x10x25	NPH10S2405EiCi	117-5755
24V dc	5.1V dc	1.96A	32x10x25	NPH10S2405ICi	117-5763
24V dc	12.1V dc	830mA	32x10x25	NPH10S2412ICi	117-5764

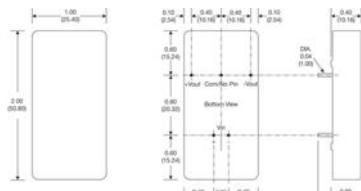
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Mfrs. List No.	Order Code	1+	10+	25+	50+
NPH10S2403IC	117-5761●	16.47	16.04	15.59	15.03
NPH10S2405EiCi	117-5755●	24.86	24.21	23.54	22.69
NPH10S2405ICi	117-5763●	24.86	24.21	23.54	22.69
NPH10S2412ICi	117-5764●	24.86	24.21	23.54	22.69

386109

10 Watt High Reliability DC/DC Converters

Single and Dual Output - JCH10 Series



Dimensions(mm): L=50.8, W=25.4, H=10.16

A new, high performance product in an industry standard package and pinout offering a wide input range and output voltages of 3.3V to 24V, single and dual. The maximum operating temperature of 100°C (without derating until 85°C) together with input to output isolation of 1500VDC as standard and a high MTBF of >1.1million hours, make this a robust industrial grade product

- Industry Standard Package
- Wide Input Range (2:1)
- Efficiency up to 86%
- Single and Dual Outputs
- Continuous Short Circuit Protection
- 1500VDC Isolation
- 3 year warranty

Non-Isolated Wide Input DC/DC Converter

NGA Series



- Industry standard footprint
- Short circuit protection
- Efficiency to 95%
- Wide input range
- 5V output
- Line regulation 0.2% typ. 0.5% max.
- Load regulation 1.5% typ. 2.0% max.
- 70 mVpk-pk max. (20MHz Bandwidth)
- Operating temperature range -40°C to 85°C
- SMD construction

Input Voltage Range	12 VDC (9-18 VDC) 24 VDC (18-36 VDC) 48 VDC (36-72 VDC)
Line Regulation	±0.5%
Load Regulation	±0.5%
Ripple & Noise	100 mV pk-pk for 3.3 V to 15 V models 150 mV pk-pk for 24 V models 20 MHz BW
Short Circuit Protection	Trip & restart (hiccup mode) with auto recovery
Isolation Voltage	1500 VDC Input to Output
Operating Temperature	-40°C to +100°C, derate from 100% load at +85°C to 0% load at +100°C
Case Temperature	+100°C max
Storage Temperature	-40°C to +125°C

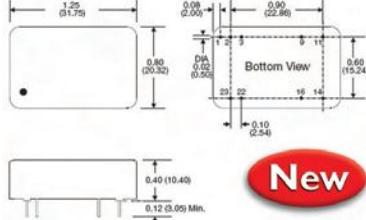
Mfrs.	Input Voltage (V)	Output Voltage (V)	Output Current	Order Code
List No.*				
JCH1012S3V3	9 - 18	3.3	2A	143-5501
JCH1012S05	9 - 18	5	2A	143-5502
JCH1012S12	9 - 18	12	833mA	143-5503
JCH1012S15	9 - 18	15	666mA	143-5505
JCH1012D03	9 - 18	±3.3	±1000mA	143-5506
JCH1012D05	9 - 18	±5	±1000mA	143-5507
JCH1012D12	9 - 18	±12	±416mA	143-5508
JCH1012D15	9 - 18	±15	±333mA	143-5509
JCH1024S3V3	18 - 36	3.3	2A	143-5510
JCH1024S05	18 - 36	5	2A	143-5511
JCH1024S12	18 - 36	12	833mA	143-5512
JCH1024S15	18 - 36	15	666mA	143-5513
JCH1024D03	18 - 36	±3.3	±1000mA	143-5514
JCH1024D05	18 - 36	±5	±1000mA	143-5515
JCH1024D12	18 - 36	±12	±416mA	143-5517
JCH1024D15	18 - 36	±15	±333mA	143-5518
JCH1048S3V3	36 - 72	3.3	2A	143-5519
JCH1048S05	36 - 72	5	2A	143-5520
JCH1048S12	36 - 72	12	833mA	143-5521
JCH1048S15	36 - 72	15	666mA	143-5522
JCH1048D03	36 - 72	±3.3	±1000mA	143-5523
JCH1048D05	36 - 72	±5	±1000mA	143-5524
JCH1048D12	36 - 72	±12	±416mA	143-5525
JCH1048D15	36 - 72	±15	±333mA	143-5526

492777

Price Each				
Order Code	1+	5+	10+	25+
Single Output All Order Codes●	22.00	21.34	20.68	19.80
Dual Output All Order Codes●	21.60	20.95	20.30	19.44

10 Watt Single and Dual Output DC/DC Converters

Compact DIP-24 Package

Dimensions(mm): H=10.40, W=31.75,
D=20.32

PIN CONNECTIONS		
Pin	Single Output	Dual Output
2	-Vin	-Vin
3	-Vin	-Vin
9	No Pin	Common
11	Not Connected	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin

10 Watt DC/DC converter in an industry standard DIP-24 metal case with a wide 2:1 input range, single and dual outputs, featuring 1500VDC isolation (input to output) and continuous short circuit protection. This robust, high reliability, industrial grade product is suitable for a wide range of applications.

- 2:1 Input Range
- DIP-24 Metal Package
- 1500 VDC Isolation
- Efficiency up to 90%
- Continuous Short Circuit Protection
- -40°C to 100°C Operating Temperature
- 3 year warranty

Input Voltage Range 12 V (9-18 VDC), 24 V (18-36 VDC), 48 V (36-72 VDC)

Line Regulation ±0.5% max.

Load Regulation ±0.7% for 2.5-3.3 V models, ±0.5% for all other models

Ripple & Noise 85 mV pk-pk, 20MHz BW

Isolation Voltage 1500 VDC Input to Output, 1000 VDC Input to Case, 1000 VDC Output to Case

Operating Temperature -40°C to +100°C, derate from 100% load at +85°C to no load at +100°C

Short Circuit Protection Trip & restart (hiccup) with auto recovery

MTBF >1.1 MHrs to MIL-STD-217F

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JCJ1012S2V5	9.0 to 18 Vdc	2.5V, 3A	-	163-7869
JCJ1012S3V3	9.0 to 18 Vdc	3.3V, 3A	-	163-7870
JCJ1012S05	9.0 to 18 Vdc	5V, 2A	-	163-7871
JCJ1012S12	9.0 to 18 Vdc	12V, 833mA	-	163-7872
JCJ1012S15	9.0 to 18 Vdc	15V, 667mA	-	163-7874
JCJ1012D12	9.0 to 18 Vdc	12V, 0.416A	-12V, -0.416A	163-7875
JCJ1012D15	9.0 to 18 Vdc	15V, 0.333A	-15V, -0.333A	163-7876
JCJ1024S2V5	9.0 to 18 Vdc	2.5V, 3A	-	163-7877
JCJ1024S3V3	18 to 36 Vdc	3.3V, 3A	-	163-7878
JCJ1024S12	18 to 36 Vdc	5V, 2A	-	163-7879
JCJ1024S15	18 to 36 Vdc	12V, 833mA	-	163-7881
JCJ1024D12	18 to 36 Vdc	12V, 0.416A	-12V, -0.416A	163-7882
JCJ1024D15	18 to 36 Vdc	15V, 0.333A	-15V, -0.333A	163-7883
JCJ1048S2V5	36 to 75 Vdc	2.5V, 3A	-	163-7884
JCJ1048S3V3	36 to 75 Vdc	3.3V, 3A	-	163-7886
JCJ1048S05	36 to 75 Vdc	5V, 2A	-	163-7887
JCJ1048S12	36 to 75 Vdc	12V, 833mA	-	163-7888
JCJ1048S15	36 to 75 Vdc	15V, 667mA	-	163-7889
JCJ1048D12	36 to 75 Vdc	12V, 0.416A	-12V, -0.416A	163-7890
JCJ1048D15	36 to 75 Vdc	15V, 0.333A	-15V, -0.333A	163-7891

Order Code	1+	5+	10+	25+
Single Output All Order Codes●	22.00	21.34	20.68	19.80
Dual Output All Order Codes●	24.00	23.28	22.56	21.60

520453

10W ASA Series DC/DC Converters

Single Output



- Encapsulated
- 2:1 input range
- 1500 V dc I/O isolation

- DIP package
- Single output

Line Regulation 0.8%
Load Regulation ±1.2%
Operating Temperature -40°C to +60°C

Isolation Voltage 1500 Vdc min
Efficiency 83%

Mfrs List No.	Input Voltage	Output	Order Code
ASA03G24-L	18V dc - 36V dc	2.5V , 3A	126-1954
ASA03F24-L	18V dc - 36V dc	3.3V , 3A	126-1955
ASA02A24-L	18V dc - 36V dc	5V , 2A	126-1956
ASA00B24-L	18V dc - 36V dc	12V , 835mA	126-1957
ASA03G48-L	36V dc - 75V dc	2.5V , 3A	126-1958
ASA02A48-L	36V dc - 75V dc	5V , 2A	126-1960
ASA00B48-L	36V dc - 75V dc	12V , 835mA	126-1961

44754

Mfrs.	Order Code	1+	5+	10+	20+	50+
ASA03G24-L	126-1954●	18.730	17.610	16.860	16.140	15.450
ASA03F24-L	126-1955●	15.610	14.881	14.535	14.205	13.889
ASA02A24-L	126-1956●	25.500	23.970	22.950	21.680	20.910
ASA00B24-L	126-1957●	25.500	23.970	22.950	21.680	20.910
ASA03G48-L	126-1958●	24.230	22.770	21.800	20.600	19.870
ASA02A48-L	126-1960●	16.580	15.590	14.920	14.290	13.889
ASA00B48-L	126-1961●	24.230	22.770	21.800	20.600	19.870

Price Each					
Order Code	1+	5+	10+	20+	50+
THD 10-2409	124-2720●	25.15	23.64	22.63	21.66
THD 10-2410	124-2721●	25.15	23.64	22.63	21.66
THD 10-2412	124-2722●	25.15	23.64	22.63	21.66
THD 10-4809	124-2723●	34.46	33.08	31.35	28.60
THD 10-4810	124-2724●	23.52	22.88	22.28	21.71
THD 10-4811	124-2725●	25.15	23.64	22.63	21.66

385724

Austin MiniLynx 10/15 W

Programmable, 3 A



- compact, uninsulated 3 A SMD DC/DC converter
- RoHS-compliant (Directive 2002/95/EC)
- Pin-compatible for MicroLynx Series™
- Output voltage programmable between 0.75 and 3.3 or 5.0 V DC (via external resistor)
- High efficiency up to 94%
- wide operating temperature range from -40°C to +85°C



PCB Mount - DC to DC Converters - continued

Austin MiniLynx 10/15 W - continued

Programmable, 3 A - continued

- Output overcurrent protection, with automatic restarting
- constant switching frequency of 300 kHz
- low noise/residual ripple
- Remote On/Off input (positive or negative logic)
- Safety approvals in accordance with: UL 60959-1, CSA22.2 No. 60950-1-03 and VDE 0805:2001-12 (EN60950-1)

Dimensions (mm):

Type	H	W	D			
MiniLynx Serie	7.27	20.3	11.4			
Type	Output Power Max.	Input Voltage	Output Voltage	Output Current Max.	Remote On/Off Logic	Order Code
AXH003A0X-SR	10	2.4-5.5	0.75-3.3		negative	802-5363
AXH003A0X4-SR				3	positive	802-5398
AXA003A0X-SR	15	8.3-14	0.75-5		negative	802-5371
AXA003A0X4-SR					positive	802-5380

Mfrs.	Price Each			
List No.	Order Code	1+	10+	25+
AXH003A0X-SR	802-5363●	5.62	5.00	4.50
AXH003A0X4-SR	802-5398●	3.65	3.25	2.92
AXA003A0X-SR	802-5371●	7.53	6.69	6.02
AXA003A0X4-SR	802-5380●	3.87	3.43	3.09

10-20W DC/DC Converters - Triple O/P

TWR Series



- Proven SMT-on-pcb construction
- Qual tested; HALT tested; EMC tested
- Output voltage: +5V±12V or +5V±15V
- Input voltage range: 9-36V or 18-75V
- -40 to 100°C operating temperature
- Fully isolated, 1500Vdc guaranteed
- Guaranteed efficiencies to 82%

Power	Voltage	Dimensions	Mfrs.	
10W	5V/1A	12V/210mA	-12V/210mA	25x51x9.5 TWR-5/1000-12/210-D24A-C
11W	5V/1A	15V/200mA	-15V/200mA	25x51x9.5 TWR-5/1000-15/200-D24A-C
20W	5V/3A	12V/500mA	-12V/500mA	51x51x11.4 TWR-5/3000-12/500-D12A-C
20W	5V/3A	15V/500mA	-15V/500mA	51x51x11.4 TWR-5/3000-15/500-D12A-C
20W	5V/3A	15V/500mA	-15V/500mA	51x51x11.4 TWR-5/3000-15/500-D48A-C

479400

Mfrs. List No.	Order Code	1+	5+	10+	
TWR-5/1000-12/210-D24A-C	142-3464●	59.58	57.88	56.27	
TWR-5/1000-15/200-D24A-C	142-3465●	59.58	57.88	56.27	
TWR-5/3000-15/500-D12A-C	142-3466●	73.03	70.94	68.96	
TWR-5/3000-12/500-D12A-C	142-3467●	73.03	70.94	68.96	
TWR-5/3000-15/500-D48A-C	142-3468●	73.03	70.94	68.96	

10-40W Industry Standard Single, Dual and Triple Output



- Single, Dual and Triple output 10-20W (PXD Series), 20-30W (PXE Series) and 40W (PXF Series) DC/DC converters
- Industry standard 2"x1" footprint (PXD series), 2"x1.6" (PXE Series), 2"x2" (PXF Series)
- Six sided shielding
- Agency approval
- Nominal 12V, 24V and 48V inputs
- Up to 4:1 input range available
- Applications include Telecom, Datacom and Point of Load

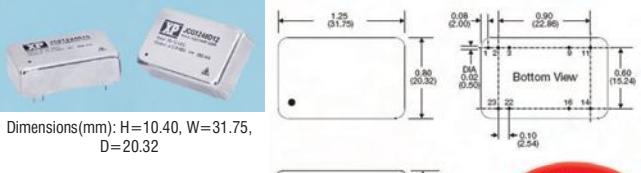
Output Voltage (V)	Output Current	Output Power (W)	Input Voltage (V)	Efficiency (%)	Mfrs. List No.	Order Code
Single Output						
5	2A	10W	9 - 36	80	PXD10-24WS-05	108-5902
12	830mA	10W	9 - 36	82	PXD10-24WS-12	121-6320
5	4A	20W	9 - 36	79	PXE20-24WS-05	108-5907
12	1.67A	20W	9 - 36	81	PXE20-24WS-12	108-5912
15	1.33A	20W	9 - 36	81	PXE20-24WS-15	108-5909
5	6A	30W	9 - 18	87	PXE30-12S-05	108-5912
12	2.5A	30W	9 - 18	88	PXE30-12S-12	108-5913
15	2A	30W	9 - 18	88	PXE30-12S-15	108-5914
5	6A	30W	18 - 36	88	PXE30-24S-05	108-5915

Dual Output						
±12	±416mA	10W	9 - 36	80	PXD10-24WD-12	108-5905
±12	±833mA	20W	9 - 36	81	PXE20-24WD-12	108-5910
±15	±666mA	20W	9 - 36	82	PXE20-24WD-15	108-5911
Triple Output						
5,±12	6A,±0.40mA	40W	9 - 18	85	PXF40-12T05-12	108-5921
5,±12	6A,±0.40mA	40W	18 - 36	87	PXF40-24T05-12	108-5922

41915

Mfrs.	Order Code	1+	5+	10+	25+
Single Output					
PXD10-24WS-05	108-5902●	38.98	37.49	36.11	34.80
PXD10-24WS-12	121-6320●	38.98	37.49	36.11	34.80
PXE20-24WS-05	108-5907●	46.80	44.99	43.32	41.77
PXE20-24WS-12	108-5908●	46.80	44.99	43.32	41.77
PXE20-24WS-15	108-5909●	46.80	44.99	43.32	41.77
PXE30-12S-05	108-5912●	67.15	64.57	62.19	59.95
PXE30-12S-12	108-5913●	52.66	50.64	48.78	47.02
PXE30-12S-15	108-5914●	67.15	64.46	62.19	59.95
PXE30-24S-05	108-5915●	67.15	64.57	62.19	59.95
Dual Output					
PXD10-24WD-12	108-5905●	41.16	39.58	38.11	36.75
PXE20-24WD-12	108-5910●	53.06	51.04	49.12	47.38
PXE20-24WD-15	108-5911●	53.06	51.04	49.12	47.38
Triple Output					
PXF40-12T05-12	108-5921●	80.14	77.05	74.22	71.55
PXF40-24T05-12	108-5922●	80.14	77.05	74.22	71.55

Dimensions(mm): H=10.40, W=31.75, D=20.32



12 Watt DC/DC converter in an industry standard DIP-24 metal case with a wide 2:1 input range, single and dual outputs, featuring 1600VDC isolation (input to output) and continuous short circuit protection. This robust, high reliability, industrial grade product is suitable for a wide range of applications.

- 2:1 Input Range
- High Power Density
- 1600 VDC Isolation
- DIP-24 Metal package
- Efficiency up to 91%
- Continuous Short Circuit Protection
- -40°C to 100°C Operating Temperature
- 3 year warranty

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JCG1212S2V5	9.0 to 18 Vdc	2.5V, 3.5A	—	163-7892
JCG1212S3V3	9.0 to 18 Vdc	3.3V, 3.5A	—	163-7893
JCG1212S05	9.0 to 18 Vdc	5V, 2.4A	—	163-7894
JCG1212S12	9.0 to 18 Vdc	12V, 1A	—	163-7895
JCG1212S15	9.0 to 18 Vdc	15V, 800mA	—	163-7896
JCG1212D12	9.0 to 18 Vdc	12V, 0.5A	-12V, -0.5A	163-7898
JCG1212D15	9.0 to 18 Vdc	15V, 0.4A	-15V, -0.4A	163-7899
JCG1224S2V5	18 to 36 Vdc	2.5V, 3.5A	—	163-7900
JCG1224S3V3	18 to 36 Vdc	3.3V, 3.5A	—	163-7901
JCG1224S05	18 to 36 Vdc	5V, 2.4A	—	163-7902
JCG1224S12	18 to 36 Vdc	12V, 1A	—	163-7904
JCG1224S15	18 to 36 Vdc	15V, 800mA	—	163-7905
JCG1224D12	18 to 36 Vdc	12V, 0.5A	-12V, -0.5A	163-7906
JCG1224D15	18 to 36 Vdc	15V, 0.4A	-15V, -0.4A	163-7907
JCG1248S2V5	36 to 75 Vdc	2.5V, 3.5A	—	163-7908
JCG1248S3V3	36 to 75 Vdc	3.3V, 3.5A	—	163-7909
JCG1248S05	36 to 75 Vdc	5V, 2.4A	—	163-7910
JCG1248S12	36 to 75 Vdc	12V, 1A	—	163-7911
JCG1248S15	36 to 75 Vdc	15V, 800mA	—	163-7912
JCG1248D12	36 to 75 Vdc	12V, 0.5A	-12V, -0.5A	163-7913
JCG1248D15	36 to 75 Vdc	15V, 0.4A	-15V, -0.4A	163-7914

520464

Order Code	1+	5+	10+	25+
Single Output All Order Codes●	24.00	23.28	22.56	21.60
Dual Output All Order Codes●	24.00	23.28	22.56	21.60

Over 480,000 products online



15W AEE Series DC/DC Converters

Single and Dual Output

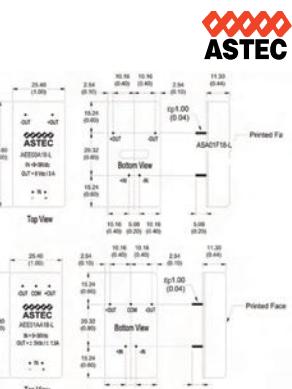


- Encapsulated
- Wide 4:1 input range
- 1500 V dc I/O isolation
- Single and Dual output available

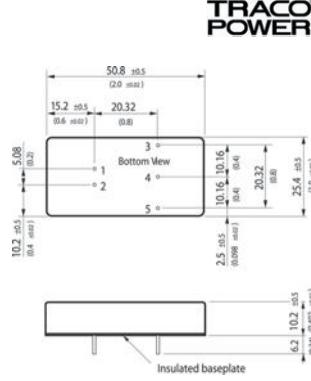
Line Regulation 0.5%
Load Regulation $\pm 1\%$
Operating Temperature -40°C to +71°C

Mfrs List No.	Input Voltage	Output 1	Output 2	Order Code
AEE04F18-L	9V dc - 36V dc	3.3V , 4A	—	121-4850
AEE03A18-L	9V dc - 36V dc	5V , 3A	—	121-4841
AEE01B18-L	9V dc - 36V dc	12V , 1.25A	—	121-4843
AEE01C18-L	9V dc - 36V dc	15V , 1A	—	126-1962
AEE01AA18-L	9V dc - 36V dc	5V , 1.5A	-5V , 1.5A	126-1963
AEE00BB18-L	9V dc - 36V dc	12V , 625mA	-12V , 625mA	121-4842
AEE00CC18-L	9V dc - 36V dc	15V , 500mA	-15V , 500mA	121-4844
AEE03A36-L	18V dc - 75V dc	5V , 3A	—	121-4845
AEE01B36-L	18V dc - 75V dc	12V , 1.25A	—	121-4848
AEE01C36-L	18V dc - 75V dc	15V , 1A	—	126-1966
AEE01AA36-L	18V dc - 75V dc	5V , 1.5A	-5V , 1.5A	126-1967
AEE00BB36-L	18V dc - 75V dc	12V , 625mA	-12V , 625mA	121-4847
AEE00CC36-L	18V dc - 75V dc	15V , 500mA	-15V , 500mA	121-4849

444755

**TEL15 Series**

15 watts



- Wide 2:1 input voltage range
- Very high power density
- Operating temperature range -40°C to +71°C
- Short-circuit proof
- I/O isolation 1500 V DC
- Industry standard pinning
- Screened metal housing with insulated baseplate
- Cost-optimized design
- 3 years' guarantee

Mfrs.List No.	Input-Voltage VDC	Input-	Output-	Output-	Order Code
		Voltage VDC	Current Max.		
TEL 15-1211	9-18	5	3A	124-2681	
		12	1.25A	124-2682	
		± 12	$\pm 625\text{mA}$	124-2683	
		± 15	$\pm 500\text{mA}$	124-2685	
TEL 15-2411	18-36	5	3A	124-2686	
		12	1.25A	124-2688	
		± 12	$\pm 625\text{mA}$	124-2689	
		± 15	$\pm 500\text{mA}$	124-2690	

37395

Mfrs.List No.	Order Code	1+	5+	10+	25+
TEL 15-1211	124-2681●	26.65	25.58	24.25	22.12
TEL 15-1212	124-2682●	24.10	22.65	21.69	20.77
TEL 15-1222	124-2683●	26.05	24.49	23.44	22.44
TEL 15-1223	124-2685●	26.05	24.49	23.44	22.44
TEL 15-2411	124-2686●	24.10	22.65	21.69	20.77
TEL 15-2412	124-2688●	24.10	22.65	21.69	20.77
TEL 15-2422	124-2689●	26.05	24.49	23.44	22.44
TEL 15-2423	124-2690●	26.05	24.49	23.44	22.44

15W DC/DC Converters

Single and Dual Output



- Low cost single and dual output
- Short circuit proof
- Inbuilt input filter
- Operating temperature -10°C to +50°C
- Isolation to 1500V dc
- Load regulation $\pm 2\%$ ($\pm 5\%$ dual outputs)
- Line regulation $\pm 1\%$
- 2" x 2" metal case

W=50.8, H=11.94, D=50.8mm

Mfrs. List No.	(Nominal) Input Voltage	Output 1	Output 2	Order Code
FDD15-05S1	12V 9-18V	5V / 2A	-	118-1177
FDD15-05S2	24V 18-36V	5V / 3A	-	118-1179
FDD15-05S3	48V 36-72V	5V / 3A	-	118-1181
FDD15-12S2	24V 18-36V	12V / 1.25A	-	118-1185
FDD15-12S3	48V 36-72V	12V / 1.25A	-	118-1186
FDD15-15S2	24V 18-36V	15V / 1A	-	118-1187
FDD15-12D1	12V 9-18V	12V / 417mA	-12V / 417mA	118-1182
FDD15-12D2	24V 18-36V	12V / 625mA	-12V / 625mA	118-1183
FDD15-12D3	48V 36-72V	12V / 625mA	-12V / 625mA	118-1184

386170

Mfrs. List No.	Order Code	1+	5+	10+	25+
FDD15-05S1	118-1177●	30.73	27.65	25.15	22.31
FDD15-05S2	118-1179●	30.73	27.65	25.15	22.31
FDD15-05S3	118-1181●	30.73	27.65	25.15	22.31
FDD15-12S2	118-1185●	30.73	27.65	25.15	22.31
FDD15-12S3	118-1186●	30.73	27.65	25.15	22.31
FDD15-15S2	118-1187●	30.73	27.65	25.15	22.31
FDD15-12D1	118-1182●	24.31	21.85	19.88	17.66
FDD15-12D2	118-1183●	30.73	27.65	25.15	22.31
FDD15-12D3	118-1184●	30.73	27.65	25.15	22.31

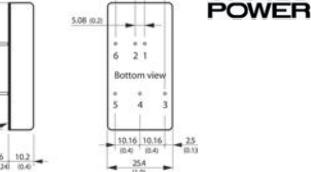
386170



Over 480,000 products online

**TEN 15WI Series**

15 Watt, 4:1 Input



- Ultra wide 4 : 1 input voltage range
- High efficiency up to 86%
- Input filter meets EN 55022, Class A and FCC, Level A without external components
- Indefinite short-circuit protection
- Remote on/off

- Industry standard pinout
- Six-sided shielded case with isolated base plate
- UL/CUL 60950, EN60950 and IEC60950 approved (to 60 V dc)
- 3 year product warranty

Further specifications:

Regulation:

Input variation $\pm 0.5\%$ max.Load variation $\pm 1.0\%$ max.

Ripple and noise: 80mV pk-pk typ. (20 MHz Bandwidth)

V/O Isolation: 1500V dc

Operating temperature: -40°C to +85°C; above 70°C power reduction 3.5% / K

Mfrs. List No.	Input Voltage	Output voltage	Output Current	Efficiency typ.	Order Code
TEN 15-2410WI	9 - 36	3.3	3A	78	100-7485
		5.1	2.95A	82	100-7486
		12	1.25A	85	100-7487
		± 12	$\pm 625\text{mA}$	85	100-7489
		± 15	$\pm 500\text{mA}$	86	100-7492
	18 - 75	3.3	3A	78	100-7493
		5.1	2.95A	82	100-7494
		12	1.25A	85	100-7495
		± 12	$\pm 625\text{mA}$	85	100-7496
		± 15	$\pm 500\text{mA}$	86	100-7497

Pinout	Pin	Single	Dual	Pinout	Common
1	+Vin (Vcc)		+Vin (Vcc)	4	-Vout
2	-Vin (GND)		-Vin (GND)	5	Remote on/off
3	+Vout		+Vout	6	Remote on/off

PCB Mount - DC to DC Converters - continued

TEN 15WI Series - continued

15 Watt, 4:1 Input - continued

415101

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
TEN 15-2410WI	100-7485●	30.00	28.50	27.08	25.72	
TEN 15-2411WI	100-7486●	30.00	28.50	27.08	25.72	
TEN 15-2412WI	100-7487●	30.00	28.50	27.08	25.72	
TEN 15-2422WI	100-7489●	30.00	28.50	27.08	25.72	
TEN 15-2423WI	100-7492●	30.00	28.50	27.08	25.72	
TEN 15-4810WI	100-7493●	30.00	28.50	27.08	25.72	
TEN 15-4811WI	100-7494●	30.00	28.50	27.08	25.72	
TEN 15-4812WI	100-7495●	24.00	22.80	21.66	20.58	
TEN 15-4822WI	100-7496●	30.00	28.50	27.08	25.72	
TEN 15-4823WI	100-7497●	30.00	28.50	27.08	25.72	

THN15 WI Series

15 Watt, High Power Density



- Smallest encapsulated 15 W converter in 25.4x25.4x10.2 mm metal case
- Ultra wide 4:1 input range
- Very high efficiency up to 87%
- Short circuit protection
- Industry standard pin-out

- Remote on/off
- Safety standards/approvals to meet UL/cUL 60950-1, EN 60950-1 and IEC 60950-1
- 3 Year product warranty

Further specifications:

Regulation:
Input variation: ±0.2% max.
Load variation: ±0.2% max.
Adjustable output voltage: ±10% (by external resistor)
Conducted EMI: EN 55022, class A and FCC, level A, with external capacitor
Ripple & Noise: 100mV pk-pk typ. with external capacitor (20 MHz Bandwidth)
I/O Isolation: 1500V dc
Operating temperature range: -40°C to +85°C; above 70°C derating 3 % / K

36

Mfrs List No	Input Voltage	Output Voltage	Output Current max	Efficiency	Order Code
	V DC	V DC		(%)	
THN 15-2411WI	9 - 36	5	3A	84	144-1226
		12	1.3A	86	144-1227
		15	1A	85	144-1228
THN 15-4811WI	18 - 75	5	3A	86	144-1229
		12	1.3A	87	144-1230
		15	1A	87	144-1232

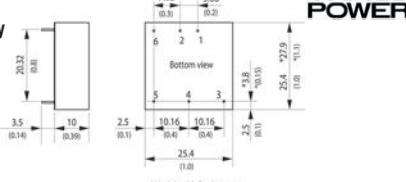
Pin-out	Pin-out	Pin-out	Pin-out		
Pin	Single	3	+Vout	5	-Vout
1	+Vin (Vcc)	4	Trim	6	Remote on/off
2	-Vin (GND)				

481900

Mfrs List No	Order Code	1+	5+	10+	25+	Price each
THN 15-2411WI	144-1226●	32.95	30.18	28.21	27.20	
THN 15-2412WI	144-1227●	32.95	30.18	28.21	27.20	
THN 15-2413WI	144-1228●	32.95	30.18	28.21	27.20	
THN 15-4811WI	144-1229●	32.95	30.18	28.21	27.20	
THN 15-4812WI	144-1230●	32.95	30.18	28.21	27.20	
THN 15-4813WI	144-1232●	32.95	30.18	28.21	27.20	

THD 15 Series

15 Watt, Highest Power Density



- Smallest encapsulated 15W converter in a 25.4x25.4x10.2 mm plastic package
- Single- und dual output
- High efficiency up to 87%
- Industry standard pinout
- Indefinite short-circuit protection
- Remote on/off
- UL/cUL 60950, EN60950 und IEC60950 approved
- 3 year product warranty

Further specifications:

Regulation:
Input variation: ±0.5% max.
Load variation: ±0.5% max. (Single models)
±2.0% (Dual models)
Ripple and noise: 100mV pk-pk typ. (20 MHz Bandwidth)
V/O Isolation: 1500V dc
Operating temperature: -25°C to +71°C above 50°C power reduction 2.5% / K

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Efficiency typ.	Order Code
	V dc	V dc	(max.)	(%)	
THD 15-2410	18 - 36	3.3	3.5A	84	100-7571
		5.1	3A	85	100-7572
		12	1.25A	86	100-7573
		±12	±600mA	85	100-7574
	36 - 75	±15	±500mA	85	100-7575
		3.3	3.5A	84	100-7576
		5.1	3A	86	100-7577
		12	1.25A	87	100-7578

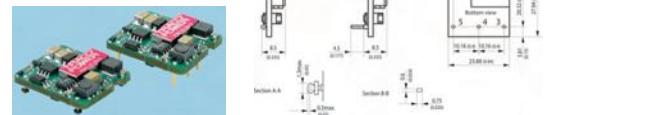
Pinout	Pin	Single	Dual	Pinout	Pin	Common
	1	+Vin (Vcc)	+Vin (Vcc)	4	No Pin	-Vout
	2	-Vin (GND)	-Vin (GND)	5	-Vout	Remote on/off
	3	+Vout	+Vout	6	Remote on/off	

415130

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
THD 15-2410	100-7571●	27.45	25.80	24.70	23.65	
THD 15-2411	100-7572●	27.45	25.80	24.70	23.65	
THD 15-2412	100-7573●	26.15	25.10	23.79	21.70	
THD 15-2422	100-7574●	29.50	27.73	26.56	25.44	
THD 15-2423	100-7575●	29.50	27.73	26.56	25.44	
THD 15-4810	100-7576●	27.15	25.52	24.43	23.39	
THD 15-4812	100-7577●	24.44	22.97	21.99	21.05	
THD 15-4813	100-7578●	20.36	19.14	18.32	18.01	
THD 15-4822	100-7581●	29.20	27.45	26.28	25.16	
THD 15-4823	100-7582●	29.20	27.45	26.28	25.16	

TON 15 Series

15 Watt, Highest Power Density



- Smallest 15W converter in an open frame design (27.9x23.9x8.5 mm)
- Adjustable output voltage (±10% with external resistance)
- Through Hole and SMD versions
- 2:1 input voltage range
- Ultra high efficiency to 87%
- Indefinite short-circuit protection
- Input filter meets EN 55022, Class A and FCC, Level A without external components

Further specifications:

Regulation:
Input variation: ±0.2% max.
Load variation: ±0.2% max.
Ripple and noise: 3.3/5V_{out} models: 75mV pk-pk typ. (20 MHz Bandwidth)
12/15V_{out} models: 100mV pk-pk typ. (20 MHz Bandwidth)
I/O Isolation: 2250V dc
Operating temperature: -40°C to +85°C, above 70°C power reduction 3%/K

Mfrs. List No.	Output Voltage	Output Voltage	Output Current		
	V dc	V dc	(max.)	Efficiency typ.	
Through Hole Versions					
TON 15-2410	18 - 36	3.3	3.5A	84	100-7596
TON 15-2411	18 - 36	5.1	3A	84	100-7597
TON 15-2412	18 - 36	12	1.25A	85	100-7598
TON 15-4811	36 - 75	5.1	3A	86	100-7600
SMD Versions					
TON 15-2411SM	18 - 36	5.1	3A	84	100-7603
TON 15-2412SM	18 - 36	12	1.25A	85	100-7604
TON 15-4810SM	36 - 75	3.3	3.5A	85	100-7605

Pinout	Pin	Single	Pinout	Pin	Common
	1	+Vin (Vcc)	4	Trim	-Vout
	2	-Vin (GND)	5	-Vout	Remote on/off
	3	+Vout	6	Remote on/off	

415137

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
TON 15-2411	100-7597●	27.30	25.66	24.57	23.53	
TON 15-2412	100-7598●	27.30	25.66	24.57	23.53	
TON 15-4811	100-7600●	27.30	25.66	24.57	23.53	
TON 15-2411SM	SMD-100-7603●	20.78	19.95	18.91	17.25	
TON 15-2412SM	SMD-100-7604●	25.98	24.94	23.64	21.56	
TON 15-4810SM	SMD-100-7605●	21.22	20.37	19.31	17.61	

Over 480,000 products online



Non-Isolated DC/DC Converters

ARTESYN
TECHNOLOGY

New

- Wide input voltage ranges: 3 to 13.8V
- Wide output voltage trim/adjustability: 0.59 to 5.1V
- Output current: 3 A to 10A
- High efficiency up to 94%
- Remote on/off
- Current sink capability for termination applications

- Operating temperature range: -40°C to 70°C
- Overshoot & short-circuit protection
- No added input or output capacitors needed for ripple current capability or stability
- Safety approvals UL, CSA, TUV & CB Report

Mfrs.	Input Voltage	Output Voltage	Output Current	Power Rating	Dimensions (mm)
LD003C-005W05-SJ	3.0V - 13.8V	0.59V - 5.1V	3A	15W	9.40x15.49x5.37
LD006C-005W05-SJ	3.0V - 13.8V	0.59V - 5.1V	6A	30W	10.41x16.51x9.42
LD010C-005W05-SJ	3.0V - 13.8V	0.59V - 5.1V	10A	50W	10.41x16.51x11.35

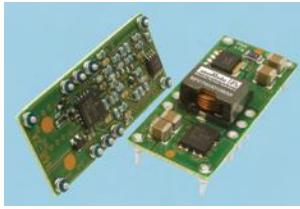
519112

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
LD003C-005W05-SJ	163-2914●	6.14	5.96	5.77	
LD006C-005W05-SJ	163-2915●	8.12	7.86	7.62	
LD010C-005W05-SJ	163-2916●	10.75	10.42	10.10	

519112

POLA DC/DC Converter - Single O/P

Non-isolated

muRata Ps
Murata Power Solutions

New

The MPDTH series of non-isolated DC/DC power modules are small in size but big on performance and flexibility. Their high output current, compact footprint and industry-leading features offer system designers versatile modules for supplying POL power to devices such as ASICs, FPGAs and DSPs in a wide range of multi-processor digital systems in applications including datacoms, industrial and medical equipment. A choice of both surface mount and through-hole packages are available; pinouts are identical with the through-hole version giving a slightly lower assembled height.

- Compatible to Point-of-Load Alliance (POLA) Specifications
- Surface-mount or through-hole small footprint package
- Three nominal input range products to support 0.8V to 5.5V output voltages
- Outline dimensions less than one square inch
- 3.3V, 5V and 12 Vdc nominal inputs
- High efficiency up to 95 % typical
- Tracking input for sequenced startup/shutdown
- Outstanding thermal performance and derating
- 40°C to +85°C operating range
- Extensive self-protection, voltage limits and short circuit features

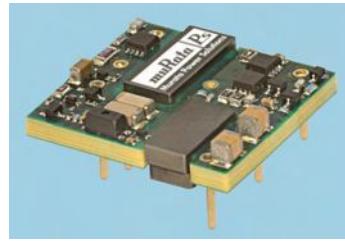
Mfrs.	Nominal Input Voltage	Output Voltage	Output Current	Power Rating	Dimensions (mm)
MPDTH03050WAH	3.3V	0.8V - 2.5V	6A	15W	22.10x12.57x8.50
MPDTH03050WAS	3.3V	0.8V - 2.5V	6A	15W	22.10x12.57x9.09
MPDTH05050WAH	5.0V	0.8V - 3.6V	6A	21.6W	22.10x12.57x8.50
MPDTH05050WAS	5.0V	0.8V - 3.6V	6A	21.6W	22.10x12.57x9.09
MPDTH12050WAH	12V	1.2V - 5.5V	6A	33W	22.10x12.57x8.50
MPDTH12050WAS	12V	1.2V - 5.5V	6A	33W	22.10x12.57x9.09
MPDTH03060WAH	3.3V	0.8V - 2.5V	10A	25W	25.27x15.75x9.00
MPDTH03060WAS	3.3V	0.8V - 2.5V	10A	25W	25.27x15.75x9.57
MPDTH05060WAH	5.0V	0.8V - 3.6V	10A	36W	25.27x15.75x9.00
MPDTH05060WAS	5.0V	0.8V - 3.6V	10A	36W	25.27x15.75x9.57
MPDTH12060WAH	12V	1.2V - 5.5V	10A	55W	25.27x15.75x9.00
MPDTH12060WAS	12V	1.2V - 5.5V	10A	55W	25.27x15.75x9.57
MPDTH03010WAH	3.3V	0.8V - 2.5V	15A	37.5W	25.27x15.75x9.00
MPDTH03010WAS	3.3V	0.8V - 2.5V	15A	37.5W	25.27x15.75x9.57
MPDTH05010WAH	5.0V	0.8V - 3.6V	15A	54W	25.27x15.75x9.00
MPDTH05010WAS	5.0V	0.8V - 3.6V	15A	54W	25.27x15.75x9.57
MPDTH12010WAH	12V	1.2V - 5.5V	12A	66W	25.27x15.75x9.00
MPDTH12010WAS	12V	1.2V - 5.5V	12A	66W	25.27x15.75x9.57

518950

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
MPDTH03050WAH	163-1781●	9.24	8.96	8.68	
MPDTH03050WAS	SMD 163-1790●	11.78	11.41	11.06	
MPDTH05050WAH	163-1782●	9.24	8.96	8.68	
MPDTH05050WAS	SMD 163-1791●	11.78	11.41	11.06	
MPDTH12050WAH	163-1783●	9.24	8.96	8.68	
MPDTH12050WAS	SMD 163-1793●	11.78	11.41	11.06	
MPDTH03060WAH	163-1784●	11.78	11.41	11.06	
MPDTH03060WAS	SMD 163-1794●	13.73	13.32	12.91	
MPDTH05060WAH	163-1785●	11.78	11.41	11.06	
MPDTH05060WAS	SMD 163-1795●	13.73	13.32	12.91	
MPDTH12060WAH	163-1786●	11.78	11.41	11.06	
MPDTH12060WAS	SMD 163-1796●	13.73	13.32	12.91	
MPDTH03010WAH	163-1787●	11.78	11.41	11.06	
MPDTH03010WAS	SMD 163-1797●	13.73	13.32	12.91	
MPDTH05010WAH	163-1788●	13.73	13.32	12.91	
MPDTH05010WAS	SMD 163-1798●	13.73	13.32	12.91	
MPDTH12010WAH	163-1789●	13.73	13.32	12.91	
MPDTH12010WAS	SMD 163-1799●	13.73	13.32	12.91	

518950

DC/DC Converters - Single O/P

muRata Ps
Murata Power Solutions

New

With wide range 4:1 inputs these converters are ideal for battery-powered and telecom equipment. Applications include small instruments, area-limited microcontrollers, computer-based systems, data communications equipment, remote sensor systems, vehicle and portable electronics. Excellent ripple and noise specifications assure compatibility to circuits using CPU's, ASIC's, programmable logic and FPGA's. For systems requiring controlled startup/shutdown, an external On/Off control may use a switch, transistor or digital logic.

- Small footprint DC/DC converter
- Ideal for high current applications
- Industry standard open frame package and pinout
- Input range: 9-36 and 18-75 Vdc
- 2250 Volt Basic Isolation (Q48 models)
- 40 to 85°C temperature range (with derating)
- UL/CSA/EN60950-1 safety standards
- Extensive self-protection shut down features

Mfrs.	Output Voltage (V)	Output Current (A)	Input Voltage (V)	On/Off Control Polarity *	Dimensions(mm)
UE15-033-Q48N-C	3.3	5	48	N	27.9x24.4x9.1
UE15-033-Q48P-C	3.3	5	48	P	27.9x24.4x9.1
UE15-050-Q48N-C	5	3	48	N	27.9x24.4x9.1
UE15-050-Q48P-C	5	3	48	P	27.9x24.4x9.1
UE15-120-Q12N-C	12	1.3	24	N	27.9x24.4x9.1
UE15-120-Q12P-C	12	1.3	24	P	27.9x24.4x9.1

* N = Negative polarity, P = Positive polarity.

519193

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
UE15-033-Q48N-C	163-5552●	21.43	20.79	19.75	
UE15-033-Q48P-C	163-5553●	22.37	21.70	20.62	
UE15-050-Q48N-C	163-5555●	21.43	20.79	19.75	
UE15-050-Q48P-C	163-5556●	22.37	21.70	20.62	
UE15-120-Q12N-C	163-5557●	23.87	23.15	22.00	
UE15-120-Q12P-C	163-5558●	22.93	22.24	21.13	

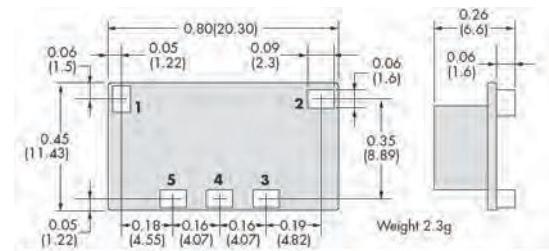
519193

Non-Isolated 5A DC/DC Converters

NNL05 Series

muRata Ps
Murata Power Solutions

- Industry standard footprint
- Short circuit protection
- High efficiency
- Under voltage lock out
- Fully adjustable output voltage
- Operating temperature range -40°C to 85°C
- SMD construction



Input Voltage	NNL05-9 V _{out} < 2.75V	3.0V Min, 5.5V Max.
NNL05-10 V _{out} > 3.0V	4.0V Min, 5.5V Max.	10.0V Min, 14.0V Max.
	<30 mV pk-pk (20MHz bandwidth)	1.0%
	Load Regulation	1.0%
Nominal Input Voltage	Output Voltage	Output Current
4V dc	0.75-3.3V dc	0.0A
12V dc	0.75-5V dc	0.0A
	Dimensions (WxHxD)	Mfrs. List No.
	20.30x6.3x11.43	NNL05-9C 117-5771
	20.30x6.3x11.43	NNL05-10C 117-5770

386102

Mfrs.	Order Code	1+	10+	25+	50+	Price Each
NNL05-9C	117-5771●	6.66	6.49	6.30	6.07	
NNL05-10C	117-5770●	6.66	6.49	6.30	6.07	

Over 480,000 products online

QGO

PCB Mount - DC to DC Converters - continued

TOS Series Point-of-Load (POL) Converter



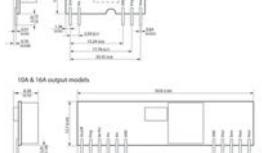
- Delivers up to 16A with minimal derating
- Output Voltages trim from 0.75V dc to 5.0V dc
- Ultra high efficiency to 96%
- Fast transient response
- Under voltage lockout
- Remote on/off control
- SIP version or SMD package (DOSA compatible)

Further specifications:

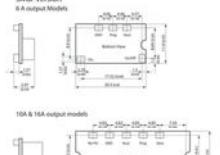
Regulation:
Input variation ±0.3% max.
Load variation ±0.4% max.
Ripple and noise: 5V_{in}- Models:50mV pk-pk typ. (20 MHz Bandwidth)
12V_{in}- Models:75mV pk-pk typ. (20 MHz Bandwidth)
Dynamic load response 50 µs typ. (Load change 50%)
Operating temperature: -40°C to +85°C

SE-Version
6 A output Models

TRACO
POWER



SMD-Version
6 A output Models



			Output Current		
	Input Voltage	Output Voltage	(max.)	Efficiency typ.	
Mfrs. List No.	V dc	V dc	A	(%)	Order Code
SMD Versions					
TOS 06-05SM	2.4 - 5.5	0.75 - 3.3*	6	94	100-7583
TOS 06-12SM	8.3 - 14	0.75 - 5	6	89	100-7586
TOS 10-12SM		0.75 - 5	10	93	100-7587
TOS 16-12SM		0.75 - 5	16	92	100-7588
SIP Versions					
TOS 06-05SIL	2.4 - 5.5	0.75 - 3.3*	6	94	100-7589
TOS 10-05SIL		0.75 - 3.3*	10	93	100-7590
TOS 16-05SIL		0.75 - 3.3*	16	95	100-7591
TOS 06-12SIL	8.3 - 14	0.75 - 5	6	89	100-7593
TOS 10-12SIL		0.75 - 5	16	93	100-7594
TOS 16-12SIL		0.75 - 5	10	92	100-7595

*) The maximum selected output voltage must be at least 0.5 V dc under the applied input voltage.

415134

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
TOS 06-05SM	SMD 100-7583●	12.90	12.38	11.74	10.70	
TOS 06-12SM	SMD 100-7586●	15.11	14.51	13.75	12.54	
TOS 10-12SM	SMD 100-7587●	19.65	18.86	17.88	16.31	
TOS 16-12SM	SMD 100-7588●	25.69	24.66	23.38	21.33	
TOS 06-05SIL	100-7589●	12.90	12.38	11.74	10.70	
TOS 10-05SIL	100-7590●	18.94	18.19	17.24	15.72	
TOS 16-05SIL	100-7591●	23.48	22.54	21.36	19.49	
TOS 06-12SIL	100-7593●	15.11	14.51	13.75	12.54	
TOS 10-12SIL	100-7594●	14.15	13.58	12.87	11.74	
TOS 16-12SIL	100-7595●	25.69	24.66	23.38	21.33	

415134

Austin MicroLynx 18/25W Programmable, 5A



SIL THT version

Tyco Electronics



SMD version

- Non isolated 5A DC/DC converter
- Programmable voltage output
- SMD and THT SIL versions available
- Programmable via external resistor (not supplied)
- High efficiency, up to 94% for 18W and 89% for 25W
- Operating temperature -40°C to +85°C
- High reliability - MTBF = 4.4M hours @ 25°C

- Output over current protection with auto restart
- Over temperature protection
- Low output ripple and noise
- Constant switching frequency (300kHz)
- Remote On/Off
- UL 60950-1 recognised, CSA22.2 No. 60950-1-03 certified and VDE 0805:2001-12 (EN60950-1) licensed

Dimensions				
Type	L	W	D	
SIL 18W	22.9	10.2	5.4	
18W	20.3	11.4	6.0	
SIL 25W	22.9	10.2	6.7	
SMD 25W	20.3	11.4	7.2	

	Power	Input	Output	Output	
	Output	Voltage	Voltage	Current	
Mfrs. List No.	Type	W	VDC	VDC	Order Code
AXH005AOXZ	SIL	18	3 - 5.5	0.75 - 3.63	5 126-3362
AXH005AOX-SRZ		18		0.75 - 3.63	5 126-3363
AXA005AOXZ	SIL	25	10 - 14	0.75 - 5	5 126-3364
AXA005AOX-SRZ		25		0.75 - 5	5 126-3366

334706

Mfrs. List No.	Order Code	1+	10+	25+	50+
AXH005AOXZ	126-3362●	8.68	8.16	4.98	4.16
AXH005AOX-SRZ	126-3363●	8.68	8.16	4.98	4.75
AXA005AOXZ	126-3364●	8.68	8.16	4.98	4.14
AXA005AOX-SRZ	126-3366●	8.68	8.16	7.81	7.47

334706

Non-Isolated DC/DC Converters

ARTESYN

New



The SIL series are non-isolated DC/DC converters

packaged in a single-in-line footprint. The SIL is designed for applications including distributed power, workstations, optical network and wireless applications. Implemented using state-of-the-art surface-mount technology and automated manufacturing techniques, the SIL offers compact size and high efficiency.

- Input voltage ranges: 3-5.5V, 4.5-5.5V, 10-14V
- Wide output voltage trim ranges
- Output current: 5 to 15A
- Remote on/off
- Remote sense
- Industry standard footprint
- Operating temperature range: -40°C to 85°C
- Overcurrent & short-circuit protection
- Safety approvals UL, CSA, TÜV & CB Report

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Power Rating	Dimensions (mm) (WxhxD)
SIL05E-05W3V3-VJ	3.0V - 5.5V	0.75V - 3.63V	5A	18.15W	22.90x10.21x7.09
SIL10E-05W3V3-VJ	4.5V - 5.5V	0.8V - 3.63V	10A	36.3W	50.80x12.70x7.80
SIL10E-12W3V3-VJ	10V - 14V	0.8V - 3.63V	10A	36.3W	50.80x12.70x7.80
SIL15E-05W3V3-VJ	3.0V - 5.5V	0.8V - 3.63V	15A	36.3W	50.80x12.70x7.80
SIL15E-12W3V3-VJ	10V - 14V	0.8V - 3.63V	15A	49.5W	50.80x12.70x7.80

519098

Mfrs. List No.	Order Code	1+	5+	10+
SIL05E-05W3V3-VJ	163-2898●	12.72	12.34	11.97
SIL10E-05W3V3-VJ	163-2900●	16.45	15.96	15.48
SIL10E-12W3V3-VJ	163-2901●	16.45	15.96	15.48
SIL15E-05W3V3-VJ	163-2902●	21.94	21.28	20.63
SIL15E-12W3V3-VJ	163-2903●	21.94	21.28	20.63

519098

Non-Isolated DC/DC Converter - Single O/P

ARTESYN



The SMT series are non-isolated DC/DC converters packaged in a surface mount footprint. The SMT is designed for applications including distributed power, workstations, optical network and wireless applications. Implemented using state-of-the-art surface-mount technology and automated manufacturing techniques, the SMT offers compact size and with a high efficiency.

- Input voltage ranges: 3-5.5V, 8-14V, 10-14V
- Wide output voltage trim ranges
- Output current: 5 to 30A
- Remote on/off
- Remote sense
- Industry standard footprint
- Operating temperature range: -40°C to 85°C
- Overcurrent & short-circuit protection
- Safety approvals UL, CSA, TÜV & CB Report

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Power Rating	Dimensions (mm) (WxhxD)
SMT05E-05W3V3J	3.0V - 5.5V	0.75V - 3.63V	5A	18.15W	20.32x11.43x6.70
SMT05E-12W3V3J	10V - 14V	0.8V - 3.63V	5A	16.5W	20.32x11.43x5.97
SMT10E-05W3V3J	3.0V - 5.5V	0.8V - 3.63V	10A	36.3W	33.02x13.46x8.21
SMT10E-12W3V3J	10V - 14V	0.8V - 3.63V	10A	33W	33.02x13.46x8.21
SMT15E-05W3V3J	3.0V - 5.5V	0.8V - 3.63V	15A	54.45W	33.02x13.46x8.21
SMT15E-12W3V3J	10V - 14V	0.8V - 3.63V	15A	49.5W	33.02x13.46x8.21
SMT30E-12W3V3J	8.0V - 14V	0.8V - 3.63V	30A	99W	33.02x13.46x8.10

New

Mfrs. List No.	Order Code	1+	5+	10+
SMT05E-05W3V3J	163-2907●	12.72	12.34	11.97
SMT05E-12W3V3J	163-2908●	12.72	12.34	11.97
SMT10E-05W3V3J	163-2909●	16.45	15.96	15.48
SMT10E-12W3V3J	163-2910●	16.45	15.96	15.48
SMT15E-05W3V3J	163-2911●	20.18	19.57	18.97
SMT15E-12W3V3J	163-2912●	20.18	19.57	18.97
SMT30E-12W3V3J	163-2913●	32.03	31.06	30.13

519111

DC/DC Converter - Single O/P

LSM2 Series



- 5V and 12V wide input ranges
- DOSA compatible SMT package
- Phased start up sequencing and tracking
- Extensive self-protection
- Starts up into pre-biased loads
- Point-of-load (POL) converters for distributed bus architectures

The LSM2 series are fully compatible with the Distributed-power Open Standards Alliance specification. They can power CPU's, programmable logic and mixed voltage systems with little heat and low noise. The LSM2's can deliver very high power in a tiny area with no heat sinking and no external components needed.

Mfrs. List No.	Nominal Input Voltage	Output Voltage	Output Current	Power Rating	Dimensions (WxHxD)
LSM2-T/6-W3-C	5V dc (2.4 - 5.5V dc)	0.75V - 3.3V	6A	19.8W	11.43x27.94x7.62
LSM2-T/6-D12-C	12V dc (8.3 - 13.2V dc)	0.75V - 5V	6A	30W	11.43x27.94x7.62
LSM2-T/10-W3-C	5V dc (2.4 - 5.5V dc)	0.75V - 3.3V	10A	33W	13.46x33.02x8.64
LSM2-T/10-D12-C	12V dc (8.3 - 13.2V dc)	0.75V - 5V	10A	50W	13.46x33.02x8.64
LSM2-T/16-W3-C	5V dc (2.4 - 5.5V dc)	0.75V - 3.3V	16A	52.8W	13.46x33.02x8.64
LSM2-T/16-D12-C	12V dc (8.3 - 13.2V dc)	0.75V - 5V	16A	80W	13.46x33.02x8.64
LSM2-T/30-D12-C	12V dc (6 - 14V dc)	0.8V - 5V	30A	125W	13.46x33.02x9.14

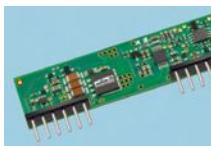
479508

Mfrs. List No.	Order Code	1+	5+	10+
LSM2-T/6-W3-C	142-3457●	6.68	6.49	6.31
LSM2-T/6-D12-C	142-3456●	9.45	9.18	8.93
LSM2-T/10-W3-C	NEW 163-1770●	14.72	14.28	13.85
LSM2-T/10-D12-C	NEW 163-1765●	14.72	14.28	13.85
LSM2-T/16-W3-C	NEW 163-1772●	15.29	14.82	14.37
LSM2-T/16-D12-C	NEW 163-1771●	15.29	14.82	14.37
LSM2-T/30-D12-C	NEW 163-1773●	17.55	17.02	16.51

479508

DC/DC Converter- Selectable Output

LSN2 Series



- User-selectable outputs
- Selectable phased start-up sequencing and tracking
- Wide Vin range
- Very high efficiency up to 95%
- Starts up into pre-biased load
- Fast settling, high di/dt lout slew rate

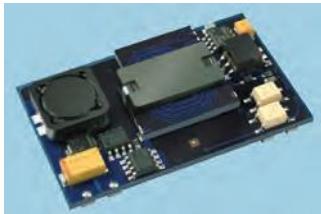
These miniature point-of-load (POL) switching DC/DC converters are ideal regulation and supply elements for distributed power and intermediatebus architectures. Fully compatible with the Distributed-power Open Standards Alliance specification. The LSN2's can power CPU's, programmable logic and mixed-voltage systems with little heat and low noise. The LSN2's can deliver very high power in a tiny area without heat sinking or external components.

Mfrs. List No.	Nominal Input Voltage	Output Voltage	Output Current	Power Rating	Dimensions (WxHxD)
LSN2-T/6-W3-C	5V dc (2.4 - 5.5V dc)	0.75V - 3.3V	6A	19.8W	25.4x12.7x6.98
LSN2-T/6-D12-C	12V dc (8.3 - 14V dc)	0.75V - 5V	6A	30W	25.4x12.7x6.98
LSN2-T/10-W3-C	5V dc (2.4 - 5.5V dc)	0.75V - 3.3V	10A	33W	50.8x12.7x8.13
LSN2-T/10-D12-C	12V dc (8.3 - 14V dc)	0.75V - 5V	10A	50W	50.8x12.7x8.13
LSN2-T/16-W3-C	5V dc (2.4 - 5.5V dc)	0.75V - 3.3V	16A	52.8W	50.8x12.7x8.13
LSN2-T/16-D12-C	12V dc (8.3 - 14V dc)	0.75V - 5V	16A	80W	50.8x12.7x8.13
LSN2-T/30-D12-C	12V dc (6 - 14V dc)	0.8V - 5V	30A	150W	50.8x12.7x11.4

479427

Mfrs. List No.	Order Code	1+	5+	10+
LSN2-T/6-W3-C	142-3461●	8.36	8.10	7.87
LSN2-T/6-D12-C	142-3458●	8.36	8.10	7.87
LSN2-T/10-W3-C	NEW 163-1775●	14.15	13.72	13.30
LSN2-T/10-D12-C	NEW 163-1774●	14.15	13.72	13.30
LSN2-T/16-W3-C	NEW 163-1777●	15.29	14.82	14.37
LSN2-T/16-D12-C	NEW 163-1776●	15.29	14.82	14.37
LSN2-T/30-D12-C	NEW 163-1778●	17.55	17.02	16.50

479427

20W NPX Series Single Output DC/DC Converters

- The NPX20 series of isolated open frame DC/DC converters have a single output on an industry standard through hole footprint. Features include no load operation, input undervoltage shutdown, over current protection and thermal shutdown.
- Under voltage lock out
 - Synchronous rectifier technology
 - Remote on/off & output trim

- Operation to zero load

- Operating temperature: -40°C to 85°C

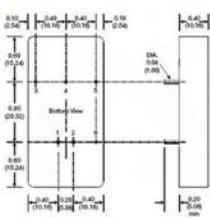
Mfrs. List No.	Nominal Input Voltage (V)	Output Voltage (V)	Output Current (A)	Output Power (W) max.	Efficiency (%) min.	Order Code
NPX20S24018DC	24	1.8	6	10.8	76	129-3619
NPX20S24025DC	24	2.5	6	15.0	80	129-3621
NPX20S24033DC	24	3.3	6	19.8	83	129-3622
NPX20S48018DC	48	1.8	6	10.8	78	129-3623
NPX20S48025DC	48	2.5	6	15.0	81	129-3624
NPX20S48033DC	48	3.3	6	19.8	84	129-3625

449616

Order Code	1+	10+	25+	50+	100+
All Order Codes●	25.08	23.83	22.64	21.51	20.43

20 Watt Single and Dual Output DC/DC Converters

Ultra Wide 4:1 Input Range



Dimensions(mm): H=10.16, W=50.80,

D=25.40

- 20 Watt DC/DC converter in an industry standard 2x1 inch metal package with an extra wide 4:1 input range, single and dual outputs, featuring 1600VDC isolation (input to output), continuous short circuit protection and remote on/off. This robust, high reliability, industrial grade product is suitable for a wide range of applications.



- 4:1 Input Range
- Overvoltage & Overcurrent Protection
- Undervoltage Lockout
- 1600 VDC Isolation
- Efficiency up to 91%
- Remote On/Off
- -40°C to 100°C Operating Temperature
- 3 year warranty

Input Voltage Range 24 V (9-36 VDC), 48 V (18-75 VDC)

Line Regulation ±0.5% max.

Load Regulation ±0.5% max single, ±1.0% max dual

Ripple & Noise 75 mV pk-pk, 20MHz BW

Isolation Voltage 1600 VDC Input to Output, 1600 VDC Input to Case, 1600 VDC Output to Case

Operating Temperature -40°C to +105°C, derate from 100% load at +60°C to no load at +105°C

Short Circuit Protection Trip & restart (hiccup) with auto recovery

MTBF 560 khrs min per MIL-HDBK-217F

Safety Approvals EN60950-1, IEC60950-1

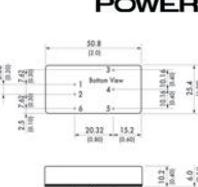
Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JTM204S3V3	9.0 to 36 Vdc	3.3V, 5.5A	-	163-7936
JTM204S05	9.0 to 36 Vdc	5V, 4A	-	163-7937
JTM204S12	9.0 to 36 Vdc	12V, 1.67A	-	163-7938
JTM204S15	9.0 to 36 Vdc	15V, 1.33A	-	163-7941
JTM204D05	9.0 to 36 Vdc	5.0V, 2.000A	-5.0V, -2.000A	163-7942
JTM204D12	9.0 to 36 Vdc	12V, 0.835A	-12V, -0.835A	163-7943
JTM204D15	9.0 to 36 Vdc	15V, 0.665A	-15V, -0.665A	163-7944
JTM204S3V3	18 to 75 Vdc	3.3V, 5.5A	-	163-7945
JTM204S05	18 to 75 Vdc	5V, 4A	-	163-7946
JTM204S12	18 to 75 Vdc	12V, 1.67A	-	163-7947
JTM204S15	18 to 75 Vdc	15V, 1.33A	-	163-7948
JTM204D05	18 to 75 Vdc	5.0V, 2.000A	-5.0V, -2.000A	163-7949
JTM204D12	18 to 75 Vdc	12V, 0.835A	-12V, -0.835A	163-7950
JTM204D15	18 to 75 Vdc	15V, 0.665A	-15V, -0.665A	163-7951

520470

Order Code	1+	5+	10+	25+
Single Output All Order Codes●	32.00	31.04	30.08	28.80
Dual Output All Order Codes●	34.00	32.98	31.96	30.60

TEN 20WIN series DC/DC Converters

20 Watt, 4:1 input



- Maximum power density in the 51x25x10 mm housing
- Very wide 4:1 input voltage range
- High efficiency up to 88%
- Resistant to sustained short circuits
- Remote on/off
- Industry standard pinning
- Screened metal housing with insulated baseplate
- 3 year guarantee

PCB Mount - DC to DC Converters - continued**TEN 20WIN series DC/DC Converters - continued****20 Watt, 4:1 input - continued****Further specifications:**

Control deviations:
with change in input $\pm 0.2\%$ max.
with change in load $\pm 0.5\%$ max. (single model)
 $\pm 1.0\%$ max. (dual model)

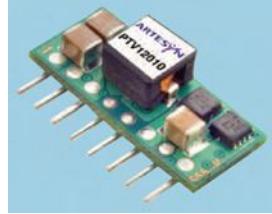
Adjustable output voltage: $\pm 10\%$ (with ext. resistor, only single model)
Line-bound interference: EN 55022, Class A and FCC, Level A, with ext. capacitor
Residual ripple: 75mVpk-pk type (single model / 20 MHz bandwidth)
100mV pk-pk type (dual model / 20 MHz bandwidth)
I/O insulation: 1500V dcDC
Operating temperature range: -40°C to +85°C; above 65°C power reduction 2.5%/
Safety standards/licences: UL/cUL 60950-1, IEC/EN60950-1

Mfrs. List No.	Input voltage	Output voltage	Output current (max.)	Efficiency (%)	Order Code
TEN 20-2411WIN	9 - 36 Vdc	5 Vdc	4A	88	128-4266
TEN 20-2412WIN	9 - 36 Vdc	12 Vdc	1.67A	86	128-4267
TEN 20-2413WIN	9 - 36 Vdc	15 Vdc	$\pm 1.33A$	86	156-2779
TEN 20-2422WIN	9 - 36 Vdc	± 12 Vdc	$\pm 835mA$	86	128-4268
TEN 20-2423WIN	9 - 36 Vdc	± 15 Vdc	$\pm 665mA$	87	128-4269

PIN CONNECTIONS					
Pin		Single	Dual		
1		+Uin (Vcc)		+Uin (Vcc)	
2		-Uin (GND)		-Uin (GND)	
3		+Uout		+Uout	
4		Trim		Common	
5		-Uout		-Uout	
6		Remote on/off		Remote on/off	

448583

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
TEN 20-2411WIN	128-4266●	35.97	33.81	32.37	30.58
TEN 20-2412WIN	128-4267●	35.97	33.81	32.37	30.58
TEN 20-2413WIN	156-2779●	35.70	33.56	32.13	30.35
TEN 20-2422WIN	128-4268●	38.29	35.99	34.46	32.54
TEN 20-2423WIN	128-4269●	38.29	35.99	34.46	32.54

20-44W Non-Isolated DC/DC Converters**PTV Series**

- 8 A output current
- 3.3, 5 and 12 V input voltage
- Wide-output voltage adjust (0.8 Vdc to 5.5 Vdc)
- Auto-track™ sequencing
- Pre-bias start-up
- Efficiencies up to 95%
- Output ON/OFF inhibit
- Vertical through-hole mounting
- Point-of-Load-Alliance (POLA) compatible
- Undervoltage lockout

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Efficiency (%)
PTV03010WAD	2.95 - 3.65	0.8 - 2.5	20	8	93
PTV05010WAD	4.5 - 5.5	0.8 - 3.6	28.8	8	95
PTV12010WAD	10.8 - 13.2	1.2 - 5.5	44	8	92

492310

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
PTV03010WAD	151-6381●	12.53	11.90	11.30	10.73
PTV05010WAD	151-6382●	12.53	11.90	11.30	10.73
PTV12010WAD	151-6384●	12.53	11.90	11.30	10.73

GSR Series - Step Down Power Regulator Modules**EMI Shielded**GS-R 400/400V Series and GS-R 51212
H=20, W=67, D=85.5GS-R 400/2 Series
H=14.7, W=50.8, D=50.8

A range of high current, high voltage PCB/chassis mounting regulators available in output voltages from 5 to 40V. These dc to dc converter modules, shielded for EMI, can provide local on-card regulation, or be used in central power supply systems.

The series incorporates such features as thermal protection, remote voltage sensing, soft start, load crowbar protection, logic inhibit/enable, fold back current limiting, and adjustable output voltage (GSR400V/VB), that allow the implementation of highly sophisticated power supply systems.

The GSR400V/VB is particularly suited to multiple output power supplies, as up to four units can be synchronised.

Input Voltage Vin	Output Voltage Vo	Output Current A	Load Reg. mV/A	Temp. Stability mV/°C	Crowbar Intervention V	Output Ripple mV	Efficiency %	Order Code
GS-R 400/2 Series								
9 to 40	5.1	4	20	0.2	6	25	80	125-7749

GS-R 400V Series								
9.1 to 46	5.1 to 40	4	20/90	0.2/1.6	1.2V0	50	90	125-7748
◆ System reset output	adj				● Line Regulation = 60dB			
† Variable output current limit					Current limit for all above types = 5A			

Mfrs. List No. GSR405/2=125-7749,	Order Code GSR400V=125-7748,	205901			
		Vin	Vo	Order Code	1+ 10+ 25+ 100+ 500+
		Vin=Vo+3	5.1 to 40 adj.	125-7748●	89.96 85.68 72.05 52.65 48.24

Vin	Vo	Order Code	1+	10+	25+	100+	500+
Vin=Vo+3	5.1 to 40 adj.	125-7748●	89.96	85.68	72.05	52.65	48.24

Single Output Non-Isolated DC/DC Converters

YM Series: H=6.27, W=20.32, D=11.43mm

YS Series: H=7.98, W=33.02, D=13.46mm

- Highly efficient with minimal de-rating
- No heatsink required
- 12V (9.6-14V) & 5V (3.0-5.5V) input
- Compatible with pick & place equipment
- Output current 5A (YM series), 10A/16A (YS Series)
- Programmable output 0.75-3.63V for 5V input models, 0.75V-5.5V for 12V input models
- Monotonic start-up into pre-biased output
- No minimum load required
- Auto reset protection circuits (OTP, OCP) and UVLO (YS Series)
- Remote on/off
- Trim functions (YM and YS Series), remote sense functions (YS Series)
- Standard footprint, pinout and trim equations
- Applications include intermediate bus architectures, telecoms, data communications, distributed power architectures, servers and workstations

Input Voltage	Output Current	Mfrs. List No.	Order Code
5V (3-5.5V)	5A	YMO5S05GG	120-8798
5V (3-5.5V)	16A	YS05S16-0GG	120-8800
12V (9.6-14V)	5A	YMT20S05GG	120-8801
12V (9.6-14V)	10A	YS12S10-0GG	120-8803
12V (9.6-14V)	16A	YS12S16-0GG	120-8804

422578

Mfrs. List No.	Order Code	1+	5+	10+	25+
YMO5S05GG	120-8798●	5.93	5.58	5.26	4.99
YS05S16-0GG	120-8800●	10.06	9.47	8.95	8.48
YMT20S05GG	120-8801●	8.88	8.35	7.89	7.48
YS12S10-0GG	120-8803●	13.94	13.11	12.38	11.73
YS12S16-0GG	120-8804●	10.06	9.47	8.95	8.48

422578

25W DC/DC Converters

- Efficiency to 89%
- 24V & 48V input
- 3V, 5V, 12V and 15V output
- Industry standard pinout
- Non latching current limit
- Ei version includes optional control pins (output adj., synchronisation and shutdown)
- Internal over temperature protection
- UL 94V-0 package material
- Isolated output

Nominal Input Voltage (V)	Output Voltage (V)	Output Current (A)	Mfrs List No.	Order Code
24	5.1	5	NPH25S2405EIC	102-1584
24	5.1	5	NPH25S2405IC	102-1585
24	12.1	2.1	NPH25S2412IC	102-1586
24	15.1	1.7	NPH25S2415IC	102-1587
48	5.1	5	NPH25S4805EIC	102-1589

227652

NPH Series	All Order Codes●	Price Each
		1+ 25+ 50+ 100+ 25.31
		30.05 26.97 25.31

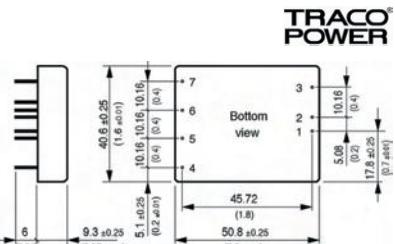


25/30W DC/DC Converters

TEN 25 Series



- 2:1 wide-range inputs
- Very high efficiency up to 89%
- Operating temperature range -40°C to +71°C
- Resistant to sustained short circuits
- Overvoltage protection
- I/O isolation 1500 Vdc
- Input filter in accordance with EN 55022, Class A and FCC, Level A without external components
- Industry standard pin-out
- Low height
- Metal housing screened on 6 sides with isolated baseplate
- 3 year guarantee



30 Watt Single and Dual Output DC/DC Converters

JCL Series



Dimensions(mm): H=11.43, W=50.80, D=40.64

PIN CONNECTIONS		
Pin	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
3	Remote On/Off	Remote On/Off
4	No Pin	+Vout
5	+Vout	Com
6	-Vout	-Vout
7	Trim	Trim

30 Watt DC/DC converter in an industry standard 2x1.6 inch metal package with a wide 2:1 input range, single and dual outputs, featuring 1500VDC isolation (input to output), continuous short circuit protection and remote on/off. This robust, high reliability, industrial grade product is suitable for a wide range of applications.

New

- 2:1 Input Range
- Continuous Short Circuit Protection
- Fixed 270 kHz Switching Frequency
- Efficiency up to 91%
- Remote On/Off
- -40°C to 100°C Operating Temperature
- 3 year warranty

Input Voltage Range 12 VDC (9-18 VDC), 24 VDC (18-36 VDC), 48 VDC (36-75 VDC)
 Line Regulation ±0.5% max.
 Load Regulation ±0.5% max from 10% to full load
 Ripple & Noise 75 mV pk-pk, 20MHz BW
 Isolation Voltage 1500 VDC Input to Output, 1000 VDC Input to Case, 1000 VDC Output to Case
 Operating Temperature -40°C to +100°C
 Short Circuit Protection Trip & restart (hiccup mode)
 MTBF 1 Mhrs to MIL-STD-217E

Mfrs. List No.	Input Voltage	Output 1	Output 2	Order Code
JCL3012S3V3	9.0 to 18 Vdc	3.3V, 5.5A	—	163-7953
JCL3012S05	9.0 to 18 Vdc	5V, 5A	—	163-7954
JCL3012S12	9.0 to 18 Vdc	12V, 2.5A	—	163-7955
JCL3012S15	9.0 to 18 Vdc	15V, 2A	—	163-7956
JCL3012D12	9.0 to 18 Vdc	12V, 1.25A	-12V, -1.25A	163-7957
JCL3012D15	9.0 to 18 Vdc	15V, 1.00A	-15V, -1.00A	163-7958
JCL3024S3V3	18 to 36 Vdc	3.3V, 5.5A	—	163-7959
JCL3024S05	18 to 36 Vdc	5V, 5A	—	163-7960
JCL3024S12	18 to 36 Vdc	12V, 2.5A	—	163-7961
JCL3024S15	18 to 36 Vdc	15V, 2A	—	163-7962
JCL3024D12	18 to 36 Vdc	12V, 1.25A	-12V, -1.25A	163-7963
JCL3024D15	18 to 36 Vdc	15V, 1.00A	-15V, -1.00A	163-7965
JCL3048S3V3	36 to 75 Vdc	3.3V, 5.5A	—	163-7966
JCL3048S05	36 to 75 Vdc	5V, 5A	—	163-7967
JCL3048S12	36 to 75 Vdc	12V, 2.5A	—	163-7968
JCL3048S15	36 to 75 Vdc	15V, 2A	—	163-7969
JCL3048D12	36 to 75 Vdc	12V, 1.25A	-12V, -1.25A	163-7970
JCL3048D15	36 to 75 Vdc	15V, 1.00A	-15V, -1.00A	163-7971

520474

Price Each				
	Order Code	1+	5+	10+
Single Output	All Order Codes●	33.00	32.01	31.02
Dual Output	All Order Codes●	36.00	34.92	33.84

520474

DC/DC Converters - Single O/P

UHE Series



- The most lout/Pout in this format
- Five input ranges from 9-75 Volts
- Efficiencies as high as 91.5%
- Stable no-load operation
- Optional sense pins for low Vout
- Thermal shutdown, I/O protected
- 1500 Vdc I/O BASIC insulation
- Output configurations: 3.3/5Vout @ 25 Watts 5/12/15Vout @ 30 Watts

Nominal Input Voltage	Output Voltage	Output Current	Dimensions (WxHxL)	Mfrs. List No.	Order Code
24V dc (9 - 36V dc)	3.3V	7.5A	50.8x40.64x10.16	UHE-3.3/7500-Q12-C	142-3474
48V dc (18 - 75V dc)	3.3V	7.5A	50.8x40.64x10.16	UHE-3.3/7500-Q48-C	142-3475
24V dc (9 - 36V dc)	5V	5A	50.8x40.64x10.16	UHE-5/5000-Q12-C	142-3476
24V dc (9 - 36V dc)	5V	6A	50.8x40.64x10.16	UHE-5/6000-Q12-C	142-3477
48V dc (18 - 75V dc)	5V	6A	50.8x40.64x10.16	UHE-5/6000-Q48-C	142-3478
24V dc (9 - 36V dc)	12V	2.5A	50.8x40.64x10.16	UHE-12/2500-Q12-C	142-3469
48V dc (18 - 75V dc)	12V	2.5A	50.8x40.64x10.16	UHE-12/2500-Q48-C	142-3470
24V dc (9 - 36V dc)	15V	2A	50.8x40.64x10.16	UHE-15/2000-Q12-C	142-3471
48V dc (18 - 75V dc)	15V	2A	50.8x40.64x10.16	UHE-15/2000-Q48-C	142-3473

479419

TEN 30WIN Series

30Watt, 4:1 Input



- Smallest encapsulated 30 W converter
- 2" x 1" x 0.4" shielded metal package
- Ultra wide 4:1 input voltage range
- Single- dual- and triple output models

- Very high efficiency up to 91%
- Short circuit protection
- Remote On/Off
- Adjustable output voltage
- 3 years product warranty

Regulation:

- Line variation: ± 0.2% max. (Single- and dual models)
- ± 1% / 5% max. (Triple models, main/auxiliary)
- ± 0.5% max. (Single output models)
- ± 1.0% max. (Dual output models)

Adjustable Output Voltage:
 Conducted EMI:
 V/O-Isolation:

Operating temperature range: -40°C to +75°C, above 60°C derating 3.5 %/K

Safety standards/-approvals: UL/cUL 60950-1, IEC/EN60950-1

Manuf. Part No	Output (W/V/A)	Order Code	Manuf. Part No	Output (W/V/A)	Order Code
TEN 30-2410WIN	30/3.3/7.5	163-5230	TEN 30-2423WIN	30/15/1	163-5236
TEN 30-2411WIN	30/5.1/6	163-5231	TEN 30-2431WIN	30/5/4	163-5237
TEN 30-2421WIN	30/12/2.5	163-5233	TEN 30-2432WIN	30/5/4	163-5238
TEN 30-2413WIN	30/15/2	163-5234	TEN 30-4810WIN	30/3.3/7.5	163-5239
TEN 30-2422WIN	30/12/2.5	163-5235	TEN 30-4811WIN	30/5.1/6	163-5240



PCB Mount - DC to DC Converters - continued

TEN 30WIN Series - continued

30Watt, 4:1 Input - continued

Manuf- part No	Output (W/V/A)	Order Code	Manuf- part No	Output (W/V/A)	Order Code
TEN 30-4812WIN	30/12/2.5	163-5241	TEN 30-4823WIN	30/15/1	163-5245
TEN 30-4813WIN	30/15/2	163-5242	TEN 30-4831WIN	30/5/4	163-5246
TEN 30-4822WIN	30/12/1.25	163-5243	TEN 30-4832WIN	30/5/4	163-5247

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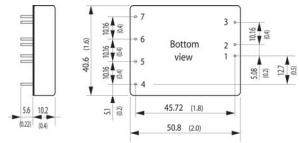
Price each				
Manuf- part No	Order Code	1+	5+	10+
TEN 30-2410WIN	163-5230●	61.50	59.04	56.08
TEN 30-2411WIN	163-5231●	61.50	59.04	56.08
TEN 30-2412WIN	163-5233●	61.50	59.04	56.08
TEN 30-2413WIN	163-5234●	61.50	59.04	56.08
TEN 30-2422WIN	163-5235●	65.20	62.59	59.46
TEN 30-2423WIN	163-5236●	65.20	62.59	59.46
TEN 30-2431WIN	163-5237●	70.00	67.20	63.84
TEN 30-2432WIN	163-5238●	70.00	67.20	63.84
TEN 30-4810WIN	163-5239●	61.50	59.04	56.08
TEN 30-4811WIN	163-5240●	61.50	59.04	56.08
TEN 30-4812WIN	163-5241●	61.50	59.04	56.08
TEN 30-4813WIN	163-5242●	61.50	59.04	56.08
TEN 30-4822WIN	163-5243●	65.20	62.59	59.46
TEN 30-4823WIN	163-5245●	65.20	62.59	59.46
TEN 30-4831WIN	163-5246●	70.00	67.20	63.84
TEN 30-4832WIN	163-5247●	70.00	67.20	63.84

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TEN-30WI Series, 30 Watt


TRACO POWER

- DC/DC convertor in SMD design
- Ultrawide 4:1 input range
- High power density
- Indefinite short circuit protection
- Input filter meets EN55022, Class A
- Remote On/Off
- 50x41x10mm shielded metal case
- 3 year manufacturer's warranty



Input Variation	±0.5% Max.
Load Variation	±0.5% Max. (single output models)
Ripple & Noise	75mV pk-pk typ. (dual output models 75mV pk-pk)
Efficiency	87% typ.
I/O Isolation	1500V dc
Operating Temperature	-40°C to +85°C (above 60°C derating 3%/°C)
Safety Standards/Approval	EN/IEC 60950, UL/cUL 1950 recognised
Input Voltage	Output Voltage
10 - 40V dc	3.3V
10 - 40V dc	5.1V
10 - 40V dc	12V
10 - 40V dc	15V
18 - 75V dc	5.1V
18 - 75V dc	12V
18 - 75V dc	15V
Mfrs. List No.	Order Code
TEN 30-2410WI	119-6501●
TEN 30-2411WI	119-6502●
TEN 30-2412WI	119-6503●
TEN 30-2413WI	124-2691●
TEN 30-4811WI	119-6504●
TEN 30-4812WI	119-6505●
TEN 30-4813WI	124-2692●

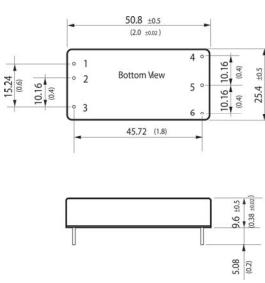
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Mfrs.	Price Each			
List No.	Order Code	1+	5+	10+
TEN 30-2410WI	119-6501●	49.37	47.39	44.92
TEN 30-2411WI	119-6502●	49.37	47.39	44.92
TEN 30-2412WI	119-6503●	49.37	47.39	44.92
TEN 30-2413WI	124-2691●	49.37	47.39	44.92
TEN 30-4811WI	119-6504●	49.37	47.39	44.92
TEN 30-4812WI	119-6505●	49.37	47.39	44.92
TEN 30-4813WI	124-2692●	49.37	47.39	44.92

TEL30 Series 30 Watt, Highest Power Density


TRACO POWER

- 2 : 1 wide input range
- Ultra high efficiency to 88 %
- Indefinite short circuit protection
- Operating temperature -25°C to +71°C
- Adjustable output voltage
- Cost efficient design
- Under voltage lockout
- Industry standard pinout
- Six-sided shielded metal case with isolated base plate
- UL/cUL 60950, EN60950 and IEC60950 approved(to 60 V dc)
- 3 year product warranty



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Further specifications:

Regulation:	±0.3% max.
Input variation	±1.0% max.
Load variation	±10% (with external resistance)
Adjustable input voltage:	100mV pk-pk typ. (20 MHz Bandwidth)
Ripple and noise:	1500V dc
I/O Isolation:	-25°C to +71°C; above 50°C power reduction 2% / K
Operating temperature:	

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Efficiency typ.	Order Code
	V dc	V dc	(max.)	(%)	
TEL 30-2409	18 - 36	2.5	6A	84	100-7463
		3.3	6A	86	100-7465
		5.1	5A	84	100-7466
		12	2.5A	88	100-7467
		3.3	6A	86	100-7469
		5.1	5A	88	100-7470
TEL 30-4811	12	2.5A	88	(%)	100-7471

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Mfrs. List No.	Order Code	1+	5+	10+	25+
TEL 30-2409	100-7463●	35.260	33.850	32.090	29.270
TEL 30-2410	100-7465●	35.260	33.850	32.090	29.270
TEL 30-2411	100-7466●	35.260	33.850	32.090	29.270
TEL 30-2412	100-7467●	35.260	33.850	32.090	29.270
TEL 30-4810	100-7469●	25.380	24.380	23.124	22.610
TEL 30-4811	100-7470●	31.730	30.470	28.880	26.340
TEL 30-4812	100-7471●	35.260	33.850	32.090	29.270

DC/DC Half-Brick Converters



The UCE series offers fixed output voltages from 1.5 to 12 Volts and currents up to 40 Amps. Interleaved synchronous rectifier topology yields excellent efficiency over 90% and no reverse output conduction. These converters offer tight output regulation and high stability even with no load. The unit is fully protected against input undervoltage, output overcurrent and short circuit. An on-board temperature sensor shuts down the converter if thermal limits are reached.

- Industry standard eighth-brick pinout and package
- Outputs from 1.5V to 12V up to 100W
- Input Range: 36V-75V
- Fully isolated, 2250 Vdc (BASIC)
- On/Off control, trim and sense functions
- High efficiency up to 90%
- Fully protected against temperature and voltage limits
- UL/EN/IEC 60950-1 safety approvals

Mfrs.	Output Voltage (V)	Output Current (A)	Input Voltage (V)	Polarity *	Baseplate (WxHxD)
UCE-1.5/20-D48NB-C	1.5	20	48	N	✓ 58.4x22.9x12.7
UCE-1.5/20-D48N-C	1.5	20	48	N	✗ 58.4x22.9x9.4
UCE-1.5/20-D48PB-C	1.5	20	48	P	✓ 58.4x22.9x12.7
UCE-1.5/20-D48P-C	1.5	20	48	P	✗ 58.4x22.9x9.4
UCE-1.8/30-D48NB-C	1.8	30	48	N	✓ 58.4x22.9x12.7
UCE-1.8/30-D48N-C	1.8	30	48	P	✗ 58.4x22.9x9.4
UCE-1.8/30-D48PB-C	1.8	30	48	P	✓ 58.4x22.9x12.7
UCE-1.8/30-D48P-C	1.8	30	48	P	✗ 58.4x22.9x9.4
UCE-3.3/15-D48NB-C	3.3	15	48	N	✓ 58.4x22.9x12.7
UCE-3.3/15-D48N-C	3.3	15	48	P	✗ 58.4x22.9x9.4
UCE-3.3/15-D48PB-C	3.3	15	48	P	✓ 58.4x22.9x12.7
UCE-3.3/15-D48P-C	3.3	15	48	P	✗ 58.4x22.9x9.4
UCE-3.3/30-D48NB-C	3.3	30	48	N	✓ 58.4x22.9x12.7
UCE-3.3/30-D48N-C	3.3	30	48	P	✗ 58.4x22.9x9.4
UCE-3.3/30-D48PB-C	3.3	30	48	P	✓ 58.4x22.9x12.7
UCE-3.3/30-D48P-C	3.3	30	48	P	✗ 58.4x22.9x9.4
UCE-12/4.2-D48NB-C	12	4.2	48	N	✓ 58.4x22.9x12.7
UCE-12/4.2-D48N-C	12	4.2	48	N	✗ 58.4x22.9x9.4
UCE-12/4.2-D48PB-C	12	4.2	48	P	✓ 58.4x22.9x12.7
UCE-12/4.2-D48P-C	12	4.2	48	P	✗ 58.4x22.9x9.4
UCE-12/8.3-D48NB-C	12	8.3	48	N	✓ 58.4x22.9x12.7
UCE-12/8.3-D48N-C	12	8.3	48	N	✗ 58.4x22.9x9.4
UCE-12/8.3-D48PB-C	12	8.3	48	P	✓ 58.4x22.9x12.7
UCE-12/8.3-D48P-C	12	8.3	48	P	✗ 58.4x22.9x9.4

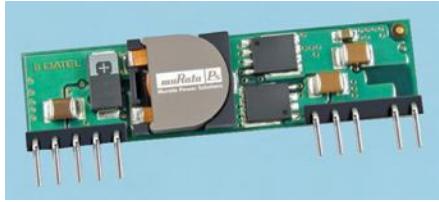
Mfrs. List No.	Order Code	1+	5+	10+
UCE-1.5/20-D48NB-C	163-5474●	47.37	45.95	43.65
UCE-1.5/20-D48N-C	163-5476●	41.74	40.49	38.46
UCE-1.5/20-D48PB-C	163-5477●	49.25	47.78	45.39
UCE-1.5/20-D48P-C	163-5478●	43.61	42.30	40.18
UCE-1.8/30-D48NB-C	163-5479●	50.01	48.50	46.08
UCE-1.8/30-D48N-C	163-5480●	44.37	43.04	40.88

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Mfrs. List No.	Order Code	1+	Price Each	5+	10+
UCE-1.8/30-D48PB-C	163-5481●	51.89		50.34	47.82
UCE-1.8/30-D48P-C	163-5482●	46.25		44.86	42.62
UCE-3.3/15-D48NB-C	163-5483●	47.37		45.95	43.65
UCE-3.3/15-D48N-C	163-5484●	41.74		40.49	38.46
UCE-3.3/15-D48PB-C	163-5485●	49.25		47.78	45.39
UCE-3.3/15-D48P-C	163-5486●	43.61		42.30	40.18
UCE-3.3/30-D48NB-C	163-5488●	50.01		48.50	46.08
UCE-3.3/30-D48N-C	163-5489●	50.01		48.50	46.08
UCE-3.3/30-D48PB-C	163-5490●	51.89		50.34	47.82
UCE-3.3/30-D48P-C	163-5491●	46.25		44.86	42.62
UCE-12/4.2-D48NB-C	163-5492●	47.37		45.95	43.65
UCE-12/4.2-D48N-C	163-5493●	41.74		40.49	38.46
UCE-12/4.2-D48PB-C	163-5494●	49.25		47.78	45.39
UCE-12/4.2-D48P-C	163-5495●	43.61		42.30	40.18
UCE-12/8.3-D48NB-C	163-5496●	48.89		47.42	45.05
UCE-12/8.3-D48N-C	163-5497●	43.24		41.94	39.84
UCE-12/8.3-D48PB-C	163-5498●	50.77		49.24	46.78
UCE-12/8.3-D48P-C	163-5500●	45.13		43.77	41.59

DC/DC Converter

LSN-10A Series


Murata Ps
Murata Power Solutions

- EMC compliant
- UL/IEC/EN60950 certified
- Thermal shutdown
- Remote on/off control
- Outstanding performance:
- Efficiencies to 96% @ 10 Amps
- Noise as low as 10mVp-p
- Stable no-load operation
- Trimmable output voltage

Nominal Input Voltage	Output Voltage	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
5V dc (4.5 - 5.5V dc)	3.3V	10A	12.7x50.8x8.64	LSN-3.3/10-D5-C	142-3462
12V dc (10.8 - 13.2V dc)	5V	10A	13.97x50.8x8.64	LSN-5/10-D12-C	142-3463

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Mfrs. List No.	Order Code	1+	Price Each	5+	10+
LSN-3.3/10-D5-C	142-3462●	13.90		13.51	13.13
LSN-5/10-D12-C	142-3463●	13.90		13.51	13.13

33-50W Non-Isolated DC/DC Converters

PTH Series


Artesyn
Technology

- Wide-output voltage adjust (0.8 Vdc to 5.5 Vdc)
- Auto-track™ sequencing
- Pre-bias start-up capability
- Efficiencies up to 95%
- Output ON/OFF inhibit
- Output voltage sense
- Point-of-Load-Alliance (POLA) compatible

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Efficiency (%)
PTH03050WAD	2.95 - 3.65	0.8 - 2.5	15	6	94
PTH03050WAZ	2.95 - 3.65	0.8 - 2.5	15	6	94
PTH03060WAD	2.95 - 3.65	0.8 - 2.5	15	10	94
PTH05050WAD	4.5 - 5.5	0.8 - 3.6	21.6	6	95
PTH05050WAZ	4.5 - 5.5	0.8 - 3.6	21.6	6	95
PTH05060WAD	4.5 - 5.5	0.8 - 3.6	21.6	10	95
PTH12050WAD	10.8 - 13.2	1.2 - 5.5	33	6	93
PTH12050WAZ	10.8 - 13.2	1.2 - 5.5	33	6	93
PTH12060WAD	10.8 - 13.2	1.2 - 5.5	33	10	93

492280

Mfrs. List No.	Order Code	1+	Price Each	5+	10+	25+
PTH03050WAD	151-6372●	12.59		11.96	11.35	10.78
PTH03050WAZ	SMD-151-6373●	12.59		11.96	11.35	10.78
PTH03060WAD	151-6374●	16.22		15.42	14.65	13.92
PTH05050WAD	151-6375●	12.59		11.96	11.35	10.78
PTH05050WAZ	SMD-151-6376●	12.59		11.96	11.35	10.78
PTH05060WAD	151-6377●	16.22		15.42	14.65	13.92
PTH12050WAD	151-6378●	12.59		11.96	11.35	10.78
PTH12050WAZ	SMD-151-6379●	12.59		11.96	11.35	10.78
PTH12060WAD	151-6380●	16.22		15.42	14.65	13.92

DC/DC Quarter-Brick Converters
Murata Ps
Murata Power Solutions

New



These compact units fit the industry-standard footprint. With outputs ranging between 1.2V to 12V and will accept a wide input range. The UCQ's interleaved, synchronous-rectifier topology offers high efficiency up to 93%, tight line and load regulation, low noise and fast step response. A single-board optimized open-frame design contributes to impressive thermal operation. Input filters reduce propagated switching noise back to input sources and protection faults automatically recover using the hiccup technique.

- Standard quarter-brick package/pinout
- Fully isolated, 2250Vdc (BASIC)
- Input range: 24V or 48V
- Output overvoltage protection
- Outputs: 1.2V to 12V
- Fully I/O protected; Thermal shutdown
- Outstanding thermal performance
- UL/EN/IEC60950-1 safety standards
- On/off control, trim & sense functions

Mfrs. List No.	Output Voltage (V)	Output Current (A)	Input Voltage (V)	Polarity *	On/Off Control	Baseplate	Dimensions(mm) (WxHxD)
UCQ-1.2/30-D48NB-C	1.2	30	48	N	✓		58.4x36.8x12.7
UCQ-1.2/30-D48N-C	1.2	30	48	N	✗		58.4x36.8x10.2
UCQ-1.2/30-D48PB-C	1.2	30	48	P	✓		58.4x36.8x12.7
UCQ-1.2/30-D48P-C	1.2	30	48	P	✗		58.4x36.8x10.2
UCQ-1.5/25-D48NB-C	1.5	25	48	N	✓		58.4x36.8x12.7
UCQ-1.5/25-D48N-C	1.5	25	48	N	✗		58.4x36.8x10.2
UCQ-1.5/25-D48PB-C	1.5	25	48	P	✓		58.4x36.8x12.7
UCQ-1.5/25-D48P-C	1.5	25	48	P	✗		58.4x36.8x10.2
UCQ-1.8/30-D48NB-C	1.8	30	48	N	✓		58.4x36.8x12.7
UCQ-1.8/30-D48N-C	1.8	30	48	N	✗		58.4x36.8x10.2
UCQ-1.8/30-D48PB-C	1.8	30	48	P	✓		58.4x36.8x12.7
UCQ-1.8/30-D48P-C	1.8	30	48	P	✗		58.4x36.8x10.2
UCQ-2.5/30-D48NB-C	2.5	30	48	N	✓		58.4x36.8x12.7
UCQ-2.5/30-D48N-C	2.5	30	48	N	✗		58.4x36.8x10.2
UCQ-2.5/30-D48PB-C	2.5	30	48	P	✓		58.4x36.8x12.7
UCQ-2.5/30-D48P-C	2.5	30	48	P	✗		58.4x36.8x10.2
UCQ-2.5/40-D24NB-C	2.5	40	24	N	✓		58.4x36.8x12.7
UCQ-2.5/40-D24N-C	2.5	40	24	N	✗		58.4x36.8x10.2
UCQ-2.5/40-D24PB-C	2.5	40	24	P	✓		58.4x36.8x12.7
UCQ-2.5/40-D24P-C	2.5	40	24	P	✗		58.4x36.8x10.2
UCQ-2.5/30-D48N-C	3.3	20	48	N	✓		58.4x36.8x12.7
UCQ-3.3/20-D48N-C	3.3	20	48	N	✗		58.4x36.8x10.2
UCQ-3.3/20-D48PB-C	3.3	20	48	P	✓		58.4x36.8x12.7
UCQ-3.3/20-D48P-C	3.3	20	48	P	✗		58.4x36.8x10.2
UCQ-3.3/30-D48NB-C	3.3	30	48	N	✓		58.4x36.8x12.7
UCQ-3.3/30-D48N-C	3.3	30	48	N	✗		58.4x36.8x10.2
UCQ-3.3/30-D48PB-C	3.3	30	48	P	✓		58.4x36.8x12.7
UCQ-3.3/30-D48P-C	3.3	30	48	P	✗		58.4x36.8x10.2
UCQ-3.3/35-D24NB-C	3.3	35	24	N	✓		58.4x36.8x12.7
UCQ-3.3/35-D24N-C	3.3	35	24	N	✗		58.4x36.8x10.2
UCQ-3.3/35-D24PB-C	3.3	35	24	P	✓		58.4x36.8x12.7
UCQ-3.3/35-D24P-C	3.3	35	24	P	✗		58.4x36.8x10.2
UCQ-5/20-D24NB-C	5	20	48	N	✓		58.4x36.8x12.7
UCQ-5/20-D24N-C	5	20	48	N	✗		58.4x36.8x10.2
UCQ-5/20-D24PB-C	5	20	48	P	✓		58.4x36.8x12.7
UCQ-5/20-D24P-C	5	20	48	P	✗		58.4x36.8x10.2
UCQ-5/20-D48NB-C	5	20	24	N	✓		58.4x36.8x12.7
UCQ-5/20-D48N-C	5	20	24	N	✗		58.4x36.8x10.2
UCQ-5/20-D48PB-C	5	20	24	P	✓		58.4x36.8x12.7
UCQ-5/20-D48P-C	5	20	24	P	✗		58.4x36.8x10.2
UCQ-5/20-D24N-C	12	8.3	48	N	✓		58.4x36.8x12.7
UCQ-5/20-D24N-C	12	8.3	48	N	✗		58.4x36.8x10.2
UCQ-5/20-D24PB-C	12	8.3	48	P	✓		58.4x36.8x12.7
UCQ-5/20-D24P-C	12	8.3	48	P	✗		58.4x36.8x10.2

* N = Negative polarity, P = Positive polarity.

519907

Mfrs. List No.	Order Code	1+	Price Each	5+	10+
UCQ-1.2/30-D48NB-C	163-5501●	52.64		51.06	48.52
UCQ-1.2/30-D48N-C	163-5502●	47.01		45.59	43.32
UCQ-1.2/30-D48PB-C	163-5503●	54.52		52.89	50.24
UCQ-1.2/30-D48P-C	163-5504●	48.89		47.42	45.05
UCQ-1.5/25-D48NB-C	163-5506●	52.64		51.06	48.52
UCQ-1.5/25-D48N-C	163-5507●	47.01		45.59	43.32
UCQ-1.5/25-D48PB-C	163-5508●	54.52		52.89	50.24
UCQ-1.5/25-D48P-C	163-5509●	48.89		47.42	45.05
UCQ-1.5/40-D48N-C	163-5510●	48.50		47.04	44.69
UCQ-1.5/40-D48PB-C	163-5511●	50.38		48.88	46.43
UCQ-1.8/30-D48NB-C	163-5512●	52.64		51.06	48.52
UCQ-1.8/30-D48N-C	163-5513●	47.01		45.59	43.32
UCQ-1.8/30-D48PB-C	163-5514●	54.52		52.89	50.24
UCQ-1.8/30-D48P-C	163-5515●	48.89		47.42	45.05
UCQ-2.5/30-D48N-C	163-5516●	52.64		51.06	48.52
UCQ-2.5/30-D48PB-C	163-5518●	47.01		45.59	43.32
UCQ-2.5/30-D48P-C	163-5519●	54.52		52.89	50.24
UCQ-2.5/30-D48PB-C	163-5520●	48.89		47.42	45.05
UCQ-2.5/40-D24NB-C	163-5521●	54.15			

PCB Mount - DC to DC Converters - continued

DC/DC Quarter-Brick Converters - continued

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
UCQ-5/20-D48P-C	163-5547●	52.01	50.45	47.93
UCQ-12/8.3-D48NB-C	163-5548●	53.50	51.89	49.30
UCQ-12/8.3-D48N-C	163-5549●	47.55	46.13	43.82
UCQ-12/8.3-D48PB-C	163-5550●	54.98	53.33	50.67
UCQ-12/8.3-D48P-C	163-5551●	49.04	47.56	45.19

36-66W High-Efficiency DC/DC Converters

LES Series



- Ultra-high efficiency topology
- Industry standard eighth brick footprint (identical to quarter-brick pinout)
- Low profile through-hole version
- Wide ambient temperature range, -40°C to +85°C
- 80% to 110% output trim
- Monotonic start-up in normal and prebiased loads
- Basic insulation system
- Oversupply and overtemperature protection
- Secondary side control, no optocouplers, fast transient response

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Efficiency (%)
LES20A24-1V8REJ	24	1.8	36	20	91
LES20A24-3V3-REJ	24	3.3	66	20	90

ARTESYN®

492339

Mfrs. List No.	Order Code	1+	5+	10+	25+
LES20A24-1V8REJ	151-6389●	76.52	72.69	69.06	65.60
LES20A24-3V3-REJ	151-6390●	76.52	72.69	69.06	65.60

Efficiency 86-92%
Isolation Voltage 1500 VDC Input to Output
Operating Temperature -40°C to +100°C, derate from 100% load at +60°C to 0% load at +100°C
Case Temperature +100°C max
Storage Temperature -55°C to +125°C

Mfrs. List No.	Output 1	Output 2	Output 3	Order code
JCP4012S3V3	3.3V/10A	—	—	143-5527
JCP4012S05	5V/8.8A	—	—	143-5529
JCP4012S12	12V/3.33A	—	—	143-5531
JCP4012S15	15V/2.66A	—	—	143-5532
JCP4012D12	12V/1.8A	-12V/1.8A	—	143-5533
JCP4012D15	15V/1.4A	-15V/1.4A	—	143-5534
JCP4012T0312	3.3V/6A	12V/0.4A	-12V/0.4A	143-5535
JCP4012T0315	3.3V/6A	15V/0.3A	-15V/0.3A	143-5536
JCP4012T0512	5V/6A	12V/0.4A	-12V/0.4A	143-5537
JCP4012T0515	5V/6A	15V/0.3A	-15V/0.3A	143-5538
JCP4024S3V3	3.3V/10A	—	—	143-5539
JCP4024S05	5V/8.8A	—	—	143-5540
JCP4024S12	12V/3.33A	—	—	143-5542
JCP4024S15	15V/2.66A	—	—	143-5543
JCP4024D12	12V/1.8A	-12V/1.8A	—	143-5544
JCP4024D15	15V/1.4A	-15V/1.4A	—	143-5545
JCP4024T0312	3.3V/6A	12V/0.4A	-12V/0.4A	143-5546
JCP4024T0512	5V/6A	12V/0.4A	-12V/0.4A	143-5547
JCP4048S3V3	3.3V/10A	—	—	143-5550
JCP4048S05	5V/8.8A	—	—	143-5551
JCP4048S12	12V/3.33A	—	—	143-5552
JCP4048S15	15V/2.66A	—	—	143-5554
JCP4048D12	12V/1.8A	-12V/1.8A	—	143-5555
JCP4048D15	15V/1.4A	-15V/1.4A	—	143-5556
JCP4048T0312	3.3V/6A	12V/0.4A	-12V/0.4A	143-5557
JCP4048T0315	3.3V/6A	15V/0.3A	-15V/0.3A	143-5558
JCP4048T0512	5V/6A	12V/0.4A	-12V/0.4A	143-5559
JCP4048T0515	5V/6A	15V/0.3A	-15V/0.3A	143-5560

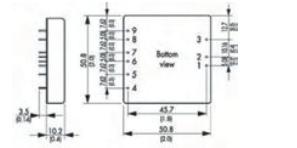
492339

Order Code	1+	5+	10+	25+
Single Output All Order Codes●	48.00	46.56	45.12	43.20
Dual Output All Order Codes●	53.00	51.41	49.82	47.70
Triple Output All Order Codes●	55.00	53.35	51.70	49.50

TRACO POWER

40 Watt DC/DC Converter

TEN 40 Series



- Highest power density: 40W in 50x50x10mm metal package
- Models with Single-, Dual and Triple output
- Wide 2:1 input range
- Operating temperature range -40°C to +71°C
- Line regulation 1.0% max.
- Load regulation single output ±0.5% max.
- 3 year guarantee

- Load regulation dual output ±1.0% max.
- Load regulation triple output ±4.0% max.
- Ripple & noise: 3.3Vout & 5Vout models <50 mVpk-pk (20MHz Bandwidth)
- I/O isolation 1500 VDC
- Short circuit protection
- Six-side shielded metal case
- 3 year guarantee

Mfrs. List No.	Input Voltage	Vout	Imax.	Vout	Imax.	Order Code
TEN 40-1210	9-18V dc	3.3	8A	—	—	124-2707
TEN 40-1211	9-18V dc	5	8A	—	—	124-2708
TEN 40-1212	9-18V dc	12	3.3A	—	—	124-2709
TEN 40-1220	9-18V dc	3.3	*8A	5V	*8A	124-2710
TEN 40-1231	9-18V dc	5	6A	12V	400mA	124-2713
TEN 40-1232	9-18V dc	5	6A	15V	300mA	124-2715
TEN 40-2410	18-36V dc	3.3	8A	—	—	124-2716
TEN 40-2411	18-36V dc	5V	8A	—	—	124-2625
TEN 40-2412	18-36V dc	12V	3.3A	—	—	124-2626
TEN 40-2420	18-36V dc	3.3	*8A	*5V	*8A	124-2717
TEN 40-2431	18-36V dc	5V	6A	12V	400mA	124-2627
TEN 40-2432	18-36V dc	5V	6A	15V	300mA	124-2628

*dynamic current allocation, max 8A total output current

385786

Price Each
List No.
Order Code
1+
5+
10+
25+
TEN 40-1210
124-2707●
52.54
TEN 40-1211
124-2708●
52.54
TEN 40-1212
124-2709●
52.54
TEN 40-1220
124-2710●
56.42
TEN 40-1231
124-2713●
62.36
TEN 40-1232
124-2715●
62.36
TEN 40-2410
124-2716●
52.54
TEN 40-2411
124-2625●
47.80
TEN 40-2412
124-2626●
47.80
TEN 40-2420
124-2717●
56.42
TEN 40-2431
124-2627●
55.45
TEN 40-2432
124-2628●
55.45

385786

Over 480,000 products online



Austin MicroLynx 50W
Programmable, 10A

SIL THT version



SMD version

- Non-isolated 10A DC/DC converter
- 0.75-5VDC programmable output
- 10-14VDC input
- SMD and THT SIL versions available
- Programmable by external resistor (not supplied)
- High efficiency, up to 93%
- Operating temperature -40°C to +85°C
- High reliability - MTBF >10M hour @ 25°C
- Output over current protection with auto restart

- Over temperature protection
- Low output ripple and noise
- Constant switching frequency (300kHz)
- Remote On/Off
- SIL: UL60950-1 recognised, CSA C22.2 No. 60950-1-03 certified and VDE 0805:2001-12 (EN60950-1) licensed
- SMD: UL60950-1-3 recognised, CSA C22.2 No. 660950-00 certified and VDE 0805:2001-12 (EN609501) licensed

Dimensions			
Type	L	W	D
SIL THT	50.8	12.7	8.1
SMD	33	13.5	8.3

	Power	Input	Output	Output		
Mfrs. List No.	Type	W	VDC	VDC	A	Order Code
AXA010AOX3Z	SIL THT	50	10 - 14	0.75 - 5	10	126-3367
AXA010AOX3-SRZ	SMD	50		0.75 - 5	10	126-3368

33478

Price Each				
Mfrs. List No.	Order Code	1+	10+	25+
AXA010AOX3Z	126-3367●	12.64	11.88	6.75
AXA010AOX3-SRZ	126-3368●	14.63	13.35	12.47
				5.85
				11.69

DC/DC Converters - Single O/P

With wide range 4:1 inputs these converters are ideal for battery-powered and telecom equipment. Applications include small instruments, computer-based systems, data communications equipment, remote sensor systems, vehicle and portable electronics. For connection to digital systems, the outputs offer fast settling to current step loads and tolerance of higher capacitive loads. Excellent ripple and noise specifications assure compatibility to circuits using CPU's, ASIC's, programmable logic and FPGA's. No minimum load is required. For systems requiring controlled startup/shutdown, an external remote On/Off control may use a switch, transistor or digital logic.

- Ideal for high current applications
- Industry standard open frame package and pinout
- Input range: 9-36 and 18-75Vdc
- 2250V Basic isolation (48V models)
- -40 to +70°C temperature range
- UL/CSA/EN60950-1 safety standards
- Extensive self-protection shut down features

Mfrs. List No.	Output Voltage (V)	Output Current (A)	Input Voltage (V)	On/Off Control Polarity *	Dimensions(mm) (WxHxD)
UEI-3.3/15-Q12NR-C	3.3	15	24	N	49.5x39.4x9.5
UEI-3.3/15-Q12PR-C	3.3	15	24	P	49.5x39.4x9.5
UEI-3.3/18-Q48NR-C	3.3	18	48	N	49.5x39.4x9.5
UEI-3.3/18-Q48PR-C	3.3	18	48	P	49.5x39.4x9.5
UEI-5/10-Q12NR-C	5	10	24	N	49.5x39.4x9.5
UEI-5/10-Q12PR-C	5	10	24	P	49.5x39.4x9.5
UEI-5/12-Q48NR-C	5	12	48	N	49.5x39.4x9.5
UEI-5/12-Q48PR-C	5	12	48	P	49.5x39.4x9.5

* N = Negative polarity, P = Positive polarity.

519924

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
UEI-3.3/15-Q12NR-C	163-5559●	49.64	48.14	45.73	
UEI-3.3/15-Q12PR-C	163-5560●	47.76	46.32	44.00	
UEI-3.3/18-Q48NR-C	163-5561●	44.75	43.40	41.22	
UEI-3.3/18-Q48PR-C	163-5562●	46.62	45.22	42.96	
UEI-5/10-Q12NR-C	163-5563●	49.64	48.14	45.73	
UEI-5/10-Q12PR-C	163-5564●	47.76	46.32	44.00	
UEI-5/12-Q48NR-C	163-5565●	44.75	43.40	41.22	
UEI-5/12-Q48PR-C	163-5567●	46.62	45.22	42.96	

50/100W Wide Input DC/DC Converters
PS50/100 Series

H=12.7, W=61.0, D=57.9

A range of 50W and 100W high density, base plate cooled DC-DC modules in an industry standard 'half-brick' with wide 2:1 input range, high efficiency and UL1950 approval. Suitable for industrial and telecoms applications.

- 50W/100W isolated output
- Efficiency to 86%
- 300KHz switching frequency (500KHz on 100W versions)
- 2:1 input range
- Regulated output
- Continuous short circuit protection
- Five-sided metal case
- Half-brick size meet industrial standard

Input Voltage Range	24V Models	18-36V dc	Load Regulation	±0.2% max.
Input Voltage Range	48V Models	36-75V dc	Isolation Voltage	1500V dc min.
Short Circuit Protection	Continuous	±0.2% max.	Operating Temperature	-40° to 100°

Input Voltage	Output Voltage	Output Current	No Load Current	Full Load Current	Efficiency	Mfrs. List No.	Order Code
50W							
18-36V dc	5V	10A	50.0mA	2540.0mA	82%	PS50-24-S05	117-6750
18-36V dc	12V	4.16A	50.0mA	2540.0mA	85%	PS50-24-S12	117-6751
18-36V dc	24V	2.08A	50.0mA	2419.0mA	86%	PS50-24-S24	117-6752
36-75V dc	12V	4.16A	50.0mA	1220.0mA	85%	PS50-48-S12	117-6755
36-75V dc	24V	2.08A	50.0mA	1209.0mA	86%	PS50-48-S24	117-6756
100W							
18-36V dc	5V	20A	50.0mA	5020.0mA	83%	PS100-24-S05	117-6757
18-36V dc	12V	8.3A	50.0mA	4880.0mA	85%	PS100-24-S12	117-6758
18-36V dc	24V	4.17A	50.0mA	4905.0mA	85%	PS100-24-S24	117-6759

386249

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
PS50-24-S05	117-6750●	70.35	67.05	63.99	61.20	
PS50-24-S12	117-6751●	70.35	67.05	63.99	61.20	
PS50-24-S24	117-6752●	70.35	67.05	63.99	61.20	
PS50-48-S12	117-6755●	70.35	67.05	63.99	61.20	
PS50-48-S24	117-6756●	70.35	67.05	63.99	61.20	
PS100-24-S05	117-6757●	91.27	87.13	83.34	79.87	
PS100-24-S12	117-6758●	91.27	87.13	83.34	79.87	
PS100-24-S24	117-6759●	91.27	87.13	83.34	79.87	



- High efficiency topology
- Industry standard eighth-brick foot print (identical to quarter-brick pinout)
- Low profile through-hole and surface mount version
- 38% space savings over quarter-brick converters
- Wide ambient temperature range, -40 °C to +85 °C
- 90% to 110% output trim
- 100 V, 100 ms input voltage transient rated
- Regulation to zero load

- Fixed frequency switching
- Fast transient switching

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Efficiency (%)
LES13B48-5V0REJ	36 - 75	5	65	13	92.5
LES20B48-3V3REJ	36 - 75	3.3	66	20	91
LES22B48-2V5REJ	36 - 75	2.5	55	22	90.5

492345

DC/DC Step Down Converter

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
LES13B48-5V0REJ	151-6391●	48.88	46.43	44.10	41.90	
LES20B48-3V3REJ	151-6392●	48.88	46.43	44.10	41.90	
LES22B48-2V5REJ	151-6393●	48.88	46.43	44.10	41.90	



- Adjustable output voltage
- Short circuit protection
- Connecting in parallel
- Stand-by function
- Remote ON/OFF
- High efficiency

SDC60/15-20: W: 127, H: 45, D: 136mm
SDC60/30-12: W: 127, H: 24, D: 136mm

Eighth-Brick DC/DC Converter UWE Series



Murata *Ps*
Murata Power Solutions

New

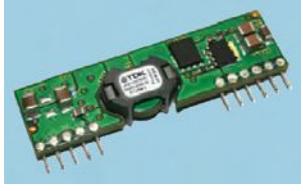
- Industry-standard through-hole eighth-brick package with 0.9" x 2.3" x 0.36" outline dimensions
- Input ranges: 9 - 36 Vdc
- Synchronous rectification yields very high efficiency and low power dissipation
- Operating temperature: -40 to +85°C with derating
- Up to 1500 VDC isolation using Basic insulation
- Outstanding thermal performance and derating
- Extensive self-protection, overtemperature and overload features with no output reverse conduction
- On/Off control, trim and remote sense functions
- Designed to meet UL/EN/IEC 60950-1, CAN/CSA-C22.2 No. 60950-1 safety approvals and FCC RFI/EMI certification
- Pre-bias operation for startup protection

Dimensions (mm): L=22.9, W=58.4, D=9.7

Mfrs. List No.	Power Rating (W)	Input Voltage (V)	Output Voltage (V)	Output Current (A)	Dimensions (mm)
UWE-12/6-Q12P-C	72	12 (9 - 36)	12	6	523980

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
UWE-12/6-Q12P-C	163-5470●	57.30	55.58	53.92	

80W Non-Isolated DC/DC Converters



LAMBDA

New

- Positive logic on/off
- Flexible Output Voltage Sequencing
- Starts with pre-biased output
- Constant switching frequency
- Remote Sense
- Calculated MTBF > 13.7M Hours

Dimensions (mm): L=50.8, W=14, D=7.9

The iAD Series offers an 80W power module in the industry's standard SIP footprint. The iAD 12Vin series offers an ultra wide input voltage range of 6.0-14.0V. The open-frame, compact design provides flexibility by performing local voltage conversion of a 12V bus.

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Power Rating (W)	Output Current (A)	Efficiency (%)
IAD12016A008V-000-R	6 - 14	0.8 - 5.5	80	16	94

508183

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
IAD12016A008V-000-R	157-4483●	22.05	21.33	20.80	20.29	

DC/DC Quarter-Brick Converters

Murata *Ps*
Murata Power Solutions

New



This quarter-brick DC/DC converter series offers a very high output current in an industry standard "quarter brick" package requiring no heat sink. With a wide range of inputs these converters are ideal for datacom and telecom systems. Advanced automated surface mount assembly and planar magnetics deliver full magnetic and optical isolation with Basic protection up to 2250 Volts. For systems needing controlled startup/shutdown, an external remote On/Off control may use either positive or negative polarity.

- 3.3V output @ up to 50 Amps
- Industry standard quarter brick open frame package
- Input range: 36V-75V
- Fully isolated, 2250Vdc (BASIC)
- High efficiency: up to 90%
- CSA/UL/EN 60950-1 safety approvals
- Extensive self-protection, current limiting and shut down features

Applications:

- Embedded systems, datacom and telecom installations
- Disk farms, data centers and cellular repeater sites
- Remote sensor systems, dedicated controllers
- Instrumentation systems, R&D platforms, automated test fixtures
- Data concentrators, voice forwarding and speech processing systems

Mfrs. List No.	Output Voltage (V)	Output Current (A)	Input Voltage (V)	On/Off Control Polarity *	Baseplate Dimensions(mm) (WxHxD)
HPQ-3.3/50-D48NB-C	3.3	50	48	N ✓	47.2x36.8x12.7
HPQ-3.3/50-D48N-C	3.3	50	48	N ✗	47.2x36.8x10.7
HPQ-3.3/50-D48PB-C	3.3	50	48	P ✓	47.2x36.8x12.7
HPQ-3.3/50-D48P-C	3.3	50	48	P ✗	47.2x36.8x10.7

* N = Negative polarity, P = Positive polarity.

519878

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
HPQ-3.3/50-D48NB-C	163-5470●	62.05	60.19	57.18	
HPQ-3.3/50-D48N-C	163-5471●	56.40	54.71	51.97	
HPQ-3.3/50-D48PB-C	163-5472●	63.92	62.01	58.91	
HPQ-3.3/50-D48P-C	163-5473●	58.29	56.54	53.71	

DC/DC Half-Brick Converters

Murata *Ps*
Murata Power Solutions

New



Using both surface-mount technology and planar magnetics, these converters are manufactured on lead-free, open-frame packages with an industry-standard pinout. These converters utilize a full-bridge, fixed-frequency topology along with synchronous output rectification to achieve a high efficiency. Features also include input undervoltage shutdown circuitry, output overvoltage protection, output short-circuit and current limiting protection and thermal shutdown.

- 3.3V to 12V outputs @ up to 70 Amps
- Input range: 36V-75V
- High efficiency: up to 91%
- Fully isolated, 2250Vdc (BASIC)
- Remote sense, Trim, On/Off control
- Input undervoltage shutdown
- Output overvoltage protection
- Short circuit protection, thermal shutdown
- IEC/UL/EN60950-1 safety standards

Mfrs. List No.	Output Voltage (V)	Output Current (A)	Input Voltage (V)	On/Off Control Polarity *	Baseplate Dimensions(mm) (WxHxD)
HPH-3.3/70-D48NB-C	3.3	70	48	N ✓	58.4x60.96x12.7
HPH-3.3/70-D48N-C	3.3	70	48	N ✗	58.4x60.96x12.7
HPH-3.3/70-D48PB-C	3.3	70	48	P ✓	58.4x60.96x12.7
HPH-3.3/70-D48P-C	3.3	70	48	P ✗	58.4x60.96x10.2
HPH-5/40-D48NB-C	5	40	48	N ✓	58.4x60.96x12.7
HPH-5/40-D48N-C	5	40	48	N ✗	58.4x60.96x10.2
HPH-5/40-D48PB-C	5	40	48	P ✓	58.4x60.96x12.7
HPH-5/40-D48P-C	5	40	48	P ✗	58.4x60.96x10.2
HPH-12/30-D48NB-C	12	30	48	N ✓	58.4x60.96x12.7
HPH-12/30-D48N-C	12	30	48	N ✗	58.4x60.96x10.2
HPH-12/30-D48PB-C	12	30	48	P ✓	58.4x60.96x12.7
HPH-12/30-D48P-C	12	30	48	P ✗	58.4x60.96x10.2

* N = Negative polarity, P = Positive polarity.

519838

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
HPH-3.3/70-D48NB-C	163-5457●	77.27	74.95	71.20	
HPH-3.3/70-D48N-C	163-5458●	71.33	69.19	65.72	
HPH-3.3/70-D48PB-C	163-5459●	78.76	76.39	72.57	
HPH-3.3/70-D48P-C	163-5460●	72.81	70.63	67.09	
HPH-5/40-D48NB-C	163-5461●	77.27	74.95	71.20	
HPH-5/40-D48N-C	163-5462●	71.33	69.19	65.72	
HPH-5/40-D48PB-C	163-5464●	78.76	76.39	72.57	
HPH-5/40-D48P-C	163-5465●	72.81	70.63	67.09	
HPH-12/30-D48NB-C	163-5466●	69.56	67.48	64.11	
HPH-12/30-D48N-C	163-5467●	63.92	62.01	58.91	
HPH-12/30-D48PB-C	163-5468●	71.45	69.31	65.85	
HPH-12/30-D48P-C	163-5469●	65.80	63.83	60.64	

200-360W High-Efficiency DC/DC Bus Converters

ARTESYN TECHNOLOGIES

IBC Series



- 48 V input with isolated 12 V output
- Ultra-high efficiency up 94.5%
- Unprecedented usable output power levels
- High power density open-frame technology
- Wide operating ambient temperature range
- Industry standard footprint and pinout
- Meets basic insulation requirements of EN60950-1
- Remote ON/OFF and overtemperature protection

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Efficiency (%)
IBC17AEW4812-REJ	36 - 75	12	200	17	94
IBC20AES4812-REJ	42 - 53	12	240	20	94.5
IBC28AQW4812-REJ	36 - 75	12	336	28	94.5
IBC30AQS4812-REJ	42 - 53	12	360	30	94.5

492323

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
IBC17AEW4812-REJ	151-6385●	89.50	85.02	80.77	76.73	
IBC20AES4812-REJ	151-6386●	82.22	78.11	74.20	70.48	
IBC28AQW4812-REJ	151-6387●	105.75	100.46	95.44	90.67	
IBC30AQS4812-REJ	151-6388●	95.20	90.44	85.91	81.61	

PCB Mount - DC to DC Converters - continued**300W Half-Brick DC/DC Converter**

RFB Series



- High efficiency topology
- Wide temperature range, -40 °C to +100 °C @ full power
- High power density
- Remote ON/OFF
- Operational insulation system

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Efficiency (%)
RFB300-24S12-R5Y	18 - 36	7.2 - 13.2	300	25	86
RFB300-48S28-R5Y	36 - 75	16.8 - 29.4	308	11	91

ARTESYN TECHNOLOGIES

492360

Mfrs. List No.	Order Code	1+	5+	10+	25+
RFB300-24S12-R5Y	151-6400	115.78	109.97	104.47	99.23
RFB300-48S28-R5Y	151-6402	115.78	109.97	104.47	99.23

700W Full-Brick DC/DC Converter

RFF Series



- High efficiency topology
- Wide temperature range, -40 °C to +100 °C @ full power
- High power density (127 W/in³)
- Remote ON/OFF
- Operational insulation system

Mfrs. List No.	Input Voltage (V)	Output Voltage (V)	Output Power (W)	Output Current (A)	Efficiency (%)
RFF700-48S28-5Y	36 - 75	16.8 - 29.4	700	25	91

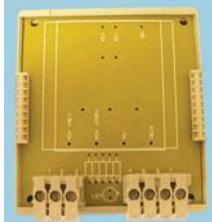
ARTESYN TECHNOLOGIES

492366

DIN / Chassis Mount Bracket

multicomp

New



These special mounting brackets have been developed to accept a wide range of standard DC/DC converters for applications requiring either DIN Rail or Chassis mounting where a bespoke circuit board is not available. All units come complete with input and output terminals and the provision to fit an LED across the output. See website for compatible DC/DC Converter.

516774

Mfrs. List No.	Order Code	1+	5+	10+	25+	50+
OF117A	162-3269●	26.51	25.62	24.48	23.75	23.03

PCB Mount - AC to DC Converters**1W, Encapsulated**

Low Noise Linear, 240V or 110V ac Input



H=30, W=50, D=50

A range of low power PCB mounting encapsulated power supplies available with 110V or 240V ac input, 5V, 12V, ±12V or ±15V dc output. They are encapsulated in chemically resistant plastic epoxy resin. The supplies incorporate overcurrent and reverse voltage protection. Overloads will cause the supply to shut down to a trickle current, removal of the overload allows the supply to recover without further attention. The input and output pins are on 2.54mm (0.1") centres for easy PCB mounting.

- High reliability linear
- Isolation 3kV input to output
- Approved to EN60950

Input voltage 210V to 250V or 210V to 125V ac
Input frequency 47Hz to 63Hz

Output ripple 10mV(pk to pk) max
Operating temp. 0°C to 40°C

Output Voltage (V dc) 240V ac Input	Mfrs. List No.	Order Code	Output Voltage (V dc) 110V ac Input	Mfrs. List No.	Order Code
55V	14428-000C	118-6388	±15V	14431-000C	118-6391
1212V	14429-000C	118-6389	5V dc5V	14434-000C	118-6392
±12 V	14430-000C	118-6390	12V dc12V	14435-000C	118-6394

205867

240V ac Input		Price Each			
Single	Order Code	1+	5+	10+	25+
5V, 0.2A	118-6388●	23.74	22.73	21.77	20.42
12V, 0.1A	118-6389●	21.99	21.07	20.84	19.69
Twin					
±12V, 0.05A	118-6390●	27.54	26.39	25.18	23.48
±15V, 0.04A	118-6391●	27.54	26.39	25.18	23.48
110V ac Input					
Single					
5V, 0.2A	118-6392●	23.74	22.73	22.19	20.86
12V, 0.1A	118-6394●	20.55	19.67	19.21	18.05

5W, Encapsulated

Low Noise Linear, 240V or 110V ac Input



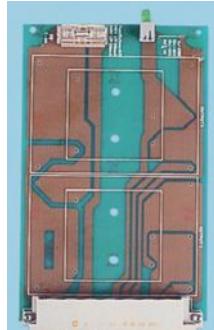
A range of PCB mounting encapsulated power supplies available with single or multi output voltage options. The 5V supply has crowbar overvoltage protection. The regulated dc output makes them ideal for powering microprocessors, TTL, CMOS, Op Amps, etc. The supplies are potted in a glass filled nylon case giving optimum protection. It is possible to mechanically mount the supplies by using the two M3 bushes located within the base of each supply. Available in 240V ac and 110V ac mains input versions.

Voltage	210V to 250Vac or 100V to 120Vac	Output voltage tolerance	±2%(all outputs)
Input frequency	47Hz to 63Hz	Line regulation	0.5%
Output ripple	4mVrms (5V) 2V rms (other)	Load regulation	100mV

205881

240V ac Input		Price Each			
Single	Order Code	1+	5+	10+	25+
5V, 1.0A	118-6397●	48.39	46.34	41.53	36.90
12V, 0.5A	118-6398●	48.39	46.34	41.53	36.90
15V, 0.4A	118-6399●	37.22	34.57	32.27	30.25
Twin					
±12V, 2x0.25A	118-6400●	48.39	46.34	41.53	36.90
±15V, 2x0.20A	118-6402●	48.39	46.34	41.53	36.90
Triple					
+5V with ±12V 0.3A 2x0.15A	118-6403●	51.17	47.24	42.32	38.81
+5V with ±15V 0.3A, 2x0.12A	118-6404●	56.86	52.49	47.02	43.13
110V ac Input					
Single					
5V, 1.0A	118-6405●	48.39	46.34	41.53	36.90
Twin					
±12V, 2x0.25A	118-6406●	48.39	46.34	41.53	36.90
±15V, 2x0.20A	118-6407●	48.39	46.34	41.53	36.90

22070

PCB's For Encapsulated Power Supplies

H15	329-680 (14211/000)
4	0/P2+ 18
-	0/P2- 20
8	0/P2 0V 22
LIVE	- 24
10	0/P1+ 26
-	0/P1- 28
12	NEUTRAL 30
-	0/P1 0V 30
14	NEUTRAL
16	0/P1 0V

Mfrs. List No.	Order Code	1+	5+	10+	25+
14045-000	473-8275	9.43	9.02	8.13	7.63
14242-000	133-9465●	9.21	8.81	7.93	7.46
14211-000	133-9466●	17.58	16.83	16.37	15.56

5-20W Single Output Encapsulated Medical PSUs



5/10W: H = 62.85 x 50 x 19.7mm
 15W: H = 75 x 53 x 22.7mm
 20W: H = 94 x 56 x 22.7mm

- Universal AC input/full range

- Ultra Low Profile

- No load power consumption <0.5W

- Short Circuit, Overload, and Over Voltage protection

- Medical Safety approvals
- Cooling by free air convection
- Fixed switching frequency at 67kHz

Applications:

- General electrical engineering
- Industrial
- IT Equipment
- Non-patient contact medical

Input Voltage 85-264 VAC, 120-370VDC Operating Temperature -20°C to +60°C

Input Frequency 47-440 Hz Storage Temperature -40°C to +85°C

Mfrs. Output Output Rated Ripple & Noise Line Load

List No.	Voltage (V)	Current (A)	Power (W)	(max) (mW)	Regulation	Regulation	Efficiency	Order Code
PM-05-3.3	3.3	1.25	4.125	80	±1.0%	±1.5%	67%	129-9034
PM-05-5	5	1	5	80	±1.0%	±1.5%	71%	129-9035
PM-05-12	12	0.42	5.04	150	±0.5%	±0.5%	73%	129-9036
PM-05-15	15	0.33	4.95	150	±0.5%	±0.5%	76%	129-9038
PM-05-24	24	0.23	5.52	240	±0.5%	±0.5%	76%	129-9039
PM-10-5	5	2	10	80	±1.0%	±1.0%	74%	129-9041
PM-10-12	12	0.85	10.2	150	±0.5%	±0.5%	79%	129-9042
PM-15-3.3	3.3	3.5	11.55	80	±1.0%	±1.0%	73%	129-9045
PM-15-5	5	3	15	80	±1.0%	±1.0%	76%	129-9046
PM-15-12	12	1.25	15	150	±0.5%	±0.5%	78%	129-9047
PM-15-15	15	1	15	150	±0.5%	±0.5%	79%	129-9048
PM-15-24	24	0.63	15.12	240	±0.5%	±0.5%	81%	129-9051
PM-20-5	5	4.4	22	80	±1.0%	±1.5%	75%	129-9053
PM-20-12	12	1.8	21.6	150	±0.5%	±1.0%	81%	129-9054
PM-20-15	15	1.4	21	150	±0.5%	±1.0%	83%	129-9055

449930

Price Each					
	Order Code	1+	5+	10+	25+
5W	All Order Codes●	17.85	17.30	16.78	16.29
10W	All Order Codes●	25.99	25.21	24.45	23.72
15W	All Order Codes●	18.90	18.34	17.78	17.26
20W	All Order Codes●	35.44	34.38	33.34	32.34

TML Series, 5-30 Watt



- Fully encapsulated AC/DC power modules
- 3 versions available:
for PCB mounting with solder pins, ultra compact (TMLM Series)
for PCB mounting with solder pins (TML Series)
for chassis mounting with screw terminals, denoted by (C) (TML Series)

- Short circuit protection
- Safety Class II (30W models only)
- Worldwide safety approvals
- 3 year manufacturer's warranty

Input Voltage 85-264V ac, 50/60Hz
 Line Regulation ±0.3% Max.
 Load Regulation ±1.0% Max. (dual/triple output models ±2.5% max.)
 Ripple & Noise <1% V out (3.3 and 5V models <1.5%)
 Conducted EMI EN 55022, Class B
 Short Circuit Protection Current limit at 120-180% Iout max. (foldback)
 Operating Temperature -25°C to +71°C (above 50°C derating 3%/°C)
 Safety Standards/Approval UL/cUL 1950 recognised, IEC/EN60950, CB Report

Power	Output 1	Voltage	Dimensions	Mfrs.	Dimensions	Mfrs.	Dimensions	Mfrs.	Dimensions	Mfrs.	Dimensions	Mfrs.	Dimensions	Mfrs.
	Output 2	Output 3		List No.										
5W	5V dc/1000mA	-	45x55x20.5	TML 05105	-	120-5039	-	-	-	-	-	-	-	-
5W	12V dc/416mA	-	45x55x20.5	TML 05112	-	120-5040	-	-	-	-	-	-	-	-
5W	24V dc/200mA	-	45x55x20.5	TML 05124	-	120-5041	-	-	-	-	-	-	-	-
5W	12V dc/200mA	-12V dc/200mA	45x55x20.5	TML 05212	119-6506	-	120-5042	-	-	-	-	-	-	-
5W	15V dc/160mA	-15V dc/160mA	45x55x20.5	TML 05215	119-6508	-	120-5043	-	-	-	-	-	-	-
10W	5V dc/2000mA	-	45x64x20.5	TML 10105	-	120-5042	-	-	-	-	-	-	-	-
10W	12V dc/833mA	-	45x64x20.5	TML 10112	-	120-5044	-	-	-	-	-	-	-	-
10W	24V dc/420mA	-	45x64x20.5	TML 10124	-	120-5045	-	-	-	-	-	-	-	-
10W	12V dc/380mA	-12V dc/380mA	45x64x20.5	TML 10212	-	120-5047	-	-	-	-	-	-	-	-
10W	15V dc/300mA	-15V dc/300mA	45x64x20.5	TML 10215	-	120-5048	-	-	-	-	-	-	-	-
10W	3.3V dc/2500mA	-	52.5x23x27	TML 10103	-	120-2632	-	-	-	-	-	-	-	-
10W	5V dc/2000mA	-	52.5x23x27	TML 10105	-	120-2633	-	-	-	-	-	-	-	-
10W	12V dc/830mA	-	52.5x23x27	TML 10112	-	120-2634	-	-	-	-	-	-	-	-
10W	15V dc/666mA	-	52.5x23x27	TML 10115	-	120-2636	-	-	-	-	-	-	-	-
10W	24V dc/420mA	-	52.5x23x27	TML 10124	-	120-2637	-	-	-	-	-	-	-	-
15W	5V dc/3000mA	-	54x74x22	TML 15105	-	120-5049	-	-	-	-	-	-	-	-
15W	12V dc/1250mA	-	54x74x22	TML 15112	-	120-5050	-	-	-	-	-	-	-	-
15W	24V dc/625mA	-	54x74x22	TML 15124	-	120-5051	-	-	-	-	-	-	-	-
15W	12V dc/650mA	-12V dc/650mA	54x74x22	TML 15212	-	120-5052	-	-	-	-	-	-	-	-
15W	15V dc/500mA	-15V dc/500mA	54x74x22	TML 15215	-	120-5053	-	-	-	-	-	-	-	-
15W	5V dc/2000mA	12V dc/200mA	-12V dc/200mA	54x74x22	TML 15512	-	120-5054	-	-	-	-	-	-	-
15W	5V dc/2000mA	15V dc/150mA	-15V dc/200mA	54x74x22	TML 15515	-	120-5056	-	-	-	-	-	-	-
30W	5V dc/600mA	-	63.5x89x25	TML 30105	-	120-5057	-	-	-	-	-	-	-	-
30W	12V dc/2500mA	-	63.5x89x25	TML 30112	-	120-5058	-	-	-	-	-	-	-	-
30W	24V dc/1250mA	-	63.5x89x25	TML 30124	-	120-5059	-	-	-	-	-	-	-	-
30W	12V dc/1300mA	-12V dc/1300mA	63.5x89x25	TML 30212	-	120-5060	-	-	-	-	-	-	-	-
30W	5V dc/3000mA	12V dc/630mA	-12V dc/630mA	63.5x89x25	TML 30512	-	124-2564	-	-	-	-	-	-	-

337909

Mfrs.	List No.	Order Code	1+	5+	10+	25+
TMLM Series						
TMLM	10103	124-2632●	24.00	22.56	21.60	20.68
TMLM	10105	124-2633●	24.00	22.56	21.60	20.68
TMLM	10112	124-2634●	24.00	22.56	21.60	20.68
TMLM	10115	124-2636●	29.22	28.05	26.59	24.25
TMLM	10124	124-2637●	24.00	22.56	21.60	20.68
TML Series						
TML	05105	120-5039●	22.17	21.28	20.17	18.40
TML	05112	120-5040●	22.17	21.28	20.17	18.40
TML	05124	120-5041●	22.17	21.28	20.17	18.40
TML	05212	119-6506●	23.68	22.73	21.55	19.66
TML	05215	119-6508●	23.68	22.73	21.55	19.66
TML	10105	120-5042●	23.00	21.63	20.71	19.83
TML	10112	120-5044●	23.00	21.63	20.71	19.83
TML	10124	120-5045●	23.00	21.63	20.71	19.83
TML	10212	120-5047●	24.00	22.57	21.61	20.69
TML	10215	120-5048●	24.00	22.57	21.61	20.69
TML	15105	120-5049●	24.50	23.05	22.06	21.11
TML	15105C	124-2584●	37.50	35.26	33.76	32.32
TML	15112	120-5050●	24.50	23.05	22.06	21.11
TML	15112C	124-2585●	37.50	35.26	33.76	32.32
TML	15124	120-5051●	24.50	23.05	22.06	21.11
TML	15124C	124-2586●	37.50	35.26	33.76	32.32
TML	15121C	120-5052●	25.50	23.99	22.95	21.96
TML	15125	120-5053●	38.50	36.21	34.67	33.20
TML	15125C	124-2587●	38.50	36.21	34.67	33.20
TML	151512	124-2589●	45.00	42.32	40.51	38.78
TML	15515	120-5056●	30.50	28.69	27.46	26.28
TML	30105	120-5057●	38.50	36.20	34.66	33.19
TML	30105C	124-2591●	56.00	52.65	50.41	48.27
TML	30112C	124-2592●	56.00	52.65	50.41	48.27
TML	30124	120-5059●	38.50	36.20	34.66	33.19
TML	30124C	124-2594●	56.00	52.65	50.41	48.27
TML	30252C	119-6511●	59.44	57.07	54.09	49.34
TML	30212	120-5060●	40.00	37.61	36.01	34.48
TML	30212C	124-2595●	58.00	54.53	52.22	50.01
TML	30512	124-2564●	47.50	44.66	42.76	40.94
TML	30512C	124-2596●	67.50	63.46	60.76	58.18

7-30W Encapsulated AC/DC PSUs

KAM Series



- High reliability compact size
- Isolation 3kVA input to output electric strength test
- Outputs fully protected against short circuit
- Class II equipment (double insulation)
- Single / Dual outputs
- Operating temperature -20°C to +70°C
- Universal wide input range
- Approvals IEC/EN60950

Mfrs.	List No.	Output Power	Output Voltage	Current (mA)	Order Code

<

PCB Mount - AC to DC Converters - continued

TMP series
7-30 Watt



**TRACO
POWER**

New

- Fully encapsulated low profile plastic case
- 2 versions available:
 - for PCB mount with solder pins
 - for chassis mount with screw terminal block
- Single-, Dual- and Triple output models
- Universal input 85-264 VAC, 47-440 Hz
- Safety class II
- Short circuit and overload protection
- 3 years warranty

Line Regulation: 1.0 % max.
Load Regulation: 1.0 % typ. output 1
Ripple & noise: 3.0 % typ. output 2&3
EMI suppression: < 1.8% of Vout [mvpk-pk max.] for 3.3 & 5.0 VDC outputs
< 1.3% of Vout [mvpk-pk max.] for other outputs
EN 55011, class B, EN 55022, class B and FCC, level B
EMI immunity: EN 61000-6-2
Output current limitation: > 120-180% of Inorm, foldback, automatic recovery
Safety standards/approvals: cUL/UL 60950-1, IEC/EN 60950-1, CB-report
Operating temperature: -25°C to +70°C, above 50°C derating 3.75 %/K
Efficiency: 83% typ.
Case: plastic (UL94V-0)

Mfrs.	Number of Outputs	Output1 V DC	mA (max.)	Output2 V DC	mA (max.)	Output3 V DC	mA (max.)	Order Code
TMP 07105	1	5	1400					167-2132
TMP 07112	1	12	585					167-2133
TMP 07124	1	24	290					167-2134
TMP 10105	1	5	2000					167-2135
TMP 10112	1	12	830					167-2136
TMP 10124	1	24	415					167-2138
TMP 10212	1	12	830					167-2139
TMP 10215	1	15	665					167-2140
TMP 15105	1	5	3000					167-2141
TMP 15112	1	12	1250					167-2142
TMP 15124	1	24	625					167-2143
TMP 15148	1	48	310					167-2144
TMP 15212	2	+12	650	-12	650			167-2145
TMP 15215	2	+15	500	-15	500			167-2146
TMP 15512	3	5	2000	+12	200	-12	200	167-2147
TMP 15515	3	5	2000	+12	150	-15	150	167-2148
TMP 30105	1	5	6000					167-2151
TMP 30112	1	12	2500					167-2152
TMP 30124	1	24	1250					167-2153
TMP 30148	1	48	625					167-2154
TMP 30212	2	+12	1300	-12	1300			167-2155
TMP 30215	2	+15	1000	-15	1000			167-2156
TMP 30512	3	+12	3000	-12	600		600	167-2157
TMP 30515	3	+15	3000	-15	500		500	167-2158
TMP 15105C	1	5	6000					167-2159
TMP 15112C	1	12	2500					167-2160
TMP 15124C	1	24	1250					167-2161
TMP 15148C	1	48	625					167-2163
TMP 15212C	2	+12	650	-12	650			167-2164
TMP 15215C	2	+15	500	-15	500			167-2165
TMP 15512C	3	5	2000	+12	200	-12	200	167-2166
TMP 15515C	3	5	2000	+15	150	-15	150	167-2167
TMP 30105C	1	5	6000					167-2168
TMP 30112C	1	12	2500					167-2169
TMP 30124C	1	24	1250					167-2170
TMP 30148C	1	48	625					167-2171
TMP 30212C	2	+12	1300	-12	1300			167-2172
TMP 30215C	2	+15	1000	-15	1000			167-2173
TMP 30512C	3	5	3000	+12	600	-12	600	167-2175
TMP 30515C	3	5	3000	+15	500	-15	500	167-2177

* C = Chassis mount, no char = PCB soldering

Type	PCB			Chassis mount		
	Length	Width	Height	Length	Width	Height
	I (mm)	w (mm)	h (mm)	I (mm)	w (mm)	h (mm)
TMP 07xxx	51 (2.00)	25.4 (1.00)	18.3 (0.72)			
TMP 10xxx	64 (2.52)	45 (1.77)	18 (0.71)			
TMP 15xxx	74 (2.91)	54 (2.13)	18.3 (0.72)	96 (3.78)	54 (2.13)	22.3 (0.88)
TMP 30xxx	89 (3.50)	63.5 (2.50)	21.5 (0.85)	112 (4.41)	63.5 (2.50)	24.6 (0.97)
	() = Inches					

525935

Mfrs.	List No.	Order Code	Price Each
		1+	25+
TMP 07105	167-2132●	22.30	21.86
TMP 07112	167-2133●	22.30	21.86
TMP 07124	167-2134●	22.30	21.86
TMP 10105	167-2135●	23.60	23.14
TMP 10112	167-2136●	23.60	22.68
TMP 10124	167-2138●	23.60	22.68
TMP 10212	167-2139●	24.70	24.22
TMP 10215	167-2140●	24.70	24.22
TMP 15105	167-2141●	24.50	24.02
TMP 15112	167-2142●	24.50	23.55
TMP 15124	167-2143●	24.50	23.55
TMP 15148	167-2144●	24.50	23.55
TMP 15212	167-2145●	25.70	25.20
TMP 15215	167-2146●	25.70	24.70
TMP 15512	167-2147●	30.00	29.41
TMP 15515	167-2148●	30.00	28.84
TMP 30105	167-2151●	36.90	36.18
TMP 30112	167-2152●	36.90	35.47
TMP 30124	167-2153●	36.90	35.47
TMP 30148	167-2154●	36.90	35.47
TMP 30212	167-2155●	38.50	37.00
TMP 30215	167-2156●	38.50	37.00
TMP 30512	167-2157●	46.20	45.29
TMP 30515	167-2158●	46.20	45.29
TMP 15112C	167-2159●	30.20	29.61
TMP 15120C	167-2160●	30.20	29.61
TMP 15148C	167-2161●	30.20	29.61
TMP 15212C	167-2163●	30.20	29.61
TMP 15215C	167-2164●	31.30	30.69
TMP 15512C	167-2165●	31.30	30.69
TMP 15515C	167-2166●	35.60	34.90
TMP 30105C	167-2167●	35.60	34.90
TMP 30112C	167-2168●	42.70	41.86
TMP 30124C	167-2169●	42.70	41.86
TMP 30148C	167-2170●	42.70	41.86
TMP 30212C	167-2171●	42.70	41.86
TMP 30215C	167-2172●	44.70	43.82
TMP 30512C	167-2173●	44.70	43.82
TMP 30515C	167-2175●	52.50	51.47
	167-2177●	52.50	50.46

10-25 Watt Single Output PCB Mount Miniature AC/DC Power Supply

XP



ECL10 (mm): L=50.8, W=25.4, D=22.86 (-P); L=52.41, W=27.2, D=23 (-E)

ECL15 (mm): L=63.5, W=31.75, D=24.4 (-P); L=65, W=36.3, D=24.4 (-E)

ECL25 (mm): L=76.2, W=35.6, D=26.7 (-P); L=78.7, W=38.1, D=27.9 (-E)

This next generation of miniature AC/DC power supplies offering 10,15 or 25 Watts of output power. They are available in open frame or encapsulated PCB mount styles with outputs of 3.3 - 48V.

- Low cost
- Ultra compact size
- 3.3V to 48V output
- PCB mount
- Class II
- Very high reliability >500kHrs
- 3 year warranty

Mfrs.	Output Power (W)	Output Voltage (V)	Output Current (A)	Order Code
ECL10US03	8.6	3.3	2.6	128-9130 143-5355
ECL10US05	10	5	2	128-9131 143-5356
ECL10US09	10	9	1.1	128-9132 143-5357
ECL10US12	10	12	0.83	128-9133 143-5359
ECL10US15	10	15	0.67	128-9134 143-5361
ECL10US24	10	24	0.42	128-9136 143-5362
ECL10US48	10	48	0.21	128-9137 143-5363
ECL15US03	10	3.3	3	133-7079 143-5364
ECL15US05	15	5	3	133-7080 143-5365
ECL15US09	15	9	1.67	133-7081 143-5366
ECL15US12	15	12	1.25	133-7082 143-5367
ECL15US15	15	15	1	133-7083 143-5368
ECL15US24	15	24	0.63	133-7084 143-5369
ECL15US48	15	48	0.32	133-7085 143-5370
ECL25US03	20	3.3	6	158-0464 158-0479
ECL25US05	25	5	5	158-0465 158-0480
ECL25US09	25	9	2.8	158-0466 158-0481

Mfrs. List No.*	Output Power (W)	Output Voltage (V)	Output Current (A) Nominal	Output Current (A) Peak	PCB Mount	Order Code Encapsulated
ECL25US12	25	12	2.1	2.73	158-0467	158-0482
ECL25US15	25	15	1.67	2.17	158-0468	158-0483
ECL25US24	25	24	1.04	1.35	158-0469	158-0484
ECL25US48	25	48	0.52	0.68	158-0470	158-0485

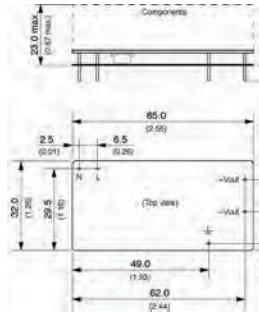
* Suffix -P = PCB Mount, -E = Encapsulated

508799

Price Each					
Series	Order Code	1+	5+	10+	25+
ECL10-P	All Order Codes●	20.00	19.40	18.80	18.00
ECL10-E	All Order Codes●	22.00	21.34	20.68	19.80
ECL15-P	All Order Codes●	22.00	21.34	20.68	19.80
ECL15-E	All Order Codes●	24.00	23.28	22.56	21.60
ECL25-P	NEW All Order Codes●	25.00	24.25	23.50	22.50
ECL25-E	NEW All Order Codes●	33.00	32.01	31.02	29.70

12-25 Watt Switch Mode

TOM Series

TRACO[®]
POWER

TRACOPOWER TOM series are AC/DC switching power supplied for direct PCB mounting. Ideal for many applications in small industrial and consumer electronic equipments with low power requirements. Compliance with international safety and EMC standards qualify these modules for worldwide use.

- AC/DC Open Frame Module
- PCB mountable with solderpins
- Ultra compact size, 65x32x23mm (TOM12)/85x41x30 (TOM25)
- Universal input 85-264 VAC
- Input regulation <20mV
- Load regulation 12W (0-100%) <50mV
- Load regulation 25W (0-100%) <100mV

- Ripple and Noise (20Mhz Bandwidth) 12W <150mVp-p
- Ripple and Noise (20Mhz Bandwidth) 25W <200mVp-p
- Overload protection
- Conducted EMI meets EN55022, Level B
- Safety approvals to EN/IEC 60950, UL60950
- 3 year product warranty

Mfrs. List No.	Voltage Output	Output Current max. at Input 230 VAC	Output Current max. at Input 115 VAC	Order Code
TOM 12105	5V dc	2.00A	2A	124-2606
TOM 12112	12V dc	1.00A	0.84A	124-2607
TOM 12124	24V dc	0.5A	0.42A	124-2608
TOM 25105	5V dc	5A	5A	124-2638
TOM 25112	12V dc	2.1A	2.1A	124-2639
TOM 25115	15V dc	1.7A	1.7A	124-2640
TOM 25124	24V dc	1.1A	1.1A	124-2641

385683

Mfrs. List No.	Order Code	1+	5+	10+	25+
TOM 12105	124-2606●	19.50	18.04	16.97	15.96
TOM 12112	124-2607●	19.50	18.04	16.97	15.96
TOM 12124	124-2608●	19.50	18.04	16.97	15.96
TOM 25105	124-2638●	37.50	35.25	33.75	32.31
TOM 25112	124-2639●	37.50	35.25	33.75	32.31
TOM 25115	124-2640●	37.50	35.25	33.75	32.31
TOM 25124	124-2641●	37.50	35.25	33.75	32.31

TRACO[®]
POWER

15W Encapsulated Medical PSUs

KM Series

TRACO[®]
POWER

- PCB Board Mountable
- Wide Range Input
- Minimises PCB Space
- High Efficiency
- Class II (No ground needed)
- Medical Safety Certifications (4kVAC Input - Output)

Mfrs. List No.	Power Rating	Output 1	Output 2	Output 3	Efficiency
KMS15-3.3	9.9W	3.3V / 3A	—	—	74%
KMS15-5	15W	5V / 3A	—	—	78%
KMS15-9	15W	9V / 1.67A	—	—	79%
KMS15-12	15W	12V / 1.25A	—	—	81%
KMS15-15	15W	15V / 1A	—	—	81%

508799

Mfrs. List No.	Power Rating	Output 1	Output 2	Output 3	Efficiency
KMS15-24	15W	24V / 0.62A	—	—	83%
KMD15-5	15W	5V / 1.5A	-5V / 1.5A	—	78%
KMD15-1212	15W	12V / 0.625A	-12V / 0.625A	—	80%
KMT15-51212	15W	5V / 2A	12V / 0.2A	-12V / 0.2A	78%
KMT15-51515	15W	5V / 5A	15V / 0.5A	-15V / 0.5A	80%

508188

Mfrs. List No.	Order Code	1+	5+	10+	25+
KMS15-3.3	157-4484●	41.62	40.37	39.15	37.98
KMS15-5	157-4485●	41.62	40.37	39.15	37.98
KMS15-9	157-4487●	41.62	40.37	39.15	37.98
KMS15-12	157-4488●	41.62	40.37	39.15	37.98
KMS15-15	157-4489●	41.62	40.37	39.15	37.98
KMS15-24	157-4490●	41.62	40.37	39.15	37.98
KMD15-55	157-4491●	43.70	42.40	41.12	40.36
KMD15-1212	157-4494●	43.70	42.40	41.12	40.36
KMT15-51212	157-4495●	48.90	47.43	46.52	45.54
KMT15-51515	157-4496●	48.90	47.43	46.52	45.54

508188

40W Encapsulated Medical PSUs

KM Series

LAMBDA[®]

- PCB Board Mountable
- Wide Range Input
- Minimises PCB Space
- High Efficiency
- Class II (No ground needed)
- Medical Safety Certifications (4kVAC Input - Output)

508193

Mfrs. List No.	Power Rating	Output 1	Output 2	Output 3	Efficiency
KMS40-3.3	26.4W	3.3V / 8A	—	—	75%
KMS40-5	40W	5V / 8A	—	—	79%
KMS40-9	40W	9V / 4.44A	—	—	82%
KMS40-12	40W	12V / 3.33A	—	—	83%
KMS40-15	40W	15V / 2.67A	—	—	83%
KMS40-24	40W	24V / 1.67A	—	—	83%
KMD40-55	40W	5V / 4A	-5V / 4A	—	79%
KMD40-512	40W	5V / 5A	12V / 1.25A	—	80%
KMD40-1212	40W	12V / 1.66A	-12V / 1.66A	—	83%
KMT40-51212	40W	5V / 5A	12V / 0.6A	-12V / 0.6A	80%
KMT40-51515	40W	5V / 5A	15V / 0.5A	-15V / 0.5A	80%

508193

300-700 Watt Full-Brick AC-DC PSU

PFE Series

LAMBDA[®]

- Low Profile, Small Size
- 100°C Baseplate Temperature
- High Power Density
- High Efficiency
- Power Factor Corrected (PFC)
- Operation up to 100°C Baseplate
- Operates in Harsh Environments

Input Voltage Range 85-265V ac(47/63Hz)
Power Factor 0.95 minimum
Safety Standards/Approval UL60950-1, CSA60950-1 (cUL), EN60950-1, CE mark (LVD)
Conduction

Wattage	Output Voltage	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
300W	12V(9.6 - 14.4)	25A	61x12.7x116.8	PFE300-12	145-6510
302W	28V(22.4 - 33.6)	10.8A	61x12.7x116.8	PFE300-28	145-6511
302W	48V(38.4 - 57.6)	6.3A	61x12.7x116.8	PFE300-48	145-6512
396W	12V(9.6 - 14.4)	33A	61x12.7x116.8	PFE50012	145-6513
504W	28V(22.4 - 33.6)	18A	61x12.7x116.8	PFE50028	145-6514
504W	48V(38.4 - 57.6)	10.5A	61x12.7x116.8	PFE50048	145-6515
714W	51V (Fixed)	14A	61x12.7x116.8	PFE70048	145-6516

483977

Order Code	1+	5+	10+
PFE300 Series	All Order Codes	184.35	178.82
PFE500 Series	All Order Codes	221.22	214.59
PFE700 Series	All Order Codes	242.29	235.02

483977

Over 480,000 products online

Q GO

Modular PSUs - Linear

Power Supply Modules - AC/DC



207-561, 207-573
H=29.6, W=41.0, L=50.0

207-585
H=30.0, W=42.0, L=78.0

- Compact low profile design
- Simple screw terminal connections
- Over current and over temperature protection
- 207-585 selectable 120/240Vac input
- Encapsulated mains transformer
- CE marked to LVD

Output Voltage (Vdc)	Output Current (mA)	Load Regulation	Line Regulation	Ripple (mA)	Input Voltage	Operating Temp. Max.	Order Code
+5	100	1%	1%	0.5	120	70°C	118-3261
+5	100	1%	1%	0.5	240	70°C	118-3261
±5	+200/-50	1%	1%	0.5	120/240	50°C	118-3262

205822

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
PSU30105	118-3260●	14.29	14.01	13.72	13.09	
PSU30205	118-3261●	12.24	12.01	11.76	11.24	
PSU303	118-3262●	15.66	15.35	15.04	14.35	

Power Supply Modules - AC/DC



200-920, 200-931, 283-046
H=25, W=76, D=115

200-943
H=25, W=76, D=105

200-955
H=38, W=100, D=160

- Fixed and adjustable output linear regulated power supplies
- Low noise encapsulated transformer
- Over current, over-temperature and short circuit proof
- 120/240 ac input (selected via link)

Single Fixed Output	105 x 66 Fixing centres 4 dia					Order Code
Voltage (Vdc)	Current (mA)	Load Regulation	Line Regulation	Ripple (mA)		
+5(±0.25)	1000	1%	1%	0.5	PSU20105	118-3256
+12(±0.5)	500	1%	1%	0.5	PSU20112	118-3257
+15(±0.6)	500	1%	1%	0.5	PSU20115	118-3263

Twin Adjustable Output	Fixing centres 95 x 66 x 4 dia					Order Code
Output 1	+5 to +15	1%	1%	0.5		
Output 2	-5 to -15	1%	1%	0.5	PSU203	118-3258

Triple Output	Fixing centres 140 x 754 dia					Order Code
'Eurocard' size, fixed 5V output isolated from twin independently adjustable and negative outputs						
Output Voltage (Vdc)	Output Current (mA)	Load Regulation	Line Regulation	Ripple (mA)	Order Code	
Output 1 +5	1000	0.5%	0.5%	1		
Output 2 +5 to +15	250	1%	1%	1	PSU206	118-3259
Output 3 -5 to -15	250	1%	1%	1		205916

	Order Code	1+	5+	10+	25+	Price Each
Single output 5V	118-3256●	31.31	28.75	26.99	23.75	
Single output 12V	118-3257●	31.31	28.75	26.99	23.75	
Single output 15V	118-3263●	31.31	28.75	26.99	23.75	
Twin output	118-3258●	36.19	34.41	31.19	27.44	
Triple output	118-3259●	56.62	55.48	52.45	47.30	

Single/Dual/Triple Output, Linear Regulated



The units will operate from a wide range of a.c. power sources found world-wide and suitable applications include communications, industrial machinery and test equipment. Mounted on a L shaped chassis with multiple fixing points. Supplied with operating instruction and data.

High quality linear regulated open frame power supplies in international industry standard sizes. Designed to meet world-wide safety requirements, incorporating a power transformer with separate primary and secondary windings, having an isolation rating of 3.75kV.

- Approvals: TUV (single output units only)
- Wide range selectable input 100-240V ac
- Adjustable output voltage
- Low output ripple
- Short circuit and overload protection

- Overvoltage protection (on 5V outputs)
- Full power rating to 50°C ambient
- Suitable for series/parallel connection

Output Single Output	Dimensions	Weight Kg	Mfrs. List No.	Order Code
5V 3A	124	102	53	1.0
12 - 15V 1.7A	124	102	53	1.0
12 - 15V 3.4A	143	124	75	1.8
12 - 15V 6.8A	229	124	81	3.4
24 - 28V 1.2A	124	102	53	1.0
24 - 28V 2.4A	143	124	75	1.8
24 - 28V 3.6A	178	124	81	3.2
24 - 28V 4.8A	229	124	81	3.4
24 - 28V 10A	356	124	86	4.2
Dual Output				
±12 - 15V 1A	165	102	53	1.0
±12 - 15V 1.7A	178	124	75	1.8
±12 - 15V 3.4A	238	124	81	3.2
Triple Output				
5V 2A, ±12 - 15V 0.4A	165	102	53	1.0
5V 3A, ±12 - 15V 1A	260	102	75	2.3

NOTE: Outputs are adjustable without the need to derate.

Input Voltage	100/120/220/240V ac 47 - 63Hz
Line Regulation	±0.05% for 10% line change
Load Regulation	±0.05% for 50% load change (±0.1% 5V rail on triple output units)
Output Ripple	<1mV p-p (typ.)
Isolation	
Input to Ground	3750V ac min
Input to Output	3750V ac min
Output to Ground	500V ac min
Temperature Range	0 to +50°C operating (Derate linearly to 40% at 70°C)

335312

Mfrs. List No.	Order Code	1+	5+	10+	25+	50+	Price Each
Single Output							
32005A	489-3724	44.50	41.83	40.05	38.27	36.49	
32012A	489-3750	41.25	38.78	37.13	35.48	33.83	
32012B	489-3761	67.75	63.68	60.97	58.27	55.56	
32012D	489-3773	116.00	109.04	104.40	99.76	95.12	
32024A	489-3797	41.25	38.78	37.13	35.48	33.83	
32024B	489-3803	67.75	63.68	60.97	58.27	55.56	
32024C	489-3815	101.49	95.40	91.34	87.28	83.22	
32024D	489-3827	113.00	106.22	101.70	97.18	92.66	
32024E/10	489-3840	202.98	190.80	182.68	174.56	166.44	
Dual Output							
32212A	489-3852	65.50	61.57	58.95	56.33	53.71	
32212B	489-3864	74.99	70.49	67.49	64.49	61.49	
32212C	489-3876	116.00	109.04	104.40	99.76	95.12	
Triple Output							
32305A	489-3888	71.00	66.74	63.90	61.06	58.22	
32305B	489-3890	88.00	82.72	79.21	75.68	72.16	

Note: Voir fiche technique pour les dimensions

Single Output	Output	Mfrs. List No.	Order Code
5V dc	1.5A	HA5-1.5/OVP-AG	120-8814
5V dc	3A	H85-3/OVP-AG	120-8815
5V dc	6A	HC5-6/OVP-AG	120-8816
5V dc	9A	HN5-9/OVP-AG	120-8817
5V dc	12A	HD5-12/OVP-AG	120-8818
12V dc	1.7A	HB12-1.7-AG	120-8820
12V dc	3.4A	HC12-3.4-AG	120-8821
12V dc	5.1A	HN12-5.1-AG	120-8823
15V dc	1.5A	HB15-1.5-AG	120-8824
15V dc	3A	HC15-3-AG	120-8825
24V dc	0.5A	HA24-0.5-AG	120-8826
24V dc	1.2A	HB24-1.2-AG	120-8827
24V dc	2.4A	HC24-2.4-AG	120-8828
24V dc	3.6A	HN24-3.6-AG	120-8829
24V dc	7.2A	HE24-7.2-AG	120-8830
Triple Output	Output One	Output Two	Output Three
5V dc @ 2A	+12 to 15V @ 0.4A	(-12 to 15V @ 0.4A or -5V @ 0.4A)	Mfrs. List No.
5V dc @ 3A	+12V @ 1A or +15V @ 0.8A	-12V @ 1A or -15V @ 0.8A or -5V @ 0.4A	HTAA-16W-AG
			120-8831
			HBAA-40W-AG
			120-8832

Output One	Output Two	Output Three	Mfrs.	
5V dc @ 6A	+12 to 15V @ 1A	(-)12 to 15V @ 1A or -5V @ 0.4A	List No.	Order Code
5V dc @ 6A	+12V @ 1.7A or +15V @ 1.5A	-12V @ 1.7A or -15V @ 1.5A or -5V @ 0.7A	HCAA-60W-AG	120-8833
			HCBB-75W-AG	120-8835 338107

Mfrs.	List No.	Order Code	Price Each			
			1+	5+	10+	25+
	52012	129-7415	52.00	48.88	46.80	44.72
	52024	129-7416	52.00	48.88	46.80	44.72
	52008A	129-7419	55.00	51.70	49.50	47.30
	52212A	129-7422	66.50	62.51	59.85	57.19

Mfrs.	List No.	Order Code	1+	10+	25+	Price Each
HA5-1.5/OVP-AG	120-8814●	25.76	24.84	23.93		
HB5-3/OVP-AG	120-8815●	27.06	26.09	25.13		
HC5-6/OVP-AG	120-8816●	42.42	40.90	39.39		
HN5-9/OVP-AG	120-8817●	58.03	55.97	53.89		
HD5-12/OVP-AG	120-8818●	74.96	72.28	69.61		
HB12-1.7-AG	120-8820●	25.50	24.59	23.67		
HC12-3.4-AG	120-8821●	38.77	37.38	36.01		
HN12-5.1-AG	120-8823●	54.14	52.19	50.27		
HB15-1.5-AG	120-8824●	26.54	25.60	24.64		
HC15-3-AG	120-8825●	38.77	37.38	36.01		
HA24-0.5-AG	120-8826●	25.76	24.84	23.93		
HB24-1.2-AG	120-8827●	27.66	26.68	25.69		
HC24-2.4-AG	120-8828●	38.77	37.38	36.01		
HN24-3.6-AG	120-8829●	54.14	52.19	50.27		
HE24-7.2-AG	120-8830●	85.11	82.07	79.02		
HTAA-16W-AG	120-8831●	42.68	41.16	39.63		
HBAA-40W-AG	120-8832●	58.92	56.82	54.71		
HCAA-60W-AG	120-8833●	69.49	67.00	64.53		
HCBB-75W-AG	120-8835●	81.19	78.30	75.40		

Single Phase non Stabilized DC 60W to 360W GNC Series



- Single phase DC power supply
- Designed to withstand voltage surges or transients
- High overload capacity
- 3% ripple factor
- Short circuit & overload protection
- GNC24-2.5 (121-8780) is both Din Rail mountable and 4 hole fixed, all other models are 4 hole fixing only
- Optical LED indication
- Self cooling
- Screw terminals

Input Voltage	Output Voltage	Output Power	Output Current	Dimensions (WxHxD)	Mfrs.	Weight	List No.	Order Code
230 and 400V ac ±15V	24V	60W	2.5A	84x140x88mm	GNC24-2.5	2.4kg	121-8780	
230 and 400V ac ±15V	24V	120W	5A	105x160x109mm	GNC24-5	4.6kg	121-8782	
230 and 400V ac ±15V	24V	360W	15A	150x200x149mm	GNC24-15	8.3kg	121-8783	

386180

Mfrs.	List No.	Order Code	1+	5+	10+	25+	Price Each
GNC24-2.5	121-8780●	41.25	39.40	37.71	34.94		
GNC24-5	121-8782●	61.64	58.87	56.32	52.21		
GNC24-15	121-8783●	131.01	125.08	119.70	110.97		

AC/DC Single/Dual Output Linear PSU's Convel 52000 Series

Dimensions: (L x W x H)
160 x 100 x 57mm

High quality linear regulated, chassis mounting power supplies. All models use rugged screw terminal blocks for input and output connections. Those models with adjustable outputs can be set via an easily accessible potentiometer. The metal case provides screening and threaded inserts allow these supplies to be mounted on the insulated Tufnell® base or on the side.

Adjustable output models are short circuit proof, fixed voltage models can have their outputs short circuited for a maximum of 3 minutes.

- Fixed or adjustable outputs available
- Rugged screw terminal blocks for input and output connections
- Threaded inserts for surface mounting
- Operating temperature: 0°C to +50°C (fixed voltage units)
- Operating temperature: -25°C to +50°C (adjustable voltage units)
- AC input 216-264 VAC

Mfrs.	Output Power	Output Current	Line Regulation	Load Regulation	Output Ripple	Order Code
Single fixed output regulated models						
52012	12V dc	1A	120mV	120mV	30mV	129-7415
52024	24V dc	0.5A	500mV	500mV	30mV	129-7416

Mfrs.	Output Power	Output Current	Line Regulation	Load Regulation	Output Ripple	Order Code
Single adjustable output regulated models						
52008A	4 - 12V dc	1A	10mV	30mV	6mV	129-7419

Mfrs.	Output Power	Output Current	Line Regulation	Load Regulation	Output Ripple	Order Code
Dual adjustable output regulated models						
52212A	±10 - 15V dc	0.5A	10mV	20mV	5mV	129-7422

450155

AC/DC Dual Output Unregulated PSU's Convel 53000 Series



High quality unregulated, chassis mounting power supplies. All models use rugged screw terminal blocks for input and output connections. The metal case provides screening and threaded inserts allow these supplies to be mounted on the insulated Tufnell® base or on the side. Outputs can be short circuited for a maximum of 3 minutes. These models use toroidal transformers to reduce magnetic fields and have fused output protection.

Dimensions: (L x W x H) 160 x 100 x 57mm

- Fixed output
- Threaded inserts for surface mounting
- Rugged screw terminal blocks for input and output connections
- Operating temperature: 0°C to +40°C
- AC input 120-240 VAC

Dual fixed output unregulated models

Mfrs.	Output Voltage	Output Current	Order Code
53212	±12V dc (15)	3A	129-7423
53225	±25V dc (30)	2A	129-7424

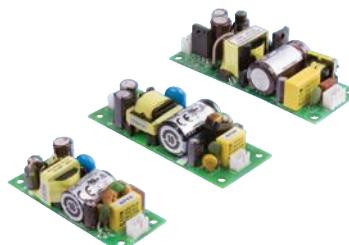
Voltage in brackets indicates typical voltages under no load conditions

450161

Mfrs.	Order Code	1+	5+	10+	25+	Price Each
53212	129-7423	66.49	62.50	59.84	57.18	
53225	129-7424	69.99	65.79	62.99	60.19	

Modular PSUs - Switch Mode

10-25 Watt Single Output Chassis Mount Miniature AC/DC Power Supply



ECL10 (mm): L=66.04, W=25.4, D=21.59

ECL15 (mm): L=78.74, W=31.75, D=23.13

ECL25 (mm): L=88.9, W=35.6, D=25.4

This next generation of miniature AC/DC power supplies offering 10,15 or 25 Watts of output power. They are available in chassis mount styles with outputs of 3.3 - 48V.

- Low cost
- Ultra compact size
- 3.3V to 48V output
- Class II
- Very high reliability >500kHrs
- 3 year warranty
- Chassis mount

Mfrs.	Output Power (W)	Output Voltage (V)	Nominal	Peak	Order Code
ECL10US03-T	8.6	3.3	2.6	3.38	128-9138
ECL10US05-T	10	5	2	2.60	128-9139
ECL10US09-T	10	9	1.1	1.43	128-9140
ECL10US12-T	10	12	0.83	1.08	128-9141
ECL10US15-T	10	15	0.67	0.87	128-9142
ECL10US24-T	10	24	0.42	0.55	128-9143
ECL10US48-T	10	48	0.21	0.27	128-9144
ECL10US03-T	10	3.3	3	3.90	133-7086
ECL15US05-T	15	5	3	3.90	133-7088
ECL15US09-T	15	9	1.67	2.17	133-7089
ECL15US12-T	15	12	1.25	1.62	133-7090
ECL15US15-T	15	15	1	1.30	133-7091
ECL15US24-T	15	24	0.63	0.82	133-7092
ECL15US48-T	15	48	0.32	0.41	133-7093
ECL25US03-T	20	3.3	6	7.80	158-0471
ECL25US05-T	25	5	5	6.50	158-0472

Modular PSUs - Switch Mode - continued**10-25 Watt Single Output Chassis Mount - continued****Miniature AC/DC Power Supply - continued**

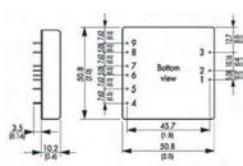
Mfrs.	Output Power (W)	Output Voltage (V)	Output Current (A)	Order Code
List No.	Nominal	Peak		
ECL25US09-T	25	9	2.8	158-0473
ECL25US12-T	25	12	2.1	158-0475
ECL25US15-T	25	15	1.67	158-0476
ECL25US24-T	25	24	1.04	158-0477
ECL25US48-T	25	48	0.52	158-0478

508826

Series	Order Code	Price Each			
		1+	5+	10+	25+
ECL10-T	All Order Codes●	20.00	19.40	18.80	18.00
ECL15-T	All Order Codes●	22.00	21.34	20.68	19.80
ECL25-T	NEW All Order Codes●	25.00	24.25	23.50	22.50

10-150 Watt Switch Mode**TOF Series**

TRACO POWER



- Compact open frame construction
- Optional chassis and cover
- Easy connection with screw terminal block
- Universal input 85-264 VAC
- Line regulation 0.5% max.
- Load regulation single output ±0.5% max.
- Load regulation triple output ±0.2% max. output 1, ±0.5% max. output 2/3
- Ripple & noise <1% Vout +50 mVpk-pk (20MHz Bandwidth)
- EMI meets EN 55022 Class B, and FCC, level B
- Compliance to EN 61000-3-2, class A
- Overload protection
- 3 year guarantee

Single Output

Mfrs.	Output Power (max)	Voltage Output	Output Current	Dimensions (WxHxD)	Order Code
TOF 10-05S	10W	5V dc	2A	105x20x50	124-2654
TOF 10-12S	10W	12V dc	0.9A	105x20x50	124-2655
TOF 10-24S	10W	24V dc	0.5A	105x20x50	124-2656
TOF 15-05S	15W	5V dc	3A	125x20x50	124-2657
TOF 15-12S	15W	12V dc	1.3A	125x20x50	124-2658
TOF 15-24S	15W	24V dc	0.7A	125x20x50	124-2661
TOF 30-05S	30W	5V dc	6A	133x25x55	124-2662
TOF 30-12S	30W	12V dc	2.5A	133x25x55	124-2663
TOF 30-24S	30W	24V dc	1.3A	133x25x55	124-2664
TOF 50-05S	50W	5V dc	10A	195x25x55	124-2665
TOF 50-12S	50W	12V dc	4.3A	195x25x55	124-2667
TOF 75-05S	75W	5V dc	15A	222x26x55	124-2670
TOF 75-12S	75W	12V dc	6.3A	222x26x55	124-2671
TOF 100-05S	100W	5V dc	20A	222x32x62	124-2675
TOF 100-12S	100W	12V dc	8.5A	222x32x62	124-2676
TOF 150-05S	150W	5V dc	30A	222x37x75	124-2678
TOF 150-12S	150W	12V dc	12.5A	222x37x75	124-2679

Triple Output

Mfrs.	Output Power (max)	Output 1	Output 1	Dimensions (WxHxD)	Order Code
TOF 15-0533T	15W	5V dc / 2A	±15V dc / 0.45A	127x22.6x50	124-2603
TOF 30-0522T	30W	5V dc / 4A	+12V dc / 1.2A -12V dc / 0.5A	140x22.6x65	124-2604
TOF 30-0533T	30W	5V dc / 4A	+15V dc / 1A -15V dc / 0.5A	72x160x163	124-2605

385801

Chassis/Covers

Mfrs. List No.	Dimensions (WxHxD)	Order Code
TOL 15-MC.	147x32x57mm	381-2273
TOL 150-MC.	252x51x85mm	381-2327
TOL 15T-MC	57x135x29mm	124-2630
TOL 30T-MC	72x150x38mm	124-2631

385801

Mfrs.	Order Code	1+	5+	10+	25+	Price Each
Single Output						
TOF 10-05S	124-2654●	19.00	17.87	17.11	16.38	
TOF 10-12S	124-2655●	19.00	17.87	17.11	16.38	
TOF 10-24S	124-2656●	19.00	17.87	17.11	16.38	
TOF 15-05S	124-2657●	21.00	19.75	18.90	18.09	
TOF 15-12S	124-2658●	21.00	19.75	18.90	18.09	
TOF 15-24S	124-2661●	21.00	19.75	18.90	18.09	
TOF 30-06S	124-2662●	33.50	31.50	30.16	28.88	
TOF 30-12S	124-2663●	33.50	31.50	30.16	28.88	
TOF 30-24S	124-2664●	33.50	31.50	30.16	28.88	
TOF 50-06S	124-2665●	41.50	39.01	37.35	35.76	
TOF 50-12S	124-2667●	43.32	41.59	39.42	35.96	
TOF 75-05S	124-2670●	45.94	44.10	41.81	38.14	
TOF 75-12S	124-2671●	34.80	32.71	31.32	29.99	
TOF 100-05S	124-2675●	58.43	56.10	53.18	48.50	
TOF 100-12S	124-2676●	74.50	70.03	67.05	64.20	
TOF 150-05S	124-2678●	102.77	98.65	93.52	85.30	
TOF 150-12S	124-2679●	74.80	70.31	67.32	64.46	

385801

Mfrs.	Order Code	1+	5+	10+	25+	Price Each
Triple Output						
TOF 15-0533T	124-2603●	33.00	30.54	28.71	26.99	
TOF 30-0522T	124-2604●	40.00	37.01	34.81	32.74	
TOF 30-0533T	124-2605●	40.00	37.01	34.81	32.74	
Covers						
TOL 15-MC.	381-2273●	3.82	—	—	—	
TOL 150-MC.	381-2327●	7.64	—	—	—	
TOF 15T-MC	124-2630●	7.00	6.48	6.10	5.74	
TOF 30T-MC	124-2631●	7.30	6.75	6.37	6.01	

TOF Series - 10-150 W**Open Frame Design**
 TRACO POWER

- Small and compact open frame power supplies
- Screw terminal or pin connection version
- Overload protection
- EMI/EMC complies with EN 55022 and EN 61000
- Compliance to EN 61000-3-2 (PFHC)
- Worldwide safety approvals
- 3 years warranty

Input voltage range: 85-264 VAC
Line regulation: ± 0.5% max.
Load regulation: ± 0.5% max.
Ripple and noise: <1% Vout + 50 mV pk-pk (20 MHz BW)
Conducted EMI: EN 55022, class B and FCC part 15, level B
Short circuit protection: Current limit at 105% Iout max.
Operating temperature: -10°C to +60°C, above 50°C derating 5%/K
Safety standards/approvals: IEC/EN 60950, cUL/UL 60950, CB-report
Connection: - screw terminal block
- Molex pin connector - suffix M (malting connectors included)

Mfrs.	Output W	V DC	A	TOF 50-12SM	50	12	4.3	167-2192	
List No.	(max.)			TOF 50-15SM	50	15	3.5	167-2193	
TOF 10-05SM	10	5	2	167-2178	TOF 50-24SM	50	24	2.1	167-2194
TOF 10-12SM	10	12	0.9	167-2179	TOF 75-05SM	75	5	15	167-2195
TOF 10-15SM	10	15	0.7	167-2180	TOF 75-12SM	75	12	6.3	167-2197
TOF 10-24SM	10	24	0.5	167-2181	TOF 75-15SM	75	15	5	167-2199
TOF 15-05SM	15	5	3	167-2182	TOF 75-24SM	75	24	3.2	167-2200
TOF 15-12SM	15	12	1.3	167-2183	TOF 100-05SM	100	5	20	167-2201
TOF 15-15SM	15	15	1	167-2184	TOF 100-12SM	100	12	8.5	167-2202
TOF 15-24SM	15	24	0.7	167-2185	TOF 100-15SM	100	15	6.7	167-2203
TOF 30-05SM	30	5	6	167-2187	TOF 100-24FM	100	24	4.2	167-2205
TOF 30-12SM	30	12	2.5	167-2188	TOF 150-05SM	150	5	30	167-2206
TOF 30-15SM	30	15	2	167-2189	TOF 150-12SM	150	12	12.5	167-2207
TOF 30-24SM	30	24	1.3	167-2190	TOF 150-15SM	150	15	10	167-2208
TOF 50-05SM	50	5	10	167-2191	TOF 150-24FM	150	24	6.3	167-2209

525940

Mfrs.	Order Code	1+	25+	Price Each
TOF 10-05SM	167-2178●	19.50	19.12	18.74
TOF 10-12SM	167-2179●	19.50	19.12	18.74
TOF 10-15SM	167-2180●	19.50	19.12	18.74
TOF 10-24SM	167-2181●	19.50	19.12	18.74
TOF 15-05SM	167-2182●	23.50	23.04	22.59
TOF 15-12SM	167-2183●	23.50	23.04	22.59
TOF 15-15SM	167-2184●	23.50	23.04	22.59
TOF 15-24SM	167-2185●	23.50	23.04	22.59
TOF 30-05SM	167-2187●	33.50	32.84	32.20
TOF 30-12SM	167-2188●	33.50	32.84	32.20
TOF 30-15SM	167-2189●	33.50	32.84	32.20
TOF 30-24SM	167-2190●	33.50	32.84	32.20
TOF 50-05SM	167-2191●	39.50	38.73	37.97
TOF 50-12SM	167-2192●	39.50	38.73	37.97
TOF 50-15SM	167-2193●	39.50	38.73	37.97
TOF 50-24SM	167-2194●	39.50	38.73	37.97
TOF 75-05SM	167-2195●	51.50	50.49	

- Open frame
- Wide range universal input 85 to 265V
- Single output
- Compact design
- High efficiency
- Over-voltage and Over-current Protection

Mfrs. List No.	Output Voltage (V)	Output Current (A)	Load Regulation (mV)	Order Code
ZWS15-5	5	3	40	118-4617
ZWS15-12	12	1.25	96	118-4619
ZWS15-15	15	1	120	118-4620
ZWS30-5	5	6	150	118-4622
ZWS30-12	12	2.5	96	118-4624
ZWS30-24	24	1.3	150	118-4626
ZWS50-12	12	4.3	96	118-4628
Input Voltage	85 to 264V ac (40 to 440Hz)		Cooling:	Convection
Operating Temperature	-10 to 50°C			227624

Series	Order Code	1+	5+	10+	Price Each
ZWS15-5	118-4617●	32.18	30.24	28.96	
ZWS15-12	118-4619●	32.18	30.24	28.96	
ZWS15-15	118-4620●	32.18	30.24	28.96	
ZWS30-5	118-4622●	33.80	31.77	30.43	
ZWS30-12	118-4624●	39.55	37.17	35.60	
ZWS30-24	118-4626●	33.80	31.77	30.43	
ZWS50-12	118-4628●	55.93	52.58	50.33	

Single Output Industrial Power Supplies



HWS Series



- Single out 15-150W industrial power supplies
- Output voltages from 5V to 24Vdc
- High efficiency and power density
- Universal input 85-265Vac
- UL508 approval
- SEMI F47 compliant

Output Voltage (V)	Adjust Range (V)	Max. Current (A)	Load Reg. (mV)	Ripple Reg. (mV)	Noise (mV)	Efficiency typ.	100/200 Vac (%)
HWS15-5/A	5	4.0 - 6.0	3	40	20	120	77/79
HWS15-12/A	12	9.6 - 14.4	1.3	96	48	150	80/81
HWS15-24/A	24	19.2 - 28.8	0.65	192	96	200	82/83
HWS30-5/A	5	4.0 - 6.0	6	40	20	120	77/80
HWS30-12/A	12	9.6 - 14.4	2.5	96	48	150	81/83
HWS30-24/A	24	19.2 - 28.8	1.3	192	96	200	83/86
HWS50-5/A	5	4.0 - 6.0	10	40	20	120	82/83
HWS50-12/A	12	9.6 - 14.4	4.3	96	48	150	81/83
HWS50-24/A	24	19.2 - 28.8	2.2	192	96	200	82/84
HWS100-5/A	5	4.0 - 6.0	20	40	20	120	83/86
HWS100-12/A	12	9.6 - 14.4	8.5	96	48	150	83/86
HWS100-24/A	24	19.2 - 28.8	4.5	192	96	200	84/87
HWS150-5/A	5	4.0 - 6.0	30	40	20	120	83/86
HWS150-12/A	12	9.6 - 14.4	13	96	48	150	83/86
HWS150-24/A	24	19.2 - 28.8	6.5	192	96	200	85/88

419150

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
HWS15-5/A	108-5160●	34.00	31.62	29.92	27.88	
HWS15-12/A	108-5161●	34.00	31.62	29.92	27.88	
HWS15-24/A	108-5162●	34.00	31.62	29.92	27.88	
HWS30-5/A	108-5163●	36.00	33.48	31.68	29.52	
HWS30-12/A	108-5164●	36.00	33.48	31.68	29.52	
HWS30-24/A	108-5166●	34.20	31.81	30.10	28.04	
HWS50-5/A	108-5167●	45.00	41.85	39.60	36.90	
HWS50-12/A	108-5168●	45.00	41.85	39.60	36.90	
HWS50-24/A	108-5169●	45.00	41.85	39.60	36.90	
HWS100-5/A	108-5171●	60.00	55.80	52.80	49.20	
HWS100-12/A	108-5172●	60.00	55.80	52.80	49.20	
HWS100-24/A	108-5173●	60.00	55.80	52.80	49.20	
HWS150-5/A	108-5174●	80.00	74.40	70.40	65.60	
HWS150-12/A	108-5175●	80.00	74.40	70.40	65.60	
HWS150-24/A	108-5176●	80.00	74.40	70.40	65.60	

419150

700 products added online every week



See our pick of the hottest products and latest technologies in 'What's New?' at www.farnell.co.uk

25 Watt Single, Dual & Triple Switch Mode PSUs



NLP Series



- Overvoltage protection and short circuit protection
- 25 W with free air convection cooling
- EN55022, EN55011 conducted emissions level B
- UL, VDE, CSA and CCC safety approvals

Mfrs. List No.	Supply Voltage	Output Power	Output 1 5V / 5A	Voltage / Current Output 2	Output 3
NLP25-7605J	90 - 264V	25W	—	—	—
NLP25-7612J	90 - 264V	25W	12V / 2.08A	—	—
NLP25-7624J	90 - 264V	25W	24V / 1.04A	—	—
NLP25-7629J	90 - 264V	19.6W	5V / 2A	12V / 0.8A	—
NLP25-7608J	90 - 264V	20.8W	5V / 2A	12V / 0.8A	-12V / 0.1A

492400

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
NLP25-7605J	151-6418●	30.76	29.22	27.76	26.36	
NLP25-7612J	151-6419●	30.76	29.22	27.76	26.36	
NLP25-7624J	151-6420●	30.76	29.22	27.76	26.36	
NLP25-7629J	151-6421●	30.76	29.22	27.76	26.36	
NLP25-7608J	151-6422●	30.76	29.22	27.76	26.36	



25 to 60 Watt

Single and Triple Output



- Universal input
- High efficiency (70% typical)
- Wide choice of outputs
- Open PCB industry standard 3 x 5. in format
- Over voltage and over load protection
- 100% burn in
- CE marked in accordance with EN60950 (Low voltage directive)
- VDE, UL, CSA, NEMKO, BABT Approvals
- Optional cover kit available for additional safety
- Connectors are not provided

Mfrs. List No.	Output 1 5V 5A	Output 2 —	Output 3 —	Order Code
LPS22	12V 2.1A	—	—	117-1480
LPS25	24V 1.1A	—	—	117-1482
LPT22	5V 3A	+12V 1.5A	-12V 0.5A	117-1484
LPT23	5V 4A	+12V 0.5A	-12V 0.5A	117-1485
LPT24	5V 3A	+12V 1.5A	-5V 0.5A	117-1486
LPS41	3.3V 8A	—	—	117-1476
LPS42	5V 8A	—	—	117-1487
LPS43	12V 3.3A	—	—	117-1488
LPS44	15V 2.6A	—	—	117-1489
LPS45	24V 1.6A	—	—	117-1490
LPS48	48V 0.9A	—	—	117-1477
LPT42	5V 4A	+12V 2A	-12V 0.5A	117-1491
LPT43	5V 5A	+12V 0.5A	-12V 0.5A	117-1492
LPT44	5V 4A	+12V 2A	-5V 0.5A	117-1493
LPT45	5V 4A	15V 2A	-15V 0.5A	117-1467
LPT46	5V 4A	+24V 1A	+12V 0.5A	117-1502
LPT47	5V 4A	+24V 1A	+12V 0.5A	117-1503
LPT48	5V 4A	+24V 1A	-5V 0.5A	117-1504
LPS62	5V 12A	—	—	117-1494
LPS63	12V 5A	—	—	117-1496
LPS64	15V 4A	—	—	117-1468
LPS65	24V 2.5A	—	—	117-1497
LPS68	48V 1.3A	—	—	117-1478
LPT62	5V 7A	+12V 3A	-12V 0.7A	117-1498
LPT64	5V 7A	+12V 3A	-5V 0.7A	117-1500
LPT65	5V 7A	+24V 1.5A	12V 0.7A	117-1479

205815

Series	Order Code	1+	5+	10+	20+	30+	50+	Price Each
LPS20	All Order Codes●	19.29	17.95	17.17	16.10	15.03	14.38	
LPT20	All Order Codes●	21.30	20.03	17.40	15.87	15.43	14.34	
LPS40	All Order Codes●	27.74	25.80	19.77	18.10	17.53	16.77	
LPT40	All Order Codes●	31.25	28.79	18.19	16.56	16.13	13.58	
LPS60	All Order Codes●	42.00	39.07	37.38	35.06	32.74	31.33	
Cover Kits								
LP25/40	120-1552●	17.00	15.98	15.30	14.62	13.94	13.35	
LP60	120-1553●	16.15	15.18	14.54	13.89	13.24	12.68	

25-65 Watt Medical

Single and Multi Output



- 4000 Vac isolation
- Low leakage current
- Meets Class B, EN55011 conducted emissions level B
- Worldwide medical safety approvals
- Line & neutral fused
- Fixed switching frequency
- 3 year warranty

PBM25: H=24.38, W=63.50, L=107.95 (mm)

PBM65: H=31.6, W=76.20, L=127.00 (mm)

Modular PSUs - Switch Mode - continued**25-65 Watt Medical - continued****Single and Multi Output - continued**

This range of single and multi output supplies in 25 and 65 watt versions have medical approvals to UL2601-1 and EN60601-1. Leakage current of these compact supplies is <150 µA at 230 VAC, 50 Hz and all models have dual fusing. Accessories include covers, connector kits and looms.

Input Voltage	90-264 VAC
Input Frequency	47-63 Hz
Leakage Current	<150µA
Output Power	25 W, 65 W
Line Regulation	±0.5% max at full load
Load Regulation	1-2% for single outputs, 3-5% for multi outputs
Ripple & Noise	1% pk-pk max
Efficiency	70% typical
Operating Temperature	0°C to +70°C, derate from 50°C to 50% at 70°C
Safety Approvals	UL recognised, CSA, EN, CE
EMC	EN55011 B, CISPR11 B, FCC Class B conducted

Mfrs. List No.	Output 1	Output 2	Output 3	Order code
PBM25US05	5.1 V/5.5 A	—	—	110-9865
PBM25US12	12.0 V/2.3 A	—	—	110-9866
PBM25US24	24.0 V/1.2 A	—	—	110-9869
PBM25US28	28.0 V/1.0 A	—	—	110-9871
PBM25UD01	5.1 V/2.5 A	+12 V/1.5 A	—	110-9872
PBM25UD02	5.1 V/2.5 A	+24 V/0.8 A	—	110-9873
PBM25UT01	5.1 V/2.5 A	+12 V/1.5 A	-12 V/0.2 A	110-9874
PBM25UT02	5.1 V/2.5 A	+15 V/1.0 A	-15 V/0.2 A	110-9875
PBM25UT03	5.1 V/2.5 A	+24 V/0.8 A	-12 V/0.2 A	110-9876
PBM65US05	5.1 V/10.0 A	—	—	110-9877
PBM65US12	12.0 V/5.5 A	—	—	110-9878
PBM65US15	15.0 V/4.4 A	—	—	110-9880
PBM65US18	18.0 V/3.7 A	—	—	110-9882
PBM65US24	24.0 V/2.8 A	—	—	110-9883
PBM65US28	28.0 V/2.4 A	—	—	110-9885

248263

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
PBM25US05	110-9865●	31.20	30.26	29.33	28.08	
PBM25US12	110-9866●	39.00	37.83	36.66	35.10	
PBM25US24	110-9869●	39.00	37.83	36.66	35.10	
PBM25US28	110-9871●	39.00	37.83	36.66	35.10	
PBM25UD01	110-9872●	42.00	40.74	39.48	37.80	
PBM25UD02	110-9873●	42.00	40.74	39.48	37.80	
PBM25UT01	110-9874●	44.00	42.68	41.36	39.60	
PBM25UT02	110-9875●	28.16	27.31	26.47	25.34	
PBM25UT03	110-9876●	44.00	42.68	41.36	39.60	
PBM65US05	110-9877●	49.00	47.53	46.06	44.10	
PBM65US12	110-9878●	49.00	47.53	46.06	44.10	
PBM65US15	110-9880●	49.00	47.53	46.06	44.10	
PBM65US18	110-9882●	49.00	47.53	46.06	44.10	
PBM65US24	110-9883●	49.00	47.53	46.06	44.10	
PBM65US28	110-9885●	49.00	47.53	46.06	44.10	

Accessories

PBM25 Cover	111-0694●	10.25	9.94	9.64	9.23
PBM25S Connector Kit	111-0695●	2.75	2.67	2.59	2.48
PBM25D/T Connector Kit	111-0696●	2.75	2.67	2.59	2.48
PBM65 Cover	111-0697●	11.50	11.16	10.81	10.35
PBM65 Loom	111-0698●	3.75	3.64	3.53	3.38
PBM65 Connector Kit	111-0699●	2.75	2.67	2.59	2.48

TXL Series, 25-600W**TRACO POWER**

- Enclosed power supplies with screw terminals
- Single, Dual and Triple output models
- Output voltage adjustable ±10%
- Universal input 85-264V ac
- EMC compliance with EN50081-1 and EN50082-1 inclusive EN 6100-3-2(PFC)
- Short circuit and overvoltage protection
- Industrial grade components
- 3 year manufacturer's warranty

Input Voltage 85-264V ac, 47-63Hz
Line Regulation ±0.5% Max.
Load Regulation ±1% Max. (main output)
Ripple & Noise ±2.5% max. (output 2/3)
Conducted EMI <1% V out
Output Current Limitation EN 55022, Class B
Operating Temperature -10°C to +70°C, above 40°C derating 2%/°C
Overload Protection Foldback, autom. Recovery
Safety Standards/Approval IEC/EN 60950, UL/cUL 1950 recognised, CB Report

Models with Single Output

Power, Max.	Output	Dimensions	Mfrs.	List No.	Order Code
25W	5V dc	5A	51x79x28.5	TXL 025-055	120-5084
25W	12V dc	2.1A	51x79x28.5	TXL 025-12S	124-2615
25W	24V dc	1.1A	51x79x28.5	TXL 025-24S	124-2616
35W	5V dc	7.0A	82x99x35	TXL 035-055	120-5088
35W	12V dc	3.0A	82x99x35	TXL 035-12S	126-6360
35W	24V dc	1.5A	82x99x35	TXL 035-24S	120-5089
50W	5V dc	10A	82x99x35	TXL 050-055	120-5090
60W	3.3V dc	15.0A	95x160x37.5	TXL 060-3.3S	119-6512
60W	5V dc	12.0A	95x160x37.5	TXL 060-05S	120-5091
60W	12V dc	5A	82x99x35	TXL 060-12S	120-5093

Power, Max.	Output	Dimensions	Mfrs.	List No.	Order Code
60W	24V dc	2.5A	82x99x35	TXL 060-24S	120-5094
72W	12V dc	6.0A	95x160x37.5	TXL 070-12S	126-6361
72W	24V dc	3.0A	95x160x37.5	TXL 070-24S	126-6362
100W	5V dc	20.0A	95x198x38	TXL 100-05S	120-5095
100W	12V dc	8.5A	95x198x38	TXL 100-12S	120-5096
100W	48V dc	2.1A	95x198x38	TXL 100-48S	119-6513
150W	12V dc	12.5A	99x198x50	TXL 150-12S	120-5097
150W	24V dc	6.3A	99x198x50	TXL 150-24S	124-2597
220W	12V dc	18.4A	99x198x45	TXL 220-12S	124-2620
220W	24V dc	9.2A	99x198x45	TXL 220-24S	124-2621
300W	24V dc	12.5A	115x212x50	TXL 300-24S	120-5099

Models with Multiple Outputs

Power	Output 1	Voltage	Output 2	Output 3	Dimensions	Mfrs.	List No.	Order Code
35W	+5V dc/4A	—	+12V dc/1.5A	—	82x99x35	TXL 035-0512D	124-2617	
35W	+5V dc/4A	—	+24V dc/1.3A	—	82x99x35	TXL 035-0524D	120-5087	
35W	+12V dc/1.5A	—	-12V dc/1.5A	—	82x99x35	TXL 035-1212D	124-2618	
35W	+15V dc/1.3A	—	-15V dc/1.3A	—	82x99x35	TXL 035-1515D	124-2619	

* Total load must not exceed specified max. power

337912

Mfrs.	List No.	Order Code	1+	5+	10+	25+	Price Each
TXL	025-05S	120-5084●	20.50	19.28	18.45	17.66	
TXL	025-12S	124-2615●	20.50	19.28	18.45	17.66	
TXL	025-24S	124-2616●	20.50	19.28	18.45	17.66	
TXL	035-05S	120-5088●	26.00	24.45	23.41	22.41	
TXL	035-12S	126-6360●	26.00	24.45	23.41	22.41	
TXL	035-24S	120-5089●	26.00	24.45	23.41	22.41	
TXL	050-05S	120-5090●	30.50	—	—	—	
TXL	060-3.3S	119-6512●	35.50	33.38	31.96	30.60	
TXL	060-05S	120-5091●	35.50	33.38	31.96	30.60	
TXL	060-12S	120-5093●	30.50	28.23	26.54	24.95	
TXL	060-24S	120-5094●	30.50	28.23	26.54	24.95	
TXL	070-12S	126-6361●	35.50	33.38	31.96	30.60	
TXL	070-24S	126-6362●	35.50	33.38	31.96	30.60	
TXL	100-05S	120-5095●	46.50	43.71	41.85	40.07	
TXL	100-12S	120-5096●	46.50	43.71	41.85	40.07	
TXL	100-24S	119-6513●	46.50	43.02	40.45	38.03	
TXL	150-12S	120-5097●	57.00	53.59	51.31	49.13	
TXL	150-24S	124-2597●	57.00	53.59	51.31	49.13	
TXL	220-12S	124-2620●	76.50	72.69	69.63	66.70	
TXL	220-24S	124-2621●	76.50	72.69	69.63	66.70	
TXL	300-24S	120-5099●	103.00	95.28	89.62	84.30	
TXL	035-0512D	124-2617●	32.00	29.61	27.84	26.18	
TXL	035-0524D	120-5087●	32.00	29.61	27.84	26.18	
TXL	035-1212D	124-2618●	32.00	29.61	27.84	26.18	
TXL	035-1515D	124-2619●	32.00	29.61	27.84	26.18	

40 Watt Single, Dual & Triple Output Switch Mode PSUs

ARTESYN TECHNOLOGIES

NFS Series

- Industry standard package
- Overvoltage and short circuit protection
- 40 W with free air convection
- EN55022, EN55011 conducted emission level B
- EN61000-4-2, -3, -4, -5, -6 immunity compliant
- UL, VDE and CSA safety approvals

492374

**40 Watt Switch Mode PSU**

ARTESYN TECHNOLOGIES

NLP Series

- Overvoltage and short circuit protection
- 40 W with free air convection
- EN55022, EN55011 conducted emission level B
- EN61000-4-2, -3, -4, -5, -6 immunity compliant
- UL, VDE and CSA safety approvals

Prices are in £ sterling & exclusive of VAT



Mfrs.	Supply Voltage	Output Power	Voltage / Current Output 1	Voltage / Current Output 2	Output 3
NLP40-7605J	90 - 264V	40W	5V / 8A	-	-
NLP40-7612J	90 - 264V	40W	12V / 3.3A	-	-
NLP40-7624J	90 - 264V	40W	24V / 1.6A	-	-
NLP40-7617J	90 - 264V	40W	48V / 0.8A	-	-
NLP40-7627J	90 - 264V	40W	12V / 1.8A	-12V / 1.8A	-
NLP40-7608J	90 - 264V	40W	5V / 4A	12V / 2A	-12V / 0.2A
NLP40-7610J	90 - 264V	40W	5V / 4A	15V / 1.6A	-15V / 0.2A

492408

Mfrs.	Order Code	1+	5+	10+	25+	Price Each
NLP40-7605J	151-6423●	33.56	31.88	30.28	28.76	
NLP40-7612J	151-6424●	33.56	31.88	30.28	28.76	
NLP40-7624J	151-6426●	33.56	31.88	30.28	28.76	
NLP40-7617J	151-6427●	33.56	31.88	30.28	28.76	
NLP40-7627J	151-6428●	34.96	33.20	31.53	29.96	
NLP40-7608J	151-6429●	34.96	33.20	31.53	29.96	
NLP40-7610J	151-6430●	34.96	33.20	31.53	29.96	

Accessories

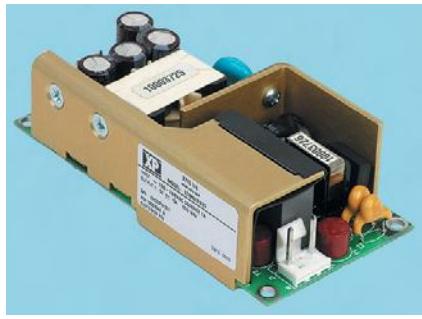
NLP40 Cover Kit

151-6431●

13.98 13.28 12.62 11.97

40-60 Watt Compact Single and Multi Output

Industrial and Medical Approvals



ECM40/60: H = 30.5, W = 50.8, L = 101.6mm

A low cost range of next generation dual approved supplies. Enabling use in a wide variety of both industrial and medical applications.

- Small size
- Low leakage current
- Low cost
- Level B conducted emissions
- 4000V ac isolation
- 3 year warranty

Input Voltage 90 - 264V ac (120-370 VDC)

Input Frequency 47 - 63Hz, 440Hz

Leakage Current <100µA at 115V ac, <200µA at 230V ac

Output Power 40W, 60W

Line Regulation ±0.5%

Load Regulation ±1.0% single output

Ripple & Noise ±3% V1, ±5% V2 & V3 multi outputs

Efficiency 1% pk-pk

Operating Temperature 80-85%

Safety Approvals 0 to 70°C, derate from 50°C to 50% at 70°C

EMC CSA, EN, CE, UL recognised

EN55022 B, FCC Class B conducted

Mfrs List No.	Output 1	Output 2	Output 3	Order Code
ECM40US05	5V / 8A	-	-	117-6956
ECM40US07	7V / 5.7A	-	-	155-0979
ECM40US09	9V / 4.4A	-	-	155-0980
ECM40US12	12V / 3.5A	-	-	117-6957
ECM40US15	15V / 2.7A	-	-	117-6958
ECM40US18	18V / 2.2A	-	-	155-0981
ECM40US24	24V / 1.7A	-	-	117-6959
ECM40US33	33V / 1.2A	-	-	155-0982
ECM40US48	48V / 0.9A	-	-	117-6960
ECM40UD21	5V / 6A	12V / 2A	-	155-0983
ECM40UT31	5V / 6A	12V / 2A	-12V / 0.5A	117-6970
ECM40UT32	5V / 6A	24V / 1A	-12V / 0.5A	117-6971
ECM40UT33	5V / 6A	15V / 1.5A	-15V / 0.5A	117-6974
ECM40UT34	3.3V / 6A	5V / 1.5A	+12V / 0.5A	117-6975
ECM40UT35	5V / 6A	3.3V / 1.5A	+12V / 0.5A	117-6976
ECM60US05	5V / 12A	-	-	117-6962
ECM60US12	12V / 5A	-	-	117-6963
ECM60US15	15V / 4A	-	-	117-6964
ECM60US18	18V / 3.3A	-	-	155-0985
ECM60US24	24V / 2.5A	-	-	117-6965
ECM60US48	48V / 1.25A	-	-	117-6966
ECM60UT31	5V / 8A	12V / 3A	-12V / 0.5A	117-6969
ECM60UT32	5V / 8A	24V / 1.5A	-12V / 0.5A	117-6977
ECM60UT33	5V / 8A	15V / 2.5A	-15V / 0.5A	117-6978
ECM60UT34	3.3V / 8A	5V / 1.5A	+12V / 0.5A	117-6979
ECM60UT35	5V / 8A	3.3V / 1.5A	+12V / 0.5A	117-6980

Note: Loom Kit for Single Output units (Order Code 117-6954), for Triple Output units (Order Code 117-7009)

386235

47W Enclosed PSU - Switch Mode/Triple O/P

A new Low Power unit designed to address the needs of networking product manufacturers. With a low profile design that can fit in 1U rack configurations, the new LCT43-E model accepts universal AC input (85 to 264VAC and 120 to 370VDC) and has triple DC outputs of 5V, +12V, and -12V. The unit provides 47W of output power with 12 CFM forced air.

- Universal wide input range
- Fully enclosed with on/off switch
- High efficiency (70% typical)
- Overvoltage protection
- Overload protection
- Inbuilt EMI filter (CISPR 22 Class B)
- AC input IEC 320
- DC output molex connectors
- Approvals CE (LVD), UL recognised, CSA, VDE

Output voltage	Minimum load	Max. load Convection cooling	Max. load with 12CFM forced air	Regulation	Ripple P/P (PARD)
+5V	1.0A	4A	7A	±2%	50mV
+12V	0.1A	1A	1.2A	±5%	120mV
-12V	0A	0.5A	0.5A	±5%	120mV

227626

Order Code	1+	5+	10+	20+	30+	Price Each
121-4840●	52.01	49.41	46.93	44.85	40.85	

227626

50 - 150 Watt Single Output

- High MTBF up to 700 000 hours
- Operating temperature up to 70 °C
- Very High efficiency up to 87%
- Compact
- Withstands 300VAC surges (5s)

- Test & Measurement
- General Purpose
- Automated Service
- LED Lighting & Displays
- Factory Automation

Input Voltage	88-264 VAC, except LS150 Switch selectable for 115 or 230VAC
Input Frequency	47-63 Hz
Leakage Current	<1mA
Cooling	Convection
Operating Temperature	-25 to +70°C. Derate linearly to 50% load from +50 to +70°C
Safety Approvals	UL recognised, IEC, EN, CE
EMI	EN55021/EN55022-B, FCC-B Conducted & Radiated

Mfrs.	Output Voltage (V)	Output Current (A)	Output Power (W)	Efficiency (%)	Ripple Noise (mV)	Dimensions (HxWxD)
LS50-3.3	3.3	10	33	75	80	36x99x97
LS50-3.3	3.3	10	33	75	80	36x99x97
LS50-5	5	10	50	80	80	36x99x97
LS50-12	12	4.2	50.4	84	120	36x99x97
LS50-15	15	3.4	51	85	120	36x99x97
LS50-24	24	2.2	52.8	86	120	36x99x97
LS50-36	36	1.4	50.4	86	150	36x99x97
LS50-48	48	1.1	52.8	86	200	36x99x97
LS75-3.3	3.3	15	49.5	75	80	38x129x98
LS75-5	5	12	60	79	80	38x129x98
LS75-12	12	6	72	84	120	38x129x98
LS75-15	15	5	75	85	120	38x129x98
LS75-24	24	3.2	76.8	86	120	38x129x98
LS75-36	36	2.1	75.6	86	150	38x129x98
LS75-48	48	1.6	76.8	87	200	38x129x98
LS100-3.3	3.3	20	66	75	80	38x159x97
LS100-5	5	16	80	79	80	38x159x97
LS100-12	12	8.5	102	82	120	38x159x97
LS100-15	15	7	105	84	120	38x159x97
LS100-24	24	4.5	108	86	120	38x159x97
LS100-36	36	3	108	86	150	38x159x97
LS100-48	48	2.3	110.4	86	200	38x159x97
LS150-3.3	3.3	30	99	75	80	38x157x98
LS150-5	5	26	130	79	80	38x157x98
LS150-12	12	12.5	150	83	120	38x157x98
LS150-15	15	10	150	85	120	38x157x98
LS150-24	24	6.5	156	86	120	38x157x98
LS150-36	36	4.3	154.8	87	150	38x157x98
LS150-48	48	3.3	158.4	87	200	38x157x98

524185

Mfrs.	Order Code	1+	5+	10+	50+	Price Each
LS50-3.3	165-7435●	29.50000	26.67000	25.89000	25.11000	
LS50-5	165-7436●	29.50000	26.67000	25.89000	25.11000	
LS50-12	165-7437●	29.50000	25.40000	24.63000	23.89000	
LS50-15	165-7438●	29.50000	25.40000	24.63000	23.89000	
LS50-24	165-7439●	29.50000	25.40000	24.63000	23.89000	
LS50-36	165-7440●	29.50000	25.40000	24.63000	23.89000	
LS50-48	165-7441●	29.50000	25.40000	24.63000	23.89000	
LS75-3.3	165-7442●	33.40000	30.22000	29.31000	28.43000	
LS75-5	165-7443●	33.40000	30.22000	29.31000	28.43000	
LS75-12	165-7444●	33.40000	28.57000	27.71000	26.88000	
LS75-15	165-7445●	33.402922	28.571428	27.708293	26.880716	

254185

RoHS Compliant
Non-compliant
08447 11 11 11
Fax: 08447 11 11 12 1285


Modular PSUs - Switch Mode - continued

50 - 150 Watt Single Output - continued

Mfrs. List No.	Order Code	1+	5+	10+	50+	Price Each
LS75-24	165-7447●	33.402922	28.571428	27.708293	26.880716	
LS75-36	165-7448●	33.402922	28.571428	27.708293	26.880716	
LS75-48	165-7449●	33.402922	28.571428	27.708293	26.880716	
LS100-3.3	165-7450●	46.000000	43.300000	42.000000	40.740000	
LS100-5	165-7451●	46.596619	43.302908	42.001235	40.742959	
LS100-12	165-7452●	53.040000	40.770000	36.140000	30.120000	
LS100-15	165-7453●	46.596619	39.367039	38.180797	37.030314	
LS100-24	165-7454●	46.596619	39.367039	38.180797	37.030314	
LS100-36	165-7455●	46.596619	39.367039	38.180797	37.030314	
LS100-48	165-7456●	46.596619	39.367039	38.180797	37.030314	
LS150-3.3	165-7457●	48.700000	44.470000	43.130000	41.840000	
LS150-5	165-7458●	48.703494	44.471896	43.130990	41.836141	
LS150-12	165-7461●	48.700000	41.170000	39.930000	38.720000	
LS150-15	165-7462●	48.703494	41.166380	39.933444	38.716615	
LS150-24	165-7463●	48.703494	41.166380	39.933444	38.716615	
LS150-36	165-7464●	48.703494	41.166380	39.933444	38.716615	
LS150-48	165-7465●	48.703494	41.166380	39.933444	38.716615	

JWS AC/DC PSUs - Switch Mode 50-150W



- 5 year warranty
- Highly cost competitive
- OVP and OCP fitted as standard
- Meets EN60950, UL1950 recognised, CSA950, EN61010-1
- PFC fitted as standard

Mfrs. List No.	Output (V) (± 10% adjustable)	Output Current Rating (A) (-10 to +50°C)	Output Current Rating (A) (+60°C)	Power (W)
JWS50-5/A	5	10	6	50
JWS50-12/A	12	4.3	2.5	50
JWS50-15/A	15	3.5	2.1	50
JWS50-24/A	24	2.2	1.32	50
JWS75-15/A	15	5	3	75
JWS75-24/A	24	3.2	1.92	75
JWS100-5/A	5	20	12	100
JWS100-12/A	12	8.5	5.1	100
JWS100-24/A	24	4.5	2.7	100
JWS150-5/A	5	30	18	150
JWS150-12/A	12	13	7.8	150
JWS150-15/A	15	10	6	150
JWS150-24/A	24	6.5	3.9	150
Input	Input voltage range Input frequency (AC) 47-63Hz	85-265V ac or 120-330V dc		
Ripple and noise (0 to +60°C)	120mV on 5V outputs 150mV on 12, 15 and 24V 20mV on 5V outputs			
Line Regulation	Load Regulation	40mV on 5V outputs 96mV on 12V outputs 60mV on 15V outputs 96mV on 24V outputs		
Temperature co-efficient	Less than 0.02%/°C			
Over current protection	Constant current limit with automatic recovery			
Output	Over voltage protection	Circuit will shut down output. Manual reset		
	Hold-up	20ms		
Efficiency	65-80% typical output voltage dependent			
	Leakage current	0.75mA max, 0.2mA (typ) at 100V ac, 0.44mA (typ) at 230V ac		
	Remote sensing possible on JWS100 and JWS150			
Environmental	Series operation possible on all models			
	Operating temperature	-10°C to +50°C = 100%		
		+60°C = 60%		
	Operating humidity	30-95% RH (non-condensing)		
Safety Approvals	UL1950, CSA950, EN60950, VDE0160, CE marked for LVD			
EMC	Meets EN50101, EN50522-B, FCC Class B, VCCI-B for conducted and radiated emission			
Warranty	5 years including parts and labour			
Dimensions	L (Allow 17mm for Terminal Block Connector)			
JWS50	37.85	159		
JWS75	42.92	175		
JWS100	50.92	188		
JWS150	65.92	198		

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Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
JWS50-5/A	118-4590●	62.40	58.66	56.16	53.77	
JWS50-12/A	118-4591●	66.28	64.87	61.47	55.49	
JWS50-15/A	118-4592●	66.28	64.87	61.47	55.49	
JWS50-24/A	118-4594●	62.40	58.66	56.16	53.77	
JWS75-15/A	118-4597●	70.56	68.49	65.48	58.37	
JWS75-24/A	118-4599●	77.00	72.39	69.31	66.36	
JWS100-5/A	118-4601●	101.00	94.94	90.90	87.03	
JWS100-12/A	118-4602●	101.00	94.94	90.90	87.03	
JWS100-24/A	118-4603●	107.15	104.89	99.36	89.69	
JWS150-5/A	118-4604●	130.36	127.58	120.86	109.12	
JWS150-12/A	118-4605●	116.38	109.44	104.74	100.28	
JWS150-15/A	118-4606●	130.36	127.58	120.86	109.12	
JWS150-24/A	118-4607●	122.50	115.15	110.25	105.56	

Single Output General Purpose Power Supplies



SWS50: W = 37, H = 92, D = 159 (mm)
 SWS75: W = 43, H = 94, D = 170 (mm)
 SWS100: W = 45, H = 96, D = 188 (mm)
 SWS150: W = 51, H = 99, D = 198 (mm)
 SWS300: W = 52, H = 102, D = 198 (mm)
 SWS600: W = 92, H = 120, D = 190 (mm)
 SWS600L: W = 61, H = 120, D = 190 (mm)
 SWS1000L: W = 61, H = 150, D = 240 (mm)

- Active power factor correction on SWS100 and SWS150
 - Universal input 85 - 265V ac or 120-370V dc (47-63kHz)
 - Input transient protected **IEC 61000-4**
 - Overcurrent protection more than 105%, constant current style
 - Overvoltage protection 115-135%, cycle AC line to reset
 - Operating temperature: -10 to +60°C convection cooled
 - 20ms hold up time (@ 115V ac)
 - Agency approvals: **CE mark, EN60950, UL60950, CSA60950, EN50178**
 - Conducted and radiated EMI: **EN55011/EN55022-B, FCC Class B, VCCI-B**
 - Enclosed unit
 - 2 Year manufacturers warranty
- L = Low Profile (SWS600L/SWS1000L)

Mfrs. List No.	Output Voltage	Voltage Range	Maximum Current	Load Reg	Line Reg	Ripple Noise	Eff. (typ)%
SWS50-5	5V	4.5-5.5V	10A	50mV	20mV	80mV	77
SWS50-12	12V	10.8-13.2V	4.3A	96mV	48mV	80mV	82
SWS50-24	24V	21.6-26.4V	2.1A	144mV	96mV	100mV	84
SWS75-12	12V	10.8-13.2V	6.3A	96mV	48mV	80mV	83
SWS75-24	24V	21.6-26.4V	3.2A	144mV	96mV	100mV	85
SWS100-12	12V	10.8-13.2V	8.5A	96mV	48mV	100mV	79
SWS100-24	24V	21.6-26.4V	4.3A	144mV	96mV	150mV	82
SWS150-12	12V	10.8-13.2V	12.5A	96mV	48mV	100mV	79
SWS150-24	24V	21.6-26.4V	6.3A	144mV	96mV	150mV	82
SWS300-5	5V	4.5-6V	55A	40mV	20mV	120mV	76
SWS300-24	24V	20-28.8V	13A	120mV	48mV	150mV	82
SWS300-48	48V	40-57.6V	6.7A	240mV	96mV	240mV	83
SWS600-24	24V	20-28.8V	25A	120mV	48mV	150mV	81
SWS600-48	48V	40-57.6V	12.5A	240mV	96mV	240mV	82
SWS600L-12	12V	9.6-14.4V	53A	72mV	48mV	150mV	82
SWS600L-24	24V	19.2-28.8V	27A	144mV	96mV	150mV	84
SWS600L-48	48V	38.4-56.0V	13A	288mV	192mV	200mV	84
SWS600L-60	60V	48.0-66.0V	10A	360mV	240mV	200mV	84
SWS100L-12	12V	9.6-14.4V	88A	72mV	48mV	150mV	84
SWS100L-24	24V	19.2-28.8V	44A	144mV	96mV	150mV	86
SWS100L-48	48V	38.4-56.0V	22A	288mV	192mV	200mV	86
SWS100L-60	60V	48.0-66.0V	17A	360mV	240mV	200mV	86

336000

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
SWS50-5	118-4644●	47.97	43.38	37.55	
SWS50-12	118-4645●	47.97	43.38	37.55	
SWS50-24	118-4646●	47.97	43.38	37.55	
SWS75-12	118-4648●	47.50	43.96	41.34	
SWS75-24	118-4649●	47.50	43.96	41.34	
SWS100-12	118-4650●	63.18	58.24	53.82	
SWS100-24	118-4651●	63.18	58.24	53.82	
SWS150-12	118-4652●	95.94	81.80	71.21	
SWS150-24	118-4653●	95.94	81.80	71.21	
SWS300-5	108-5927●	125.63	113.72	104.61	
SWS300-24	108-5928●	140.40	126.30	116.19	
SWS300-48	121-6325●	140.40	126.30	116.19	
SWS600-24	108-5932●	238.68	224.36	214.81	
SWS600-48	108-5933●	204.00	191.76	183.60	
SWS600L-12	NEW 157-4469●	228.89	222.02	215.35	
SWS600L-24	NEW 157-4470●	228.89	222.02	215.35	
SWS600L-48	NEW 157-4471●	228.89	222.02	215.35	
SWS600L-60	NEW 157-4472●	228.89	222.02	215.35	
SWS100L-12	NEW 157-4473●	367.26	356.24	345.54	
SWS100L-24	NEW 157-4475●	367.26	356.24	345.54	
SWS100L-48	NEW 157-4476●	367.26	356.24	345.54	
SWS100L-60	NEW 157-4477●	367.26	356.24	345.54	

Input Voltage	90-264 VAC (120-370 VDC)
Input Frequency	47-63 Hz
Output Power	60 W
Line Regulation	±1%
Load Regulation	±5% max
Ripple & Noise	±1% pk-pk max
Operating Temperature	0°C to +70°C, derate from 40°C to 50% at 70°C

- XP**
- A series of general purpose 60 Watt power supplies. All models are adjustable and feature many output voltages from 3.0 to 48 V. Quad output models are also available in this industry standard footprint. Accessories include a metal case, connector kits and loom kits.
- Universal AC input
 - Low 1.2" profile
 - Fits 1U applications
 - Quad output versions
 - Industry standard footprint
 - 3 year warranty
- H = 33.5, W = 76.2, L = 127.0 (mm)



Safety Approvals
EMC CSA, EN, CE, UL recognised
EN55022 B, FCC Class B conducted

Mfrs. List No.	Output 1	Output 2	Output 3	Output 4	Order code
SDS60US03	3.3 V/15.1 A	-	-	-	110-9910
SDS60US05	5.0 V/11.0 A	-	-	-	110-9912
SDS60US09	9.0 V/7.0 A	-	-	-	110-9914
SDS60US12	12.0 V/5.2 A	-	-	-	110-9915
SDS60US15	15.0 V/4.2 A	-	-	-	110-9916
SDS60US19	19V / 3.3A	-	-	-	155-1002
SDS60US24	24.0 V / 2.6 A	-	-	-	110-9917
SDS60US36	36V / 1.7A	-	-	-	155-1004
SDS60US48	48.0 V/1.3 A	-	-	-	110-9918
SDS60UD01	5V / 7A	12V / 3A	-	-	155-1005
SDS60UT00	3.3 V/6.0 A	+12.0 V/3.0 A	-12.0 V/0.8 A	-	110-9919
SDS60UT03	3.3 V/5.0 A	+5.0 V/5.0 A	+12.0 V/1.0 A	-	110-9920
SDS60UT05	5.0 V/6.0 A	+12.0 V/3.0 A	-12.0 V/0.8 A	-	110-9921
SDS60UT06	5.0 V/6.0 A	+12.0 V/3.0 A	-5.0 V/0.8 A	-	110-9922
SDS60UT07	5.0 V/6.0 A	+15.0 V/3.0 A	-15.0 V/0.8 A	-	110-9924
SDS60UT08	5V / 6A	24V / 2A	-24V / 0.5A	-	155-1007
SDS60UT09	5V / 6A	24V / 2A	-12V / 0.8A	-	155-1008
SDS60UT10	5.0 V/6.0 A	+24.0 V/2.0 A	+12.0 V/0.8 A	-	110-9925
SDS60UQ01	3.3 V/6.0 A	+12.0 V/3.0 A	-12.0 V/0.8 A	+5.0 V/0.8 A	110-9926
SDS60UQ02	5.0 V/6.0 A	+12.0 V/3.0 A	-12.0 V/0.8 A	-5.0 V/0.8 A	110-9927
SDS60UQ03	5.0 V/6.0 A	+12.0 V/3.0 A	-12.0 V/0.8 A	+24.0 V/0.8 A	110-9928
SDS60UQ05	5.0 V/6.0 A	+15.0 V/3.0 A	-15.0 V/0.8 A	-5.0 V/0.8 A	110-9929

248361

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
SDS60US03	110-9910●	38.00	36.86	35.72	34.20	
SDS60US05	110-9912●	38.00	36.86	35.72	34.20	
SDS60US09	110-9914●	38.00	36.86	35.72	34.20	
SDS60US12	110-9915●	38.00	36.86	35.72	34.20	
SDS60US15	110-9916●	38.00	36.86	35.72	34.20	
SDS60US19	155-1002●	38.00	36.86	35.72	34.20	
SDS60US24	110-9917●	38.00	36.86	35.72	34.20	
SDS60US36	155-1004●	38.00	36.86	35.72	34.20	
SDS60US48	110-9918●	38.00	36.86	35.72	34.20	
SDS60UD01	155-1005●	40.00	38.80	37.60	36.00	
SDS60UT00	110-9919●	43.00	41.71	40.42	38.70	
SDS60UT03	110-9920●	43.00	41.71	40.42	38.70	
SDS60UT05	110-9921●	43.00	41.71	40.42	38.70	
SDS60UT06	110-9922●	43.00	41.71	40.42	38.70	
SDS60UT07	110-9924●	43.00	41.71	40.42	38.70	
SDS60UT08	155-1007●	43.00	41.71	40.42	38.70	
SDS60UT09	155-1008●	43.00	41.71	40.42	38.70	
SDS60UT10	110-9925●	43.00	41.71	40.42	38.70	
SDS60UQ01	110-9926●	60.00	58.20	56.40	54.00	
SDS60UQ02	110-9927●	60.00	58.20	56.40	54.00	
SDS60UQ03	110-9928●	60.00	58.20	56.40	54.00	
SDS60UQ05	110-9929●	60.00	58.20	56.40	54.00	

60W Single Output**LPS50 Series**

- Universal input
- 2"x4" footprint
- Remote sense
- Overload and short circuit protection
- Adjustable output voltage ($\pm 20\%$)
- 80-85% typical efficiency
- High MTBF
- Built in EMI filter (CISPR 22 Class B)
- LED power good indicator
- Input power <74W
- Complies with EN61000-3-2
- UL, CSA, NEMKO, TUV, CE(LVD) approvals

Input Voltage 90 to 264Vac
127 to 300Vdc

Frequency 47 to 440Hz

Input Power <74W

Maximum Power 60W for convection (LPS52, LPS53 55W)

Operating Temperature 0°C to +50°C

Output Voltages (V)	Maximum Load (A)	Peak Load (A)	Ripple (pk-pk) mV	Mfrs. List No.	Order Code
5	11	12	50	LPS52	133-9435
12	5	5.4	120	LPS53	133-9437
15	4	4.4	150	LPS54	133-9438
24	2.5	2.75	240	LPS55	133-9439
48	1.25	1.35	480	LPS58	133-9440

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Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
LPS52	133-9435●	44.31	41.65	39.87	38.27	36.49
LPS53	133-9437●	44.31	41.65	39.87	38.27	36.49
LPS54	133-9438●	44.31	41.65	39.87	38.27	36.49
LPS55	133-9439●	44.31	41.65	39.87	38.27	36.49
LPS58	133-9440●	44.31	41.65	39.87	38.27	36.49

Over 480,000 products online

**50W Triple Output****LPT50 Series**

- Universal input
- 2"x4" footprint
- Remote sense
- Overload and short circuit protection
- Adjustable output voltage ($\pm 20\%$)
- High efficiency
- High MTBF
- Built in EMI filter (CISPR 22 Class B)
- LED power good indicator
- Input power <74W
- Complies with EN61000-3-2
- UL, CSA, TUV, CE(LVD & EMC) approvals

Input Voltage	90 to 264Vac 127 to 300Vdc	Input Power	Maximum Power	<74W 55W for convection (LPT51, LPT51-M 47.4W)
Frequency	47 to 440Hz	Operating Temperature		0°C to +50°C
Output	Maximum Voltages (V)	Load (A)	Peak Load (A)	Load (A)
Output	3.3 / 5.0 / 12 / 24 / 36 / 48	8 / 12 / 15 / 20 / 24 / 30	8 / 12 / 15 / 20 / 24 / 30	9 / 4 / 1
Output	5 / 12 / -12	8 / 12 / 15	8 / 12 / 15	9 / 4 / 1
Output	5 / 15 / -15	8 / 12 / 15	8 / 12 / 15	9 / 3.2 / 0.7
Output	5 / 24 / 12	8 / 12 / 15	8 / 12 / 15	9 / 2 / 0.7

450319

Mfrs. List No.	Order Code	1+	5+	10+	25+	50+	Price Each
LPT51	129-7393●	44.66	43.14	41.40	38.56	36.17	
LPT52	129-7394●	46.20	43.43	41.58	39.73	37.88	
LPT53	129-7395●	46.20	43.43	41.58	39.73	37.88	
LPT54	129-7396●	46.20	43.43	41.58	39.73	37.88	

ARTESYN TECHNOLOGIES

65 Watt Single, Dual & Triple Switch Mode PSUs**NLP Series**

- 127.0 x 76.2 x 32mm footprint
- Oversupply and short circuit protection
- 65 W with free air convection cooling

Mfrs. List No.	Supply Voltage	Output Power	Output 1	Output 2	Output 3
NLP65-9612GJ	85 - 264V	65W	12V / 5.4A	-	-
NLP65-9624GJ	85 - 264V	65W	24V / 2.7A	-	-
NLP65-9620GJ	85 - 264V	65W	5V / 7A	24V / 2A	-
NLP65-9608GJ	85 - 264V	65W	5V / 7.5A	12V / 2.5A	-12V / 0.65A

492461

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
NLP65-9612GJ	151-6432●	54.54	51.81	49.21	46.75	
NLP65-9624GJ	151-6433●	54.54	51.81	49.21	46.75	
NLP65-9620GJ	151-6434●	54.54	51.81	49.21	46.75	
NLP65-9608GJ	151-6435●	54.54	51.81	49.21	46.75	

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
NLP65-9924J	151-6436●	59.85	56.86	54.03	51.32	
NLP65-9920J	151-6438●	59.85	56.86	54.03	51.32	
NLP65-9929J	151-6439●	59.85	56.86	54.03	51.32	
NLP65-9908J	151-6440●	59.85	56.86	54.03	51.32	

Farnell

80-160 Watt Single Output Industrial Power Supplies

- Suitable for battery charging
- Low cost
- High Reliability
- Power factor corrected
- Universal input
- 125% rating at 230 VAC
- Low ripple & noise
- 3 year warranty

JPM80: H = 45, W = 99.1, L = 179.1mm

JPM120/160: H = 50, W = 98.8, L = 198.9mm

Ideal for any industrial application, these units provide a single adjustable output with constant current overload protection making them suitable for battery charging applications. All models are fully enclosed with covered screw terminals and M4 fixings.

Modular PSUs - Switch Mode - continued

80-160 Watt Single Output - continued

Industrial Power Supplies - continued

Input Voltage	85-264 Vac (120-370 Vdc)
Input Frequency	47-63 Hz
Output Power	80 W, 120 W, 160W @ 110VAC 100 W, 150 W, 200 W @ 230VAC
Line Regulation	±0.5%
Load Regulation	±1% on units ≤ 7.5Vdc, ±0.5% on units ≥ 12Vdc
Ripple & Noise	100 mV pk-pk 3.3-15 V models 150 mV pk-pk 24-27 V models 250 mV pk-pk 48 V models

Efficiency

Typically 80%

Operating Temperature

-10°C to +70°C consult datasheet for derating

Safety Approvals

UL, CSA, TUV, CE

EMC

EN55022 B, FCC Class B

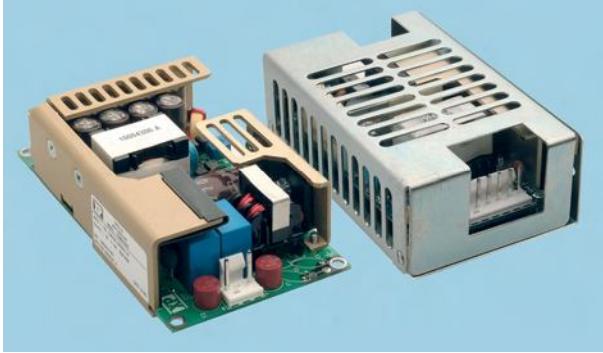
Mfrs. List No.	Output Voltage	Output Current	Mfrs. List No.	Output Voltage	Output Current	Order code
JPM80PS03	3.3 V	16.0 A	110-9827	JPM120PS15	15.0 V	8.0 A
JPM80PS05	5.0 V	16.0 A	110-9829	JPM120PS24	24.0 V	5.0 A
JPM80PS07	7.5 V	10.7 A	110-9830	JPM120PS27	27.0 V	4.4 A
JPM80PS12	12.0 V	6.8 A	110-9831	JPM120PS48	48.0 V	2.5 A
JPM80PS13	13.5 V	6.0 A	110-9833	JPM160PS03	3.3 V	32.0 A
JPM80PS15	15.0 V	5.3 A	110-9834	JPM160PS05	5.0 V	32.0 A
JPM80PS24	24.0 V	3.4 A	110-9835	JPM160PS12	12.0 V	13.4 A
JPM80PS27	27.0 V	3.0 A	110-9836	JPM160PS13	13.5 V	11.8 A
JPM80PS48	48.0 V	1.7 A	110-9837	JPM160PS15	15.0 V	10.6 A
JPM120PS05	5.0 V	24.0 A	110-9839	JPM160PS24	24.0 V	6.7 A
JPM120PS07	7.5 V	16.0 A	110-9840	JPM160PS27	27.0 V	6.0 A
JPM120PS12	12.0 V	10.0 A	110-9841	JPM160PS48	48.0 V	3.3 A
JPM120PS13	13.5 V	8.9 A	110-9842			
JPM120PS15	15.0 V		110-9843			
JPM120PS24	24.0 V		110-9844			
JPM120PS27	27.0 V		110-9845			
JPM120PS48	48.0 V		110-9846			

248253

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
JPM80PS03	110-9827●	35.00	33.95	32.90	31.50	
JPM80PS05	110-9829●	35.00	33.95	32.90	31.50	
JPM80PS07	110-9830●	40.00	38.80	37.60	36.00	
JPM80PS12	110-9831●	35.00	33.95	32.90	31.50	
JPM80PS13	110-9833●	40.00	38.80	37.60	36.00	
JPM80PS15	110-9834●	35.00	33.95	32.90	31.50	
JPM80PS24	110-9835●	35.00	33.95	32.90	31.50	
JPM80PS27	110-9836●	40.00	38.80	37.60	36.00	
JPM80PS48	110-9837●	35.00	33.95	32.90	31.50	
JPM120PS05	110-9839●	45.00	43.65	42.30	40.50	
JPM120PS07	110-9840●	50.00	48.50	47.00	45.00	
JPM120PS12	110-9841●	45.00	43.65	42.30	40.50	
JPM120PS13	110-9842●	50.00	48.50	47.00	45.00	
JPM120PS15	110-9843●	45.00	43.65	42.30	40.50	
JPM120PS24	110-9845●	45.00	43.65	42.30	40.50	
JPM120PS27	110-9846●	50.00	48.50	47.00	45.00	
JPM120PS48	110-9847●	45.00	43.65	42.30	40.50	
JPM160PS03	110-9848●	63.00	61.11	59.22	56.70	
JPM160PS05	110-9849●	57.00	55.29	53.58	51.30	
JPM160PS12	110-9851●	57.00	55.29	53.58	51.30	
JPM160PS13	110-9852●	63.00	61.11	59.22	56.70	
JPM160PS15	110-9853●	57.00	55.29	53.58	51.30	
JPM160PS24	110-9854●	57.00	55.29	53.58	51.30	
JPM160PS27	110-9855●	63.00	61.11	59.22	56.70	
JPM160PS48	110-9857●	57.00	55.29	53.58	51.30	

100 Watt Ultra Compact Single, Triple & Quad Output PSUs 

Industrial and Medical Approvals



ECM100: H=30.5, W=63.5, L=114.3mm

- Compact size - high power density
- Low leakage current
- Industrial & medical approvals
- Level B conducted emissions
- EN61000-3-2, -3 compliant
- 3 year warranty

A brand new low cost range of next generation dual approved supplies. The ultra compact ECM100 range is less than 1U high and with EN60950 and EN60601-1 can be used in a wide variety of both industrial and medical applications.

Input Voltage	90-264Vac (120-370Vdc)
Input Frequency	47-63Hz; 440Hz
Leakage Current	<100µA at 115Vac, <200µA at 230Vac, 50Hz
Line Regulation	±0.5%
Load Regulation	±1% Single Output, ±1% V1 & V2, ±5% V3 & V4 Multi Output
Ripple & Noise	1% pk-pk 20MHz bandwidth
Efficiency	80-85% typical
Operating Temperature	0°C to +80°C
Safety Standards/Approval	UL, CSA, EN, CE
EMC	EN55022 B, FCC Class B conducted

Mfrs. List No.	Output 1	Output 2	Output 3	Output 4	Order Code
ECM100US03	+3.3V, 15A(20.0A)	-	-	-	100-5729
ECM100US05	+5V, 15A(20.0A)	-	-	-	100-5731
ECM100US09	+9V, 8.8A(11.1A)	-	-	-	100-5732
ECM100US12	+12V, 7.5A(8.3A)	-	-	-	100-5733
ECM100US15	+15V, 6A(6.6A)	-	-	-	100-5734
ECM100US24	+24V, 4.1A(4.1A)	-	-	-	100-5735
ECM100US48	+48V, 2.1A(2.1A)	-	-	-	100-5736
ECM100UT31	+5V, 10A	+12V, 3A	-12V, 0.8A	-	128-9213
ECM100UT33	+5V, 10A	+24V, 2A	-12V, 0.8A	-	128-9215
ECM100UQ41	+5V, 10A	+3.3V, 5A	+12V, 0.8A	-12V, 0.5A	128-9216
ECM100UQ42	+3.3V, 10A	+5V, 5A	+12V, 0.8A	-12V, 0.5A	128-9217
ECM100UQ43	+5V, 10A	+24V, 2A	+12V, 0.8A	-12V, 0.5A	128-9218
ECM100UQ44	+5V, 10A	+24V, 2A	+15V, 0.8A	-15V, 0.5A	128-9219

() = 5 CFM Rating

Multi Outputs are 100W Forced Cooled and 60W Convection Cooled

449826

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
Single Output	All Order Codes●	48.00	46.56	45.12	43.20	
Triple Output	All Order Codes●	67.00	64.99	62.98	60.30	
Quad Output	All Order Codes●	69.00	66.93	64.86	62.10	
Accessories						
ECM100 Cover	100-5737●	11.00	10.67	10.34	9.90	
ECM100 Loom	100-5739●	3.75	3.64	3.53	3.38	
ECM100 Connector Kit	100-5738●	2.75	2.67	2.59	2.48	

TOP 100 Series

100 Watt, power supplies, open frame

TRACO POWER

Further Specifications:

Regulation:	
Input variation:	±1% max.
Load variation:	±1% max.
Ripple & Noise:	100mV pk-pk typ. (20 MHz Bandwidth)
EMI suppression:	EN 55022, class B
EMC immunity:	EN 61000-3-2
Overload protection by:	> 150% Iout max., Fold back, automatic recovery
Safety standards/approvals:	IEC / EN 60950-1, UL 60950-1, CSA-C22.2 Nr. 60950-1-03 (in prep.)
Operating temperature range:	-25°C to +70°C; above 50°C derating
Efficiency:	90% typ.

Mfrs List No	Output Voltage (V DC)	Output Current max. (A)	Order Code
TOP 100-05	5-5.2	20	144-1235
TOP 100-12	12-13.0	8.3	144-1236
TOP 100-24	24-26.0	4.2	144-1237
TOP 100-48	48-52.0	2.1	144-1238

481908

Mfrs List No	Order Code	1+	5+	10+	25+	Price Each
TOP 100-05	144-1235●	43.42	40.25	37.28	35.77	
TOP 100-12	144-1236●	42.32	39.24	36.57	35.16	
TOP 100-24	144-1237●	42.32	39.24	36.57	35.16	
TOP 100-48	144-1238●	42.32	39.24	36.57	35.16	

ZWS 100/150W Modular PSUs - Single Output

LAMBDA

- Open frame
- Power factor corrected
- Peak power capability
- Input transient protected
- 2 Year warranty
- Can drive high current start up devices
- Wide range universal input 85 to 265VAC

Input Voltage	85 to 265V
Input Frequency	47 to 63Hz
Operating Temperature	-10 to 70°C

473745

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
ZWS100AF-12	135-1690●	77.00	72.39	69.31	
ZWS100AF-24	135-1691●	77.00	72.39	69.31	
ZWS150AF-12	135-1693●	85.30	80.18	76.77	
ZWS150AF-24	135-1694●	99.80	93.81	89.82	

Over 480,000 products online

Q GO

110 Watt Single & Quad Output Switch Mode PSUs

NFS Series



- Overvoltage and short circuit protection
- 110 W with 20 CFM
- Adjustable outputs
- EN55022, EN55011 conducted emissions level B
- UL, VDE and CSA safety approvals
- CE mark

Mfrs.	Supply Voltage	Output Power	Output 1	Output 2	Voltage / Current	Output 3	Output 4
List No.							
NFS110-7612J	85 - 264V	110W	12V / 7A	-	-	-	-
NFS110-7624J	85 - 264V	110W	24V / 3.5A	-	-	-	-
NFS110-7601PJ	85 - 264V	110W	5.1V / 8A	12V / 4.5A	-12V / 0.5A	-5V / 0.5A	-
NFS110-7602PJ	85 - 264V	110W	5.1V / 8A	24V / 3.5A	12V / 4.5A	-12V / 0.5A	-

492388

Mfrs.	Order Code	1+	5+	10+	25+
List No.					
NFS110-7612J	151-6412●	69.92	66.42	63.10	59.96
NFS110-7624J	151-6414●	69.92	66.42	63.10	59.96
NFS110-7601PJ	151-6415●	99.29	94.31	89.58	85.09
NFS110-7602PJ	151-6416●	99.29	94.31	89.58	85.09

Accessories

NFS110 Cover Kit

151-6417●

23.78

22.57

21.44

20.37

110W to 250W

Single and Multi Output



LPS/LPQ110
H=56(63), W=108(115),
L=185(190), wt. 0.8kg
LPS/LPQ150
H=39(42), W=108(108),
L=216(216), wt. 0.8kg
LPS/LPQ250
H=51, W=127, L=229,
wt. 1.05kg

Figures in brackets include dimensions including cover kits

- Wide range universal ac input
- All units has in built EMI filter and meet VDE Curve B
- Wide choice of outputs
- Low output ripple and noise
- Overload and over voltage protection
- Optional cover kits for 110W and 150W units
- 250W units supplied complete with cover

- Approvals VDE, CSA, BABT, NEMKO and UL recognised
- CE marked in accordance with EN60950 L.V.D
- High efficiency (70% typical)
- Remote sense on main output
- 20ms hold-up time
- Adjustable outputs on selected models

Additional features on 150W and 250W units

- Remote inhibit
- Power fail except LPS153, LPS155
- 250W power factor correction and thermal overload protection
- 250W dc power good
- Single wire current sharing

Mfrs.	Output 1	Output 2	Output 3	Output 4	Order Code
LPS113-B	12V 9.2A (10.4A)	—	—	—	117-1507
LPS114-B	15V 7.3A (8.3A)	—	—	—	117-1508
LPS115-B	24V 4.6A (5.2A)	—	—	—	117-1509
LPS118-B	48V 1.7A (2.6A)	—	—	—	117-1510
LPQ112-B	5V 11A (15A)	12V 5A (9A)	-12V 1A (1.5A)	±5.25V 3A (3A)	117-1511
LPQ113-B	5V 11A (15A)	15V 4A (7.2A)	-15V 0.8A (1.2A)	±5.25V 3A (3A)	117-1512
LPQ114-B	5V 11A (15A)	12V 5A (9A)	-12V 1A (1.5A)	24V 4A (5A)	117-1514
LPS155-C	24V 8.2V 6.2A (7.2A)	—	—	—	117-1517
LPQ152-C	5V 22A (30A)	12V 8A (10A)	-12V 2.5A (3A)	±5.25V 3A (3A)	117-1518
LPQ153-C	5V 22A (30A)	15V 6.4A (8A)	-15V 2A (2.4A)	±5.25V 3A (3A)	117-1519
LPQ154-C	5V 22A (30A)	12V 8A (10A)	-12V 2.5A (3A)	24V 5A (5A)	117-1520
LPS254-C	12V-24V 16.7A (20A)	—	—	—	117-1523
LPS255-C	24V-48V 10.4A (12.5A)	—	—	—	117-1524
LPQ252-C	5V 35A (50A)	12V 10A (12A)	-12V 6A (8A)	±5.25V 6A (8A)	117-1526
LPQ253-C	5V 35A (50A)	15V 10A (12A)	-15V 6A (8A)	±5.25V 6A (8A)	117-1527

Note: Forced air rating quoted on all of the above power supplies Peak current <30 seconds with a maximum 10% duty cycle Connectors not included.

Cover LP110 is only compatible with the B-Versions of LP110 only.

Load Regulation	±2%
Single O/P units	±2%
LPQ114/154 units	±2% O/P ±3% O/P 2.3 + 10/-5% O/P4
Quad O/P units	±2% O/P ±3% auxiliaries
Operating temperature	0°C to 50°C
Power rating	Convection
LPS/LPQ150	110W
LPS/LPQ250	n/a
Input voltage	85V to 264V ac
Frequency	44Hz to 440Hz, 110W and 150W units 47Hz to 63Hz, 250W units

205824

Series	Order Code	Price Each					
		1+	5+	10+	20+	30+	50+
LPS100	All Order Codes●	65.00	61.11	58.50	55.25	51.32	49.13
LPQ100	All Order Codes●	91.00	85.54	81.90	77.35	71.88	68.82
LPS150	All Order Codes●	107.98	100.42	96.11	91.97	88.01	84.22
LPQ150	All Order Codes●	120.23	111.81	107.00	102.41	98.00	93.78
LPS250	All Order Codes●	192.00	180.48	172.80	163.20	151.67	145.21
LPQ250	All Order Codes●	208.00	195.52	187.20	176.80	164.31	157.33
Cover Kit							
LP110	120-1555●	16.15	15.18	14.54	13.92	12.76	12.21

Bench Power Supplies

See our range on page 1428



120 Watt Single and Triple Output

Convection Cooled



A compact range of 120 Watt single and triple output supplies in an easy-to-mount 'U' channel format with no need for fan cooling.

- 120 Watt convection cooled
- Compact size
- Active PFC - Meets EN61000-3-2, -3
- Overvoltage & overcurrent protection
- International safety approvals
- Optional cover
- 3 year warranty

H: 39.2, W: 81.4, L: 127mm

Input Voltage	90 - 264V(120-370 VDC)
Input Frequency	47 - 63Hz
Output Power	120W
Line Regulation	±1% maximum, 0.5% typical
Load Regulation	±5% maximum, 3.0% typical
Ripple & Noise	1% pk-pk typical
Efficiency	80% Typical, 85% maximum
Operating Temperature	0 to 70°C, derate linearly from 100% load at 50°C to 50% at 70°C
Safety Approvals	UL listed, CSA, EN, CE
EMC	EN55022 B, FCC Class B conducted

Mfrs.	Output 1	Output 2	Output 3	Order Code
SDS120PS05B	5V dc / 22A	—	—	110-9944
SDS120PS12B	12V dc / 10A	—	—	110-9945
SDS120PS15B	15V dc / 8A	—	—	110-9946
SDS120PS24B	24V / 5A	—	—	110-9948
SDS120PS28B	28V / 4.28A	—	—	155-0999
SDS120PS48B	48V dc / 2.5A	—	—	110-9949
SDS120PT07B	5V dc / 15A	12V dc / 6A	-5V dc / 0.8A	110-9951
SDS120PT08B	5V dc / 15A	12V dc / 6A	-12V dc / 0.8A	110-9952
SDS120PT10B	5V dc / 15A	15V dc / 6A	-15V dc / 0.8A	110-9953
SDS120PT15B	5V dc / 15A	24V dc / 3.5A	12V dc / 0.8A	110-9954

337806

Mfrs.	Order Code	1+	5+	10+	25+
SDS120PS	All Order Codes●	79.00	76.63	74.26	71.10
SDS120PT	All Order Codes●	86.00	83.42	80.84	77.40
Accessories:					
SDS120 Cover	110-9955●	6.00	5.82	5.64	5.40
SDS120 Connector Kit	111-0707●	2.75	2.67	2.59	2.48
SDS120S Loom Kit	111-0708●	3.75	3.64	3.53	3.38
	111-0709●	3.75	3.64	3.53	3.38

Output Voltage/Output current/convection/Output current 300LFM	Output 1	Output 2	Output 3	Output 4	Order code
MPB125-2012G	+12V, 6.7A, 10.5A	+12V, 0.5A, 0.5A	—	—	120-8807
MPB125-4350G	+3.3V, N/A, 10A	+5V, N/A, 15A	+12V, N/A, 5A	-12V, N/A, 0.5A	120-8813

Farnell logo

Modular PSUs - Switch Mode - continued**Modular AC/DC PSUs - Switch Mode - continued**

MPB125 Series - continued

234827

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
MPB125-2012G	120-8807●	74.46	69.99	44.50	41.06	
MPB125-4350G	120-8813●	74.46	69.99	67.01	64.16	

130 Watt Single and Triple Output

Ultra Compact Design



Offering up to 130 watts of forced cooled power, 100 watts convection cooled, in an industry standard 5"x3" footprint. The JPS130 series is low profile, less than 1U, and comes in both single and multi output versions with covers and connector kits available.

- High power density
- Up to 90% efficiency
- Zero voltage switching technology
- Power factor corrected
- 100 W convection cooled
- Single & multiple outputs
- Optional cover
- 3 year warranty

JPS130PS: H=32.5, W=76.2, L=127.0 (mm)

JPS130PT: H=34.5, W=76.2, L=127.0 (mm)

Input Voltage

90-264 V ac (130-370V dc)

Input Frequency

47-63 Hz

Output Power

130 W with 18CFM, 100 W convection cooled

Line Regulation

±0.5%, Vmin to Vmax

Load Regulation

±1%, ±5% for all secondary outputs on multi output models

Ripple & Noise

±1% pk-pk, 3.3V 50mV pk-pk max.

Efficiency

Up to 90%

Operating Temperature

0°C to +70°C, derate above 50°C (40°C for multi-output)

Safety Approvals

UL recognised, CSA, TUV, CE

EMC

EN55022 B, CISPR 22 conducted

Mfrs. List No.

	Output Voltage	18 CFM	Convection	Order code
JPS130PS05	5.0 V	26.0 A	20.0 A	110-9858
JPS130PS12	12.0 V	10.8 A	9.0 A	110-9859
JPS130PS15	15.0 V	8.7 A	7.0 A	110-9860
JPS130PS24	24.0 V	5.4 A	4.5 A	110-9861
JPS130PS48	48.0 V	2.7 A	2.3 A	110-9862
JPS130PT31	+5.0 V	15.0 A	11.5 A	110-9864
	+12.0 V	5.0 A	3.0 A	
	-12.0 V	0.5 A	0.5 A	

248254

Mfrs. List No.

	Order Code	1+	5+	10+	25+	Price Each
JPS130PS05	110-9858●	61.60	59.75	57.90	55.44	
JPS130PS12	110-9859●	77.00	74.69	72.38	69.30	
JPS130PS15	110-9860●	77.00	74.69	72.38	69.30	
JPS130PS24	110-9861●	77.00	74.69	72.38	69.30	
JPS130PS48	110-9862●	77.00	74.69	72.38	69.30	
JPS130PT31	110-9864●	86.00	83.42	80.84	77.40	

Accessories

JPS130PS Connector Kit	111-0691●	2.75	2.67	2.59	2.48
JPS130PT Connector Kit	111-0692●	2.75	2.67	2.59	2.48
JPS130 Cover	111-0693●	14.00	13.58	13.16	12.60

130 Watt Medical

Single and Multi Output



This range of single and multi output supplies has medical approvals to **UL2601-1** and **EN60601-1**. The leakage current of these compact supplies is 250µA max at 240V ac, 60Hz and all models have dual fusing. Accessories include covers and connector kits.

- 4000V ac isolation
- Low leakage current
- Medical safety agency approvals
- Class B conducted noise
- Up to 90% efficiency
- High power density
- Zero voltage switching technology
- 3 year warranty

JPS130PS-M: H = 32.5, W = 76.2, L = 127.0mm
JPS130PT-M: H = 34.5, W = 76.2, L = 127.0mm

Input Voltage

90 - 264V (130 - 370V dc)

Input Frequency

47 - 63Hz

Leakage Current

250µA at 240V ac, 60Hz

Output Power

130W with 18 CFM, 100W convection cooled

Line Regulation

±0.5% maximum Vmin to Vmax

Load Regulation

±1%, ±5% on secondary outputs

Ripple & Noise

1% pk-pk maximum

Efficiency

Up to 90%

Operating Temperature

0 to 70°C, derate above 50°C forced cooled

Safety Approvals

CSA, EN, CE, UL recognised

EMC

EN55022 B, FCC Class B conducted



Mfrs List No.	Output Voltage	Convection Cooled	18CFM	Order Code
JPS130PS05-M	5V	20A	26A	133-7226
JPS130PS12-M	12V	9A	10.8A	133-7227
JPS130PS15-M	15V	7A	8.7A	133-7228
JPS130PS24-M	24V	4.5A	5.4A	133-7229
JPS130PS28-M	28V	3.8A	4.6A	133-7230
JPS130PS48-M	48V	2.3A	2.7A	133-7231
JPS130PT31-M	+5V	10A	15A	133-7232
	+12V	3A	4.1A	
	-12V	0.8A	1.1A	
JPS130PT32-M	+5V	10A	15A	133-7234
	+15V	2.5A	4.1A	
	-15V	0.8A	1.1A	

416676

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
JPS130PS-M	All Order Codes●	79.00	76.63	74.26	71.10	
JPS130PT-M	All Order Codes●	86.00	83.42	80.84	77.40	
Accessories:						
JPS130PS Connector Kit	111-0691●	2.75	2.67	2.59	2.48	
JPS130PT Connector Kit	111-0692●	2.75	2.67	2.59	2.48	

140 Watt Single Output
Industrial and Medical Approvals

- High Efficiency Resonant Topology
- High Power Density 7.9 W/in3
- 120/148 W - Convection/Forced-cooled
- 12 V Fan Output as Standard
- Remote Sense as Standard
- Dual fused
- 3 year warranty

ECM140: H = 31.8, W = 127, D = 76.2mm

Input Voltage 80-264 Vac (120-370 Vdc), Derate at <90 Vac input

Line Regulation ±0.5% max.

Load Regulation ±1%

Ripple & Noise 1% pk-pk

Efficiency Typically 88%

Operating Temperature 0°C to +70°C consult datasheet for derating

Safety Approvals UL, CSA, TUV, CE

EMC EN55022 B conducted, EN5022 A radiated

Mfrs. List No.	Output Voltage	Output Current (Convection)	Output Current (with 10 CFM airflow)	Fan Output
ECM140US12	12V	10A	11.7A	12.0V / 0.5A
ECM140US15	15V	8A	9.3A	12.0V / 0.5A
ECM140US18	18V	6.6A	7.7A	12.0V / 0.5A
ECM140US24	24V	5A	5.8A	12.0V / 0.5A
ECM140US48	48V	2.5A	2.9A	12.0V / 0.5A

517156

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
ECM140US12	162-4685●	73.00	70.81	68.62	65.70	
ECM140US15	162-4686●	73.00	70.81	68.62	65.70	
ECM140US18	162-4687●	73.00	70.81	68.62	65.70	
ECM140US24	162-4688●	73.00	70.81	68.62	65.70	
ECM140US48	162-4689●	73.00	70.81	68.62	65.70	

150 Watt Single Output PSU's

A compact range of 150 Watt single output power supplies in U-channel design with no need for fan cooling.

- 150 Watt convection cooled
- Compact size
- Overvoltage & overcurrent protection
- International safety approvals
- Up to 90% efficiency
- Fits IU applications
- 3 year warranty

Mfrs List No.	Output Voltage / Output Current	Order Code	Mfrs List No.	Output Voltage / Output Current	Order Code
SDS150PS09B	9V dc / 16A	133-7157	SDS150PS18B	18V dc / 8.33A	133-7160
SDS150PS12B	12V dc / 12.5A	133-7158	SDS150PS24B	24V dc / 6.25A	133-7161
SDS150PS15B	15V dc / 10A	133-7159	SDS150PS48B	48V dc / 3.13A	133-7162

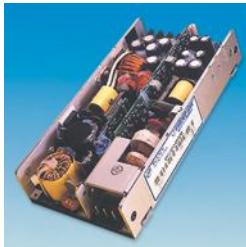
461241

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
SDS150PS	All Order Codes●	72.00	69.84	67.68	64.80	



150 Watts PSUs - Switch Mode/Quad Output

MPU Series



Dimensions 203.2 x 106.7 x 38.1mm

Mfrs. List No.	Output 1	Output 2	Output 3	Output 4	Order Code
MPU150-4000G	+5V (30A)	+12V (8A)	12V (3A)	5V (2A)	120-8805

Output current ratings are expressed with 300 LFM forced air

Typical load regulation 1.5% (main outputs)

Typical ripple 1% p-p



- Low profile fits 1U
- Small adjustment range on all outputs
- Dual main outputs for mixed mode applications
- Remote sense on outputs V1 and V2
- Overload, overtemp, and overvoltage protection
- PFC to EN61000-3-2

200 Watt High Density PSU



- Active load current share
- Universal AC input with Power Factor Correction
- Ruggedized U-channel construction
- Includes ORing diode for N+1 parallel operation
- International regulatory approvals

Dimensions (mm): L=83.82, W=127, D=39.6

The CF200-A12C switching power supply utilizes advanced component and circuit technologies to deliver one of the industry's smallest 200 W switchers. The CF200-A12C offers universal AC input with active power factor correction (PFC) and compliance to worldwide safety and EMC standards.

Input Voltage	85-264 VAC				
Input Frequency	47-63 Hz				
Line Regulation	±1%				
Load Regulation	±1%				
Ripple & Noise	150 mV pk-pk, 20MHz BW				
Efficiency	86%				
Operating Temperature	-5°C to +50°C, derate linearly to 70°C at -2.5% per 1°C				
MTBF	300 khrs				
Safety Approvals	UL 60950, CSA C22.2-234, Level 3, EN-60950-1, CE-Mark				
Mfrs. List No.	Order Code	Output Power (W)	Output Voltage (V)	Output Current (A)	Auxiliary Output (V)
CF200-A12C	120-8805●	200	12	16.6	5

523978

Mfrs. List No.	Order Code	1+	5+	10+
CF200-A12C	165-2240●	143.29	138.99	134.82



175 Watt Single Output PSUs

Ultra Compact Design



- High Efficiency Resonant Topology
- High Power Density 9.3 W/in³
- Additional 12 V Fan Output as Standard
- Remote Sense as Standard
- 3 year warranty



Dimensions(mm): H=31.8, W=76.2, D=127

Input Voltage	85-264 Vac (120-370 Vdc), Derate at <90 Vac input
Line Regulation	±0.5% max.
Load Regulation	±1%
Ripple & Noise	1% pk-pk
Efficiency	Typically 87%
Operating Temperature	0°C to +70°C consult datasheet for derating
Safety Approvals	UL, CSA, TUV, CE
EMC	EN55022 B conducted, EN55022 A radiated

Mfrs. List No.	Power Rating (W)*	Output Voltage (V)	Output Current (A)	Fan Output	Order Code
CLC175US12	175	12	13.9	12V/0.5A	163-4802
CLC175US24	175	24	6.9	12V/0.5A	163-4804
CLC175US48	175	48	3.5	12V/0.5A	163-4805

* Requires 10CFM Forced Cooling

519772

Mfrs. List No.	Order Code	1+	5+	10+	25+
CLC175US	All Order Codes●	83.00	80.51	78.02	74.70

NV Power Supply

175 W



- High efficiency
- High power density (9.3W/in³)
- Up to 4 outputs
- No minimum load
- Designed for 1U applications
- Ideal for medical, automation and security products
- Comes complete with cover
- 3 year manufacturers warranty



Power Rating	175W	Leakage Current	300µA
Input Voltage	90-265V ac, 47-63Hz	Efficiency	85%
Inrush Current	40A	Dimensions (WxHxD)	84.4x127x40.6mm
Output 1	Output 2	Output 3	Output 4
24V/7.5A	5V/8A	12V/5A	-12V/1A
24V/7.5A	5V/8A	15V/4A	-15V/1A

346114

Mfrs. List No.	Order Code	1+	5+	10+
NV1-4G5TT-C	121-6323●	122.00	114.68	109.80
NV1-4G5FF-C	121-6324●	122.00	114.68	109.80

346114

200 Watt High Density PSU



- Active load current share
- Universal AC input with Power Factor Correction
- Ruggedized U-channel construction
- Includes ORing diode for N+1 parallel operation
- International regulatory approvals

Dimensions (mm): L=83.82, W=127, D=39.6

The CF200-A12C switching power supply utilizes advanced component and circuit technologies to deliver one of the industry's smallest 200 W switchers. The CF200-A12C offers universal AC input with active power factor correction (PFC) and compliance to worldwide safety and EMC standards.

Input Voltage	85-264 VAC				
Input Frequency	47-63 Hz				
Line Regulation	±1%				
Load Regulation	±1%				
Ripple & Noise	150 mV pk-pk, 20MHz BW				
Efficiency	86%				
Operating Temperature	-5°C to +50°C, derate linearly to 70°C at -2.5% per 1°C				
MTBF	300 khrs				
Safety Approvals	UL 60950, CSA C22.2-234, Level 3, EN-60950-1, CE-Mark				
Mfrs. List No.	Order Code	Output Power (W)	Output Voltage (V)	Output Current (A)	Auxiliary Output (V)
CF200-A12C	165-2240●	200	12	16.6	5

523978

Mfrs. List No.	Order Code	1+	5+	10+
CF200-A12C	165-2240●	143.29	138.99	134.82



200 Watt Single, Triple and Quad Output PSUs

Medical Approvals



The PBM200 Series have exceptionally low earth leakage current and compact size for demanding medical applications. Floating V4 allows for + or - connection. These units come complete with integral temperature controlled fan, cover and screw terminals.

Dimensions(mm): L=177.8, W=101.6, H=38.1

- Worldwide Medical Approvals
- Temperature controlled fan
- Output 4, floating
- Both Line and neutral fused
- 3 year warranty

Input Voltage	90-264 VAC
Input Frequency	47-63 Hz
Earth Leakage Current	90 µA max at 115 VAC, 150 µA max at 230 VAC
Line Regulation	±0.5% max
Transient Response	4% max. deviation, recovery to within 1% in 500 µs for a 25% load change
Ripple & Noise	2% pk-pk max
Efficiency	Up to 80%
Operating Temperature	0°C to +70 °C, derate linearly from 100% power at 50 °C to 50% power at 70 °C
MTBF	350 khrs per MIL-HDBK-217F at 25 °C
Safety Approvals	EN60601-1, UL60601-1, CSA22.2 No. 601-1 per cUL, CE Mark
Emissions	EN55011 and FCC Class B conducted and radiated

Mfrs. List No.	Output 1	Output 2	Output 3	Output 4	Order Code
PBM200PS12-C	+12V, 16.7A	—	—	—	128-9222
PBM200PS15-C	+15V, 13.4A	—	—	—	128-9223
PBM200PS24-C	+24V, 8.4A	—	—	—	128-9224
PBM200PS48-C	+48V, 4.2A	—	—	—	128-9225
PBM200PT02-C	+5.1V, 30A	+12V, 8A	-12V, 4A	—	128-9227
PBM200PT03-C	+5.1V, 30A	+15V, 6A	-15V, 4A	—	128-9228
PBM200PT04-C	+5.1V, 30A	+12V, 8A	24V, 4A	—	155-0994
PBM200PQ02-C	+5.1V, 30A	+15V, 6A	-15V, 4A	F 24V, 4A	128-9229
PBM200PQ05-C	+5.1V, 30A	+12V, 8A	-12V, 4A	F 24V, 4A	128-9230
PBM200PQ06-C	+3.3V, 30A	+5.1V, 8A	-12V, 4A	F 12V, 4A	128-9231

449255

Order Code	1+	5+	10+	25+
Single Output	126.00	122.22	118.44	113.40
Triple Output	140.00	135.80	131.60	126.00
Quad Output	155.00	150.35	145.70	139.50

Technical information at your fingertips

Over 352,000 technical datasheets available online.

Visit www.farnell.co.uk and look for the Tech Info heading in your search results.



Modular PSUs - Switch Mode - continued**212 Watt Ultra Compact Single Output PSUs**

Exceptional Power Density



Dimensions(mm): L=127, W=76.2, H=32.5

The EMA212 is the world's smallest 212Watt, single output AC/DC switcher. It is designed for communications applications and was developed to meet the needs of networking equipment, voice over IP systems, wireless LAN's, servers, storage area networks and post production broadcast equipment.

The EMA212 delivers over 200 Watts across the full universal AC input range from an industry standard, 3 x 5 inch package. Overcurrent, overvoltage and short circuit protection as standard. The EMA212 meets all major international specifications for safety and EMC.

- The worlds smallest 212 Watt power supply
- 90% efficiency
- 5V standby, 12V fan output
- Active current share
- Remote on/off and power good signal
- Only 12CFM airflow needed for full power
- High power density - 10.55 W/in³
- 3 year warranty

Input Voltage 90-264 VAC

Input Frequency 47-63 Hz

Line Regulation* V1 ±0.5%, V2 ±2%, V3 ±0.5%

Load Regulation* V1 ±1%, 0-100% load, V2 ±1%, 10-100% load, V3 ±1%, 0-100% load

Ripple & Noise* V1 & V3: 1%, V2: 2% pk-pk, 20MHz BW

Efficiency 90% at 230 VAC

Operating Temperature -10°C to +70°C, derate linearly from 50°C at 2.5%/°C, to 50% at 70 °C

Cooling 12 CFM airflow required

Safety Approvals EN60950-1:2001, UL/cUL60950, CE Mark LVD, CB Report

Emissions EN55022, level B conducted, EN55022, level A radiated

* V1 = primary output, V2 = 12V fan output, V3 = 5V standby

Mfrs. List No.	Output	Fan Output	Standby Supply	Order Code
EMA212PS12	12V, 16.7A	12V, 1A	5V, 0.1A	128-9126
EMA212PS24	24V, 8.4A	12V, 1A	5V, 0.1A	128-9127
EMA212PS48	48V, 4A	12V, 1A	5V, 0.1A	128-9128

449194

Price Each				
Order Code	1+	5+	10+	25+
All Order Codes●	90.00	87.30	84.60	81.00

250 Watt Ultra Compact Single Output PSUs

Exceptional Power Density



- 3.2" x 5" footprint
- 1U for low profile applications
- Top fan & convection cooled versions
- 5V to 48V DC outputs
- High peak load capability
- 3 year warranty

Dimensions(mm): L=81.28, W=127, H=38.1
(57.1 with top fan)

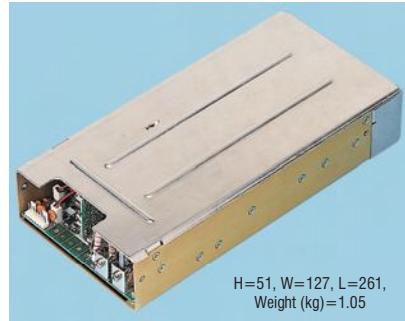
SDR250 is an ultra compact, high efficiency power supply capable of providing up to 135 Watts when convection cooled and 250 Watts when fitted with a fan cover or system cooled. Two mechanical formats are available; U-channel and fan-covered both of which can provide a high peak load of 600 Watts for 500uS.

Input Voltage	90-132 VAC/180-264 VAC, auto ranging
Input Frequency	47-63 Hz
Output Voltage	See tables
Output Voltage Trim	±5%
Initial Set Accuracy	±1%
Line Regulation	±0.5%
Load Regulation	± 1% 1-100% load
Ripple & Noise	1% pk-pk max
MTBF	100 khrs to MIL-HDBK-217F
Emissions	FCC Part 15 & EN55022 Level B conducted
Safety Approvals	UL60950-1, CSA C22.2 No. 950, EN60950-1:2001, CE Mark LVD

Output Voltage	Output Current (Force Cooled)	Mfrs.	Order Code
5V	40A	SDR250AS05	143-6097
12V	20.83A	SDR250AS12	143-6098
15V	16.7A	SDR250AS15	143-6099
24V	10.42A	SDR250AS24	143-6100
48V	5.21A	SDR250AS48	143-6101

482107

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
SDR250AS05	143-6097●	125.00	121.25	117.50	112.50
SDR250AS12	143-6098●	125.00	121.25	117.50	112.50
SDR250AS15	143-6099●	125.00	121.25	117.50	112.50
SDR250AS24	143-6100●	125.00	121.25	117.50	112.50
SDR250AS48	143-6101●	125.00	121.25	117.50	112.50
Accessories					
SDR FAN COVER	143-6102●	20.00	19.40	18.80	18.00

LPS/LPQ 250/350W Modular PSUs - Switch ModeH=51, W=127, L=261,
Weight (kg)=1.05

- Wide range universal ac input
- Active power factor compliance
- Remote sense and remote inhibit
- Power fail
- Single wire current sharing
- Built-in EMI filter
- Single output units user adjustable over 2:1 range
- IEC EN6100-3-2 compliance
- CE Marked
- Low output ripple
- 2 supervisory output 5V and 12V
- Overvoltage protection
- Overload protection
- Thermal overload protection
- DC power good
- Approvals **VDE, CSA, BABT, NEMKO, UL** listed

Mfrs. List No.	Output 1	Output 2	Output 3	Output 4	Order Code
LPS253-CEF	12V (6-12V) 21A	—	—	—	117-1433
LPS255-CEF	24V (24-48V) 10.4A	—	—	—	117-1436
LPQ252-CEF	5V 35A	12V, 10A	-12V, 6A	±5.25V, 6A	117-1437
LPQ253-CEF	5V 35A	15V, 10A	-15V, 6A	±5.25V, 6A	117-1438
LPS353-CEF	12V (6-12V) 29.2A	—	—	—	117-1441
LPS354-CEF	15V (12-24V) 23.3A	—	—	—	117-1442
LPS355-CEF	24V (24-48V) 14.6A	—	—	—	117-1443
QZ352-CEF	5V 70A	12V, 12A	-12V, 6A	3.3-24V, 6A	117-1470
QZ353-CEF	50V 50A	15V, 12A	-15V, 6A	3.3-24V, 6A	117-1472
Input voltage	85V to 264V ac	Single O/P	—	±2%	
	120V to 370V dc	Quad O/P	—	±2% O/P ±3 auxiliaries	
Frequency	47Hz to 440Hz	Operating temperature	—	0°C to +50°C	

205858

Order Code	Price Each				
	1+	5+	10+	20+	30+
LPS250 Series All Order Codes●	237.12	222.89	213.40	204.32	195.63
LPQ250 Series All Order Codes●	261.61	245.91	235.45	225.43	215.84
LPS350 Series All Order Codes●	320.32	312.32	304.50	290.96	265.12
LPQ350 Series All Order Codes●	413.78	403.45	393.35	375.85	342.49

328.82

300 Watt Single and Quad Output PSUs

Medical Approval



Dimensions(mm): L=190.5, W=114.3, H=44.5

The PBM 300 Series has exceptionally low earth leakage current and compact size for demanding medical applications. Floating auxiliary outputs allow for + or - connection. These units come complete with integral temperature controlled fan, cover and screw terminals.

- Worldwide medical approvals
- Compact size
- Floating auxiliary outputs
- Power fail, remote on/off and remote sense
- High reliability
- Temperature controlled integral fan
- 3 year warranty

Input Voltage	90-264 VAC
Input Frequency	47-63 Hz
Earth Leakage Current	100 µA max at 115 VAC/ 60Hz, 220 µA max at 230 VAC/ 50Hz
Line Regulation	±0.2% max
Transient Response	4% max. deviation, recovery to within 1% in 500 µs for a 25% load change
Ripple & Noise	2% pk-pk max
Efficiency	Up to 80%
Operating Temperature	0 °C to +70 °C, derate linearly from 100% power at 50 °C to 50% power at 70 °C
MTBF	300 khrs per MIL-HDBK-217F at 25 °C
Safety Approvals	EN60601-1, UL60601-1, CSA22.2 No. 601-1 per cUL, CE Mark
Emissions	EN55011 and FCC Class B conducted and radiated

Mfrs. List No.	Output 1	Output 2	Output 3	Output 4	Order Code
PBM300PS03-C	3.3V, 60A	—	—	—	128-9112
PBM300PS05-C	5.1V, 60A	—	—	—	128-9113
PBM300PS12-C	12V, 25A	—	—	—	128-9114
PBM300PS15-C	15V, 20A	—	—	—	128-9115
PBM300PS24-C	24V, 12.5A	—	—	—	128-9116
PBM300PS48-C	48V, 6.3A	—	—	—	128-9117
PBM300PQ01-C	3.3V, 35A	5.1V, 22A	12V, 4A	12V, 4A	128-9118
PBM300PQ02-C	5.1V, 35A	12V, 10A	12V, 4A	5.1V, 4A	128-9119
PBM300PQ03-C	5.1V, 35A	15V, 8A	15V, 4A	24V, 2.5A	128-9120
PBM300PQ07-C	5.1V, 35A	24V, 5A	12V, 4A	12V, 4A	128-9121

449103

Order Code	Price Each			
	1+	5+	10+	25+
Single Output All Order Codes●	190.00	184.30	178.60	171.00
Quad Output All Order Codes●	220.00	213.40	206.80	198.00

300-600 Watt Single Output

Ultra Compact Design



SMQ300/400: H: 50.8, W: 101.6, L: 203.2mm

SMC500/600: H: 63.5, W: 108.0, L: 233.0mm

Input Voltage 90 - 264V (120-370VDC)

Input Frequency 47 - 63Hz

Output Power 300W, 400W, 500W, 600W

Line Regulation ±0.5%

Load Regulation ±1%

Ripple & Noise 50mV or 1% whichever greater

Efficiency 80% Typical

Operating Temperature 0 to 70°C, derate linearly from 100% load at 50°C to 50% at 70°C

Safety Approvals UL listed, CSA, EN, CE

EMC EN55022 B, FCC Class B conducted

This range of high power density single output supplies with outputs from 3.3V through to 48V provide space saving power for any application. All models include internal fan.

- High power density
- High peak load rating
- Active PFC
- Universal input
- Single outputs from 3.3V to 48V
- DC OK, Remote inhibit
- International safety approval
- 3 year warranty

Mfrs. List No.	Output Voltage	Max. Output Current	Peak Current	Order Code
SMQ300PS12-C	12V	25A	46.66A	110-9934
SMQ300PS15-C	15V	20A	46.66A	110-9936
SMQ300PS24-C	24V	12.5A	23.33A	110-9937
SMQ300PS48-C	48V	6.25A	12.72A	110-9938
SMQ400PS12-C	12V	33.33A	46.66A	110-9939
SMQ400PS15-C	15V	26.66A	46.66A	110-9940
SMQ400PS24-C	24V	16.66A	23.33A	110-9941
SMQ400PS48-C	48V	8.33A	12.72A	110-9942
SMC500PS05-C	5V	80A	120A	100-5717
SMC500PS12-C	12V	41.67A	75A	100-5718
SMC500PS24-C	24V	20.83A	37.5A	100-5720
SMC500PS27-C	27V	18.5A	33.33A	120-9259
SMC500PS48-C	48V	10.42A	18.8A	100-5721
SMC600PS12-C	12V	50A	75A	100-5724
SMC600PS24-C	24V	25A	37.5A	100-5726
SMC600PS48-C	48V	12.5A	18.8A	100-5727

416658

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
SMQ300	All Order Codes●	160.00	155.20	150.40	144.00
SMQ400	All Order Codes●	200.00	194.00	188.00	180.00
SMC500	All Order Codes●	245.00	237.65	230.30	220.50
SMC600	All Order Codes●	275.00	266.75	258.50	247.50

416658

Enclosed Industrial PSUs - Switch Mode**300-600W JWS Series PSU**

- 5 year warranty
- Highly cost competitive
- OVP and OCP fitted as standard
- PFC fitted as standard
- Meets EN60950, UL1950 listed, CSA950, EN61010-1
- Universal input

Mfrs. List No.	Output (V) (+/- 10% adjustable)	Output Current Rating (A)	Power (W)	Order Code
JWS300-5	5	60	300	118-4608
JWS300-12	12	27	324	118-4609
JWS300-24	24	14	336	118-4612
JWS300-48	48	6.5	312	118-4613
JWS600-12	12	53	636	118-4614
JWS600-24	24	27	648	118-4615
JWS600-48	48	13	624	118-4616

Input	Input voltage range	85-265V ac or 120-330V dc
Power factor	0.99 (typical) at 100V ac full load	(AC)47-63Hz
Ripple and noise (0 to 60°C)	0.95 (typical) at 200V ac full load 120mV on 5V outputs 150mV on 12, 15 and 24V	
Line Regulation	20mV on 5V outputs 48mV on 12V outputs 96mV on 24V outputs 192mV on 48V outputs	Load regulation 30mV on 5V outputs 72mV on 12V outputs 144mV on 24V outputs 288mV on 48V outputs
Temperature coefficient	less than 0.02%/°C	
Over current protection	Constant current limit with automatic recovery	
Output	Over voltage protection	Circuit will shut down output. Manual reset 20ms
Efficiency	Hold - up 65 - 80% typical output voltage dependent	0.75mA max, 0.2mA (typ) at 100V ac 0.44mA (typ) at 230Vac -10°C to +50°C = 100% +60°C = 60%
Environmental	Operating temperature	
Safety approvals	UL1950 listed, CSA950, EN60950, VDE0160, CE marked for LVD	
EMC	Meets EN55011, EN55022-B, FCC Class B, VCCI-B	
Warranty	for conducted and	
Dimensions	H W L*	
JWS300	120 92 190	
JWS600	160 92 200	*Allow 17mm for Block Connector

227630

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
JWS300-5	118-4608●	225.69	220.89	209.26	188.90
JWS300-12	118-4609●	245.01	240.12	235.30	230.60
JWS300-24	118-4612●	245.01	240.12	235.30	230.60
JWS300-48	118-4613●	235.50	221.37	211.95	202.53
JWS600-12	118-4614●	436.97	428.23	419.67	411.27
JWS600-24	118-4615●	511.25	501.03	491.01	481.19
JWS600-48	118-4616●	420.00	394.80	378.00	361.20

227630

300-1000 Watt Single Output Industrial Power Supplies**HWS Series**

- Lifetime Warranty
- UL508 Approved
- SEMI F47 Compliant (high line AC)
- Universal Input (85 - 265VAC)
- High Efficiency
- Wide Range AC Input
- Easier System Cooling

HWS300: W = 61, H = 82, D = 165 (mm)
HWS600: W = 100, H = 82, D = 165 (mm)
HWS1000: W = 240, H = 126.5, D = 82 (mm)

Input Voltage Range 85-265V ac(47/63Hz) or 120-330V dc
Power Factor Meets EN61000-3-2
Operating Temperature -10°C to +70°C, derate linearly to 50% load from 50°C to 70°C
Hold Up Time (Typ) 20ms
Safety Standards/Approval UL60950-1, CSA60950-1, EN60950-1, EN50178, UL508
(HIS300-24, 600-24 only), CE Mark IEC61000-4-2, -3, -4, -6 (Level 3), -5, -8 (Level 4), -11

Immunity Yes (isolated from output)
Cooling Internal Fan

Mfrs. List No.	Output Voltage	Output Current	Output Power	Order Code
HWS300-3	3.3V(2.64 - 3.96)	60A	198W	145-6492
HWS300-5	5V(4 - 6)	60A	300W	145-6493
HWS300-12	12V(9.6 - 14.4)	27A	324W	145-6494
HWS300-15	15V(12 - 18)	22A	330W	145-6495
HWS300-24	24V(19.2 - 28.8)	14A	336W	145-6496
HWS300-48	48V(38.4 - 52.8)	7A	336W	145-6497
HWS600-3	3.3V(2.64 - 3.96)	120A	396W	145-6498
HWS600-5	5V(4 - 6)	120A	600W	145-6499
HWS600-12	12V(9.6 - 14.4)	53A	636W	145-6500
HWS600-15	15V(12 - 18)	43A	645W	145-6501
HWS600-24	24V(19.2 - 28.8)	27A	648W	145-6502
HWS600-48	48V(38.4 - 52.8)	13A	624W	145-6503
HWS1000-12	12V(9.6 - 14.4)	88A	1056W	157-4478
HWS1000-15	15V(12.0 - 18.0)	70A	1050W	157-4479
HWS1000-24	24V(19.2 - 28.8)	44A	1056W	157-4480
HWS1000-36	36V(28.8 - 43.2)	29.3A	1055W	157-4481
HWS1000-48	48V(38.4 - 52.8)	22A	1056W	157-4482

483874

Order Code	Price Each		
	1+	5+	10+
HWS300 Series	171.67	160.74	156.06
HWS600 Series	312.12	291.49	277.09
HWS1000 Series	515.00	499.55	484.56

483874

Over 480,000 products online



Modular PSUs - Switch Mode - continued**320 Watt Single Output PSUs**

Compact Industrial Design



- 7" x 4" footprint
- 1U for low profile applications
- Up to 700W peak power
- 5V to 48V DC outputs
- Fan fail and power good signals
- 3 year warranty

Dimensions(mm): W=101.6, H=177, D=40.64

SDC320 is a compact, high efficiency power supply featuring an integral fan to ensure efficient airflow (18 CFM) when mounted in 1U enclosures which typically create additional design challenges due to back pressure. Signals for "fan fail" and "power good" provide communications ability from the power supply to the system controllers. A high peak load capability for applications with high inrush currents is standard.

Input Voltage	90-132 VAC/180-264 VAC, auto ranging
Input Frequency	47-63 Hz
Output Voltage	See tables
Output Voltage Trim	±5% on V1
Initial Set Accuracy	±1%
Line Regulation	±0.5%, low line to high line
Load Regulation	±1% 1-100%
Ripple & Noise	1% pk-pk
MTBF	100 Khrs to MIL-STD-217F
Emissions	FCC Part 15 & EN55022 Level B conducted & radiated
Safety Approvals	UL60950-1, CSA C22.2 No. 60950-1, EN60950-1:2001

Output Voltage	Output Current	Mfrs. List No.	Order Code	Output Voltage	Output Current	Mfrs. List No.	Order Code
5V	45A	SDC320AS05-E	143-6103	24V	13.33A	SDC320AS24-E	143-6106
12V	26.67A	SDC320AS12-E	143-6104	48V	6.67A	SDC320AS48-E	143-6108
15V	21.33A	SDC320AS15-E	143-6105				

482124

Price Each				
Mfrs. List No.	Order Code	1+	5+	10+
SDC320AS05-E	143-6103●	165.00	160.05	155.10
SDC320AS12-E	143-6104●	132.00	128.04	124.08
SDC320AS15-E	143-6105●	165.00	160.05	155.10
SDC320AS24-E	143-6106●	165.00	160.05	155.10
SDC320AS48-E	143-6108●	165.00	160.05	155.10

350 Watt Ultra Compact Single Output PSUs

Exceptional Power Density



U Channel Dimensions(mm): H=38.1, W=172.7, D=81.3

Top Fan Dimensions(mm): H=50.79, W=172.72, D=84.5

End Fan Dimensions(mm): H=44.45, W=208.28, D=84.48

The MFA350 is a class leading 350 Watt, single output AC/DC switcher with exceptional power density. It is designed for communications applications and was developed to meet the needs of networking equipment, voice over IP systems, wireless LAN's, servers, storage area networks and post production broadcast equipment. The MFA350 delivers 350 Watts across the full universal AC input range and features overcurrent, overvoltage and short circuit protection as standard. The MFA meets all major international specifications for safety and EMC.

- High Power Density - 11.1W/in³
- 86% Typical Efficiency
- 5V standby, 12V fan output
- Remote On/Off, AC OK and DC OK
- Active current share
- 3 year warranty

Input Voltage	90-264 VAC (85 VAC derated by 10%)
Input Frequency	47-63 Hz
Line Regulation*	V1 ±0.5%, V2 ±3%, V3 ±0.5%
Load Regulation*	V1 ±1%, 0-100% load, V2 ±5%, 10-100% load, V3 ±1%, 0-100% load
Ripple & Noise*	V1 & V3: 1%, V2: 2% pk-pk, 20MHz BW
Efficiency	85% minimum at 230 VAC
Operating Temperature	-10°C to +70°C, derate linearly from 50°C at 2.5%/°C, to 50% at 70 °C
Cooling	13CFM required for non covered versions
Safety Approvals	EN60950-1:2001, UL/cUL60950, CE Mark LVD, CB Report
Emissions	EN55022, Level B conducted, EN55022, Level A radiated.

* V1 = primary output, V2 = 12V fan output, V3 = 5V standby

Mfrs. List No.	Output	Fan Output	Standby Supply	Order Code
MFA350PS12	12V, 29A	12V, 1A	5V, 0.3A	128-9122
MFA350PS24	24V, 14.5A	12V, 1A	5V, 0.3A	128-9124
MFA350PS48	48V, 7.3A	12V, 1A	5V, 0.3A	128-9125
MFA350PS12-STF	12V, 29A	12V, 1A	5V, 0.3A	167-6494
MFA350PS24-STF	24V, 14.5A	12V, 1A	5V, 0.3A	167-6495
MFA350PS48-STF	48V, 7.3A	12V, 1A	5V, 0.3A	167-6496
MFA350PS12-SEF	12V, 29A	12V, 1A	5V, 0.3A	167-6497
MFA350PS24-SEF	24V, 14.5A	12V, 1A	5V, 0.3A	167-6498
MFA350PS48-SEF	48V, 7.3A	12V, 1A	5V, 0.3A	167-6499

449190

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
U Channel					
MFA350PS12	128-9122●	113.40	110.00	106.60	102.06
MFA350PS24	128-9124●	162.00	157.14	152.28	145.80
MFA350PS48	128-9125●	162.00	157.14	152.28	145.80
Top Fan					
MFA350PS12-STF	NEW 167-6494●	170.00	164.90	159.80	153.00
MFA350PS24-STF	NEW 167-6495●	170.00	164.90	159.80	153.00
MFA350PS48-STF	NEW 167-6496●	170.00	164.90	159.80	153.00
End Fan					
MFA350PS12-SEF	NEW 167-6497●	170.00	164.90	159.80	153.00
MFA350PS24-SEF	NEW 167-6498●	170.00	164.90	159.80	153.00
MFA350PS48-SEF	NEW 167-6499●	170.00	164.90	159.80	153.00

350 Watt High Density PSU

- Active load current share
- Universal AC input with Power Factor Correction
- Ruggedized U-channel construction
- Includes ORing diode for N+1 parallel operation
- International regulatory approvals

Dimensions (mm): L=98.04, W=172.7, D=35.56

The CF350 series switching power supply utilizes advanced component and circuit technologies to deliver one of the industry's smallest 350 W switchers. The CF350 series offers universal AC input with active power factor correction (PFC) and compliance to worldwide safety and EMC standards.

Input Voltage	85-264 VAC
Input Frequency	47-63 Hz
Line Regulation	±1%
Load Regulation	±1%
Ripple & Noise	12V: 130 mV pk-pk, 24V: 150 mV pk-pk, 48V: 250 mV pk-pk, 20MHz BW
Efficiency	87%
Operating Temperature	-5°C to +50°C, derating linearly to 70°C with 50% derating
MTBF	300 Khrs
Safety Approvals	UL 60950, CSA C22.2-234, Level 3, EN-60950, Class 1, SELV CE-Mark

Mfrs. List No.	Output Power (W)	Output Voltage (V)	Output Current (A)	Standby Output (V)
CF350-A12C	350	12	29	5
CF350-A24C	350	24	14.5	5
CF350-A48C	350	48	7.2	5

523979

400W Single Output PSU

The CEF400-112C is a 400W active power-factor-corrected (PFC) front-end power supply. It is designed for distributed power architecture (DPA) systems requiring high power density in a 1U low profile package. The built-in OR-ing FET allows the power supply to operate in active current sharing mode for redundant (N+1) operation. Additional features include I2C interface, built-in fan and a 5V standby auxiliary output. The CEF400-112 provides reliable 12V bulk power for Information Technology Equipment and Industrial Applications.

- Remote sense compensation
- Remote Inhibit control
- Droop current share
- I²C interface
- 5V Standby
- Low profile (1U)
- Integrated cooling fan
- Over-voltage protection
- Over-current protection
- Thermal overload protection

Input Voltage	85-264 VAC (120-300 VDC)
Input Frequency	47-63 Hz
Output Voltage	12V
Output Current	33.3A
Power Rating	400W
Dimensions (WxHxD)	177.8 x 101.6 x 40.39 mm
Operating Temperature	0 to 50°C
Ripple & Noise	175mV p-p
Emissions	EN55022 Class B conducted

519926

Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	
CEF400-112C	163-7190●	180.02	174.59	169.26	

750W AC-DC Active PFC Single Output PSUs



H = 278 x 127 x 63.5mm

- Universal AC input/Full range
- AC input active surge current limiting
- Built in active PFC function, PF>0.95
- Short Circuit, Overload, Over Voltage and Over Temperature protection
- Forced air cooling
- High Power density: 5.48W/in³
- Power good and fail signal output
- Remote on/off
- Remote sense function

Input Voltage	90-264 VAC	Ripple & Noise	120 mV
Input Frequency	47-63 Hz	Operating Temperature	-20°C to +60°C
Leakage Current	<2.0mA @ 240 VAC	Storage Temperature	-40°C to +85°C
Mfrs.	Output	Output	Rated
List No.	Voltage (V)	Current (A)	Power (W)
SP-750-12	12	0 to 62.5	750
SP-750-15	15	0 to 50	750
SP-750-24	24	0 to 31.3	751.2
SP-750-27	27	0 to 27.8	750.6
SP-750-48	48	0 to 15.7	753.6
			449913

Price Each				
Order Code	1+	5+	10+	25+
All Order Codes●	312.77	305.90	297.31	286.41

800 Watt Single Output PSUs

Compact Design



- Single output 12V to 48V
- SEMI F47 compliant
- Integral fan
- Current monitor, power good and remote on/off
- Remote sense
- 3 year warranty

Dimensions(mm): W=108, H=233, D=63.5

SMR800 is a high power, single output power supply for demanding industrial applications requiring a stable output, high reliability and robust input protection. SEMI F47 compliance approves this product for semiconductor manufacturing equipment and ensures a long hold-up time for dips and interruptions in the mains supply for other sensitive electronics equipment.

Input Voltage	90-264 VAC (120-370 VDC)
Input Frequency	47-63 Hz
Output Voltage	See tables
Output Voltage Trim	±5%
Initial Set Accuracy	±1%
Line Regulation	±0.5%, low line to high line
Load Regulation	±1%, 1-100% load (see note 4)
Ripple & Noise	50 mV (Vo ≤ 5 V), 1% (Vo ≥ 12 V) (see note 2)
MTBF	150 kHrs min per MIL-HDBK-217F
Emissions	FCC Part 15 & EN55022 Level B conducted
Safety Approvals	UL60950, CSA C22.2 No. 950, EN60950-1:2001, CE Mark LVD, SEMI F47 compliant (high line only) at 100% rated power output

Output	Output	Mfrs.	Output	Output	Mfrs.		
Voltage	Current	List No.	Voltage	Current	List No.	Order Code	
12V	62.5A	SMR800PS12	143-6109	27V	29.62A	SMR800PS27	143-6112
15V	50A	SMR800PS15	143-6110	48V	16.67A	SMR800PS48	143-6113
24V	33.39A	SMR800PS24	143-6111				

482113

Mfrs.	List No.	Order Code	1+	5+	10+	25+
SMR800PS12	143-6109●	375.00	363.75	352.50	337.50	
SMR800PS15	143-6110●	300.00	291.00	282.00	270.00	
SMR800PS24	143-6111●	375.00	363.75	352.50	337.50	
SMR800PS27	143-6112●	375.00	363.75	352.50	337.50	
SMR800PS48	143-6113●	375.00	363.75	352.50	337.50	

1200 - 2000 Watt Single Output PSUs

D1U Series



Dimensions (mm) : L=304.9, W=120.6, H=40.7

- Internal cooling fans
- 12 or 48V Mains Output, 3.3, 5 or 12V Standby Output
- Active Current Sharing on main output
- Over-voltage, Over-current, Over-temperature protection
- I²C Bus Interface with Status Indicators



The D1U is a powerfactor-corrected (PFC) front-end power supply for hot-swapping redundant systems. The main outputs are 12 or 48V and standby output of either 12V, 5V or 3.3V. Packaged in 1U low profile, it is designed to deliver reliable bulk power to servers, workstations, storage systems or any 12 or 48V distributed power architecture systems requiring high power density. The highly efficient electrical and thermal design with internal cooling fans supports reliable operation conditions.

RoHS Compliant
Non-compliant

08447 11 11 11

Fax: 08447 11 11 12 1295

The S1U-3X is a Rack Mount Power Shelf designed for holding three 12V or 48V D1U Front End Power Supplies in current sharing applications. It is intended for distributed power architecture applications in the Servers, Storage Networking and Data Communications markets.

Input Voltage	90-264 VAC				
Input Frequency	47-63 Hz				
Efficiency	90.6%				
MTBF	200 kHrs				
Emissions	FCC 47 CFR Parts 15/CISPR 22/EN55022				
Safety Approvals	c-CSA-us (CSA 60950-1-03/UL 60950-1, First Edition)				
Mfrs.	Output				
List No.	Voltage (V)	Current (A)	Power Rating (W)	Standby Output (V)	Order Code
D1U-W-1200-12-HA2C	12	98.3	1200	5	157-4398
D1U-W-1200-48-HC2C	48	24.6	1200	3.3	157-4399
D1U-W-1600-12-HC2C	12	131.6	1600	3.3	157-4400
D1U-W-1600-12-HA2C	12	131.6	1600	5	157-4402
D1U-W-1600-48-HA2C	48	33	1600	5	157-4403
D1U-W-2000-48-HB2C	48	41.3	2000	12	157-4404

508180

Mfrs. List No.	Order Code	1+	5+	10+
D1U-W-1200-12-HA2C	157-4398●	350.97	342.49	334.00
D1U-W-1200-48-HC2C	157-4399●	350.97	342.49	334.00
D1U-W-1600-12-HC2C	157-4400●	380.99	370.80	362.29
D1U-W-1600-12-HA2C	157-4402●	380.99	370.80	362.29
D1U-W-1600-48-HA2C	157-4403●	380.99	370.80	362.29
D1U-W-2000-48-HB2C	157-4404●	402.50	390.60	380.42

1500W Single Output Industrial Power Supplies



HWS Series



- Lifetime Warranty
- High Power Density
- SEMI F47 Compliant (high line AC)
- Universal Input (85 - 265VAC)
- High Efficiency
- Wide Range AC Input
- Easier System Cooling

Input Voltage Range	85-265V(47/63Hz)				
Power Factor	Meets EN61000-3-2				
Operating Temperature	-10°C to +70°C, derate linearly to 50% load from 50°C to 70°C				
Hold Up Time (Typ)	20ms				
Safety Standards/Approval	UL60950-1, CSA60950-1, EN60950-1, EN50178, CE Mark				
Immunity	Built to meet IEC61000-4-2 (Level 2,3), -3, (Level 3), -4 (Level 3), -5 (Level 3,4), -6 (Level 3), -8 (Level 4), -11				
Remote on/off	Yes (isolated from output)				
Cooling	Internal Fan				
Output Voltage	Output Current Dimensions (WxHxD) Mfrs. List No. Order Code				
1500W	12V(9.6 - 14.4)	125A	280x126.5x82	HWS150012	145-6504
1500W	15V(12.0 - 18.0)	100A	280x126.5x82	HWS150015	145-6505
1560W	24V(19.2 - 28.8)	65A	280x126.5x82	HWS150024	145-6506
1512W	36V(28.8 - 43.2)	42A	280x126.5x82	HWS150036	145-6508
1536W	48V(38.4 - 52.8)	32A	280x126.5x82	HWS150048	145-6509

483937

Order Code	1+	5+	10+
All Order Codes●	700.00	651.00	616.00

Modular PSUs - DIN Rail Mount

DIN Rail Mounting PSUs



4100 Series



High quality, low noise linear power supplies designed to fit onto standard symmetrical 35mm Din rail. Ideally suited to low current instrumentation and monitoring applications.

- 115 and 230Vac input (link selectable)
- Quick and trouble free installation
- Current capabilities from 100mA to 500mA
- Output ranging from 5V to 24V
- Short circuit and overload protected
- Protection to IP20
- CE marked in accordance with EN60950 LVD

H=73.2, W=45 L=119.2

Model	Output Voltage	Output Current (mA)	Input Frequency	Link selectable
41052	5	200	47Hz to 63 Hz	
41055	5	500		±0.5% max.
41121	12	100		±0.2% for 50% load
41122	12	200		±0.05% for 10% line charge



Modular PSUs - DIN Rail Mount - continued**DIN Rail Mounting PSUs - continued****4100 Series - continued**

41124	12	400	Ripple and noise	Less than 5mV rms.
41153	15	300	Isolation	Input to output 3750Vac
41241	24	100	Temperature range	0°C to 50°C full rated
41242	24	200		
41242C	24	500		

205872

Output	Mfrs.	List No.	Order Code	Price Each		
				1+	5+	10+
5V,200mA	41052	310-3109	42.91	40.77	40.36	37.41
5V,500mA	41055	310-3110	50.82	48.28	47.78	44.30
12V,100mA	41121	310-3122	42.91	40.77	40.36	37.41
12V,200mA	41122	310-3134	46.29	43.99	43.54	40.39
12V,400mA	41124	310-3146	50.82	48.28	47.78	44.30
15V,300mA	41153	310-3160	50.82	48.28	47.78	44.30
24V,100mA	41241	310-3171	46.29	43.99	43.54	40.37
24V,200mA	41242	310-3183	50.82	48.28	47.78	44.30
24V,500mA	41242C	351-9739	62.38	59.29	58.68	54.41

205872

DIN Rail Mounting PSUs**3W-240W - Switch Mode**

- Compact and lightweight design
- Direct DIN rail mounting or screw mounted to panel
- Wide range of supply voltages
- Overcurrent protection
- Adjustable output voltage
- Output terminals on upper side of casing, input terminals on lower side for safe easy wiring
- Undervoltage detection as standard (except 240W models)
- Power factor correction (PFC) on P models
- 100W unit 627-471 has alarm relay output
- Conforms to low voltage directive and EMC class B (EN55022)

Mfrs. List No.	Output power (W)	Output voltage	Output current
S82K-00305	3	5V	0.6A
S82K-00312	3	12V	0.25A
S82K-00324	3	24V	0.13A
S82K-00705	7	5V	1.5A
S82K-00712	7	12V	0.6A
S82K-00724	7	24V	0.3A
S82K-01505	15	5V	2.5A
S82K-01512	15	12V	1.2A
S82K-01524	15	24V	0.6A
S82K-03012	30	12V	2.5A
S82K-03024	30	24V	1.3A
S82K-05024	50	24V	2.1A
S82K-10024	100	24V	4.2A

Input Voltage Line regulation 0.5% max
3-50W 85-264Vac Load regulation ±1.5max
100 to 240W 85 to 132, 170 to 264Vac Ripple 2%PK to PK max.
Frequency 47 to 450Hz (P240 47 to 63Hz) Operating temp. -10°C +50°C

205811

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
S82K-00305	118-65190●	42.84	40.70	38.98	37.34	
S82K-00312	118-65200●	34.27	32.56	31.18	29.87	
S82K-00324	118-65210●	43.48	41.31	39.57	37.90	
S82K-00705	118-65220●	48.66	46.22	44.28	42.42	
S82K-00712	118-65230●	48.66	46.22	44.28	42.42	
S82K-00724	118-65240●	48.66	46.22	44.28	42.42	
S82K-01505	118-65420●	60.56	57.54	55.11	52.78	
S82K-01512	118-65430●	60.56	57.54	55.11	52.78	
S82K-01524	118-65370●	60.56	57.54	55.11	52.78	
S82K-03012	118-65440●	92.02	87.42	83.74	80.22	
S82K-03024	118-65380●	92.02	87.42	83.74	80.22	
S82K-05024	118-65390●	104.16	98.96	94.79	90.80	
S82K-10024	118-65400●	155.21	147.45	141.25	135.30	

Technical information at your fingertips

Over 352,000 technical datasheets available online.



Visit www.farnell.co.uk and look for the **Tech Info** heading in your search results.

6W to 60W, Unregulated Din Rail PSU's**DCT Series**

- 230V ac input, 12 or 24V dc (nom) output power supply/safety isolating transformer
- 3.75kV input/output flash tested
- Screw terminals for both input and output
- Manufactured to EN61558, VDE0570
- Fully encapsulated in a plastic housing
- Integral fuse and thermal cut-out to give protection against overload and short circuits

Input Voltage	Output Voltage	Output Power	Output Current	Dimensions (WxHxD)	Weight	Mfrs. List No.	Order Code
230V ac (+6%, -10%)	12V	6W	0.5A	71x63x94mm	0.45kg	DCT12-0.5	121-8784
230V ac (+6%, -10%)	12V	12W	1A	71x63x94mm	0.51kg	DCT12-1	121-8786
230V ac (+6%, -10%)	12V	48W	4A	159x63x94mm	1.90kg	DCT12-4	121-8787
230V ac (+6%, -10%)	24V	12W	0.5A	71x63x94mm	0.52kg	DCT24-0.5	121-8788
230V ac (+6%, -10%)	24V	36W	1.5A	106x63x94mm	1.09kg	DCT24-1.5	121-8789
230V ac (+6%, -10%)	24V	60W	2.5A	159x63x94mm	1.93kg	DCT24-2.5	121-8790

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Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
DCT12-0.5	121-8784●	26.79	25.45	24.38	23.32	
DCT12-1	121-8786●	32.26	30.66	29.37	28.08	
DCT12-4	121-8787●	54.72	51.98	49.80	47.61	
DCT24-0.5	121-8788●	29.71	28.23	27.05	25.86	
DCT24-1.5	121-8789●	41.11	39.06	37.42	35.78	
DCT24-2.5	121-8790●	53.54	50.87	48.74	46.60	

**7.5-100 Watt DIN Rail PSU****DSP Series**

- Low Profile for Building Automation
- 5V to 24V Outputs
- Wide Range AC Input
- -25 to +71°C Operation
- Convection Cooled
- UL1310 Class II
- Class 2 Double Insulation

Input Voltage Range	90-264V ac 47/63Hz, 120-370V dc
Line Regulation	1%
Load Regulation	1%
Ripple & Noise	50mV pk-pk
Overvoltage Protection	120 -145%
Operating Temperature	-25°C to +71°C (derate linearly 2.5%/°C from 61 to 71°C)
Safety Standards/Approval	UL1310 Class2, UL508 Listed, UL609050-1, EN60950-1, CE EN61000-4-2, -3, -4, -5, -6, -8 & -11

Wattage (W)	Output Voltage (V)	Output Current (A)	Dimensions (WxHxD)(mm)	Mfrs. List No.	Order Code
7.5	5	1.5	18x91x55.6	DSP10-5	145-6473
10	12	0.83	18x91x55.6	DSP10-12	145-6474
10.1	15	0.67	18x91x55.6	DSP10-15	145-6475
10.1	24	0.42	18x91x55.6	DSP10-24	145-6476
15	5	3	53x91x55.6	DSP30-5	145-6478
25.2	12	2.1	53x91x55.6	DSP30-12	145-6479
30	15	2	53x91x55.6	DSP30-15	145-6480
31.2	24	1.3	53x91x55.6	DSP30-24	145-6481
35	5	7	71x91x55.6	DSP60-5	145-6482
54	12	4.5	71x91x55.6	DSP60-12	145-6483
60	15	4	71x91x55.6	DSP60-15	145-6484
60	24	2.5	71x91x55.6	DSP60-24	145-6485
72	12	6	90x91x56.8	DSP100-12	145-6486
75	15	5	90x91x56.8	DSP100-15	145-6487
100.8	24	4.2	90x91x56.8	DSP100-24	145-6488

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Order Code	1+	5+	10+	Price Each
DSP10 Series	21.07	20.43	19.82	
DSP30 Series	32.66	31.68	30.72	
DSP60 Series	38.97	37.81	36.68	
DSP100 Series	52.67	51.09	49.55	

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DIN Rail Mounting PSUs 4200 Series

CALEX
ELECTRONICS LIMITED



Case size A: H x W x L 112 x 70 x 100



Case size B: H x W x L 98 x 105 x 162

High quality, linear power supplies designed to fit onto standard symmetrical 35mm DIN rail.

- 115V and 230Vac input (link selectable)
- Quick and trouble free installation
- Current capabilities from 1000mA to 4000mA
- Short circuit and overload protection
- Protection to IP20
- CE marked in accordance with EN60950

Input Frequency	115Vac or 230Vac ($\pm 10\%$) link selectable	Output Voltage	Output Current (mA)	Case Size
Output voltage tolerance	$\pm 0.5\%$ max.	Model		
Load regulation	$\pm 0.2\%$ for 50% load	42024A	24	1000 A
Line regulation	$\pm 0.05\%$ for 10% line change	42024A/2	24	2000 A
Ripple and noise	Less than 5mV rms.	42024B	24	4000 B
Isolation	Input to output 3750Vac			
Temperature range	0°C to 50°C full rated			

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Output	Mfrs. List No.	Order Code	Price Each			
			1+	5+	10+	25+
24V,1000mA	42024A	310-3250	71.14	67.59	66.92	62.03
24V,2000mA	42024A/2	310-3262	85.82	81.53	80.71	74.85
24V,4000mA	42024B	120-6056	136.19	129.39	128.09	118.75

387138

DIN Rail Mounting PSUs SITOP power 24 V, 0.5A

SIEMENS

SITOP power 24 V, 0.5A



- Wide-range input for AC voltages
- Small width: 22.5 mm
- Ambient temperature -20°C to 70°C
- Interference emission class B and high interference immunity
- For universal use in industrial and residential applications
- Snap-mounting on DIN rail 35x15/7.5 (DIN EN 50022)
- Galvanic isolation according to EN 60950 and EN 50178
- Certifications: CE, UL/cUL

W=22.5, H=80, D=91mm

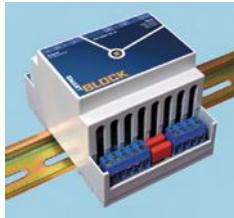
Mfrs. List No.	AC Version
Rated input voltage	6EP1331-2BA10
Voltage range	AC 120 - 230 V
Buffering of power outages	AC 93...264 V
Frequency	> 10 ms (at 230 V)
Input current	50/60 Hz
Rated output voltage	0.22-0.13 A
Tolerance	DC 24 V
Output current	$\pm 3\%$
Ambient temperature	0.5 A
Weight	-20°C to +70°C (DC version derating starting at +60°C)
Order Code	0.11 kg
	121-0878

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Output Current	Mfrs. List No.	Order Code	1+	5+
0.5A	6EP1331-2BA10.	121-0878●	38.11	35.84

12W-60W Single Phase Din Rail PSU PCT Series

BLOCK



- Universal input voltage range
- Connecting in parallel
- Short time overload capability
- Free running and short circuit proof
- UL-Approvals 60950, 508, 2601, 1012
- Thermal overload protection
- Protection index IP 20
- UL-recognition marking for worldwide applications

Mfrs. List No.	Power Rating	Output Voltage	Current	Dimensions (WxHxD)	Order Code
PCT230/24-0.5	12W	24V	0.5A	36 x 90 x 61	137-3957
PCT230/24-1.3	31W	24V	1.3A	71 x 90 x 61	137-3958
PCT230/24-2.5	60W	24V	2.5A	105 x 90 x 61	137-3959

475151

Mfrs. List No.	Order Code	1+	5+	10+
PCT230/24-0.5	137-3957●	51.03	48.49	46.46
PCT230/24-1.3	137-3958●	60.40	57.38	54.97
PCT230/24-2.5	137-3959●	75.97	72.18	69.14

RoHS Compliant
Non-compliant

DIN Rail Mounting PSUs S8VS 'Micro' Series

OMRON



Using Omron's latest development of 'Lead frame technology' in the S8VS 'Micro', Omron has been able to dramatically reduce the size of the latest addition to the S8VS range, with the 30W model and 15W models both available in the industrial standard housing of only 22.5mm wide. In addition the new technology means that there is no de-rating of the power up to 60°C and can be mounted in any plain.



W= 22.5 H= 85 D=96.5

- Small case size to help reduce panel size
- Mounting in any plain so can be anywhere convenient within the panel
- No re-rating of power up to 60°C enables use in hot environments
- 5 year warranty, to give peace of mind when selecting an Omron power supply
- Available with a choice of output voltages (5, 12 or 24V dc) to meet your requirements
- Meets latest European legislation on EMI & EMS and is CE marked
- Global approvals to allow use anywhere in the world

Power Rating	Input Voltage	Output Voltage	Output Current	Mfrs. List No.	Order Code
15W	100-240V ac	5V dc	2A	S8VS-01505	881-5038
15W	100-240V ac	12V dc	1.2A	S8VS-01512	881-5046
15W	100-240V ac	24V dc	0.65A	S8VS-01524	881-5054
30W	100-240V ac	5V dc	4A	S8VS-03005	881-5062
30W	100-240V ac	12V dc	2.5A	S8VS-03012	881-5070
30W	100-240V ac	24V dc	1.3A	S8VS-03024	881-5089

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Mfrs. List No.	Order Code	1+	5+	10+
S8VS-01505	881-5038●	40.80	38.76	37.13
S8VS-01512	881-5046●	40.80	38.76	37.13
S8VS-01524	881-5054●	40.80	38.76	37.13
S8VS-03005	881-5062●	49.85	47.36	45.37
S8VS-03012	881-5070●	49.85	47.36	45.37
S8VS-03024	881-5089●	49.85	47.36	45.37

387138

DIN Rail Mounting PSUs

SIEMENS

Single Phase Input



- Compact lightweight rugged design
- Primary switching regulator with wide range input
- Improved output behaviour permits connection of loads with high inrush currents
- Output voltages of 5V-24V to suit a variety of applications
- Adjustable output voltage
- Interference emission class B and high interference immunity
- For universal use in industrial and residential applications
- Suitable for use in small distribution boards
- Snap mounting on DIN rail 35x15/7.5 (DIN EN50022)
- Galvanic isolation according to EN60950 and EN50178
- Certified to CE, UL/cUL, FM, shipbuilding

Mfrs. List No.	Output Voltage	Output Current	Dimensions	Weight (kg)	Order code
6EP1311-1SH02	5V	3A	54 x 90 x 55	0.17	121-6614
6EP1321-1SH02	12V	1.9A	54 x 90 x 55	0.17	121-6616
6EP1322-1SH02	12V	4.5A	72 x 90 x 55	0.25	121-6617
6EP1351-1SH02	15V	1.9A	54 x 90 x 55	0.17	121-6618
6EP1352-1SH02..	15V	4A	72 x 90 x 55	0.25	121-6619
6EP1331-1SH02	24V	1.3A	54 x 90 x 55	0.17	121-6620
6EP1332-1SH42	24V	2.5A	72 x 90 x 55	0.25	121-6621
6EP1332-1SH51..	24V	4A	72 x 90 x 55	0.34	121-6625

Rated Input Voltage Range 85 to 265V ac Ambient temperature range -20°C to +55°C

Rated Frequency 47 to 63Hz Protection class (IEC60529) 20



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Modular PSUs - DIN Rail Mount - continued

DIN Rail Mounting PSUs - continued

Single Phase Input - continued

439502

Output	Mfrs. List No.	Order Code	Price Each		
			1+	3+	5+
5V,3A	6EP1311-1SH02	121-6614●	65.00	58.51	55.25
12V,1.9A	6EP1321-1SH02	121-6616●	61.00	57.35	50.41
12V,4.5A	6EP1322-1SH02	121-6617●	83.00	74.72	70.57
15V,1.9A	6EP1351-1SH02	121-6618●	63.86	57.47	54.28
15V,4A	6EP1352-1SH02..	121-6619●	95.79	86.22	81.43
24V,1.3A	6EP1331-1SH02	121-6620●	46.35	41.72	39.40
24V,2.5A	6EP1332-1SH42	121-6621●	74.16	66.74	63.04
24V,4A	6EP1332-1SH51..	121-6625●	91.67	82.50	77.92

TBL Series

15-150Watt, Low profile, DIN-Rail



- Low profile case, module height only 55mm
- Fits into flat control panels used in building automation
- Safety class II
- Short circuit and overload protection
- Adjustable output voltage
- UL 508 listed, UL 1310 approvals
- 3 years product warranty

New

Input voltage range: 85-264 VAC, 47-63 Hz
 Output regulation: ± 1 % max.
 Output voltage adjustment range: 5 V models: 5.0-5.2 VDC, 12 V models: 12-16 VDC, 24 V models: 24-28 VDC

Ripple & noise: <100 mV pk-pk (20 MHz BW)
 EMI emission: EN 55011, class B, EN 55022, class B, EN 61000-6-3
 EMC immunity: EN 61000-6-2
 Output current limitation: 100-150 % Imax. (automatic recovery)
 Efficiency: 80 % typ.

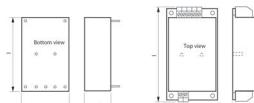
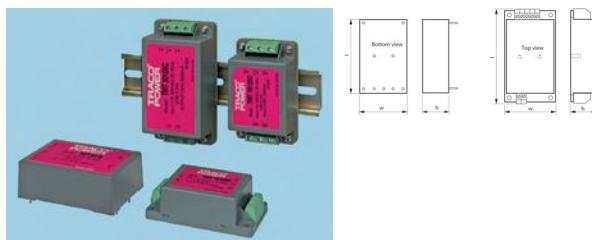
Operating temperature: -25°C to +70°C, above 60°C derating 2.5 %/K
 Safety standards / approvals: IEC/EN 60950-1, EN 50178, EN 60204, EN 61558-2-8
 Vibration/Shock: IEC 60068-2-6 / IEC 60068-2-27

Mfrs. List No.	Output (W/V/A)	Order Code	Mfrs. List No.	Output (W/V/A)	Order Code
TBL 015-105	12/5/2.4	163-5217	TBL 060-112	54/12/4.5	163-5224
TBL 015-112	15/12/1.25	163-5218	TBL 060-124	60/24/2.5	163-5225
TBL 015-124	15/24/0.63	163-5221	TBL 090-112	72/12/6	163-5226
TBL 030-112	30/12/2.5	163-5222	TBL 090-124	90/24/3.75	163-5227
TBL 030-124	30/24/1.25	163-5223			519069

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price each
TBL 015-105	163-5217●	32.50	31.20	29.64	28.15	
TBL 015-112	163-5218●	31.00	29.76	28.27	26.85	
TBL 015-124	163-5221●	30.60	29.37	27.90	26.51	
TBL 030-112	163-5222●	38.70	37.15	35.29	33.52	
TBL 030-124	163-5223●	37.00	35.52	33.74	32.05	
TBL 060-112	163-5224●	52.00	49.92	47.42	45.05	
TBL 060-124	163-5225●	49.90	47.90	45.50	43.23	
TBL 090-112	163-5226●	65.50	62.88	59.73	56.74	
TBL 090-124	163-5227●	60.90	58.46	55.54	52.76	

TMT series

15/30/50 Watt, encapsulated



- Ultra-compact, completely encapsulated switched-mode power supply
- Universal mains input 85-264 Vac
- Model with single and dual output
- Available in two housing options: for circuit mounting with soldering pins or for chassis mounting with screw terminals
- Adapter for DIN rail mounting (please order separately)
- Protection class II
- Interference resistance according to EN/UL 60601-1 medical standard
- Short-circuit and overload protection
- 3 year guarantee

Further specifications:

Control deviations:
 with changes in input 20mVmax.
 with changes in load 50mV max. (model with single output)

500mVmax. (model with dual output)

<150mVpk-pk type (20 MHz bandwidth)

EN 55011, Class B, EN 55022, Class B and FCC, Level B

Current limiting:>105% Inorm, foldback, autom. restart

Safety standards/licences:cUL/UL 60950-1, IEC/EN 60950-1, UL 60601-1, IEC 60601-1

Operating temperature range:-25°C to +70°C; above 60°C

Power reduction 2.5% / K

Efficiency: 88% typ.

Model	Output power (W)	Output 1 (V DC / mA)	Output 2 (V DC / mA)	Order Code	
				Printed circuit board mounting	Chassis mounting
TMT 15105	TMT 15105C	15	5/3000	-	128-4201 128-4208
TMT 15112	TMT 15112C	15	12/1250	-	128-4202 128-4209
	TMT 15115C	15	15/1000	-	- 128-4210
TMT 15124	TMT 15124C	15	24/625	-	128-4205 128-4211
TMT 15212	TMT 15212C	15	+12/625	-12/625	128-4206 128-4212
TMT 15215	TMT 15215C	15	+15/500	-15/500	128-4207 128-4213
TMT 30105	TMT 30105C	30	5/6000	-	128-4214 128-4221
TMT 30112	TMT 30112C	30	12/2500	-	128-4215 128-4222
TMT 30115	TMT 30115C	30	15/2000	-	128-4217 128-4223
TMT 30124	TMT 30124C	30	24/1250	-	128-4218 128-4224
	TMT 30212C	30	+12/1250	-12/1250	128-4225
TMT 30215	TMT 30215C	30	+15/1000	+15/1000	128-4220 128-4226
TMT 50105	TMT 50105C	50	5/9000	-	144-1239 144-1245
TMT 50112	TMT 50112C	50	12/4200	-	144-1240 144-1246
TMT 50115	TMT 50115C	50	15/3400	-	144-1241 144-1247
TMT 50124	TMT 50124C	50	24/2100	-	144-1242 144-1248
TMT 50148	TMT 50148C	50	48/1000	-	144-1244 144-1249

Dimensions

Mfrs. List No.	Printed circuit board mounting			Chassis mounting		
	Length l (mm)	Width w (mm)	Height h (mm)	Length l (mm)	Width w (mm)	Height h (mm)
TMT 15xxx	55	45	28	77	45	26.4
TMT 30xxx	76	51	28	96	51	29.5
TMT 50xxx	89	64	28	110	64	31.5

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Mfrs. List No.	Order Code	Price Each			
		1+	5+	10+	25+
Printed circuit board mounting					
TMT 15105	128-4201●	48.06	45.18	43.25	40.85
TMT 15112	128-4202●	48.06	45.18	43.25	40.85
TMT 15124	128-4205●	36.05	33.89	32.44	30.64
TMT 15212	128-4206●	49.67	46.69	44.70	42.22
TMT 15215	128-4207●	49.67	46.69	44.70	42.22
TMT 30105	128-4214●	57.43	53.98	51.69	48.81
TMT 30112	128-4215●	57.43	53.98	51.69	48.81
TMT 30115	128-4217●	57.43	53.98	51.69	48.81
TMT 30124	128-4218●	57.43	53.98	51.69	48.81
TMT 30215	128-4220●	37.46	35.22	33.71	31.85
TMT 50105	144-1239●	76.97	73.55	66.50	62.47
TMT 50112	144-1240●	76.97	73.55	66.50	62.47
TMT 50115	144-1241●	76.97	73.55	66.50	62.47
TMT 50124	144-1242●	76.97	73.55	66.50	62.47
TMT 50148	144-1244●	76.97	73.55	66.50	62.47
Chassis mounting (with accessories, also suitable for DIN rail mounting)					
TMT 15105C	128-4208●	54.91	51.61	49.42	46.68
TMT 15112C	128-4209●	54.91	51.61	49.42	46.68
TMT 15115C	128-4210●	54.91	51.61	49.42	46.68
TMT 15124C	128-4211●	57.93	54.46	52.14	49.25
TMT 15212C	128-4212●	57.03	53.60	51.32	48.47
TMT 15215C	128-4213●	57.03	53.60	51.32	48.47
TMT 30105C	128-4211●	62.16	58.44	55.95	52.84
TMT 30112C	128-4222●	62.16	58.44	55.95	52.84
TMT 30115C	128-4223●	62.16	58.44	55.95	52.84
TMT 30124C	128-4224●	62.16	58.44	55.95	52.84
TMT 30212C	128-4225●	63.78	59.95	57.40	54.21
TMT 30215C	128-4226●	63.78	59.95	57.40	54.21
TMT 50105C	144-1245●	78.08	74.56	67.50	63.47
TMT 50112C	144-1246●	78.08	74.56	67.50	63.47
TMT 50115C	144-1247●	78.08	74.56	67.50	63.47
TMT 50124C	144-1248●	78.08	74.56	67.50	63.47
TMT 50148C	144-1249●	78.08	74.56	67.50	63.47
Adapter for DIN rail mounting (TMTxxxC model)					
TMT-MK1(f. TMT 15xxxC)	128-4227●	10.48	9.85	9.43	8.91
TMT-MK2(f. TMT 30xxxC)	128-4229●	10.48	9.85	9.43	8.91
TMT-MK5(f. TMT 50xxxC)	144-1250●	9.77	8.97	8.56	8.06

18-960 W Single Output DIN Rail PSUs

Single & Three phase Inputs DNR Series



DNR18: H = 88.5, W = 22.5, D = 115 (mm)
 DNR120: H = 125, W = 63.5, D = 116 (mm)
 DNR240: H = 125, W = 83, D = 116 (mm)
 DNR480PS: H = 125, W = 175, D = 116 (mm)
 DNR607S: H = 125.9, W = 275.7, D = 113.3 (mm)
 DNR120TS: H = 123.6, W = 74.3, D = 111.3 (mm)
 DNR240TS: H = 123.6, W = 89, D = 111.3 (mm)
 DNR480TS: H = 123.6, W = 150, D = 111.3 (mm)
 DNR607TS: H = 125.9, W = 275.7, D = 113 (mm)

TRACO POWER**TCL Series, 24-120 Watt**

- Industrial power supplies for DIN-Rail mounting
- Ultra compact plastic case
- Universal input 85-264V ac
- Adjustable output voltage
- DC-OK signal
- Parallel operation possible
- Models with plugable screw terminals or with cage clamps (Version C)
- Worldwide safety approvals
- 3 year manufacturer's warranty

- International Safety Approvals
- Full Power to +60°C
- Overvoltage and Overload Protection
- Parallel Function
- Three-Phase versions available
- 3 year warranty

Input voltage DNR18 / DNR480PS: 90-264 VAC (120-370 VDC)
 DNR30 / DNR60: 85-264 VAC (90-375 VDC)
 DNR120AS: 90-132/186-264 VAC auto select (210-370 VDC)
 DNR240: 93-132/186-264 VAC auto select (210-370 VDC)
 DNR120TS / DNR240TS / DNR480TS: 340-575 VAC 3-phase (480-820 VDC)
 DNR960TS: 340-575 VAC 3-phase (1-phase operation with 75% output derating), 480-820 VDC

Input Frequency 47-63 Hz; 440 Hz

Power Factor Meets EN61000-3-2 for Class A equipment

Line Regulation ±0.5% (30/60/120/240/480PS Watt models)

Load Regulation ±1.0% (18/210TS/240TS/480/960 Watt models)

Load Regulation ±0.5% (30/60 Watt models)

Load Regulation ±1.0% (120/120TS/240/240TS/480/960 Watt models)

Ripple & Noise ±2.0% (18 Watt models)

Ripple & Noise 50mV pk-pk (80 mV pk-pk 960 Watt model (100mV pk-pk 120TS/240/240TS/480 Watt models)), 20 MHz bandwidth

Efficiency 75-90% depending on model, see full datasheet

Operating Temperature -25 °C to +70 °C depending on model, see full datasheet

Safety Approvals UL, CSA, EN, CE

EMC EN55022 level B

Mfrs. List No.	Output Power	Output Voltage	Current	Output Voltage Trim	Order Code
DNR18US05	18W	5V	3A	4.50 - 5.75V	137-2689
DNR18US12	18W	12V	1.5A	10.8 - 13.8V	137-2690
DNR18US15	18W	15V	1.2A	13.5 - 17.25V	137-2691
DNR18US24	18W	24V	0.75A	21.6 - 28.8V	137-2692
DNR30US05	30W	5V	6A	5.00 - 5.50V	137-2693
DNR30US12	30W	12V	2.5A	12.0 - 14.0V	137-2694
DNR30US24	30W	24V	1.25A	24.0 - 28.0V	137-2696
DNR30US48	30W	48V	0.625A	48.0 - 55.0V	137-2697
DNR60US05	60W	5V	10A	5.00 - 5.50V	137-2698
DNR60US12	60W	12V	5A	12.0 - 14.0V	120-9250
DNR60US24	60W	24V	2.5A	24.0 - 28.0V	120-9251
DNR60US48	60W	48V	1.25A	48.0 - 55.0V	120-9252
DNR120AS12-I	120W	12V	10A	11.4 - 14.5V	137-2699
DNR120AS24-I	120W	24V	5A	22.5 - 30.0V	137-2700
DNR120AS48-I	120W	48V	2.5A	45.0 - 55.0V	137-2702
DNR120TS12	120W	12V	10A	11.4 - 14.5V	167-3355
DNR120TS24	120W	24V	5A	22.5 - 28.5V	167-3356
DNR240PS24-I	240W	24V	10A	22.5 - 28.5V	120-9257
DNR240PS48-I	240W	48V	5A	47.0 - 56.0V	120-9258
DNR240TS24-I	240W	24V	10A	22.5 - 28.5V	167-3357
DNR240TS48-I	240W	48V	5A	47 - 56V	167-3358
DNR480PS24-I	480W	24V	20A	22.5 - 28.5V	137-2703
DNR480PS48-I	480W	48V	10A	47.0 - 56.0V	137-2704
DNR480TS24-I	480W	24V	20A	22.5 - 28.5V	137-2705
DNR480TS48-I	480W	48V	10A	47.0 - 56.0V	137-2706
DNR960TS24-I	960W	24V	40A	22.5 - 28.5V	163-4806
DNR960TS48-I	960W	48V	20A	47.0 - 56.0V	163-4807

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Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
DNR18	All Order Codes	23.00	22.31	21.62	20.70	
DNR30	All Order Codes	30.00	29.10	28.20	27.00	
DNR60	All Order Codes	36.00	34.92	33.84	32.40	
DNR120	All Order Codes	51.00	49.47	47.94	45.90	
DNR120TS	NEW All Order Codes	80.00	77.60	76.80	72.00	
DNR240	All Order Codes	86.00	83.42	80.84	77.40	
DNR240TS	NEW All Order Codes	99.00	96.03	95.04	89.10	
DNR480PS	All Order Codes	125.00	121.25	117.50	112.50	
DNR480TS	All Order Codes	75.00	72.75	70.50	67.50	
DNR960TS	NEW All Order Codes	235.00	227.95	220.90	211.50	

24W & 72W Linear, Stabilised Output**BLOCK**

- 230V ac input, 24V dc stabilised output
- Safety isolating transformer to VDE0551, EN60742
- 4kV input/output flash tested
- Finger safe easy accessible screw terminals
- Double screw terminals on the output
- Input and output fuse protection
- LED output voltage indicator

Input Voltage	Output Voltage	Output Power	Output Current	Dimensions (WxHxD)	Mfrs. Weight	List No.	Order Code
230V ac (+6%, -10%)	24V	24W	1A	62.5x75x132mm	1.2kg	GLS230/24-1	121-8791
230V ac (+6%, -10%)	24V	72W	3A	90x75x168mm	2.6kg	GLS230/24-3	121-8792

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Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
GLS230/24-1	121-8791	61.42	57.11	54.66	52.30	
GLS230/24-3	121-8792	94.57	88.88	85.11	81.49	

Over 480,000 products online

QGO**Single Output Din Rail 25-45W****DR-45 Series****SUNPOWER**

SUNPOWER LTD



- Full range AC input
- High efficiency, low working temperature
- Built in EMI filter
- Low ripple & noise
- Compact size, light weight
- Short circuit/ Overload protection
- Installed on DIN rail TS35/7.5 or 15
- Approvals: UL listed, TUV/CE pending

H = 93, W = 67 D = 78 (mm)

Input Voltage	85 - 264V AC, 120 - 370V DC
Input Frequency	47 - 63Hz
Inrush Current	Cold Start, 30A/115V, 60A/230V
Overload Protection	105% to 135% output constant current limiting
Setup, Rise, Hold up time	800ms, 60ms, 20ms
Withstand Voltage	IP-P/O: 3kV, I/P-FG: 1.5kV, 1min.
Working Temperature	0-45C@100%, -10C@80%, 50C@80%
Connection	4 P/7.5mm pitch terminal block

Mfrs. List No.	Output	Tol.	Ripple & Noise	Order Code
DR-4505	5V, 5A	±2%	100mV	125-4956
DR-4512	12V 3.5A	±1%	200mV	125-4957
DR-4515	15V, 2.8A	±1%	240mV	125-4958
DR-4524	24V, 2.0A	±1%	480mV	125-4961

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Mfrs List No.	Order Code	1+	5+	10+	25+	Price Each
DR-4505	125-4956	38.07	35.26	33.58	31.43	
DR-4512	125-4957	38.07	35.26	33.58	31.43	
DR-4515	125-4958	38.07	35.26	33.58	31.43	
DR-4524	125-4961	38.07	35.26	33.58	31.43	

Modular PSUs - DIN Rail Mount - continued

TSL Series, 30-480 Watt

TRACO
POWER

- Industrial power supplies for DIN-Rail mounting
- Slim metal case
- Universal input 93-264V ac
- Excellent load regulation
- Adjustable output
- Low ripple and noise
- EMC immunity to meet EN50082-2
- Parallel operation possible
- Worldwide safety approvals
- 3 year manufacturer's warranty

Input Voltage Range 85-264V ac, 50/60Hz, 85-375V dc

Line Regulation ±0.2% Max.

Load Regulation ±0.3% Max.

Ripple & Noise <50mV pk-pk typ.

Conducted EMI EN 55022, Class B

EMC Immunity EN 50082-2

Short Circuit Protection Current limit at 110% Iout max. (constant current)

Operating Temperature -25°C to +70°C, (above 60°C derating 2%/°C)

Mounting Snap-On mounting on 35mm DIN-Rail

Power	Output Voltage	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
30W	24V dc (24-28)	1.25A	29x100x115	TSL 030-124	126-7030
60W	24V dc (24-28)	2.5A	45x100x115	TSL 060-124	126-7032
120W	24V dc (24-28)	5A	61x125x125	TSL 120-124	126-7033
240W	24V dc (24-28)	10A	100x125x125	TSL 240-124	126-7034
480W	24V dc (24-28)	20A	220x125x125	TSL 480-124	126-7035

337910

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
TSL 030-124	126-7030●	55.00	51.71	49.50	47.38	
TSL 060-124	126-7032●	66.50	62.51	59.87	57.34	
TSL 120-124	126-7033●	99.00	93.07	89.11	85.32	
TSL 240-124	126-7034●	123.00	115.62	110.71	106.01	
TSL 480-124	126-7035●	190.00	178.62	171.02	163.74	

337910

TIS Series, 50-600W

TRACO
POWER

- Industrial power supplies for DIN-Rail mounting
- Robust, low profile metal case
- Selectable 115/230V ac
- Adjustable output voltage
- Parallel operation possible
- EM/EMC complies with EN50081-2 and EN50082-1
- Worldwide safety approvals
- 3 year manufacturer's warranty

Input Voltage 93-132/187-264V ac, switch selectable (model TIS 500-124-230:187-264V ac only)

Line Regulation ±0.2% Max.

Load Regulation ±1.0% Max.

Ripple & Noise <50mV pk-pk typ.

Conducted EMI EN 55011, Class B

Short Circuit Protection Current limit at 110% Iout max. (constant current)

Operating Temperature -25°C to +70°C, above 50°C derating 2%/°C

Safety Standards/Approval IEC/EN 60950, cUL/UL 1950, UL 508C listed, UL 1604 listed, CB report

Case material Aluminium/Stainless Steel

Mounting Snap-On on 35mm DIN-Rail

Connection Pluggable Screw Terminals (Plugs included)

Power	Output Voltage	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
50W	24V dc (24-28)	2A	75x100x56.7mm	TIS 050-124	124-2577
75W	24V dc (24-28)	3A	90x114.6x56.7mm	TIS 075-124	124-2578
75W	48V dc (48-52)	1.5A	90x114.6x56.7mm	TIS 075-148	119-6514
150W	24V dc (24-28)	6A	157x114.6x56.7mm	TIS 150-124	124-2579
300W	24V dc (24-28)	12A	207x114.6x83mm	TIS 300-124	124-2580
500W	24V dc (24-28)	20A	220x130x83mm	TIS 500-124-230	124-2582
600W	24V dc (24-28)	24A	243x177.2x83mm	TIS 600-124	124-2583

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Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
TIS 050-124	124-2577●	54.50	51.24	49.06	46.97	
TIS 075-124	124-2578●	66.00	62.05	59.41	56.88	
TIS 075-148	119-6514●	88.66	85.11	80.68	73.59	
TIS 150-124	124-2579●	94.00	88.37	84.62	81.03	
TIS 300-124	124-2580●	130.50	122.69	117.46	112.45	
TIS 500-124-230	124-2582●	149.50	140.54	134.57	128.85	
TIS 600-124	124-2583●	203.00	190.83	182.72	174.96	

SITOP Smart DIN Rail Mounting PSUs

Narrow Universal Power Supply

SIEMENS



- Narrow design with 33, 50 and 70 mm
- For standard applications with 2.5, 5 and 10 A
- Stabilised 24 V dc Output
- Snap Mounting on DIN rail 35x15/7.5 (DIN EN50022)
- Certified to CE, UL, CSA, GL

Output	24V/2.5A	24V/5A	24V/5A
Mfrs List No.	6EP1332-2BA10..	6EP1333-2AA01..	6EP1333-2BA01..
Order Code	121-6629	121-6630	121-6631
Voltage Range	V ac - 264V ac5		
Frequency	50/60Hz		
Input Current	1.1A/0.65A	2.1A/1.15A	
Voltage Output		24VDC ±3%	
Setting Range		22.8-28VDC	
Current Output	2.5A	5A	
Efficiency	85%	87%	87%
Ambient Temperature	Oto60°C°C		
Dimensions (W x H x D) in mm	33 x 125 x 125	50 x 125 x 125	
Weight	0.4kg	0.5kg	0.5kg

Output	24V/10A	24V/10A
Mfrs List No.	6EP1334-2AA01..	6EP1334-2BA01..
Order Code	121-6632	121-6633
Voltage Range	V ac - 264V ac5	
Frequency	50/60Hz	
Input Current	4.1A/0.65A	4.1A/1.15A
Voltage Output		24VDC ±3%
Setting Range		22.8-28VDC
Current Output	10A	10A
Efficiency	90%	91%
Ambient Temperature	Oto60°C°C	
Dimensions (W x H x D) in mm	70 x 125 x 125	70 x 125 x 125
Weight	0.75kg	0.8kg

439519

Output	Mfrs. List No.	Order Code	1+	2+	5+	Price Each
24V / 2.5A	6EP1332-2BA10..	121-6629●	70.00	65.80	63.00	
24V / 5A	6EP1333-2AA01..	121-6630●	85.00	79.90	77.42	
24V / 5A	6EP1333-2BA01..	121-6631●	103.00	96.82	92.70	
24V / 10A	6EP1334-2AA01..	121-6632●	127.72	120.06	114.95	
24V / 10A	6EP1334-2BA01..	121-6633●	134.93	126.83	121.44	

Single Output 60-480W

ADN Series

ASTEC



- Power Factor Correction - EN6100-3-2
- Auto select 115/230 VAC, 50/60Hz Input
- All single phase models meet SEMI F47
- Sag immunity
- Class 1, Div 2 Hazardous Locations
- DC OK signal
- Adjustable voltage
- Industrial grade design (no derating to 60°C)
- User-friendly front panel
- Single and three phase inputs available
- Highly efficient >90% switching technology
- High MTBF and reliability
- IP20 rated

Input range	85-123/176-264V ac, auto select 210-375V dc
Line Regulation	<0.5%
Load Regulation	<0.5%
Ripple	<50mVpp
Operating Temperature (convection)	-10°C to +60°C derate to 50% at +70°C
Holdup time	<20ms at full load (25°C)

Prices are in £ sterling & exclusive of VAT

Power	Output Voltage	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
60W	24V dc	2.5A	50x124x116mm	ADN2.5-24-1PM	127-2319
120W	24V dc	5A	65x124x116mm	ADN5-24-1PM	127-2320
240W	24V dc	10A	83x124x116mm	ADN10-24-1PM	127-2321
480W	24V dc	20A	175x124x118mm	ADN20-24-1PM	127-2322

373155

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
ADN2.5-24-1PM	127-2319●	62.16	55.90	52.46	
ADN5-24-1PM	127-2320●	86.47	78.97	73.22	
ADN10-24-1PM	127-2321●	126.83	115.30	106.07	
ADN20-24-1PM	127-2322●	230.59	209.83	194.27	

72-600 Watt Industrial DIN Mount

TSP Series

TRACO
POWER

- Rugged metal case design for harsh industrial environments
- Worldwide use - autoselect input and international safety approvals
- Compliance to UL 1604 and IEC 60079-15
- Variable output voltage

- Low output ripple
- Indefinite short circuit, overvoltage and overtemperature protection
- Remote on/off
- Redundancy module
- Buffer module for power backup
- 3 year product warranty

Input Voltage 85-132/187-264 VAC, /

Line Regulation ±0.5% Max.

Load Regulation ±0.5%

Ripple & Noise <100 mV pk-pk (200mV pk-pk max. at Imax)

EMI Suppression EN 55022, Class B, EN55022, Class B

EN 61000-3-2, EN 61204-3

Noise Immunity EN 61000-6-2, EN 61204-3 (Industrial Environment)

Output current limitation at 180% typ. (constant current, automatic recovery)

Output characteristic selectable for parallel operation or battery charging applications

Over voltage protection 12V (12VDC models) and 35V (24VDC models)

Operating Temperature to

Safety Standards/Approval UL/cUL 1950 recognised, UL 508C listed, UL 1604,

IEC/EN 60950, IEC/EN 60079-15 EN 50178,

EN60204, EN 61558-2-8,

Case aluminium (chassis) / zinc plated steel (cover)

Mounting DIN-rails as per EN 50022-35x15/7.5 (snap-on with self locking spring)

or wall mounting bracket (option)

Standard Modules

Mfrs. List No.	Power (max)	Output Output	Dimensions (WxHxD)	Order Code
TSP 070-112	78W	12V dc (12-14)	6.5A 35x110x110	124-2642
TSP 090-124	90W	24V dc (24-48)	3.8A 35x110x110	124-2643
TSP 140-112	156W	12V dc (12-48)	13A 54x110x110	124-2644
TSP 180-124	180W	24V dc (24-48)	7.5A 54x110x110	124-2645
TSP 360-124	360W	24V dc (24-48)	15A 80x125x125	124-2646
TSP 600-124	600W	24V dc (24-48)	25A 165x125x125	124-2648

Redundancy Module

Mfrs. List No.	Input Voltage	Input Input	Output Voltage	Dimensions (WxHxD)	Order Code
TSP-REM360	2x 24V dc	2x 360W	24V dc	35x110x110	124-2649

2 control inputs

Buffer Module

Mfrs. List No.	Input Voltage	Buffer Time	Output Power (max)	Dimensions (WxHxD)	Order Code
TSP-BFM24	24-28V dc	200ms typ@25A 4s max @ 1.2A	600W	54x110x110	124-2650

385748

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
TSP 070-112	124-2642●	68.00	63.92	61.20	
TSP 090-124	124-2643●	58.50	54.99	52.65	
TSP 140-112	124-2644●	88.50	83.19	79.65	
TSP 180-124	124-2645●	86.00	80.84	77.40	
TSP 360-124	124-2646●	127.00	119.38	114.30	
TSP 600-124	124-2648●	178.00	167.32	160.20	
TSP-REM360	124-2649●	85.64	82.21	77.93	
TSP-BFM24	124-2650●	119.89	115.10	109.10	

DIN Rail Mount Power Supplies

LAMBDA



- Convection cooled
- Conducted and radiated EMI, Class B
- Input transient protection, **IEC61000-4**
- Supports global use
- 3 year manufacturers warranty
- **UL508** Listed

Output Voltage	Output Current	Output Power	Dimensions (WxHxD)	Weight (g)	Mfrs. List No.	Order Code
24V	3.1A	75W	50x97x110mm	470	DLP75-24/E	118-4639
24V	5A	120W	60x97x110mm	540	DLP120-24/E	118-4641
24V	7.5A	180W	80x97x110mm	780	DLP180-24/E	118-4642
24V	10A	240W	120x97x110mm	1000	DLP240-24/E	118-4643

489-5216
Input Voltage Range 85-132 / 85 - 265V
Frequency Range 47 - 63Hz
Temperature Range -10 to 50°C, derate linearly to 60% load from 50 to 60°C

373155

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
DLP75-24/E	118-4639●	64.97	58.04	50.71	
DLP120-24/E	118-4641●	92.06	80.34	69.87	
DLP180-24/E	118-4642●	125.63	109.34	95.79	
DLP240-24/E	118-4643●	148.37	129.44	112.69	

335994

Single Output Din Rail 76-480W
DR-75, 120, 240, 480 Series

SITOP



- International input range
- Installed on DIN rail TS35/7.5 or 15
- Soft start circuit
- Limiting AC surge current
- Built in EMI filter
- Low ripple & noise
- Short circuit, over voltage, over load protection
- Over temperature protection (DR-240 Series only)
- 100% full load burn in
- LED indication
- UL listed, cUL, TUV, BCB, CE certified

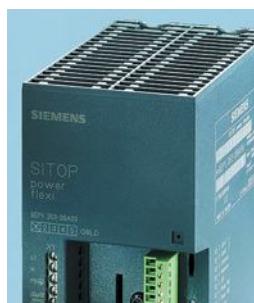
Input Voltage	85 - 264V AC, 120 - 370V DC
Input Frequency	47 - 63Hz
Current	2.0A/115V, 1.2A/230V
Inrush Current	Cold Start, 30A/115V, 60A/230V
Leakage Current	<1mA at 240V AC
Overload Protection	105% to 150% output constant current limiting
Setup, Rise, Hold up time	1000ms, 60ms, 50ms @ 230V AC
Operating Temperature	-10C to 50C (45C for 12V)

Mfrs. List No.	Output	Tol.	Ripple & Noise	Efficiency	Dimensions	Order Code
DR-75-12	12V, 6.3A	±2%	100mV	76%	100x55.5x125.2	125-4962
DR-75-24	24V, 3.2A	±1%	150mV	80%	100x55.5x125.2	125-4963
DR-120-12	12V, 10A	±2%	80mV	80%	100x65.5x125.2	125-4964
DR-120-24	24V, 5.0A	±1%	80mV	84%	100x65.5x125.2	125-4965
DR-120-48	48V, 2.5A	±1%	100mV	85%	100x65.5x125.2	125-4966
DRP-240-24	24V, 10A	±1%	80mV	84%	125.5x100x125.2	125-4967
DRP-480S-48	48V, 10A	±1%	120mV	89%	227x100x125.2	125-4970

249222

DIN Rail Mounting PSU
SITOP Power Flexi, Stabilised Power Supply

SIEMENS



W=75, H=125, D=125mm Weight = 0.9kg

Mfrs. List No.	Rated input voltage	Voltage range	Buffering of power outages	Frequency	Input current	Rated output voltage	Tolerance	Setting range	Output current, output power	Ambient temperature
6EP1353-2BA00	AC 120/230 V	AC 85...132/170...264 V	> 10 ms (at 93/187 V)	50/60 Hz	2.2/0.9 A	DC 24 V	±1%	DC 3-52 V, adjustable, remote control possible	10 A (3...12 V), 120 W (12...52 V)	0°C to +60°C

Modular PSUs - DIN Rail Mount - continued**DIN Rail Mounting PSU - continued**

SITOP Power Flexi, Stabilised Power Supply - continued

386348

Output Voltage	Mfrs. List No.	Order Code	Price Each
1+	5+		
3 - 52 V dc	6EP1353-2BA00..	121-0880●	161.71 158.48

Single Output 120-960W, 3-Phase

ADN Series



- Power Factor Correction - EN6100-3-2
- DC OK signal
- Adjustable voltage
- Industrial grade design (no derating to 60°C)
- User-friendly front panel
- Single and three phase inputs available
- Highly efficient >90% switching technology
- High MTBF and reliability
- IP20 rated
- Peak current capability 2x rated current for 2 seconds

Input range 1-Phase or 3-Phase, 380-480 Vac

Line Regulation <0.5%

Load Regulation <0.5%

Ripple <50mVpp

Operating Temperature (convection) -10°C to +60°C derate to 50% at +70°C

Holdup time <20ms at full load (25°C)

Phase 1-phase or 3-phase on 5, 10 and 20A models.

30A & 40A models are 3-phase only.

Power	Output Voltage	Output Current	Dimensions (WxHxD)	Mfrs. List No.	Order Code
120W	24V dc	5A	73x124x116mm	ADN5-24-3PM	129-7388
240W	24V dc	10A	89x124x116mm	ADN10-24-3PM	129-7389
480W	24V dc	20A	150x124x116mm	ADN20-24-3PM	129-7390
720W	24V dc	30A	247x124x116mm	ADN30-24-3PM	129-7391
960W	24V dc	40A	282x124x116mm	ADN40-24-3PM	129-7392

450315

Mfrs. List No.	Order Code	Price Each
1+	5+	10+
ADN5-24-3PM	129-7388●	129.90
ADN10-24-3PM	129-7389●	155.20
ADN20-24-3PM	129-7390●	241.42
ADN30-24-3PM	129-7391●	185.38
ADN40-24-3PM	129-7392●	198.86
		110.89 132.49 206.09 158.26 169.77

Modular DIN Rail Mounting PSUs

SITOP modular 24 V



- Siemens first modular power supplies
- Flexible and cost-effective function upgrades
- Ultra-wide input voltage ranges AC 85 - 132 V and 176 - 550 V
- 5 A and 10 A two phase

- versions run on three phase supplies
- Switchable input voltage AC 120/230 V for 20 A and 40 A versions
- Three phase wide-range input AC 400-500 V for 20 A and 40 A versions
- Robust design, high power density
- Selectable short-circuit behaviour: constant current or latching shutdown
- Output characteristic switchable for parallel operation
- LEDs for 24 V o.k., overload, latching shutdown
- Interference emission class B and high interference immunity
- Limitation of input current harmonics to EN 61000-3-2 (except for 6EP1337...)
- Add-on modules for extended functionality
- Snap-mounting on DIN rail 35x15/7.5 (DIN EN 50022)
- Certifications: CE, UL/cUL

Output	24V / 5A	24V / 10A	24V / 20A	24V / 40A
Mfrs. List No.	6EP1333-3BA00	6EP1334-3BA00	6EP1336-3BA00	6EP1337-3BA00
Rated input voltage	AC 120/230-500 V	AC 120/230 V	AC 120/230 V	AC 120/230 V
Voltage range	AC 85...132/176...550 V	AC 85...132/187...264 V	> 25ms (at 120/230 V)	> 20ms (at 230 V)
Buffering of power outages	> 25ms (at 120/230 V)			
Frequency	50/60 Hz		50/60 Hz	
Input current	2.2/1.2-0.61A	4.4/2.4-1.1A	7.7/3.5 A	15/8 A
Rated output voltage	DC 24V		DC 24V	
Tolerance	±3%		±3%	
Setting range	24...28.8V		24...28.8V	
Output current	5A	10A	20A	40A

Parallel connection	Yes	Yes
Galvanic isolation	SELV (EN 60950, EN50178)	SELV (EN 60950, EN50178)
Ambient temperature	0°C to 60°C	0°C to 60°C
Dimensions (WxHxD)	70x125x125	90x125x125
Weight	1.2kg	1.4kg

439507

Output	Mfrs. List No.	Order Code	Price Each
1+	3+	5+	
24V / 5A	6EP1333-3BA00..	121-66220●	124.63
24V / 10A	6EP1334-3BA00..	121-66230●	160.68
24V / 20A	6EP1336-3BA00..	121-66260●	186.00
24V / 40A	6EP1337-3BA00..	121-66270●	323.42
			118.42 152.67 176.71 307.26
			112.52 145.07 170.65 291.90

439507

Single Output 120-960W, 3-Phase

PVE Semi Stabilised Series



Mfrs. List No.	Power Rating	Output Voltage	Current	Dimensions (WxHxD)	Order Code
PVE400/24-10	240W	24V	10A	57 x 127 x 163	137-3954
PVE400/24-20	480W	24V	20A	77 x 127 x 175	137-3955
PVE400/24-40	960W	24V	40A	128 x 127 x 205	137-3956

471514

Mfrs. List No.	Order Code	Price Each
1+	5+	10+
PVE400/24-10	137-3954●	107.36
PVE400/24-20	137-3955●	116.81
PVE400/24-40	137-3956●	260.74
		102.00 110.97 247.70
		96.88 105.42 235.32

471514

Single Output 240W-960W, 3-Phase

PVSE Stabilised Series



Mfrs. List No.	Power Rating	Output Voltage	Current	Dimensions (WxHxD)	Order Code
PVSE400/24-10	240W	24V	10A	57 x 127 x 179	137-3951
PVSE400/24-20	480W	24V	20A	77 x 127 x 179	137-3952
PVSE400/24-40	960W	24V	40A	128 x 127 x 205	137-3953

471514

Mfrs. List No.	Order Code	Price Each
1+	5+	10+
PVSE400/24-10	137-3951●	122.70
PVSE400/24-20	137-3952●	128.94
PVSE400/24-40	137-3953●	276.08
		116.56 122.49 262.27
		110.73 116.36 249.15

471514

DC to DC Converters**Vehicle DC to DC Converters**

Regulated



- A compact vehicle DC to DC converter that plugs directly into a 12V car cigar lighter
- 1.5, 3, 4.5, 6, 7.5, 9, 12V selectable output
 - Flush voltage selector switch to prevent any accidental switching of the output voltage
 - Fully IC regulated output
 - Current rating 1.5/3V=300mA, 4.5/6V=500mA, 7.5/9V=800mA, 12V=1.2A
 - Outputs via 6 interchangeable output connectors
 - Short circuit protection
 - Automatic thermal and overload cut-off

23181

Order Code	Price Each	
1+	5+	10+
121-7060●	4.80 4.77 4.58	

23181

Vehicle DC to DC Converters

Regulated



A regulated plug in power supply with selectable output

- 1.5, 3, 4.5, 6, 7.5, 9, 12V selectable output
- 12 or 24V dc input
- Plugs directly into a car cigar lighter socket
- Outputs via 6 interchangeable output connectors
- Current rating 1A



231182

Order Code	1+	Price Each
121-7059●	2.74	2.72

**Vehicle DC to DC Converters**

Regulated



A compact vehicle DC to DC converter that plugs directly into a 12V car cigar lighter

- 1.5, 3, 4.5, 6, 7.5, 9, 12Vdc selectable output
- Flush voltage selector switch to prevent any accidental switching of the output voltage
- 12V or 24V dc input
- Fully regulated output
- 2A Current rating

231183

Order Code	1+	Price Each
121-7058●	7.19	7.15

Battery Converter

35W In Car Notebook PSU



SWITCHED MODE LTD

- Suitable for notebook computers employing time charge control
- 12V battery input via cigar plug
- Output electrically isolated from input and chassis
- Rated for continuous use in current limit
- Output adjustable by internal control (5% min.)
- Output lead (0.6m approx.) fitted with A or B connector (see table)

H=30, W=60, L=111, Weight(g)=380

Caution: The user is responsible for ensuring the suitability of equipment connected to these converters

Note: Type A connector is a 2 pin 'quick mate', Order Code 494-380

Type B connector is a 2.5mm dc plug, centre positive, Order Code 224-935

Output	Currents (A)	Current Limit (A)	Model	Connector
5V	5	6.2	SM3750	Type A
9V	3.1	3.9	SM3751	Type A
12V	2.4	3	SM3752	Type B
15V	1.9	2.4	SM3753	Type B
18V	1.6	2	SM3754	Type B

205866

**Vehicle DC-DC**
60W VDN60 Series

H = 117.7, W = 44.1, D = 30.2

Input Voltage 12 VDC
Input Current 6.8A Max. @12V DC I/P
Output Power Range 0-60 watts

- Input for car cigarette receptacle
- Wide range DC input 11 - 28V DC
- Constant current output built-in
- Fully enclosed plastic case
- Fully regulated output
- High efficiency
- High quality

Operation Temperature 0C to +40C
Efficiency 85% typical

249249

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Order Code	1+	3+	10+
VDN60-15012	12V	15V	4.0A	116-5776●	64.66	54.68	49.74
VDN60-18012	12V	18V	3.35A	116-5777●	64.66	54.68	49.74
VDN60-20012	12V	20V	3.0A	116-5778●	64.66	54.68	49.74
VDN60-24012	12V	24V	2.5A	116-5779●	64.66	54.68	49.74

**Vehicle DC-DC**
75W PSS75 Series

- Wide input range to cover 12V batteries
- Input via standard cigarette lighter plug
- Input cable length = 450mm
- Output cable length = 1800mm
- Fully sealed plastic case
- LED Power On indicator
- High Efficiency

H = 138.5, W = 61.0, D = 32.5 (mm)

Input Voltage	11-28VDC	Operation Temperature	0C to +40C
Input Current	11A Max.	Efficiency	Greater than 80%
Output Power Range	0-75 watts		

449535

Mfrs. List No.	Output Voltage	Output Current	Order Code	1+	3+	10+
PSS75-12	12V	6.25A	129-2837●	68.01	64.61	60.08

DC/DC Linear Converters

- Protected against reversed polarity
- Protected against overvoltage
- 6.3mm push-on terminals
- Common negative connection for input and output
- Designed for operating car stereo equipment
- Compact design
- Meets 'E' marked vehicle directive ref. (95/54/EC)

Output Voltage (Vdc)	Max. Load	Output Wattage (W)	Order Code
12	3	40	118-3903
12	3.0 (1A Backup)	40 (12W Backup)	118-3939

249279

Mfrs. List No.	Order Code	1+	3+	10+	25+
9062 24/12	118-3903●	23.23	22.23	21.57	20.71
9063 24/12V	118-3939●	20.97	17.58	16.64	16.13

36

Intelligent DC/DC Convertors - 24V dc/12V dc

A range of professional quality, DC-DC convertors allowing 12V dc operated equipment to be powered by 24V batteries commonly found on diesel engined vehicles and vessels. The units provide high performance and reliability and include many additional protection features that prevent damage to the units and the vehicle wiring system when operated under fault or overload conditions. Supplied with a connector kit and a snap on mounting bracket allowing the units to be fixed to panels and bulkheads.

- Switch mode technology
- High efficiency, cool running
- Soft shut down to prevent fuses being blown or damage caused by short circuit, overload, reverse polarity and wiring faults
- Rugged and compact with anodised aluminium/polycarbonate cases
- Fast and easy installation with push on terminals
- Over current and overheat
- LED output and status indicators

Input Voltage Range	15 to 38V dc	Input Voltage Range	15 to 38V dc
Output Voltage	13.2V dc	Efficiency	90%
Current Rating (Cont./Surge)			Dimensions (WxHxD)
121-4891			121-4891
3.8A/7A			74x31x69mm
121-4892			121-4892
6.8A/11A			74x31x79mm
121-4894			121-4894
10A/14A			74x31x89mm
Off Load Current			<15mA

249188

Current Rating (Cont.)	Order Code	1+	5+	10+	25+
3.8A	121-4891●	21.32	19.69	19.10	18.35
6.8A	121-4892●	28.12	26.00	25.21	24.21
10A	121-4894●	38.50	35.57	34.51	33.16

DC to DC Converters - continued

Battery Converter - Installed

24Vdc - 12Vdc



- High quality vehicle voltage converter 24V to 12V dc
- Range of switch mode and isolated converters
- Fast easy installation
- Suits cellular, PMR, PAMR and mobitext
- Meets petrochemical Specifications
- Output voltage indicator
- Inherent failsafe isolation circuit
- CE marked

227657

Continuous Load	Mfrs. List No.	Order Code	1+	3+	5+	Price Each
3A	PV3I	118-2703●	44.31	40.62	33.10	
6A	PV6I	118-2704●	60.99	54.34	46.43	
12A	PV12I	118-2706●	108.31	97.63	86.10	
3A	PV3S	118-2707●	21.95	20.33	17.18	
6A	PV6S	118-2708●	42.65	39.30	34.77	
12A	PV12S	118-2709●	50.68	46.84	37.39	
24A	PV24S	118-2702●	100.54	98.36	93.43	

DC to DC Converters

DD Series



- Compact size
- Power rating to 0.7A continuous
- Cool running switch mode design with efficiency
- Typically 85%
- Low quiescent current <10mA

Input Voltage	24V
Efficiency (Non Isolated)	Typically 85%
Output Noise	<100mV pk-pk at continuous load
Offload Current	<10mA
Enclosure	Heatshrink Sleeving, Dust and water resistance - IP54
Operating Temperature	-25 to 30°C, (+30°C to +80°C de-rate linearly to 0A)
Storage Temperature	-25°C to 100°C

Mfrs. List No.	Output Voltage	Dimensions (mm)	Power	Length	Width	Depth	Order Code
DD24-12 009	13.6V	9W	80	31	29		151-1263

Note: Power supplies are used in battery operating applications, therefore 12V dc output is 13.6V dc

491414

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
DD24-12 009	151-1263●	17.38	16.51	15.69	14.89	

DC to DC Converters

DD Series



- Compact, light weight and rugged
- Switch mode technology
- Casing sealed to IP 533
- Low off load current consumption (<50mA typical)
- Inherent reliability with no quibble manufacturers life time guarantee
- CE and E marked
- Red output LED ensures the units operation and eases fault finding
- High efficiency. Typically 90% of non isolated units and 85% for isolated units
- Suitable for mounting in confined spaces without over heating

Input Voltage	8.4 to 15.6V
Efficiency (Non Isolated)	Typically 85%
Efficiency (Isolated)	Typically 90%
Output Noise	<50mV pk-pk at continuous load.
Offload Current (quiescent current)	Meets CISPR25 and VDE0879-3
Isolation Voltage	<50mA
Operating Temperature	>400V rms between input, output and case, on isolated products only
Storage Temperature	-25 to 80°C to meet this specification table
Case Material	30 to 70°C de-rate linearly to 0A

-25°C to 100°C

Anodized aluminium/Glass filled polycarbonate

Output Voltage	Power	Dimensions (mm)	Mfrs.	List No.	Order Code
13.6V	36W	89	87	50	DD12-12 036
27.2V	72W	89	87	50	DD12-24 072

Note: Power supplies are used in battery operating applications, therefore 12V dc output is 13.6V dc and 24V dc is 27.2V dc

350050

Mfrs. List No.	Order Code	1+	5+	10+	25+	50+	Price Each
DD12-12 036	118-4211●	65.23	62.72	60.39	57.54	53.87	
DD12-24 072	118-4212●	85.50	82.20	79.17	75.39	70.60	

DC to DC Converters

DD Series



- Quick and easy to install
- Switch mode technology
- Casing sealed to IP 533
- Low off load current consumption (<50mA typical)
- Inherent reliability
- CE and E marked
- Red output LED ensures the units operation and eases fault finding
- High efficiency. Typically 90% of non isolated units and 85% for isolated units
- Internal protection against over current, transients and overheating

Input Voltage	48V dc
Efficiency (Non Isolated)	Typically 80%
Efficiency (Isolated)	Typically 90%
Output Noise	<50mV pk-pk at continuous load. Meets CISPR25 and VDE0879-3
Offload Current (Non Isolated)	<30mA
Offload Current (Isolated)	<15mA
Isolation Voltage	>400V rms between input, output and case, on isolated products only
Operating Temperature	-25 to 30°C, (+30°C to +80°C de-rate linearly to 0A)
Storage Temperature	-25°C to 80°C
Case Material	Anodized aluminium and impact resistance IP 533
Mfrs. List No.	Order Code
DD 48-12 072	13.6V
DD 48-12 108	13.6V
DDI 48-12 036	13.6V
DDI 48-12 072	13.6V

Note: Power supplies are used in battery operating applications, therefore 12V dc output is 13.6V dc

491406

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
DD 48-12 072	151-1259●	57.84	54.50	52.27	50.61	
DD 48-12 108	151-1260●	76.06	71.68	68.75	66.56	
DDI 48-12 036	151-1261●	55.92	52.71	50.55	48.94	
DDI 48-12 072	151-1262●	73.62	69.41	66.55	64.42	

DC/DC Switch Mode Converters



5060 Series:

- Compact Design
- High efficiency
- Short circuit protected
- Terminal block (screw terminals)
- Light weight (200g)
- Meets 'E' marked vehicle directive ref. (95/54/EC)



8862/9260/9970 Series:

- Protected against reversed polarity and overvoltage
- Fused input
- Automatic shutdown on over/under voltage at input
- Thermal and short circuit protection
- Electronically separated input/output/chassis and input/output
- 6.3mm push-on terminals (input and output)
- Meets 'E' marked vehicle directive ref. (95/54/EC)

Input Voltage (Vdc)	Output Voltage (Vdc)	Load Current Continuous	Output Wattage (W)	Order Code
18 - 32	13.6	3A	41	118-3940
18 - 32	13.2	6A	81	118-3942
10 - 16	13.2	3A	40.5	118-3943
10 - 16	24	1.7A	40.5	118-3944
18 - 32	24	3A	81	118-3945
20 - 30	13.8	20A	276	118-3946

249281

Mfrs. List No.	Order Code	1+	3+	10+	25+	50+	Price Each
5060 24/12V	118-3940●	28.96	23.42	22.21	21.52	20.00	
8862 24/12V	118-3942●	59.56	50.90	48.24	46.75	43.47	
8862 12/12V	118-3943●	59.56	50.90	48.24	46.75	43.47	
8862 12/24V	118-3944●	59.56	50.90	48.24	46.75	43.47	
8862 24/24V	118-3945●	59.56	50.90	48.24	46.75	43.47	
9970 24/12V	118-3946●	84.97	72.40	68.61	66.51	61.81	

Coming soon



Register your interest for items that are 'Coming Soon' at www.farnell.co.uk and we'll email you to let you know that they're in stock.

15W Single Output DC/DC Converter



H = 79 x 51 x 28mm

- 2:1 wide input range
- 3000Vdc I/O Isolation
- Short Circuit, Overload, Over Voltage and Over Temperature protection
- Built in EMI filter, low ripple noise
- 100% full load burn-in test
- Fixed switching frequency at 83kHz
- Cooling by free air convection
- Miniature profile

Applications:

- General electrical engineering
- Automotive
- Battery back-up
- Security

Operating Temperature	-10°C to +60°C				
Storage Temperature	-20°C to +85°C				
Mfrs.	Input	Output	Output	Rated	Ripple & Noise Line/Load
List No.	Voltage (Vdc)	Voltage (V)	Current (A)	Power (W)	(max) (mV)
SD-15A-5	9.2 to 18	5	3	15	100 ±0.5%
SD-15A-12	9.2 to 18	12	1.25	15	120 ±0.3%
SD-15A-24	9.2 to 18	24	625	15	150 ±0.2%
SD-15B-5	18 to 36	5	3	15	100 ±0.5%
SD-15B-12	18 to 36	12	1.25	15	120 ±0.3%
449929					

Order Code	1+	5+	10+	25+
All Order Codes	26.98	24.53	23.80	22.60

30W - 100W Enclosed DC-DC Power Supplies



- Input and output isolation
- Soft start function
- Input reverse polarity protection
- Overload, over voltage and short circuit shutdown with auto recovery
- No minimum load requirements
- Input over voltage and under voltage protection
- Output voltage adjustment ±10%
- Power on LED

This compact range of high quality single output DC-DC power supplies provide a solution for many low voltage applications.

Dimensions (WxHxD)

Output	Input Voltage Range	Typical Input Voltage	Efficiency	Mfrs.	
				List No.	Order Code
30W	5V, 6A	9.5 - 18V dc	12V dc	SDS-030A05	125-4988
	5V, 6A	18 - 36V dc	24V dc	SDS-030B05	125-4990
	12V, 2.5A	18 - 36V dc	24V dc	SDS-030B12	125-4991
	12V, 2.5A	36 - 72V dc	48V dc	SDS-030C12	125-4993
	24V, 1.3A	9.5 - 18V dc	12V dc	SDS-030A24	125-4989
	24V, 1.3A	18 - 36V dc	24V dc	SDS-030B24	125-4992
60W	12V, 5A	9.5 - 18V dc	12V dc	SDS-060A12	125-4994
	12V, 5A	18 - 36V dc	24V dc	SDS-060B12	125-4997
	12V, 5A	36 - 72V dc	48V dc	SDS-060C12	125-4999
	24V, 2.5A	9.5 - 18V dc	12V dc	SDS-060A24	125-4995
	24V, 2.5A	18 - 36V dc	24V dc	SDS-060B24	125-4998
100W	24V, 4.2A	18 - 36V dc	24V dc	SDS-100B24	125-5000
	24V, 4.2A	72 - 144V dc	96V dc	SDS-100D24	125-5001

386255

Mfrs.	List No.	Order Code	1+	5+	10+	25+
30W						
SDS-030A05	125-4988●	31.42	30.36	29.38	28.48	
SDS-030B05	125-4990●	31.42	30.36	29.38	28.48	
SDS-030B12	125-4991●	31.42	30.36	29.38	28.48	
SDS-030C12	125-4993●	28.28	27.32	26.45	25.63	
SDS-030A24	125-4989●	31.42	30.36	29.38	28.48	
SDS-030B24	125-4992●	31.42	30.36	29.38	28.48	
60W						
SDS-060A12	125-4994●	43.81	42.33	40.97	39.69	
SDS-060B12	125-4997●	43.81	42.33	40.97	39.69	
SDS-060C12	125-4999●	43.81	42.33	40.97	39.69	
SDS-060A24	125-4995●	43.81	42.33	40.97	39.69	
SDS-060B24	125-4998●	43.81	42.33	40.97	39.69	
100W						
SDS-100B24	125-5000●	59.03	57.05	55.19	53.49	
SDS-100D24	125-5001●	59.03	57.05	55.19	53.49	

386255

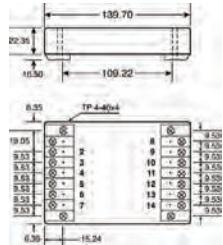
Over 480,000 products online



Chassis Mount DC/DC Converters



HDD Series



The HDD series is an extremely robust range of wide input DC/DC converters that are specifically designed for use in chassis mount applications where a stable, isolated output is required. Incorporating reverse polarity protection, a wide trim range and a shut down facility as standard this flexible product can be used in a diverse range of industrial, transport and battery powered applications.



- Wide 2:1 input voltage range
- Regulated outputs
- Output can be adjusted by ±10% using external resistors
- 1.5kV input/output isolation
- Pi input filter, meets EN 55022 Class A with external filter
- Remote On/Off Control
- Continuous short circuit protection
- Internally fitted shunt diode, provides reverse polarity protection when used in conjunction with external fuse
- Built for chassis mounting, fitted with screw terminal connectors

Mfrs.	Input Voltage (VDC)	Power Rating (W)	Output Voltage (VDC)	Output Current (A)	Efficiency (%)
HDD60-12S05T	9 - 18	60	5	12	79
HDD60-12S12T	9 - 18	60	12	5	82
HDD60-12S24T	9 - 18	60	24	2.5	84
HDD60-24S05T	18 - 36	60	5	12	80
HDD60-24S12T	18 - 36	60	12	5	84
HDD60-24S24T	18 - 36	60	24	2.5	85
HDD60-48S05T	36 - 72	60	5	12	83
HDD60-48S12T	36 - 72	60	12	5	85
HDD60-48S24T	36 - 72	60	24	2.5	86
HDD100-24S05T	18 - 36	100	5	20	80
HDD100-24S12T	18 - 36	100	12	8.3	84
HDD100-24S24T	18 - 36	100	24	4	85
HDD100-48S05T	36 - 72	100	5	20	83
HDD100-48S12T	36 - 72	100	12	8.3	85
HDD100-48S24T	36 - 72	100	24	4	86

516782

Mfrs.	Order Code	1+	5+	10+	25+	50+
HDD60-12S05T	162-3252●	70.89	66.64	63.75	60.95	58.13
HDD60-12S12T	162-3253●	70.89	66.64	63.75	60.95	58.13
HDD60-12S24T	162-3254●	70.89	66.64	63.75	60.95	58.13
HDD60-24S05T	162-3256●	70.89	66.64	63.75	60.95	58.13
HDD60-24S12T	162-3257●	70.89	66.64	63.75	60.95	58.13
HDD60-24S24T	162-3258●	70.89	66.64	63.75	60.95	58.13
HDD60-48S05T	162-3259●	70.89	66.64	63.75	60.95	58.13
HDD60-48S12T	162-3260●	70.89	66.64	63.75	60.95	58.13
HDD60-48S24T	162-3261●	70.89	66.64	63.75	60.95	58.13
HDD100-24S05T	162-3262●	88.49	83.13	79.55	75.99	72.45
HDD100-24S12T	162-3263●	88.49	83.13	79.55	75.99	72.45
HDD100-24S24T	162-3264●	88.49	83.13	79.55	75.99	72.45
HDD100-48S05T	162-3265●	88.49	83.13	79.55	75.99	72.45
HDD100-48S12T	162-3266●	88.49	83.13	79.55	75.99	72.45
HDD100-48S24T	162-3268●	88.49	83.13	79.55	75.99	72.45

522489

Mfrs.	List No.	Order Code	1+	5+	10+
TLP150R-96S12J	164-3225●	117.35	113.83	110.42	
TLP150N-99S12J	164-3226●	128.87	125.00	121.25	
TLP150R-96S24J	164-3227●	117.35	113.83	110.42	
TLP150N-99S24J	164-3229●	128.87	125.00	121.25	
TLP150R-96S36J	164-3231●	117.35	113.83	110.42	
TLP150R-96S48J	164-3232●	117.35	113.83	110.42	



DC to DC Converters - continued

250 Watt Single Output DC/DC Converters



- Low output ripple and noise
- Positive and Negative enable function
- Excellent transient response
- Safety isolated low voltage control and monitoring
- Wide input voltage range
- Parallelable with accurate current sharing
- Adjustable output voltage
- Regulation to zero load
- Temperature monitor output

Mfrs.	Input Voltage	Output Voltage	Output Current	Power Rating	Efficiency	Dimensions (mm)
AIH50Y300-L	250V - 420V	1.8V	50A	90W	80%	58.4x12.7x61
AIH50F300-L	250V - 420V	3.3V	50A	165W	82%	58.4x12.7x61
AIH40A300-L	250V - 420V	5V	40A	200W	88%	58.4x12.7x61
AIH20B300-L	250V - 420V	12V	20.8A	250W	86%	58.4x12.7x61
AIH16C300-L	250V - 420V	15V	16.6A	250W	90%	58.4x12.7x61
AIH10H300-L	250V - 420V	24V	10.4A	250W	90%	58.4x12.7x61

52243

Mfrs. List No.	Order Code	Price Each
AIH50Y300-L	164-3207●	146.25
AIH50F300-L	164-3208●	146.25
AIH40A300-L	164-3209●	146.25
AIH20B300-L	164-3210●	146.25
AIH16C300-L	164-3211●	146.25
AIH10H300-L	164-3212●	146.25

1+

5+

10+

600 Watt Single Output DC/DC Converters



- 108 W/in³ (6.6W/cm³)
- Low output ripple and noise
- Positive and Negative enable function
- Excellent transient response
- Parallelable with accurate current sharing

Mfrs.	Input Voltage	Output Voltage	Output Current	Power Rating	Efficiency	Dimensions (mm)
AIF120Y300-L	250V - 420V	1.8V	120A	216W	80%	116.8x12.7x61
AIF120F300-L	250V - 420V	3.3V	120A	396W	87%	116.8x12.7x61
AIF80A300-L	250V - 420V	5V	80A	400W	90%	116.8x12.7x61
AIF50B300-L	250V - 420V	12V	50A	600W	90%	116.8x12.7x61
AIF40C300-L	250V - 420V	15V	40A	600W	90%	116.8x12.7x61
AIF25H300-L	250V - 420V	24V	25A	600W	90%	116.8x12.7x61
AIF12W300-L	240V - 420V	48V	12.5A	600W	90%	116.8x12.7x61

52248

Mfrs.	Order Code	Price Each
AIF120Y300-L	164-3199●	255.39
AIF120F300-L	164-3200●	255.39
AIF80A300-L	164-3201●	255.39
AIF50B300-L	164-3202●	255.39
AIF40C300-L	164-3203●	255.39
AIF25H300-L	164-3205●	255.39
AIF12W300-L	164-3206●	255.39

1+

5+

10+

1600 Watt Single Output DC/DC Converters



- Unity power factor
- Universal input voltage and frequency range
- Parallelable with accurate current sharing
- 100°C baseplate operating temperature
- Power fail warning signal
- Enable output to control DC-DC Converter
- EEPROM data storage via I2C Interface
- External inrush current limited protection
- Power Density up to 290W/in³
- AIF04ZPFC-01L - For parallel operation the total input current must be <16Arms
- AIF04ZPFC-02L - Designed for parallel operation where the total input current >16Arms, requires external rail rectifiers

Mfrs.	Input Voltage	Output Voltage	Output Current	Power Rating	Efficiency	Dimensions (mm)
AIF04ZPFC-01L	85V - 264V	380V	4.2A	1600W	95%	116.8x12.7x61
AIF04ZPFC-02L	85V - 264V	380V	4.2A	1600W	95%	116.8x12.7x61

52249

Mfrs. List No.	Order Code	Price Each
AIF04ZPFC-01L	164-3196●	204.09
AIF04ZPFC-02L	164-3197●	204.09

1+

5+

10+

Vehicle Battery Converters

400W continuous, 12V to 24V



- Rugged construction
- Output of 6A and 30A, 12V or 15A at 24V
- Make dual voltage vehicle with extra battery (400W units)
- Very high conversion efficiency
- Remote on/off control by ignition
- Inbuilt RFI filter for low noise
- I/P to O/P isolation and low battery alarm

Supplied for negative earth systems but 400W units can be set for isolated case (Marine use). Full operating and installation instructions included.

Model	Battery Conversion	Power Rating	Dimensions (mm)	Weight
SM3702	12V to 24V (27.6V)	400W, 15A, 17A charging	63 103 247	1200g 231178
SM3702				

Mfrs. List No.	Order Code	1+	5+	10+	25+
SM3702	175-160	252.96	246.78	244.31	228.57

DC to AC Inverters

Battery Converters - Installed

120W Continuous, 30V 220V ac Output



- Rugged metal construction
- Wide input voltage (11-32V dc)
- Quasi-sine wave ac output (220V rms 310V PK)
- Ignition or remote on/off control
- Inbuilt RFI filter for low noise
- Output short circuit protection
- Mating input connector supplied
- Shuttered IEC output socket

H=50, W=95, D=147, Weight=830g

Load capacitance not to exceed 0.47μF

Suitable for negative earth circuits only.

Supplied with full operating and installation instructions.

231178

Output Voltage	Mfrs. List No.	Order Code	1+	5+	10+	25+
220V ac	SM1791	283-204	154.22	151.14	148.11	145.15

SINERGEX Modified Sinewave Inverters



A range of high quality, DC/AC inverters that simply and silently convert 12 or 24V dc battery power to 230V ac mains. Suitable for running everything from notebook computers to microwaves and power tools to hairdryers in vehicles, boats caravans etc.

- 10 to 15V dc (12V dc models) or 20 to 30V dc (24V dc models)
- 230V ac ±10%, 50Hz output
- Overload, overheat and short circuit protection
- Turn automatically before the battery is flattened
- IEC mains outlet connection

Unit	Connection Method	Application
150W Cigar Lighter Plug		Notebook computers, small TV's, printers, games consoles, lightbulb, fan, power tool chargers

300W Cigar Lighter/Hardware Kit		As above plus TV, VCR, DVD, small power tools
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500W Hardware Kit		As above plus medium power tools, flood lamps
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Model	150W	300W	500W
Output Surge	300W	600W	1.2kW
Output Cont.	150W	270W	550W
Dimensions (WxHxD)	95x63x148mm	95x62x165mm	105x63x212mm
Weight	0.6kg	0.75kg	0.9kg

249215

Description	Order Code	1+	5+	10+	25+
150W/12V	957-0691	50.55	49.41	47.94	44.89
300W/12V	957-0705	81.85	80.02	77.60	72.69
300W/24V	426-6766	87.13	86.52	84.11	78.81
500W/12V	957-0713	123.79	122.91	119.56	111.98
500W/24V	957-0721	135.25	134.27	130.63	122.34

Vehicle Battery to Mains Inverters UK and European Output sockets



100 & 150 Watt versions H=70, W=77, D=165



350 Watt version H=65, W=175, D=205

- Solid state design
- Light weight & compact
- Range includes UK and European models
- Thermal Protection
- High Efficiency, typically 90%
- 100 and 150 watt models supplied with input lead for instant connection and use
- 350 watt model suitable for hardwiring in to vehicle, screw terminals
- On/Off switch and Auto low battery shutdown
- 350 Watt model has integral cooling fan
- 100 & 150 watt units are convection cooled

● All units have input fuse protection, Thermal protection and Overload protection

Mfrs. List No.	Input Voltage (Vdc)	Input Current (A)	Output Voltage (Vac)	Output Power Full Load (W)	Output Power Peak (W)
PSI100/12	10.5-15	0.3	230	100	150
PSI150/12	10.5-15	0.3	230	150	150
PSI150/24	21.5-30	0.2	230	150	200
PSI350/12	10.5-15	0.6	230	350	350
PSI350/24	21.5-30	0.4	230	350	350
PSI600/12	12-12	0.9	230	600	600

Battery Shutdown 12V units 10V +/- 0.5V Thermal Protection +50°C +/- 5°C
24V units 20V +/- 0.5V

N.B. European versions have the same electrical/mechanical specification as the units listed above.

227658

Mfrs. List No.	Input Voltage	Order Code	Price Each	1+	5+	10+	25+
UK Output Socket							
PSI100/12	12	116-5748●	82.84	80.79	78.70	74.72	
PSI150/12	12	116-5749●	93.88	91.56	89.20	84.69	
PSI150/24	24	116-5750●	93.88	91.56	89.20	84.69	
PSI350/12	12	116-5751●	149.13	145.41	141.66	134.50	
PSI350/24	24	116-5752●	149.13	145.41	141.66	134.50	
PSI600/12	12	116-5780●	174.91	166.57	161.44	150.47	
Euro Output Socket							
PSI100/12/EU	12	116-5753●	82.84	80.79	78.70	74.72	
PSI150/12/EU	12	116-5754●	93.88	91.56	89.20	84.69	
PSI150/24/EU	24	116-5755●	93.88	91.56	89.20	84.69	
PSI350/12/EU	12	116-5757●	149.13	145.41	141.66	134.50	
PSI350/24/EU	24	116-5758●	149.13	145.41	141.66	134.50	

Battery to Mains Inverters

SWITCHED MODE LTD

'Handy Mains' & 'High Surge'
200W, 450W & 700W Continuous Output



- Vehicle battery to 230V ac mains conversion, 12V and 24V input
- 'Handy Mains' units fully electronic for compact size and weight
- 'High Surge' units very tolerant of complex loads and motor start
- 'High Surge' units run small fridges and microwave ovens
- Mains output via UK 13A socket (SM2715 has IECsocket)
- Audible low battery alarm with auto shut down
- Cigar lighter input plug fitted to 200 watt SM2710 and SM2730
- Remote on/off ignition sense control input (except SM2710/5)
- Optional permanent wiring kit and mounting bracket for 200W units

The 200W units are only suitable for negative earth values.

The 450W and 600W units may be isolated (Marine use) by internal setting.

Cigar plug units need a vehicle socket rated 1A per 10W of load (0.5A for SM2730).

Efficiency is affected by capacitance load: see table for maximum allowed.

Fluorescent fittings must have any power factor correction capacitor removed before use.

These units only have their RMS output voltage closely regulated.

For equipment sensitive to the crest of the mains voltage, the SM1791 (Order Code 283-204) should be used.

Supplied with full instructions and product safety leaflet.

Dimensions

Battery	Power/Surge	Max. Cap.	H	W	D	Model	Weight (g)	Order Code
12V	250/200	0.7μF	94	141	45	SM2710	800	283-149
12V	250/200	0.7μF	94	141	45	SM2715	800	283-150
24V	250/200	0.7μF	94	141	45	SM2730	800	283-162

For suitable RCCB devices, which offer protection against electrical shock when equipment is operated outside a vehicle, see Order Code 178-952

Caution: These units are not suitable for chargers marked 'Danger! mains voltage present at battery terminals' or similar.

231173



RoHS Compliant
Non-compliant

08447 11 11 11

Fax: 08447 11 11 12 1307

POWER SOLVE

Input (dc)	Order Code	Price Each		
		1+	5+	10+
12V	283-149	108.82	106.11	105.05
12V	283-150	108.80	103.38	101.88
24V	283-162	121.33	117.70	116.50
				103.40

Mains Adaptors - Linear

Unregulated Fixed Voltage AC-DC Plug-In Power Supplies

STONTRONICS
THE POWER TO SUPPLY

A range of high quality, AC/DC linear mains plug-in power supplies manufactured to **BS3535/EN60742**. The power supplies operate from standard 230V ac mains voltage and give stepped down, unregulated outputs. Termination is via a single, fixed 2.1mm or 2.5mm DC power type plugs which is the most common type found on audio/video and computer equipment.

- Unregulated output
- Fixed voltage
- Fixed 2.1mm or 2.5mm DC plugs
- 5.0mm output plug outer diameter
- UK or European mains plugs

333681.274246

Description	Mains	Order Code	Price Each
Output	Plug	1+	10+
2.1mm DC Plug			
6V dc / 500mA	UK	121-7074●	3.70
9V dc / 300mA	UK	127-9505●	3.25
9V dc / 500mA	UK	121-7075●	3.68
9V dc / 1000mA	UK	127-9507●	5.33
12V dc / 500mA	UK	121-7076●	3.68
12V dc / 1000mA	UK	127-9508●	5.33
15V dc / 500mA	UK	121-7077●	4.93
6V dc / 500mA	Euro	121-7078●	1.84
9V dc / 500mA	Euro	121-7079●	3.68
12V dc / 500mA	Euro	121-7080●	3.68
15V dc / 500mA	Euro	121-7081●	2.46
2.5mm DC Plug			
6V dc / 500mA	UK	121-7083●	1.84
9V dc / 500mA	UK	121-7084●	3.68
12V dc / 500mA	UK	121-7085●	3.68
6V dc / 500mA	Euro	121-7087●	1.84
9V dc / 500mA	Euro	121-7088●	1.83
12V dc / 500mA	Euro	121-7089●	3.68
15V dc / 500mA	Euro	121-7090●	2.46

Fixed Voltage AC-AC Plug-In Power Supplies

STONTRONICS
THE POWER TO SUPPLY

A range of high quality, AC/AC linear mains plug-in power supplies manufactured to **BS3535/EN60742**. The power supplies operate from standard 230V ac mains voltage and give stepped down outputs. Termination is via a single, fixed 2.1mm or 2.5mm DC power type plugs which is the most common type found on audio/video and computer equipment.

- Fixed voltage
- UK or European mains plugs
- Fixed, centre positive 2.1mm or 2.5mm DC plugs

333680.274248

Description	Mains	Order Code	Price Each
Output	Plug	1+	10+
Fixed 2.1mm DC Plugs			
9V ac / 1000mA	UK	127-9503●	5.78
12V ac / 500mA	UK	121-7062●	3.71
12V ac / 1000mA	UK	127-9502●	5.78
9V ac / 500mA	Euro	121-7064●	1.85
12V ac / 500mA	Euro	121-7065●	1.85
Fixed 2.5mm DC Plugs			
9V ac / 500mA	UK	121-7066●	1.85
12V ac / 500mA	UK	121-7067●	1.85
9V ac / 500mA	Euro	121-7071●	1.85
12V ac / 500mA	Euro	121-7072●	1.85
15V ac / 500mA	Euro	121-7073●	3.73
			3.32

Unregulated Fixed Voltage AC/AC Plug-In Power Supplies

multicomp

A range of high quality AC/AC mains plug-in power supplies manufactured to **BS3535/EN60742**. Operates from standard 230V ac mains voltage and give stepped down AC outputs suitable for general purpose audio/video and computer equipment. Supplied with integral 1.8m lead and a set of 6 interchangeable connectors including 4 popular dc type power plugs and 2.5mm/3.5mm jack type plugs.



Mains Adaptors - Linear - continued**Unregulated Fixed Voltage AC/AC Plug-In Power Supplies - continued**

249193

Output Voltage	Output Current (Max.)	Order Code	1+	10+	50+	100+	Price Each
9V ac	600mA	117-6239●	7.68	7.28	6.73	6.01	
9V ac	1000mA	117-6269●	8.72	7.86	7.29	6.17	
12V ac	500mA	117-6240●	7.31	6.46	6.11	5.51	
12V ac	1000mA	117-6270●	9.22	8.23	7.46	6.24	
15V ac	500mA	117-6241●	7.68	7.28	6.73	6.01	
18V ac	500mA	117-6242●	9.77	8.81	8.26	7.28	
24V ac	500mA	127-9501●	9.13	8.45	7.91	7.33	

Unregulated 12Vdc AC/DC Plug-in Power Supplies

STONTRONICS THE POWER TO SUPPLY



A range of linear unregulated 12Vdc UK plug-in power supplies; all units have 1.8m output leads fitted with the popular 2.1x5.5x12mm centre positive connector. The connector used is the right angled type, which helps to reduce risk of accidentally unplugging the unit.

- Conforms to CE for safety and noise
- Operates from 230Vac ±10%
- Fitted with the popular right angled 2.1x5.5x12mm C+ connector
- Built-in thermal fuse protection
- Operating temperature 0°C - 40°C
- 30-40% stability
- Plugs directly into a UK socket

419288.406509

36

Output Voltage	Output Current	Order Code	1+	10+	Price Each
12Vdc	200mA	127-9466●	2.25	2.10	
12Vdc	500mA	127-9467●	2.70	2.53	
12Vdc	1A	127-9468●	4.48	4.24	

Unregulated Fixed Voltage AC/DC Plug-In Power Supplies

multicomp



A range of AC/DC mains plug-in power supplies manufactured to BS3535/EN60742. The power supplies give a fixed DC voltage outputs. Suitable for general purpose audio/video and computer equipment. Supplied with integral 1.8m lead and a set of 6 interchangeable connectors including 4 popular dc type power plugs and 2.5mm/3.5mm jack type plugs. Polarity can be easily changed by reversing the plug connection.

249194

Output Voltage	Output Current (Max.)	Order Code	1+	10+	50+	100+	Price Each
4.5V dc	500mA	117-6271●	5.74	5.06	4.79	4.32	
6V dc	300mA	128-4295●	6.58	5.93	5.57	4.95	
6V dc	500mA	117-6272●	7.68	7.28	6.73	6.01	
7.5V dc	500mA	117-6273●	7.31	6.46	6.11	5.51	
7.5V dc	1000mA	117-6243●	9.22	8.23	7.46	6.24	
9V dc	300mA	117-6244●	7.31	6.46	6.11	5.51	
9V dc	600mA	117-6245●	9.22	8.23	7.46	6.24	
9V dc	1000mA	117-6246●	9.77	8.81	8.26	7.28	
12V dc	100mA	117-6282●	6.76	6.23	5.91	5.26	
12V dc	300mA	117-6247●	7.31	6.46	6.11	5.51	
12V dc	500mA	128-4293●	8.28	7.55	6.79	5.62	
12V dc	1000mA	117-6248●	9.77	8.81	8.26	7.28	
15V dc	500mA	128-4294●	8.96	8.38	7.73	6.65	
15V dc	1000mA	117-6275●	11.01	10.58	10.09	9.40	
18V dc	500mA	117-6251●	9.77	8.81	8.26	7.28	
24V dc	400mA	117-6252●	9.77	8.81	8.26	7.28	

Troubleshooting tips

Chat live online to one of our technical engineers at www.farnell.co.uk

European AC/DC Plug-In PSU - Unregulated

SPC multicomp



A range of AC/DC mains, plug-in power supplies manufactured to European standards. The power supplies operate from a 230V ac, 50Hz mains outlet and give an unregulated DC output. Supplied with integral 1.8m lead and a set of 6 interchangeable connectors, including 4 popular DC type power connectors and 2.5mm/3.5mm Jack type plugs. A polarity changer is also included.

249200

Output Voltage	Output Current (Max.)	Order Code	1+	10+	50+	100+	Price Each
12V dc	500mA	117-6266●	7.68	7.28	6.73	6.01	
12V dc	1000mA	128-4581●	7.58	7.11	6.75	6.33	

Regulated 12Vdc AC/DC Plug-in Power Supplies

STONTRONICS THE POWER TO SUPPLY



A range of linear regulated 12Vdc UK plug-in power supplies; all units have 1.8m output leads fitted with the popular 2.1x5.5x12mm centre positive connector. The connector used is the right angled type, which helps to reduce risk of accidentally unplugging the unit.

- Conforms to CE for safety and noise
- Operates from 230Vac ±10%
- Fitted with the popular right angled 2.1x5.5x12mm C+ connector
- Built-in thermal fuse protection
- Short circuit protected
- 30-40% stability
- Operating temperature 0°C - 40°C
- 5% output tolerance
- Plugs directly into a UK socket
- Operates from 230Vac ±10%

419296.406510

Output Voltage	Output Current	Order Code	1+	10+	Price Each
12Vdc	250mA	127-9469●	4.00	3.79	
12Vdc	300mA	127-9470●	4.21	3.98	
12Vdc	500mA	127-9471●	4.38	4.15	

Regulated Fixed Voltage AC-DC Plug-In Power Supplies

STONTRONICS THE POWER TO SUPPLY



A range of high quality, AC/DC linear mains plug-in power supplied manufactured to BS3535/EN60742. The power supplies operate from standard 230V ac mains voltage and give stepped down, regulated outputs. Termination is via single, fixed 2.1mm or 2.5mm DC power type plugs which is most common type found on audio/video and computer equipment.

- Fixed voltage output
- Regulated output
- Fixed 2.1mm or 2.5mm DC plugs
- UK or European mains plugs

333682.274247

Description	Mains Plug	Order Code	1+	10+	Price Each
Fixed 2.1mm DC Plugs					
5V dc/300mA	UK	127-9509●	4.34	3.85	
5V dc/1000mA	UK	127-9510●	5.44	4.89	
6V dc/500mA	UK	121-7091●	4.94	4.59	
9V dc/500mA	UK	121-7092●	4.94	4.59	
12V dc/300mA	UK	127-9511●	4.34	3.85	
12V dc/500mA	UK	121-7093●	4.94	4.59	
15V dc/500mA	UK	121-7095●	4.94	4.59	
24V dc/400mA	UK	127-9512●	6.55	5.94	
5V/300mA	Euro	127-9513●	4.34	3.85	
5V dc/1000mA	Euro	127-9514●	5.44	4.89	
9V dc/500mA	Euro	121-7097●	2.47	2.31	
12V dc/300mA	Euro	127-9515●	4.34	3.85	
12V dc/500mA	Euro	121-7098●	4.94	4.59	
15V dc/500mA	Euro	121-7099●	3.18	2.96	
24V dc/400mA	Euro	127-9516●	6.55	5.94	
Fixed 2.5mm DC Plugs					
12V dc/500mA	UK	121-7102●	4.94	4.59	
15V dc/500mA	UK	121-7103●	4.94	4.59	
6V dc/500mA	Euro	121-7104●	2.47	2.31	
9V dc/500mA	Euro	121-7105●	2.47	2.31	
12V dc/500mA	Euro	121-7106●	4.94	4.59	
15V dc/500mA	Euro	121-7107●	3.18	2.96	

Fixed Voltage AC/DC Plug-In Power Supplies - Regulated



A range of AC/DC mains plug-in power supplies manufactured to BS3535/EN60742. The power supplies give fixed, regulated DC voltage outputs. Supplied with integral 1.8m lead and a set of 6 interchangeable connectors including 4 popular DC type power plugs and 2.5mm/3.5mm jack type plugs. Polarity can be easily changed by reversing the plug connection.

249196

Output Voltage	Output Current (Max.)	Order Code	Price Each			
			1+	10+	50+	100+
5V dc	300mA	117-6284●	10.14	9.44	8.77	7.15
5V dc	500mA	117-6253●	10.46	9.70	9.06	8.22
5V dc	1000mA	117-6255●	12.24	11.57	10.96	10.02
6V dc	300mA	117-6285●	10.14	9.44	8.77	7.15
9V dc	300mA	128-2912●	9.39	8.71	8.15	7.39
6V dc	800mA	117-6256●	11.67	11.09	10.48	9.71
9V dc	500mA	117-6257●	10.46	9.70	9.06	8.22
12V dc	300mA	117-6287●	10.46	9.70	9.06	8.22
12V dc	500mA	117-6258●	11.67	11.09	10.48	9.71
15V dc	500mA	117-6259●	9.79	9.25	8.76	8.02
18V dc	400mA	117-6260●	12.24	11.57	10.96	10.02
24V dc	200mA	117-6288●	10.46	9.70	9.06	8.22
24V dc	400mA	117-6261●	12.24	11.57	10.96	10.02

Regulated In-Line Power Supplies - Fixed DC Output



A range of AC/DC mains in-line power supplies manufactured to BS3535/EN60742. The power supplies give fixed, regulated DC voltage outputs. Supplied with integral mains plug and 2m mains cable + 2m DC power cable giving a total reach of 4m. A set of 6 interchangeable connectors including 4 popular DC type power plugs and 2.5mm/3.5mm jack plugs is supplied. Polarity can be easily changed by reversing the plug connection.

249197

Output Voltage	Output Current (Max.)	Order Code	Price Each			
			1+	10+	50+	100+
Unregulated						
9V dc	1000mA	117-6276●	12.90	11.94	10.84	9.64
9V dc	2000mA	117-6277●	12.30	11.62	11.00	9.98
12V dc	1600mA	117-6263●	16.28	15.41	14.35	13.20
12V dc	2000mA	117-6297●	16.28	15.41	14.35	13.20
15V dc	1000mA	117-6278●	13.82	13.18	11.91	10.81
Regulated						
5V dc	1000mA	117-6279●	15.37	14.53	13.75	12.48
5V dc	1500mA	117-6264●	19.62	17.89	16.85	15.49
6V dc	800mA	117-6289●	15.37	14.53	13.75	12.48
9V dc	500mA	117-6280●	15.37	14.53	13.75	12.48
12V dc	500mA	117-6281●	15.37	14.53	13.75	12.48
12V dc	1000mA	117-6265●	19.62	17.89	16.85	15.49

European AC/DC In-Line PSU - Regulated

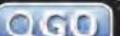


A range of AC/DC in-line, mains power supplies manufactured to European standards. The power supplies operate from a 230V ac, 50Hz mains outlet and give a regulated DC output suitable for various audio/video and computer equipment. The power supply has an integral 2m mains lead, terminating in a 2-pin European plug and 1.8m DC power lead with a set of 6 interchangeable power plugs. A polarity changer is also included.

249201

Output Voltage	Output Current (Max.)	Order Code	Price Each			
			1+	10+	50+	100+
5V dc	1.5A	117-6267●	19.62	17.89	16.85	15.49
12V dc	1A	117-6268●	19.62	17.89	16.85	15.49

Over 480,000 products online



In-Line Power Supplies For Installation



A range of linear regulated AC/DC and AC/AC power adaptors for permanent installations. Ideal for use with security systems.

- Flanged case for permanent screw fixing
- Thermal and fuse protection
- ±5% regulation on DC versions, 18% on the AC/AC version
- 1.8m mains input lead with moulded 2-pin Euro mains plug (for Euro-UK adaptor plug, see order code 120-5749)
- 1.8m output lead terminating in a 2.1mm centre +ve DC power plug
- Case Dimensions (WxHxD): 89x53x65mm

249198

Description	Order Code	Price Each			
		1+	5+	10+	25+
AC/DC PSU's					
9V dc/500mA	117-6345●	14.01	13.33	12.10	11.05
12V dc/500mA	117-6346●	17.81	16.96	15.39	14.06
15V dc/500mA	127-9500●	16.01	15.56	14.04	12.63
AC/AC PSU					
24V ac/750mA	117-6347●	17.81	16.96	15.39	14.06

AC/DC CCTV Power Supply



An AC/DC power supply suitable for use with CCTV systems.

L=80, W=48, H=27mm Weight = 150g

Input	Output	Price Each			
		Nominal Voltage	Nominal Voltage	12.0±0.36V dc	
Nominal Voltage	90-264V ac @ 60/50Hz, Full load	No-Load Voltage (Typ)	12V dc		
Current	<0.4A ac	Full-Load Voltage (Typ)	11.8V dc		
Voltage Range	90-264V ac	Current	1000 mA		
Frequency Range	47-63Hz	Max. Power	12W		
Empty Load Input Power (Typ)	1.6W	Ripple & Noise (max)	<50mV		
Max. Input Power (Typ)	15.3W	Max. Load Regulation	±3%		
General		Output Short Circuit Current (max)	<12 Amps (Pulsed)		
Operating Temperature	0 - +40°C	Over Current Protection	<5A		
Operating Humidity	0 - +70°C	Efficiency (Typ)	>75%		
Dimensions (WxHxD)	62x65x35mm	Weight	Approx. 150g		

386731.276552

Mfrs. List No.	Order Code	1+	5+	10+	25+
YPSU1A12.	153-7870●	11.48	11.09	10.83	10.20

Mains Adaptors - Switch Mode

2.5W & 5W USB Adaptors with Interchangeable Plugs PSC03R/PSB05R Series



The PSC03R and PSB05R adaptors feature an integral USB socket, which allows a detachable data cable to charge a portable device, with the advantage that it reduces the need for an extra USB cable for your product. It maintains its international advantages, namely, universal mains supply input and interchangeable mains adaptor plugs enabling use in UK, Europe and US. Applications include portable devices such as PDAs, MPEG players, digital cameras, peripherals and networking.

Input Voltage	90 to 264 Vac
Input Frequency	47 to 63Hz
Output Voltage	5 Vdc
Load	0A (min)
0.5A (max) - 2.5W	
0.5A (max) - 5W	
Leakage Current	0.20μA max (@254 Vac, 54Hz)
Ripple	55mV pk-pk max
Line/Load Regulation	±5%

449453

Mfrs. List No.	Order Code	1+	10+	50+	100+
2.5W USB Adaptor	PSC03R-050-R	128-2897●	16.06	15.29	14.67
5.0W USB Adaptor	PSB05R-050	126-6815●	22.12	20.78	19.69
UK Plug	RPK-N-R	128-2888●	1.13	1.06	1.01
EURO Plug	RPE-N-R	128-2899●	1.14	1.07	1.02
US Plug	RPA-R	128-2900●	1.11	1.04	0.98

Mains Adaptors - Switch Mode - continued**AC/DC Mains Adaptor - Multi Output**
Switch Mode Power Supplies

- UK and European versions
- 6 selectable outputs voltages (3-12Vdc)
- Compact design
- 100% short circuit proof
- Output tolerance ±5%
- Efficiency >75%
- Supplied with integral 1.8M output lead and 5 interchangeable output connectors
- Internal current limiter (0.8A)

Input Voltage (V ac)	Output Voltage (V dc)	Max. Load	Mfrs. List No.	Order Code
(UK) 230V ±10%	3/4.5/6/7.5/9/12	800mA	NVGFS MULTI	118-1171
(Euro) 230V ±10%	3/4.5/6/7.5/9/12	800mA	NVEFS MULTI	118-1172

205821

Description	Mfrs. List No.	Order Code	1+	5+	10+	25+	50+
UK Type	NVGFS MULTI	118-1171●	25.02	24.56	24.31	23.48	21.49
Euro Type	NVEFS MULTI	118-1172●	24.00	22.56	21.60	20.65	19.68

3W AC/DC Mains Adaptor

A range of fixed voltage mains plug-in adaptors with a space saving design that is the same width as a standard mains plug allowing four units to be used side by side on a common 4 gang mains extension lead. All units have 2.0m output leads.

- Fixed, regulated output voltage
- Wide input range (90 V ac to 264 V ac)
- Lightweight (60g)
- Supplied with 2m lead

- Exchangeable output plug adapters available
- Reversible polarity
- BABT approved

Voltage	Current	Mfrs. List No.	Order Code
24V	125mA	EDV1890719	121-5222
5V dc	650mA	EDV1882750	121-5223

436892/438315

Output Voltage	Order Code	1+	5+	Price Each	10+	25+	50+
UK Version 24V dc	121-5222●	12.29	11.37	10.42	9.60	8.90	
Euro Version 5V dc	121-5223●	12.27	11.36	10.41	9.59	8.89	

Exchangable Output Plug Adapters	Order Code	1+	5+	Price Each	10+	25+	50+
1.3x3.5x9.5 Coax	117-6588●	0.36	0.32	0.29			
1.7x4.0x11 Coax	117-6589●	0.36	0.32	0.29			
2.1x5.5x9.5 Coax	117-6590●	0.36	0.32	0.29			
2.1x5.5x11.5 Coax	117-6592●	0.36	0.32	0.29			
2.1x5.5x14 Coax	117-6593●	0.36	0.32	0.29			
2.5x5.5x9.5 Coax	117-6594●	0.36	0.32	0.29			
2.5x5.5x11 Coax	117-6595●	0.36	0.32	0.29			
DIN 45323	117-6597●	0.36	0.32	0.29			
2.5 Jack	117-6598●	0.36	0.32	0.29			
3.5 Jack	117-6599●	0.36	0.32	0.29			

Regulated AC/DC 300mA Power Adaptor

A Regulated plug-in power supply with 7 output voltages. Polarity can be changed by reversing the plug connection. Interchangeable DC plugs with 6 common sizes included.

Technical Data
Input Voltage 230Vac 50Hz
Output Voltage 1.5, 3, 4.5, 6, 7.5, 9 & 12Vdc
Output Current 300mA max
Dimensions 92x56x84mm

465128/491568

Order Code	1+	5+	Price Each	10+
151-4347●	5.72	5.43		5.43

Over 480,000 products online**Unregulated 3/4.5/6/7.5/9/12V dc Power Adaptor**

A non-regulated plug-in power supply with 6 output voltages. Polarity can be changed by reversing the plug connection. Interchangeable DC plugs with 6 common sizes included.

Technical Data
Input Voltage 230Vac 50Hz
Output Voltage 3, 4.5, 6, 7.5, 9 & 12Vdc
Output Current 300mA max
Dimensions 82x56x84mm

465124/491569

Order Code	1+	5+	Price Each	10+
151-4346●	4.68	4.46		4.46

Regulated 12Vdc Switch Mode Plug-in PSUs

A range of switch mode, regulated 12Vdc UK plug-in power supplies; all units have 1.8m output leads fitted with the popular 2.1x5.5x12mm centre positive connector. The connector used is the right angled type, which helps to reduce risk of accidentally unplugging the unit.

- Approved to CE/TUV for safety & noise
- Fitted with the popular right angled 2.1x5.5x12mm C+ connector
- Operating temperature 0°C - 40°C
- Operates from 230Vac ±10%
- Short circuit protected
- 5% output tolerance
- Plugs directly into a UK socket
- Very small and lightweight

419299.406511

Output Voltage	Output Current	Order Code	1+	10+
12Vdc	400mA	127-9472●	6.27	5.96
12Vdc	1.25A	127-9473●	7.84	7.45
12Vdc	1.5A	127-9474●	8.55	8.19
12Vdc	2.1A	127-9475●	9.61	9.16

Universal Plug-In Mains Adaptor

APS 1612 Traveller



- Stationary power supply for mobile equipment
- Electronic switch mode power supply and exchangeable primary plug system (EU, UK, US, AUS) for worldwide use
- Output voltage adjustable at 3V, 4.5V, 6V, 7.5V, 9V and 12V
- Max. output current: 1600 mA
- Output voltage independent of mains fluctuations
- Correct polarity adjustable with alternate connector
- Includes exchangeable multi-tip connectors

242810



Mfrs. List No.	Order Code	1+	Price Each
APS 1612 traveller	125-3169●	12.88	

5W Switch Mode Plug-in PSUs

STONTRONICS
THE POWER TO SUPPLY

A range of ultra small switch mode, regulated 5W UK plug-in power supplies; all units have 1.8m output leads fitted with the popular 2.1x5.5x12mm centre positive connector. The connector used is the right angled type, which helps to reduce risk of accidentally unplugging the unit.

- Approved to CE for safety & noise
- Fitted with the popular right angled 2.1x5.5x12mm C+ connector
- Operating temperature 0-40°C
- Operates from 90-264Vac
- Short circuit protected
- 5% output tolerance

- Plugs directly into UK mains socket
- Small and lightweight

Input Voltage	90 to 264Vac	Load Regulation	5%
Frequency	47 to 63Hz	Efficiency	60% minimum
Line Regulation	5%	Weight	85g

419285/437368

Output Voltage	Output Current	Mfrs. List No.	Order Code	1+	10+	25+	50+	Price Each
5V	1A	DSA-0051-05UK	127-9495●	7.03	6.56	6.15	5.79	
9V	0.55A	DSA-0051-09UK	127-9496●	7.03	6.56	6.15	5.79	
12V	0.4A	DSA-0051-12UK	127-9497●	7.03	6.56	6.15	5.79	

419285/437368

5 Watt AC/DC Mains Adaptors

multicomp



- Universal AC Input 90-264Vac
- Low ripple & noise
- No minimum load requirement
- 100% burn in test
- 1 year warranty
- Safety: GS, CB, CE
- CEC Compliant

Mfrs. List No.	Voltage (V)	Current (A)	Ripple Voltage (mV)	Dimensions (mm)	Order Code
3A-041WE05	5	1	100	65 48.5 49.5	151-4286
3A-041WE09	9	0.55	100	65 48.5 49.5	151-4287
3A-041WE12	12	0.42	120	65 48.5 49.5	151-4288
3A-041WT05	5	1	100	62 29 60	151-4289
3A-041WT09	9	0.55	100	62 29 60	151-4290
3A-041WT12	12	0.42	120	62 29 60	151-4291

491538

Order Code	1+	Price Each
All Order Codes	8.31	7.91

6W Ultra Compact Switch Mode

FRIWO



A series of 6W ultra compact switchmode power supplies. Ideal for applications such as, PDA's, MPEG players, digital cameras etc.

- Universal input 100-240V ac
- Interchangeable primary adaptors
- Constant voltage, current limited
- Low leakage current <10µA
- Low standby power <0.3 Watt

Dims (WxHxD): 65x57x67.3

Note: Plug Adaptors available separately

Input Voltage	100-240V ac	Output Voltage	± 5%
Input Current	0.15A	Operating Temperature	0 - 40°C at maximum load
Input Frequency	50-60Hz	Weight	90g
Efficiency	75% typ. at full load		

Voltage	Current	Ripple Volt	Mfrs. List No.	Order Code
3V dc	1300mA	300mV pp	1883766	117-6574
5V dc	1000mA	200mV pp	1814926	117-6575
6V dc	850mA	180mV pp	1814927	117-6577
7.5V dc	650mA	150mV pp	1814928	117-6578
9V dc	550mA	150mV pp	1814929	117-6579
12V dc	450mA	150mV pp	1814930	117-6580
24V dc	220mA	150mV pp	1814933	117-6581

337857

List No.	Order Code	1+	5+	10+	Price Each
1883766	117-6574●	14.43	12.44	11.28	
1814926	117-6575●	14.43	12.44	11.28	
1814927	117-6577●	14.00	12.07	10.94	
1814928	117-6578●	14.43	12.44	11.28	
1814929	117-6579●	14.43	12.44	11.28	

Mfrs.	Order Code	1+	5+	10+	Price Each
1814930	117-6580●	14.43	12.44	11.28	
1814933	117-6581●	14.43	12.44	11.28	

Exchangable Input Plug Adapters	
Euro	117-6582●
UK	117-6583●
USA	117-6585●
AUS	117-6587●

Exchangable Output Plug Adapters	
1.3x3.5x9.5 Coax	117-6588●
1.7x4.0x11 Coax	117-6589●
2.1x5.5x9.5 Coax	117-6590●
2.1x5.5x11.5 Coax	117-6592●
2.1x5.5x14 Coax	117-6593●
2.5x5.5x9.5 Coax	117-6594●
2.5x5.5x11 Coax	117-6595●
DIN 45323	117-6597●
2.5 Jack	117-6598●
3.5 Jack	117-6599●

6W International Switch Mode Plug-In PSUs

STONTRONICS
THE POWER TO SUPPLY



A range of plug top switch mode power supplies with 3x interchangeable, quick release international mains plugs (UK, Euro, and USA) and fixed 2.1mm output connector.

- Universal 90 to 240V ac input voltage (47 to 63Hz)
- Single DC output voltage via 1.8m lead terminating in a common 2.1mm DC plug
- 6W power handling

- High efficiency
- Low ripple noise
- Dimensions (WxHxD): 32x62x31mm
- CUL & CE approved, UL listed

Input Voltage	90 to 264V ac, 47-63Hz	Hold Up Time	20ms
Power Rating	6W		

450321

Output Voltage	Output Current	Output Power	Mfrs. List No.	Order Code	1+	5+	10+	Price Each
5V	1.2A	6W	3A-061WP05	129-7470●	10.46	10.04	9.68	
9V	0.66A	6W	3A-061WP09	129-7471●	10.46	10.04	9.68	
12V	0.5A	6W	3A-061WP12	129-7472●	10.46	10.04	9.68	
15V	0.4A	6W	3A-061WP15	129-7473●	10.46	10.04	9.68	
18V	0.33A	6W	3A-061WP18	129-7474●	8.36	8.03	7.75	
24V	0.25A	6W	3A-061WP24	129-7475●	10.15	9.75	9.40	

AC/DC Mains Adaptors**Switch Mode Power Supplies**

EGSTON
ELECTRONIC POWER SUPPLIES



- 6W and 12W power rating
- 100% short circuit proof
- Output tolerance stability ±3%
- Efficiency 70%

Output voltage	Max. Load	Mfrs. List No.	Style	Order Code	1+	5+	10+	25+	50+	Price Each
5V	1000	N2GFSW5V6W	UK	118-1152	N2EFSW5V6W	Euro	118-1157			
6V	1000	N2GFSW6V6W	UK	118-1153	N2EFSW6V6W	Euro	118-1158			
9V	670	N2GFSW9V6W	UK	118-1155	N2EFSW9V6W	Euro	118-1159			
12V	500	N2GFSW12V6W	UK	118-1156	N2EFSW12V6W	Euro	118-1160			
12 Watt										
Output voltage	Max. Load	Mfrs. List No.	Style	Order Code	1+	5+	10+	25+	50+	Price Each
5V	1500	N2GFSW5V12W	UK	118-1161	N2EFSW5V12W	Euro	118-1167			
6V	1500	N2GFSW6V12W	UK	118-1162	N2EFSW6V12W	Euro	118-1168			
9V	1330	N2GFSW9V12W	UK	118-1164	N2EFSW9V12W	Euro	118-1169			
12V	1000	N2GFSW12V12W	UK	118-1165	N2EFSW12V12W	Euro	118-1170			

205818

UK/Euro	Order Code	1+	5+	10+	25+	50+	Price Each
5V/6W	Both Order Codes●	18.82	18.37	18.18	17.33	15.72	
6V 6W	Both Order Codes●	18.82	18.37	18.18	17.33	15.72	
9V 6W	Both Order Codes●	18.82	18.37	18.18	17.33	15.72	
12V 6W	Both Order Codes●	18.82	18.37	18.18	17.33	15.72	
5V 12W	Both Order Codes●	22.10	21.65	21.43	20.59	18.78	
6V 12W	Both Order Codes●	17.17	16.82	16.65	15.99	14.58	
9V 12 W	Both Order Codes●	22.10	21.65	21.43	20.59	18.78	
12V 12W	Both Order Codes●	22.10	21.65	21.43	20.59	18.78	

Mains Adaptors - Switch Mode - continued**6, 12 and 24 W Switch Mode PSU's**

P2CF Series



- Efficiency 85 %
- Wide input range 90 - 264 Volt AC
- Variable output 5/6/9/12/15/18/24 Volt DC ($\pm 3\%$)
- Power output max. 6/12 or 24 Watt
- Changeable primary plugs for use in EU, UK, USA and AUS
- 1.5m cable with standard 2.1 mm output connector
- Dimensions 6 Watt (L x H x W) 95 x 42 x 42 mm
- Dimensions 12 and 24 Watt (L x H x W) 105 x 42 x 42 mm
- Approvals EN 60950, UL 1310, CE

*Note: The universal adaptor set comprises 5 secondary plugs as well as a 180mm adaptor lead which is plugged into the -5.5/+2.1mm connector on the unit. The necessary secondary plugs are connected to the other end of the cable.



450618

Model	Order Code	Price Each		
		1+	5+	10+
6W				
5V dc/1.2A	128-8102●	24.67	23.12	21.84
6V dc/1A	128-8103●	24.67	23.12	21.84
9V dc/0.67A	128-8104●	24.67	23.12	21.84
12V dc/0.5A	128-8105●	18.50	17.35	16.38
15V dc/0.4A	128-8107●	14.80	13.88	13.10
18V dc/0.33A	128-8108●	15.78	14.79	13.98
24V dc/0.25A	128-8109●	24.67	23.12	21.84
12W				
5V dc/2.4A	128-8110●	25.33	23.64	22.35
6V dc/2A	128-8111●	15.98	14.90	14.10
9V dc/1.33A	128-8112●	19.97	18.63	17.62
12V dc/1A	128-8113●	25.33	23.64	22.35
15V dc/0.8A	128-8114●	19.00	17.73	16.77
18V dc/0.67A	128-8115●	15.20	14.18	13.42
24V dc/0.5A	128-8116●	25.33	23.64	22.35
24W				
12V dc/2A	128-8117●	28.26	26.73	25.33
15V dc/1.6A	128-8119●	28.26	26.73	25.33
24V dc/1A	128-8121●	28.26	26.73	25.33
Universal adaptor set (5 piece)				
	128-8122●	4.01	3.65	3.40

**7.5/10/15/24W Plug-In Switch Mode**

- Fixed output voltage
- Universal input voltage
- Short circuit proof
- UL listed (UL-2601-1)
- Overvoltage protection
- Modular connector
- Supplied with output lead
- UK and Euro versions

Power Rating	Output Voltage	Output Current	Style	Mfrs.	List No.	Order Code
7.5W	12V	600mA	UK		9725 12V UK	118-3905
7.5W	12V	600mA	EURO		9725 12V EURO	118-3906
10W	12V	800mA	EURO		9525 12V EURO	118-3908
24W	12V	1600mA	UK		9827 12V UK	118-3909
24W	12V	1600mA	EURO		9827 12V EURO	118-3910

249254

Mfrs.	Order Code	1+	3+	10+	25+	50+
9725 12V UK	118-3905●	22.07	18.87	17.95	16.90	15.61
9725 12V EURO	118-3906●	22.07	18.87	17.95	16.90	15.61
9525 12V EURO	118-3908●	27.69	23.11	21.92	20.70	19.13
9827 12V UK	118-3909●	24.05	21.20	20.10	18.99	17.54
9827 12V EURO	118-3910●	30.96	27.30	25.87	24.45	22.59

8W Switch Mode AC/DC PSUs

PP8 Series



A range of fixed voltage plug-in power supplies with a space saving design that is the same width as a standard mains plug allowing four units to be used side by side on a common 4 gang mains extension lead.

- Fixed, regulated output voltage
- Wide input range
- Switch mode technology for high power to weight and size ratio
- High efficiency and reliability
- Lightweight
- Supplied with 2m lead

- Exchangeable output plug adapters available
- Reversible polarity
- BART approved

Input Voltage 90 to 264V ac, 47 to 63Hz
Output Ripple 100mV
Housing Material PPE UL94-V1

Dimensions (WxHxD)
Efficiency 48x74x50mm
85% typical

249599.405788

Output Voltage	Output Current	Order Code	1+	5+	Price Each	10+	25+	50+
UK Version								
3V	1700mA	117-6604●	25.05	22.99	21.07	19.37	18.11	
5V	1300mA	117-6605●	19.46	18.15	17.01	16.01	15.11	
9V	800mA	117-6606●	25.05	22.99	21.07	19.37	18.11	
12V	700mA	117-6607●	25.05	22.99	21.07	19.37	18.11	
24V	330mA	117-6608●	25.05	22.99	21.07	19.37	18.11	
Euro Version								
3V	1700mA	117-6609●	25.05	22.99	21.07	19.37	18.11	
5V	1300mA	117-6610●	25.05	22.99	21.07	19.37	18.11	
9V	800mA	117-6611●	25.05	22.99	21.07	19.37	18.11	
12V	700mA	117-6612●	20.04	18.70	17.52	16.49	15.56	
24V	330mA	117-6613●	25.05	22.99	21.07	19.37	18.11	

Exchangable Output Plug Adapters	Order Code	1+	5+	Price Each	10+
1.3x3.5x9.5 Coax	117-6588●	0.36	0.32	0.29	
1.7x4.0x11 Coax	117-6589●	0.36	0.32	0.29	
2.1x5.5x9.5 Coax	117-6590●	0.36	0.32	0.29	
2.1x5.5x11.5 Coax	117-6592●	0.36	0.32	0.29	
2.1x5.5x14 Coax	117-6593●	0.36	0.32	0.29	
2.5x5.5x9.5 Coax	117-6594●	0.36	0.32	0.29	
2.5x5.5x11 Coax	117-6595●	0.36	0.32	0.29	
DIN 45323	117-6597●	0.36	0.32	0.29	
2.5 Jack	117-6598●	0.36	0.32	0.29	
3.5 Jack	117-6599●	0.36	0.32	0.29	

Slimline Plug-In PSU's - 9W/Fixed Voltage

A range of compact, plug-in power supplies using switch mode technology to increase the power handling and decrease the physical size. The power supplies have a width that is no bigger than a standard UK plug allowing multiple units to be placed next to each other on a multi-way, mains external lead.

- Universal 100 or 240V input voltage (47 to 63Hz)
- Regulated outputs
- Thermal overload protection
- 2m output cable terminating in a common 2.1mm DC type plug
- Dimensions (WxHxD): 41x59x50mm
- UL listed, CE and GS approved

249205

Output Voltage	Current Rating	Order Code	1+	10+	25+	50+
5V dc	1.5A	117-6351●	14.41	13.11	11.95	10.80
6V dc	1.3A	117-6352●	11.30	10.28	9.38	8.47
7.5V dc	1.2A	117-6354●	14.41	13.11	11.95	10.80
9V dc	1A	117-6355●	14.41	13.11	11.95	10.80
12V dc	700mA	117-6356●	14.41	13.11	11.95	10.80
15V dc	550mA	117-6357●	14.41	13.11	11.95	10.80

International Switch Mode Plug-in PSUs

A range of switch mode, regulated 12Vdc plug-in power supplies; with UK, Euro, USA and Australian AC plug heads. All units have 1.8m output leads fitted with the popular 2.1x5.5x12mm centre positive connector. The connector used is the right angled type, which helps to reduce risk of accidentally unplugging the unit.

- Supplied with UK, Euro, USA and Australian AC plug heads
- Approved to CE/TUV, UL and CSA for safety & noise
- Fitted with the popular right angled 2.1x5.5x12mm C+ connector
- Operating temperature 0°C - 40°C
- Operates from 90-264Vac 47-63Hz
- Short circuit protected
- 5% output tolerance
- Plugs directly into the socket
- Very small and lightweight

419300.406512

Output Voltage	Output Current	Order Code	1+	10+
12Vdc	830mA	127-9477●	9.15	8.69
12Vdc	1.5A	127-9478●	10.02	9.54
12Vdc	2.1A	127-9479●	11.49	10.95

Over 480,000 products online



10.8-12W AC/DC Interchangeable Power Supplies

CP Series



Comprehensive range of 10.8 to 12W compact switch mode, regulated output, Desk Top Power Supplies, with the ability to change to plug-in models with the UK, US, Euro & Australian plugs included. Approvals to International standards and supplied with a variety of 8 common output connectors on 1.8m output cable.

- Over voltage protected
- Operating Temperature 0 - 40°C
- Compact product only 77x46.5x37mm
- Can be used as either Desk Top or Plug Top
- Fig 8 input Desk Top with Interchangeable AC Plugs to change to Plug-in
- Available with DC socket with a variety of common connectors

Mfrs.	Voltage Supply	Voltage Output	Current Output	Power Rating	Order Code
List No.	Min - Max	(V)	(A)	(W)	
25HK-CP13-A05	AC90 - 264	5	2.5	12.5	135-4813
25HK-CP11-A09	AC90 - 264	9	1.2	10.8	135-4815
25HK-CP12-A12	AC90 - 264	12	1	12	135-4816
25HK-CP12-A15	AC90 - 264	15	0.8	12	135-4817
25HK-CP12-A24	AC90 - 264	24	0.5	12	135-4818

47367

Mfrs.	Order Code	1+	5+	10+	Price Each
List No.					
25HK-CP13-A05	135-4813●	11.81	11.34	10.89	
25HK-CP11-A09	135-4815●	11.81	11.34	10.89	
25HK-CP12-A12	135-4816●	11.81	11.34	10.89	
25HK-CP12-A15	135-4817●	11.81	11.34	10.89	
25HK-CP12-A24	135-4818●	11.81	11.34	10.89	

12 Watt Medical AC/DC Mains Adaptors



- Single output
- Class II Insulation (Double Insulation)
- 3 year warranty
- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- Over Voltage and Over Load protection
- Output Voltage available from 5VDC thru 27VDC
- Over temperature detection

Mfrs. List No.	Voltage (V)	Voltage Range (V)	Current (A)	Regulation (%)	Power (W)	Order Code
MPU12B-102-5	5	5 - 6	2.00 - 1.66	5	10	151-4304
MPU12B-103-6	6	6 - 8	2.00 - 1.66	5	12	151-4305
MPU12B-104-9	9	8 - 11	1.50 - 1.09	5	12	151-4306
MPU12B-105-12	12	11 - 13	1.09 - 0.92	5	12	151-4307
MPU12B-106-15	15	13 - 16	0.92 - 0.75	5	12	151-4308
MPU12B-107-18	18	16 - 21	0.75 - 0.57	3	12	151-4309
MPU12B-108-24	24	21 - 27	0.57 - 0.44	3	12	151-4310

491556

Order Code	1+	5+	10+	Price Each
All Order Codes	28.75	27.32	25.91	

In-Line Power Supplies For Installation



- 90 to 264V ac input
- High power handling
- Flanged case for permanent screw fixing
- Thermal and fuse protection
- ±5% regulation
- 2m mains input lead with bared ends
- 1.8m output lead terminating in a 2.1mm centre +ve DC power plug
- Case dimensions (WxHxD): 89x53x65mm

A range of regulated, switch mode AC/DC power supplies for permanent installations. Ideal for use with security systems.

249208

Output	Order Code	1+	5+	10+	25+	Price Each
9V dc/1.3A	117-6348●	21.70	20.10	18.46	16.71	
12V dc/1A	117-6349●	21.70	20.10	18.46	16.71	
15V dc/800mA	117-6350●	21.70	20.10	18.46	16.71	

15W Switch Mode Plug-In PSU's



A range of compact, plug-in, switch mode power supplies with DC outputs via a pack of 6 common connectors (including 2.1mm and 2.5mm types).

- Fully enclosed, plastic case
- Regulated output
- High efficiency
- Overcurrent, short circuit protection and over-voltage protection
- BABT approved
- 426-5397 with 2.1mm connector only

249206

Voltage Frequency Tolerance	180 to 264V ac 47 to 63Hz	Hold Up Time Efficiency Ripple/Noise	12msec min. 75% at full load
Power	5% 15W	Dimensions (WxHxD)	14.85

Output Voltage	Output Current (Cont)	Order Code	1+	5+	10+	25+	Price Each
5V dc	2.4A	117-6290●	18.78	17.96	16.59	14.85	
6V dc	2A	117-6291●	18.78	17.96	16.59	14.85	
9V dc	1.5A	117-6292●	18.78	17.96	16.59	14.85	
12V dc	1.25A	117-6293●	18.78	17.96	16.59	14.85	
15V dc	1A	117-6294●	18.78	17.96	16.59	14.85	
18V dc	1A	117-6295●	18.78	17.96	16.59	14.85	
24V dc	0.63A	117-6296●	18.78	17.96	16.59	14.85	

15W Switch Mode Plug-in PSUs

MPP15 Series



H=34, W=51, L=87 Note: Plug Adaptors available separately

- Switch mode compact adaptors
- Supplied with an integral 2m output lead
- Wide range universal input
- Moulded plastic enclosure
- Exchangeable output plug adaptors available

Output Voltage (Vdc)	Output Current	Mfrs. List No.	Order Code
3V	2500mA	1812102	117-6615
5V	2400mA	1812037	117-6616
6V	2100mA	1812036	117-6617
9V	1500mA	1811970	117-6618
12V	1250mA	1811971	117-6619
15V	1000mA	1812039	117-6620

205848.405791

Output Voltage	Order Code	1+	5+	10+	25+	50+	Price Each
5V	117-6616●	36.90	34.69	33.22	31.75	30.26	
6V	117-6617●	36.90	34.69	33.22	31.75	30.26	
9V	117-6618●	36.90	34.69	33.22	31.75	30.26	
12V	117-6619●	36.90	34.69	33.22	31.75	30.26	
15V	117-6620●	28.66	26.94	25.80	24.66	23.50	

205848.405791

Order Code	1+	5+	10+	25+	50+	Price Each
Euro	117-6582●	1.66	1.43	1.30		
UK	117-6583●	2.27	1.97	1.78		
USA	117-6585●	1.66	1.43	1.30		
AUS	117-6587●	2.00	1.72	1.57		
Exchangable Input Plug Adapters						
1.3x3.5x9.5 Coax	117-6588●	0.36	0.32	0.29		
1.7x4.0x11 Coax	117-6589●	0.36	0.32	0.29		
2.1x5.5x9.5 Coax	117-6590●	0.36	0.32	0.29		
2.1x5.5x11.5 Coax	117-6592●	0.36	0.32	0.29		
2.1x5.5x14 Coax	117-6593●	0.36	0.32	0.29		
2.5x5.5x9.5 Coax	117-6594●	0.36	0.32	0.29		
2.5x5.5x11 Coax	117-6595●	0.36	0.32	0.29		
DIN 45323	117-6597●	0.36	0.32	0.29		
2.5 Jack	117-6598●	0.36	0.32	0.29		
3.5 Jack	117-6599●	0.36	0.32	0.29		



A series of 15W medically approved power supplies.

- Universal input 100-240V ac
- Interchangeable primary adaptors
- Constant voltage, current limited
- Green LED indicating power On
- Low leakage current <10µA
- Low standby power <0.5 Watt

Dims (WxHxD): 51.5x87.5x34

Mains Adaptors - Switch Mode - continued**15W Medical - continued**

Input Voltage	100-240V ac	Output Voltage Tolerance	$\pm 10\%$
Input Current	0.4A	Operating Temperature	0 - 40°C at maximum load
Input Frequency	50-60Hz	Weight	130g
Efficiency	80% typ. at full load	Ripple Volt	Mfrs. List No.
Voltage	Current	75mV pp	Order Code
5V dc	2400mA	188256	117-6564
9V dc	1500mA	1883259	117-6566
12V dc	1250mA	1883260	117-6567
24V dc	630mA	1883263	117-6568

337855

Mfrs. List No.	Voltage (V)	Current (A)	Ripple Voltage (mV)	Lead Length (m)	Order Code
3A-161WE05	5	2.6	150	1	151-4278
3A-161WE06	6	2.5	150	1	151-4279
3A-161WE09	9	1.66	150	1.5	151-4280
3A-161WE12	12	1.25	150	1	151-4281
3A-161WE15	15	1	150	1	151-4282
3A-161WE18	18	0.825	150	1	151-4284
3A-161WE24	24	0.625	250	1	151-4285

491527

Order Code	Price Each		
	1+	5+	10+
All Order Codes	13.99	13.29	12.61

18W International Switch Mode Plug-In PSUs**STONTRONICS**

A range of plug top switch mode power supplies with 4x interchangeable, quick release international mains plugs (UK, Euro, USA and Australia) and fixed 2.1mm output connector.

- Universal 90 to 240V ac input voltage (47 to 63Hz)
- Single DC output voltage via 1.8m lead terminating in a common 2.1mm DC plug
- 18W power handling
- High efficiency

- Overload protection
- 5% tolerance
- Level B EMI filter
- Dimensions (WxHxD): 43x74x34mm
- CUL, CE & TUV approved, UL listed

Input Voltage 90 to 240V ac, 47-63Hz
Power Rating 18W
Output Ripple 100mV p-p

Efficiency 68%
Hold Up Time 10ms

386110.405386

15-18W AC/DC Interchangeable Power Supplies

IP Series



Comprehensive range of 15 to 18W compact switch mode, regulated output, Desk Top Power Supplies, with the ability to change to plug-in models with the UK, US, Euro & Australian plugs included. Approvals to International standards and supplied with a variety of 8 common output connectors on 1.8m output cable.

- Over voltage protected
- Operating Temperature 0 - 40°C
- Compact product only 77x46.5x37mm
- Can be used as either Desk Top or Plug Top
- Fig 8 input Desk Top with Interchangeable AC Plugs to change to Plug-in
- Available with DC socket with a variety of common connectors

Mfrs	Voltage Supply	Voltage Output	Current Output	Power Rating	Order Code
List No.	Min - Max	(V)	(A)	(W)	
25HK-IP15-A05	AC90 - 264	5	3	15	135-4819
25HK-IP18-A09	AC90 - 264	9	2	18	135-4820
25HK-IP18-A12	AC90 - 264	12	1.5	18	135-4821
25HK-IP18-A15	AC90 - 264	15	1.2	18	135-4822
25HK-IP18-A24	AC90 - 264	24	0.75	18	135-4823

473689

Output Voltage	Current	Power	Mfrs. List No.	Order Code	1+	5+	10+
5V	3.6A	18W	3A-181WP05	127-9517●	12.70	12.22	11.87
6V	3A	18W	3A-181WP-06	128-1772●	12.33	11.86	11.52
7V	2.57A	18W	3A-181WP-07	128-1773●	9.86	9.49	9.22
9V	2A	18W	3A-181WP09	127-9519●	12.70	12.22	11.87
12V	1.5A	18W	3A-181WP12	127-9521●	12.70	12.22	11.87
15V	1.2A	18W	3A-181WP15	127-9522●	12.70	12.22	11.87
18V	1A	18W	3A-181WP18	127-9523●	12.70	12.22	11.87
24V	0.75A	18W	3A-181WP24	127-9524●	12.70	12.22	11.87

**19.5W Plug-In Adjustable O/P**

9829



H = 75, W = 32, D = 50

Output Voltage (vdc)	Max. Load	Mfrs. List No.	Order Code
4.5-12V DC	1.2A	9829 4.5-12V UK	118-3911
4.5-12V DC	1.2A	9829 4.5-12V EURO	118-3912

249257

20-30W AC/DC Interchangeable Power Supplies

HP Series

**16 Watt AC/DC Mains Adaptors****multicomp**

- Universal AC Input 90-264Vac
- Low ripple & noise
- No minimum load requirement
- 100% burn in test
- 1 year warranty
- Safety: GS, CB, CE
- CEC Compliant

Comprehensive range of 20 to 30W compact switch mode, regulated output, Desk Top Power Supplies, with the unique ability to change to plug-in models with the UK, US, Euro & Australian plugs included. Approvals to International standards and supplied with a variety of 8 common output connectors on 1.8m output cable.

- Over voltage protected
- Operating Temperature 0 - 40°C
- Compact product only 77x46.5x37mm
- Can be used as either Desk Top or Plug Top
- Fig 8 input Desk Top with Interchangeable AC Plugs to change to Plug-in
- Available with DC socket with a variety of common connectors

Mfrs.	Voltage Supply	Voltage Output	Current Output	Power Rating	Order Code
List No.	Min - Max	(V)	(A)	(W)	
25HK-HP20-A05	90 - 264AC	5	4	20	135-4824
25HK-HP23-A09	90 - 264AC	9	2.5	22.5	135-4825
25HK-HP30-A12	90 - 264AC	12	2.5	30	135-4827
25HK-HP30-A15	90 - 264AC	15	2	30	135-4828
25HK-HP30-A24	90 - 264AC	24	1.25	30	135-4829

473694

Mfrs.	Order Code	1+	5+	10+	Price Each
25HK-HP20-A05	135-4824●	13.62	13.07	12.55	
25HK-HP23-A09	135-4825●	13.62	13.07	12.55	
25HK-HP30-A12	135-4827●	13.62	13.07	12.55	
25HK-HP30-A15	135-4828●	13.62	13.07	12.55	
25HK-HP30-A24	135-4829●	13.62	13.07	12.55	

24W Switch Mode Plug Top Power Adaptor



A range of 20 & 24 Watt Switch Mode Plug Top Power Supplies with Universal AC Input.

- Exchangeable UK, Euro, USA & Australian input plugs
- Universal 90-264Vac Input
- Lightweight & compact dimensions
- Full Safety Approvals
- Class II Insulation
- Short Circuit & Over Current Protection

449526

Mfrs. List No.	Output Voltage	Output Current	Output Power	Order Code	1+	5+	10+	Price Each
PSP24-05-01	5V	4A	20W	129-2830●	18.03	17.31	16.62	
PSP24-12-01	12V	2A	24W	129-2831●	18.03	17.31	16.62	
PSP24-24-01	24V	1A	24W	129-2832●	18.03	17.31	16.62	

30W Medical



A series of 30W medically approved power supplies. Ideal for applications such as, Inhalers, patient monitors, measuring instruments etc.

- Universal input 100-240v ac
- Interchangeable primary adaptors
- Constant voltage, current limited
- Green LED indicating power On
- Low leakage current <10µA
- Low standby power <0.5 Watt

Dims (WxHxD): 68x105x39

Input Voltage	100-240v ac	Output Voltage Tolerance	± 10%
Input Current	0.7A	Operating Temperature	0 - 40°C at maximum load
Input Frequency	50-60Hz	Weight	278g
Efficency	80% typ. at full load	Ripple	Mfrs.
Voltage	Current	Volt	List No.
9V dc	3000mA	90mV pp	1883267
12V dc	2500mA	100mV pp	1883268
24V dc	1250mA	120mV pp	1883271

337856

Mfrs.	Order Code	1+	5+	10+	Price Each
1883267	117-6570●	53.83	48.46	43.91	
1883268	117-6571●	53.83	48.46	43.91	
1883271	117-6573●	53.83	48.46	43.91	

Exchangable Input Plug Adapters				
Euro	117-6582●	1.66	1.43	1.30
UK	117-6583●	2.27	1.97	1.78
USA	117-6585●	1.66	1.43	1.30
AUS	117-6587●	2.00	1.72	1.57

Exchangable Output Plug Adapters				
1.3x3.5x9.5 Coax	117-6588●	0.36	0.32	0.29
1.7x4.0x11 Coax	117-6589●	0.36	0.32	0.29
2.1x5.5x9.5 Coax	117-6590●	0.36	0.32	0.29
2.1x5.5x1.5 Coax	117-6592●	0.36	0.32	0.29
2.1x5.5x1.4 Coax	117-6593●	0.36	0.32	0.29
2.5x5.5x9.5 Coax	117-6594●	0.36	0.32	0.29
2.5x5.5x11 Coax	117-6595●	0.36	0.32	0.29
DIN 45323	117-6597●	0.36	0.32	0.29
2.5 Jack	117-6598●	0.36	0.32	0.29
3.5 Jack	117-6599●	0.36	0.32	0.29

Over 480,000 products online



Adjustable Multi-Input & Output Switch Mode PSU



A switch mode power adaptor with multiple inputs (UK, Euro, US, Aus) and a range of output connectors.

Technical Data	
Input Voltage	100-240V - 60/50Hz
Output Voltage	5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 & 24Vdc
Output Current	1.5, 1.6, 1.63, 1.7, 1.8, 1.88, 2.0, 2.1, 2.2, 2.4, 2.5, 2.7, 3.0, 3.2, 3.3, 3.4, 3.5,
Dimensions	136x68x37mm

467427/491565

Order Code	1+	5+	10+	Price Each
151-4345●	19.76	18.73	17.69	

491565

40.8W Medical Plug-In PSU



- Universal input voltage
- Medical approved (EN 60601)
- Short circuit proof
- Overvoltage protection
- Compact design
- High efficiency

Output Voltage (vdc)	Max. Load	Mfrs. List No.	Order Code
12V DC	2.4A	9819 12V UK	118-3913
12V DC	2.4A	9819 12V EURO	118-3914

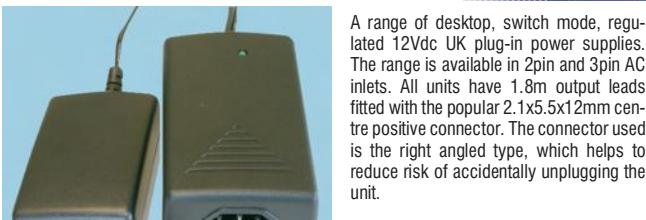
249258

Order Code	1+	3+	10+	25+	50+	Price Each
UK Plug	118-3913●	41.28	38.04	36.04	34.06	31.47
EURO Plug	118-3914●	37.15	34.24	32.44	30.65	28.33

491565

Mains Adaptors - Desktop/Desktop

Regulated 12Vdc Switch Mode Desktop PSUs



- Approved to CE/TUV, UL and CSA for safety & noise
- Fitted with the popular right angled 2.1x5.5x12mm C+ connector
- Operating temperature 0°C - 40°C
- Operates from 90-264Vac 47-63Hz
- Short circuit protected
- 5% output tolerance
- 2 and 3 pin IEC input depending on model
- Very small and lightweight

419291.406513

AC Input	Output Voltage	Output Current	Order Code	1+	5+	Price Each
2 pin						
2pin	12Vdc	1A	127-9480●	7.91	7.54	
2pin	12Vdc	1.25A	127-9481●	8.49	8.09	
2pin	12Vdc	2A	127-9484●	10.92	10.39	
2pin	12Vdc	2.5A	127-9485●	13.08	12.46	
2pin	12Vdc	3.5A	127-9486●	13.83	13.17	
2pin	12Vdc	4A	127-9487●	14.59	13.95	
2pin	12Vdc	5A	127-9491●	18.21	17.43	
3 pin						
3pin	12Vdc	1.25A	127-9482●	9.19	8.73	
3pin	12Vdc	1.5A	127-9483●	10.57	10.07	
3pin	12Vdc	2A	121-5857●	12.38	11.80	
3pin	12Vdc	3.5A	121-5858●	15.65	14.89	
3pin	12Vdc	4A	127-9489●	16.49	15.76	
3pin	12Vdc	5A	127-9492●	18.64	17.85	
3pin	12Vdc	6A	127-9493●	26.74	25.69	
3pin	12Vdc	10A	127-9494●	42.62	40.91	
3pin	12Vdc	12.5A	121-5860●	67.69	61.36	



Mains Adaptors - Desktop/Portable - continued

Turn to page 184 for Power Cords

12W Desktop Medical PSU



FRIWO

A range of 12 W medically approved power supplies. Ideal for applications such as inhalers, patient monitors, lab equipment, measuring instruments etc.

- Universal input 100-240 V AC
- Fulfils medical application class B, BF, CF
- IEC 60601-1, UL 2601, VDE, CE approved
- Continuous short circuit protection
- Light weight and compact size

Dims (W x H x D): 40mm x 27.5mm x 92mm

Voltage	Current	Mfrs. List No.	Order Code
5V dc	2A	EDV1826391	121-5228
7.5V dc	1.4A	EDV1826393	129-3277
9V dc	1.2A	EDV1826394	121-5229
12V dc	1A	EDV1826395	121-5230
24V dc	0.5A	EDV1826398	121-5232

436893

Output Voltage	Mfrs. List No.	Order Code	Price Each
5V dc	EDV1826391	121-5228	21.94
7.5V dc	EDV1826393	129-3277	21.14
9V dc	EDV1826394	121-5229	17.04
12V dc	EDV1826395	121-5230	21.94
24V dc	EDV1826398	121-5232	21.94

436893

12/15 Watt AC/DC Switch Mode Power Supplies

STONTRONICS



A range of compact switch mode power supplies for use with audio/video, computer and business equipment. The power supplies have 100 to 240V ac inputs via 'figure 8' type mains sockets. CE and UL listed.

- Wide input voltage
- 12 or 15W power handling
- Overvoltage and short circuit protection
- Regulated output

- Centre pin positive
- 1.8m lead terminating in a 2.1mm DC type plug

Input Voltage	90 to 264V ac	Line Regulation	±1%
Frequency	50 to 60Hz	Dimensions (WxHxD)	46x25.5x74mm
Efficiency	70% min.		249209/436669

Output Voltage	Current	Order Code	1+	5+	10+	25+	Price Each
12 Watt							
5V dc	2.5A	117-6317	16.19	15.35	14.59	13.51	
6V dc	2A	117-6318	16.19	15.35	14.59	13.51	
7V dc	1.75A	117-6319	16.19	15.35	14.59	13.51	
9V dc	1.33A	117-6320	16.19	15.35	14.59	13.51	
10V dc	1.2A	117-6321	16.19	15.35	14.59	13.51	
12V dc	1A	117-6322	16.19	15.35	14.59	13.51	
15V dc	0.8A	117-6323	16.19	15.35	14.59	13.51	
16V dc	0.75A	117-6324	16.19	15.35	14.59	13.51	
18V dc	0.67A	117-6325	16.19	15.35	14.59	13.51	
24V dc	0.5A	117-6326	16.19	15.35	14.59	13.51	
15 Watt							
5V	3A	128-1761	16.25	15.30	14.50	13.35	
6V	2.5A	128-1762	12.62	11.88	11.26	10.37	
7V	2.14A	128-1763	16.25	15.30	14.50	13.35	
9V	1.7A	128-1764	16.25	15.30	14.50	13.35	
12V	1.25A	128-1765	16.25	15.30	14.50	13.35	
15V	1A	128-1766	16.25	15.30	14.50	13.35	
18V	0.84A	128-1767	13.00	12.24	11.60	10.68	
20V	0.75A	128-1769	15.78	14.85	14.08	12.96	
24V	0.63A	128-1771	13.00	12.24	11.60	10.68	

Power Leads	Order Code	1+	25+	50+	100+	Price Each
UK to Fig 8	152-2217	1.02	1.01	0.92	0.88	
Leads	Order Code	1+	3+			
Euro to Fig 8	128-3799	0.94	0.87	--	--	

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12W Switch Mode Installation PSU's

STONTRONICS
THE POWER TO SUPPLY



A range of regulated, switch mode AC/DC power supplies for permanent installations. Ideal for use in security systems etc.

- 90 to 264V ad input
- CE approved
- Flanged case for permanent screw fixing
- Thermal and fuse protection
- ±5% regulation

Input Voltage	90 to 264V ac	Efficiency	60% min.
Frequency	47 to 63Hz	Line Regulation	1%
			386154.405387

Output Voltage	Output Current	Mfrs. List No.	Order Code	1+	5+	10+
5V	2.5A	EPA121FG-05	127-9547	14.42	13.83	13.29
9V	1.3A	EPA121FG-09	127-9548	14.42	13.83	13.29
12V	1A	EPA121FG-12	127-9549	14.42	13.83	13.29
24V	0.5A	EPA121FG-24	127-9550	14.42	13.83	13.29

Switch Mode Power Supplies



A range of compact, switch mode power supplies with 90 to 264V ac, IEC inputs with 2.1mm and 2.5mm DC output connectors.

- Wide range AC input
- Fully enclosed, plastic case
- Regulated output
- High efficiency
- Overcurrent, short circuit protection and overvoltage protection
- 3-way IEC type connector inputs
- UL listed and TUV approved

STONTRONICS
THE POWER TO SUPPLY

Voltage	90 to 264V ac	Hold Up Time	12msec min.
Frequency	47 to 63Hz	Efficiency	75% at full load
Tolerance	5%	Ripple/Noise	1%
Power	15W	Dimensions (WxHxD)	91x36x38mm

249201.263740

Output Voltage	Output Current (Max.)	Output Power (Max.)	Order Code	1+	5+	10+	25+	Price Each
3.3V dc	2.5A	8	117-6299	25.57	24.00	22.70	21.03	
5V dc	2.5A	15	117-6227	25.57	24.00	22.70	21.03	
6V dc	2A	15	117-6228	25.57	24.00	22.70	21.03	
7.5V dc	1.6A	15	117-6229	25.57	24.00	22.70	21.03	
9V dc	1.67A	15	117-6230	25.57	24.00	22.70	21.03	
12V dc	1.25A	15	117-6231	25.57	24.00	22.70	21.03	
13V dc	1.1A	15	117-6300	16.19	15.20	14.38	13.33	
15V dc	1A	15	117-6232	25.57	24.00	22.70	21.03	
18V dc	0.84A	15	117-6233	16.19	15.20	14.38	13.33	
24V dc	0.63A	15	117-6234	25.57	24.00	22.70	21.03	
30V dc	0.5A	15	117-6235	25.57	24.00	22.70	21.03	
48V dc	0.31A	15	117-6236	25.57	24.00	22.70	21.03	

Input Voltage	90 - 264VAC
Input Frequency	47 - 63 Hz
Input Current	0.4 A at 115 VAC
Efficiency	85% typical
Ripple & Noise	1% max pk-pk
Total Regulation	±3-7%, model dependant
Operating Temperature	0°C to 70°C, derate from 40°C
MTBF	300 khrs to MIL-STD-217F
Safety Approvals	EN60950-1:2001, UL/cUL60950-1, CCC, CE
Emissions	EN55022 FCC Part-15C Level B Conducted & Radiated

Mfrs. List No.	Power Rating (W)	Output Voltage (V)	Output Current (A)	Order Code
AEL15US03	8	3.3	2.5	163-3333
AEL15US05	12	5	2.4	163-3334
AEL15US08	15	8	1.87	163-3335
AEL15US09	15	9	1.66	163-3336
AEL15US12	15	12	1.25	163-3337
AEL15US15	15	15	1	163-3339

Mfrs.	Power	Output	Output	
AEL15US18	15	18	0.83	163-3341
AEL15US24	15	24	0.62	163-3342
AEL15US30	15	30	0.5	163-3343
AEL15US36	15	36	0.42	163-3344
AEL15US48	15	48	0.31	163-3345

519244

Mfrs. List No.	Order Code	1+	5+	10+	25+
AEL15US	All Order Codes●	15.00	14.55	14.10	13.50

15/25W Desktop AC/DC Power Supplies

- Single output
- IEC 320 input inlet
- 2.1mm Jack plug (centre +ve) output connector
- 100% burn-in
- Wide input voltage range 90 to 264V ac (47 to 63 Hz)
- Input surge current protection
- Overcurrent/overvoltage protection
- UL listed, cUL, CE, TUV approved

Mfrs. List No.	Voltage (V)	I max. (A)	Tol. (%)	Total Power Output (W)	Order Code
PSE15-105A	5	2.5	5	12	116-5730
PSE15-209A	9	1.66	5	15	116-5731
PSE15-312A	12	1.25	5	15	116-5733
PSE15-516A	16	0.94	5	15	116-5734
PSE15-624A	24	0.63	5	15	116-5735
PSE24-105	5	3.00	5	15	116-5736
PSE24-209	9	2.22	3	20	116-5737
PSE24-312	12	2.00	3	24	116-5738
PSE24-516	16	1.50	3	24	116-5739
PSE24-624	24	1.00	3	24	116-5740

227636

Mfrs. List No.	Order Code	1+	5+	10+
PSE15-105A	116-5730●	25.73	23.84	22.19
PSE15-209A	116-5731●	25.73	23.84	22.19
PSE15-312A	116-5733●	25.73	23.84	22.19
PSE15-516A	116-5734●	25.73	23.84	22.19
PSE15-624A	116-5735●	25.73	23.84	22.19
PSE24-105	116-5736●	29.73	28.01	26.48
PSE24-209	116-5737●	29.73	28.01	26.48
PSE24-312	116-5738●	29.73	28.01	26.48
PSE24-516	116-5739●	29.73	28.01	26.48
PSE24-624	116-5740●	29.73	28.01	26.48

Price Each

227636

16/25W Desktop AC/DC Power Supplies

- Single output
- IEC 320 input inlet
- 2.1mm Jack plug (centre +ve) output connector
- 100% burn-in
- Wide input voltage range 90 to 264V ac (47 to 63 Hz)
- Input surge current protection
- Overcurrent/overvoltage protection

- UL listed, cUL, CE, TUV approved
- Energy Star Compliant

Mfrs. List No.	Output Voltage (V)	Output Current (A)	Output Power (W)	Order Code
PSE16A-05-01	5	2.5	12	145-5352
PSE16A-09-01	9	1.66	15	145-5353
PSE16A-12-01	12	1.25	15	145-5354
PSE16A-24-01	24	0.63	15	145-5355
PSE25A-05-01	5	3.00	16.5	145-5356
PSE25A-09-01	9	2.75	22	145-5358
PSE25A-12-01	12	2.27	25	145-5359
PSE25A-24-01	24	1.19	25	145-5360

483198

Mfrs. List No.	Order Code	1+	5+	10+
PSE16A-05-01	145-5352●	23.62	22.67	21.76
PSE16A-09-01	145-5353●	23.62	22.67	21.76
PSE16A-12-01	145-5354●	23.62	22.67	21.76
PSE16A-24-01	145-5355●	23.62	22.67	21.76
PSE25A-05-01	145-5356●	27.39	26.28	25.23
PSE25A-09-01	145-5358●	27.39	26.28	25.23
PSE25A-12-01	145-5359●	27.39	26.28	25.23
PSE25A-24-01	145-5360●	27.39	26.28	25.23

Price Each

483198

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**Desktop Power Supplies**

AC/DC Regulated



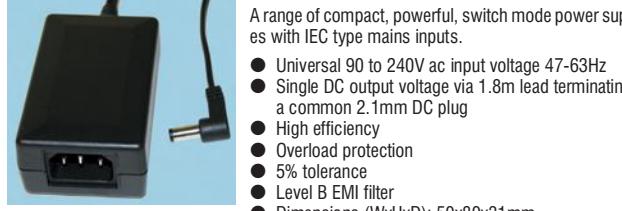
- Universal input voltage
- Compact design
- UL listed
- Fully regulated
- IEC320 Input

Output Voltage (Vdc)	Load (W)	Order Code	Output Voltage (Vdc)	Load (W)	Order Code
5	2400mA	15	24	2100mA	50
9	1667mA	15	18	6.66A	80
12	1250mA	15	24	3.33A	80
12	2000mA	24	12	10.83A	130
12	3750mA	45	24	5.41A	130

249268

Mfrs. List No.	Order Code	1+	3+	10+	25+	50+
9885 5V	118-3923●	30.36	25.71	24.35	23.02	21.26
9885 9V	118-3924●	30.36	25.71	24.35	23.02	21.26
9885 12V	118-3925●	30.36	25.71	24.35	23.02	21.26
9886 12V	118-3926●	35.56	29.70	28.14	26.58	24.58
9887 12V	118-3927●	39.63	33.76	31.99	30.24	27.91
9887 24V	118-3929●	39.63	33.76	31.99	30.24	27.91
5185 12V	118-3931●	64.16	55.25	52.36	49.48	45.71
5185 24V	118-3932●	64.16	55.25	52.36	49.48	45.71
5186 12V	118-3933●	115.39	98.46	93.32	88.17	81.45
5186 24V	118-3934●	115.39	98.46	93.32	88.17	81.45

249268

16W Switch Mode Power Supplies

A range of compact, powerful, switch mode power supplies with IEC type mains inputs.

- Universal 90 to 240V ac input voltage 47-63Hz
- Single DC output voltage via 1.8m lead terminating in a common 2.1mm DC plug
- High efficiency
- Overload protection
- 5% tolerance
- Level B EMI filter
- Dimensions (WxHxD): 50x80x31mm
- CUL, CE, TUV approved, UL recognised

Input Voltage 90 to 264V ac, 47-63Hz
Output Ripple 150 mV p-p (100V-240Vac Input)
Power Rating 16W
Efficiency 60%min.
Current Rating 0.6A
Operating temperature 0 to 40°C

386123

Output Voltage	Output Current	Mfrs. List No.	Order Code	1+	5+	10+
5V	2.6A	3A-161DB-05	127-9525●	13.15	12.65	12.02
6V	2.5A	3A-161DB-06	127-9526●	13.15	12.65	12.02
7V	2.14A	3A-161DB-07	127-9527●	13.15	12.65	12.02
9V	1.66A	3A-161DB-09	127-9528●	13.15	12.65	12.02
12V	1.25A	3A-161DB-12	127-9529●	13.15	12.65	12.02
15V	1A	3A-161DB-15	127-9530●	13.15	12.65	12.02
18V	0.83A	3A-161DB-18	127-9532●	13.15	12.65	12.02
24V	0.625A	3A-161DB-24	127-9533●	13.15	12.65	12.02

386123

Output Voltage (Vdc)	Max. Load (W)	Output Wattage (W)	Order Code	Output Voltage (Vdc)	Max. Load (W)	Output Wattage (W)	Order Code
9	1500	16	118-3915	24	1600	40	118-3920
12	1200	16	118-3917	12	4500	60	118-3921
24	650	16	118-3918	24	2500	60	118-3922
12	3000	40	118-3919				

249261

Mfrs. List No.	Order Code	1+	3+	10+	25+	50+
2124 9V	118-3917●	21.86	20.78	19.70	18.59	17.19
2124 12V	118-3918●	24.29	23.08	21.89	20.66	19.10
2124 24V	118-3919●	24.29	23.08	21.89	20.66	19.10
9921 12V	118-3920●	42.32	35.19	33.34	31.51	29.11
9921 24V	118-3921●	42.32	35.19	33.34	31.51	29.11
2020 12V	118-3921●	54.00	45.23	42.86	40.51	37.41
2020 24V	118-3922●	54.00	45.23	42.86	40.51	37.41

Mains Adaptors - Desktop/Portable - continued

Universal Desktop Mains Adaptor ATPS Series



- Stationary power supply (5-15 V and 12-24 V) for mobile equipment
- Electronic switch mode power supply exchangeable power supply (available as accessory) for worldwide use
- Max. output current: 3600 / 2300mA
- Output voltage independent of mains fluctuations
- Correct polarity adjustable with alternate connector
- Includes exchangeable multi-tip connectors

Mfrs. List No.	Output	Current (max.)	Order Code
	Voltage (V dc)	(A)	
ATPS 3612	5; 6; 7.5; 9; 12; 15	3600	125-3170
ATPS 2324	12;15;18;20; 22; 24	2300	125-3172

242811

Mfrs. List No.	Order Code	1+	+	+	+	+	+	Price Each
ATPS 3612	125-3170●	23.03	--	--	--	--	--	
ATPS 2324	125-3172●	26.00	--	--	--	--	--	

18W Single Output Ultra Compact External PSUs



Ideal for applications where a small low cost, high-quality external AC/DC power supply is required. It is a lightweight design desktop power supply with switchmode technologies for DC powered worldwide applications. Provides 18W of power in fully regulated and protected outputs of 5, 12, 18, and 24Vdc.

- Standard 5-year manufacturer warranty
- Wide Range Universal AC input
- Fully Regulated Output (via 2.5 mm connector)
- High Efficiency
- Protected against short circuit, overload, overvoltage and over temperature

Input voltage	90-264 VAC, 47/63 Hz
Line regulation	±1%
Load regulation	±5%
Ripple Noise	±1% pk - pk max
Safety	UL1950 CSA22.2 No. 950
EMC	Emissions: CISPR 22 EN55022 and FCC Part 115, Class B. Conducted and RadiatedEN61000-3-2, -3 ; Immunity: EN61000-4-2, -3, -4, -5, -6, -8, -11
Efficiency	85% typical
MTBF	>550,000

490472

Mfrs. List No.	Power (W)	Voltage (V)	Current (A)	Order Code	1+	5+	10+	Price Each
FWC1805	18	5	3.6	150-2588●	23.77	23.06	22.37	
FWC1812	18	12	1.5	150-2590●	23.77	23.06	22.37	
FWC1818	18	18	1	150-2592●	23.77	23.06	22.37	
FWC1824	18	24	0.75	150-2593●	23.77	23.06	22.37	

20W Compact Desktop Power Supplies PSD20 Series



A range of very compact desktop power supplies for use in office equipment, data transmission devices and IT equipment.

- 90-264Vac universal wide range input
- Compact size
- Full enclosed plastic case
- Class 2 double insulated
- IEC320 C8 mains inlet connector
- 2.1mm centre positive DC power plug

H=30, W=49.5, D=80mm

Input Range	90 - 264VAC	Efficiency	65%	
Frequency	47 - 63Hz	Ripple	1 % peak to peak	
Inrush Current	30A at 115Vac, 60A at 230Vac	Operating Temperature	0 to +40°C	
Output Voltage	5V - 24.0VDC	Safety Approvals	CUL, TUV, UK, SAA, CCC	
Mfrs. List No.	Output Voltage	Output Current	Output Power	Order Code
PSD20-050	5VDC	0-3.4A	17.0W	109-4820
PSD20-120	12VDC	0-2.2A	19.8W	109-4821
PSD20-180	18VDC	0-1.1A	19.8W	109-4822
PSD20-240	24VDC	0-0.8A	19.2W	109-4823

419172

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
PSD20-050	109-4820●	14.67	14.16	13.68
PSD20-120	109-4821●	14.67	14.16	13.68
PSD20-180	109-4822●	14.67	14.16	13.68
PSD20-240	109-4823●	14.67	14.16	13.68

20W AC/DC Switch Mode Power Supplies



A range of compact switch mode power supplies. The power supplies have 100 to 240V ac inputs via IEC type mains sockets. CE approved and UL listed.

- Wide input voltage
- 20W power handling
- Overvoltage and short circuit protection

- Regulated output
- Centre pin positive
- 1.8mm lead terminating in a 2.1mm DC type plug

Input Voltage	Frequency	Efficiency	Line Regulation	Dimensions (WxHxD)
90V to 264V ac	50 to 60Hz	65% Min.	±1%	60x34x110mm

249211

Output Voltage	Current	Order Code	1+	5+	10+	25+	Price Each
5V dc	4A	117-6327●	24.32	23.59	21.12	19.35	
6V dc	3.3A	117-6329●	24.32	23.59	21.12	19.35	
7V dc	2.85	117-6331●	24.32	23.59	21.12	19.35	
9V dc	2.2A	117-6332●	24.32	23.59	21.12	19.35	
12V dc	2A	117-6333●	24.32	23.59	21.12	19.35	
15V dc	1.33A	117-6334●	19.36	18.78	16.81	15.41	
18V dc	1.1A	117-6335●	24.32	23.59	21.12	19.35	
20V dc	1A	117-6336●	19.36	18.78	16.81	15.41	
24V dc	0.83A	117-6337●	24.32	23.59	21.12	19.35	

24W Single Output Medical External PSUs



Designed to support medical applications like instruments, patient monitors, and lab equipment, but also portable units. Fully enclosed (polycarbonate case) external AC/DC medical desktop power supply, with switch-mode technologies for DC powered universal applications. Provides 24W of power in fully regulated and protected outputs of 12, 15, 18, and 24 Vdc, with low ripple.

Dims (WxHxD) : 33 x 108 x 64.5mm

- Standard 5-year manufacturer warranty
- Wide Range Universal AC input
- Protected against short circuit, overload, overvoltage and over temperature
- 100% testing and burn-in
- International approvals (US, Canada, CE)
- Meets medical safety agency requirements (eg. EN 60601-1)
- 3-pin IEC320/C14 mains socket inlet, output via 2.5mm barrel connector

Input voltage	90-264 VAC, 47/63 Hz
Line regulation	±1%
Load regulation	±5%
Ripple Noise	±1% pk - pk max
Safety	UL60601-1, CSA C22.2 No.601.1-M90, CB per IEC60601-1
EMC	Emissions: CISPR11 and FCC Part 15, Class B. Conducted and Radiated. EN61000-3-2, -3Immunity: EN61000-4-2, -3, -4, -5, -6, -8, -11
Efficiency	85% typical
MTBF	>550,000

490476

Mfrs. List No.	Power (W)	Voltage (V)	Current (A)	Order Code	1+	5+	10+	Price Each
MW2412	24	12	2	150-2599	28.96	28.09	27.23	
MW2415	24	15	1.6	150-2600	28.96	28.09	27.23	
MW2418	24	18	1.33	150-2601	28.96	28.09	27.23	
MW2424	24	24	1	150-2602	28.96	28.09	27.23	

25 Watt AC/DC Mains Adaptors



SPU25A-102-5	5	5 - 6	3.00 - 2.75	5	16.5	151-4292
SPU25A-103-6	6	6 - 8	3.30 - 2.50	5	20	151-4293
SPU25A-103-7.5	7.5	6 - 8	3.30 - 2.50	5	20	151-4294
SPU25A-104-9	9	8 - 11	2.75 - 2.00	5	25	151-4296
SPU25A-105-12	12	11 - 13	2.27 - 1.92	5	25	151-4297

Prices are in £ sterling & exclusive of VAT

Mfrs. List No.	Voltage (V)	Voltage Range (V)	Current (A)	Regulation (%)	Power (W)	Order Code
SPU25A-106-15	15	13 - 16	1.92 - 1.56	5	25	151-4298
SPU25A-107-18	18	16 - 21	1.56 - 1.19	5	25	151-4299
SPU25A-108-24	24	21 - 27	1.19 - 0.92	3	25	151-4300
SPU25A-109-30	30	27 - 33	0.92 - 0.75	3	25	151-4302
SPU25A-111-48	48	40 - 48	0.62 - 0.52	3	25	151-4303

491550

Order Code	1+	Price Each	5+	10+
All Order Codes	23.88		22.69	21.53

30W AC/DC Switch Mode Power Supplies

A range of compact switch mode power supplies for use with audio/visual, computer and business equipment. The power supplies have 100 to 240V ac inputs via IEC type mains sockets. **CUL** and **CE** approved, **UL** recognised.

STONTRONICS
THE POWER TO SUPPLY

- Wide input voltage
- Regulated output
- 30W power handling
- Centre pin positive
- Overvoltage and short circuit protection
- 1.8m lead terminating in a 2.1mm DC plug

Input Voltage 90 to 264V ac
Frequency 47 to 63Hz
Efficiency 65% min.

Line Regulation 1%
Dimensions (WxHxD) 52 x 33 x 118mm

386128

Output Voltage	Output Current	Mfrs. List No.	Order Code	1+	Price Each	5+	10+
3V	5A	SPU30-3	127-9534●	26.92	25.40	24.16	
5V	5A	SPU30-5	127-9535●	26.92	25.40	24.16	
6V	4A	SPU30-6	127-9536●	26.92	25.40	24.16	
7.5V	3.3A	SPU30-7.5	127-9537●	26.92	25.40	24.16	
9V	3.3A	SPU30-9	127-9538●	26.92	25.40	24.16	
12V	2.5A	SPU30-12	127-9539●	26.92	25.40	24.16	
15V	2A	SPU30-15	127-9540●	26.92	25.40	24.16	
18V	1.66A	SPU30-18	127-9541●	26.92	25.40	24.16	
24V	1.25A	SPU30-24	127-9542●	26.92	25.40	24.16	
48V	0.63A	SPU30-48	127-9544●	26.92	25.40	24.16	

30 Watt Single Output Medical Desktop PSUs
Compact External
XP

New

H = 30, W = 110, D = 50mm

- Energy Star, CEC & EISA Compliant ≥9 V
- Worldwide Medical Approvals
- 4000 VAC Isolation
- Class II Construction
- Single Outputs from 5 V to 24 V
- High Efficiency
- Operation to +60°C
- 3 year warranty

Input Voltage 90 - 264VAC
Input Frequency 47 - 63 Hz
Input Current 0.6 A rms max
Inrush Current 50 A max at 264 VAC
Line Regulation ±1%
Ripple & Noise 1% max, 20 MHz Bandwidth
Operating Temperature 0°C to 60°C
MTBF 500 kHrs to MIL-STD-217F
Safety Approvals UL60601-1, EN60601-1, IEC60601-1, CE Mark
Emissions EN55011 Level B conducted & radiated

Mfrs. List No.	Power Rating (W)	Output Voltage (V)	Output Current (A)	Efficiency (%)	Order Code
PDM30US05	20	5	4	74	162-5685
PDM30US09	27	9	3	81	162-5686
PDM30US12	30	12	2.5	82	162-5687
PDM30US15	30	15	2	83	162-5689
PDM30US18	30	18	1.65	83	162-5691
PDM30US24	30	24	1.25	83	162-5692

517357

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
PDM30US	All Order Codes●	34.00	32.98	31.96	30.60	

30/48/65W Switch Mode Desktop Power Supplies
POWER SOLVE


The PSD Series is a range of switch mode desktop power supplies in a compact enclosure measuring only 97 x 44 x 31mm. Ideal for applications where a small low cost external power supply is required for powering equipment such as LCD monitors, notebook computers, printers, POS, modems etc.

- Universal AC Input
- Overload and Short Circuit Protection
- Class II Insulation

449534

RoHS Compliant
Non-compliant

Mfrs. List No.	Output Voltage	Output Current	Output Power	Order Code	1+	5+	10+	Price Each
PSD30C-05-02	5V	6A	30W	129-2834●	26.13	25.07	24.08	
PSD48C-12-02	12V	4A	48W	129-2835●	26.13	25.07	24.08	
PSD65C-24-02	24V	2.7A	65W	129-2836●	26.13	25.07	24.08	

Mfrs. List No.	Output Voltage	Output Current	Output Power	Order Code	1+	5+	10+	Price Each
PSD30C-05-02	5V	6A	30W	129-2834●	26.13	25.07	24.08	
PSD48C-12-02	12V	4A	48W	129-2835●	26.13	25.07	24.08	
PSD65C-24-02	24V	2.7A	65W	129-2836●	26.13	25.07	24.08	

35W Desktop AC/DC Power Adaptor
multicomp


Technical Data	
Output Voltage (V)	Output Current (A)
5	4.0
6	3.5
7	3.3
8	3.2
9	3.0
10	2.8
11	2.6
12	2.5
15	2.2
16	2.1
17	2.0
18	1.9
19	1.8
20	1.7
21	1.6
22	1.5

A 35W selectable output desktop adaptor for DC powered equipment.

- Universal mains input voltage: 100 to 240V ac (50 to 60Hz)
- Over-load, over-current and over-heat protection
- Regulated
- Multi changeable plug DC-cord
- IEC mains socket inlet
- UL and CE approvals

467447/491566

Order Code	1+	5+	10+
151-4348●	23.88	21.33	20.80

36W Single Output Ultra Compact External
XP


H=20, W=50, D=110mm

These low profile ultra compact desktop supplies provide 36W of power in outputs of 12, 15, 18 and 24Vdc. The AED36 series is one of the smallest 36W external power supplies available in the industry today.

- High power density
- Low profile
- Low cost
- Universal input
- IEC320/C8 inlet
- High efficiency
- International safety approvals
- 3 year warranty

Mfrs. List No.	Output Voltage	Output Current	Order Code
AED36US05	5V	4A	155-0924
AED36US09	9V	3A	155-0926
AED36US12	12V	2.5A	960-2941
AED36US15	15V	2.4A	960-2950
AED36US18	18V	2A	960-2968
AED36US24	24V	1.5A	960-2976
AED36US48	48V	0.75A	155-0927

413856

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
AED36 Series	All Order Codes●	25.00	24.25	23.50	22.50	

36 Watt Single Output Desktop PSUs

Compact External

XP


- Energy Star, CEC and EISA compliant
- Low Profile
- High Efficiency
- Single outputs from 5 to 48VDC
- Universal input
- High Power Density
- Operation to +60°C
- CCC qualified
- Class II
- 3 year warranty

New

H = 20, W = 50, D = 110mm

Farnell
08447 11 11 11

Fax: 08447 11 11 12 1319

Mains Adaptors - Desktop/Portable - continued

36 Watt Single Output Desktop PSUs - continued

Compact External - continued

Input Voltage	90 - 264VAC
Input Frequency	47 - 63 Hz
Input Current	1.85A Max
Efficiency	85% typical
Line Regulation	±1%
Load Regulation	±2-6%, model dependant
Ripple & Noise	1% max pk-pk
Operating Temperature	0°C to 60°C, derate from 40°C
MTBF	100,000 Hrs to MIL-HDBK-217E
Safety Approvals	EN60950-1:2001, UL/cUL60950-1, CCC, CE
Emissions	EN55022 Level B Conducted & Radiated

Mfrs.	Power Rating (W)	Output Voltage (V)	Output Current (A)	Order Code
AEB36US05	20	5	4	163-4808
AEB36US09	27	9	3	163-4809
AEB36US12	30	12	2.5	163-4810
AEB36US13	32	13.5	2.4	163-4812
AEB36US15	36	15	2.4	163-4813
AEB36US18	36	18	2	163-4814
AEB36US24	36	24	1.5	163-4815
AEB36US48	36	48	0.75	163-4816

519770

Mfrs. List No.	Order Code	1+	5+	10+	25+
AEB36US	All Order Codes●	27.00	26.19	25.38	24.30

40W Desktop AC/DC Power Supplies

PSE 40 Series



- 5V and ±12V output
- IEC 320 input inlet
- DIN pin output connector
- Wide input voltage range of 90 to 264V ac
- 100% burn-in
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- UL listed, cUL, CE, TUV approved

Model	Rated Output #1 Vnom Imin Imax Tol. 5,±12V 0.5A 5.00A 5%	Rated Output #2 Vnom Imin Imax Tol. +12V 0.2A 1.00A 5%	Rated Output #3 Vnom Imin Imax Tol. -12V 0.2A 1.00A 5%	Max. Output Power 42W
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227635

Order Code	1+	5+	10+
PSE45-51212	116-5741●	41.98	39.88
Schuko to IEC Lead	128-9436●	5.84	5.17

Price Each

40-65W Desktop/Wall Mount Power Supplies

PSD65 Series



A range of 40-65W adaptor power supplies that can be desktop or wall mounted. Ideal for office and IT equipment.

H=30, W=49.3, D=115mm

- Wall plug or lump in line
- Supplied with UK/EU/US mains plugs
- Can also be used with standard IEC320 C8 mains lead
- Universal input
- Class 2 double insulated
- cUL, TUV, Japanese PSE approvals

Plug Type	Universal adaptors or AC mains lead
Input Voltage	90-264Vac
Input Frequency	47-63Hz
Input Current	2A RMS Max
Outputs	Single output
Operating Temperature	0-40°C
Safety	cUL, TUV, Japanese PSE approvals
Mfrs. List No.	Power Rating
PSD65-050	40W
PSD65-120	60W
PSD65-240	65W

419168

Mfrs. List No.	Order Code	1+	5+	10+
PSD65-050	109-4813●	32.00	30.90	29.86
PSD65-120	109-4814●	32.00	30.90	29.86
PSD65-240	109-4815●	32.00	30.90	29.86

42 Watt Switch Mode Installation PSUs



- A range of regulated, switch mode AC/DC power supplies for permanent installations. Ideal for use in security systems etc.
- 90 to 264V ac input
 - CE approved
 - Flanged case for permanent screw fixing
 - Thermal and fuse protection
 - 5% regulation
 - 2m mains input lead with UK mains plug
 - 1.8m output lead terminating in a 2.1mm centre +ve DC power plug
 - Case dimensions (LxWxD): 114x56x33mm

Input Voltage	90 to 264Vac	Load Regulation	5%
Frequency	47 to 63Hz	Efficiency	80% minimum
419279/437655			
Output Voltage	Output Current	Mfrs. List No.	Order Code
12V	3.5A	DSA-0421S-12FG	127-9498●
24V	1.75A	DSA-0421S-24FG	127-9499●

42W Desktop AC/DC Power Adaptors



- A range of compact, in-line, desktop type power supplies with single voltage outputs. Input connection is via an IEC connection.
- Universal 90 to 264V ac inputs (47 to 63Hz)
 - 42W power handling
 - Overvoltage and short circuit protection
 - Single, regulated voltage outputs
 - 5% output tolerance
 - High efficiency
 - 1.8m output cable terminating in a 2.1mm DC type plug
 - Dimensions (WxHxD): 56x100x34mm
 - CUL, TUV, CE approved, UL recognised

Input Voltage	90 to 264V ac	Efficiency	80% min.
Frequency	47 to 63Hz	Line Regulation	5%
386148			
Output Voltage	Output Current	Mfrs. List No.	Order Code
12V	3.5A	DSA-04212	127-9545●
24V	1.75A	DSA-04224	127-9546●

45W Single Output

Compact External



- High power density
- Low cost
- Universal input
- IEC320/C14 inlet
- High efficiency
- International safety approvals
- 3 year warranty

These compact desktop supplies provide 45W of power in outputs of 15, 18 and 24Vdc. The AED45 series is ideal for many portable industrial applications including audio, visual, computers, monitors and instrumentation.

Input Voltage	90-264Vac, 47-63Hz		
Output Power	45W		
Line Regulation	±1%		
Load Regulation	2-3% depending on model		
Ripple & Noise	±1% pk-pk max		
EMC	EN55022 level B, FCC Class B		
Efficiency	85% typical		
Operating Temperature	0°C to + 65°C (derate from 40°C to 50% at 55°C)		
Safety Standards/Approval	UL, CSA, TUV, CE		
Mfrs. List No.	Output Voltage	Output Current	Order Code
AED45US05	5V	6A	155-0928
AED45US12	12V	3.75A	155-0929
AED45US15	15V	3A	960-2917
AED45US18	18.5V	2.5A	960-2925
AED45US24	24V	1.88A	960-2933
AED45US48	48V	1A	155-0930

413857

Mfrs. List No.	Order Code	1+	5+	10+	25+
AED45 Series	All Order Codes●	30.00	29.10	28.20	27.00

Over 480,000 products online





45W/70W Switch Mode Universal Input PSU's PS45A/PS70A Series



A range of compact single output desktop power supplies ideal for general use, with IEC320 C14 input and meeting all international safety approvals including UL, EN60950, Chinese CCC and CE.

- Universal input 90 to 264V ac
- Continuous short circuit protection
- Conductive EMI meets CISPR/FCC Class B
- High efficiency at 85% typical
- Meet UL, CSA, TUV, CE
- Dimensions 132x58x30mm
- IEC320 3 pin AC inlet
- 70W models are ideal for 18" LCD Monitors

Input Voltage Range	90-264V ac	Short Circuit Protection	Continuous		
Input Frequency	47-63Hz	Operating Temperature	0°C to 40°C		
Input Voltage	Output Voltage	Current	Efficiency	Mfrs. List No.	Order Code
90-264V ac	12V	3.75A	85%	PS45A12	117-6768
90-264V ac	24V	1.88A	85%	PS45A24	117-6769
90-264V ac	12V	5.5A	85%	PS70A12	117-6770
90-264V ac	24V	3A	85%	PS70A24	117-6771

38635

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
PS45A12	117-6768●	34.63	32.97	31.45	29.61	
PS45A24	117-6769●	34.63	32.97	31.45	29.61	
PS70A12	117-6770●	49.53	47.18	45.03	42.36	
PS70A24	117-6771●	49.53	47.18	45.03	42.36	

50 Watt Medical External Single and Multi Output



H = 43, W = 76, L = 146mm

Having approvals to UL60601-1 and EN60601-1 this range of single and multiple output externals is ideal for use with portable medical equipment, with a leakage current of <300 µA and conducted emissions that meet EN55022 level B.

- 4000 VAC isolation
- Low leakage current
- UL60601-1 & EN60601-1 Safety approvals
- IEC 320 inlet
- Both line and neutral fused
- 5 pin din output connector
- Universal input
- 3 year warranty

Mfrs. List No.	Output 1	Output 2	Output 3	Order code
PCM50US05	5.0V/8.0 A	-	-	110-9888
PCM50US07	7.0V/6.0 A	-	-	110-9889
PCM50US09	9.0V/5.0 A	-	-	110-9890
PCM50US12	12.0V/3.75 A	-	-	110-9891
PCM50US15	15.0V/3.0 A	-	-	110-9892
PCM50US18	18.0V/2.77 A	-	-	110-9894
PCM50US24	24.0V/2.08 A	-	-	110-9895
PCM50US28	28.0V/1.78 A	-	-	110-9896
PCM50US36	36V/1.38A	-	-	110-9897
PCM50US48	48.0V/1.04 A	-	-	110-9898
PCM50UD02	+5V/5.0A	-5.0V/2.0A	-	110-9899
PCM50UD07	+12V/3.0A	-12V/1.0A	-	110-9901
PCM50UD08	+15V/2.0A	-15V/1.0A	-	110-9902
PCM50UT03	+5.0V/5.0 A	+12 V/2.0 A	-5 V/0.8 A	110-9905
PCM50UT04	+5.0V/5.0 A	+12 V/2.0 A	-12 V/0.8 A	110-9906
PCM50UT05	+5.0V/5.0 A	+15 V/2.0 A	-15 V/0.8 A	110-9907

248265

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
PCM50US05	110-9888●	40.00	38.80	37.60	36.00	
PCM50US07	110-9889●	40.00	38.80	37.60	36.00	
PCM50US09	110-9890●	40.00	38.80	37.60	36.00	
PCM50US12	110-9891●	40.00	38.80	37.60	36.00	
PCM50US15	110-9892●	40.00	38.80	37.60	36.00	
PCM50US18	110-9894●	40.00	38.80	37.60	36.00	
PCM50US24	110-9895●	40.00	38.80	37.60	36.00	
PCM50US28	110-9896●	40.00	38.80	37.60	36.00	
PCM50US36	110-9897●	40.00	38.80	37.60	36.00	
PCM50US48	110-9898●	40.00	38.80	37.60	36.00	
PCM50UD02	110-9899●	49.00	47.53	46.06	44.10	
PCM50UD07	110-9901●	49.00	47.53	46.06	44.10	
PCM50UD08	110-9902●	49.00	47.53	46.06	44.10	
PCM50UT03	110-9905●	52.00	50.44	48.88	46.80	
PCM50UT04	110-9906●	52.00	50.44	48.88	46.80	
PCM50UT05	110-9907●	52.00	50.44	48.88	46.80	

248265



Compact Desktop Power Supplies 50-60 Watt PSE60C Series



The PSE60C series of AC/DC switching power supplies offer 60 watts continuous power. All models meet CISPR class B and FCC class B emission limits, and are designed to comply with CSA, VDE and IEC requirements and are UL listed.

- 2.5mm jack output connector
- 100% burn-in
- Wide input voltage 90 to 264 VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection

H = 118, W = 52, D = 32.5

Input Voltage	90 to 264 VAC
Input Frequency	47 to 63 Hz
Input Current	1.6A max at low line
Output Power Range	0-60 watts
Ripple	1% peak to peak maximum
Operation Temperature	0°C to +70°C
Efficiency	83% typical
Inrush Current	15A @ 115 VAC, 30A @ 230 VAC, cold start

249240

Mfrs. List No.	Power	Output Voltage	Output Current	Order Code	1+	5+	10+
PSE60C-12	50W	12V	4.1A	116-5759●	42.23	40.18	38.16
PSE60C-15	55W	15V	3.6A	116-5760●	44.40	42.28	40.37
PSE60C-18	60W	18V	3.3A	116-5761●	44.40	42.28	40.37
PSE60C-24	60W	24V	2.5A	116-5762●	44.40	42.28	40.37



50 - 100 Watt Single Output DC/DC Converters



- Universal AC input
- Fully regulated output
- High efficiency
- Overcurrent, overvoltage and thermal protection
- Complies with Blue Angel requirement
- AC Input fuse
- Built in EMI filter

Dimensions (mm):
W=120, D=65, H=41

Mfrs. List No.	Input Voltage	Output Voltage	Output Current	Power Rating	Medical
AD5012N3L	90V - 264V	12V	4.16A	50W	x
AD5012N3LM	90V - 264V	12V	4.16A	50W	✓
AD7216N2L	90V - 264V	16V	4.5A	72W	x
AD8024N3L-001	90V - 264V	24V	3.25A	78W	x
AD1004BP3L-001	90V - 264V	48V	2.08A	100W	x

522490

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
AD5012N3L	164-3233●	35.47	34.40	33.36	
AD5012N3LM	164-3234●	41.80	40.55	39.33	
AD7216N2L	164-3235●	51.30	49.76	48.26	
AD8024N3L-001	164-3236●	55.66	53.99	52.38	
AD1004BP3L-001	164-3237●	73.12	70.93	68.80	

Mfrs. List No.	Rated Output (NOM)	Maximum Output Power	Order Code
PSE60-105	5V dc	10A	50W
PSE60-209	9V dc	6.5A	58.5W
PSE60-312	12V dc	5.4A	60W
PSE60-516	16V dc	3.75A	60W
PSE60-624	24V dc	2.86A	60W

227637

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
PSE60-105	116-5742●	50.81	48.27	47.07	
PSE60-209	116-5743●	50.81	48.27	47.07	
PSE60-312	116-5745●	50.81	48.27	47.07	
PSE60-516	116-5746●	40.65	38.61	37.66	
PSE60-624	116-5747●	50.81	48.27	47.07	

Over 480,000 products online



Mains Adaptors - Desktop/Portable - continued

60W Desktop AC/DC Power Supplies

DPS50 Series



H=41,W=60.7,D=133mm



- Universal AC input
- Fully regulated output
- Overload and short circuit protection
- Internal remote sense
- Constant voltage
- High MTBF
- IEC320 AC receptacle, 3 pin (type C14)
- Built in EMI filter (CISPR 22 Class B)
- LED power good indicator
- Approvals CE (EMC&LVD), UL listed, CSA, VDE

Input Voltage 90 to 264Vac
127 to 300Vdc
Frequency 47 to 440Hz

Efficiency 80% minimum
Operating Temperature 0°C to +40°C

Mfrs. List No.	Output Voltage (V)	Maximum Load (A)	Peak Load (A)	Maximum Power (W)	Ripple (pk-pk) mV
DPS52	5	6	6.5	30	50
DPS53	12	5	5.4	60	120
DPS54	15	4	4.3	60	150
DPS55	24	2.5	2.7	60	240
DPS58	48	1.25	1.35	60	480
DPS52-M	5	6	6.5	30	50
DPS53-M	12	5	5.4	60	120
DPS54-M	15	4	4.3	60	150
DPS55-M	24	2.5	2.7	60	240
DPS58-M	48	1.25	1.35	60	480

DPSX-M = Medical

419571

Mfrs. List No.	Order Code	Price Each
DPS52	NEW 164-3213●	39.29
DPS53	NEW 164-3214●	39.29
DPS54	NEW 164-3215●	39.29
DPS55	NEW 164-3217●	39.29
DPS58	NEW 164-3218●	39.29
DPS52-M	108-6827	55.96
DPS53-M	108-6828	55.96
DPS54-M	108-6829	55.96
DPS55-M	108-6830	55.96
DPS58-M	108-6831	55.96

419571

50 Watt Triple Output AC/DC Power Supplies



- Universal AC input
- Fully regulated output
- Overpower and short circuit protection
- Constant voltage
- High efficiency
- High MTBF
- Built in EMI filter
- LED power good indicator

Mfrs. List No.	Power	Voltage	Output 1	Output 2	Output 3	Medical	Dimensions (WxHxD)(mm)
DPT52	50W	5V/8A	12V/3A	-12V/0.5A	x		133x41x61
DPT53	50W	5V/8A	15V/2.4A	-15V/0.5A	x		133x41x61
DPT54	50W	5V/8A	24V/1.5A	12V/0.5A	x		133x41x61
DPT52-M	50W	5V/8A	12V/3A	-12V/0.5A	✓		133x41x61
DPT53-M	50W	5V/8A	15V/2.4A	-15V/0.5A	✓		133x41x61
DPT54-M	50W	5V/8A	24V/1.5A	12V/0.5A	✓		133x41x61

522492

Mfrs. List No.	Order Code	Price Each
DPT52	164-3222●	62.65
DPT53	164-3223●	62.65
DPT54	164-3224●	62.65
DPT52-M	164-3219●	69.85
DPT53-M	164-3220●	69.85
DPT54-M	164-3221●	69.85

522492

60 Watt Single Output PSUs



- Energy Star, EISA & CEC 2008 Compliant
- Level V Compliant
- China Compulsory Certification (CCC) Qualified
- Single Outputs from 12 V to 24 V
- Universal Input
- No Load Input Power <0.5 W
- High Power Density



Input Voltage 90-264 VAC
Input Frequency 47-63 Hz
Earth Leakage Current <1 mA
Output Power 60 W
Line Regulation ±1%

Load Regulation ±5%
Ripple & Noise 200mV pk-pk max, 20 MHz BW
Operating Temperature 0°C to +60°C derate linearly from 100% load at +40°C to 50% load at +60°C

Safety Approvals UL listed, CCC, EN, CE
EN55022, Level B conducted & radiated

Mfrs. List No.	Voltage Output (V)	Output Current (A)	Efficiency (%)	Order Code
VEH60US12	12	5	85	167-3382
VEH60US15	15	4	85	167-3383
VEH60US24	24	2.5	85	167-3384

526313

Order Code	1+	25+	50+	100+
All Order Codes●	27.00	24.30	22.95	21.60

Price Each

60W Switch Mode Desktop Power Supplies



PSG60 Series



A range of compact desktop power supplies offering 60W of continuous power with universal 96-264V ac input via a standard IEC320 C14 input socket. All units carry international safety approvals including UL, EN60950 and CE. Output connector 2.5mm x 5.5mm x 9.5mm

Ideal for applications where a small external power supply is required for powering equipment such as LCD monitors, Notebook computers, printers and modems.

Input Voltage Range 90-264V ac
Input Current 1.7A @ 90V ac input
Input Frequency 47-63Hz

Output Ripple & Noise 50mV or 1% whichever is greater
Operating Temperature 0°C to 40°C
Safety cUL/UL60950, TUV, EN60950

Input Voltage	Output Voltage	Current	Efficiency	Mfrs. List No.	Order Code
90-264V ac	12V dc	5A	83%	PSG60-12	117-6763
90-264V ac	15V dc	4A	83%	PSG60-15	117-6764
90-264V ac	18V dc	3.33A	83%	PSG60-18	117-6765
90-264V ac	24V dc	2.5A	83%	PSG60-24	117-6767

386296

Mfrs. List No.	Order Code	Price Each
PSG60-12	117-6763●	37.88
PSG60-15	117-6764●	37.88
PSG60-18	117-6765●	37.88
PSG60-24	117-6767●	37.88

386296

60W AC/DC Switch Mode Power Supplies



THE POWER TO SUPPLY

A range of compact switch mode power supplies for use with audio/visual equipment. The power supplies have 100 to 240V ac inputs via IEC type mains sockets. CE approved and UL listed.

- Wide input voltage
- 60W power handling
- Surge current, overvoltage and short circuit protection
- Regulated output

- Centre pin positive
- 1.8m lead terminating in a 2.1mm DC type plug

249213

Output Voltage	Current	Order Code	1+	5+	10+	20+
5V dc	10A	117-6338●	52.45	48.88	46.77	44.05
12V dc	5A	117-6340●	52.45	48.88	46.77	44.05
15V dc	4A	117-6342●	32.59	30.38	29.06	27.38
18V dc	3.33A	117-6343●	52.45	48.88	46.77	44.05
24V dc	2.5A	117-6344●	52.45	48.88	46.77	44.05

449213



A 65W desktop, switch mode, regulated 24Vdc UK plug-in power supply. It has a 2pin AC inlet and 1.8m output lead fitted with the popular right angled 2.1x5.5x12mm centre positive connector. The connector used is the right angled type, which helps to reduce risk of accidentally unplugging the unit.

- Approved to CE/TUV, and UL
- Fitted with the popular right angled 2.1x5.5x12mm C+ connector
- Operating temperature 0°C - 40°C
- Operates from 90-264Vac 47-63Hz
- Short circuit protected
- 5% output tolerance

450322

Output Voltage	Output Current	Order Code	1+	5+
24Vdc	2.5A	129-7476●	20.21	19.18

Over 480,000 products online



Desktop AC/DC Power Supplies

PSE63 Series



- Splash Proof
- One Year Warranty
- UL, cUL, CE, TUV approved

Mfrs. List No.	Output Voltage	Output Current	Maximum Output Power	Order Code
PSE63-12-02	12 - 14V dc	4.75 - 4.07A	57W	145-5361
PSE63-24-02	21 - 27V dc	3.00 - 2.33A	63W	145-5362
PSE63-48-02	40 - 50V dc	1.58 - 1.26A	63W	145-5363

483105



- Energy Star Compliant
- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- Approved as a limited power source
- IEC-320-C14 Input Inlet
- Output Voltage Available from 12VDC through 48VDC
- Single Output

Mfrs. List No.	Order Code	1+	5+	Price Each
PSE63-12-02	145-5361●	46.50	44.64	42.86
PSE63-24-02	145-5362●	46.50	44.64	42.86
PSE63-48-02	145-5363●	46.50	44.64	42.86

65W Single Output Medical External PSUs



High efficiency. Ideal for use with medical equipment. external AC/DC medical desktop power supply, with switch-mode technologies for DC powered universal applications. Provides 65W of power in fully regulated, floating and protected outputs of 12, 15, 18, and 24Vdc. RoHS compliant.

Dims (WxHxD) : 34.3 x 128.8 x 77.72mm

- Standard 5-year manufacturer warranty
- Wide Range Universal AC input
- Protected against short circuit, overload, overvoltage and over temperature
- 100% testing and burn-in
- Low leakage current
- Fully enclosed Plastic Case
- International approvals (US, Canada, CE). RoHS and CEC compliant
- 3-pin IEC320/C14 mains socket inlet; output via 5 pin din connector

Input voltage	90-264 VAC, 47/63 Hz
Line regulation	±1%
Load regulation	±5%
Ripple Noise	±1% pk - pk max
Safety	UL60601-1, 2nd edition, CSA C22.2 No.601.1-M90, CB per IEC60601-1
EMC	Emissions: CISPR11 and FCC Part 15, Class B. Conducted and Radiated. EN61000-3-2, -3; Immunity: EN61000-4-2, -3, -4, -5, -6, -8, -11
Efficiency	85% typical
MTBF	>500,000

490457

Mfrs. List No.	Power (W)	Voltage (V)	Current (A)	Order Code	1+	5+	10+	Price Each
MW6509	65	9	7.2	150-2603●	51.86	50.30	48.79	
MW6512	65	12	5.4	150-2604●	51.86	50.30	48.79	
MW6515	65	15	4.3	150-2605●	51.86	50.30	48.79	
MW6524	65	24	2.7	150-2606●	51.86	50.30	48.79	

65 Watt AC/DC Switch Mode Power Supply



Universal AC/DC power supply with detachable DC plug's

Input Voltage	110-240 VAC
Input Frequency	50-60 Hz
Inrush Current	30A peak at 120Vac
Output Power	62A peak at 240Vac
Line Regulation	65 W
Load Regulation	±3%
Ripple & Noise	±5%
Efficiency	5% pk-pk of output voltage
Operating Temperature	87% Min. at full load condition
Dimensions (WxHxD)	0°C to +30°C
	44.5 x 110 x 30.5 mm

Tip Type	Output Voltage	Outside Dia. (mm)	Pin Dia. (mm)	Length (mm)
A19	19V	6.0	1.4	11
B16	16V	6.5	3.0	11
C19	19V	5.5	2.5	11
D19	19V	5.5	2.1	11
E19	19V	4.75	1.7	11

515029



Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
ATD75WS	161-4088●	30.86	29.16	27.70	26.31	
Input Leads Euro to Fig 8	128-3799●	0.94	0.87	--	--	

Desktop AC/DC Power Supplies

PSE68 Series



- Energy Star Compliant
- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- Approved as a limited power source
- IEC-320-C14 Input Inlet
- Output Voltage Available from 3VDC through 48VDC
- Single Output
- Splash Proof
- One Year Warranty
- UL, cUL, CE, TUV approved

Mfrs. List No.	Output Voltage	Output Current	Maximum Output Power	Order Code
PSE80-12-05	12VDC	5A	80W	145-5364
PSE80-24-05	24VDC	2.5A	80W	145-5365

483128

Mfrs. List No.	Order Code	1+	5+	10+	Price Each
PSE80-12-05	145-5364●	61.72	59.24	56.88	
PSE80-24-05	145-5365●	61.72	59.24	56.88	

70 Watt Single Output Desktop PSUs

Compact External



- Energy Star, CEC and EISA compliant
- Low Profile
- High Efficiency
- Single outputs from 12 to 48VDC
- Universal input
- High Power Density
- Operation to +60°C
- CCC qualified
- 3 year warranty

H = 30, W = 58, D = 132mm

Input Voltage	90 - 264VAC
Input Frequency	47 - 63 Hz
Input Current	1.85A Max
Efficiency	85% typical
Line Regulation	±1%
Load Regulation	±2-5%, model dependant
Ripple & Noise	1% max pk-pk
Operating Temperature	0°C to 60°C, derate from 40°C
MTBF	100,000 Hrs to MIL-HDBK-217E
Safety Approvals	EN60950-1:2001, UL/cUL60950-1, CCC, CE
Emissions	EN55022 Level B Conducted & Radiated

Mfrs. List No.	Power Rating (W)	Output Voltage (V)	Output Current (A)	Order Code
AEB70US12	66	12	5.5	163-4817
AEB70US15	69	15	4.6	163-4818
AEB70US18	70	18	3.9	163-4819
AEB70US19	72	19	3.7	163-4820
AEB70US24	72	24	3	163-4821
AEB70US48	72	48	1.5	163-4822

519771

Mfrs. List No.	Order Code	1+	5+	10+	25+	Price Each
AEB70US	All Order Codes●	38.00	36.86	35.72	34.20	

72W Single Output External PSUs



External desktop power supply including. Power Factor Correction, with switch-mode technologies for DC powered worldwide applications. Provide 72W of power in fully regulated and protected outputs of 12, 15, 18, 24 and 48Vdc.

Dims (WxHxD) : 66 x 165 x 98mm

- Standard 5-year manufacturer warranty
- Wide Range Universal AC input
- Protected against short circuit, overload, overvoltage and over temperature
- 100% testing and burn-in

Input voltage	90-264 VAC, 47/63 Hz
Line regulation	±1%
Load regulation	±5%
Ripple Noise	±1% pk - pk max
EMC	Emmissions: EN55022 and FCC Part 15, Class B. Conducted and Radiated
Efficiency	82% typical
MTBF	>500,000

Mains Adaptors - Desktop/Portable - continued

72W Single Output External PSUs - continued

490470

Mfrs. List No.	Power (W)	Voltage (V)	Current (A)	Order Code	1+	5+	10+
FWPT7212	72	12	6	150-2594●	47.96	46.51	45.13
FWPT7215	72	15	4.8	150-2595●	47.96	46.51	45.13
FWPT7218	72	18	4	150-2596●	47.96	46.51	45.13
FWPT7224	72	24	3	150-2597●	47.96	46.51	45.13
FWPT7248	72	48	1.5	150-2598●	47.96	46.51	45.13

Compact Desktop Power Supplies



80 Watt PSE65 Series



- Wide input voltage 90 to 264 VAC, 47 to 63 Hz
- IEC320-C14 input inlet
- Output voltage available from 5V through 48V DC
- 2.5mm DC plug output connector
- Single output
- Splash proof

H = 168, W = 88, D = 46

The PSE65 series of AC/DC switching mode power supplies provide 80 watts of continuous output power. All supplies are UL90V-0 compliant, include IEC320-C14 input for worldwide applications. All models meet FCC Part-15 class B and CISPR-22 class B emission limits, are designed to comply with cUL, TUV and CE requirements and are UL listed. All units are 100% burned in and tested.

Input Voltage	90 to 264 VAC
Input Frequency	47 to 63 Hz
Input Current	1.9A max at low line
Output Power Range	0-60 watts
Operation Temperature	0°C to +70°C
Efficiency	83% typical
Inrush Current	15A @ 115 VAC, 30A @ 230 VAC, cold start

249241

Mfrs. List No.	Output Voltage	Output Current	Order Code	1+	3+	Price Each	10+
PSE65-12	12V	6.6A	116-5763●	60.14	51.86	46.27	
PSE65-15	15V	5.3A	116-5764●	60.14	51.86	46.27	
PSE65-18	18V	4.4A	116-5765●	60.14	51.86	46.27	
PSE65-24	24V	3.3A	116-5766●	60.14	51.86	46.27	
PSE65-48	48V	1.6A	116-5767●	60.14	51.86	46.27	

80 Watt Single Output Desktop PSUs Compact External



- Energy Star, CEC and EISA compliant
- Approved as LPS
- Operation to +70°C
- High Efficiency
- Single outputs from 12 to 48VDC
- Universal input
- CCC qualified
- 3 year warranty

H = 43, W = 76, D = 146mm

Input Voltage	90 - 264VAC
Input Frequency	47 - 63 Hz
Input Current	1.1A Max
Efficiency	85% typical
Total Regulation	±5%
Ripple & Noise	1% max pk-pk
Operating Temperature	0°C to 70°C, derate from 40°C
MTBF	300 kHrs to MIL-STD-217F
Safety Approvals	EN60950-1:2001, UL/cUL60950-1, CCC, CE
Emissions	EN55022 Class A Conducted & Radiated

Mfrs. List No.	Power Rating (W)	Output Voltage (V)	Output Current (A)	Order Code
AEL80US12	80	12	6.66	163-3346
AEL80US15	80	15	5.38	163-3347
AEL80US18	80	18	4.44	163-3348
AEL80US24	80	24	3.33	163-3349
AEL80US30	80	30	2.66	163-3350
AEL80US36	80	36	2.22	163-3352
AEL80US48	80	48	1.66	163-3353

519248

Mfrs. List No.	Order Code	1+	5+	10+	25+
AEL80US	All Order Codes●	52.00	50.44	48.88	46.80

80/120 W Medical External

Single and Multi Output



Providing 80W and 120W in one of the smallest package sizes available, the PCM80 & PCM120 are available with up to 3 outputs and are ideal for use in a variety of medical applications. All units feature high efficiency with the PCM120 achieving up to 85% by using zero voltage switching technology.

H=50, W=78, D=168mm (PCM80)
H=47, W=95, D=180mm (PCM120)

- EN60601-1 & UL60601-1 medical approvals
- 4000 VAC isolation
- Low leakage current
- Both line and neutral fused
- Active PFC to meet EN61000-3-2
- IEC 320 inlet
- 8 pin din output connector
- 3 year warranty

Input Voltage	90 - 264 VAC
Input Frequency	47 - 63 Hz
Leakage Current	180 µA max at 132 VAC, 60 Hz
Output Power	300 µA max at 264 VAC, 50 Hz
Line Regulation	80W (PCM80) 80W (PCM120)
Load Regulation	±1% max at full load
Ripple & Noise	±5% max
Efficiency	Single output 80% typical, Multi output 75% typical
Operating Temperature	0 to +70°C, derate linearly from 100% load at 40°C to 50% at +70°C (PCM80) 0 to +60°C, derate linearly from 100% load at 40°C to 50% at +60°C (PCM120)
Safety Approvals	EN60601-1, CSA C22.2 No. 601.1 per cUL & EN60601-1, CCC (PCM80)

Mfrs. List No.	Max. Power	Output 1	Output 2	Output 3	Order Code
PCM80PS3/3	50W	3.3V / 15.1A	—	—	117-6981
PCM80PS5	65W	5V / 13A	—	—	117-6982
PCM80PS9	75W	9V / 8.3A	—	—	117-6984
PCM80PS12	80W	12V / 6.7A	—	—	117-6986
PCM80PS13V5	80W	13.5V / 5.9A	—	—	117-6987
PCM80PS15	80W	15V / 5.3A	—	—	117-6988
PCM80PS18	80W	18V / 4.4A	—	—	117-6989
PCM80PS24	80W	24V / 3.3A	—	—	117-6990
PCM80PS27	80W	27V / 3A	—	—	117-6991
PCM80PS48	80W	48V / 1.7A	—	—	117-6992
PCM80PT03	60W	5V / 6A	12V / 2.5A	-5V / 0.5A	117-6994
PCM80PT04	60W	5V / 6A	12V / 2.1A	-12V / 0.5A	117-6995
PCM80PT05	65W	5V / 6A	15V / 2.1A	-15V / 0.5A	117-6996
PCM80PT07	65W	5V / 7A	24V / 2A	-24V / 0.5A	155-0995
PCM120PS12	108W	12V / 9A	—	—	133-7236
PCM120PS15	113W	15V / 7.5A	—	—	133-7237
PCM120PS24	120W	24V / 5A	—	—	133-7240
PCM120PS48	120W	48V / 2.5A	—	—	133-7241

386274

Mfrs.	Order Code	1+	5+	10+	25+
PCM80PS	All Order Codes●	70.00	67.90	65.80	63.00
PCM80PT	All Order Codes●	80.00	77.60	75.20	72.00
PCM120PS	All Order Codes●	95.00	92.15	89.30	85.50

Desktop AC/DC Power Supplies Medical Approved



- Universal input voltage
- Medical approved (EN 60601)
- IEC320 input connector
- Short circuit protection
- Rugged Steel case
- 118-3947 with output terminals

Output Voltage (Vdc)	Max. Load	Output Wattage (W)	Order Code
12	7	96	118-3935
12	10	135	118-3936
24	5	135	118-3947

249275

Mfrs.	Order Code	1+	3+	10+	25+	50+
9726 12V	118-3935●	80.22	73.88	70.03	66.17	61.13
9522 12V	118-3936●	130.91	111.00	105.19	99.41	91.84
952200093 24V	118-3947●	130.91	110.46	105.19	99.41	91.84



Universal AC/DC power supply
with detachable DC plug's



Input Voltage	110-240 VAC
Input Frequency	50-60 Hz
Inrush Current	40A peak at 120Vac
Output Power	80A peak at 240Vac
Line Regulation	96 W
Load Regulation	±2%
Ripple & Noise	±5%
Efficiency	5% pk-pk of output voltage
Operating Temperature	84% Min. at full load condition
Dimensions (WxHxD)	0°C to +30°C

Tip Type	Output Voltage	Outside Dia. (mm)	Pin Dia. (mm)	Length (mm)
A19	19V	6.0	1.4	11
B16	16V	6.5	3.0	11
C19	19V	5.5	2.5	11
D19	19V	5.5	2.1	11
E19	19V	4.75	1.7	11

51537

Mfrs. List No.	Order Code	1+	5+	10+	25+
ATD96W	161-4089●	44.87	42.63	40.48	38.45
Input Leads					
UK to IEC	128-3803●	1.33	1.26	--	--
EU to IEC	112-4379●	5.75	5.22	4.91	4.60

100 Watt Single Output Compact External



- High power density
- Low cost
- Universal input
- IEC320 inlet
- High efficiency
- 2.5mm jack centre positive
- International safety approvals
- 3 year warranty

These high power density compact desktop supplies provide 100 Watts of power in outputs ranging from 12 to 48 Vdc. The AED100 is one of the smallest external power supplies available in the industry today.

H = 35, W = 70, L = 150 (mm)

Input Voltage	90-264 Vac
Input Frequency	47-63 Hz
Output Power	100 W
Line Regulation	±1%
Load Regulation	± 2%, ±4% 12V & 15V
Ripple & Noise	1% pk-pk max
Efficiency	85% typical
Operating Temperature	0°C to +65°C, derate linearly from 100% load at 40°C to 0% at 65°C
Safety Approvals	UL, CSA, TUV, CE
EMC	EN55022 level B, CISPR 22 level B conducted. FCC 20780 level B

Mfrs. List No.	Output Voltage	Output Current	Mfrs. List No.	Output Voltage	Output Current	Order code
AED100US12	12 V	8.33 A	110-9821	AED100US19	19 V	5.26 A
AED100US15	15 V	6.67 A	110-9822	AED100US24	24 V	4.17 A
AED100US18	18 V	5.56 A	110-9823	AED100US48	48 V	2.08 A

248252

Mfrs. List No.	Order Code	1+	5+	10+	25+
AED100US12	110-9821●	55.00	53.35	51.70	49.50
AED100US15	110-9822●	55.00	53.35	51.70	49.50
AED100US18	110-9823●	55.00	53.35	51.70	49.50
AED100US19	110-9824●	55.00	53.35	51.70	49.50
AED100US24	110-9825●	55.00	53.35	51.70	49.50
AED100US48	110-9826●	55.00	53.35	51.70	49.50

120 Watt Single Output Medical Desktop PSUs Compact External



- Energy Star, CEC & EISA Compliant
- Worldwide Medical Approvals
- Output Voltages from 12 V to 48 V
- Small Size/High Power Density
- Universal input
- Operating Temperature up to +60 °C
- High Efficiency
- 3 year warranty

H = 43.7, W = 160, D = 76.2mm

Input Voltage	90 - 264VAC
Input Frequency	47 - 63 Hz
Input Current	1.6 A rms at 115 VAC, 0.8 A rms at 230 VAC
Inrush Current	60 A at 115 VAC, 120 A at 230 VAC, cold start +25 °C
Efficiency	85% Typical
Line Regulation	±0.5% max.
Load Regulation	Total regulation <5%
Ripple & Noise	2% max pk-pk
Operating Temperature	0°C to 60°C, derate from 40°C
MTBF	>175 kHrs per MIL-HDBK-217F
Safety Approvals	EN60601-1, UL60601-1, CSA22.2 No. 601-1 per cUL, CE Mark
Emissions	EN55011/FCC/VCCI Class B Conducted & Radiated

Mfrs. List No.	Power Rating (W)	Output Voltage (V)	Output Current (A)	Order Code
AMM120PS12	96	12	8	162-5693
AMM120PS15	105	15	7	162-5694
AMM120PS18	120	18	6.67	162-5695
AMM120PS19	120	19	6.32	162-5696
AMM120PS20	120	20	6	162-5697
AMM120PS24	120	24	5	162-5698
AMM120PS30	120	30	4	162-5699
AMM120PS36	120	36	3.34	162-5700
AMM120PS48	120	48	2.5	162-5701

517360

Mfrs. List No.	Order Code	1+	5+	10+	25+
AMM120PS	All Order Codes●	105.00	101.85	98.70	94.50

120 Watt AC/DC Switch Mode Power Supply



Universal AC/DC power supply with detachable DC plug's



Input Voltage	110-240 VAC	Load Regulation	±5%
Input Frequency	50-60 Hz	Ripple & Noise	5% pk-pk of output voltage
Inrush Current	50A peak at 120Vac	Efficiency	83% Min. at full load condition
Output Power	100A peak at 240Vac	Operating Temperature	0°C to +30°C
Line Regulation	±2%	Dimensions (WxHxD)	63 x 172.5 x 38 mm

51538

Mfrs. List No.	Order Code	1+	5+	10+	25+
ATD120W	161-4090●	50.14	47.63	45.24	42.97
Input Leads					
UK to IEC	128-3803●	1.33	1.26	--	--
EU to IEC	112-4379●	5.75	5.22	4.91	4.60

120 Watt Single Output Compact External



- Energy Star, EISA & CEC 2008 Compliant
 - High power density
 - Low cost
 - Universal input
 - IEC320/C6 inlet
 - High efficiency
 - 4 pin output connector
 - EN61000-3-2, -3 compliant
 - 3 year warranty
- AML120: H=37, W=65, L=167mm

These high power density compact desktop power supplies provide 120W of power in outputs ranging from 12 to 48Vdc. The AML120 is one of the smallest external power supplies available in the industry today and comes with the advantage of being convection cooled.

Input Voltage	90-264Vac
Input Frequency	47-63Hz
Output Power	120W
Total Regulation	5%
Ripple & Noise	2% max pk-pk
Efficiency	86% typical
Operating Temperature	0°C to +70°C (derate from 50°C to 60% at 70°C)
EMC	EN55022 B, FCC Class B conducted and radiated

Mfrs. List No.	Output Voltage	Output Current	Order Code
AML120PS12	12V	8A	100-5742
AML120PS15	15V	7A	100-5743
AML120PS18	18V	6.67A	155-0976
AML120PS19	19V	6.32A	100-5744
AML120PS24	24V	5A	100-5745
AML120PS36	36V	3.34A	100-5746
AML120PS48	48V	2.5A	100-5747

416710

Mfrs. List No.	Order Code	1+	5+	10+	25+
AML120 Series	All Order Codes●	65.00	63.05	61.10	58.50

Over 480,000 products online



Mains Adaptors - Desktop/Portable - continued

120/150W Compact Desktop Power Supplies

PSG120/150 Series



A compact range of 120-150W desktop adaptor power supplies. Suitable for use with office and IT equipment with full international safety approvals.

H=38, W=65, D=150mm

- 90-264Vac universal wide input range
- Active Power Factor Correction
- Regulated single output
- Short circuit protection
- Integral long life fan
- IEC320C14 mains input connector

Input Voltage 90 - 264VAC Power Factor Corrected

Input Frequency 47 - 63Hz

Input Current 2A Max.

Efficiency 85% at full load, nominal input

Operating Temperature 0 to 40°C ambient

Mfrs. List No.	Output Voltage	Output Current	Output Power	Order Code
PSG120-12-10	12V	10A	120W	109-4817
PSG150-24-10	24V	6.25A	150W	109-4819

419173

Mfrs.	Order Code	1+	5+	10+	Price Each
PSG120-12-10	109-4817●	62.75	60.71	58.83	
PSG150-24-10	109-4819●	69.78	67.52	65.43	

Compact Desktop Power Supplies

130 Watt PSE130 Series



- Wide input voltage 90 to 264 VAC, 47 to 63 Hz
- IEC320 input inlet
- 5 pin DIN output connector
- Input surge current, Over voltage and over load protection
- Power factor corrected

H = 196, W = 88, D = 50.5 (mm)

The PSE130 series of AC/DC switching mode power supplies provide 130 watts of continuous output power. All supplies are UL90V-0 compliant, include IEC320-C14 input for worldwide applications. All models meet FCC Part-15 class B and CISPR-22 class B emission limits are designed to comply with cUL, TUV and CE requirements and are UL listed. All units are 100% burned in and tested.

Input Voltage	90 to 264 VAC
Input Frequency	47 to 63 Hz
Input Current	3.2A max at low line
Output Power Range	0-130 watts
Operation Temperature	0°C to +70°C
Efficiency	83% typical
Inrush Current	15A @ 115 VAC, 30A @ 230 VAC, cold start

249248

150 Watt Single Output Desktop PSUs

Compact External



Dimensions(mm): L=171, W=72, H=40

These compact external power supplies are designed for use in a variety of applications including those with high ambient temperature requirements. The AML150 also has the advantage of being fully enclosed without the need of an internal fan, thus reducing audible noise and increasing reliability.

- High power density
- 0°C-70°C operating temperature
- High efficiency
- IEC320/C14 inlet connector
- 4pin output connector
- 3 year warranty

Input Voltage	90-264 VAC
Input Frequency	47-63 Hz
Total Line Regulation	5% maximum
Transient Response	4% max. deviation, recovery to within 1% in 500 µs for a 25% load change
Ripple & Noise	2% max pk-pk
Efficiency	88% min
Operating Temperature	0°C to +70°C, derate from 100% power at 40°C to 60% power at 70°C
Safety Approvals	EN60950, UL60950, CSA22.2 No. 60950 per cUL, CE Mark
Emissions	EN55022/FCC/VCCI, Class B conducted, EN55022/FCC/VCCI, Class B radiated

Mfrs. List No.	Output Voltage (V)	Output Current (A)	Order Code
AML150PS12	12	12.5	128-9208
AML150PS15	15	10	128-9209
AML150PS19	19	7.89	128-9210
AML150PS20	20	7.5	128-9211
AML150PS24	24	6.25	128-9212

449232

Order Code	1+	5+	10+	25+
All Order Codes●	80.00	77.60	75.20	72.00

150 Watt Single Output Medical Desktop PSUs

Compact External



- Energy Star, CEC & EISA Compliant
- Worldwide Medical Approvals
- Operating Temperature - Up to 60°C
- High Efficiency
- Single outputs from 12 - 48V
- Universal input
- Low Leakage Current
- 3 year warranty



H = 49.7, W = 207.6, D = 82mm

Input Voltage	90 - 264VAC			
Input Frequency	47 - 63 Hz			
Input Current	2 A rms at 115 VAC, 1 A rms at 230 VAC			
Efficiency	85% typical			
Line Regulation	±0.5%			
Load Regulation	±5%			
Ripple & Noise	2% max pk-pk			
Operating Temperature	0°C to 60°C, derate from 40°C			
MTBF	150 khrs per MIL-HDBK-217F			
Safety Approvals	EN60601-1, UL60601-1, CSA22.2 No. 601-1 per cUL			
Emissions	EN55011 Class B Conducted & Radiated			
Mfrs.	Power Rating (W)	Output Voltage (V)	Output Current (A)	Order Code
AMM150PS12	132	12	11	162-5702
AMM150PS15	144	15	9.6	162-5703
AMM150PS19	150	19	7.9	162-5704
AMM150PS24	150	24	6.25	162-5705
AMM150PS27	150	27	5.56	162-5707
AMM150PS48	150	48	3.13	162-5708

517361

Mfrs. List No.	Order Code	1+	5+	10+	25+
AMM150PS	All Order Codes●	125.00	121.25	117.50	112.50

Desktop AC/DC Power Supplies

High Power



- Fixed output voltages
- Short circuit and thermal protection
- 6.3mm push-on terminals, incl earth
- LED power indicator
- Fixed mains lead
- High power

Output Voltage (Vdc)	Max. Load	Output Wattage (W)	Order Code
12	20	290	118-3937
24	12	290	118-3938

249278

Mfrs. List No.	Order Code	1+	3+	10+	25+	50+
8921 12V	118-3937●	193.84	163.41	154.85	146.33	135.18
8921 24V	118-3938●	193.84	163.41	154.85	146.33	135.18

Coming soon



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Mains Voltage Converters

45W UK to USA Voltage Converters



Voltage converters to convert UK 230V ac mains voltage to 110V ac North American voltage. The converters have UL 3-pin plugs and 2-pin flat USA sockets.



Power Rating	Dimensions (WxHxD)	Order Code	1+	5+	10+	25+	Price Each
45W	62x88x51mm	120-9671●	8.16	7.70	7.23	5.62	249214

Network Power Supplies

Power Over Ethernet Adaptors

High Power Single Port Injector



A range of Power-over-ethernet single port injectors from Phihong. This switching power supply is available in 15.4W, 19.6W and 30W power outputs. Applications of the PoE system include wireless access points, security cameras and IP telephones.

PoE technology is an innovative solution to problems involving AC power and the placement of power outlets. PoE allows both power and data to be carried over an Ethernet cable. This can be a big advantage as it eliminates the need for installing local power outlets in warehouses, stores and offices.

The adaptor features 3 LEDs to indicate Power, Connection and Faults to ease installation and set-up.

- Data & Power carried over one Ethernet Cable
- Fully compliant detection, disconnect, over current and voltage control IEEE802.3af
- Diagnostic LEDs
- Non-Vented Case
- Full Protection OTP, OCP, OVP
- cUL/UL, EC, TUV Safety approvals

- #### Applications
- IP Telephones
 - Network Access Points
 - Blue Tooth Access Points
 - Security Cameras
 - IP Print Services

449457

	Mfrs.	List No.	Order Code	1+	10+	50+	100+	Price Each
15.4W PoE Adaptor	PSA16U-480	126-6816●	27.36	25.82	24.54	23.12		
19.6W PoE Adaptor	POE20U-560	126-6817●	31.15	29.39	27.95	26.33		
30.0W PoE Adaptor	POE30U-560	126-6818●	42.14	39.80	37.84	35.69		

Connections

European to UK PSU Convertor Plugs



Useful mains adaptors allowing 2-pin European plug-in power adaptors to be used with UK sockets. The adaptors feature specially designed pads to grip onto the plug body of power adaptors for a secure attachment, the pads are engaged by tightening two screws and maintain their integrity over time.

- Quick and easy to fit
- Suitable for power adaptors with a weight of up to 450g
- Converts European equipment for use in the UK
- Compact design
- External fuse access
- Available in black or white
- BS approved

249185

Colour	Order Code	1+	25+	100+	250+	Price Each
Black	426-6389	1.17	1.06	0.99	0.92	

DC Power Extension Leads



A range of DC type, socket to plug extension leads with the most common 2.1mm or 2.5mm connector sizes.

249204/263709

Description	Order Code	Price Each			
		1+	25+	50+	100+
2.1mm DC Socket to Plug					
1.5m	120-9175●	1.69	1.34	1.14	0.93
3m	120-9177●	2.21	1.88	1.43	1.19
5m	120-9178●	2.54	2.19	1.64	1.34
10m	120-9179●	1.42	1.24	1.05	0.86
2.5mm DC Socket to Plug					
1.5m	120-9180●	1.69	1.34	1.14	0.93
3m	120-9181●	2.21	1.88	1.43	1.19
5m	120-9182●	1.27	1.09	0.83	0.66
10m	120-9183●	2.83	2.50	2.10	1.69

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