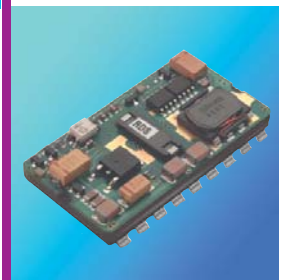
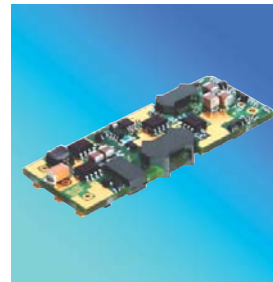




**Product Update
2002 Edition Two**



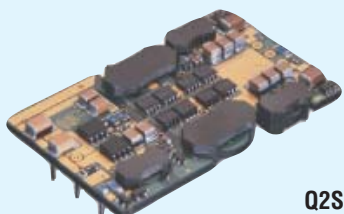
AC/DC Power Supplies



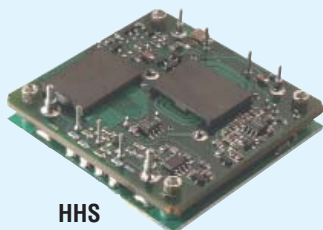
DC/DC Converters



IMX4



Q2S



HHS



PHD



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NUCLEAR AND MEDICAL APPLICATIONS- Power-One products are not authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of the President of Power-One, Inc.

TECHNICAL REVISIONS- The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

AC/DC Power Supplies

Chassis Mount Under 600 Watts

| | |
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Power-One also manufactures complete telecom power plant systems which provide 24 and 48 volt outputs. Please contact your local Power-One sales representative, or visit our web site for further details.



FNP1100



W-Series



MPB80



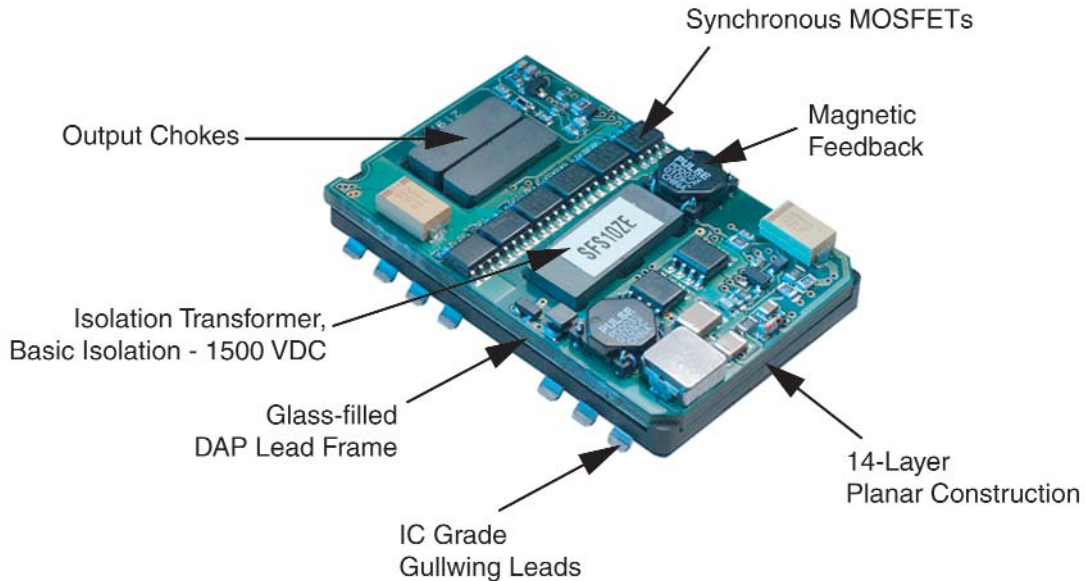
Modular High Power



CPA/CPD

New From Power-One

One-SMarT™ SMT Mountable DC/DC Converters



**Advanced Designs Provide Ultra-High Current Density
Construction Shown is Typical and Varies By Model**

Overview

The One-SMarT™ family of surface mountable DC/DC converters provide low voltage outputs from one to thirty amps. These Distributed Power Architecture (DPA) compatible products are available in a comprehensive range of ultra-low profile form factors, most under 8.5mm. High efficiencies and current densities are achieved through sophisticated design techniques such as highly-integrated single-substrate planar transformers, which also increase reliability by providing very uniform heat dissipation. Additional benefits of this advanced thermal management include 60°C operation at full-rated power with no airflow for selected models. Highly automated manufacturing processes facilitate high quality, including exceptional lead co-planarity. JEDEC trays are available for use in high-volume SMT lines with vacuum pick-ups.

Features

- ▶ Comprehensive selection of power ranges and packages.
- ▶ Compatible with high volume SMT processes.
- ▶ Excellent low-load regulation, stability, and EMC performance.
- ▶ Ultra-low profiles, most under 8.5mm.
- ▶ High efficiencies and current densities.
- ▶ Wide input ranges on selected models.
- ▶ Exceptional lead co-planarity.
- ▶ Competitively priced.

New From Power-One

QUICK EVALUATION DELIVERY (QED) PRODUCTS

These latest technology products are readily available at Power-One, or your local distributor, to quickly get power to your prototype system. In addition to fast delivery, Power-One's QED solutions provide industry-leading current and power densities.

NEW 1/8-BRICK DC/DC CONVERTERS

Eight E2S Series DC/DC converters are available with single outputs from one to five volts. Outputs of 3.3V and lower provide 15 amps, and the 5V output provides 10 amps. These 1/8-brick, 8.5mm high products are 40% smaller than traditional 1/4-brick footprints, and are available in through-hole and One-SMaRT™ configurations. Additional features include 2000 VDC input-to-output isolation, remote on/off, and output voltage trim adjust.

NEW 2" X 1" SINGLE OUTPUT One-SMaRT™

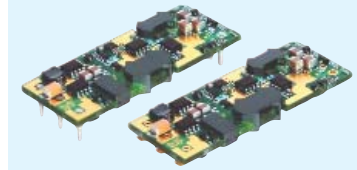
The three models of the new RDS Series convert an input range of 36 to 75 VDC into a single output of 1.8, 3.3, or 5 volts. This low-profile, 8.5mm package can provide up to 15 watts of full-rated power at 60°C without forced-air cooling. Additional features of these high current density products include 1500 VDC input-to-output isolation, lead co-planarity within 0.1mm, remote shutdown, output-voltage trim, and operation to 100°C.

NEW DUAL OUTPUT 1/4-BRICK

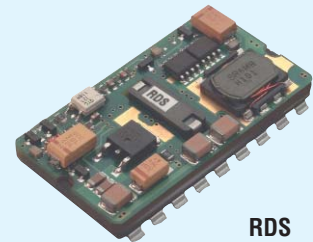
Seven Q2D DC/DC converters are available with dual outputs from 1.2 to 5 volts utilizing an input range of 36 to 75 volts. Outputs of 3.3V and lower provide up to 15 amps. The 5V output provides up to 10 amps. This 8mm tall 1/4-brick is available in through-hole and One-SMaRT™ configurations. The Q2D also features remote on/off, ±10% output trim, and no minimum load operation. Protection features include overvoltage, overcurrent, and overtemperature.

NEW TRIPLE OUTPUT 1/2-BRICK

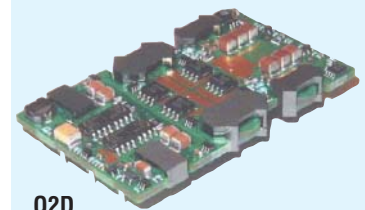
The HNT45ZEDB is a triple output, 80 watt DC/DC converter that offers extremely flexible output voltages and power distribution. Providing independent and adjustable outputs (from 0.8V to 5.25V), factory set at 3.3, 2.5, and 1.8V, from an input range of 36 to 75 volts, each output is capable of being driven to 15 amps. This industry standard half-brick features a low 8.5mm height. Other features include 1500 VDC input-to-output isolation, output sequencing at start-up, remote on/off, and operation to 110°C.



E2S
Through-Hole and
Surface Mount Versions



RDS



Q2D



HNT

One-SMaRT and the Power-One logo are trademarks of Power-One, Inc.

New From Power-One



Power-One's CompactPCI[®] Power Supply Leads All Others in Current Density

Overview

The four-output CPA (AC/DC) and CPD (DC/DC) Series provide up to 40 amps of +5V, or +3.3V, in a CompactPCI[®] compatible package by using Power-One's patented Efficient Dual Geometric Edge (EDGE[™]) technology. Two additional outputs provide +12V at 5.5 and -12V at 1.5 amps. These products have many standard features designed for hot-swap redundant applications. Front panel mounted LED's provide visual input and output voltage status. The 3U high x 8HP wide chassis incorporates a 47-pin Positronic connector (per PICMG[®] 2.11). Remote sense and active current share on the +5, +3.3, and +12 volt outputs, along with internal ORing FETs, allow these units to be used in redundant, hot-swap applications. These units meet international safety standards and display the CE Mark for the Low Voltage Directive (LVD).

EDGE[™] Technology

Patented EDGE[™] (Efficient Dual Geometric Edge) Technology maximizes efficiency, allowing the units to provide the highest current rating while still maintaining a safe guardband below component ratings. This means that the power supplies in your system are running cool, which in turn enhances the system reliability. Reliability is critical in high availability applications such as datacom, telcom, and process control. Unit hot-swap capability makes these products ideal, especially for N+1 redundant applications.

Features

- ▶ Highest current density in industry-standard packages.
- ▶ CPA Series utilizes 85-264 VAC input with PFC.
- ▶ CPD Series utilizes 36-75 VDC input.
- ▶ Highest output power.
 - 3U x 8HP 250 Watts
 - 6U x 8HP 450 Watts
- ▶ High current on +3.3 and +5 volt outputs.
- ▶ Single-wire current share and remote sense on +5, +3.3, and +12 volt outputs.
- ▶ Overtemperature, overvoltage, and overcurrent protection.
- ▶ Input Good and Power Supply Fault LED indicators.
- ▶ Inhibit and Enable inputs.

CompactPCI and PICMG are registered trademarks of the PCI Industrial Computer Manufacturers Group. The Power-One logo and EDGE are trademarks of Power-One, Inc.

New From Power-One

125 WATT AC/DC IN A 3" X 5" FOOTPRINT

Designed for datacom applications, the MPB125's 1.25" (31.75mm) height is ideal for use in a 1U "pizza box" chassis. Other datacom-oriented features include remote sensing for the 3.3V output, overvoltage protection on V1 and V2, and a power good signal. Power factor correction circuitry complies with European line harmonics standard EN61000-3-2. The MPB125 delivers a power density of 6.6 watts per cubic inch. Onboard EMI filtering simplifies system compliance to EN55022 level B.

240 WATT AC/DC LOW VOLTAGES AT HIGH CURRENTS

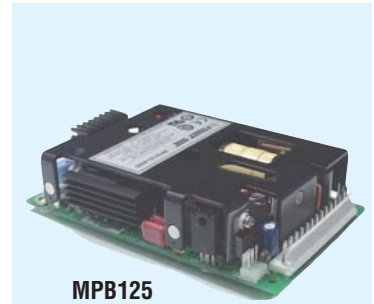
Incorporating Power-One's patented Efficient Dual Geometric Edge (EDGE™) technology, the NET1 Series is capable of providing output current exceeding 100 amps. This quad-output series provides current share and remote sense on all outputs to facilitate redundant and N+1 applications. Overtemperature shutdown, overload, and overvoltage protection are standard along with power fail and global output good signals. This advanced product won an Innovation of the Year award from Electronic Design News magazine.

3000 WATT AC/DC WITH PFC

The modular 3000-watt RPF5 can be configured to provide 1 to 15 outputs from 1 to 48 volts. Features include a comprehensive array of interface signals, extensive input transient protection, and parallelable outputs with current sharing. This power-factor-corrected chassis is the most recent addition to Power-One's modular high power product line which provides over 10 million voltage/current combinations from 18 chassis and over 90 output modules. A modular product configurator is available on the AC/DC product selection page of our web site to supplement the chassis and module information presented in this short form.

RACK MOUNTED DISTRIBUTED POWER FRONT-ENDS

Power-One provides complete 19" and 23" rack-mounted systems that provide up to 375 amps of 48 VDC, or 500 amps of 24 VDC, per each power shelf. Configurations are available that provide hot-swap backplane connections for AC and DC. Other configurations provide backplane connected DC and front-access AC receptacles. Additional features include power factor correction, ORing diodes, active current sharing, remote voltage adjust, and remote current monitoring. Chassis mounted versions are also available.



MPB125



NET1



RPF5



NHS3000 with
NPS4-S Power Shelf

AC/DC — Chassis Mount — Under 600 Watts

5 to 100 Watts Single Outputs

- Optional Cover
- Extremely Low Profile
- 4.3kVDC I/O Isolation



SWE*

SWE 05- 2.6" x 2" x 0.7"
(65mm) x (50mm) x (18mm)
SWE 50- 7.05" x 3.82" x 1.0"
(179mm) x (97mm) x (25.4mm)

80 Watts Single, Dual, & Triple Outputs

- PFC Meets EN61000-3-2
- Low Profile Fits 1U Constraints
- Industry Standard Footprint



MPB80

5.00" x 3.00" x 1.26"
(127.0mm) x (76.2mm) x (32.0mm)

15 to 100 Watts Triple Outputs

- 5.3 kV Isolation
- Extremely Low Profile
- Universal Input



MWE*

MWE 15- 4.3" x 2.4" x 1.0"
(110mm) x (60mm) x (25.4mm)
MWE 50- 6.1" x 3.7" x 1.0"
(155mm) x (95mm) x (25.4mm)

80 Watts Single & Quad Outputs

- SAE and Metric Mounting Inserts
- Optional Cover
- Power Fail Signal
- Dual-Mode Connectors



MAP80

7.20" x 4.20" x 1.80"
(183mm) x (107mm) x (46mm)

40 Watts Single & Triple Outputs

- Industry-Standard Footprint
- 1.6" Max. Height (Varies by Model)
- Remote Sense (MAP30/42)
- Universal Input



MAP30/40/42

5.00" x 3.00" x 1.60"
(127.0mm) x (76.2mm) x (40.6mm)

110 & 140 Watts Single & Quad Outputs

- Remote Sense on Main Outputs
- Optional L-Bracket & Cover
- Optional Power Fail and Thermal Shutdown

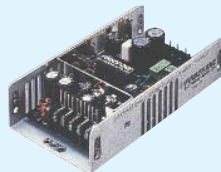


MAP110, MAP140

7.00" x 4.30" x 1.80"
(178mm) x (109mm) x (46mm)

55 Watts Single & Quad Outputs

- SAE and Metric Mounting Inserts
- Optional Cover
- Dual-Mode Connectors



MAP55

6.00" x 3.27" x 1.60"
(152.4mm) x (83.1mm) x (40.6mm)

* Not Available in North America.

AC/DC — Chassis Mount — Under 600 Watts

125 Watts Dual, Triple, & Quad Outputs

- High Power Density in Industry Standard 3" X 5" Footprint
- Power Factor Correction Meets EN61000-3-2
- Main Output Remote Sense
- Input Transient & ESD Compliance to EN61000-4-2/-3/-4



MPB125

5.00" x 3.00" x 1.25"
(127mm) x (76mm) x (32mm)

240 Watts Quad Output

- Next-generation Patented Design Provides Extremely High Efficiencies and Current Densities
- Current Share Capabilities on All Outputs
- Low-Profile Height Fits 1U Constraints
- Power Factor Correction Meets EN61000-3-2
- Overtemperature, Overload, and Overvoltage Protection



NET1

7.00" x 4.50" x 1.35"
(178mm) x (114mm) x (34.3mm)

130 Watts Single & Quad Outputs

- SAE and Metric Mounting Inserts
- Optional Cover
- Power Fail Signal
- Dual-Mode Connectors



MAP130

8.50" x 4.50" x 2.00"
(216mm) x (114mm) x (51mm)

250-290 Watts Single & Quad Outputs

- Power Factor Correction Meets EN61000-3-2
- Single Wire Current Sense and Remote Sense on V1 & V2 Outputs
- Overtemperature, Overload, and Overvoltage Protection
- Greater than 200,000 Hours MTBF

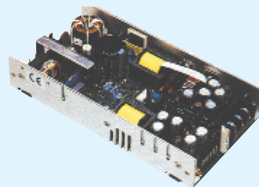


PFC250

8.50" x 4.75" x 2.00"
(215.9mm) x (120.7mm) x (50.8mm)

150-180 Watts Single, Triple, & Quad Outputs

- Power Factor Correction Meets EN61000-3-2
- Low-Profile Height Fits 1U Constraints
- Single Wire Current Sense and Remote Sense on V1 & V2 Outputs
- Overtemperature, Overload, and Overvoltage Protection
- Greater than 340,000 Hours MTBF
- Optional Metric Mounting
- MDU Models Have 48VDC Input

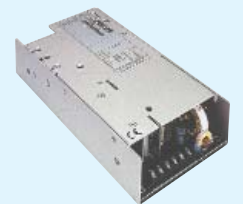


MPU150

8.00" x 4.20" x 1.50"
(203mm) x (107mm) x (38mm)

375 & 500 Watts Single & Quad Outputs

- Power Factor Correction Meets EN61000-3-2
- Main Output Remote Sense
- Current Share, Power Fail, and Power Good Signals
- Overtemperature, Overload, and Overvoltage Protection
- Input Transient & ESD Compliance to EN61000-4-2/-3/-4
- Optional Output Isolation Diodes Available on PFC500

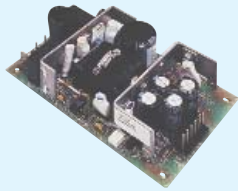


PFC375, PFC500

9.00" x 5.00" x 2.50"
(228.6mm) x (127.0mm) x (63.5mm)

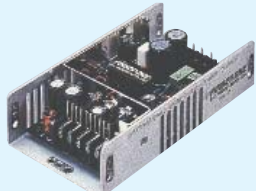
AC/DC Chassis Mount — Under 600 Watts — Single Output

Unsigned output voltages are isolated and can be used as either + or - polarities.



MAP30/40/42

5.00" x 3.00" x 1.60"
(127.0mm) x (76.2mm) x (40.6mm)



MAP55

6.00" x 3.27" x 1.60"
(152.4mm) x (83.1mm) x (40.6mm)



MPB80

5.00" x 3.00" x 1.26"
(127.0mm) x (76.2mm) x (32.0mm)



MAP80

7.20" x 4.20" x 1.80"
(182.9mm) x (106.7mm) x (45.7mm)



MAP110, MAP140

7.00" x 4.30" x 1.80"
(177.8mm) x (109.2mm) x (45.7mm)



SWE*

SWE 05- 2.6" x 2" x 0.7"
(65mm) x (50mm) x (18mm)

SWE 50- 7.05" x 3.82" x 1.0"
(179mm) x (97mm) x (25.4mm)

| Output Voltage | Output Current (Amps) | Input Voltage | Power (Watts) | Output Model |
|--|-----------------------|---------------|---------------|---------------|
| Single Output Models- 3.3 and 5Vout | | | | |
| 3.3 | 50 | 85 to 264 | 165 | PFC250-1003 |
| 5 | 1 | 85 to 264 | 5 | SWE05-05* |
| 5 | 2 | 85 to 264 | 10 | SWE10-05* |
| 5 | 3 | 85 to 264 | 15 | SWE15-05* |
| 5 | 6 | 85 to 264 | 30 | SWE30-05* |
| 5 | 6 | 90 to 264 | 30 | MAP30-1005 |
| 5 | 8 | 90 to 264 | 40 | MAP40-1005 |
| 5 | 10 | 85 to 264 | 50 | SWE50-05* |
| 5 | 11 | 85 to 264 | 55 | MAP42-1005 |
| 5 | 16 | 90 to 264 | 80 | MAP80-1005 |
| 5 | 22 | 85 to 264 | 110 | MAP110-1005 ★ |
| 5 | 26 | 90 to 264 | 130 | MAP130-1005 |
| 5 | 50 | 85 to 264 | 250 | PFC250-1005 |
| Single Output Models- 12 and 15Vout | | | | |
| 12 | 0.4 | 85 to 264 | 5 | SWE05-12* |
| 12 | 0.8 | 85 to 264 | 10 | SWE10-12* |
| 12 | 1.3 | 85 to 264 | 15 | SWE15-12* |
| 12 | 2.5 | 85 to 264 | 30 | SWE30-12* |
| 12 | 4.2 | 85 to 264 | 50 | SWE50-12* |
| 12-15 | 4.6-3 | 85 to 264 | 55 | MAP42-1012 |
| 12-15 | 5-4 | 90 to 264 | 60 | MAP55-1012 |
| 12-15 | 7.5-6 | 90 to 264 | 80 | MAP80-1012 |
| 12 | 8.3 | 85 to 264 | 100 | MPB80-1012 |
| 12-15 | 10-8 | 85 to 264 | 110 | MAP110-1012 |
| 12-15 | 12-10 | 90 to 264 | 130 | MAP130-1012 |
| 12-15 | 12.5-10 | 85 to 264 | 150 | MAP140-1012 |
| 12 | 15 | 85 to 264 | 180 | MPU150-S259 |
| 12 | 23 | 85 to 264 | 250 | PFC250-1012 |
| 12 | 30.0 | 85 to 264 | 360 | PFC375-1012 |
| 15 | 0.6 | 85 to 264 | 10 | SWE10-15* |
| 15 | 1 | 85 to 264 | 15 | SWE15-15* |
| 15 | 2 | 85 to 264 | 30 | SWE30-15* |
| 15 | 3.4 | 85 to 264 | 50 | SWE50-15* |
| 15 | 18.3 | 85 to 264 | 250 | PFC250-1015 |
| 15 | 25 | 85 to 264 | 360 | PFC375-1015 |

* Not Available in North America.

AC/DC Chassis Mount — Under 600 Watts — Single & Dual Outputs

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage | Output Current (Amps) | Input Voltage | Power (Watts) | Model |
|--|-----------------------|---------------|---------------|---------------|
| Single Output Models- 24 and 28Vout | | | | |
| 24 | 0.4 | 85 to 264 | 10 | SWE10-24* |
| 24 | 0.6 | 85 to 264 | 15 | SWE15-24* |
| 24 | 1.3 | 85 to 264 | 30 | SWE30-24* |
| 24-28 | 2.3-1.9 | 85 to 264 | 55 | MAP42-1024 |
| 24-28 | 2.5-2.2 | 90 to 264 | 60 | MAP55-1024 |
| 24-28 | 4.2 | 85 to 264 | 100 | MPB80-1024 |
| 24-28 | 3.8-3.2 | 90 to 264 | 80 | MAP80-1024 |
| 24-28 | 5-4.3 | 85 to 264 | 110 | MAP110-1024 |
| 24-28 | 6.2-5.4 | 90 to 264 | 130 | MAP130-1024 |
| 24-28 | 6.3-5.4 | 85 to 264 | 150 | MAP140-1024 |
| 24 | 7.5 | 85 to 264 | 180 | MPU150-S262 |
| 24 | 10.5 | 85 to 264 | 250 | PFC250-1024 |
| 24 | 15 | 85 to 264 | 360 | PFC375-1024 |
| 24 | 21 | 85 to 264 | 500 | PFC500-1024 |
| 28 | 13.4 | 85 to 264 | 375 | PFC375-1028 |
| 28 | 17.9 | 85 to 264 | 500 | PFC500-1028 |
| Single Output Models- 48Vout | | | | |
| 48 | 2.1 | 85 to 264 | 100 | MPB80-1048 |
| 48 | 3.1 | 85 to 264 | 150 | MAP140-1048 |
| 48 | 3.7 | 85 to 264 | 180 | MPU150-S261 |
| 48 | 6 | 85 to 264 | 288 | PFC250-1048 |
| 48 | 7.8 | 85 to 264 | 375 | PFC375-1048 |
| 48 | 10.4 | 85 to 264 | 500 | PFC500-1048 |
| Dual Output Models | | | | |
| +5, +12 | 15, 1 | 85 to 264 | 80 | MPB80-2000 ★ |
| +5, +12 | 25, 0.5 | 90 to 264 | 125 | MPB125-2005 ★ |
| +12, +12 | 10.5, 0.5 | 90 to 264 | 125 | MPB125-2012 ★ |
| +15, +12 | 8.3, 0.5 | 90 to 264 | 125 | MPB125-2015 |
| +24, +12 | 5.2, 0.5 | 90 to 264 | 125 | MPB125-2024 ★ |
| +48, +12 | 2.6, 0.5 | 90 to 264 | 125 | MPB125-2048 ★ |

* Not Available in North America.

★ QUICK EVALUATION DELIVERY (QED) PRODUCTS

These latest technology products are readily available at Power-One, or your local distributor, to quickly get power to your prototype system. In addition to fast delivery, Power-One's QED solutions provide industry-leading current and power densities.



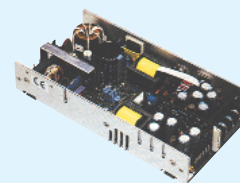
MPB125

5.00" x 3.00" x 1.25"
(127.0mm) x (76.2mm) x (31.8mm)



MAP130

8.50" x 4.50" x 2.00"
(215.9mm) x (114.3mm) x (50.8mm)



MPU150

8.00" x 4.20" x 1.50"
(203.2mm) x (106.7mm) x (38.1mm)



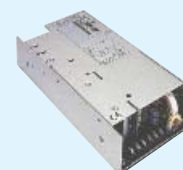
NET1

7.00" x 4.50" x 1.35"
(177.8mm) x (114.3mm) x (34.3mm)



PFC250

8.50" x 4.75" x 2.00"
(215.9mm) x (120.7mm) x (50.8mm)



PFC375, PFC500

9.00" x 5.00" x 2.50"
(228.6mm) x (127.0mm) x (63.5mm)

AC/DC Chassis Mount — Under 600 Watts — Triple & Quad Outputs

Unsigned output voltages are isolated and can be used as either + or - polarities.



MAP30/40/42

5.00" x 3.00" x 1.60"
(127.0mm) x (76.2mm) x (40.6mm)



MAP55

6.00" x 3.27" x 1.60"
(152.4mm) x (83.1mm) x (40.6mm)



MPB80

5.00" x 3.00" x 1.26"
(127.0mm) x (76.2mm) x (32.0mm)



MAP80

7.20" x 4.20" x 1.80"
(182.9mm) x (106.7mm) x (45.7mm)



MAP110, MAP140

7.00" x 4.30" x 1.80"
(177.8mm) x (109.2mm) x (45.7mm)



MWE*

MWE 15- 4.3" x 2.4" x 1.0"
(110mm) x (60mm) x (25.4mm)

MWE 50- 6.1" x 3.7" x 1.0"
(155mm) x (95mm) x (25.4mm)

| Output Voltage | Output Current (Amps) | Input Voltage | Power (Watts) | Model |
|--|-----------------------|---------------|---------------|---------------|
| Triple Output Models | | | | |
| +3.3, +2.5, +12 | 35, 20, 3 | 85 to 264 | 150 | MPU150-3320 ★ |
| +5, +12, -12 | 5, 1, 0.5 | 90 to 264 | 40 | MAP40-3500 |
| +5, +12, -5 | 8, 1.5, 1 | 85 to 264 | 50 | MWE50-21* |
| +5, +12, -12 | 3, 0.5, 0.5 | 85 to 264 | 15 | MWE15-01* |
| +5, +12, -12 | 5, 1.2, 0.5 | 85 to 264 | 30 | MWE30-01* |
| +5, +12, -12 | 3, 2, 0.3 | 90 to 264 | 40 | MAP40-3000 |
| +5, +12, -12 | 3, 2, 0.3 | 90 to 264 | 40 | MAP40-3100 |
| +5, -5, +12 | 3, 0.5, 0.2 | 90 to 264 | 40 | MAP40-3105 ★ |
| +5, +12, -12 | 8, 1.5, 1 | 85 to 264 | 50 | MWE50-01* |
| +5, +15, -15 | 3, 0.5, 0.5 | 85 to 264 | 15 | MWE15-11* |
| +5, +15, -15 | 5, 1.2, 0.5 | 85 to 264 | 30 | MWE30-11* |
| +5, +15, -15 | 3, 1.5, 0.2 | 90 to 264 | 40 | MAP40-3003 |
| +5, +15, -15 | 8, 1.5, 1 | 85 to 264 | 50 | MWE50-11* |
| +5, +24, -12 | 3, 1, 0.3 | 90 to 264 | 40 | MAP40-3101 |
| +3.3, +5, +12 | 8.5, 5, 0.6 | 85 to 264 | 80 | MPB80-3300 |
| +5, +12, -12 | 8.5, 3, 0.7 | 85 to 264 | 80 | MPB80-3000 |
| +5, +12, -12 | 15, 5, 0.5 | 90 to 264 | 125 | MPB125-3000 ★ |
| +5, +12, -12 | 20, 4, 1 | 85 to 264 | 140 | MAP140-3000P |
| +3.3, +5, +12 | 35, 20, 2 | 85 to 264 | 150 | MPU150-3300 |
| +5, +12, +24 | 17.5, 4, 2 | 85 to 264 | 150 | MPU150-3524 |
| Quad Output Models- Under 100 Watts | | | | |
| +5, +12, -5, -12 | 6, 3, 0.5, 0.5 | 90 to 264 | 55 | MAP55-4000 |
| +5, +12, -12, +12 | 6, 3, 0.5, 0.5 | 90 to 264 | 55 | MAP55-4002 |
| +5, +15, -5, -15 | 6, 2.5, 0.5, 0.5 | 90 to 264 | 55 | MAP55-4003 |
| +5, +24, -12, +12 | 6, 1.5, 0.5, 0.5 | 90 to 264 | 55 | MAP55-4001 |
| +5, +24, -15, +15 | 6, 1.5, 0.5, 0.5 | 90 to 264 | 55 | MAP55-4004 |
| +5, +12, -5, -12 | 14, 4, 1, 1 | 90 to 264 | 80 | MAP80-4000 |
| +5, +12, -5, -12 | 14, 4, 1, 3 | 90 to 264 | 80 | MAP80-4010 |
| +5, +12, -12, -5 | 14, 4, 1, 3 | 90 to 264 | 80 | MAP80-4020 |
| +5, +12, -12, +12 | 14, 4, 1, 1 | 90 to 264 | 80 | MAP80-4002 |
| +5, +15, -5, -15 | 14, 3.5, 1, 1 | 90 to 264 | 80 | MAP80-4003 |
| +5, +24, -12, +12 | 14, 2, 1, 1 | 90 to 264 | 80 | MAP80-4001 |
| +5, +24, -15, +15 | 14, 2, 1, 1 | 90 to 264 | 80 | MAP80-4004 |

* Not Available in North America.

AC/DC Chassis Mount — Under 600 Watts — Quad Outputs

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage | Output Current (Amps) | Input Voltage | Power (Watts) | Model |
|---|-----------------------|---------------|---------------|---------------|
| Quad Output Models- 100 to 199 Watts | | | | |
| +3.3, +5, -12, +12 | 15, 8, 1, 1 | 85 to 264 | 110 | MAP110-4300 |
| +3.3, +5, -5, +12 | 15, 8, 1, 1 | 85 to 264 | 110 | MAP110-4305 |
| +5, +12, -12, -5 | 12, 5, 1, 1 | 85 to 264 | 110 | MAP110-4000 |
| +5, +12, -12, +12 | 12, 5, 1, 1 | 85 to 264 | 110 | MAP110-4002 |
| +5, +12, -5, -12 | 12, 5, 1, 3 | 85 to 264 | 110 | MAP110-4010 |
| +5, +12, -12, +24 | 12, 5, 1, 1 | 85 to 264 | 110 | MAP110-4011 |
| +5, +12, -15, +15 | 12, 5, 1, 1 | 85 to 264 | 110 | MAP110-4015 |
| +5, +15, -15, -5 | 12, 5, 1, 1 | 85 to 264 | 110 | MAP110-4003 |
| +5, +24, -12, +12 | 12, 3, 1, 1 | 85 to 264 | 110 | MAP110-4001 |
| +5, +24, -15, +15 | 12, 3, 1, 1 | 85 to 264 | 110 | MAP110-4004 |
| +12, +24, -12, +5 | 5, 4, 1, 2 | 85 to 264 | 110 | MAP110-4200 |
| +2.5, +5, +12, -12 | 10, 15, 5, 0.5 | 90 to 264 | 125 | MPB125-4250 ★ |
| +3.3, +5, +12, -12 | 10, 15, 5, 0.5 | 90 to 264 | 125 | MPB125-4350 ★ |
| +5, +12, -5, -12 | 20, 5, 1, 1 | 90 to 264 | 130 | MAP130-4000 |
| +5, +12, -12, +12 | 20, 5, 1, 1 | 90 to 264 | 130 | MAP130-4002 |
| +5, +12, -5, -12 | 20, 5, 1, 3 | 90 to 264 | 130 | MAP130-4010 |
| +5, +12, -12, -5 | 20, 5, 1, 3 | 90 to 264 | 130 | MAP130-4020 |
| +5, +15, -5, -15 | 20, 4, 1, 1 | 90 to 264 | 130 | MAP130-4003 |
| +5, +24, -12, +12 | 20, 3.5, 1, 1 | 90 to 264 | 130 | MAP130-4001 |
| +5, +24, -15, +15 | 20, 3.5, 1, 1 | 90 to 264 | 130 | MAP130-4004 |
| +2.5, +3.3, 12, 5 | 30, 15, 4, 2 | 85 to 264 | 150 | MPU150-4230 |
| +3.3, +5, 12, 12 | 30, 15, 3, 3 | 85 to 264 | 150 | MPU150-4350 |
| +5, +3.3, 12, 12 | 30, 15, 3, 3 | 85 to 264 | 150 | MPU150-4530 |
| +5, +12, 12, 5 | 30, 8, 3, 2 | 85 to 264 | 150 | MPU150-4000 |

(Continued on Next Page)

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These latest technology products are readily available at Power-One, or your local distributor, to quickly get power to your prototype system. In addition to fast delivery, Power-One's QED solutions provide industry-leading current and power densities.

Check distributor inventory on-line!

Enter partial or full part number above

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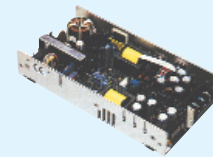
MPB125

5.00" x 3.00" x 1.25"
(127.0mm) x (76.2mm) x (31.8mm)



MAP130

8.50" x 4.50" x 2.00"
(215.9mm) x (114.3mm) x (50.8mm)



MPU150

8.00" x 4.20" x 1.50"
(203.2mm) x (106.7mm) x (38.1mm)



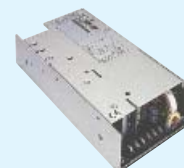
NET1

7.00" x 4.50" x 1.35"
(177.8mm) x (114.3mm) x (34.3mm)



PFC250

8.50" x 4.75" x 2.00"
(215.9mm) x (120.7mm) x (50.8mm)



PFC375, PFC500

9.00" x 5.00" x 2.50"
(228.6mm) x (127.0mm) x (63.5mm)

AC/DC Chassis Mount — Under 600 Watts — Quad Outputs

Unsigned output voltages are isolated and can be used as either + or - polarities.



MPB125

5.00" x 3.00" x 1.25"
(127.0mm) x (76.2mm) x (31.8mm)



MAP130

8.50" x 4.50" x 2.00"
(215.9mm) x (114.3mm) x (50.8mm)



MPU150

8.00" x 4.20" x 1.50"
(203.2mm) x (106.7mm) x (38.1mm)



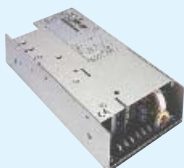
NET1

7.00" x 4.50" x 1.35"
(177.8mm) x (114.3mm) x (34.3mm)



PFC250

8.50" x 4.75" x 2.00"
(215.9mm) x (120.7mm) x (50.8mm)



PFC375, PFC500

9.00" x 5.00" x 2.50"
(228.6mm) x (127.0mm) x (63.5mm)

| Output Voltage | Output Current (Amps) | Input Voltage | Power (Watts) | Model |
|---|-----------------------|---------------|---------------|---------------|
| Quad Output Models- 200 Watts and Over | | | | |
| +1.8, +12, +12, +1.5 | 50, 4, 4, 50 | 85 to 264 | 240 | NET1-4112 |
| +3.3, +5, +12, +1.8 | 50, 5, 4, 50 | 85 to 264 | 240 | NET1-4130 ★ |
| +3.3, +5, +12, +2.5 | 50, 5, 4, 50 | 85 to 264 | 240 | NET1-4230 ★ |
| +3.3, +12, +12, +5 | 50, 4, 4, 30 | 85 to 264 | 240 | NET1-4350 ★ |
| +3.3, +5, 12, 5 | 40, 20, 6, 3 | 85 to 264 | 250 | PFC250-4350 |
| +5, +3.3, 12, 12 | 40, 20, 6, 3 | 85 to 264 | 250 | PFC250-4530 ★ |
| +5, +12, 12, 5 | 40, 10, 6, 3 | 85 to 264 | 250 | PFC250-4000 |
| +5, +12, 12, 12 | 40, 10, 6, 3 | 85 to 264 | 250 | PFC250-4001 |
| +5, +12, 15, 15 | 40, 10, 6, 3 | 85 to 264 | 250 | PFC250-4004 |
| +5, +12, 12, 5 | 40, 10, 6, 3 | 85 to 264 | 375 | PFC375-4000 |
| +5, +12, 12, 12 | 40, 10, 6, 3 | 85 to 264 | 375 | PFC375-4001 |
| +5, +12, 12, 24 | 40, 10, 6, 3 | 85 to 264 | 375 | PFC375-4002 |
| +5, +12, 15, 15 | 40, 10, 4, 4 | 85 to 264 | 375 | PFC375-4004 |
| +5, +12, 24, 24 | 40, 10, 3, 2 | 85 to 264 | 375 | PFC375-4005 |
| +24, +5, 12, 12 | 10, 10, 4, 4 | 85 to 264 | 375 | PFC375-4200 |
| +24, +5, 15, 15 | 10, 10, 4, 4 | 85 to 264 | 375 | PFC375-4201 |
| +5, +12, 12, 5 | 50, 10, 6, 3 | 85 to 264 | 375 | PFC375-4500 |

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- Product Data Sheets
- Application Notes
- New Product Announcements
- Power-One Contacts
- Investor Relations



AC/DC Board Mount — 10 to 30 Watts — Single & Dual Outputs

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage 1, 2 | Output Current 1, 2 (Amps) | Input Voltage | Power (Watts) | Model |
|---------------------|----------------------------|---------------|---------------|-----------|
| 3.3 | 3 | 85 to 265 | 10 | LHR1101-2 |
| 3.3 | 7 | 85 to 265 | 23 | LGR1101-2 |
| 5 | 2 | 85 to 265 | 10 | LHR1001-2 |
| 5 | 5 | 85 to 265 | 25 | LGR1001-2 |
| 12 | 0.8 | 85 to 265 | 9 | LHR1301-2 |
| 12 | 2.1 | 85 to 265 | 25 | LGR1301-2 |
| 15 | 0.6 | 85 to 265 | 9 | LHR1501-2 |
| 15 | 1.7 | 85 to 265 | 25 | LGR1501-2 |
| 24 | 0.4 | 85 to 265 | 9 | LHR1601-2 |
| 24 | 1 | 85 to 265 | 24 | LGR1601-2 |
| +5, +12 | 1, 0.4 | 85 to 265 | 10 | LHR2020-2 |
| +5, +12 | 2.5, 1 | 85 to 265 | 24 | LGR2020-2 |
| +12, -12 | 0.4, 0.4 | 85 to 265 | 10 | LHR2320-2 |
| +12, -12 | 1, 1 | 85 to 265 | 25 | LGR2320-2 |
| +15, -15 | 0.3, 0.3 | 85 to 265 | 10 | LHR2540-2 |
| +15, -15 | 0.8, 0.8 | 85 to 265 | 25 | LGR2540-2 |

All ratings at 50° C



LHR

3.00" x 2.00" x 0.90"
(76.2mm) x (50.8mm) x (22.9mm)



LGR

3.50" x 2.50" x 1.28"
(88.9mm) x (63.5mm) x (32.5mm)

- Board-Mountable
- Class II (Double Insulation) Rated

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Product Selection

- AC/DC Power Supplies
- DC/DC Converters
- Telecom Power Plants
- Power Accessories
- Modular Product Configurator



AC/DC Front-End Power Supplies

FNP1100 Power Supplies

- Dedicated Networking 1100 Watt Front-End Power Supply
- I²C Bus Compatible
- Front-Mounted Single-Phase AC Input
- 2U or 3U Height Configurations
- Power Factor Correction Meets EN61000-3-2
- Current Share with ORing Diodes



FNP1100

13.811 x 4.738 x 3.250 inch
35.08 x 12.03 x 8.26 cm

NHS3000 Series

- Single-Phase AC Input (Optional 3-Phase)
- 3U Height
- Active Current Share
- Power Factor Correction Meets EN61000-3-2



NHS3000 with NPS4-S Power Shelf

NHS3000

12.25 x 5 x 5 inch
31.1 x 12.7 x 12.7 cm

FXP6000 Power Supplies

- Three-Phase AC Input
- 3U or 5U Height
- Single Wire or Droop Current Share
- Remote Voltage Adjust & Current Monitoring



FXP6000

16.96 x 8.341 x 5 inch
43.08 x 21.19 x 12.7 cm



Power-One also manufactures complete telecom power plant systems which provide 24 and 48 volt outputs. Please contact your local Power-One sales representative, or visit our web site for further details.

AC/DC Front-End Power Supplies

Unsigned output voltages are isolated and can be used as either + or - polarities.

Rack-Mounted Shelves & Front Ends

| Vout | Shelf Iout* | Vin | Shelf | Height | Width | Depth | Uses Power Supply | No. of Power Supplies* |
|--|-------------|--------------------------|----------|--------|-------|-------|-------------------|------------------------|
| Power shelves with hot-swap backplane connectors for AC and DC: ★ | | | | | | | | |
| 24 | 375 | 180 to 264 | NPS3-S | 3U | 17.5" | 18" | NHS3011-5 | 3 |
| 24 | 500 | 180 to 264 | NPS4-S | 3U | 21.5" | 18" | NHS3011-5 | 4 |
| 48 | 188 | 180 to 264 | NPS3-S | 3U | 17.5" | 18" | NHS3011-8 | 3 |
| 48 | 250 | 180 to 264 | NPS4-S | 3U | 21.5" | 18" | NHS3011-8 | 4 |
| 48 | 250 | 180 to 264 342 to 528 | FRH6000 | 3U | 17.5" | 18" | FXP6000-48 | 2 |
| 48 | 375 | 180 to 264 342 to 528 | FRV6000 | 5U | 17.5" | 18" | FXP6000-48 | 3 |
| Power shelves with backplane connectors for DC and front-mounted IEC receptacles for AC | | | | | | | | |
| 48 | 68.75 | 85 to 264 | FNRH1100 | 2U | 17.5" | 18" | FNP1100-48 | 3 |
| 48 | 114.6 | 85 to 264 | FNRV1100 | 3U | 17.5" | 18" | FNP1100-48 | 5 |

* Shelf amps and number of power supplies are maximum values. Shelves may be partially populated to provide reduced currents. Consult data sheet for blank panel part numbers.

Rack-Mounted, Front-End Power Supplies ★

| Vout | Amps | Vin | Power Supply | Electrical Connections | Mating Shelves |
|------|------|--------------------------|---|--|----------------------|
| 24 | 125 | 180 to 264 | NHS3011-5 | AC and DC- rear-mounted hot-plug Elcon floating connector | NPS3-S NPS4-S |
| 48 | 23 | 85 to 264 | FNP1100-48 (I ² C Bus compatible) | AC- front-mounted IEC receptacle DC- rear-mounted hot-plug Elcon or Positronic connectors | FNRV1100 FNRH1100 |
| 48 | 63 | 180 to 264 | NHS3011-8 | AC and DC- rear-mounted hot-plug Elcon floating connector | NPS3-S NPS4-S |
| 48 | 125 | 180 to 264 342 to 528 | FXP6000-48 | AC and DC- rear-mounted hot-plug Elcon floating connector | FRV6000 FRH6000 |

Chassis-Mounted Front-Ends

| Vout | Amps | Vin | Power Supply | Power Supply LxWxH | Electrical Connections |
|------|------|--------------------------|--------------|--------------------|-------------------------------|
| 48 | 125 | 180 to 264 342 to 528 | FXC6000-48 | 15.2 x 8.0 x 5.0 | Bus bar electrical connectors |

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AC/DC Modular High Power Series



SELECTION AND CONFIGURATION

The modularity of the International Series High Power products allows the user to specify a power system configured from a wide selection of standard off-the-shelf, plug-in modules. The power system is delivered completely assembled, burned in, and tested. A part number comprised of a series designation, module listing, and options can be configured as follows:

1. Choose a chassis based on required wattage, number of outputs, and power factor.
2. Select modules following the guidelines in the configuration section.
3. Decide on the options. Standard options are listed in the configuration section. Please call the factory for special requirements, such as logic option cards.

MODULAR HIGH POWER SERIES PRODUCT OVERVIEW

| CHASSIS | METRIC MOUNTING STANDARD | SMF3 SPF3 | HMF3 HPF3 | HMF5 HPF5 | SMM3 SPM3 | SMM5 SPM5 | HMM5 HPM5 | HMM7 HPM7 | RMF5 RPF5 | RMM5 RPM5 |
|--|-----------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| OUTPUT POWER AND POWER FACTOR | | | | | | | | | | |
| .99 PFC to meet EN60555 | | YES | YES | YES | N/A | N/A | N/A | N/A | YES | N/A |
| Max output wattage at high range line input | | 1350 | 2000 | 2000 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 |
| Max output wattage at low range line input* | | 1000 | 1500 | 1500 | 1000 | 1500 | N/A | N/A | N/A | N/A |
| INPUT VOLTAGE SPECIFICATIONS** | | | | | | | | | | |
| High range VAC input | | 160-264 | 160-264 | 160-264 | 175-264 | 175-264 | 180-264 | 180-264 | 160-264 | 180-264 |
| Low range VAC input | | 85-159 | 85-159 | 85-159 | 90-132 | 90-132 | N/A | N/A | N/A | N/A |
| VAC input selection | | Wide Range | Wide Range | Wide Range | Manual | Manual | N/A | N/A | N/A | N/A |
| VAC input phases | | Single | Single | Single | Single | Single | Single | Single | Single | Three*** |
| OUTPUT MODULE SPECIFICATIONS | | | | | | | | | | |
| Max # of outputs | | 9 | 9 | 15 | 9 | 15 | 15 | 21 | 15 | 15 |
| # of module slots | | 3 | 3 | 5 | 3 | 5 | 5 | 7 | 5 | 5 |
| MECHANICAL SPECIFICATIONS | | | | | | | | | | |
| Chassis size H x W x L, inches | | 5 x 5.5 x 12.5 | 5 x 5.5 x 12.5 | 5 x 8 x 11 | 5 x 5.5 x 11 | 5 x 8 x 11 | 5 x 8 x 11 | 5 x 11 x 13 | 5 x 8 x 12.5 | 5 x 8 x 15 |
| Chassis size H x W | | 127 x 140 | 127 x 140 | 127 x 203 | 127 x 140 | 127 x 203 | 127 x 203 | 127 x 280 | 127 x 203 | 127 x 203 |
| x L, millimeters | | x 318 | x 318 | x 280 | x 280 | x 280 | x 280 | x 330 | x 318 | x 381 |
| INPUT TRANSIENT PROTECTION SPECIFICATIONS | | | | | | | | | | |
| ESD Immunity EN61000-4-2, | | Level 4 15kV/8kV | Level 4 15kV/8kV | Level 4 15kV/8kV | Level 4 15kV/8kV | Level 4 15kV/8kV | Level 4 15kV/8kV | Level 4 15kV/8kV | Level 4 15kV/8kV | Level 4 15kV/8kV |
| RF Susceptibility EN61000-4-3 | | Level 3 10V/m | Level 3 10V/m | Level 3 10V/m | Level 3 10V/m | Level 3 10V/m | Level 3 10V/m | Level 3 10V/m | Level 3 10V/m | Level 3 10V/m |
| Fast Transient/Burst EN61000-4-4 | | Level 3 ±2kV | Level 3 ±2kV | Level 3 ±2kV | Level 3 ±2kV | Level 3 ±2kV | Level 3 ±2kV | Level 3 ±2kV | Level 3 ±2kV | Level 3 ±2kV |
| Surge Immunity EN61000-4-5 (Line-Line) | | Class 4 2kV | Class 4 2kV | Class 4 2kV | Class 4 2kV | Class 4 2kV | Class 4 2kV | Class 4 2kV | Class 4 2kV | Class 4 2kV |
| Surge Immunity EN61000-4-5 (line-Gnd) | | Class 4 4kV | Class 4 4kV | Class 4 4kV | Class 4 4kV | Class 4 4kV | Class 4 4kV | Class 4 4kV | Class 4 4kV | Class 4 4kV |

*Maximum wattage above 100VAC input for SPF/HPF

**Aurorange input denotes continuous operation from 85 to 264 VAC

*** Consult factory for single-phase operation.

AC/DC Modular High Power Series

SINGLE VOLTAGE OUTPUT MODULES

| NOMINAL VOLTAGE | CURRENT (AMPS) @ 50°C (NOTE A) | MODULE | SLOTS USED | SLOT COMPATIBILITY | NOISE & RIPPLE (mV PK-PK) TYPICAL (NOTE B) | NOISE & RIPPLE (mV PK-PK) MAXIMUM (NOTE B) | OUTPUT CONNECTION |
|-----------------|--------------------------------|-----------------------|------------|--------------------|--|--|-------------------|
| 1.0V | 320 | ER | 2 | 5 | 30 | 100 | Type III |
| 1.5V/1.8V | 35 | T1 (Note C) | 1 | 1 | 30 | 50 | Type II |
| 1.5V/1.8V | 60 | T6 (Note C) | 1 | 1 | 30 | 50 | Type I |
| 1.5V/1.8V | 250 | T4 (Note C) | 2 | 2 | 30 | 50 | Type III |
| 2.0V | 80 | F8 | 1 | 3 | 25 | 40 | Type I |
| 2V/2.2V | 35 | F1 (Note D) | 1 | 1 | 20 | 50 | Type II |
| 2V/2.2V | 60 | AG (Note D, E) | 1 | 1 | 30 | 50 | Type I |
| 2V/2.2V | 60 | F6 (Note D) | 1 | 1 | 30 | 50 | Type I |
| 2V/2.2V | 150 | F2 (Note D) | 2 | 2 | 30 | 50 | Type III |
| 2V/2.2V | 180 | CS (Note D) | 2 | 5 | 30 | 50 | Type III |
| 2V/2.2V | 250 | F4 (Note D) | 2 | 2 | 30 | 50 | Type III |
| 2V/2.2V | 320 | F7 (Note D) | 2 | 5 | 30 | 100 | Type III |
| 2V/2.2V | 375 | QF (Note E, F) | 2 | 5 | 30 | 50 | Type III |
| 2.3V | 35 | BJ | 1 | 1 | 30 | 50 | Type II |
| 3.3V | 35 | H1 | 1 | 1 | 30 | 50 | Type II |
| 3.3V | 60 | H6 | 1 | 1 | 30 | 50 | Type I |
| 3.3V | 80 | H8 | 1 | 3 | 40 | 50 | Type I |
| 3.3V | 90 | DA | 1 | 5 | 30 | 50 | Type I |
| 3.3V | 150 | H2 | 2 | 2 | 30 | 40 | Type III |
| 3.3V | 250 | H4 | 2 | 2 | 30 | 50 | Type III |
| 3.3V | 320 | H7 | 2 | 5 | 50 | 100 | Type III |
| 3.3V | 375 | QH | 2 | 5 | 50 | 75 | Type III |
| 5V | 35 | A1 | 1 | 1 | 35 | 50 | Type II |
| 5V | 60 | A6 | 1 | 1 | 15 | 50 | Type I |
| 5V | 80 | A8 | 1 | 3 | 15 | 50 | Type I |
| 5V | 90 | DT | 1 | 5 | 15 | 50 | Type I |
| 5V | 150 | A2 | 2 | 2 | 30 | 50 | Type III |
| 5V | 220/250 | A4 (Note G) | 2 | 3/4 | 30 | 50 | Type III |
| 5V | 320 | A7 | 2 | 5 | 30 | 100 | Type III |
| 5V | 375 | QA | 2 | 5 | 30 | 50 | Type III |
| 6V | 35 | AU | 1 | 1 | 65 | 90 | Type II |
| 6V | 80 | FD | 1 | 3 | 30 | 60 | Type I |
| 6V | 100 | CT | 1 | 5 | 40 | 60 | Type I |
| 6V | 120 | BY | 2 | 2 | 40 | 60 | Type III |
| 6V | 250 | CU | 2 | 5 | 40 | 100 | Type III |
| 8V | 65 | AJ | 2 | 2 | 53 | 80 | Type III |
| 8V | 160 | FA | 2 | 5 | 40 | 200 | Type III |
| 8.5V | 20 | CF | 1 | 1 | 50 | 75 | Type II |
| 10V | 20 | AW | 1 | 1 | 66 | 100 | Type II |
| 10V | 40 | BE | 1 | 3 | 40 | 60 | Type I |
| 10V | 50 | CV | 1 | 5 | 66 | 100 | Type I |
| 10V | 65 | AQ | 2 | 2 | 66 | 100 | Type III |
| 10V | 160 | CW | 2 | 5 | 100 | 200 | Type III |
| 12V | 20 | B1 | 1 | 1 | 80 | 120 | Type II |
| 12V | 40 | B6 | 1 | 3 | 40 | 60 | Type I |
| 12V | 50 | B8 | 1 | 4 | 40 | 60 | Type I |
| 12V | 65 | B2 | 2 | 2 | 80 | 120 | Type III |
| 12V | 80 | BC | 2 | 3 | 80 | 120 | Type III |
| 12V | 135 | DE | 2 | 5 | 120 | 240 | Type III |
| 15V | 16 | AF (Note H) | 1 | 1 | 15 | 35 | Type II |
| 15V | 16 | C1 | 1 | 1 | 100 | 150 | Type II |
| 15V | 33 | C6 | 1 | 3 | 30 | 60 | Type I |
| 15V | 50 | C5 | 1 | 5 | 100 | 150 | Type I |
| 15V | 52 | C2 | 2 | 2 | 100 | 150 | Type III |
| 18V | 44 | GD | 1 | 4 | 80 | 120 | Type I |
| 24V | 10 | D1 | 1 | 1 | 160 | 240 | Type II |
| 24V | 15 | D6 | 1 | 2 | 80 | 120 | Type II |
| 24V | 29 | D8 | 1 | 4 | 60 | 100 | Type I |
| 24V | 32 | D2 | 2 | 2 | 160 | 240 | Type III |
| 24V | 33 | D5 | 1 | 5 | 60 | 100 | Type I |
| 24V | 42 | GH | 1 | 5 | 50 | 100 | Type I |
| 28V | 8.6 | E1 | 1 | 1 | 200 | 280 | Type II |
| 28V | 16 | E7 (Note I) | 1 | 1 | 50 | 100 | Type I |
| 28V | 26 | E8 | 1 | 4 | 70 | 100 | Type I |
| 28V | 27 | E2 | 2 | 2 | 150 | 280 | Type III |
| 28V | 29 | E5 | 1 | 5 | 70 | 100 | Type I |
| 30V | 8 | EG | 1 | 1 | 30 | 40 | Type II |

AC/DC Modular High Power Series

SINGLE VOLTAGE OUTPUT MODULES

| NOMINAL VOLTAGE | CURRENT (AMPS) @ 50°C (NOTE A) | MODULE | SLOTS USED | SLOT COMPATIBILITY | NOISE & RIPPLE (mV PK-PK) TYPICAL (NOTE B) | NOISE & RIPPLE (mV PK-PK) MAXIMUM (NOTE B) | OUTPUT CONNECTION |
|-----------------|--------------------------------|--------------------|------------|--------------------|--|--|-------------------|
| 36V | 20 | J8 | 1 | 4 | 100 | 200 | Type I |
| 36V | 21 | J2 | 2 | 2 | 100 | 200 | Type III |
| 36V | 23 | J5 | 1 | 5 | 100 | 200 | Type I |
| 48V | 5 | G1 | 1 | 1 | 400 | 480 | Type II |
| 48V | 12.5 | G4 (Note H) | 1 | 3 | 40 | 60 | Type I |
| 48V | 16 | G2 | 2 | 2 | 135 | 200 | Type III |
| 48V | 16 | G8 | 1 | 4 | 60 | 100 | Type I |
| 48V | 19 | G6 | 1 | 5 | 60 | 100 | Type I |

SINGLE OUTPUT, VARIABLE VOLTAGE MODULES

| NOMINAL VOLTAGE | CURRENT (AMPS) @ 50°C (NOTE A) | MODULE | SLOTS USED | SLOT COMPATIBILITY | NOISE & RIPPLE (mV PK-PK) TYPICAL (NOTE B) | NOISE & RIPPLE (mV PK-PK) MAXIMUM (NOTE B) | OUTPUT CONNECTION |
|-----------------|--------------------------------|--------------------|------------|--------------------|--|--|-------------------|
| 1.0V to 1.8V | 320 | ER | 2 | 5 | 30 | 100 | Type III |
| 1.5V to 2.8V | 375 | QF (Note E) | 2 | 5 | 50 | 50 | Type III |
| 1.9V to 3V | 150 | AB | 2 | 2 | 50 | 50 | Type III |
| 2.5V to 4V | 375 | QH | 2 | 5 | 30 | 75 | Type III |
| 14V to 24V | 10 | W1 | 1 | 1 | 80 | 120 | Type II |
| 14V to 24V | 32 | BS | 2 | 2 | 135 | 200 | Type III |

DUAL VOLTAGE OUTPUT MODULES

| NOMINAL VOLTAGE | CURRENT (AMPS) @ 50°C (NOTE A) | MODULE | SLOTS USED | SLOT COMPATIBILITY | NOISE & RIPPLE (mV PK-PK) TYPICAL (NOTE B) | NOISE & RIPPLE (mV PK-PK) MAXIMUM (NOTE B) | OUTPUT CONNECTION |
|-----------------|--------------------------------|--------------------|------------|--------------------|--|--|-------------------|
| 12/12 | 10/4 | M4 (Note J) | 1 | 1 | 120 | 240 | Type II |
| ±12 | 10/10 | B4 (Note K) | 1 | 1 | 120 | 240 | Type II |
| ±15 | 8/8 | C4 (Note K) | 1 | 1 | 150 | 300 | Type II |
| ±20 | 5/5 | BQ (Note K) | 1 | 1 | 80 | 100 | Type II |
| ±24 | 5/5 | D4 (Note K) | 1 | 1 | 80 | 120 | Type II |

TRIPLE OUTPUT VOLTAGE MODULES (Note J)

| NOMINAL VOLTAGE | CURRENT (AMPS) @ 50°C (NOTE A) | MODULE | SLOTS USED | SLOT COMPATIBILITY | NOISE & RIPPLE (mV PK-PK) TYPICAL (NOTE B) | NOISE & RIPPLE (mV PK-PK) MAXIMUM (NOTE B) | OUTPUT CONNECTION |
|-----------------|--------------------------------|-----------|------------|--------------------|--|--|-------------------|
| 5/1.5/3.3 | 15/10/10 | FC | 1 | 1 | N/A | 100/100/100 | Type II |
| 5/1.5/12 | 10/10/10 | CA | 1 | 1 | N/A | 100/100/120 | Type II |
| 5/2.2/12 | 10/10/10 | W6 | 1 | 1 | N/A | 100/100/120 | Type II |
| 5/12/12 | 10/10/10 | M6 | 1 | 1 | N/A | 50/120/120 | Type II |
| 5.2/12/12 | 15/8/8 | BA | 1 | 1 | N/A | 100/180/180 | Type II |
| 5.2/12/12 | 5/16/7 | AE | 1 | 1 | N/A | 60/160/120 | Type II |
| 5/12/24 | 10/10/5 | U6 | 1 | 1 | N/A | 50/120/240 | Type II |
| 5/15/15 | 10/8/8 | V6 | 1 | 1 | N/A | 50/150/150 | Type II |
| 5/24/24 | 10/5/5 | R6 | 1 | 1 | N/A | 50/240/240 | Type II |
| 12/12/12 | 10/10/10 | N6 | 1 | 1 | N/A | 120/120/120 | Type II |
| 5/15/12 | 10/8/10 | EC | 1 | 1 | N/A | 50/150/120 | Type II |
| 24/12/12 | 5/10/10 | P6 | 1 | 1 | N/A | 240/120/120 | Type II |

- NOTES:**
- A) For ambient temperatures above 50°C, output current must be linearly derated to 50% at the maximum operational ambient temperature, 70°C.
 - B) The output noise and ripple measurement is bandwidth limited to 20 MHz.
 - C) Modules do not adjust -10% below 1.5V or +10% above 1.8V. Consult factory.
 - D) Module output is factory set to 2.0 volts. Output voltage will adjust +10% to 2.2 volts.
 - E) Module is designed to accommodate output cable losses of up to one volt.
 - F) Module output is wide-range adjustable from 1.5 to 2.8 volts, factory preset to 2.0 volts.
 - G) A4 module provides 220A in chassis with slot compatibility rating of 3, and 250A in chassis with slot compatibility rating of 4.
 - H) Module is designed for use in applications demanding low noise and ripple. Consult factory for further specifications.
 - I) Not to be used with SPM2 and SPM3 chassis.
 - J) All triple output modules, as well as the M4 dual output module, have floating outputs. Like voltages may be shared within the same module. All triple output adjustments and interface signals are for output #1. Consult factory for more information.
 - K) The dedicated negative (-) output is quasiregulated. Both outputs require a small minimum load to perform to specification. Consult factory for more information.

AC/DC CompactPCI®

CPA Series

250 Watt AC/DC Power Supply
90 to 264 VAC Input



3U x 8HP (8TE) x 6.3" (160mm)

CPA250-4530 ★

| | V1 | V2 | V3 | V4 |
|----------------|----|------|-----|-----|
| Voltage | +5 | +3.3 | +12 | -12 |
| Current (Amps) | 40 | 40 | 5.5 | 1.5 |



- Fully Compliant to CompactPCI® Per PICMG® Specifications
- High Density Design in an Industry Standard Package
- High Efficiency Topology (>80%)
- Remote Sense and Active Current Share for 3 Outputs
- Built-In ORing FETs for Redundant Applications
- Active Power Factor Correction

The AC input CPA250-4530 is a hot-swap, CompactPCI® power supply which is fully compliant to the PICMG® 2.11 Power Interface Specification using a standard Positronic 47-pin connector. Extra-high current density using innovative Power-One EDGE technology allows this unit to deliver up to 40 amperes on both the +5 and +3.3 volt outputs at 50°C.

Remote sense and active current share on the +5, +3.3, and +12 volt outputs along with ORing FETs allow these units to be used in redundant, hot-swap applications. The CPA250-4530 is feature rich, meets international safety standards, and displays the CE Mark for the Low Voltage Directive (LVD).

✓ Coming Soon: 6U, 450 watt version, available Summer 2002.

★ QUICK EVALUATION DELIVERY (QED) PRODUCTS

These latest technology products are readily available at Power-One, or your local distributor, to quickly get power to your prototype system. In addition to fast delivery, Power-One's QED solutions provide industry-leading current and power densities.

Check distributor inventory on-line!

Enter partial or full part number above

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500 Watt Rectifiers

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage at $0.5 \cdot I_o$ nom [V] | Temperature Coefficient of Output [mV/K] | Output Current (Amps) | Input Voltage | Model | Options |
|---|--|-----------------------|---------------|------------|---------|
| 24.25 | -5 | 16 | 70 to 140 | UT 1201-7 | B1 |
| 24.25 | -5 | 16 | 85 to 255 | LT 1201-7 | B1 |
| 25.25 to 28.25 | -3 | 14.5 | 70 to 140 | UT 1240-7Z | B1, D |
| 25.25 to 28.25 | -3 | 14.5 | 85 to 255 | LT 1240-7Z | B1, D |
| 48 | -5 | 11 | 70 to 140 | UT 1702-7 | B1 |
| 48 | -5 | 11 | 85 to 255 | LT 1702-7 | B1 |
| 50.5 to 56.5 | -3 | 10.2 | 70 to 140 | UT 1740-7Z | B1, D |
| 50.5 to 56.5 | -3 | 10.2 | 85 to 255 | LT 1740-7Z | B1, D |
| 54.5 | -5 | 10 | 70 to 140 | UT 1701-7 | B1 |
| 54.5 | -5 | 10 | 85 to 255 | LT 1701-7 | B1 |

- DC output voltages for 24 and 48 V loads
- Temperature sensor for battery charging
- Very high efficiency, typically 93%
- Ambient temperature range -7: -25 to 71°C
- Power factor >0.99
- Harmonics <IEC 61000-3-2
- No inrush current, hot swap capability
- High power density, 210 W/dm³
- Immune to transients and disturbances according to IEC 61000-4-2, -3, -4, -5, -6 and VDE 160
- Safety: Class I equipment according to IEC/EN 60950, UL 1950

Options:

- D Remote bus voltage monitoring
- Z Cell voltage selector switch
- B1 Mounting plate

Accessories:

- Temperature sensors
- Back planes



T Series with PFC

500 Watt AC/DC converters
 Rectifier for Telecom and other DC bus applications
 Battery charger with temperature sensor
 Input-to-output isolation
 Single output up to 56.5 VDC
 Input voltage up to 255 VAC



6.6 x 5.6(28 TE) x 4.4(3U) inch
 168 x 141 x 111 mm



Power-One also manufactures complete telecom power plant systems which provide 24 and 48 volt outputs. Please contact your local Power-One sales representative, or visit our web site for further details.

AC/DC Linear Supplies — Single Output

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Case Type | Dimensions (Inches) |
|-----------|---------------------|
| AA | 6.50 x 4.00 x 2.10 |
| B | 4.87 x 4.00 x 2.10 |
| BAA | 10.25 x 4.00 x 2.95 |
| BB | 7.00 x 4.87 x 2.95 |
| C | 5.62 x 4.87 x 2.95 |
| CBB | 11.00 x 4.87 x 3.28 |
| CC | 9.38 x 4.87 x 3.28 |
| CP131 | 11.00 x 4.87 x 3.28 |
| CP510-A | 8.25 x 4.87 x 3.28 |
| D | 9.00 x 4.87 x 3.28 |
| DBB | 14.25 x 4.87 x 3.38 |
| DCC | 15.00 x 4.88 x 4.55 |
| E | 14.00 x 4.87 x 3.53 |
| F | 16.75 x 4.88 x 5.00 |
| N | 7.00 x 4.87 x 3.28 |

| Case Type | Dimensions (Millimeters) |
|-----------|--------------------------|
| AA | 165.10 x 101.60 x 53.34 |
| B | 123.70 x 101.60 x 53.34 |
| BAA | 260.35 x 101.60 x 74.93 |
| BB | 177.80 x 123.70 x 74.93 |
| C | 142.75 x 123.70 x 74.93 |
| CBB | 279.40 x 123.70 x 83.31 |
| CC | 238.25 x 123.70 x 83.31 |
| CP131 | 279.40 x 123.70 x 83.31 |
| CP510-A | 209.55 x 123.70 x 83.31 |
| D | 228.60 x 123.70 x 83.31 |
| DBB | 361.95 x 123.70 x 85.85 |
| DCC | 381.00 x 123.95 x 115.57 |
| E | 355.60 x 123.70 x 89.66 |
| F | 425.50 x 123.95 x 127.00 |
| N | 177.80 x 123.70 x 83.31 |

(See Additional Features and Notes Column)

- A Overvoltage protection, set at 6.2 V \pm 0.4 V.
- B Adjustable outputs:
12/15 V: F15-15-A, HA15-0.9-A
24/48 V: F24-12-A, HA24-0.5-A.
- C Non-adjustable 3-terminal regulator.
- D Isolated outputs, can be referenced as positive (+) or negative (-).
- E Remote sense provided.
- F With output inhibit and parallel operation master/slave capability.
- G With output inhibit.
- H Adjustable 3-terminal regulator.
- I Can be made into an isolated output by removing jumper W1.
- J Model requires 100 LFM forced-air cooling above 75% of rated output power at 50 degrees C.

| Output Voltage | Output Current (Amps) | Model (Input Voltage of 100 to 240VAC) | Case Type* | Additional Features |
|--|-----------------------|--|------------|---------------------|
| Single Output Models- 5V to 250Vout | | | | |
| 5 | 1.5 | HA5-1.5/OVP-A | B | A |
| 5 | 3 | HB5-3/OVP-A | B | A, E |
| 5 | 6 | HC5-6/OVP-A | C | A, E |
| 5 | 9 | HN5-9/OVP-A | N | A, E |
| 5 | 12 | HD5-12/OVP-A | D | A, E |
| 5 | 18 | HE5-18/OVP-A | E | A, E |
| 5 | 25 | F5-25/OVP-A | F | A, E, F, J |
| 5 | 35 | G5-35/OVP-A | F | A, E, F, J |
| 5 | 50 | CP197-A | F | A, E, F |
| 12 | 0.9 | HA15-0.9-A | B | B |
| 12 | 1.7 | HB12-1.7-A | B | E |
| 12 | 3.4 | HC12-3.4-A | C | E |
| 12 | 5.1 | HN12-5.1-A | N | E |
| 12 | 6.8 | HD12-6.8-A | D | E |
| 12 | 10.2 | HE12-10.2-A | E | E |
| 12 | 16 | F15-15-A | F | B, E, F, J |
| 15 | 0.9 | HA15-0.9-A | B | B |
| 15 | 1.5 | HB15-1.5-A | B | E |
| 15 | 3 | HC15-3-A | C | E |
| 15 | 4.5 | HN15-4.5-A | N | E |
| 15 | 6 | HD15-6-A | D | E |
| 15 | 9 | HE15-9-A | E | E |
| 15 | 15 | F15-15-A | F | B, E, F, J |
| 24 | 0.5 | HA24-0.5-A | B | B |
| 24 | 1.2 | HB24-1.2-A | B | E |
| 24 | 2.4 | HC24-2.4-A | C | E |
| 24 | 3.6 | HN24-3.6-A | N | E |
| 24 | 4.8 | HD24-4.8-A | D | E |
| 24 | 7.2 | HE24-7.2-A | E | E |
| 24 | 12 | F24-12-A | F | B, E, F, J |
| 28 | 0.5 | HA24-0.5-A | B | B |
| 28 | 1 | HB28-1-A | B | E |
| 28 | 2 | HC28-2-A | C | E |
| 28 | 3 | HN28-3-A | N | E |
| 28 | 4 | HD28-4-A | D | E |
| 28 | 6 | HE28-6-A | E | E |
| 28 | 12 | F24-12-A | F | B, E, F, J |
| 48 | 0.5 | HB48-0.5-A | B | |
| 48 | 1 | HC48-1-A | C | |
| 48 | 3 | HD48-3-A | D | E |
| 48 | 4 | HE48-4-A | E | E |
| 120 | 0.2 | HB120-0.2-A | B | |
| 175-210 | 0.12 | HB200-0.12-A | B | |
| 250 | 0.1 | HB250-0.1-A | B | |

AC/DC Linear Supplies — Dual Output

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage | Output Current (Amps) | Model (Input Voltage of 100 to 240VAC) | Case Type* | Additional Features & Notes |
|---|-----------------------|--|------------|-----------------------------|
| Dual Output Models- 5V to 15Vout | | | | |
| +5, -5 | 1.5, 1.5 | HAA5-1.5/OVP-A | AA | A |
| +5, -5 | 3, 3 | HBB5-3/OVP-A | BB | A |
| +5, -5 | 6, 6 | HCC5-6/OVP-A | CC | A, D, E |
| 5, 12 | 2, 0.5 | HAA512-A | AA | A, D, E |
| 5, 12 | 3, 1.25 | HBB512-A | BB | A, D, E |
| 5, 12 | 6, 2.5 | HCC512-A | CC | A, D, E |
| +5, +12 | 2, 4 | CP323-A | N | A, G |
| +5, +12 | 6, 2.5 | CP510-A | CP510-A | A |
| 5, 15 | 2, 0.5 | HAA512-A | AA | A, D, E |
| 5, 15 | 3, 1.25 | HBB512-A | BB | A, D, E |
| 5, 15 | 6, 2.5 | HCC512-A | CC | A, D, E |
| +12, -5 | 1, 0.4 | HAA15-0.8-A | AA | E |
| +12, -5 | 1.7, 0.7 | HBB15-1.5-A | BB | E |
| +12, -12 | 0.4, 0.4 | HAD12-0.4-A | B | C |
| +12, -12 | 1, 1 | HAA15-0.8-A | AA | E |
| +12, -12 | 1.7, 1.7 | HBB15-1.5-A | BB | E |
| +12, -12 | 3.4, 3.4 | HCC15-3-A | CC | E |
| +12, -12 | 5, 5 | HDD15-5-A | E | E |
| +12, -15 | 1, 0.8 | HAA15-0.8-A | AA | E |
| +12, -15 | 1.7, 1.5 | HBB15-1.5-A | BB | E |
| +12, -15 | 3.4, 3 | HCC15-3-A | CC | E |
| +12, -15 | 5, 5 | HDD15-5-A | E | E |
| +15, -5 | 0.8, 0.4 | HAA15-0.8-A | AA | E |
| +15, -5 | 1.5, 0.7 | HBB15-1.5-A | BB | E |
| +15, -12 | 0.8, 1 | HAA15-0.8-A | BB | E |
| +15, -12 | 1.5, 1.7 | HBB15-1.5-A | BB | E |
| +15, -12 | 3, 3.4 | HCC15-3-A | CC | E |
| +15, -12 | 5, 5 | HDD15-5-A | E | E |

- Worldwide AC Input Capabilities: 100/120/220/230/240 VAC
- ±0.05% Output Regulation
- Low Output Ripple
- UL, CSA, and TÜV Approvals
- Mean Time Before Failure (MTBF) in Excess of 300,000 Hours
- CE Marked to Low Voltage Directive
- 100% Burn-In
- 2-Year Warranty
- Overvoltage Protection (OVP) Standard on 5V Single Outputs; Optional for Other Outputs Under 48V



AC/DC Linear Supplies — Dual & Triple Output

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Case Type | Dimensions (Inches) |
|-----------|---------------------|
| AA | 6.50 x 4.00 x 2.10 |
| B | 4.87 x 4.00 x 2.10 |
| BAA | 10.25 x 4.00 x 2.95 |
| BB | 7.00 x 4.87 x 2.95 |
| C | 5.62 x 4.87 x 2.95 |
| CBB | 11.00 x 4.87 x 3.28 |
| CC | 9.38 x 4.87 x 3.28 |
| CP131 | 11.00 x 4.87 x 3.28 |
| CP510-A | 8.25 x 4.87 x 3.28 |
| D | 9.00 x 4.87 x 3.28 |
| DBB | 14.25 x 4.87 x 3.38 |
| DCC | 15.00 x 4.88 x 4.55 |
| E | 14.00 x 4.87 x 3.53 |
| F | 16.75 x 4.88 x 5.00 |
| N | 7.00 x 4.87 x 3.28 |

| Case Type | Dimensions (Millimeters) |
|-----------|--------------------------|
| AA | 165.10 x 101.60 x 53.34 |
| B | 123.70 x 101.60 x 53.34 |
| BAA | 260.35 x 101.60 x 74.93 |
| BB | 177.80 x 123.70 x 74.93 |
| C | 142.75 x 123.70 x 74.93 |
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| CC | 238.25 x 123.70 x 83.31 |
| CP131 | 279.40 x 123.70 x 83.31 |
| CP510-A | 209.55 x 123.70 x 83.31 |
| D | 228.60 x 123.70 x 83.31 |
| DBB | 361.95 x 123.70 x 85.85 |
| DCC | 381.00 x 123.95 x 115.57 |
| E | 355.60 x 123.70 x 89.66 |
| F | 425.50 x 123.95 x 127.00 |
| N | 177.80 x 123.70 x 83.31 |

(See Additional Features and Notes Column)

- A Overvoltage protection, set at 6.2 V \pm 0.4 V.
- B Adjustable outputs:
12/15 V: F15-15-A, HA15-0.9-A
24/48 V: F24-12-A, HA24-0.5-A.
- C Non-adjustable 3-terminal regulator.
- D Isolated outputs, can be referenced as positive (+) or negative (-).
- E Remote sense provided.
- F With output inhibit and parallel operation master/slave capability.
- G With output inhibit.
- H Adjustable 3-terminal regulator.
- I Can be made into an isolated output by removing jumper W1.

| Output Voltage | Output Current (Amps) | Model (Input Voltage of 100 to 240VAC) | Case Type* | Additional Features & Notes |
|--|-----------------------|--|------------|-----------------------------|
| Dual Output Models- 15V to 24Vout Models | | | | |
| +15, -15 | 0.4, 0.4 | HAD15-0.4-A | B | C |
| +15, -15 | 0.8, 0.8 | HAA15-0.8-A | AA | E |
| +15, -15 | 1.5, 1.5 | HBB15-1.5-A | BB | E |
| +15, -15 | 3, 3 | HCC15-3-A | CC | E |
| +15, -15 | 5, 5 | HDD15-5-A | E | E |
| +18, -18 | 0.4, 0.4 | HAA24-0.6-A | AA | |
| +18, -18 | 0.9, 0.9 | HBB24-1.2-A | BB | |
| +18, -18 | 1.8, 1.8 | HCC24-2.4-A | CC | E |
| +18, -20 | 0.4, 0.4 | HAA24-0.6-A | AA | E |
| +18, -20 | 0.9, 0.9 | HBB24-1.2-A | BB | |
| +18, -20 | 1.8, 1.8 | HCC24-2.4-A | CC | E |
| +18, -24 | 0.4, 0.6 | HAA24-0.6-A | AA | |
| +18, -24 | 0.9, 1.2 | HBB24-1.2-A | BB | |
| +18, -24 | 1.8, 2.4 | HCC24-2.4-A | CC | E |
| +20, -18 | 0.4, 0.4 | HAA24-0.6-A | AA | |
| +20, -18 | 0.9, 0.9 | HBB24-1.2-A | BB | |
| +20, -18 | 1.8, 1.8 | HCC24-2.4-A | CC | E |
| +20, -20 | 0.4, 0.4 | HAA24-0.6-A | AA | |
| +20, -20 | 0.9, 0.9 | HBB24-1.2-A | BB | |
| +20, -20 | 1.8, 1.8 | HCC24-2.4-A | CC | E |
| +20, -24 | 0.4, 0.6 | HAA24-0.6-A | AA | |
| +20, -24 | 0.9, 1.2 | HBB24-1.2-A | BB | |
| +20, -24 | 1.8, 2.4 | HCC24-2.4-A | CC | E |
| +24, -18 | 0.6, 0.4 | HAA24-0.6-A | AA | |
| +24, -18 | 1.2, 0.9 | HBB24-1.2-A | BB | |
| +24, -18 | 2.4, 1.8 | HCC24-2.4-A | CC | E |
| +24, -20 | 0.6, 0.4 | HAA24-0.6-A | AA | |
| +24, -20 | 1.2, 0.9 | HBB24-1.2-A | BB | |
| +24, -20 | 2.4, 1.8 | HCC24-2.4-A | CC | E |
| +24, -24 | 0.6, 0.6 | HAA24-0.6-A | AA | |
| +24, -24 | 1.2, 1.2 | HBB24-1.2-A | BB | |
| +24, -24 | 2.4, 2.4 | HCC24-2.4-A | CC | E |
| Triple Output Models- 5V to 24Vout Models | | | | |
| +5, -5, 24 | 6, 1.2, 3.5 | CP379-A | CP131 | A, D, E, H, I |
| 5, +12, -5 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +12, -5 | 3, 1, 0.4 | HBAA-40W-A | BAA | A, D, E |
| +5, +12, -5 | 6, 1, 0.4 | HCAA-60W-A | D | A, E |
| 5, +12, -5 | 6, 1.7, 0.7 | HCBB-75W-A | CBB | E |
| +5, +12, -5 | 6, 5, 0.25 | CP498-A | CP131 | A, D, E, H |
| 5, +12, -5 | 8, 1.7, 0.7 | CP131-A | CP131 | A, D, E |
| 5, +12, -5 | 12, 1.5, 0.7 | HDBB-105W-A | DBB | A, D, E |

AC/DC Linear Supplies — Triple Output

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage | Output Current (Amps) | Model (Input Voltage of 100 to 240VAC) | Case Type* | Additional Features & Notes |
|--|-----------------------|--|------------|-----------------------------|
| Triple Output Models- 5V to 24Vout Models (Continued) | | | | |
| 5, +12, -12 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +12, -12 | 3, 1, 1 | HBAA-40W-A | BAA | A, D, E |
| +5, +12, -12 | 6, 1, 1 | HCAA-60W-A | D | A, E |
| +5, +12, -12 | 6, 5, 0.5 | CP498-A | CP131 | A, D, E, H |
| 5, +12, -12 | 6, 1.7, 1.7 | HCBB-75W-A | CBB | E |
| 5, +12, -12 | 8, 1.7, 1.7 | CP131-A | CP131 | A, D, E |
| 5, +12, -12 | 12, 1.5, 1.7 | HDBB-105W-A | DBB | E |
| 5, +12, -12 | 12, 3.4, 3.4 | HDCC-150W-A | DCC | A, D, E |
| 5, +12, -15 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +12, -15 | 3, 1, 0.8 | HBAA-40W-A | BAA | A, D, E |
| +5, +12, -15 | 6, 1, 1 | HCAA-60W-A | D | A, E |
| 5, +12, -15 | 6, 1.7, 1.5 | HCBB-75W-A | CBB | E |
| 5, +12, -15 | 8, 1.7, 1.5 | CP131-A | CP131 | A, D, E |
| 5, +12, -15 | 12, 1.5, 1.5 | HDBB-105W-A | DBB | E |
| 5, +12, -15 | 12, 3.4, 3 | HDCC-150W-A | DCC | A, D, E |
| +5, -12, 24 | 6, 1.2, 3.5 | CP379-A | CP131 | A, D, E, H, I |
| 5, +15, -5 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +15, -5 | 3, 0.8, 0.4 | HBAA-40W-A | BAA | A, D, E |
| +5, +15, -5 | 6, 1, 0.4 | HCAA-60W-A | D | A, E |
| 5, +15, -5 | 6, 1.5, 0.4 | HCBB-75W-A | CBB | E |
| 5, +15, -5 | 8, 1.5, 0.7 | CP131-A | CP131 | A, D, E |
| 5, +15, -5 | 12, 1.5, 0.7 | HDBB-105W-A | DBB | E |

- Worldwide AC Input Capabilities: 100/120/220/230/240 VAC
- ±0.05% Output Regulation
- Low Output Ripple
- UL, CSA, and TÜV Approvals
- Mean Time Before Failure (MTBF) in Excess of 300,000 Hours
- CE Marked to Low Voltage Directive
- 100% Burn-In
- 2-Year Warranty
- Overvoltage Protection (OVP) Standard on 5V Single Outputs; Optional for Other Outputs Under 48V



Check distributor inventory on-line!

Enter partial or full part number above

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AC/DC Linear Supplies — Triple & Quad Output

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Case Type | Dimensions (Inches) |
|-----------|---------------------|
| AA | 6.50 x 4.00 x 2.10 |
| B | 4.87 x 4.00 x 2.10 |
| BAA | 10.25 x 4.00 x 2.95 |
| BB | 7.00 x 4.87 x 2.95 |
| C | 5.62 x 4.87 x 2.95 |
| CBB | 11.00 x 4.87 x 3.28 |
| CC | 9.38 x 4.87 x 3.28 |
| CP131 | 11.00 x 4.87 x 3.28 |
| CP510-A | 8.25 x 4.87 x 3.28 |
| D | 9.00 x 4.87 x 3.28 |
| DBB | 14.25 x 4.87 x 3.38 |
| DCC | 15.00 x 4.88 x 4.55 |
| E | 14.00 x 4.87 x 3.53 |
| F | 16.75 x 4.88 x 5.00 |
| N | 7.00 x 4.87 x 3.28 |

| Case Type | Dimensions (Millimeters) |
|-----------|--------------------------|
| AA | 165.10 x 101.60 x 53.34 |
| B | 123.70 x 101.60 x 53.34 |
| BAA | 260.35 x 101.60 x 74.93 |
| BB | 177.80 x 123.70 x 74.93 |
| C | 142.75 x 123.70 x 74.93 |
| CBB | 279.40 x 123.70 x 83.31 |
| CC | 238.25 x 123.70 x 83.31 |
| CP131 | 279.40 x 123.70 x 83.31 |
| CP510-A | 209.55 x 123.70 x 83.31 |
| D | 228.60 x 123.70 x 83.31 |
| DBB | 361.95 x 123.70 x 85.85 |
| DCC | 381.00 x 123.95 x 115.57 |
| E | 355.60 x 123.70 x 89.66 |
| F | 425.50 x 123.95 x 127.00 |
| N | 177.80 x 123.70 x 83.31 |

- (See Additional Features and Notes Column)
- A Overvoltage protection, set at 6.2 V \pm 0.4 V.
 - B Adjustable outputs:
12/15 V: F15-15-A, HA15-0.9-A
24/48 V: F24-12-A, HA24-0.5-A.
 - C Non-adjustable 3-terminal regulator.
 - D Isolated outputs, can be referenced as positive (+) or negative (-).
 - E Remote sense provided.
 - F With output inhibit and parallel operation master/slave capability.
 - G With output inhibit.
 - H Adjustable 3-terminal regulator.
 - I Can be made into an isolated output by removing jumper W1.
 - J Model requires 100 LFM forced-air cooling above 75% of rated output power at 50 degrees C.

| Output Voltage | Output Current (Amps) | Model (Input Voltage of 100 to 240VAC) | Case Type* | Additional Features & Notes |
|--|-----------------------|--|------------|-----------------------------|
| Triple Output Models- 5V to 24Vout Models (Continued) | | | | |
| 5, +12, -5 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +12, -5 | 3, 1, 0.4 | HBAA-40W-A | BAA | A, D, E |
| +5, +12, -5 | 6, 1, 0.4 | HCAA-60W-A | D | A, E |
| 5, +12, -5 | 6, 1.7, 0.7 | HCBB-75W-A | CBB | E |
| 5, +12, -5 | 8, 1.7, 0.7 | CP131-A | CP131 | A, D, E |
| 5, +12, -5 | 12, 1.5, 0.7 | HDBB-105W-A | DBB | E |
| 5, +12, -12 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +12, -12 | 3, 1, 1 | HBAA-40W-A | BAA | A, D, E |
| +5, +12, -12 | 6, 1, 1 | HCAA-60W-A | D | A, E |
| 5, +12, -12 | 6, 1.7, 1.7 | HCBB-75W-A | CBB | E |
| 5, +12, -12 | 8, 1.7, 1.7 | CP131-A | CP131 | A, D, E |
| 5, +12, -12 | 12, 1.5, 1.7 | HDBB-105W-A | DBB | E |
| 5, +12, -12 | 12, 3.4, 3.4 | HDCC-150W-A | DCC | A, D, E |
| 5, +12, -15 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +12, -15 | 3, 1, 0.8 | HBAA-40W-A | BAA | A, D, E |
| +5, +12, -15 | 6, 1, 1 | HCAA-60W-A | D | A, E |
| 5, +12, -15 | 6, 1.7, 1.5 | HCBB-75W-A | CBB | E |
| 5, +12, -15 | 8, 1.7, 1.5 | CP131-A | CP131 | A, D, E |
| 5, +12, -15 | 12, 1.5, 1.5 | HDBB-105W-A | DBB | E |
| 5, +12, -15 | 12, 3.4, 3 | HDCC-150W-A | DCC | A, D, E |
| 5, +15, -5 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +15, -5 | 3, 0.8, 0.4 | HBAA-40W-A | BAA | A, D, E |
| +5, +15, -5 | 6, 1, 0.4 | HCAA-60W-A | D | A, E |
| 5, +15, -5 | 6, 1.5, 0.4 | HCBB-75W-A | CBB | E |
| 5, +15, -5 | 8, 1.5, 0.7 | CP131-A | CP131 | A, D, E |
| 5, +15, -5 | 12, 1.5, 0.7 | HDBB-105W-A | DBB | E |
| 5, +15, -12 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +15, -12 | 3, 0.8, 1 | HBAA-40W-A | BAA | A, D, E |
| +5, +15, -12 | 6, 1, 1 | HCAA-60W-A | D | A, E |
| 5, +15, -12 | 6, 1.5, 1.7 | HCBB-75W-A | CBB | E |
| 5, +15, -12 | 8, 1.5, 1.7 | CP131-A | CP131 | A, D, E |
| 5, +15, -12 | 12, 1.5, 1.7 | HDBB-105W-A | DBB | E |
| 5, +15, -12 | 12, 3, 3.4 | HDCC-150W-A | DCC | A, D, E |
| 5, +15, -15 | 2, 0.4, 0.4 | HTAA-16W-A | AA | A, D |
| 5, +15, -15 | 3, 0.8, 0.8 | HBAA-40W-A | BAA | A, D, E |
| +5, +15, -15 | 6, 1, 1 | HCAA-60W-A | D | A, E |
| 5, +15, -15 | 6, 1.5, 1.5 | HCBB-75W-A | CBB | E |
| 5, +15, -15 | 8, 1.5, 1.5 | CP131-A | CP131 | A, D, E |
| 5, +15, -15 | 12, 1.5, 1.5 | HDBB-105W-A | DBB | E |
| 5, +15, -15 | 12, 3, 3 | HDCC-150W-A | DCC | A, D, E |
| Quad Output Models- 5V to 24Vout Models | | | | |
| +5, +12, -5, +24 | 6, 1, 1, 2.4 | CP503-A | CP131 | A, J |
| +5, +12, -12, +24 | 6, 1, 1, 2.4 | CP503-A | CP131 | A, J |

AC/DC DIN-Rail Mounted

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage | Output Current (Amps) | Input Voltage | Power (Watts) | Model | Options |
|-------------------------------|-----------------------|---------------|---------------|---------------|----------|
| 5.1 | 5.2 | 85 to 264 | 26 | LOK 4001-2RLD | F, F1, K |
| 12 | 1.25 | 85 to 264 | 15 | LOS 4301-2 | F, F1, K |
| 12 | 2.5 | 85 to 264 | 30 | LOR 4301-2 | F, F1, K |
| 12 | 4 | 85 to 264 | 48 | LOK 4301-2R | F, F1, K |
| 24 | 0.65 | 85 to 264 | 15 | LOS 4601-2 | F, F1, K |
| 24 | 1.25 | 85 to 264 | 30 | LOR 4601-2 | F, F1, K |
| 24 | 2 | 85 to 264 | 48 | LOK 4601-2R | F, F1, K |
| 48 | 1 | 85 to 264 | 48 | LOK 4801-2R | F, F1, K |
| 12 to 12.8 ¹ to 15 | 3.6 | 85 to 264 | 49 | LOK 4140-2RLD | F, F1, K |
| 24 to 25.7 ¹ to 30 | 1.8 | 85 to 264 | 49 | LOK 4240-2RLD | F, F1, K |
| 48 to 51.4 ¹ to 60 | 0.9 | 85 to 264 | 49 | LOK 4740-2RLD | F, F1, K |

- Universal AC input
- Class I equipment
- High efficiency up to 86%
- I/O electric strength test 3 kVAC
- Short circuit protection
- High level of electromagnetic compatibility
- Safety according to IEC/EN 60950, UL 1950, CSA 22.2
- R-input for V_o adjustment
- Battery charger models available

¹ Setting voltage V_o set for battery charger with R-input open circuit.

All ratings at 50° C



Options:

- F Second fuse in the neutral
- F1 No fuse option for use with DC input
- K Screw terminal connectors

LOS, LOR, LOK 4000 Series

15/30/50 Watt
AC/DC converters
Input-to-output isolation
1 output up to 60 VDC
Input voltage up to 264 VAC



4.49 x 3.54 x 1.5 inch
114 x 90 x 38 mm

AC/DC DIN-Rail Mounted

Unsigned output voltages are isolated and can be used as either + or - polarities.

W Series with PFC

125/250 Watt AC/DC converters
 Input-to-output isolation
 1 or 2 outputs up to 96 VDC
 Input voltage up to 264 VAC



5.43 x 4.49 x 4.05 inch
 138 x 114 x 103 mm

| Output Voltage 1, 2 | Output Current 1, 2 (Amps) | Input Voltage | Power (Watts) | Model | Options |
|---------------------|----------------------------|---------------|---------------|--------------|----------------------|
| 25.7 to 29.3 | 4.2 | 85 to 264 | 115 | LWR 1240-6M1 | F, F1, K2 |
| 25.7 to 29.3 | 8.45 | 85 to 264 | 230 | LWN 1240-6M1 | F, F1, K2 |
| 51.4 to 58.6 | 2.1 | 85 to 264 | 115 | LWR 1740-6M1 | F, F1, K2 |
| 51.4 to 58.6 | 4.2 | 85 to 264 | 230 | LWN 1740-6M1 | F, F1, K2 |
| 24.7 | 5 | 85 to 264 | 125 | LWR 1601-6 | F, F1, K2, D5, M2, R |
| 24.7 | 10 | 85 to 264 | 250 | LWN 1601-6 | F, F1, K2, D5, M2, R |
| 37 | 3.3 | 85 to 264 | 125 | LWR 1701-6 | F, F1, K2, D5, M2, R |
| 37 | 6.6 | 85 to 264 | 250 | LWN 1701-6 | F, F1, K2, D5, M2, R |
| 49.4 | 2.5 | 85 to 264 | 125 | LWR 1801-6 | F, F1, K2, D5, M2, R |
| 49.4 | 5 | 85 to 264 | 250 | LWN 1801-6 | F, F1, K2, D5, M2, R |
| 24.7, 24.7 | ±5 | 85 to 264 | 250 | LWN 2660-6 | F, F1, K2, D5, M2, R |
| 49.4, 49.4 | ±2.5 | 85 to 264 | 250 | LWN 2880-6 | F, F1, K2, D5, M2, R |

- Compact 35 mm DIN-rail snap-fit design or wall mounting
- Universal input voltage range (reduced output power below 125 VAC)
- Short-term output peak power capability
- I/O electric strength test 3 kV_{rms}
- Efficient input filter with surge and transient suppression circuitry
- Harmonics <IEC 61000-3-2, power factor typically 0.94
- Very high efficiency up to 89%
- Outputs open- and short-circuit proof
- Thermal protection
- Ambient temperature range -6: -40 to 60°C
- Safety: Class I equipment according to IEC/EN 60950, UL 1950, EN 50178, EN 60204 certified and UL 508 listed
- DC input 90 to 350 V

Options:

- R V_o adjust
- D1 Battery voltage monitoring V_{bat} low
- D2 Input voltage monitoring
- D5 Output voltage monitoring
Battery deep discharged V_{bat} low
- S Shut down
- F Second built-in fuse
- K2 Connector with screw terminals

M1 Optionboard: Includes R, D1, D2, D5, S

M2 Optionboard: Includes R, D2, D5

All ratings at 60° C



AC/DC DIN-Rail Mounted

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage 1, 2 | Output Current 1, 2 (Amps) | Input Voltage | Power (Watts) | Model | Options |
|---------------------|----------------------------|---------------|---------------|--------------|----------------------|
| 25.7 to 29.3 | 12.6 | 85 to 264 | 345 | LXR 1240-6M1 | F, F1, K2 |
| 25.7 to 29.3 | 16.9 | 85 to 264 | 460 | LXN 1240-6M1 | F, F1, K2 |
| 51.4 to 58.6 | 6.3 | 85 to 264 | 345 | LXR 1740-6M1 | F, F1, K2 |
| 51.4 to 58.6 | 8.4 | 85 to 264 | 460 | LXN 1740-6M1 | F, F1, K2 |
| 24.7 | 15 | 85 to 264 | 375 | LXR 1601-6 | F, F1, K2, D5, M2, R |
| 24.7 | 20 | 85 to 264 | 500 | LXN 1601-6 | F, F1, K2, D5, M2, R |
| 37 | 9.9 | 85 to 264 | 375 | LXR 1701-6 | F, F1, K2, D5, M2, R |
| 37 | 13.2 | 85 to 264 | 500 | LXN 1701-6 | F, F1, K2, D5, M2, R |
| 49.4 | 7.5 | 85 to 264 | 375 | LXR 1801-6 | F, F1, K2, D5, M2, R |
| 49.4 | 10 | 85 to 264 | 500 | LXN 1801-6 | F, F1, K2, D5, M2, R |
| 24.7, 24.7 | 10, 10 | 85 to 264 | 500 | LXN 2660-6 | F, F1, K2, D5, M2, R |
| 49.4, 49.4 | 5, 5 | 85 to 264 | 500 | LXN 2880-6 | F, F1, K2, D5, M2, R |

- Compact 35 mm DIN-rail snap-fit design or wall mounting
- Universal input voltage range (reduced output power below 125 VAC)
- Short-term output peak power capability
- I/O electric strength test 3 kV_{rms}
- Efficient input filter with surge and transient suppression circuitry
- Harmonics <IEC 61000-3-2, power factor typically 0.94
- Very high efficiency up to 89%
- Outputs open- and short-circuit proof
- Thermal protection
- Ambient temperature range -6: -40 to 60°C
- Safety: Class I equipment according to IEC/EN 60950, UL 1950, EN 50178, EN 60204 certified and UL 508 listed
- DC input 90 to 350 V
- Battery charger models available

Options:

- R V₀ adjust
- D1 Battery voltage monitoring V_{bat} low
- D2 Input voltage monitoring
- D5 Output voltage monitoring
Battery deep discharged V_{bat} low
- S Shut down
- F Second built-in fuse
- K2 Connector with screw terminals

M1 Optionboard: Includes R, D1, D2, D5, S

M2 Optionboard: Includes R, D2, D5

All ratings at 60° C



X Series with PFC

375/500 Watt AC/DC converters
Input-to-output isolation
1 or 2 isolated, regulated outputs up to 96 VDC
Input voltage up to 264 VAC



7.64 x 5.43 x 4.47 inch
194 x 138 x 114 mm

AC/DC Cassette

Unsigned output voltages are isolated and can be used as either + or - polarities.

M Series

50 Watt AC/DC converters
 Input-to-output isolation
 1, 2, or 3 outputs up to 48 VDC
 Input voltage up to 264 VAC



6.6 x 4.4(3U) x 1.54(8 TE) inch
 168 x 111 x 39 mm

| Output Voltage | Output Current (Amps) | Input Voltage | Model | Options |
|----------------|-----------------------|---------------|------------|-------------------------|
| 5.1 | 8 | 85 to 264 | LM 1001-7R | -9, E, P, D, V, A, H, F |
| 12 | 4 | 85 to 264 | LM 1301-7R | -9, E, P, D, A, H, F |
| 15 | 3.4 | 85 to 264 | LM 1501-7R | -9, E, P, D, A, H, F |
| 24 | 2 | 85 to 264 | LM 1601-7R | -9, E, P, D, A, H, F |
| 48 | 1 | 85 to 264 | LM 1901-7R | -9, E, P, D, A, H, F |
| 12, 12 | 2, 2 | 85 to 264 | LM 2320-7 | -9, E, P, D, A, H, F |
| 15, 15 | 1.7, 1.7 | 85 to 264 | LM 2540-7 | -9, E, P, D, A, H, F |
| 5.1, 12, 12 | 5, 0.7, 0.7 | 85 to 264 | LM 3020-7 | -9, E, P, D, V, A, H, F |
| 5.1, 15, 15 | 5, 0.6, 0.6 | 85 to 264 | LM 3040-7 | -9, E, P, D, V, A, H, F |

- Universal input voltage range
- Efficient input filter
- Output voltage control (R) and inhibit
- Surge and transient suppression circuitry
- I/O electric strength test 5.6 kVDC
- Outputs individually isolated, controlled
- Outputs fully protected against overload
- Ambient temperature range -7: -25 to 71°C
- Safety: Class I equipment with reinforced insulation according to IEC/EN60950, UL1950
- Special types for battery charging with temperature sensor (S-KSMW) available

Options:

- 9 Ambient temperature range -40 to 71°C
- H Increased electric strength test voltage
- V ACFAIL signal (for 5.1 V output)
- F Input fuse internally (not accessible)
- A Output voltage test sockets
- E Inrush current limitation
- P Potentiometer for V_O
- D Save data signal



AC/DC Cassette

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage 1, 2, 3 | Output Current 1, 2, 3 (Amps) | Power (Watts) | Power $T_A = 71^\circ\text{C}$ (Watts) | Model Input Voltage 85 to 255 VAC | Options |
|---------------------------|-------------------------------------|------------------|--|---|---------|
| 5.1 | 11 | 56 | 41 | LH 1001-2R | D, V |
| 12 | 6 | 72 | 48 | LH 1301-2R | D |
| 15 | 4.5 | 67 | 51 | LH 1501-2R | D |
| 24 | 3 | 72 | 48 | LH 1601-2R | D |
| 48 | 1.5 | 72 | 48 | LH 1901-2R | D |
| 12, 12 | 2, 2 | 48 | - | LH 2320-2 | D |
| 15, 15 | 1.7, 1.7 | 51 | - | LH 2540-2 | D |
| 5.1, 12, 12 | 5, 0.7, 0.7 | 42 | - | LH 3020-2 | D, V |
| 5.1, 15, 15 | 5, 0.6, 0.6 | 43 | - | LH 3040-2 | D, V |

- Universal input voltage range
- Output voltage control (R)
- Built-in surge, transient suppression circuit
- I/O electric strength test 4.3 kVDC
- Outputs individually isolated
- Outputs fully protected against overload
- Ambient temperature range -2: -10 to 50°C
- Derating up to 71°C for single output types
- Safety: Class I equipment according to IEC/EN 60950, UL 1950
- Special types for battery charging with temperature sensor (S-KSMW) available
- Available on request are units with IEC inlet

Options:

- D Save data signal
- V ACFAIL signal (for 5.1 V output)



H Series

50 to 72 Watt AC/DC converters
Input-to-output isolation
1, 2, or 3 outputs up to 48 VDC
Input voltage up to 255 VAC



6.6 x 4.4(3U) x 1.54(8 TE) inch
168 x 111 x 39 mm

AC/DC Cassette

Unsigned output voltages are isolated and can be used as either + or - polarities.

S Series

100 Watt AC/DC converters
Input-to-output isolation
1 or 2 outputs up to 48 VDC
Input voltage up to 264 VAC



6.6 x 4.4(3U) x 2.4(12 TE) inch
168 x 111 x 60 mm

| Output Voltage 1, 2 | Output Current 1, 2 (Amps) | Input Voltage | Model | Power factor correction >0.95 | Options |
|---------------------|----------------------------|---------------|------------|-------------------------------|-----------------------|
| 5.1 | 16 | 85 to 255 | LS 1001-7R | no | -9, E, D, V, P, T, B1 |
| 5.1 | 16 | 85 to 264 | LS 4001-7R | yes | -9, E, D, V, P, T, B1 |
| 12 | 8 | 85 to 255 | LS 1301-7R | no | -9, E, D, P, T, B1 |
| 12 | 8 | 85 to 264 | LS 4301-7R | yes | -9, E, D, P, T, B1 |
| 15 | 6.5 | 85 to 255 | LS 1501-7R | no | -9, E, D, P, T, B1 |
| 15 | 6.5 | 85 to 264 | LS 4501-7R | yes | -9, E, D, P, T, B1 |
| 24 | 4.2 | 85 to 255 | LS 1601-7R | no | -9, E, D, P, T, B1 |
| 24 | 4.2 | 85 to 264 | LS 4601-7R | yes | -9, E, D, P, T, B1 |
| 24 | 4 | 85 to 255 | LS 2320-7R | no | -9, E, D, P, T, B1 |
| 24 | 4 | 85 to 264 | LS 5320-7R | yes | -9, E, D, P, T, B1 |
| 30 | 3.2 | 85 to 255 | LS 2540-7R | no | -9, E, D, P, T, B1 |
| 30 | 3.2 | 85 to 264 | LS 5540-7R | yes | -9, E, D, P, T, B1 |
| 48 | 2 | 85 to 255 | LS 2660-7R | no | -9, E, D, P, T, B1 |
| 48 | 2 | 85 to 264 | LS 5660-7R | yes | -9, E, D, P, T, B1 |
| 12, 12 | 4, 4 | 85 to 255 | LS 2320-7R | no | -9, E, D, P, T, B1 |
| 12, 12 | 4, 4 | 85 to 264 | LS 5320-7R | yes | -9, E, D, P, T, B1 |
| 15, 15 | 3.2, 3.2 | 85 to 255 | LS 2540-7R | no | -9, E, D, P, T, B1 |
| 15, 15 | 3.2, 3.2 | 85 to 264 | LS 5540-7R | yes | -9, E, D, P, T, B1 |
| 24, 24 | 2, 2 | 85 to 255 | LS 2660-7R | no | -9, E, D, P, T, B1 |
| 24, 24 | 2, 2 | 85 to 264 | LS 5660-7R | yes | -9, E, D, P, T, B1 |

- Universal input voltage range
- Efficient input filter
- LS 1000/2000 no PFC, f_{in} 47 to 440 Hz
- LS 4000/5000 power factor >0.95, harmonics <IEC 61000-3-2
- Output voltage control (R) and inhibit
- Input over- and undervoltage lock-out
- Surge and transient suppression circuitry
- I/O electric strength test 5.6 kVDC
- Fully isolated outputs
- Outputs open- and short-circuit proof
- Ambient temperature range -7: -25 to 71°C
- No derating over temperature
- Safety: Class I equipment according to IEC/EN 60950, UL 1950
- Special types for battery charging with temperature sensor (S-KSMW) available

Options:

- 9 Ambient temperature range -40 to 71°C
- E Inrush current limitation
- D Save data signal
- V ACFAIL signal (for 5.1 V output)
- P Potentiometer for V_O
- T Current sharing
- B1 Cooling plate



AC/DC Cassette

Unsigned output voltages are isolated and can be used as either + or - polarities.

| Output Voltage 1, 2 | Output Current 1, 2 (Amps) | Input Voltage | Model | Power Factor Correction >0.95 | Options |
|---------------------|----------------------------|---------------|------------|-------------------------------|-----------------------|
| 5.1 | 25 | 85 to 255 | LK 1001-7R | no | -9, E, D, V, P, T, B1 |
| 5.1 | 25 | 85 to 264 | LK 4003-6R | yes | -9, E, D, V, P, T, B1 |
| 12 | 12 | 85 to 255 | LK 1301-7R | no | -9, E, D, P, T, B1 |
| 12 | 12 | 85 to 264 | LK 4301-7R | yes | -9, E, D, P, T, B1 |
| 15 | 10 | 85 to 255 | LK 1501-7R | no | -9, E, D, P, T, B1 |
| 15 | 10 | 85 to 264 | LK 4501-7R | yes | -9, E, D, P, T, B1 |
| 24 | 6 | 85 to 255 | LK 1601-7R | no | -9, E, D, P, T, B1 |
| 24 | 6 | 85 to 264 | LK 4601-7R | yes | -9, E, D, P, T, B1 |
| 24 | 6 | 85 to 255 | LK 2320-7R | no | -9, E, D, P, T, B1 |
| 24 | 6 | 85 to 264 | LK 5320-7R | yes | -9, E, D, P, T, B1 |
| 30 | 5 | 85 to 255 | LK 2540-7R | no | -9, E, D, P, T, B1 |
| 30 | 5 | 85 to 264 | LK 5540-7R | yes | -9, E, D, P, T, B1 |
| 48 | 3 | 85 to 255 | LK 2660-7R | no | -9, E, D, P, T, B1 |
| 48 | 3 | 85 to 264 | LK 5660-7R | yes | -9, E, D, P, T, B1 |
| 12, 12 | 6, 6 | 85 to 255 | LK 2320-7R | no | -9, E, D, P, T, B1 |
| 12, 12 | 6, 6 | 85 to 264 | LK 5320-7R | yes | -9, E, D, P, T, B1 |
| 15, 15 | 5, 5 | 85 to 255 | LK 2540-7R | no | -9, E, D, P, T, B1 |
| 15, 15 | 5, 5 | 85 to 264 | LK 5540-7R | yes | -9, E, D, P, T, B1 |
| 24, 24 | 3, 3 | 85 to 255 | LK 2660-7R | no | -9, E, D, P, T, B1 |
| 24, 24 | 3, 3 | 85 to 264 | LK 5660-7R | yes | -9, E, D, P, T, B1 |

- Universal wide input voltage range
- Efficient input filter
- LK 1000/2000 no PFC, f_{in} 47 to 440 Hz
- LK 4000/5000 power factor >0.95, harmonics <IEC 61000-3-2
- Output voltage control (R) and inhibit
- Input over- and undervoltage lock-out
- Surge and transient suppression circuitry
- I/O electric strength test 5.6 kVDC
- Fully isolated outputs
- Outputs open- and short-circuit proof
- Temperature range -7 (-6): -25 to 71 (60)°C
- No derating over temperature
- Safety: Class I equipment according to IEC/EN 60950, UL 1950
- Special types for battery charging with temperature sensor (S-KSMW) available

Options:

- 9 Ambient temperature range -40 to 71°C
- E Inrush current limitation
- D Save data signal
- V ACFAIL signal (for 5.1 V output)
- P Potentiometer for V_O
- T Current sharing
- B1 Cooling plate



K Series

150 Watt AC/DC converters
Input-to-output isolation
1 or 2 outputs up to 48 VDC
Input voltage up to 264 VAC



6.6 x 4.4(3U) x 3.2(16 TE) inch
168 x 111 x 80 mm

AC/DC Cassette

Unsigned output voltages are isolated and can be used as either + or - polarities.

KP Series with PFC

280 Watt AC/DC converters
 Input-to-output isolation
 1 or 2 outputs up to 48 VDC
 Input voltage up to 255 VAC



6.6 x 4.4(3U) x 3.2(16 TE) inch
 168 x 111 x 80 mm

| Output Voltage 1, 2 | Output Current 1, 2 (Amps) | Input Voltage | Model | Options |
|---------------------|----------------------------|---------------|-------------|------------------------|
| 24 | 10.4 | 187 to 255 | LKP 5660-6R | -5, -7, E, D, P, T, B1 |
| 25.25 to 28.25 | 9 | 187 to 255 | LKP 5740-6R | -5, -7, E, D, P, T, B1 |
| 48 | 5.2 | 187 to 255 | LKP 5660-6R | -5, -7, E, D, P, T, B1 |
| 50.5 to 56.5 | 4.5 | 187 to 255 | LKP 5740-6R | -5, -7, E, D, P, T, B1 |
| 24, 24 | 5.2, 5.2 | 187 to 255 | LKP 5660-6R | -5, -7, E, D, P, T, B1 |

- Efficient input filter
- Power factor >0.95
- Harmonics <IEC 61000-3-2
- Output voltage control (R) and inhibit
- Input over- and undervoltage lock-out
- Surge and transient suppression circuitry
- I/O electric strength test 5.6 kVDC
- Fully isolated outputs
- Outputs open- and short-circuit proof
- Ambient temperature range -6: -25 to 60°C
- No derating over temperature
- Safety: Class I equipment according to IEC/EN 60950, UL 1950
- Special types for battery charging with temperature sensor (S-KSMW) available

Options:

- 5 Ambient temperature range -25 to 50°C
 $P_O \text{ max} = 280 \text{ W}$
- 7 Ambient temperature range -25 to 71°C
 $P_O \text{ max} = 230 \text{ W}$
- E Inrush current limitation
- D Save data signal
- P Potentiometer for V_O
- T Current sharing
- B1 Cooling plate



Comprehensive Information

- Product Data Sheets
- Application Notes
- New Product Announcements
- Power-One Contacts
- Investor Relations



Product Selection

- AC/DC Power Supplies
- DC/DC Converters
- Telecom Power Plants
- Power Accessories
- Modular Product Configurator



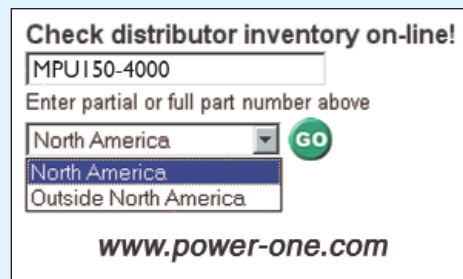
Technical Reference

- Technical Articles
- Industry Links
- Regulatory Agency Information
- Power Conversion Glossary



Distributor Inventory

- Locates Power-One Products Fast
- Links to Distributor Ordering Pages Provide Price and Availability



Product Update 2002 Edition Two

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