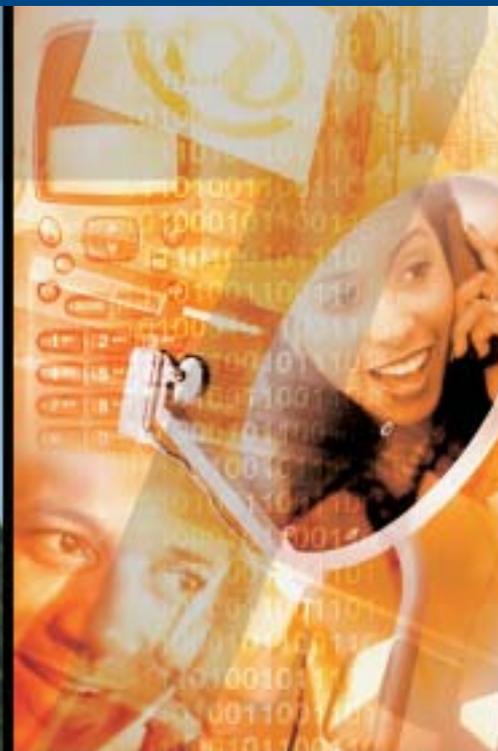




2004 Power Selection Guide



Power Solutions

www.astecpower.com



Looking for the ideal power solution . . .

Welcome to the 2004 Astec Power Selection Guide. This guide is your source for finding the power supply to suit your application. Detailing the main power supplies and converters in our standard product ranges, the tables on the following pages will let you hone in quickly to the specifications you need. When you have found a suitable AC/DC power supply or DC/DC converter, you may download detailed information from our website (www.astecpower.com) and contact your local Astec distributor or representative for additional details, samples and pricing information.

Cannot find a power supply you need?

If you cannot find the exact power source needed in this selection guide, call Astec Power or your local Astec distributor or representative. Astec Power offers one of the most flexible power supply design services available today. With our design capabilities, ranging from standard products to full custom designs, Astec can provide the best power supply to meet your specifications.

Quality processes, quality products

All products manufactured by Astec Power meet international safety standards, as well as international regulations on electrical noise and EMC. Additionally, we offer a variety of power supplies with full medical safety approval to EN6061 and UL2601.

Our manufacturing locations are certified to the international ISO9000 quality standard, and the entire organization is committed to a total quality philosophy. Astec Power has design and production operations on three continents to best serve our international customer base with quality products that are reliable, delivered on time and competitively priced.

Astec Power is a worldwide leading supplier of standard, modified standard, and custom AC/DC and DC/DC power supplies from 1 watt to 18 kilowatt. Astec Power is dedicated to advanced research and development, sophisticated manufacturing automation, and in-process testing to deliver power system solutions.

Astec Power delivers power solutions for a diverse range of applications in a variety of industries including telecommunications, networking, computing, office systems, medical, industrial, process control, test & measurement.



... Astec Power is your first choice!

Plug-in solutions for today's OEMs ...

Astec Power produces AC/DC power supplies as well as DC/DC converters, and is a worldwide, leading supplier of power conversion products.

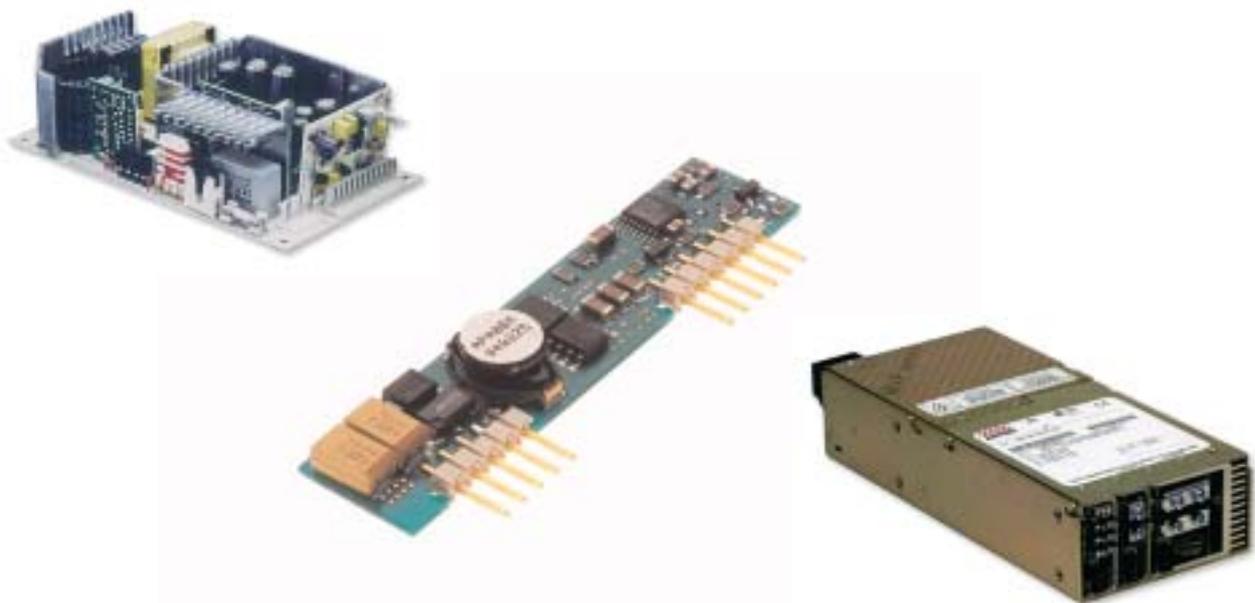
... whether you need the best performance or the lowest cost

Astec Power offers a wide range of DC-DC converter products to solve the most demanding board-mounted power needs. Featuring products with high efficiency, high power density, and excellent system stability, as well as "on-board distributed power" (POL) product families, Astec is well positioned to provide the best solution to telecom, industrial and other demanding applications. Engineering resources have recently been expanded to meet the demands of this growing market with design centers located throughout Asia and North America. Astec Power has a full range of DC-DC applications from 1-1600 Watt in industry standard size packages (full-brick, 1/2, 1/4, 1/8, 1/16, 2x2 and 1x2); available for 48Vdc and 24Vdc applications and in single and dual output configurations.

Powerful web presence

Astec Power's website always contains the latest information and provides a wealth of powerful customer support services, as well as complete details on our product lines. You can locate your nearest customer service office or distributor, or request information with the click of a mouse.

Astec Power produces a wide range of literature for product support designed to help you choose the best AC/DC power supply or DC/DC converter for your application. These documents are available on our comprehensive website. The site includes datasheets for every standard product, together with downloadable application notes, technical reference notes, safety information, EMC certificates, and more.



Low Power AC/DC Power Supplies (25 Watt to 350 Watt)

Are you looking for a low power AC/DC power supply? A quick glance over the following table documents an extensive range of solutions, spanning 25 to 350 Watt, with a wide choice of output options. All the power supplies shown below are compact, high-efficiency switch-mode designs.

All of Astec Power's AC/DC power supplies feature universal input – making them suitable for use anywhere in the world – and most of the models above 60 Watt are available with harmonic current correction to meet the EN61000-3-2 standard. So whether you are seeking a simple, low-cost power supply for general use, or a more specialized low-voltage, high-current source for logic-intensive applications, Astec Power can fill your needs.

Low Power AC/DC Power Supplies (25 Watt to 350 Watt)						
Output Power	Output voltage@maximum output current (Peak output current)				Size	Model number
	1	2	3	4	LxWxH in mm	
25 Watt	5V @ 5A (8A)				127x76.2x32 mm	LPS22 ¹
25 Watt	12V @ 2.1A (3.3A)				127x76.2x32 mm	LPS23 ¹
25 Watt	15V @ 1.7A (2.7A)				127x76.2x32 mm	LPS24 ¹
25 Watt	24V @ 1.1A (1.8A)				127x76.2x32 mm	LPS25 ¹
25 Watt	5V @ 3A (4A)	12V @ 1.5A (2A)	-12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT22 ¹
25 Watt	5V @ 4A (5A)	12V @ 0.5A (0.7A)	-12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT23 ¹
25 Watt	5V @ 3A (4A)	12V @ 1.5A (2A)	-5V @ 0.5A (0.7A)		127x76.2x32 mm	LPT24 ¹
25 Watt	5V @ 3A (4A)	15V @ 1.5A (2A)	-15V @ 0.5A (0.7A)		127x76.2x32 mm	LPT25 ¹
40 Watt	3.3V @ 8A (11A)				127x76.2x32 mm	LPS41 ¹
40 Watt	5V @ 8A (11A)				127x76.2x32 mm	LPS42 ¹
40 Watt	12V @ 3.3A (4.5A)				127x76.2x32 mm	LPS43 ¹
40 Watt	15V @ 2.6A (3.6A)				127x76.2x32 mm	LPS44 ¹
40 Watt	24V @ 1.6A (2.3A)				127x76.2x32 mm	LPS45 ¹
40 Watt	48V @ 0.9A (1.2A)				127x76.2x32 mm	LPS48 ¹
40 Watt	5V @ 8A (11A)				127x76.2x32 mm	LPS42-M ¹
40 Watt	12V @ 3.3A (4.5A)				127x76.2x32 mm	LPS43-M ¹
40 Watt	15V @ 2.6A (3.6A)				127x76.2x32 mm	LPS44-M ¹
40 Watt	24V @ 1.6A (2.3A)				127x76.2x32 mm	LPS45-M ¹
40 Watt	3.3V @ 4A (7A)	5V @ 1.5A (2A)	12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT41 ¹
40 Watt	5V @ 2A (5A)	12V @ 2A (2.5A)	-12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT42 ¹
40 Watt	5V @ 6A (8A)	12V @ 2A (0.7A)	-12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT43 ¹
40 Watt	5V @ 4A (5A)	12V @ 2A (2.5A)	-5V @ 0.5A (0.7A)		127x76.2x32 mm	LPT44 ¹
40 Watt	5V @ 4A (5A)	15V @ 2A (2.5A)	-15V @ 0.5A (0.7A)		127x76.2x32 mm	LPT45 ¹
40 Watt	5V @ 4A (5A)	24V @ 1A (1.5A)	12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT46 ¹
40 Watt	5V @ 4A (5A)	24V @ 1A (1.5A)	-12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT47 ¹
40 Watt	5V @ 4A (5A)	12V @ 2A (2.5A)	-12V @ 0.5A (0.7A)		127x76.2x32 mm	LPT42-M ¹
40 Watt	5V @ 4A (5A)	15V @ 2A (2.5A)	-15V @ 0.5A (0.7A)		127x76.2x32 mm	LPT45-M ¹
47 Watt	5V @ 4A (7A)	12V @ 1A (1.2A)	-12V @ 0.5A (0.5A)		127x76.2x32 mm	LCT43-E



Low Power AC/DC Power Supplies (25 Watt to 350 Watt)

Low Power AC/DC Power Supplies (25 Watt to 350 Watt)						
Output	Output voltage@maximum output current (Peak output current)				Size	Model
Power	1	2	3	4	LxWxH in mm	number
60 Watt	3.3V@12A (16A)				127x76.2x32	LPS61 ¹
60 Watt	5V @ 12A (16A)				127x76.2x32	LPS62 ¹
60 Watt	12V @ 5A (6.7A)				127x76.2x32	LPS63 ¹
60 Watt	15V @ 4A (5.3A)				127x76.2x32	LPS64 ¹
60 Watt	24V @ 2.5A (3.3A)				127x76.2x32	LPS65 ¹
60 Watt	48V @ 1.3A (1.7A)				127x76.2x32	LPS68 ¹
60 Watt	12V @ 5A (6.7A)				127x76.2x32	LPS63-M ¹
60 Watt	15V @ 4A (5.3A)				127x76.2x32	LPS64-M ¹
60 Watt	24V @ 2.5A (3.3A)				127x76.2x32	LPS65-M ¹
60 Watt	3.3V @ 5A (8.5A)	5V @ 2.5A (3A)	12V @ 0.5A (1A)		127x76.2x32	LPT61 ¹
60 Watt	5V @ 7A (8A)	12V @ 3A (3.5A)	-12V @ 0.7A (1A)		127x76.2x32	LPT62 ¹
60 Watt	5V @ 7A (8A)	15V @ 2.8A (3.3A)	-15V @ 0.7A (1A)		127x76.2x32	LPT63 ¹
60 Watt	5V @ 7A (8A)	12V @ 3A (3.5A)	-5V @ 0.7A (1A)		127x76.2x32	LPT64 ¹
60 Watt	5V @ 7A (8A)	24V @ 1.5A (2A)	12V @ 0.7A (1A)		127x76.2x32	LPT65 ¹
60 Watt	5V @ 7A (8A)	12V @ 3A (3.5A)	-12V @ 0.7A (1A)		127x76.2x32	LPT62-M ¹
60 Watt	5V @ 7A (8A)	15V @ 2.8A (3.3A)	-15V @ 0.7A (1A)		127x76.2x32	LPT63-M ¹
80 Watt	3.3V @ 8A (13A)	5V @ 4A (13A)	12V @ 0.7A (1A)		127x76.2x32	LPT81 NEW
80 Watt	5V @ 8A (13A)	12V @ 3A (4A)	-12V @ 0.7A (1A)		127x76.2x32	LPT82 NEW
80 Watt	5V @ 8A (13A)	15V @ 2.4A (3.2A)	-15V @ 0.7A (1A)		127x76.2x32	LPT83 NEW
110 Watt	12V @ 6.7A (9.2A)				177.8x101.6x48.7	LPS113 ^{1,2}
110 Watt	15V @ 5.3A (7.3A)				177.8x101.6x48.7	LPS114 ^{1,2}
110 Watt	24V @ 3.3A (4.6A)				177.8x101.6x48.7	LPS115 ^{1,2}
110 Watt	48V @ 1.7A (2.3A)				177.8x101.6x48.7	LPS118 ^{1,2}
110 Watt	5V @ 9A (11A)	12V @ 4.5A (5A)	-12V @ 0.7A (1A)	±5-25V @ 2.5A (3A)	177.8x101.6x48.7	LPQ112 ^{1,2}
110 Watt	5V @ 9A (11A)	15V @ 4.5A (5A)	-15V @ 0.7A (1A)	±5-25V @ 2.5A (3A)	177.8x101.6x48.7	LPQ113 ^{1,2}
110 Watt	5V @ 9A (11A)	12V @ 4.5A (5A)	-12V @ 0.7A (1A)	24V @ 3.5A (4.5A)	177.8x101.6x48.7	LPQ114 ^{1,2}
120 Watt	24V @ 3.4A (5.4A)				127x76.2x32	LPS125 NEW
120 Watt	48V @ 1.7A (2.7A)				127x76.2x32	LPS128 NEW
120 Watt	3.3V @ 14A (25A)	5V @ 12.5A (24A)	12V @ 1A (2A)	-12V @ 0.5A (1A)	177.8x101.6x38.1	NTQ123
120 Watt	3.3V @ 14A (25A)	5V @ 12.5A (24A)	12V @ 1A (2A)	-12V @ 0.5A (1A)	177.8x101.6x38.1	NTQ123-DC
145 Watt	5V @ 12A (25A)	12V @ 5A (6A)	-12V @ 1A (1.5A)	±3.3-25V @ 2.5A (4.5A)	177.8x101.6x38.1	LPQ142 ^{1,3} NEW
150 Watt	5V @ 22A (30A)				216x108x38.1	LPS152 ¹
150 Watt	12V @ 9.1A (12.5A)				216x108x38.1	LPS153 ¹
150 Watt	24V @ 4.5A (6.2A)				216x108x38.1	LPS155 ¹
150 Watt	5V @ 15A (22A)	12V @ 6A (8A)	-12V @ 2A (2.5A)	±5-25V @ 2.5A (3A)	216x108x38.1	LPQ152 ¹
150 Watt	5V @ 15A (22A)	15V @ 4.8A (6.4A)	-15V @ 1.6A (2A)	±5-25V @ 2.5A (3A)	216x108x38.1	LPQ153 ¹
150 Watt	5V @ 15A (22A)	12V @ 6A (8A)	-12V @ 2A (2.5A)	24V @ 3.5A (4.5A)	216x108x38.1	LPQ154 ¹



Low Power AC/DC Power Supplies (25 Watt to 350 Watt)

Low Power AC/DC Power Supplies (25 Watt to 350 Watt)						
Output	Output voltage@maximum output current (Peak output current)				Size	Model
Power	1	2	3	4	LxWxH in mm	number
165 Watt	3.3V @ 15A (30A)	5V @ 10A (20A)	12V* @ 2A (4.5A)	12V* @ 2A (4.5A)	216x108x38.1	NTQ162
165 Watt	5V @ 15A (30A)	3.3V @ 10A (20A)	12V* @ 2A (4.5A)	12V* @ 2A (4.5A)	216x108x38.1	NTQ163
165 Watt	3.3V @ 15A (30A)	2.5V @ 10A (20A)	5V* @ 2A (4A)	12V* @ 2A (4A)	216x108x38.1	NTQ165
175 Watt	5V @ 22A (35A)				216x108x38.1	LPS172 ¹
175 Watt	12V @ 9.1A (15A)				216x108x38.1	LPS173 ¹
175 Watt	15V @ 7.3A (12A)				216x108x38.1	LPS174 ¹
175 Watt	24V @ 4.5A (7.5A)				216x108x38.1	LPS175 ¹
175 Watt	5V @ 22A (35A)				216x108x38.1	LPS172-M ¹
175 Watt	12V @ 9.1A (15A)				216x108x38.1	LPS173-M ¹
175 Watt	15V @ 7.3A (12A)				216x108x38.1	LPS174-M ¹
175 Watt	24V @ 4.5A (7.5A)				216x108x38.1	LPS175-M ¹
175 Watt	5V @ 15A (30A)	12V @ 6A (8A)	-12V @ 2A (3A)	±3.3-25V @ 2.5A (5A)	216x108x38.1	LPQ172 ¹
250 Watt	5V @ 50A				228.6x127x50.8 ⁵	LPS252-C ^{3,4}
250 Watt	12V @ 21A				228.6x127x50.8 ⁵	LPS253-C ^{3,4}
250 Watt	15V @ 16.7A				228.6x127x50.8 ⁵	LPS254-C ^{3,4}
250 Watt	24V @ 10.4A				228.6x127x50.8 ⁵	LPS255-C ^{3,4}
250 Watt	5V @ 35A	12V @ 10A	-12V @ 6A	±5-25V @ 6A	228.6x127x50.8 ⁵	LPQ252-C ^{3,4}
250 Watt	5V @ 35A	15V @ 10A	-15V @ 6A	±5-25V @ 6A	228.6x127x50.8 ⁵	LPQ253-C ^{3,4}
350 Watt	5V @ 70A				228.6x127x50.8 ⁵	LPS352-C ^{3,4}
350 Watt	12V @ 29.2A				228.6x127x50.8 ⁵	LPS353-C ^{3,4}
350 Watt	15V @ 23.3A				228.6x127x50.8 ⁵	LPS354-C ^{3,4}
350 Watt	24V @ 14.6A				228.6x127x50.8 ⁵	LPS355-C ^{3,4}
350 Watt	5V @ 50A	12V @ 12A	-12V @ 6A	3.3-24V @ 6A	228.6x127x50.8 ⁵	LPQ352-C ^{3,4}
350 Watt	5V @ 50A	15V @ 12A	-15V @ 6A	3.3-24V @ 6A	228.6x127x50.8 ⁵	LPQ353-C ^{3,4}

NEW
NEW
NEW
NEW
NEW
NEW
NEW
NEW
NEW
NEW

Notes:

- 1) Optional cover
- 2) Optional bracket
- 3) Optional top fan cover
- 4) Optional end fan cover
- 5) Different dimension: -CF= 228.6 x 127 x 76.2 mm; -CEF = 262 x 127 x 50.8 mm;
- *) Floating output



Medium Power AC/DC Power Supplies 400 - 1200 Watt

Custom solution using a standard product

Are you looking for a medium power AC/DC power supply? Astec Power has it with the MP Series. A quick glance over the following table will show you that we have a comprehensive product offering from 400 to 1200 Watt with a wide choice of output options.

All of our MP configured power supplies feature universal input – giving them the flexibility for use anywhere worldwide – and all configurations are available with harmonic current correction to meet the EN61000-3-2 standard. Astec Power also offers a low noise fan, customer provided air, fan fail signal and low leakage options.

Features

- Power factor correction
- IEC EN61000-3-2 harmonic distortion compliance
- CISPR 22, EN55022 Curve B conducted / radiated EMI
- IEC 1000 immunity standards
- European CE Mark requirements
- Current share on all outputs with ratings of 10A or greater
- Remote sense on all outputs with ratings greater than 2A
- Overload protection on all outputs
- Voltage adjustment on all outputs
- Margining on all single output modules
- Input OK signal and status indicator LED
- Global DC OK signal and status indicator LED
- Global inhibit, optional enable and isolated module inhibit
- 2-year warranty
- Forced air cooling, with field replaceable fan
- Isolated standby 5V@250 mA bias voltage STD 5V@ 1A bias voltage optional



Environmental

Operating temperature: . . -20°C to 50°C (start @ 0°C)(derate each output linearly to 50% at 70°C)
(-20°C to 40°C max. with rear air option)
Cooling: Internal DC fan (Field replaceable) (P/N 73-688-0001)
Shock/Vibration: Mil-Hdbk 810E
Humidity: Up to 95% non-condensing
Storage temperature: . . . -40°C to +85°C
Temperature coefficient: . . 0.02% per °C

Safety

UL / CSA UL60950 3rd Ed and CSA C22.2 60950
TUV EN60950
CB. Certificate and report
CE Mark

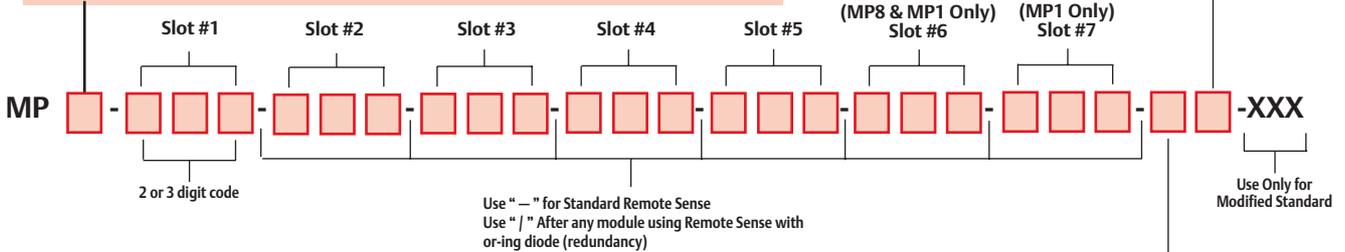


Medium Power AC/DC Power Supplies 400 - 1200 Watt

Case Size (inches)	Slots	INPUT	
		85-264 VAC	180-264 VAC
4 = 2.5 x 5 x 10	5 available slots	400 W max.	600 W max.
6 = 2.5 x 5 x 11	5 available slots	600 W max.	800 W max.
8 = 2.5 x 7 x 10	6 available slots	800 W max.	1000 W max.
1 = 2.5 x 8 x 11	7 available slots	1000 W max.*	1200 W max.

* 1200 W modification available at high line operation

Option Code:
0 = no options
1 = rear air exhaust
3 = global enable
5 = option package (options 1 & 3)
M = low leakage
N = low leakage plus option 1
P = low leakage plus option 3
R = low leakage plus option 5



- Notes:
- Omit digits that do not apply.
 - Specify modules from lowest number of outputs to highest. (Single/Dual/Triple)
 - If number of outputs are equal, specify modules from highest to lowest power increments. If power increments are equal, specify in descending alphabetical order (1A, B, C...).
 - Always start with Slot 1.
 - All MP model configurations created using this selection guide are standard MP products with standard availability and lead times.
 - Optional VME/DCOK module must always be located in the last slot. Module designator is "VME".

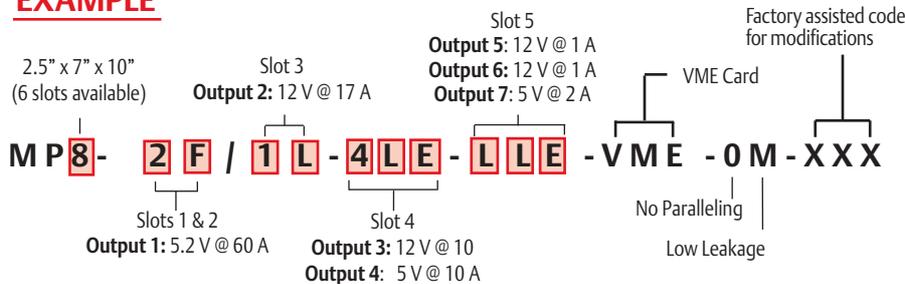
Parallel Code:

MP4 & MP6 available slots	Slot 5	Slot 4	Slot 3	Slot 2	Slot 1		
MP8 available slots	Slot 6	Slot 5	Slot 4	Slot 3	Slot 2	Slot 1	
MP1 available slots	Slot 7	Slot 6	Slot 5	Slot 4	Slot 3	Slot 2	Slot 1

Standard Parallel Codes*	7	6	5	4	3	2	1
0 = no parallel	o	o	o	o	o	o	o
1 = 1 & 2	o	o	o	o	o	o	o
2 = 2 & 3	o	o	o	o	o	o	o
3 = 3 & 4	o	o	o	o	o	o	o
4 = 4 & 5	o	o	o	o	o	o	o
5 = 3 & 4 & 5	o	o	o	o	o	o	o
6 = 5 & 6	o	o	o	o	o	o	o
7 = 4, 5 & 6	o	o	o	o	o	o	o
8 = 6 & 7	o	o	o	o	o	o	o
9 = 3 & 4, 6 & 7	o	o	o	o	o	o	o

*For custom parallel configurations contact Astec Power Technical Support.

EXAMPLE



High Power AC/DC Power Supplies 1000 - 2500 Watt

Are you looking for a high power AC/DC power supply? The following table will show you a broad range of solutions, spanning 1000 to 2500 Watt, with a wide choice of output options.

The VS Series is a modular, flexible design offering up to 12 outputs to accommodate any combination of output voltages and currents. The VS series is one of the industry's most compact high-power products with a standard PFC front end.

Features

- Power factor correction
- IEC 555-2 harmonic distortion compliance
- CISPR 22, EN55022 Level A conducted / radiated EMI
- EN61000 immunity standards
- European CE Mark
- Current share on all outputs
- Remote sense on all outputs
- Overload protection on all outputs
- Voltage adjustment on all outputs
- Margining on all outputs
- AC OK signal (logics "1" of "0")
- Global DC OK (logics "1" of "0")
- DC OK signal and status indicator LED on all outputs
- Global and individual module inhibits/enable
- 3-year warranty
- 2500 W with 3-phase US input

Environmental

Operating temperature: -10°C to 50°C (derate each output linearly to 60% at 70°C)
(40°C max. for reverse air (option1)

Shock/Vibration: Mil-Hdbk 810E

Humidity: Up to 95% non-condensing

Storage temperature: -55°C to +85°C

Temperature coefficient: 0.02% per °C

Cooling: Internal DC fan 24V)

Safety

UL / CSA UL60950 3rd Ed and CSA C22.2 60950

TUV EN60950

CB. Certificate and report

CE Mark



High Power AC/DC Power Supplies 1000 - 2500 Watt

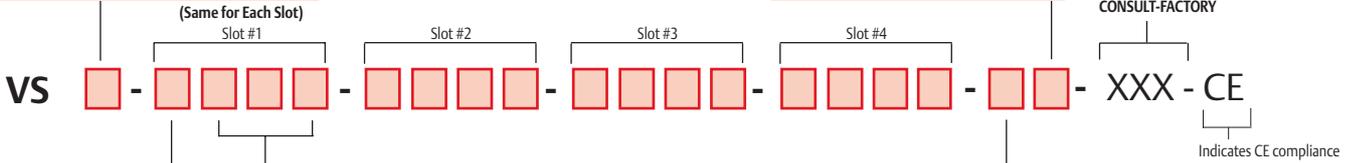
Case size

1 = 5 inch, 2 slot, 1500 W max 1Ø
 3 = 8 inch, 4 slot, 2000 W max 1Ø
 6 = 5 inch, 2 slot, 1500 W max 3Ø
 8 = 8 inch, 4 slot, 2500 W max 3Ø

Option Code

0 = no options
 1 = rear air exhaust (40°C max.)
 3 = set unit for global enable
 5 - option 1 & 3

USE ONLY FOR
 MODIFIED STANDARD,
 CONSULT-FACTORY



Output Module Code

A = 300 W single 1 slot
 B = 600 W single 1 slot
 C = 900 W single 2 slots
 D = 1200 W single 2 slots
 E = 250 W dual 1 slot
 F = 250 W triple 1 slot
 G = 500 W dual 1 slot
 H = 500 W triple 1 slot
 K = 750 W single 1 slot
 L = 1500 W single 2 slots

Output Voltage Code

0 = 2V
 1 = 3.3V
 2 = 5V
 3 = 12V
 4 = 15V
 5 = 24V
 6 = 28V
 7 = 36V
 8 = special voltage (consult factory)
 9 = 48V

Configuration Rules

- Omit digits that do not apply.
- Specify modules from lowest number of outputs to highest.
 - If number of outputs are equal, specify from highest to lowest power increments.
 - If power increments are equal, specify from highest to lowest current.
- All model configurations created using this selection guide represent standard products with standard availability and lead times.
- If slots are left empty, a blank panel will be automatically installed.

Parallel Code

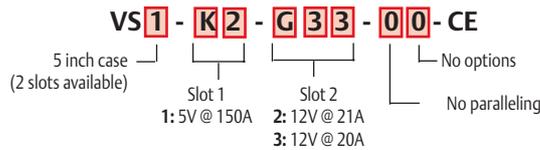
VS1 and VS6 available slots

VS3 and VS8 available slots

Parallel Codes

- 0 = no parallel
 1 = 1 & 2
 2 = 2 & 3
 3 = 3 & 4
 4 = 1 & 2 & 3
 5 = 2 & 3 & 4
 6 = 1 & 2 & 3 & 4
 7 = 1 & 2 & 3 & 4

Example



Output Current

Output Voltage Identification

Module Identification

Output Voltage Code	Output Voltage	A (1 slot) 300 W Single	B (1 slot) 600 W Single	C (2 slots) 900 W Single	D (2 slots) 1200 W Single	E, F (1 slot) 250 W Multi Main Output	G, H (1 slot) 500 W Multi Main Output	K (1 slot) 750 W Single	L (2 slots) 1500 W Single
0	2V	60 A	120 A	180 A	240 A	25 A	50 A	150 A	300 A
1	3.3V	60 A	120 A	180 A	240 A	25 A	50 A	150 A	300 A
2	5V	60 A	120 A	180 A	240 A	25 A	50 A	150 A	300 A
3	12V	25 A	50 A	75 A	100 A	10.5 A	21 A	62.5 A	125 A
4	15V	20 A	40 A	60 A	80 A	8.3 A	16.6 A	50 A	100 A
5	24V	12.5 A	25 A	37.5 A	50 A	5.3 A	10.5 A	31.2 A	62.4 A
6	28V	10.7 A	21.4 A	32.1 A	42.8 A	4.5 A	9 A	26.7 A	53.4 A
7	36V	8.3 A	16.6 A	24.9 A	33.2 A	N/A	N/A	20.8 A	41.6 A
9	48V	6.3 A	12.5 A	18.75 A	25 A	N/A	N/A	15.6 A	31.2 A

Note: Increments of current not shown can be achieved by paralleling modules (add currents of each module selected).

Auxiliary Output Table: Output(s) 2 and/or 3 of Module

Voltage Identification

Module Identification

Output Voltage Code	Output Voltage	E 250 W Dual Aux. Output	F 250 W Triple Aux. Output	G 500 W Dual Aux. Output	H 500 W Triple Aux. Output
0	2V	10 A	5 A	20 A	10 A
1	3.3V	10 A	5 A	20 A	10 A
2	5V	10 A	5 A	20 A	10 A
3	12V	10 A	5 A	20 A	10 A
4	15V	10 A	5 A	20 A	10 A
5	24V	5 A	2.5 A	10 A	5 A
6	28V	5 A	2.5 A	10 A	5 A



Bulk Power AC/DC Power Supplies 1000 - 18,000 Watt

The HPS Series is the power industry's answer to bulk front-end power. Utilizing innovative and reliable designs, the HPS is a full-featured, PFC-corrected power module with wide range input and bulk output, from 24 to 60V. With five power ranges, spanning 1000 to 18,000 Watt, these modules can be hot-plugged into standard racks for a total system bulk power of 1000 to 18,000 Watt.

Features

- Integrated OR-ing diode
- Remote Sense on Bulk output
- Overload protection on all outputs
- Active Inrush limiting
- PFC to 0.99 typical EN61000-3-2
- CISPR22, EN55022 Curve B conducted/radiated EMI
- EN61000 immunity standards
- Optional 48 W fan voltage (12 V or 24 V)
- Standard 5 V at 5 A standby voltage (3.3V option)
- No minimum load
- Overvoltage protection
- Input OK signal and indicator LED
- Inhibit/Enable
- Remote Margin/Voltage Programming
- Optional current monitor
- Optional AC Line discrimination
- Output Good signal and indicator LED
- Temp good signal and indicator LED
- Optional single wire digital temp monitor
- Optional module I²C interface
- Optional Rack μ Controller
- Hot Plug
- N+1 Redundant Standard
- Optional fan fail signal
- Module present signal
- Optional short circuit latch



Environmental

Operating temperature -10°C to +50°C ambient, derate output @ 2.5% per degree from 50°C to 70°C

Shock/Vibration Mil-Hdbk 810E

Humidity Up to 95% non-condensing

Storage temperature -40°C to +85°C

Temperature coefficient 0.02% per °C

Cooling Internal DC fan

Safety

UL / CSA UL60950 3rd Ed and CSA C22.2 60950

TUV EN60950

CB Certificate and report

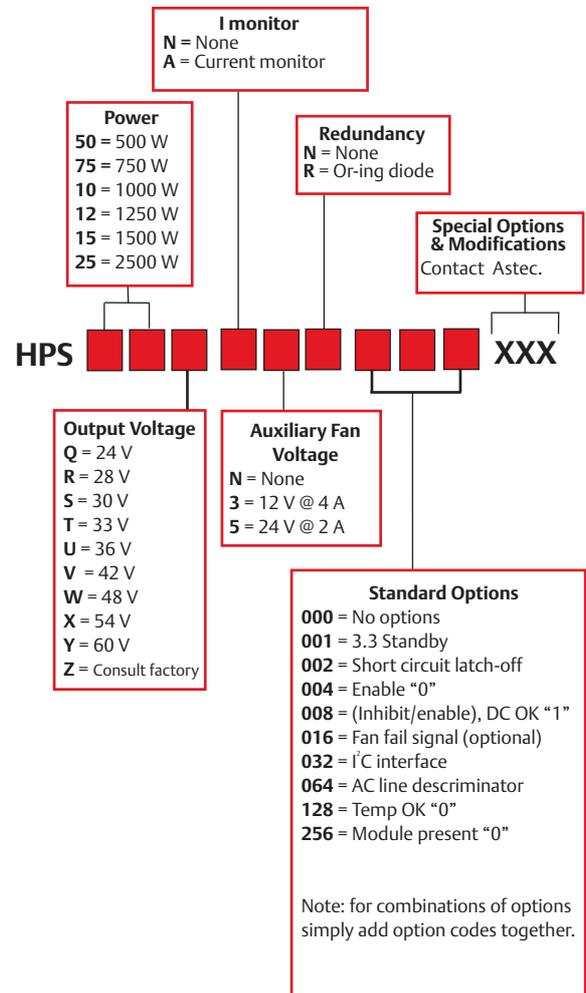
CE Mark

Bulk Power AC/DC Power Supplies 1000 - 18,000 Watt

Modules

Watt	1000	1250	1500	3000
Input Voltage	85-264	90-264	180-264	180-264
Module ID	HPS10	HPS12	HPS15	HPS3KW
Code	Volts	Output Amps	Output Amps	Output Amps
Q	24.0	41.7	52.1	62.5
R	28.0	35.7	44.6	53.6
S	30.0	33.3	41.7	50.0
W	48.0	20.8	26.0	31.3
X	54.0	18.5	23.1	27.8
Y	60.0	16.7	20.8	25.0

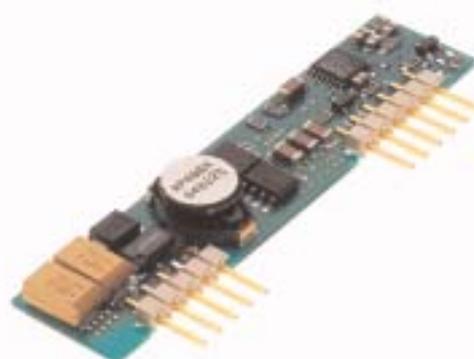
Module Code	Max. Size (H x W x L)	Max. Module Power	Max. Number per Rack	Unit Weight (lbs)
HPS10	5.04" x 3.83" x 12.5"	1000 W	4	10.5
HPS12	5.04" x 3.83" x 12.5"	1250 W	4	10.5
HPS15	5.04" x 3.83" x 12.5"	1500 W	4	10.5



Point of Load DC/DC Converters - Non-Isolated

POL converters enable designers to overcome problems caused by high peak current demands and low noise margins of the latest high speed digital devices by placing individual, non-isolated, DC sources near their point of use. This helps minimize voltage drop and noise pick-up while ensuring tight regulation under dynamic load conditions. The APA Series are SIP package type, while the APC Series are SMT package type. More SMT products can also be found on page 20.

Point of Load DC/DC Converters (7 Watt to 40 Watt)						
Output Power	Output Voltage	Output Current	Input Voltage	Efficiency	Size (in mm)	Part Number
7.2 watt	0.9 V	8A	1.8 to 6.0 VDC	70%	33.0 x 13.46 x 8.0	APC08J03
7.2 watt	0.9 V	8A	5.0 to 13.0 VDC	70%	33.0 x 13.46 x 8.0	APC08J08
9 watt	1.5 V	6A	3.0 to 5.5 VDC	81%	63.5 x 13.97 x 7.87	APA06M04
9.6 watt	1.2 V	8A	1.8 to 6.0 VDC	80%	33.0 x 13.46 x 8.0	APC08K03
9.6 watt	1.2 V	8A	5.0 to 13.0 VDC	80%	33.0 x 13.46 x 8.0	APC08K08
10.8 watt	1.8 V	6A	3.0 to 5.5 VDC	83%	63.5 x 13.97 x 7.87	APA06Y04
10.8 watt	0.9 V	12A	1.8 to 6.0 VDC	76%	33.0 x 16.0 x 9.3	APC12J03
10.8 watt	0.9 V	12A	5.0 to 13.0 VDC	76%	33.0 x 16.0 x 9.3	APC12J08
12 watt	1.5 V	8A	1.8 to 6.0 VDC	81%	33.0 x 13.46 x 8.0	APC08M03
12 watt	1.5 V	8A	5.0 to 13.0 VDC	81%	33.0 x 13.46 x 8.0	APC08M08
12.6 watt	2.1 V	6A	3.0 to 5.5 VDC	86%	63.5 x 13.97 x 7.87	APA06D04
14.4 watt	1.8 V	8A	1.8 to 6.0 VDC	82%	33.0 x 13.46 x 8.0	APC08Y03
14.4 watt	1.8 V	8A	5.0 to 13.0 VDC	82%	33.0 x 13.46 x 8.0	APC08Y08
14.4 watt	1.2 V	12A	1.8 to 6.0 VDC	81%	33.0 x 16.0 x 9.3	APC12K03
14.4 watt	1.2 V	12A	5.0 to 13.0 VDC	81%	33.0 x 16.0 x 9.3	APC12K08
15 watt	2.5 V	6A	3.0 to 5.5 VDC	87%	63.5 x 13.97 x 7.87	APA06G05
18 watt	1.5 V	12A	1.8 to 6.0 VDC	86%	33.0 x 16.0 x 9.3	APC12M03
18 watt	1.5 V	12A	5.0 to 13.0 VDC	86%	33.0 x 16.0 x 9.3	APC12M08
20 watt	3.3 V	6A	4.5 to 5.5 VDC	90%	63.5 x 13.97 x 7.87	APA06F05
20 watt	5.0 V	4A	3.3 to 4.0 VDC	89%	63.5 x 13.97 x 7.87	APA04A03
20 watt	2.5 V	8A	1.8 to 6.0 VDC	86%	33.0 x 13.46 x 8.0	APC08G03
20 watt	2.5 V	8A	5.0 to 13.0 VDC	86%	33.0 x 13.46 x 8.0	APC08G08
21.6 watt	1.8 V	12A	1.8 to 6.0 VDC	87%	33.0 x 16.0 x 9.3	APC12Y03
21.6 watt	1.8 V	12A	5.0 to 13.0 VDC	87%	33.0 x 16.0 x 9.3	APC12Y08
24 watt	6 V	4A	8.5 to 13.0 VDC	95%	33.0 x 13.46 x 8.0	APC04S08
25 watt	5 V	5A	7.5 to 13.0 VDC	94%	33.0 x 13.46 x 8.0	APC05A08
26.4 watt	3.3 V	8A	1.8 to 6.0 VDC	89%	33.0 x 13.46 x 8.0	APC08F03
26.4 watt	3.3 V	8A	5.0 to 13.0 VDC	89%	33.0 x 13.46 x 8.0	APC08F08
30 watt	2.5 V	12A	1.8 to 6.0 VDC	90%	33.0 x 16.0 x 9.3	APC12G03
30 watt	2.5 V	12A	5.0 to 13.0 VDC	90%	33.0 x 16.0 x 9.3	APC12G08
39.6 watt	3.3 V	12A	1.8 to 6.0 VDC	92%	33.0 x 16.0 x 9.3	APC12F03
39.6 watt	3.3 V	12A	5.0 to 13.0 VDC	92%	33.0 x 16.0 x 9.3	APC12F08



Through-Hole Open-Frame / Unencapsulated DC/DC Converters

Our range of open-frame-isolated DC/DC converters for through-hole mounting is rapidly increasing; the following table shows that many of Astec's DC/DC converters are new to the market. Most of these have been developed in direct response to the growing need for high current, low voltage sources to power the latest semiconductor technologies. They are all pin-to-pin compatible with competitive products, making them ideal 'drop-in' replacements and second source options.

Through-Hole Open-Frame / Unencapsulated DC/DC converters (10 to 300 Watt)								
Output Power	Output Voltage		Output Current		Input Voltage	Efficiency	Size (in mm)	Part Number
	1	2	1	2				
10 watt	5 V		2A		36 to 75 VDC	84%	50.8 x 25.4 x 10.2	AA10C-048L-050S
10 watt	3.3 V		2.42A		9 to 36 VDC	82%	50.8 x 25.4 x 9.65	AA10U-024L-033S
10 watt	5 V		2A		9 to 36 VDC	82%	50.8 x 25.4 x 9.65	AA10U-024L-050S
10 watt	12 V		0.83A		9 to 36 VDC	82%	50.8 x 25.4 x 9.65	AA10U-024L-120S
10 watt	15 V		0.67A		9 to 36 VDC	82%	50.8 x 25.4 x 9.65	AA10U-024L-150S
10 watt	+ 5 V	- 5 V	+ 0.75A	- 0.75A	9 to 36 VDC	82%	50.8 x 25.4 x 9.65	AA10U-024L-050D
10 watt	+ 12 V	- 12 V	+ 0.375A	- 0.375A	9 to 36 VDC	82%	50.8 x 25.4 x 9.65	AA10U-024L-120D
10 watt	+ 15 V	- 15 V	+ 0.3A	- 0.3A	9 to 36 VDC	82%	50.8 x 25.4 x 9.65	AA10U-024L-150D
10 watt	3.3 V		2.42A		18 to 75 VDC	82%	50.8 x 25.4 x 9.65	AA10U-048L-033S
10 watt	5 V		2A		18 to 75 VDC	82%	50.8 x 25.4 x 9.65	AA10U-048L-050S
10 watt	12 V		0.83A		18 to 75 VDC	82%	50.8 x 25.4 x 9.65	AA10U-048L-120S
10 watt	15 V		0.67A		18 to 75 VDC	82%	50.8 x 25.4 x 9.65	AA10U-048L-150S
10 watt	+ 5 V	- 5 V	+ 0.75A	- 0.75A	18 to 75 VDC	82%	50.8 x 25.4 x 9.65	AA10U-048L-050D
10 watt	+ 12 V	- 12 V	+ 0.375A	- 0.375A	18 to 75 VDC	82%	50.8 x 25.4 x 9.65	AA10U-048L-120D
10 watt	+ 15 V	- 15 V	+ 0.3A	- 0.3A	18 to 75 VDC	82%	50.8 x 25.4 x 9.65	AA10U-048L-150D
15 watt	3.3 V		3A		36 to 75 VDC	80%	50.8 x 25.4 x 10.2	AA15C-048L-033S
15 watt	5 V		3A		36 to 75 VDC	84%	50.8 x 25.4 x 10.2	AA15C-048L-050S
15 watt	12 V		1.3A		36 to 75 VDC	88%	50.8 x 25.4 x 10.2	AA15C-048L-120S
20 watt	3.3 V		6A		36 to 75 VDC	79%	50.8 x 40.6 x 10.2	AA20C-048L-033S-M1
20 watt	5 V		4A		36 to 75 VDC	84%	50.8 x 40.6 x 10.2	AA20C-048L-050S
20 watt	12 V		2A		36 to 75 VDC	87%	50.8 x 40.6 x 10.2	AA20C-048L-120S
25 watt	12 V		2.08A		18 to 75 VDC	82%	50.8 X 50.8 X 13.2	AA25N-024L-120S
25 watt	+ 15 V	- 15 V	+ 0.83A	- 0.83A	18 to 75 VDC	82%	50.8 X 50.8 X 13.2	AA25N-024L-150D
25 watt	3.3 V		6A		36 to 75 VDC	82%	50.8 X 50.8 X 13.2	AA25N-048L-033S
25 watt	5 V		5A		36 to 75 VDC	82%	50.8 X 50.8 X 13.2	AA25N-048L-050S
25 watt	+ 5 V	3.3 V	5A	6A	36 to 75 VDC	82%	50.8 X 50.8 X 13.2	AA25N-048L-050D033
25 watt	+ 5 V	± 12 V	2.5A	± 0.52A	36 to 75 VDC	82%	50.8 X 50.8 X 13.2	AA25N-048L-050T120
25 watt	3.3 V		6A		18 to 36 VDC	83%	50.8 x 25.4 x 8.5	ALT06F24
25 watt	5 V		5A		18 to 36 VDC	85%	50.8 x 25.4 x 8.5	ALT06A24
25 watt	3.3 V		6A		36 to 75 VDC	85%	50.8 x 25.4 x 8.5	ALT06F48
25 watt	5 V		5A		36 to 75 VDC	87%	50.8 x 25.4 x 8.5	ALT05A48
25 watt	12 V		2.1A		36 to 75 VDC	87%	50.8 x 25.4 x 8.5	ALT02B48
25 watt	15 V		1.67A		36 to 75 VDC	87%	50.8 x 25.4 x 8.5	ALT01C48
30 watt	+ 5 V	- 5 V	+ 3A	- 3A	36 to 75 VDC	84%	50.8 x 25.4 x 8.5	ALT03AA48
30 watt	+12 V	-12 V	+ 1.25A	-1.25A	36 to 75 VDC	87%	50.8 x 25.4 x 8.5	ALT01BB48
30 watt	3.3V		6.5A		36 to 75 VDC	80%	61 x 58.4 x 12.7	AK60C-048L-033F06
30 watt	5V		6A		36 to 75 VDC	84%	61 x 58.4 x 12.7	AK60C-048L-050F06
60 watt	5 V	3.3 V	12A	15A	36 to 75 VDC	90%	50.8 x 38.1 x 12.7	AEQ15AF48 ¹
60 watt	5 V	3.3 V	12A	15A	36 to 75 VDC	88%	50.8 x 38.1 x 12.7	ALQ15AF48 ¹
60 watt	3.3	2.5	15A	15A	36 to 75 VDC	87%	50.8 x 38.1 x 12.7	ALQ15FG48 ¹
60 watt	3.3	1.8	15A	15A	36 to 75 VDC	86%	50.8 x 38.1 x 12.7	ALQ15FY48 ¹
60 watt	2.5	1.5	15A	15A	36 to 75 VDC	83%	50.8 x 38.1 x 12.7	ALQ15GM48 ¹

Through-Hole Open-Frame / Unencapsulated DC/DC Converters

Through-Hole Open-Frame / Unencapsulated DC/DC Converters (10 to 300 Watt)								
Output Power	Output Voltage		Output Current		Input Voltage	Efficiency	Size (in mm)	Part Number
	1	2	1	2				
50 watt	3.3 V		10A		36 to 75 VDC	81%	58.4 x 61 x 12.7	AV60C-048L-033F10 ¹
50 watt	5 V		10A		36 to 75 VDC	84%	58.4 x 61 x 12.7	AV60C-048L-050F10 ¹
50 watt	12 V		4A		36 to 75 VDC	85%	58.4 x 61 x 12.7	AV60C-048L-120F04 ¹
50 watt	15 V		3.3A		36 to 75 VDC	86%	58.4 x 61 x 12.7	AV60C-048L-150F03 ¹
50 watt	3.3 V		15A		36 to 75 VDC	81%	58.4 x 61 x 12.7	AV60C-048L-033F15 ¹
50 watt	5 V		15A		36 to 75 VDC	85%	58.4 x 61 x 12.7	AV60C-048L-050F15 ¹
50 watt	12 V		6A		36 to 75 VDC	86%	58.4 x 61 x 12.7	AV60C-048L-120F06 ¹
50 watt	15 V		5A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AV60C-048L-150F05 ¹
100 watt	3.3 V		20A		36 to 75 VDC	81%	58.4 x 61 x 12.7	AV60C-048L-033F20 ¹
100 watt	5 V		20A		36 to 75 VDC	85%	58.4 x 61 x 12.7	AV60C-048L-050F20 ¹
100 watt	12 V		8A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AV60C-048L-120F08 ¹
100 watt	15 V		6.7A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AV60C-048L-150F06 ¹
150 watt	3.3 V		30A		36 to 75 VDC	81%	58.4 x 61 x 12.7	AV60C-048L-033F30 ¹
150 watt	5 V		30A		36 to 75 VDC	85%	58.4 x 61 x 12.7	AV60C-048L-050F30 ¹
150 watt	12 V		12.5A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AV60C-048L-120F12 ¹
150 watt	15 V		10A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AV60C-048L-150F10 ¹
50 watt	2.5 V		10A		18 to 36 VDC	86%	58.4 x 61 x 12.7	AEH10G24 ¹
50 watt	3.3 V		10A		18 to 36 VDC	87%	58.4 x 61 x 12.7	AEH10F24 ¹
50 watt	5 V		10A		18 to 36 VDC	88%	58.4 x 61 x 12.7	AEH10A24 ¹
50 watt	2.5 V		10A		36 to 75 VDC	86%	58.4 x 61 x 12.7	AEH10G48 ¹
50 watt	3.3 V		10A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AEH10F48 ¹
50 watt	5 V		10A		36 to 75 VDC	89%	58.4 x 61 x 12.7	AEH10A48 ¹
100 watt	2.5 V		15A		36 to 75 VDC	85%	58.4 x 61 x 12.7	AEH15G48 ¹
100 watt	3.3 V		15A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AEH15F48 ¹
100 watt	5 V		15A		36 to 75 VDC	89%	58.4 x 61 x 12.7	AEH15A48 ¹
100 watt	2.5 V		20A		18 to 36 VDC	85%	58.4 x 61 x 12.7	AEH20G24 ¹
100 watt	3.3 V		20A		18 to 36 VDC	87%	58.4 x 61 x 12.7	AEH20F24 ¹
100 watt	5 V		20A		18 to 36 VDC	88%	58.4 x 61 x 12.7	AEH20A24 ¹
100 watt	2.5 V		20A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AEH20G48 ¹
100 watt	3.3 V		20A		36 to 75 VDC	89%	58.4 x 61 x 12.7	AEH20F48 ¹
100 watt	5 V		20A		36 to 75 VDC	90%	58.4 x 61 x 12.7	AEH20A48 ¹
150 watt	1.8 V		30A		36 to 75 VDC	82%	58.4 x 61 x 12.7	AEH30Y48 ¹
150 watt	2.5 V		30A		36 to 75 VDC	85%	58.4 x 61 x 12.7	AEH30G48 ¹
150 watt	3.3 V		30A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AEH30F48 ¹
150 watt	5 V		30A		36 to 75 VDC	89%	58.4 x 61 x 12.7	AEH30A48 ¹
150 watt	15 V		10A		36 to 75 VDC	89%	58.4 x 61 x 12.7	AEH30M48 ¹
100 watt	5 V	3.3 V	20A	30A	36 to 75 VDC	88%	57.9 x 61 x 11.5	ALH25AF48 ¹
100 watt	1.5 V		20A		36 to 75 VDC	81%	57.9 x 36.8 x 12.7	AV45C-048L-015F20HA ¹
100 watt	1.8 V		20A		36 to 75 VDC	81%	57.9 x 36.8 x 12.7	AK45C-048L-018F20HA ¹
100 watt	2.5 V		20A		36 to 75 VDC	84%	57.9 x 36.8 x 12.7	AK45C-048L-025F20HA ¹
100 watt	3.3 V		20A		36 to 75 VDC	86%	57.9 x 36.8 x 12.7	AK45C-048L-033F20HA ¹
100 watt	5 V		20A		36 to 75 VDC	86%	57.9 x 36.8 x 12.7	AV45C-048L-050F20HA ¹

NEW

Through-Hole Open-Frame / Unencapsulated DC/DC Converters

Through-Hole Open-Frame / Unencapsulated DC/DC Converters (10 to 300 Watt)

Output Power	Output Voltage		Output Current		Input Voltage	Efficiency	Size (in mm)	Part Number	
	1	2	1	2					
200 watt	1.2 V		60A		36 to 75 VDC	82%	58.4 x 61 x 12.7	AEH60K48 ¹	NEW
200 watt	1.8 V		60A		36 to 75 VDC	85%	58.4 x 61 x 12.7	AEH60Y48 ¹	NEW
200 watt	2.5 V		60A		36 to 75 VDC	87%	58.4 x 61 x 12.7	AEH60G48 ¹	NEW
200 watt	3.3 V		60A		36 to 75 VDC	90%	58.4 x 61 x 12.7	AEH60F48 ¹	NEW
200 watt	1.2 V		60A		36 to 75 VDC	82%	58.4 x 61 x 12.7	ALH60K48 ¹	NEW
200 watt	1.8 V		60A		36 to 75 VDC	85%	58.4 x 61 x 12.7	ALH60Y48 ¹	NEW
200 watt	2.5 V		60A		36 to 75 VDC	87%	58.4 x 61 x 12.7	ALH60G48 ¹	NEW
200 watt	3.3 V		60A		36 to 75 VDC	90%	58.4 x 61 x 12.7	ALH60F48 ¹	NEW
300 watt	12V		25A		36 to 75 VDC	93%	58.4 x 61 x 12.7	AEH25B48 ¹	NEW

1) Negative enable available; please add N after model number. e.g. AEH30Y48N for negative enable.



Through-Hole Encapsulated DC/DC Converters

The table below shows Astec Power's standard range of encapsulated DC/DC converters with a power range from 3.3 to 300 Watt, output voltages as low as 1.2 V, and output currents to 130 A.

Through-Hole Encapsulated DC/DC Converters (3.3 to 300 Watt)								
Output Power	Output Voltage		Output Current		Input Voltage	Efficiency	Size (in mm)	Part Number
	1	2	1	2				
3.3 watt	3.3 V		1A		9 to 18 VDC	85%	32.2 x 20.3 x 10.2	AA05E-012L-033S
5 watt	5 V		1A		9 to 18 VDC	85%	32.2 x 20.3 x 10.2	AA05E-012L-050S
5 watt	12 V		0.41A		9 to 18 VDC	85%	32.2 x 20.3 x 10.2	AA05E-012L-120S
5 watt	15 V		0.33A		9 to 18 VDC	85%	32.2 x 20.3 x 10.2	AA05E-012L-150S
4.8 watt	+ 12 V	- 12 V	0.20A	0.20A	9 to 18 VDC	85%	32.2 x 20.3 x 10.2	AA05E-012L-120D
4.8 watt	+ 15 V	- 15 V	0.16A	0.16A	9 to 18 VDC	85%	32.2 x 20.3 x 10.2	AA05E-012L-150D
3.3 watt	3.3 V		1A		18 to 36 VDC	85%	32.2 x 20.3 x 10.2	AA05E-024L-033S
5 watt	5 V		1A		18 to 36 VDC	85%	32.2 x 20.3 x 10.2	AA05E-024L-050S
5 watt	12 V		0.41A		18 to 36 VDC	85%	32.2 x 20.3 x 10.2	AA05E-024L-120S
5 watt	15 V		0.33A		18 to 36 VDC	85%	32.2 x 20.3 x 10.2	AA05E-024L-150S
4.8 watt	+ 12 V	- 12 V	0.20A	0.20A	18 to 36 VDC	85%	32.2 x 20.3 x 10.2	AA05E-024L-120D
4.8 watt	+ 15 V	- 15 V	0.16A	0.16A	18 to 36 VDC	85%	32.2 x 20.3 x 10.2	AA05E-024L-150D
3.3 watt	3.3 V		1A		36 to 72 VDC	85%	32.2 x 20.3 x 10.2	AA05E-048L-033S
5 watt	5 V		1A		36 to 72 VDC	85%	32.2 x 20.3 x 10.2	AA05E-048L-050S
5 watt	12 V		0.41A		36 to 72 VDC	85%	32.2 x 20.3 x 10.2	AA05E-048L-120S
5 watt	15 V		0.33A		36 to 72 VDC	85%	32.2 x 20.3 x 10.2	AA05E-048L-150S
4.8 watt	+ 12 V	- 12 V	0.20A	0.20A	36 to 72 VDC	85%	32.2 x 20.3 x 10.2	AA05E-048L-120D
4.8 watt	+ 15 V	- 15 V	0.16A	0.16A	36 to 72 VDC	85%	32.2 x 20.3 x 10.2	AA05E-048L-150D
10 watt	3.3 V		3A		4.5 to 5.5 VDC	88%	25.4 x 25.4 x 11.43	AER03F05N
10 watt	3.3 V		2.5A		18 to 36 VDC	76%	50.8 x 25.4 x 8.5	AEE02F24
10 watt	5 V		2A		18 to 36 VDC	78%	50.8 x 25.4 x 8.5	AEE02A24
10 watt	12 V		0.84A		18 to 36 VDC	82%	50.8 x 25.4 x 8.5	AEE00B24
10 watt	15 V		0.67A		18 to 36 VDC	82%	50.8 x 25.4 x 8.5	AEE00C24
10 watt	3.3 V		2.5A		36 to 72 VDC	77%	50.8 x 25.4 x 8.5	AEE02F48
10 watt	5 V		2A		36 to 72 VDC	79%	50.8 x 25.4 x 8.5	AEE02A48
10 watt	5.2 V		2A		36 to 72 VDC	77%	50.8 x 25.4 x 8.5	AEE02A48-5V2
10 watt	12 V		0.84A		36 to 72 VDC	84%	50.8 x 25.4 x 8.5	AEE00B48
10 watt	15 V		0.67A		36 to 72 VDC	86%	50.8 x 25.4 x 8.5	AEE00C48
10 watt	+ 5 V	- 5 V	+ 1A	- 1A	18 to 36 VDC	79%	50.8 x 25.4 x 8.5	AEE01AA24
10 watt	+ 12 V	- 12 V	+ 0.42A	- 0.42A	18 to 36 VDC	83%	50.8 x 25.4 x 8.5	AEE00BB24
10 watt	+ 15 V	- 15 V	+ 0.33A	- 0.33A	18 to 36 VDC	83%	50.8 x 25.4 x 8.5	AEE00CC24
10 watt	+ 5 V	- 5 V	+ 1A	- 1A	36 to 72 VDC	79%	50.8 x 25.4 x 8.5	AEE01AA48
10 watt	+ 12 V	- 12 V	+ 0.42A	- 0.42A	36 to 72 VDC	83%	50.8 x 25.4 x 8.5	AEE00BB48
10 watt	+ 15 V	- 15 V	+ 0.33A	- 0.33A	36 to 72 VDC	83%	50.8 x 25.4 x 8.5	AEE00CC48
10 watt	3.3 V		2.55A		9 to 18 VDC	78%	50.8 x 25.4 x 8.5	AEE02F12-49
10 watt	5 V		2A		9 to 18 VDC	81%	50.8 x 25.4 x 8.5	AEE02A12-49
10 watt	12 V		0.84A		9 to 18 VDC	83%	50.8 x 25.4 x 8.5	AEE00B12-49
10 watt	15 V		0.68A		9 to 18 VDC	84%	50.8 x 25.4 x 8.5	AEE00C12-49
10 watt	+ 5 V	- 5 V	+ 1A	- 1A	9 to 18 VDC	81%	50.8 x 25.4 x 8.5	AEE01AA12-4
10 watt	+ 12 V	- 12 V	+ 0.42A	- 0.42A	9 to 18 VDC	83%	50.8 x 25.4 x 8.5	AEE00BB12-4
10 watt	+ 15 V	- 15 V	+ 0.33A	- 0.33A	9 to 18 VDC	84%	50.8 x 25.4 x 8.5	AEE00CC12-4

Through-Hole Encapsulated DC/DC Converters

Through-Hole Encapsulated DC/DC Converters (3.3 to 300 Watt)

Output Power	Output Voltage		Output Current		Input Voltage	Efficiency	Size (in mm)	Part Number
	1	2	1	2				
15 watt	3.3 V		4A		18 to 36 VDC	85%	50.8 x 25.4 x 8.5	AEE04F24
15 watt	2.5 V		4A		36 to 72 VDC	83%	50.8 x 25.4 x 8.5	AEE04G48
15 watt	3.3 V		4A		36 to 72 VDC	86%	50.8 x 25.4 x 8.5	AEE04F48
15 watt	5 V		3A		36 to 72 VDC	87%	50.8 x 25.4 x 8.5	AEE03A48
15 watt	12 V		1.25A		36 to 72 VDC	87%	50.8 x 25.4 x 8.5	AEE01B48
15 watt	+ 12 V	- 12 V	+ 0.63A	- 0.63A	36 to 72 VDC	87%	50.8 x 25.4 x 8.5	AEE01BB48-7
18 watt	1.5 V		12A		4.5 to 5.5 VDC	84%	50.8 x 25.4 x 12.0	APE12M05
25 watt	3.3 V		5A		18 to 36 VDC	80%	50 x 60 x 8.5	AEV05F24
25 watt	5 V		4A		18 to 36 VDC	83%	50 x 60 x 8.5	AEV04A24
25 watt	12 V		2.1A		18 to 36 VDC	85%	50 x 60 x 8.5	AEV02B24
25 watt	15 V		1.7A		18 to 36 VDC	86%	50 x 60 x 8.5	AEV02C24
25 watt	3.3 V		5A		36 to 72 VDC	80%	50 x 60 x 8.5	AEV05F48
25 watt	5 V		4A		36 to 72 VDC	83%	50 x 60 x 8.5	AEV04A48
25 watt	6 V		4.1A		36 to 72 VDC	86%	50 x 60 x 8.5	AEV04N48
25 watt	12 V		2.1A		36 to 72 VDC	86%	50 x 60 x 8.5	AEV02B48
25 watt	15 V		1.7A		36 to 72 VDC	86%	50 x 60 x 8.5	AEV02C48
25 watt	+ 5 V	- 5 V	+ 2A	- 2A	18 to 36 VDC	83%	50 x 60 x 8.5	AEV02AA24
25 watt	+ 12 V	- 12 V	+ 1.05A	- 1.05A	18 to 36 VDC	86%	50 x 60 x 8.5	AEV01BB24
25 watt	+ 15 V	- 15 V	+ 0.85A	- 0.85A	18 to 36 VDC	86%	50 x 60 x 8.5	AEV01CC24
25 watt	+ 5 V	- 5 V	+ 2A	- 2A	36 to 72 VDC	83%	50 x 60 x 8.5	AEV01AA48
25 watt	+ 12 V	- 12 V	+ 1.05A	- 1.05A	36 to 72 VDC	86%	50 x 60 x 8.5	AEV01BB48
25 watt	+ 15 V	- 15 V	+ 0.85A	- 0.85A	36 to 72 VDC	86%	50 x 60 x 8.5	AEV01CC48
50 watt	2.2 V		10A		18 to 36 VDC	76%	61 x 58.4 x 12.7	AK60A-024L-022F10G
50 watt	3.3 V		10A		18 to 36 VDC	80%	61 x 58.4 x 12.7	AK60A-024L-033F10G
50 watt	5 V		10A		18 to 36 VDC	83%	61 x 58.4 x 12.7	AK60A-024L-050F10G
50 watt	12 V		4.2A		18 to 36 VDC	86%	61 x 58.4 x 12.7	AK60A-024L-120F04G
50 watt	15 V		3.3A		18 to 36 VDC	87%	61 x 58.4 x 12.7	AK60A-024L-150F03G
50 watt	24 V		2A		18 to 36 VDC	87%	61 x 58.4 x 12.7	AK60A-024L-240F02G
100 watt	2.2 V		20A		18 to 36 VDC	76%	61 x 58.4 x 12.7	AK60A-024L-022F20G
100 watt	3.3 V		20A		18 to 36 VDC	80%	61 x 58.4 x 12.7	AK60A-024L-033F20G
100 watt	5 V		20A		18 to 36 VDC	83%	61 x 58.4 x 12.7	AK60A-024L-050F20G
100 watt	12 V		8.3A		18 to 36 VDC	86%	61 x 58.4 x 12.7	AK60A-024L-120F08G
100 watt	15 V		6.7A		18 to 36 VDC	87%	61 x 58.4 x 12.7	AK60A-024L-150F07G
100 watt	24 V		4.2A		18 to 36 VDC	87%	61 x 58.4 x 12.7	AK60A-024L-240F04G
120 watt	2.2 V		30A		36 to 72 VDC	74%	61 x 58.4 x 12.7	AL60A-048L-022F30
120 watt	3.3 V		25A		36 to 72 VDC	78%	61 x 58.4 x 12.7	AL60A-048L-033F25
120 watt	5 V		10A		36 to 72 VDC	82%	61 x 58.4 x 12.7	AL60A-048L-050F10
120 watt	5 V		20A		36 to 72 VDC	83%	61 x 58.4 x 12.7	AL60A-048L-050F20
120 watt	12 V		6A		36 to 72 VDC	86%	61 x 58.4 x 12.7	AL60A-048L-120F06
120 watt	12 V		9A		36 to 72 VDC	85%	61 x 58.4 x 12.7	AL60A-048L-120F09
120 watt	15 V		8A		36 to 72 VDC	83%	61 x 58.4 x 12.7	AL60A-048L-150F08
120 watt	2 V		20A		180 to 400 VDC	71%	61 x 58.4 x 12.7	AL60A-300L-020F20
120 watt	3.3 V		25A		180 to 400 VDC	77%	61 x 58.4 x 12.7	AL60A-300L-033F25
120 watt	5 V		20A		180 to 400 VDC	81%	61 x 58.4 x 12.7	AL60A-300L-050F20
120 watt	12 V		9A		180 to 400 VDC	84%	61 x 58.4 x 12.7	AL60A-300L-120F09
120 watt	15 V		8A		180 to 400 VDC	82%	61 x 58.4 x 12.7	AL60A-300L-150F08
120 watt	24 V		3A		180 to 400 VDC	82%	61 x 58.4 x 12.7	AL60A-300L-240F03

Through-Hole Encapsulated DC/DC Converters

Through-Hole Encapsulated DC/DC Converters (3.3 to 300 Watt)								
Output Power	Output Voltage		Output Current		Input Voltage	Efficiency	Size (in mm)	Part Number
	1	2	1	2				
240 watt	3.3 V		40A		18 to 36 VDC	83%	116.8 x 61 x 12.7	AK80A-024L-033F40
240 watt	5 V		30A		18 to 36 VDC	83%	116.8 x 61 x 12.7	AK80A-024L-050F30
240 watt	12 V		14A		18 to 36 VDC	87%	116.8 x 61 x 12.7	AK80A-024L-120F14
240 watt	15 V		12A		18 to 36 VDC	87%	116.8 x 61 x 12.7	AK80A-024L-150F12
240 watt	24 V		8A		18 to 36 VDC	87%	116.8 x 61 x 12.7	AK80A-024L-240F08
240 watt	6.5 V		27A		18 to 36 VDC	88%	116.8 x 61 x 12.7	AM80A-024L-065F27
240 watt	1.2 V		60A		36 to 72 VDC	64%	116.8 x 61 x 12.7	AM80A-048L-012F60
240 watt	2.2 V		60A		36 to 72 VDC	72%	116.8 x 61 x 12.7	AM80A-048L-022F60
240 watt	3.3 V		50A		36 to 72 VDC	80%	116.8 x 61 x 12.7	AM80A-048L-033F50
240 watt	5 V		40A		36 to 72 VDC	84%	116.8 x 61 x 12.7	AM80A-048L-050F40
240 watt	12 V		18A		36 to 72 VDC	87%	116.8 x 61 x 12.7	AM80A-048L-120F18
240 watt	15 V		16A		36 to 72 VDC	87%	116.8 x 61 x 12.7	AM80A-048L-150F16
240 watt	24 V		10A		36 to 72 VDC	88%	116.8 x 61 x 12.7	AM80A-048L-240F10
240 watt	6.5 V		33A		90 to 200 VDC	83%	116.8 x 61 x 12.7	AM80A-150L-065F33
240 watt	2.2 V		60A		180 to 400 VDC	74%	116.8 x 61 x 12.7	AM80A-300L-022F60
240 watt	3.3 V		50A		180 to 400 VDC	78%	116.8 x 61 x 12.7	AM80A-300L-033F50
240 watt	5 V		40A		180 to 400 VDC	83%	116.8 x 61 x 12.7	AM80A-300L-050F40
240 watt	6.5 V		33A		180 to 400 VDC	85%	116.8 x 61 x 12.7	AM80A-300L-065F33
240 watt	12 V		18A		180 to 400 VDC	86%	116.8 x 61 x 12.7	AM80A-300L-120F18
240 watt	15 V		16A		180 to 400 VDC	86%	116.8 x 61 x 12.7	AM80A-300L-150F16
240 watt	24 V		10A		180 to 400 VDC	87%	116.8 x 61 x 12.7	AM80A-300L-240F10
240 watt	28 V		9A		180 to 400 VDC	87%	116.8 x 61 x 12.7	AM80A-300L-280F09
240 watt	28 V		9A		180 to 400 VDC	88%	116.8 x 61 x 12.7	AM80A-320L-280F09
300 watt	3.3 V		70A		36 to 72 VDC	83%	116.8 x 61 x 12.7	BM80A-048L-033F70
300 watt	5 V		60A		36 to 72 VDC	83%	116.8 x 61 x 12.7	BM80A-048L-050F60
300 watt	2.2 V		75A		180 to 400 VDC	83%	116.8 x 61 x 12.7	BM80A-300L-022F75
300 watt	2.2 V		85A		180 to 400 VDC	83%	116.8 x 61 x 12.7	BM80A-300L-022F85
300 watt	3.3 V		70A		180 to 400 VDC	83%	116.8 x 61 x 12.7	BM80A-300L-033F70
300 watt	3.3 V		90A		180 to 400 VDC	83%	116.8 x 61 x 12.7	BM80A-300L-033F90
300 watt	5 V		60A		180 to 400 VDC	83%	116.8 x 61 x 12.7	BM80A-300L-050F60



Surface Mountable DC/DC Converters

As one of the world's leading manufacturers of DC/DC converters, Astec Power offers a product range that accommodates all types of PCB fabrication. These surface-mountable DC/DC converters are designed specifically for use with standard pick-and-place equipment on high volume manufacturing lines. More SMT products can also be found on page 13.

Surface Mountable DC/DC Converters (6 to 15 Watt)								
Output Power	Output Voltage		Output Current		Input Voltage	Efficiency	Size (in mm)	Part Number
	1	2	1	2				
6 watt	1.5 V		4A		18 to 36 VDC	88%	50.8 x 26.9 x 12.7	AK40A-024L-015F04SM
7.2 watt	1.8 V		4A		18 to 36 VDC	88%	50.8 x 26.9 x 12.7	AK40A-024L-018F04SM
13.2 watt	3.3 V		4A		18 to 36 VDC	88%	50.8 x 26.9 x 12.7	AK40A-024L-033F04SM
15 watt	5V		3A		18 to 36 VDC	88%	50.8 x 26.9 x 12.7	AK40A-024L-050F04SM
6 watt	1.5 V		4A		36 to 75 VDC	88%	50.8 x 26.9 x 12.7	AK40A-048L-015F04SM
7.2 watt	1.8 V		4A		36 to 75 VDC	88%	50.8 x 26.9 x 12.7	AK40A-048L-018F04SM
12 watt	2.5 V		4A		36 to 75 VDC	88%	50.8 x 26.9 x 12.7	AK40A-048L-025F04SM
13.2 watt	3.3 V		4A		36 to 75 VDC	88%	50.8 x 26.9 x 12.7	AK40A-048L-033F04SM
15 watt	5 V		3A		36 to 75 VDC	88%	50.8 x 26.9 x 12.7	AK40A-048L-050F03SM
15 / 13.2 watt	5 V	3.3 V	3A	4A	36 to 75 VDC	88%	50.8 x 39.6 x 12.7	AK42A-048L-050D033SM

