

# AMGPSU-DCDC SERIES INDUSTRIAL DC-DC CONVERTERS



## Industrial Power Solutions

AMG's industrial DIN-Rail DC-DC converters provide reliable low voltage power conversion for AMG & 3rd party PoE based products and ensure stable equipment operation over a wide temperature range. Available outputs of 100, 200 & 300W.



<b>Contacts</b> 1x DC OK	<b>Temp</b> -40°C~+75°C	<b>Mounting</b> DIN/Surface	<b>Booster</b> Dual 12/24	<b>Protection</b> IP40

[ AMGPSU-DC2448-P200]

### / OVERVIEW

Designed in a compact DIN rail or wall mount housing, the AMGPSU-DCDC series industrial DC to DC or AC to DC converters are ideally suited for powering PoE based equipment that requires 48-56V<sub>DC</sub> where only a low voltage 12 or 24V<sub>DC</sub> or a 24V<sub>AC</sub> supply is available.

Available with a choice of three industry leading output sizes in 100W, 200W and 300W models the AMGPSU-DCDC converters ensure that a user adjustable and reliable 48-53V<sub>DC</sub> supply is maintained on the units output terminals.

A DC OK fault relay is also provided to indicate a failure of the DC output supply.

Each model features dual redundant power inputs and a fully isolated power supply design for maximum security and reliability in mission critical applications.

A wide range of models are available to suit all design requirements.

### / FEATURES

- Innovative thermally efficient housing ensures high levels of device reliability under full load
- -40°C to +75°C temperature maintains performance in extreme conditions
- Available with 100W, 200W and 300W outputs
- DIN rail mountable – quick to install and remove for maintenance
- High efficiency - up to 91% typical
- Available with wide DC input ranges of 9-36V<sub>DC</sub> or 18-75V<sub>DC</sub>. A 24V<sub>AC</sub> input model is also available
- Fault relay for DC output failure notification
- Ideal for powering AMG PoE devices when standard 48-56V<sub>DC</sub> is not available
- Manufactured in the United Kingdom
- AMG Lifetime Support Warranty

# Specifications.

## Interface.

LED Indicators	2x Power DC Power On
Adjustment	1x Voltage Output Potentiometer
DC OK Relay	1x 2 Pin Terminal Block
AC/DC Power In	1x 8 Pin Terminal Block
DC Power Out	1x 4 Pin Terminal Block

## Power Input.

Power Inputs	2
Input Voltage:	
P100 Model	2x 9-36V <sub>DC</sub>
P100 AC Model	1x 24V <sub>AC</sub> and 1x 9-36V <sub>DC</sub>
P200 Model	2x 18-75V <sub>DC</sub>
P300 Model	2x 9-36V <sub>DC</sub>
Input Current:	
P100 Models	4.8A Max @ 24V <sub>DC</sub>
P200 Model	9.4A Max @ 24V <sub>DC</sub>
P300 Model	14.2A Max @ 24V <sub>DC</sub>
Efficiency:	
P100 Models	90% Typical
P200 Model	91% Typical
P300 Model	88% Typical
Surge Voltage:	
P100 Models	50V <sub>DC</sub> (1s Max)
P200 Model	90V <sub>DC</sub> (1s Max)
P300 Model	50V <sub>DC</sub> (100ms Max)
Protection	Overload Current

## Power Output.

Power Outputs	1
Output Voltage	44-53V <sub>DC</sub>
Voltage Accuracy	±1%
Load Regulation:	
P100/P200 Models	±0.5% Typical
P300 Model	±0.2% Typical
Line Regulation	±0.2% Typical
Over Voltage Protection:	
P100/P200 Models	110-160% V <sub>o</sub>
P300 Model	115-140% V <sub>o</sub>
Over Current Protection:	
P100/P200 Models	110-150% I <sub>o</sub>
P300 Model	120-160% I <sub>o</sub>
Temperature Coefficient	±0.03%/°C Max
Short Circuit Protection	Self-Recovery
Ripple & Noise:	
P100/P200 Models	250mV (20MHz Bandwidth)
P300 Model	480mV (20MHz Bandwidth)
DC OK Relay	Form A, 60V @ 2A Max

## Packaging.

Shipping Weight	0.7kg / 1.54lb
Dimensions	(W x D x H) 220 × 175 × 54 mm 8.66 × 6.89 × 2.13 in

## Mechanical.

Housing	Anodised Aluminium
Dimensions:	(W x D x H) 48 × 93 × 126 mm 1.89 × 3.66 × 4.96 in
Excluding DIN & Wall Mounts	
IP Rating	IP40
Installation	Wall Mount or DIN-Rail
Weight	0.6kg / 1.32lb

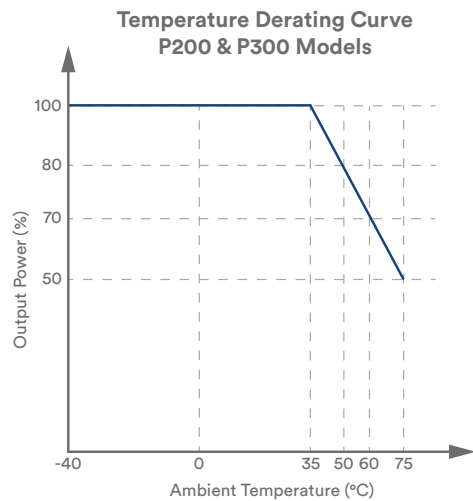
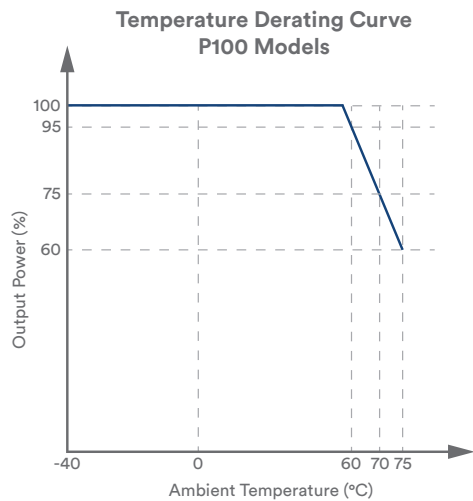
## Environmental.

Operating Temp.	-40°C to +75°C
Storage Temp.	-40°C to +85°C
Humidity	5% to 95% (non-condensing)
MTBF	>500,000 hours
MTBF Standard	MIL-HDBK-217F GB 25°C
Heat Dissipation	314 BTU/h (100W Model, Max Load) 682 BTU/h (200W Model, Max Load) 1024 BTU/h (300W Model, Max Load)
Cooling	Passive Cooling
Noise Level	0 dBA

## Regulatory.

Safety	EN 62368-1
EMI	EN 55032 Class B CISPR 32 FCC Part 15B Class B
EMS	EN 61000-4-2 (ESD) EN 61000-4-3 (RS) EN 61000-4-4 (EFT) EN 61000-4-6 (CS)
Shock	IEC 60068-2-27
Free Fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Environmental	Reach RoHS WEEE

# Product Characteristic Curves.



## Part Numbers.

### Industrial DC-DC Converters

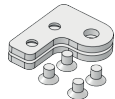
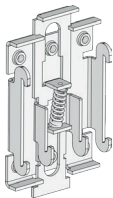
AMGPSU-DC1248-P100	48V <sub>DC</sub> 100W (2.1A) Industrial Isolated DC-DC Boost Converter, 9-36V <sub>DC</sub> Input
AMGPSU-DC2448-P200	48V <sub>DC</sub> 200W (4.2A) Industrial Isolated DC-DC Boost Converter, 18-75V <sub>DC</sub> Input
AMGPSU-DC1248-P300	48V <sub>DC</sub> 300W (6.25A) Industrial Isolated DC-DC Boost Converter, 9-36V <sub>DC</sub> Input

### Industrial AC-DC Converters

AMGPSU-DC2448-P100AC	48V <sub>DC</sub> 100W (2.1A) Industrial Isolated AC-DC Boost Converter, 24V <sub>AC</sub> Input
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## Included Accessories.

DIN Rail Adapter	Rear Mounted Metal DIN Rail Clip & Screws For DIN Rail Mounting AMGPSU-DCDC Series Products
Wall Mounting Brackets	2x Wall Mounting Brackets & Screws For Wall / Surface Mounting AMGPSU-DCDC Series Products



## Optional Accessories.

AMG2035	Side Mounted Wall Bracket Adapter Kit For DIN Rail Mounting AMGPSU-DCDC Series Products In Depth Restricted Installations. Adapter Kit Can Be Extended Using The Included Extension Kit To Also Mount An Additional Product.
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In a continuing effort to improve and advance technology, product specifications are subject to change without notice. Please visit [www.amgsystems.com](http://www.amgsystems.com) for the latest product specifications.