

AMGPSU-I48-P240 INDUSTRIAL DIN-RAIL 240W POWER SUPPLY



Industrial Power Solutions

AMG's industrial DIN-Rail 240W power supplies provide reliable power for AMG PoE based products and ensure stable equipment operation over a wide temperature range. They are suitable for all AMG PoE products (depending on voltage).



| | | | |
|-----------------|----------------------|-------------------|-----------------|
| | | | |
| PSU 240W 48V | Contacts 1x DC OK | Temp -40~+70°C | Mounting DIN |

[AMGPSU-I48-P240]

/ OVERVIEW

Designed in an ultra slim, robust DIN rail housing, the AMGPSU-I48-P240 series industrial power supplies are ideally suited for powering AMG PoE Ethernet equipment. Its wide operating temperature range ensures reliable operation in harsh environments.

Available in a 48-53V output version ensures the power supply is suitable for any PoE requirement.

The power supply offers a high level of stability and immunity to noise and a low ripple for best in class performance.

Compliant to the international IEC62368 standards for EMC and are safety approved to IEC/EN61000-4, CISPR32, EN55032, UL61010, IEC62368 and EN62368.

A wide voltage input range that features dual-use inputs for both DC and AC voltages that support 85-264V_{AC} or 120-370V_{DC} ensures the widest possible site support.

A range of other output power levels are available within the AMGPSU product range.

/ FEATURES

- Ultra slim size – ideal for confined spaces, including camera poles and roadside cabinets
- -40°C to +70°C temperature maintains performance in harsh conditions
- DIN rail mountable – quick to install and remove for maintenance
- High efficiency - up to 94% typical
- Universal 85-264V_{AC} or 120-370V_{DC} input range
- Output short circuit, over-current and over-voltage protection included as standard
- High I/O isolation test voltage up to 3000V_{AC}
- Built-in active Power Factor Correction (PFC) function
- 150% peak load output for 3 seconds
- EN62368 & UL safety approved
- AMG 3 Year Support Warranty

Specifications.

Input.

| Characteristics | Operating Conditions | Min. | Typ. | Max. | Unit |
|---------------------|----------------------|----------------------|------|------|------|
| Input Voltage Range | AC Input | 85 | - | 264 | VAC |
| | DC Input | 120 | - | 370 | VDC |
| Input Frequency | | 47 | - | 63 | Hz |
| Input Current | 115VAC | - | - | 3 | A |
| | 230VAC | - | - | 1.5 | |
| Inrush Current | 115VAC Cold Start | - | 15 | - | |
| | 230VAC Cold Start | - | 30 | - | |
| Power Factor | 115VAC | - | 0.98 | - | - |
| | 230VAC | - | 0.94 | - | |
| Leakage Current | 264VAC | <0.5mA | | | |
| Connector | | 3-Way Screw Terminal | | | |

Output.

| Characteristics | Operating Conditions | Min. | Typ. | Max. | Unit |
|--------------------------|---|--|------|------|------|
| Output Voltage Accuracy | Full Load Range | - | ±1 | - | % |
| Line Regulation | Rated Load | - | ±0.5 | - | |
| Load Regulation | 0% - 100% Load | - | ±1 | - | |
| Output Ripple & Noise* | 20MHz Bandwidth (peak-to-peak value) | - | 75 | 150 | mV |
| Stand-by Power Consump. | | - | 4 | - | W |
| Short Circuit Protection | Recovery time <10s after the short circuit disappears | Constant Current, Continuous, Self-Recovery | | | |
| Over-Current Protection | 230VAC Rated Load, Normal/High Temp | 110%-200% I _o , Self-Recovery | | | |
| | 230VAC Rated Load, Low Temp | ≥105% I _o , Self-Recovery | | | |
| Over-Voltage Protection | | ≤60V (Output Voltage Turn Off, Re-Power Unit For Recovery) | | | |
| Over-Temperature Protect | 230VAC Rated Load | - | 80 | - | °C |
| Minimum Load | | 0 | - | - | % |
| Start-up Delay Time | | - | - | 3 | s |
| Hold-up Time | | - | 20 | - | ms |
| DC OK Relay Output | Normally Closed (Open With DC Fault) | 30VDC @ 1A Max | | | |
| Connector | | 4-Way Screw Terminal | | | |

Note: *The "tip and barrel method" is used for ripple and noise test, output parallel 47µF electrolytic capacitor and 0.1µF ceramic capacitor.

Specifications.

General.

| Characteristics | | Operating Conditions | Min. | Typ. | Max. | Unit |
|--------------------------------------|--------------|---|---------------------------|------|------|---------|
| Isolation Test | Input-Earth | Electric Strength Test for 1 min., (leakage current <15mA) | 2000 | - | - | VAC |
| | Input-Output | | 3000 | - | - | |
| | Output-Earth | | 500 | - | - | |
| Insulation Resistance | Input-Earth | At 500 VDC | 50 | - | - | M Ω |
| | Input-Output | | 50 | - | - | |
| | Output-Earth | | 50 | - | - | |
| Operating Temperature | | | -40 | - | +70 | °C |
| Storage Temperature | | | -40 | - | +85 | |
| Operating Humidity | | Non-Condensing | - | - | 90 | %RH |
| Storage Humidity | | Non-Condensing | - | - | 95 | |
| Switching Frequency | | | - | 100 | - | kHz |
| Operating Temperature Power Derating | | -40°C to -25°C | 3.34 | - | - | % / °C |
| | | +45°C to +70°C (115VAC) | 2 | - | - | |
| | | +60°C to +70°C (230VAC) | 2.5 | - | - | |
| Input Voltage Derating | | 85VAC to 100VAC | 0.67 | - | - | % / VAC |
| Safety Standard | | | IEC/EN/UL62368 UL61010 | | | |
| Safety Class | | | Class I | | | |
| MTBF | | MIL-HDBK-217F @ 25°C | >300,000 hours | | | |

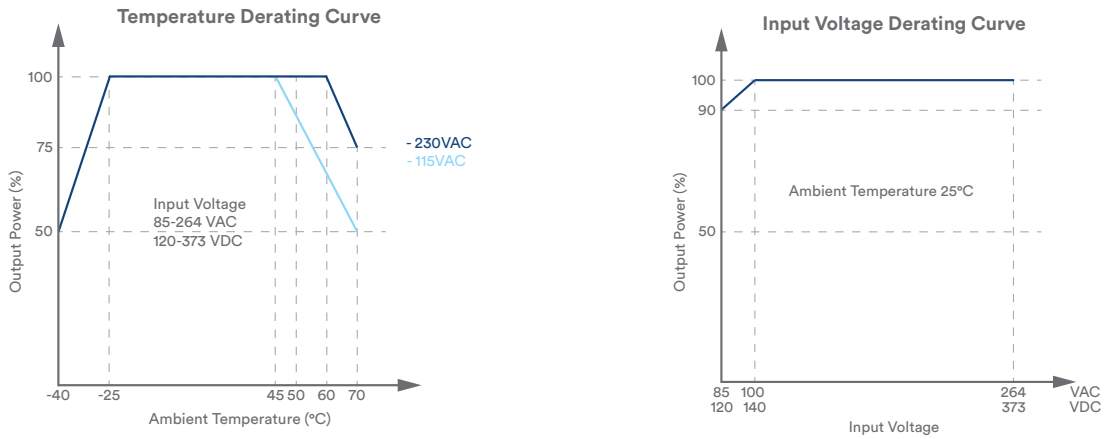
Mechanical.

| | |
|---------------|---|
| Case Material | Aluminium |
| Dimensions | 124 × 41 × 110 mm (4.88 × 1.61 × 4.33 in) (H x W x D) |
| Weight | 0.65 Kg |
| Cooling | Free Air Convection |

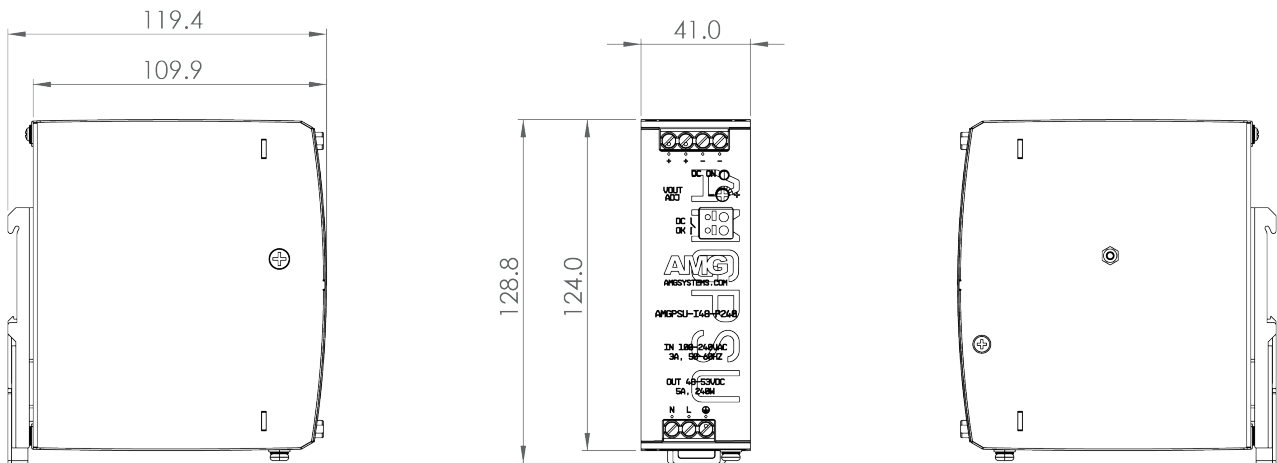
Regulatory.

| | | |
|-----------|---|--|
| Emissions | CE | CISPR32/EN55032 Class B |
| | RE | CISPR32/EN55032 Class B |
| | Harmonic Current | IEC/EN61000-3-2 Class A & Class D |
| Immunity | ESD | IEC/EN 61000-4-2 (Contact ±6KV / Air ±8KV) |
| | RS | IEC/EN 61000-4-3 (10V/m) |
| | EFT | IEC/EN 61000-4-4 (±2KV) |
| | Surge | IEC/EN 61000-4-5 (Line - Line ±2KV, Line - GND ±4KV) |
| | CS | IEC/EN 61000-4-6 (10V r.m.s) |
| | Voltage Dips, Short Interruptions and Voltage Variations Immunity | IEC/EN 61000-4-11 (0%, 70%) |

Product Characteristic Curve.



Product Dimensions.



Part Numbers.

240W Industrial DIN-Rail Power Supplies

AMGPSU-I48-P240

Industrial DIN Rail Power Supply, 48V Nominal Output (48-53V Adjustable), 240W (5A)

Notes.

Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C. humidity <75% RH with nominal input voltage and rated output load.

In a continuing effort to improve and advance technology, product specifications are subject to change without notice. Please visit www.amgsystems.com for the latest product specifications.