

# AMGPSU-I48-P480-IEC INDUSTRIAL DIN-RAIL 480W POWER SUPPLY



## Industrial Power Solutions

AMG's industrial DIN-Rail 480W 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).



[ AMGPSU-I48-P480-IEC ]

 PSU 480W 48V	 Contacts 1x DC OK	 Temp -30~+70°C	 Mounting DIN	 Input IEC C14
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### OVERVIEW

Designed in an ultra slim, robust DIN rail housing, the AMGPSU-I48-P480 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 48-55V 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, UL508, IEC62368 and EN62368.

A wide voltage input range that features dual-use inputs for both DC and AC voltages that support 85-264V<sub>AC</sub> or 120-370V<sub>DC</sub> ensures the widest possible site support.

Featuring a unique IEC C14 input connector provides a quick and easy installation method without the need for special certifications or qualifications to install.

### FEATURES

- Ultra slim size – ideal for confined spaces, including camera poles and roadside cabinets
- -30°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<sub>AC</sub> or 120-370V<sub>DC</sub> input range with IEC C14 connector for quick and easy installation
- Output short circuit, over-current and over-voltage protection included as standard
- High I/O isolation test voltage up to 3000V<sub>AC</sub>
- Built-in active Power Factor Correction (PFC) function
- 125% 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	-	-	5	A
	230VAC	-	-	2.5	
Inrush Current	115VAC Cold Start	-	20	-	
	230VAC Cold Start	-	40	-	
Power Factor	115VAC	-	0.99	-	-
	230VAC	-	0.95	-	
Leakage Current	264VAC	<0.8mA			
Connector		IEC C14 Type			

## 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)	-	-	120	mV
Stand-by Power Consump.		-	2	-	W
Short Circuit Protection	Recovery time <10s after the short circuit disappears	Hiccup, Continuous, Self-Recovery			
Over-Current Protection	230VAC Rated Load, Normal/High Temp	110%-150% Io, Hiccup, Self-Recovery			
	230VAC Rated Load, Low Temp	≥105% Full Load After Derating, Self-Recovery			
Over-Voltage Protection		56-60V (Output Voltage Turn Off, Self-Recovery)			
Over-Temperature Protect	230VAC, 70% Load	60	-	90	°C
Minimum Load		0	-	-	%
Start-up Delay Time	230VAC	-	300	1000	ms
Hold-up Time		16	22	-	ms
DC OK Relay Output	Normally Closed (Open With DC Fault)	30VDC @ 1A Max			
Connector		5-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	100	-	-	M Ω
	Input-Output		100	-	-	
	Output-Earth		100	-	-	
Operating Temperature			-30	-	+70	°C
Storage Temperature			-40	-	+85	
Operating Humidity		Non-Condensing	20	-	90	%RH
Storage Humidity			10	-	95	
Switching Frequency			-	100	-	kHz
Operating Temperature Power Derating		+50°C to +70°C	2.5	-	-	%/°C
Input Voltage Derating		85VAC to 100VAC	1	-	-	%/VAC
Safety Standard			IEC/EN/UL62368 UL61010, UL508			
Safety Class			Class I			
MTBF		MIL-HDBK-217F @ 25°C	>300,000 hours			

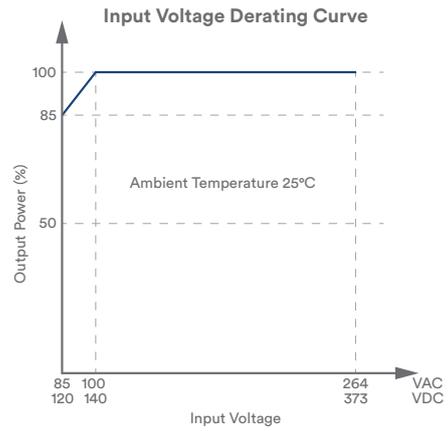
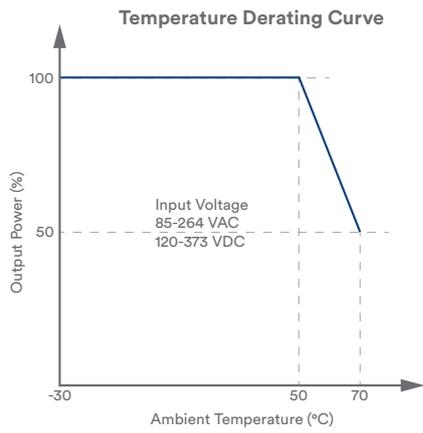
## Mechanical.

Case Material	Aluminium
Dimensions	155 × 50 × 150 mm (6.10 × 1.97 × 5.91 in) (H x W x D)
Weight	1.03 Kg
Cooling	Free Air Convection

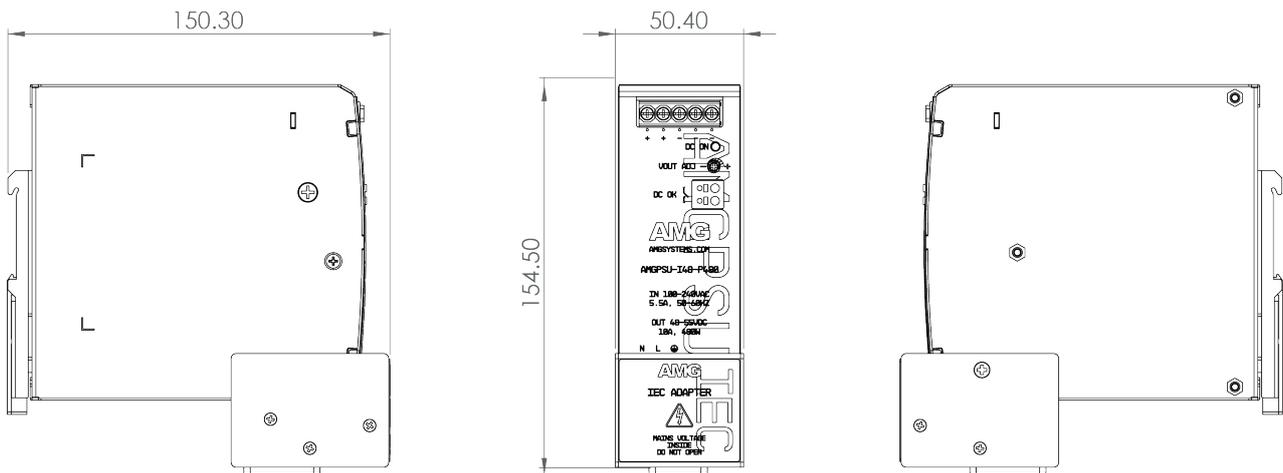
## Regulatory.

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.

## 480W Industrial DIN-Rail Power Supplies With IEC Input

AMGPSU-I48-P480-IEC Industrial DIN Rail Power Supply, 48V Nominal Output (48-55V Adjustable), 480W (10A)

# Notes.

Included Accessories: Region Specific IEC Line Cord (UK, EU, US, AUS)

Unless otherwise specified, parameters in this datasheet were measured under the conditions of  $T_a=25^\circ\text{C}$ , 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](http://www.amgsystems.com) for the latest product specifications.*