

# AMGPSU-I48-P120 INDUSTRIAL DIN-RAIL 120W POWER SUPPLY



## Industrial Power Solutions

AMG's industrial DIN-Rail 120W 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 120W 48V	Contacts 1x DC OK	Temp -40~+70°C	Mounting DIN

[ AMGPSU-I48-P120 ]

### / OVERVIEW

Designed in an ultra slim, robust DIN rail housing, the AMGPSU-I48-P120 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 47-53V 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<sub>AC</sub> or 120-370V<sub>DC</sub> 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<sub>AC</sub> or 120-370V<sub>DC</sub> input range
- 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
- 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	-	-	1.5	A
	230VAC	-	-	0.75	
Inrush Current	115VAC Cold Start	-	15	-	
	230VAC Cold Start	-	30	-	
Power Factor	115VAC	-	0.98	-	-
	230VAC	-	0.94	-	
Leakage Current	264VAC	<1mA			
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)	-	-	200	mV
Stand-by Power Consump.		-	2	-	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	105%-200% I <sub>o</sub> , Self-Recovery			
	230VAC Rated Load, Low Temp	≥105% Full Load After Derating, Self-Recovery			
Over-Voltage Protection		≤60V (Hiccup, Self-Recovery)			
Over-Temperature Protect	230VAC, 70% Load	-	90	-	°C
Minimum Load		0	-	-	%
Start-up Delay Time	230VAC	-	300	1000	ms
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)	1500	-	-	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	-	-	95	%RH
Storage Humidity		Non-Condensing	20	-	95	
Switching Frequency			-	100	-	kHz
Operating Temperature Power Derating		-40°C to -25°C	3.34	-	-	% / °C
		+55°C to +70°C (115VAC)	2	-	-	
		+60°C to +70°C (230VAC)	3	-	-	
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			

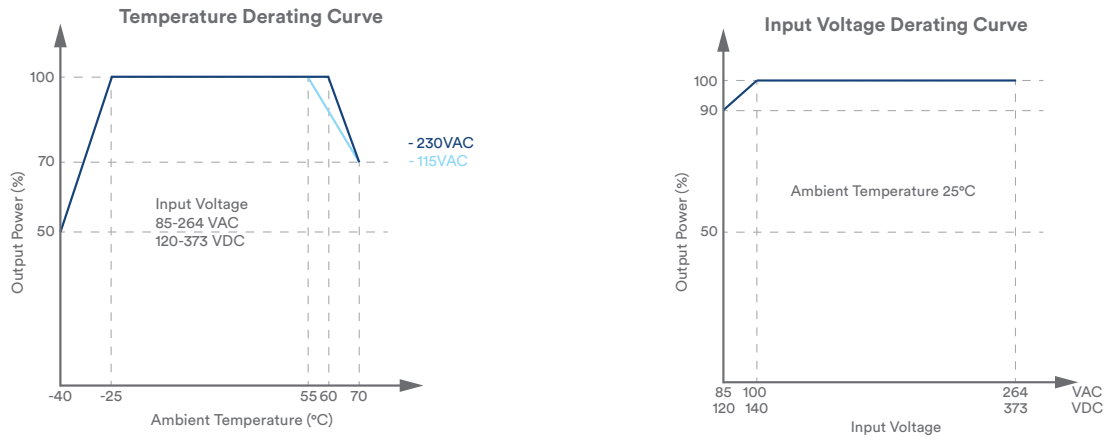
## Mechanical.

Case Material	Aluminium
Dimensions	124 × 32 × 110 mm (4.88 × 1.26 × 4.33 in) (H x W x D)
Weight	0.49 Kg
Cooling	Free Air Convection

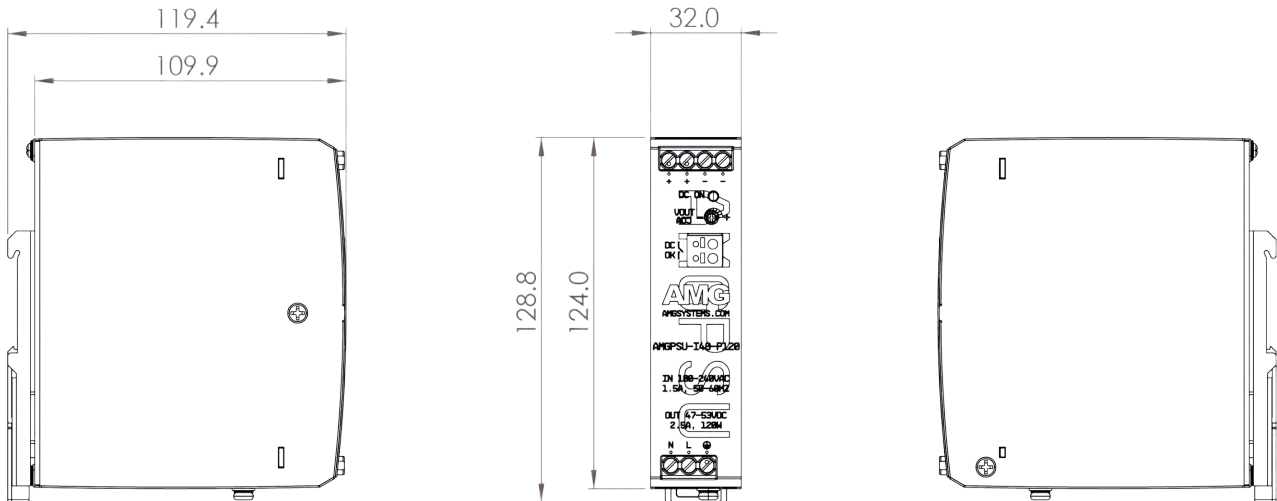
## Regulatory.

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 (±4KV)
	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.

## 120W Industrial DIN-Rail Power Supplies

AMGPSU-I48-P120

Industrial DIN Rail Power Supply, 48V Nominal Output (47-53V Adjustable), 120W (2.5A)

# 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](http://www.amgsystems.com) for the latest product specifications.*