

AMGPSU-I48-P120-IEC 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).



[AMGPSU-I48-P120-IEC]

 PSU 120W 48V	 Contacts 1x DC OK	 Temp -40~+70°C	 Mounting DIN	 Input IEC C14
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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_{AC} or 120-370V_{DC} 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
- -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 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_{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	-	-	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		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)	-	-	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 _o , 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			

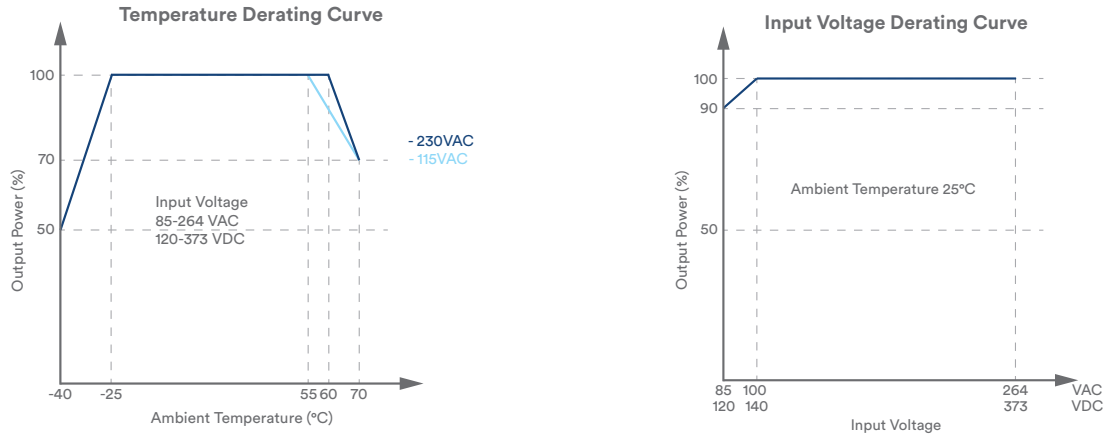
Mechanical.

Case Material	Aluminium
Dimensions	153 × 34 × 129 mm (6.02 × 1.34 × 5.08 in) (H x W x D)
Weight	0.54 Kg
Cooling	Free Air Convection

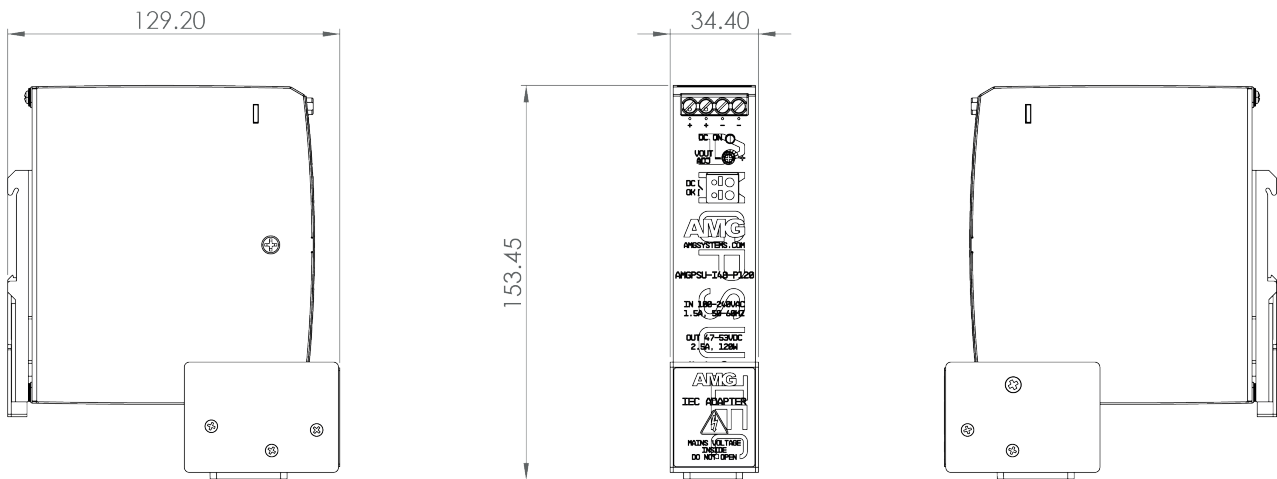
Regulatory.

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 With IEC Input

AMGPSU-I48-P120-IEC Industrial DIN Rail Power Supply, 48V Nominal Output (47-53V Adjustable), 120W (2.5A)

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 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.