

AMGPSU-I48-P120A-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-P120A-IEC]

PSU 120W 52V (48-55)	Contacts 1x DC OK	Temp -40~+70°C	Mounting DIN	Mounting Magnetic	Input IEC C14	NDA Compliant

/ OVERVIEW

Designed in an ultra slim 34mm, robust DIN rail housing, the AMGPSU-I48-P120A-IEC series industrial power supplies are ideally suited for powering AMG PoE Ethernet equipment. Its wide operating temperature range ensures reliable operation in harsh environments.

With native 52V output and a user adjustable range of 48-55V ensure the correct power output voltage is available for any PoE based 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 EN55032 Class B standards for EMC and are safety approved to UL508 and BS EN / EN62368-1.

A universal AC voltage input range that supports 85-264V_{AC} or 120-360V_{DC} ensures the widest possible site and region support.

Featuring a unique IEC C14 input connector with locking bracket provides a quick and easy installation method without the need for special 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 92% typical
- Universal wide range 85-264V_{AC} or 120-360V_{DC} input with IEC C14 connector for simple installation
- Output short circuit, over-current, over-voltage and over-temperature 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	-	360	VDC
Input Frequency		47	-	63	Hz
Input Current	115VAC	-	-	1.3	A
	230VAC	-	-	0.55	
Inrush Current	115VAC Cold Start	-	30	-	
	230VAC Cold Start	-	60	-	
Power Factor	115VAC	-	0.99	-	-
	230VAC	-	0.95	-	
Leakage Current	Input - Output	<0.25mA			
AC In 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)	-	-	240	mV
Temperature Coefficient		-	±0.03	-	%/°C
Stand-by Power Consump.		-	2	-	W
Short Circuit Protection	Recovery time <10s after the short circuit disappears	Long-term Mode, Self-Recovery			
Over-Current Protection		110%-150% I _o , Self-Recovery			
Over-Voltage Protection		58-65V (Hiccup, Self-Recovery)			
Over-Temperature Protect	±5°C Detect on heatsink of transistor	-	100	-	°C
Minimum Load		0	-	-	%
Start-up Delay Time	115/230VAC	250	-	500	ms
Hold-up Time	230VAC @ Full Load	-	20	-	ms
Overshoot		-	-	5	%
Parallel Use	1+1 or N+1 Redundant System	Supported (DIP Switch)			
DC OK Relay Output	Normally Closed (Open With DC Fault)	30VDC @ 1A Max			
DC Out Connector		2-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.

Mechanical.

Case Material	Aluminium
Dimensions	162 × 34 × 118 mm (6.38 × 1.34 × 4.65 in) (H x W x D)
Weight	0.67 kg (1.48 lb)
Cooling	Free Air Convection

Specifications.

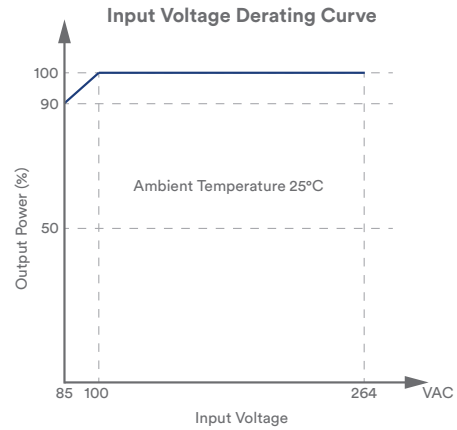
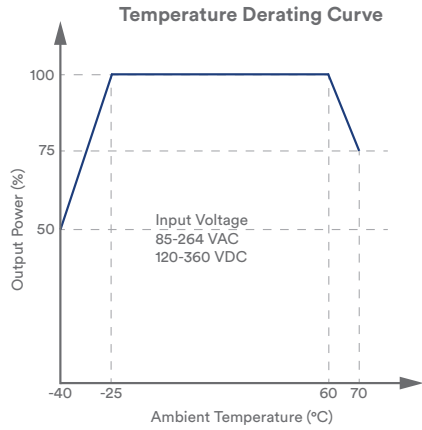
General.

Characteristics		Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Test	Input-Earth	Electric Strength Test for 1 min., (leakage current <20mA)	2500	-	-	VAC
	Input-Output		3000	-	-	
	Output-Earth		500	-	-	
Insulation Resistance	Input-Earth	At 500 VDC	10	-	-	M Ω
	Input-Output		10	-	-	
	Output-Earth		10	-	-	
Operating Temperature			-40	-	+70	°C
Storage Temperature			-40	-	+85	
Operating Humidity		Non-Condensing	20	-	90	%RH
Storage Humidity		Non-Condensing	5	-	95	
Operating Altitude			-	-	5000	m
Switching Frequency			-	100	-	kHz
Operating Temperature Power Derating		-40°C to -25°C	3.34	-	-	% / °C
		+60°C to +70°C	2.5	-	-	
Input Voltage Derating		85VAC to 100VAC	0.67	-	-	% / VAC
PCB Protection			Conformal Coated			
Safety Standard			EN62368-1 UL508			
Safety Class			Class I			
MTBF		MIL-HDBK-217F @ 25°C	>300,000 hours			

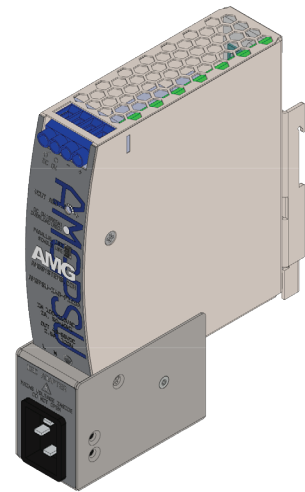
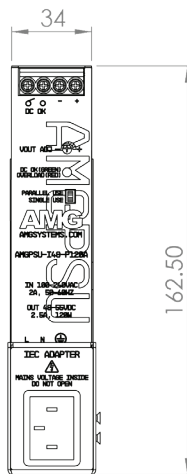
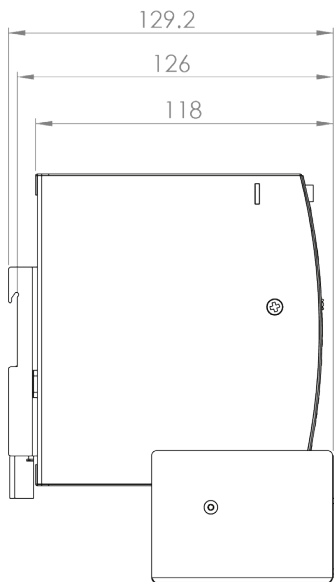
Regulatory.

Emissions	CE	CISPR32/EN55032 Class B
	RE	CISPR32/EN55032 Class B
	Harmonic Current	BS EN / EN61000-3-2 Class A
Immunity	ESD	BS EN / EN 61000-4-2 (Contact ±6KV / Air ±8KV)
	RS	BS EN / EN 61000-4-3 (10V/m)
	EFT	BS EN / EN 61000-4-4 (±4KV)
	Surge	BS EN / EN 61000-4-5 (Line - Line ±2KV, Line - GND ±4KV)
	CS	BS EN / EN 61000-4-6 (10V r.m.s)
	Voltage Dips, Short Interruptions and Voltage Variations Immunity	BS EN / EN 61000-4-11 (0%, 70%)
Traffic		NEMA TS2
Supply Chain		NDAA Compliant

Product Characteristic Curve.



Product Dimensions.



Part Numbers.

120W Industrial DIN-Rail Power Supplies With IEC Input

AMGPSU-I48-P120A-IEC Industrial DIN Rail Power Supply Kit, 52V Nominal Output (48-55V Adjustable), 120W (2.3A)*

* Region Specific Left Angle IEC Power Cord (UK, EU, US), IEC Locking Bracket, 125mm (5in) DIN Rail, 400mm (16in) DC Power Cable Included

Optional Accessories.

AMGMNT-MAG-02 2x Rear Mounted Magnets, Anti-Vibration Pad & Screws Kit For AMGPSU-I48-P120A-IEC, need to be ordered separately



Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C, humidity <75% 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.

