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	Contacts	Temp	Mounting	Input	NDAA
52V (48-55)	1x DC OK	-40~+70°C	DIN	IEC C14	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} 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} input with IEC C14 connector for quick and easy 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

AMG Systems Ltd. 4 Pioneer Way, Castleford, WF10 5QU, UK T: +44 (0) 1767 600 777 E: sales@amgsystems.com
AMG Systems Inc. 62 Spring Hill Road, Trumbull, CT 06611, USA T: +1-855-AMGPOE1 (855-264-7631) E: sales@amgsystems.com

Specifications.

Input.

Characteristics	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range	AC Input	85	-	264	VAC
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% Io, 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.

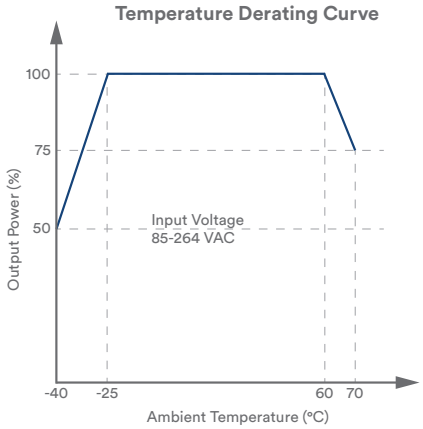
General.

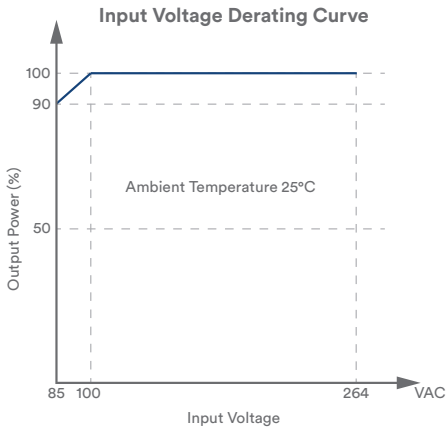
Characteristics		Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Test	Input-Earth	Electric Strength Test for 1 min., (leakage current <20mA)	2500	-	-	VAC
	Input-Output		3000	-	-	
	Output-Earth		500	-	-	
Insulation Resistance	Input-Earth	At 500 VDC	10	-	-	M Ω
	Input-Output		10	-	-	
	Output-Earth		10	-	-	
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 Fequency			-	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.

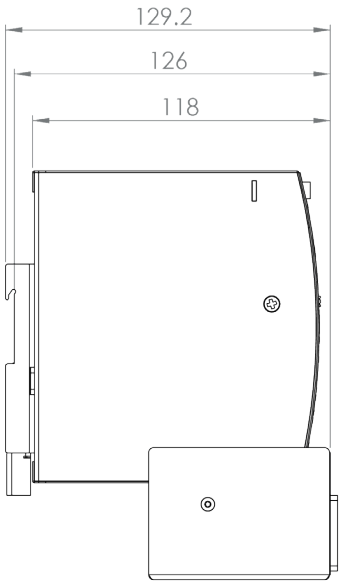
Emissions	CE	CISPR32/EN55032 Class B
	RE	CISPR32/EN55032 Class B
	Harmonic Current	BS EN / EN61000-3-2 Class A
Immunity	ESD	BS EN / EN 61000-4-2 (Contact ±6KV / Air ±8KV)
	RS	BS EN / EN 61000-4-3 (10V/m)
	EFT	BS EN / EN 61000-4-4 (±4KV)
	Surge	BS EN / EN 61000-4-5 (Line - Line ±2KV, Line - GND ±4KV)
	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

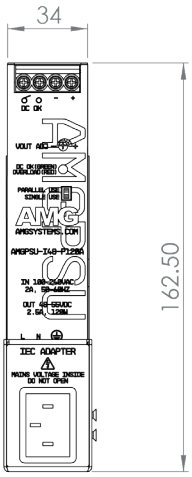
Product Characteristic Curve.

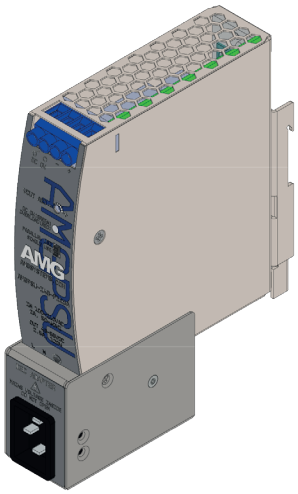




Product Dimensions.







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)

Notes.

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

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.

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