AMED150-GY

DIN Rail

The AMED150-GY is a step shape DIN rail AC-DC converter series featuring a cost effective and energy efficient design. These lightweight AC-DC converters also have an extremely compact design and are ideal for applications such as industrial control equipment, building automation and numerous applications exposed to harsh environments. The converter measures 90.00 x 70.20 x 58.40mm and has ambient air-cooling vents both at the top and bottom of the converter for improved thermal performance.

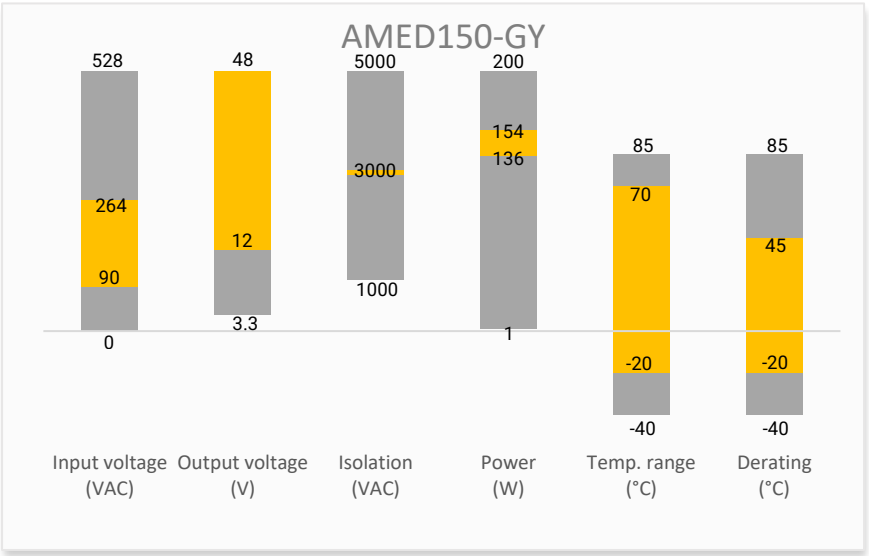
This series offers great operating temperatures, from -20°C to 70°C and features an isolation of 3000VAC for improved reliability and system safety. Furthermore, output short circuit protection (OSCP), overload protection (OLP), and an output overvoltage protection (OVP) come standard with the series.

Features

- Universal Input: 90 - 264VAC/127 - 370VDC
- Operating Temp: -20 °C to +70 °C
- High isolation voltage: 3000VAC
- Low ripple & noise, 200mV(p-p), max.
- Short circuit protection, over-voltage protection, and overload protection.
- Overvoltage category III (OVC III)

RoHS · 3yr Warranty · CE · UKCA

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

Applications

Power Grid · Industrial · Telecom

Models & Specifications

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Efficiency @ 230VAC Typ. (%)
AMED150-12SGY	90~264/47~63	127~370	135.6	12	11.3	89
AMED150-15SGY	90~264/47~63	127~370	142.5	15	9.5	89.5
AMED150-24SGY	90~264/47~63	127~370	150	24	6.25	90.5
AMED150-48SGY	90~264/47~63	127~370	153.6	48	3.12	90.5

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Input Current	115VAC		3000	mA
	240VAC		1600	mA
Inrush Current	240VAC	60		A

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	0 - 100% load, 12 VDC Output	± 2		
Line regulation	Rated load	± 1		%
Load regulation	0 - 100% load, 230VAC	± 1		%
Ripple & Noise *	20MHz bandwidth, 12 VDC Output		100	mV p-p
	20MHz bandwidth, 15 VDC Output		120	mV p-p
	20MHz bandwidth, 24 VDC Output		150	mV p-p
	20MHz bandwidth, 48 VDC Output		200	mV p-p
Hold up time	110~240VAC, full load	30		ms
Rise time	110~240VAC, full load	50		ms
Start up time	Room temperature	0.5		S
Voltage adjustable range	12 VDC Output	10.8 - 13.8		V
	15 VDC Output	13.5 - 18.0		V
	24 VDC Output	21.6 - 29.0		V
	48 VDC Output	43.2 - 55.2		V

* Ripple and Noise are measured at 20MHz bandwidth. Please refer to the application note for specific details. Measured.

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, Leakage current < 5mA	3000		VAC
Insulation Resistance	500VDC, 25°C, 70%RH	100		M Ohms

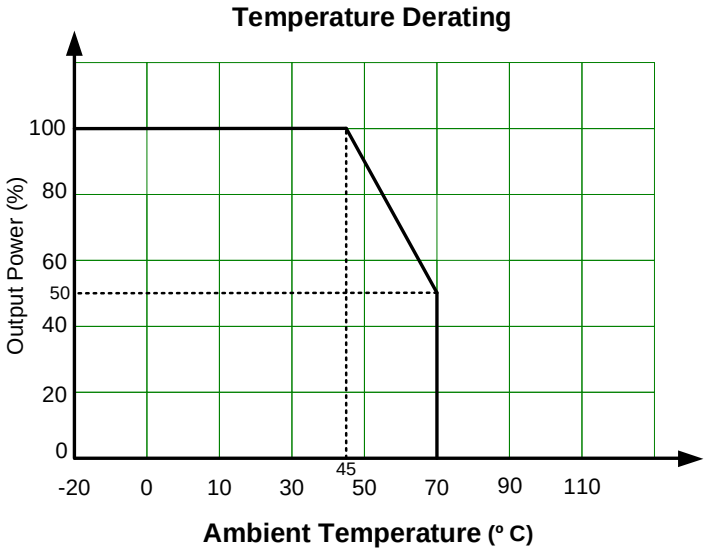
General Specifications

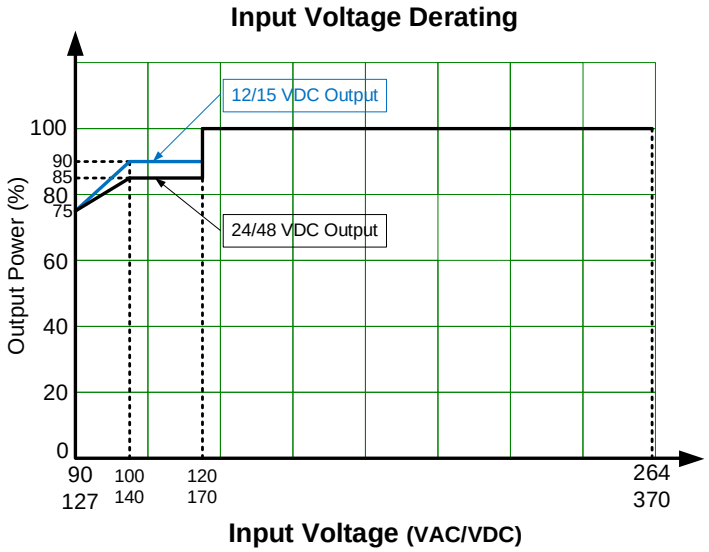
Parameters	Conditions	Typical	Maximum	Units
Overvoltage category	OVC III According to EN61558, EN50178, EN60664-1, EN62477-1			
Over voltage protection	12 VDC Output, hiccup	≤ 16.2		VDC

	15 VDC Output, hiccup	≤ 22.5		VDC
	24 VDC Output, hiccup	≤ 36.0		VDC
	48 VDC Output, hiccup	≤ 64.8		VDC
Overload protection	105~135% rated output power <50% rated output voltage, hiccup, auto-recovery 50%-100% rated output voltage, constant current limiting, auto-recovery			
Short circuit protection	Hiccup, Continuous, auto-recovery			
Operating temperature	20~90% RH Non-Condensing	-20 to +70		°C
Storage temperature	10~95% RH Non-Condensing	-40 to +85		°C
Operating altitude			2000	m
Power derating	45 °C to 70 °C	2.0		% / °C
	90 to 100 VAC, 12 / 15 VDC Output	1.5		% / VAC
	90 to 100 VAC, 24 / 48 VDC Output	1		% / VAC
	100 to 120 VAC, 12 VDC Output		122.4	W
	100 to 120 VAC, 15 VDC Output		128.3	W
	100 to 120 VAC, 24 VDC Output		127.4	W
	100 to 120 VAC, 48 VDC Output		130.6	W
Temperature coefficient	0~50°C RH Non-Condensing	± 0.03		% / °C
Protection Class	Class II			
Cooling	Free air convection			
Storage Humidity			95	% RH
Case material	Plastic			
Weight		270		g
Dimensions (L x W x H)	4.13 x 2.76 x 2.30 inches (105.00 x 70.20 x 58.40 mm)			
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.				

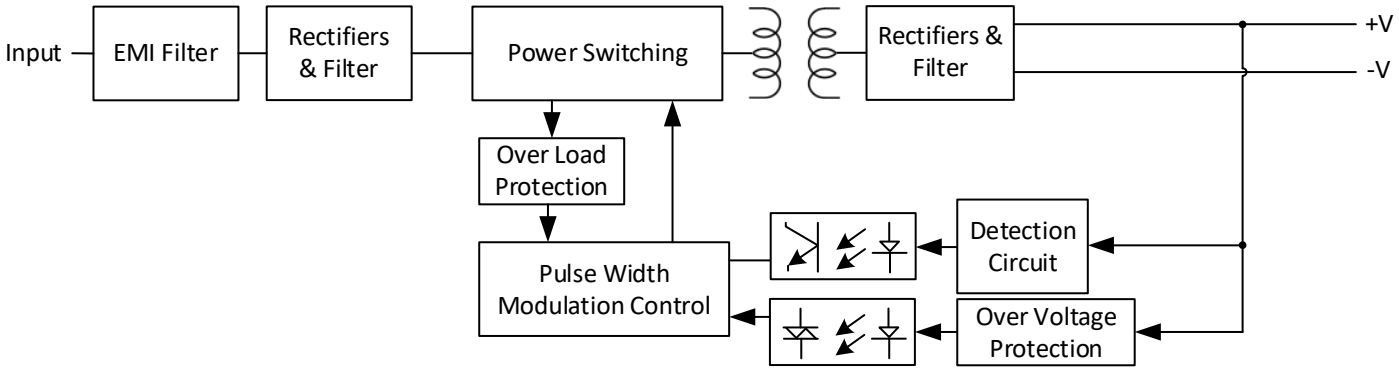
Safety Specifications		
Parameters		
Agency Approval	BS EN/EN62368-1	
Standards	EMC - Conducted and radiated emission	CISPR32 / EN55032, Class B
	Harmonic Current emission	IEC/EN 61000-3-2, Class A
	Voltage Fluctuations & Flicker	IEC/EN 61000-3-3
	Electrostatic Discharge Immunity	IEC/EN 61000-4-2 Contact ±4KV, Air ±8KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC/EN 61000-4-3 3V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC/EN 61000-4-4 ±1KV, Criteria B
	Surge Immunity	IEC/EN 61000-4-5 L-L ±1KV, L-G ±2KV, Criteria B
	CS, Conducted Disturbance Immunity	IEC/EN 61000-4-6 3V, 3V~1V, 1V r.m.s, Criteria A
	Power Frequency Magnetic Field Immunity	IEC/EN 61000-4-8 50, 60Hz, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC/EN 61000-4-11 100% Voltage Dips/Interruptions, 3 cycles, Criteria B

Derating





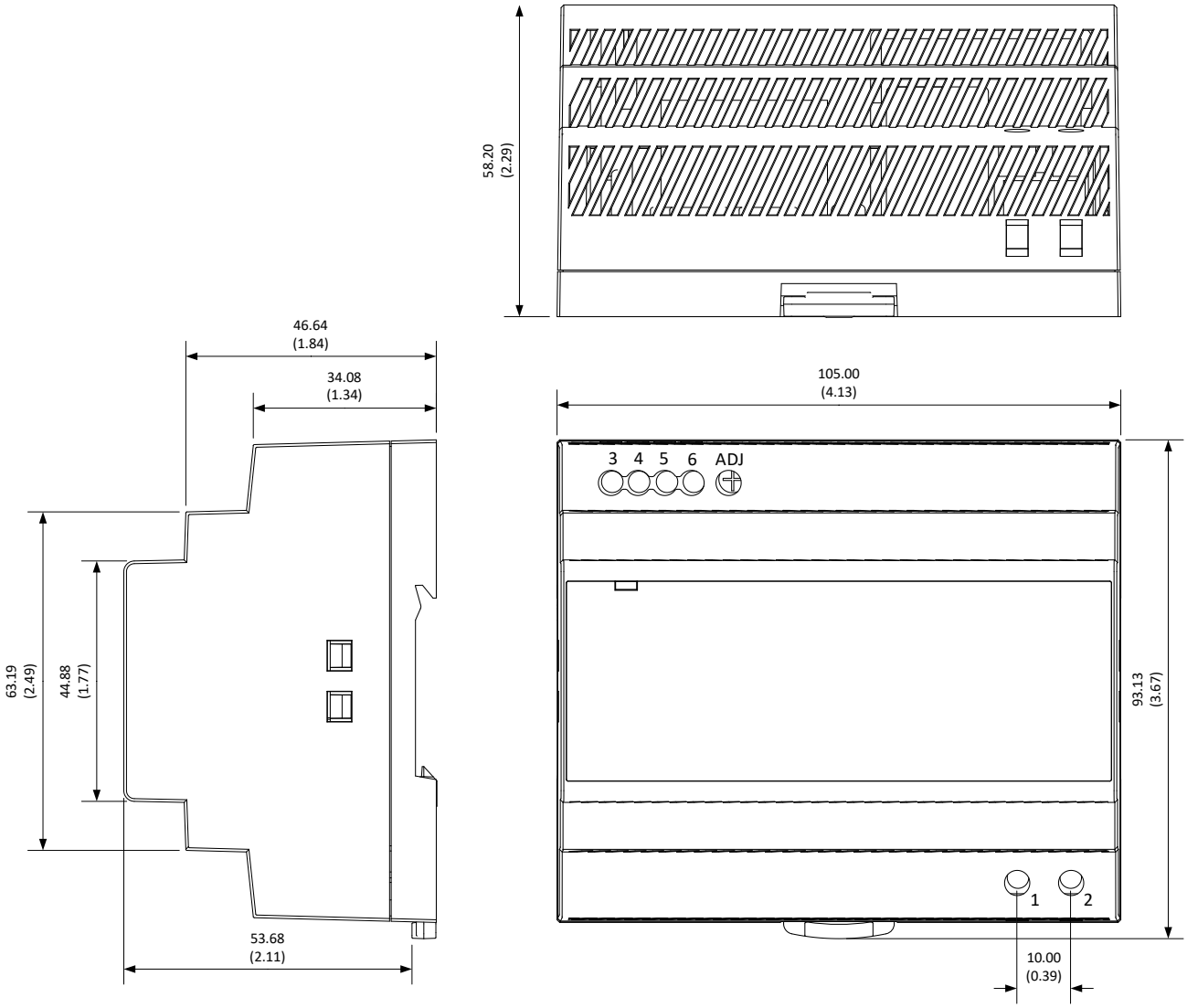
Functional Diagram



Dimensions

Unit: mm (inch)
General tolerance: ± 1.0 (0.04)
Wire gauge: 24 – 12AWG
Tightening torque: 0.4N·m Max.
Mounting rail: TS35,
Rail must be connected to safety ground.

Pin Output Specifications	
Pin	Function
1	Input (N)
2	Input (L)
3	-V Output
4	-V Output
5	+V Output
6	+V Output
ADJ	Voltage adjustment



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