

Click to
ORDER
samples

AMED240B-GY



DIN Rail

The AMED240B-GY is a high efficiency DIN rail AC/DC converter that features a cost-effective design. Offering a commercial input voltage range of 90-264VAC and an output voltage range from 12-48V, this series will offer many benefits to your new system design. The converter measures 130.95 x 40.33 x 123.80mm and has ambient air-cooling vents both at the top and bottom of the converter for improved thermal performance. It is also easy to install and remove for maintenance, while efficiently organizing all your electrical cables.

This series offers great operating temperatures, from -30°C to 70°C and features an isolation of 3000VAC for improved reliability and system safety. Furthermore, a high MTBF of 84,800h, output over-load protection, output short circuit protection, over temperature protection (OTP), and output over-voltage protection (OVP) come standard with the series.

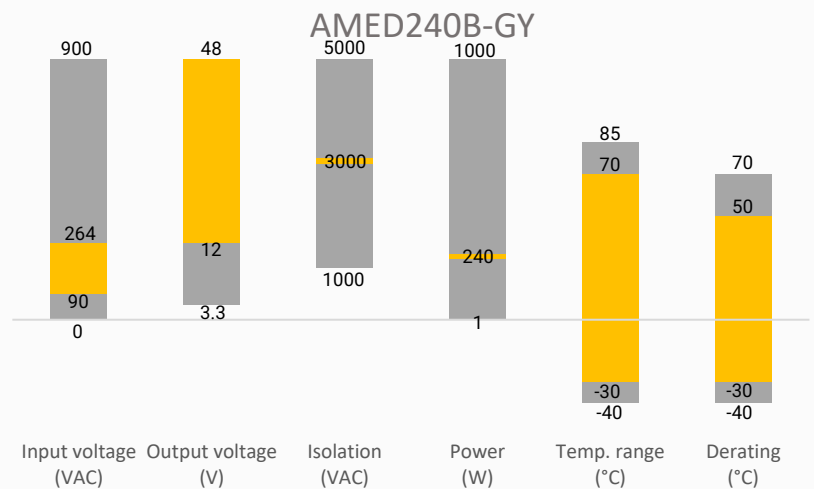
The AMED240B-GY is suitable for electric distribution boxes, grid power, instrumentation, CNC machines, industrial control panels and building automation applications.

Features

- Ultra-wide Input: 90 - 264VAC
- Operating Temp: -30 °C to +70 °C
- High isolation voltage: 3000VAC
- Low ripple & noise, 200mV(p-p), max.
- Short circuit protection, over-voltage protection, over temperature protection, and overload protection.



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)	Max Output wattage (W)	Output Voltage (V)	Output Voltage Adjustable Range (V)	Output Current max (A)	Maximum capacitive load (μF)	Efficiency @ 230VAC Typ. (%)
AMED240B-12SGY	90~264/47~63	240	12	10.8-13.2	20	8000	88
AMED240B-15SGY	90~264/47~63	240	15	13.5-16.5	16	8000	88
AMED240B-24SGY	90~264/47~63	240	24	21.6-26.4	10	8000	88.5
AMED240B-48SGY	90~264/47~63	240	48	43.2-52.8	5	3000	88.5

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Input Voltage	Nominal	100~240		VAC
Input Current	115VAC		2.5	A
	230VAC		1.3	A
Inrush Current	230VAC, cold start	40		A
Leakage Current	240VAC		0.75	mA
Power factor	115VAC, at full load	>0.95		
	230VAC, at full load	>0.95		

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	0 - 100% load	± 1		%
Line regulation	Rated load	± 0.5		%
Load regulation	0 - 100% load, 12/15Vout	± 1		%
	0 - 100% load, 24/48Vout	± 0.5		%
Ripple & Noise*	12/15VDC Output		120	mV p-p
	24VDC Output		150	mV p-p
	48VDC Output		200	mV p-p
Start-up time	230VAC input, full load		0.5	s
	115VAC input, full load		0.5	s
Hold up time	230VAC input, full load	20		ms
	115VAC input, full load	20		ms

* Ripple and Noise are measured at 20MHz bandwidth. Please refer to the application note for specific details. Measured with a 47μF electrolytic capacitor and a 0.1μF ceramic capacitor.

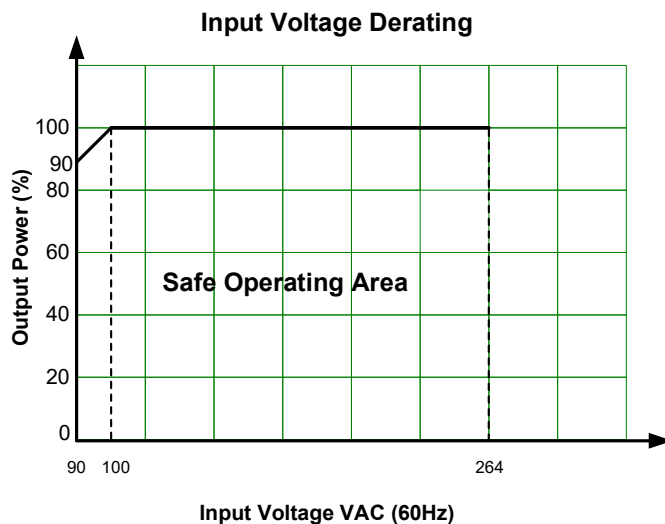
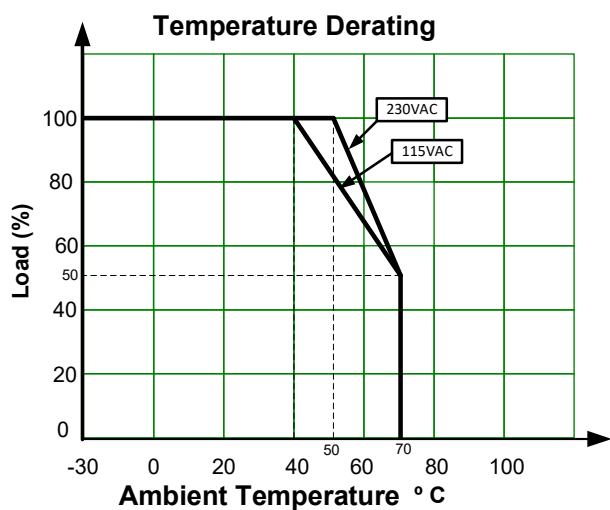
Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec	3000		VAC
Tested Input to GND voltage	60 sec	2000		VAC
Tested Output to GND voltage	60 sec	1000		VAC
Insulation resistance	I to O, I/O to PE, 500VDC, 25°C, 70%RH	>100		MΩ

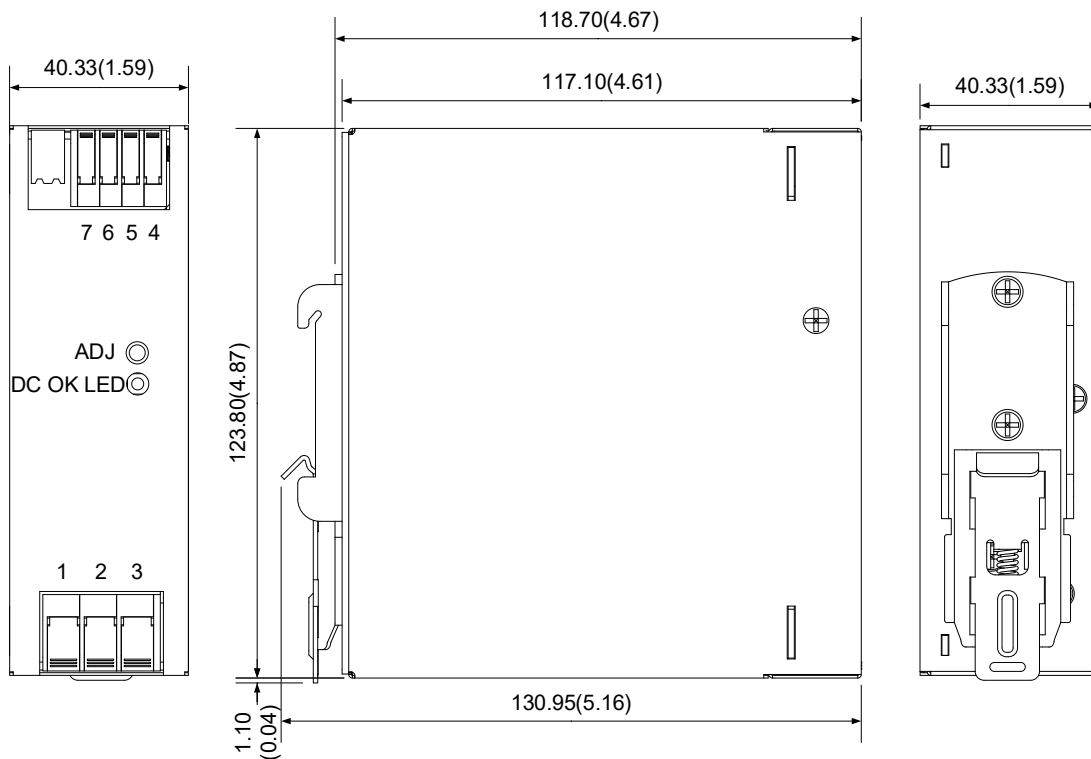
General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Overvoltage category	OVC II			
Over voltage protection	12 VDC Output, manual-recovery		17.4	VDC
	15 VDC Output, manual-recovery		21.75	VDC
	24 VDC Output, manual-recovery		33.6	VDC
	48 VDC Output, manual-recovery		64.8	VDC
Over temperature protection	Shut down, manual-recovery			
Overload protection	Hiccup, auto-recovery	>105	150	% of lout
Short circuit protection	Hiccup, Continuous, auto-recovery			
Operating altitude			5000	m
Operating temperature	Refer to derating curve	-30 to +70		°C
Storage temperature	10 ~ 95% RH	-40 to +85		°C
Power derating	50°C to 70°C, 230VAC	2.5		% / °C
	40°C to 70°C, 115VAC	1.67		% / °C
	90VAC - 100VAC	1		% / °C
Temperature coefficient	0 ~ 50°C	± 0.03		% / °C
Cooling	Free air convection			
Operating Humidity	Non-condensing	>20	90	% RH
Storage Humidity	Non-condensing	>10	95	% RH
Case material	Metal			
Weight		650		g
Dimensions (L x W x H)	5.16 x 1.59 x 4.87 inches (130.95 x 40.33 x 123.80 mm)			
MTBF	> 84 800 hrs (MIL-HDBK -217F, t=+25°C)			
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		
Standards	Designed to meet UL/EN61010-1	
	EMC - Conducted and radiated emission	CISPR32 / EN55032, Class B
	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

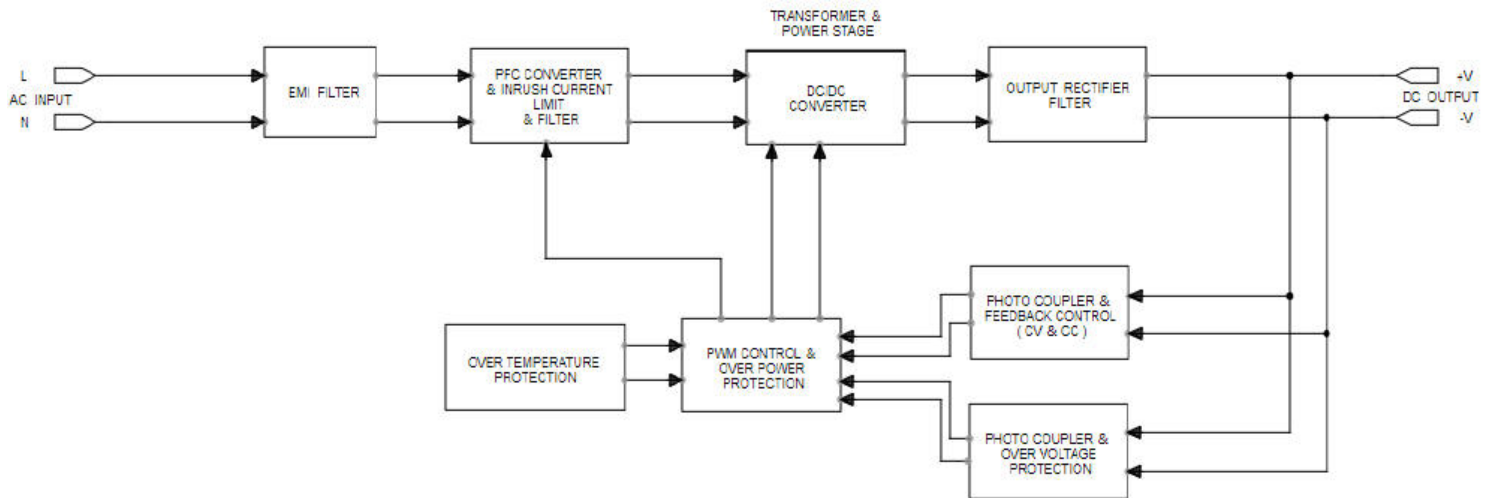


Dimensions



Pin Output Specifications	
Pin	Function
1	ACL
2	ACN
3	PE \equiv
4	-Vo
5	-Vo
6	+Vo
7	+Vo

Functional Diagram



NOTE: 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to www.aimtec.com for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.