AMED240T-GY

DIN Rail

The AMED240T-GY is a DIN-rail AC/DC converter that features a cost-effective and energy efficient design. It accepts an ultra-wide input voltage range of 340-550VAC which is mainly supplied by a 3-phase distribution system and has an output voltage range from 24-48V. Measuring 63.00 x 113.00 x 125.00mm, the converter 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 4870VAC for improved reliability and system safety. Furthermore, a high MTBF of 1,500,000h, output short circuit protection (OSCP), output over-load protection (OLP), output over-voltage protection (OVP), and an over temperature protection (OTP) come standard with the series.

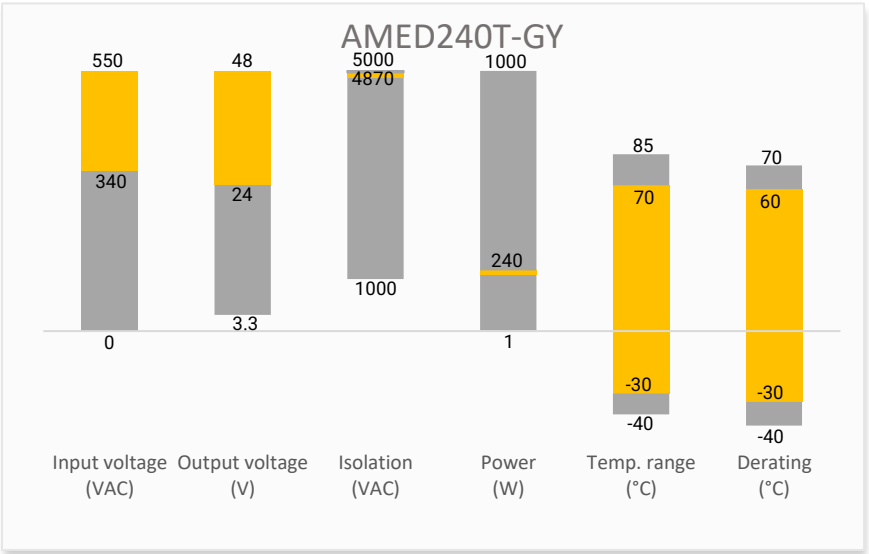
The AMED240T-GY is suitable for electric distribution boxes, grid power, instrumentation, CNC machines, industrial control panels and building automation applications.

Features

- Universal Input: 340 - 550VAC/480 - 780VDC
- Operating Temp: -30 °C to +70 °C
- High isolation voltage: 4870KVAC
- Low ripple & noise, 120mV(p-p), max.
- Short circuit protection, over-voltage protection, overload protection, and over-temperature protection

RoHS · 3yr Warranty · CE · UKCA · cULus LISTED · With PFC

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 Typ. (%)
AMED240T-24SGY	340~550/47~63	480~780	240	24	10	92
AMED240T-48SGY	340~550/47~63	480~780	240	48	5	92

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Input Current	400VAC		0.69	A
	500VAC		0.6	A
Inrush Current	cold start	50		A
Leakage Current	530VAC	<2.0		mA
Power Factor	400VAC at full load	≥0.53		
	500VAC at full load	≥0.52		

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	0 - 100% load	± 1		%
Line regulation	Rated load	± 0.5		%
Load regulation	0 - 100% load	± 1		%
Ripple & Noise*	24 VDC Output		100	mV p-p
	48 VDC Output		120	mV p-p
Start-up time	400VAC input, full load		2.0	s
	500VAC input, full load		1.5	s
Rise time	400VAC input, full load		60	ms
	500VAC input, full load		60	ms
Hold up time	400VAC input, full load	20		ms
	500VAC input, full load	40		ms
Voltage adjustable range	24 VDC Output	24 - 28		V
	48 VDC Output	48 - 55		V

* 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.

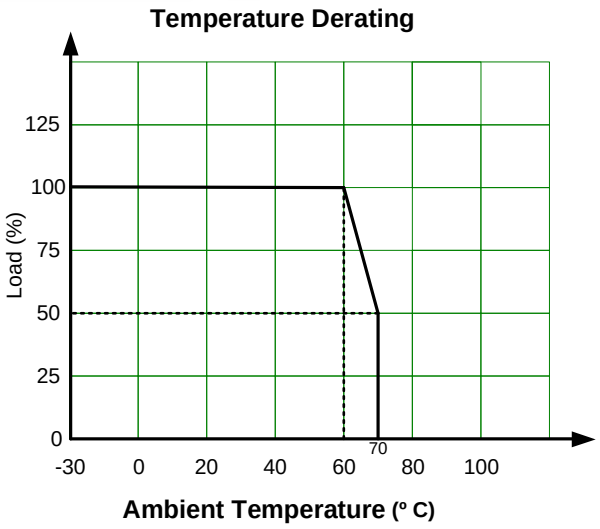
Isolation Specifications

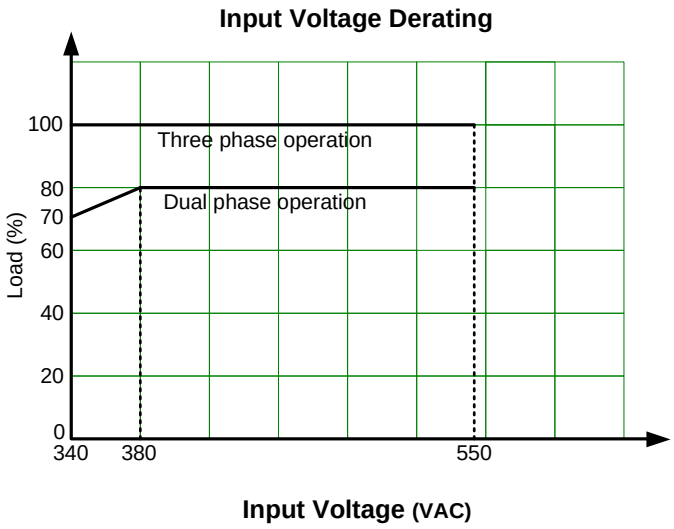
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, Leakage current < 10mA	4.87K		VAC
Tested Input to GND voltage	60 sec, Leakage current < 10mA	2.4K		VAC
Tested Output to GND voltage	60 sec, Leakage current < 10mA	500		VAC
Tested Output to P-G signal	60 sec, Leakage current < 2mA	500		VAC
Insulation resistance	500VDC, 25°C, 70% RH	>100		MΩ

General Specifications				
Parameters	**Conditions**	**Typical**	**Maximum**	**Units**
Over voltage protection	24 VDC Output, hiccup mode auto-recovery	≤ 36		VDC
	48 VDC Output, hiccup mode auto-recovery	≤ 65		VDC
Over temperature protection	Shuts down output voltage, auto-recovery			
Overload protection	105 ~ 130% rated output power, constant current limiting, hiccup mode after 3 sec.			
Short circuit protection	Hiccup, auto-recovery			
Operating temperature	20 ~ 95% RH	-30 to +70		°C
Storage temperature	10 ~ 95% RH	-40 to +85		°C
Operating altitude			5000	m
Power derating	550VAC, 60 °C to 70 °C	5		% / °C
	340 to 380 VAC, dual phase operation	0.25		% / VAC
Temperature coefficient	0~60°C	± 0.05		% / °C
Cooling	Free air convection			
Storage Humidity	Non-condensing	>10	95	% RH
Operating Humidity	Non-condensing	>20	90	% RH
Case material	Metal			
Weight		1000		g
Dimensions (L x W x H)	2.48 x 4.45 x 4.92 inches (63.00 x 113.00 x 125.0 mm)			
MTBF	1500K hrs min. Telcordia SR-332(Bellcore)			
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.				

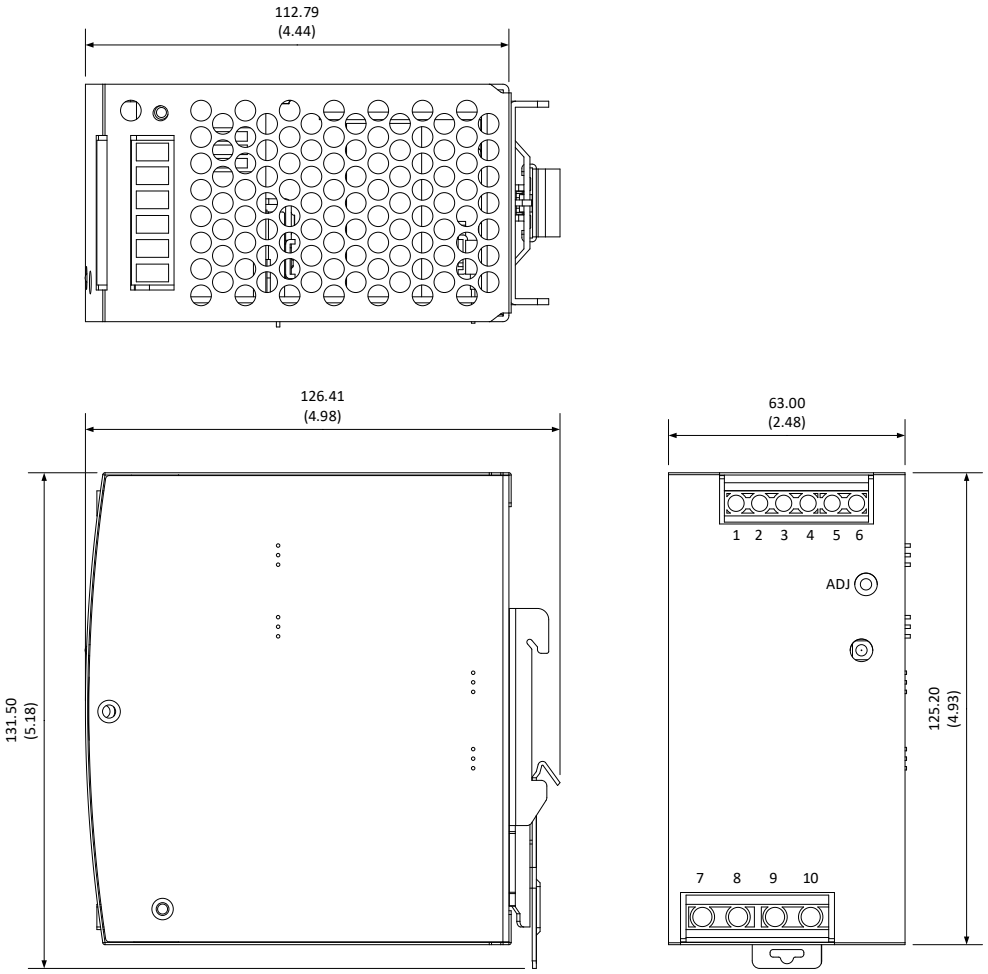
Safety Specifications		
Parameters		
Agency approval	UL61010-1, UL61010-2-201, BS EN/EN61558-1, BS EN/EN61558-2-16	
Standards	EMC - Conducted and radiated emission	CISPR32 / EN55032, Class B
	Electrostatic Discharge Immunity	IEC/EN 61000-4-2 Contact ±4KV, Air ±8KV, Criteria B
	RF, Electromagnetic Field 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

Derating



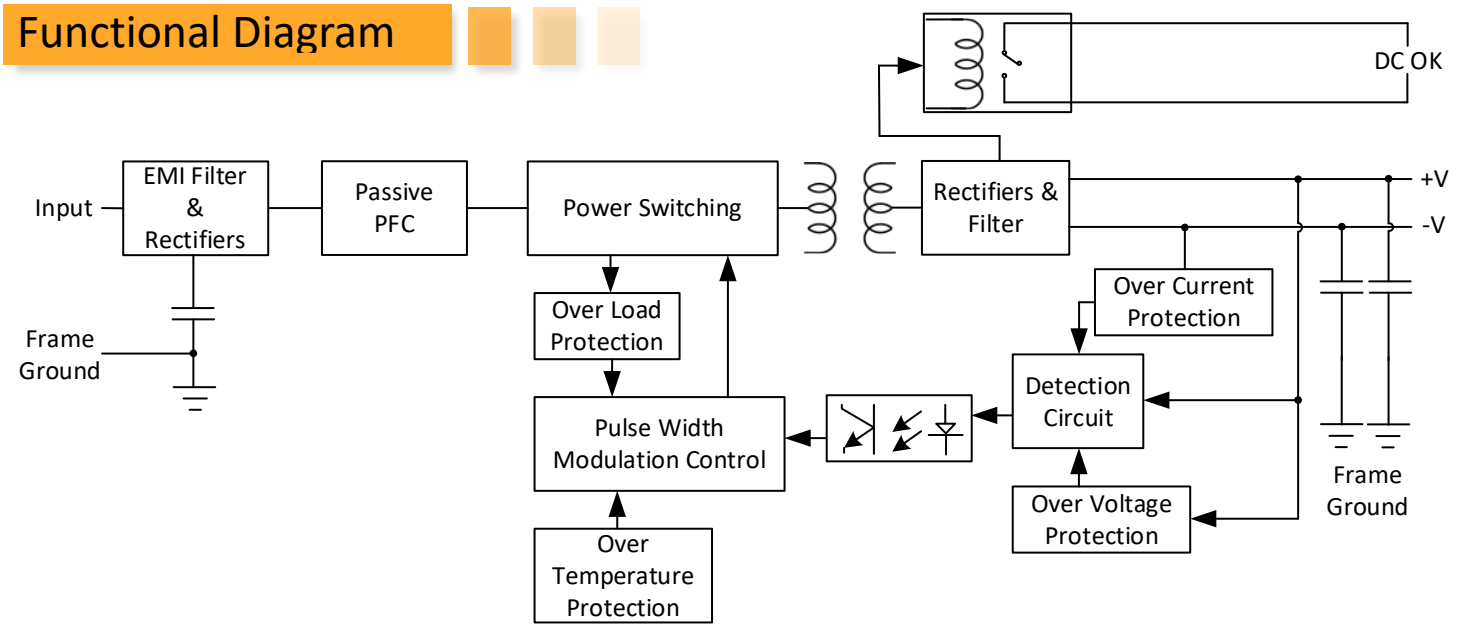


Dimensions



Pin Output Specifications	
Pin	Function
1	+V Output
2	+V Output
3	-V Output
4	-V Output
5	Relay Contact
6	Relay Contact
7	L1
8	L2
9	L3
10	GND ⏚
ADJ	Voltage Adjustment

Functional Diagram



DC OK Relay Contact

Contact Closed	Power Supply Unit turns on / DC OK
Contact Open	Power Supply Unit turns off / DC FAIL
Contact Ratings (maximum)	30VDC/1 A, 30VAC/0.5A resistive load