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**AMEDP480-NZ**



DIN Rail

The AMEDP480-NZ is a brand-new DIN rail bracket AC/DC converter that offers much greater cost effectiveness due to material normalization and production automation also leading to improved reliability and performance. Offering a commercial input voltage range of 85-264VAC and an output voltage range from 24-48V, this series will offer many benefits to your new system design.

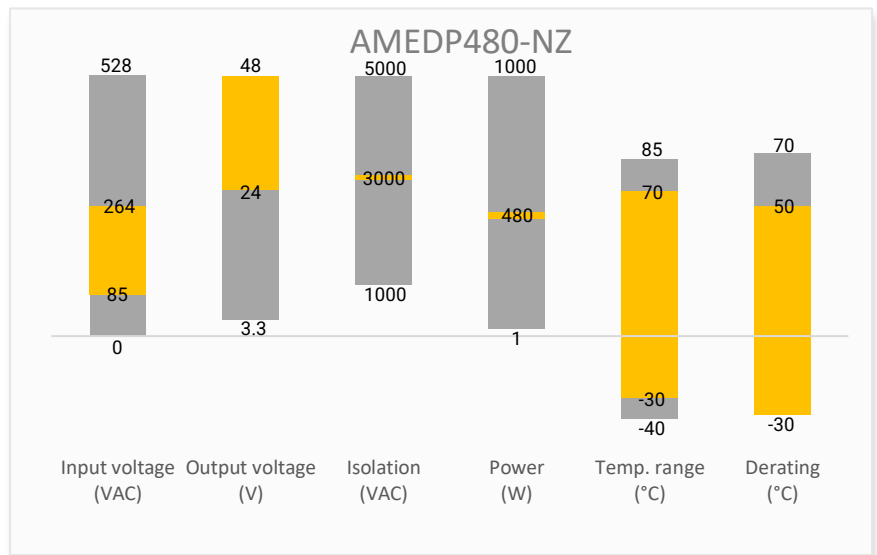
This new series offers great operating temperatures, from -30°C to 70°C also features an isolation of 3000VAC for improved reliability and system safety. Furthermore, a higher MTBF of 300,000h, output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AMEDP480-NZ is perfect for street lighting controls, grid power, LED, instrumentation, industrial controls, communication and civil applications.

**Features**

- Universal Input: 85 - 264VAC/120 - 370VDC
- Operating Temp: -30 °C to +70 °C
- High isolation voltage: 3000VAC
- Low ripple & noise, 120mV(p-p), max.
- Output short circuit, over-current, over-voltage, over-temperature protection

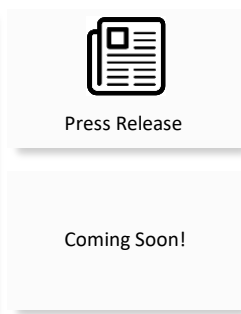
**Summary**



**Training**



Product Training Video  
(click to open)



Application Notes

**Applications**



Power Grid



Industrial



Telecom



Instrumentation

## Models & Specifications

Single Output							
Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Maximum capacitive load (μF)	Efficiency @ 230VAC Typ. (%)
AMEDP480-24SNZ	85~264/47~63	120~370	480	24	20	4700	94
AMEDP480-48SNZ	85~264/47~63	120~370	480	48	10	2700	94

Input Specifications				
Parameters	Conditions	Typical	Maximum	Units
Input Current	115VAC		5	A
	230VAC		2.5	A
Inrush Current	115VAC	20		A
	230VAC	40		A
Power factor	115VAC	≥ 0.99		--
	230VAC	≥ 0.95		--
Leakage current	240VAC		0.8	mA

Output Specifications				
Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Full load	± 1		%
Line regulation	Rated load	± 0.5		%
Load regulation	0 - 100% load	± 1		%
Ripple & Noise	20MHz bandwidth, 24 VDC Output		100	mV p-p
	20MHz bandwidth, 48 VDC Output		120	mV p-p
Hold up time		≥ 16		ms
Voltage adjustable range	24 VDC Output	24 – 28		V
	48 VDC Output	48 – 55		V
DC OK signal	30VDC		1	A

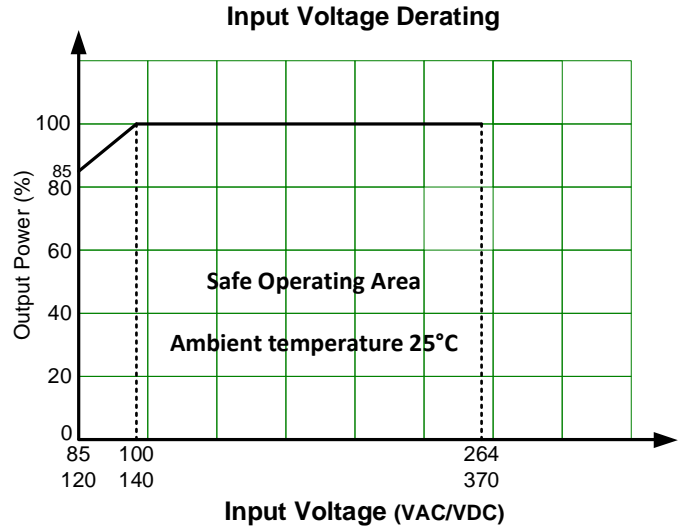
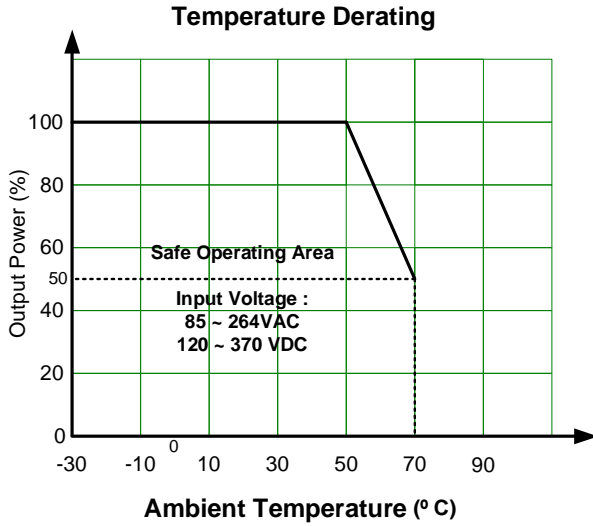
\* Ripple and Noise are measured at 20MHz bandwidth. Please refer to the application not for specific details. Measured with 47μF electrolytic capacitor and 0.1μF ceramic capacitor.

Isolation Specifications				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, Leakage current < 10mA	3000		VAC
Tested Input to GND voltage		2000		VAC
Tested Output to GND voltage		500		VAC
Insulation resistance	500VDC	>100		MΩ

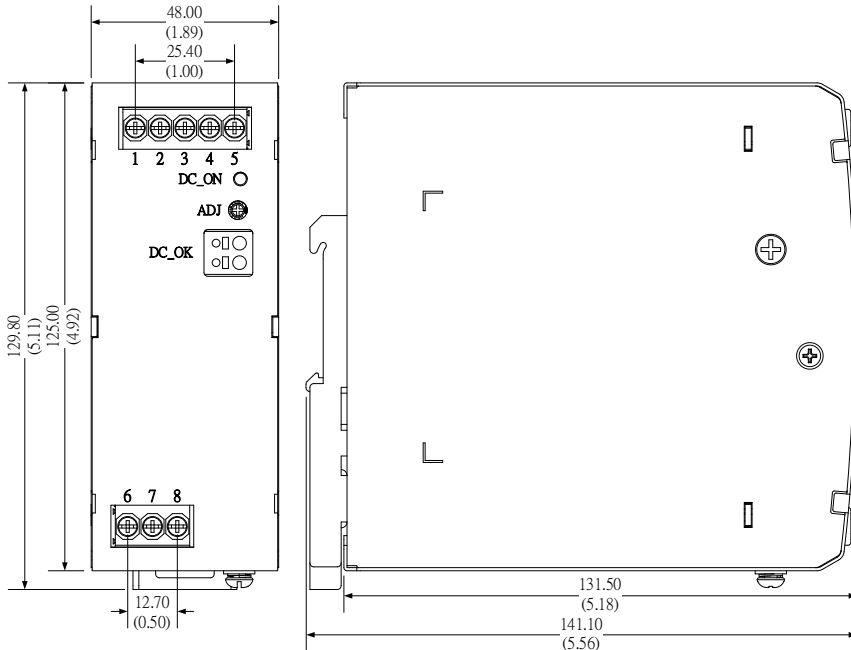
General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Over Current protection	230VAC, Self- recovery, normal or high temperature	110 - 150		% of Iout
	230VAC, Self- recovery, low temperature	≥ 105		% of Iout
Over voltage protection	24 VDC Output, output off or clamp, manual or self-recovery	29	35	VDC
	48 VDC Output, output off or clamp, manual or self-recovery	56	60	VDC
Over temperature protection	230Vac, full load, protection start		90	°C
	230Vac, full load, protection release	60		°C
Short circuit protection	Hiccup, Continuous, Self-recovery (Recovery time < 10S)			
Operating temperature		-30 to +70		°C
Storage temperature		-40 to +85		°C
Power derating	50 °C to 70 °C	2.5		% / °C
	85 to 100 VAC	1.0		% / VAC
Temperature coefficient		± 0.03		% / °C
Protection Class	Class I			
Cooling	Free air convection			
Storage Humidity		10	95	% RH
Operating Humidity		20	90	% RH
Case material	Metal (AL1100, SGCC) and Plastic (PC940)			
Weight		980		g
Dimensions (L x W x H)	5.18 x 1.89 x 4.92 inches (131.50 x 48.00 x 125.00 mm)			
MTBF	> 300 000 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		
Agency approvals	CE EN62368	
Standards	Designed to meet UL61010-1, UL508	
	EMC - Conducted and radiated emission	CISPR32 / EN55032, Class B
	Harmonic current	IEC/EN 61000-3-2, Class A
	Electrostatic Discharge Immunity	IEC/EN 61000-4-2 Contact ±6KV, Air ±8KV, Criteria A
	RF, Electromagnetic Field Immunity	IEC/EN 61000-4-3 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC/EN 61000-4-4 ±2KV, Criteria A
	Surge Immunity	IEC/EN 61000-4-5 L-L ±2KV, L-G ±4KV, Criteria A
	CS, Conducted Disturbance Immunity	IEC/EN 61000-4-6 10V r.m.s, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC/EN 61000-4-11 0%, 70%, Criteria A

## Derating



## Dimensions



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

**Note:**

Unit: mm (inch)

General tolerance :  $\pm 1.0$  (0.04)

Wire gauge : 28 - 10AWG

Tightening torque : 0.4N·m Max.

Mounting rail : TS35, rail need to connect safety ground

**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](http://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 than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at [www.aimtec.com](http://www.aimtec.com).