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AMED120-NZ

DIN Rail

The new AMED120-NZ is a brand-new 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 5-48V, this series will offer many benefits to your new system design.

This new series offers great operating temperatures, from -20°C to 60°C also features an isolation of 4000VAC 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 AMED120-NZ is perfect for street lighting controls, grid power, LED, instrumentation, industrial controls, communication and civil applications.

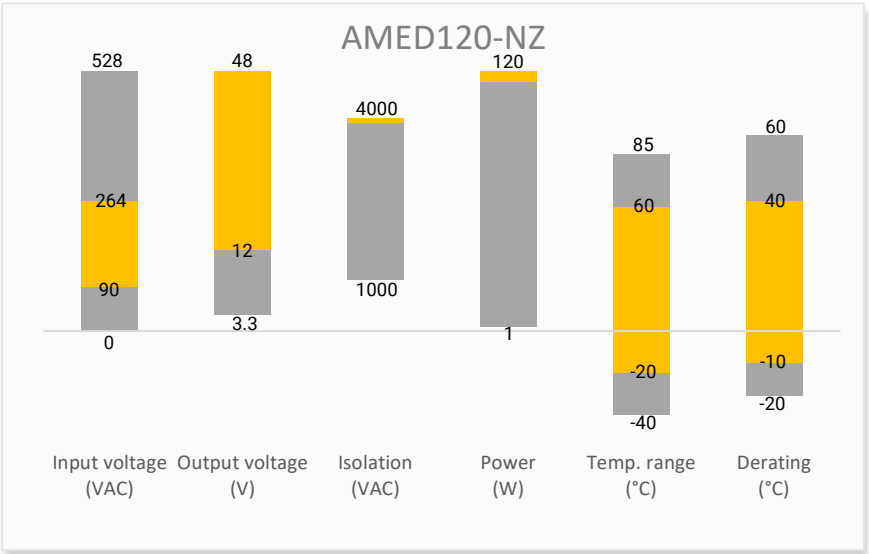
Features

- Universal Input: 90 - 264VAC/127 - 373VDC
- Operating Temp: -20 °C to +60 °C
- High isolation voltage: 4000VAC
- Low ripple & noise, 150mV(p-p), max.
- Output short circuit, over-current, over-voltage, over-temperature protection

RoHS

3yr Warranty

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

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. (%)
AMED120-12SNZ	90~264/47~63	127~373	120	12	10	3000	85
AMED120-24SNZ	90~264/47~63	127~373	120	24	5	1200	88
AMED120-48SNZ	90~264/47~63	127~373	120	48	2.5	800	89

Input Specifications				
Parameters	Conditions	Typical	Maximum	Units
Input Current	115VAC		2700	mA
	230VAC		1600	
Inrush Current	115VAC	20		A
	230VAC	40		

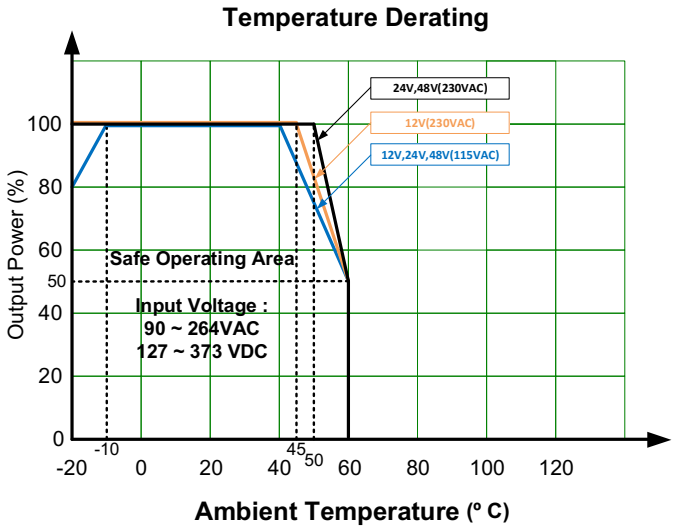
Output Specifications					
Parameters	Conditions		Typical	Maximum	Units
Voltage accuracy	0 - 100% load	12 VDC Output	± 2		%
		24,48 VDC Output	± 1		%
Line regulation	Rated load		± 0.5		%
Load regulation	0 - 100% load		± 1		%
Ripple & Noise	20MHz bandwidth	12 VDC Output		100	mV p-p
		24 VDC Output		120	
		48 VDC Output		150	
Hold up time	115VAC		8		ms
	230VAC		16		ms
Voltage adjustable range	12 VDC Output		12 – 14		V
	24 VDC Output		24 - 28		
	48 VDC Output		48 - 55		
* 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.					

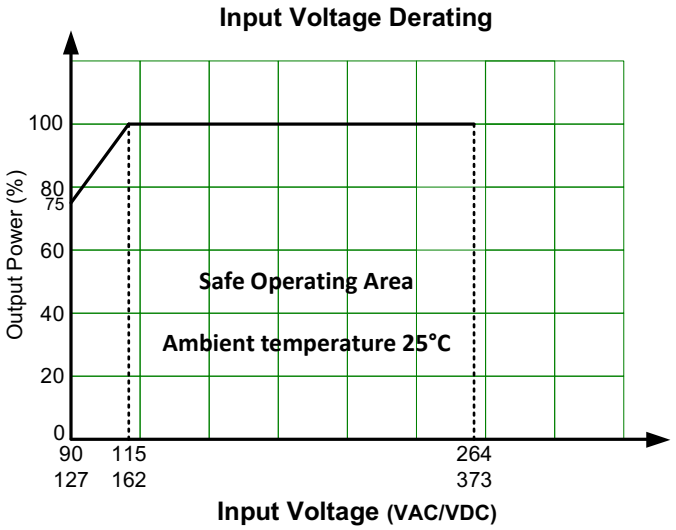
Isolation Specifications				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, Leakage current < 10mA	4000		VAC
Tested Input to GND voltage		2000		
Tested Output to GND voltage		500		
Insulation resistance	500VDC	>100		MΩ

General Specifications						
Parameters	**Conditions**			**Typical**	**Maximum**	**Units**
Over Current protection	Self- recovery			105 - 150		% of Iout
Over voltage protection	12 VDC Output, manual-recovery			≤ 16		VDC
	24 VDC Output, manual-recovery			≤ 33		
	48 VDC Output, manual-recovery			≤ 60		
Over temperature protection	Output voltage turn off, manual-recovery					
Short circuit protection	Hiccup, Continuous, Self-recovery (Recovery time < 5S)					
Switching Frequency				65		KHz
Operating temperature				-20 to +60		°C
Storage temperature				-40 to +85		°C
Power derating	115VAC		-20 °C to -10°C	2.0		% / °C
	230VAC		-20 °C to -10°C	0		% / °C
	115VAC		40 °C to 60°C	2.5		
	12 VDC Output	230 VAC	45 °C to 60°C	3.33		
	24,48 VDC Output		50 °C to 60 °C	5		
	90 to 100 VAC			1.0		% / VAC
Temperature coefficient				± 0.03		% / °C
Protection Class	Class I					
Cooling	Free air convection					
Storage Humidity					95	% RH
Operating Humidity					90	% RH
Case material	Metal (AL1050, SGCC) and Plastic(PC940)					
Weight				500		g
Dimensions (L x W x H)	1.38 x 5.04 x 4.72 inches (35.00 x 128.00 x 120.00 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.						

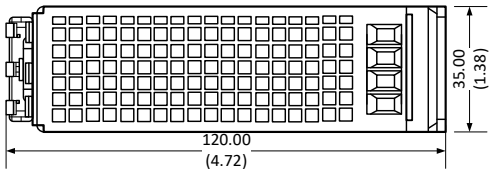
Safety Specifications		
Parameters		
Standards	Designed to meet IEC/EN/UL 62368, EN 60335, GB4943	
	EMC - Conducted and radiated emission	CISPR32 / EN55032, Class A
	Voltage flicker	IEC/EN 61000-3-3
	Electrostatic Discharge Immunity	IEC 61000-4-2 Contact ±6KV, Air ±8KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4 ±4KV, Criteria B
	Surge Immunity	IEC 61000-4-5 L-L ±2KV, L-G ±4KV, Criteria B
	CS, Conducted Disturbance Immunity	IEC 61000-4-6 10V r.m.s, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11 0%, 70%, Criteria B

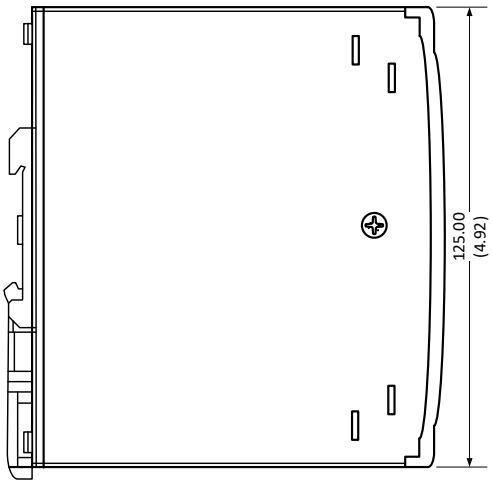
Derating

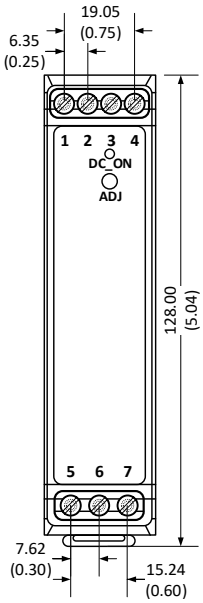




Dimensions







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

Note:
Unit: mm (inch)
General tolerance : ±1.0 (0.04)
Wire gauge : 26 - 10AWG
Tightening torque : 0.4N·m Max.
Mounting rail : TS35, rail need to connect safety ground