AMED75-JZ

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DIN Rail

The new AMED75-JZ 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 12-48V, 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 4000VAC for improved reliability and system safety. Furthermore, a higher MTBF of 300,000h, output short circuit protection (OSCP), output over-current protection (OCP), over temperature protection (OTP) and an output over-voltage protection (OVP) come standard with the series.
The AMED75-JZ is perfect for electric distribution box, grid power, instrumentation, industrial controls, building automation applications.

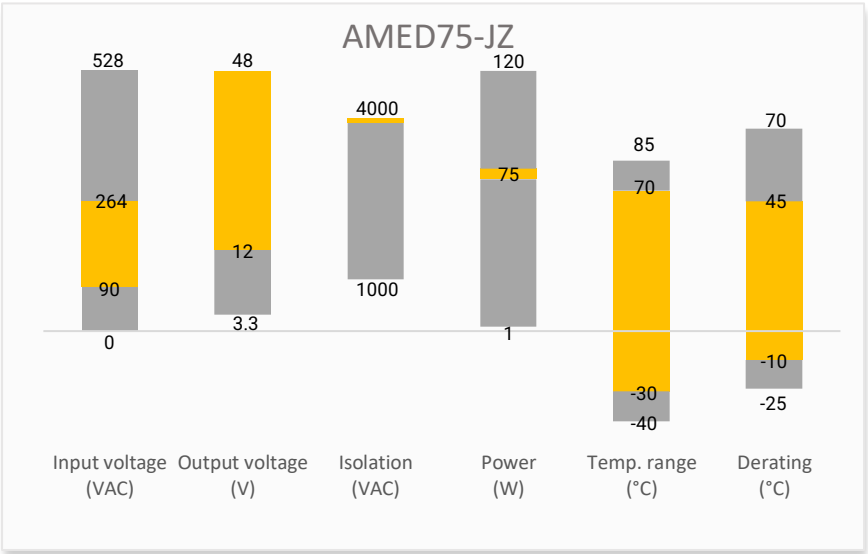
Features

- Universal Input: 90 - 264VAC/120 - 370VDC
- Operating Temp: -30 °C to +70 °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. (%)
AMED75-12SJZ	90~264/47~63	120~370	75.6	12	6.3	6000	86
AMED75-24SJZ	90~264/47~63	120~370	76.8	24	3.2	1500	89
AMED75-48SJZ	90~264/47~63	120~370	76.8	48	1.6	1000	90

Input Specifications				
Parameters	Conditions	Typical	Maximum	Units
Input Current	115VAC		2	A
	230VAC		1	A
Inrush Current	115VAC, cold start	25		A
	230VAC, cold start	45		A
Leakage Current	240VAC	<0.5		mA

Output Specifications				
Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	0 - 100% load, 12 VDC Output	± 2		%
	0 - 100% load, 24,48 VDC Output	± 1		%
Line regulation	Rated load	± 0.5		%
Load regulation	0 - 100% load	± 1		%
Ripple & Noise*	12 VDC Output		80	mV p-p
	24 VDC Output		120	mV p-p
	48 VDC Output		150	mV p-p
Hold up time	115VAC	12		ms
	230VAC	60		ms
Voltage adjustable range	12 VDC Output	12 - 14		V
	24 VDC Output	24 - 28		V
	48 VDC Output	48 - 53		V

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

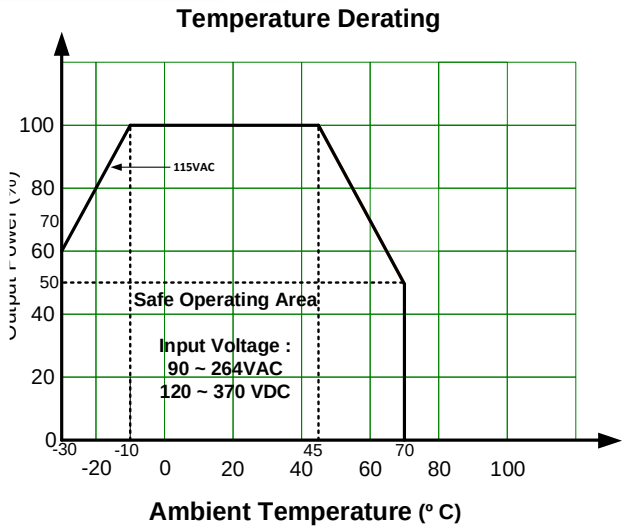
Isolation Specifications				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, Leakage current < 10mA	4000		VAC
Tested Input to GND voltage	60 sec, Leakage current < 10mA	2000		VAC
Tested Output to GND voltage	60 sec, Leakage current < 10mA	500		VAC
Insulation resistance	500VDC	>50		MΩ

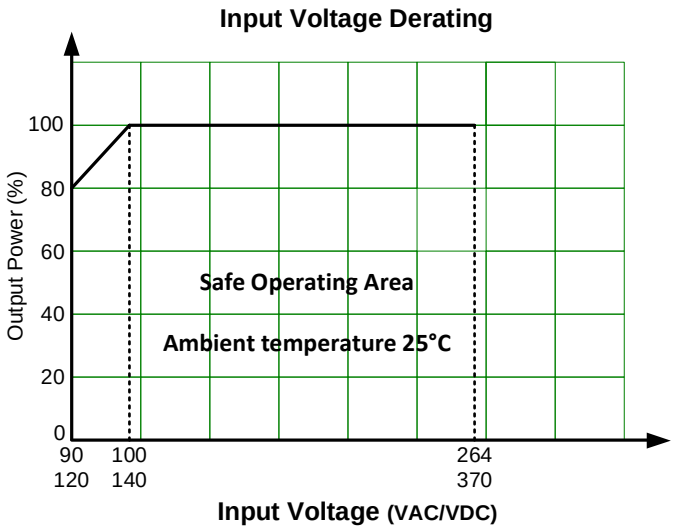
General Specifications				
Parameters	**Conditions**	**Typical**	**Maximum**	**Units**
Over Current protection	Constant current, self- recovery, room temp.	105 - 150		% of Iout
	Constant current, self- recovery, low/high temp.	>105		% of Iout
Over voltage protection	12 VDC Output, manual-recovery	≤ 17		VDC
	24 VDC Output, manual-recovery	≤ 33		VDC
	48 VDC Output, manual-recovery	≤ 60		VDC
Over temperature protection	Output voltage turn off, manual-recovery			
Short circuit protection	Hiccup, Continuous, Self-recovery (Recovery time < 3S)			
Switching Frequency		65		KHz
Operating temperature		-30 to +70		˚C
Storage temperature		-40 to +85		˚C
Power derating	-30°C to -10°C	2.0		% / ˚C
	45 ˚C to 70°C	2.0		% / ˚C
	90 to 100 VAC	2.0		% / VAC
Temperature coefficient		± 0.03		% / ˚C
Protection Class	Class I			
Cooling	Free air convection			
Storage Humidity	Non-condensing	>10	95	% RH
Operating Humidity	Non-condensing	>20	90	% RH
Case material	Metal (AL1100, SGCC)			
Weight		350		g
Dimensions (L x W x H)	1.26 x 4.92 x 3.44 inches (32.00 x 125.00 x 87.50 mm)			
MTBF	> 300 000 hrs (MIL-HDBK -217F, t=+25ºC)			

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.

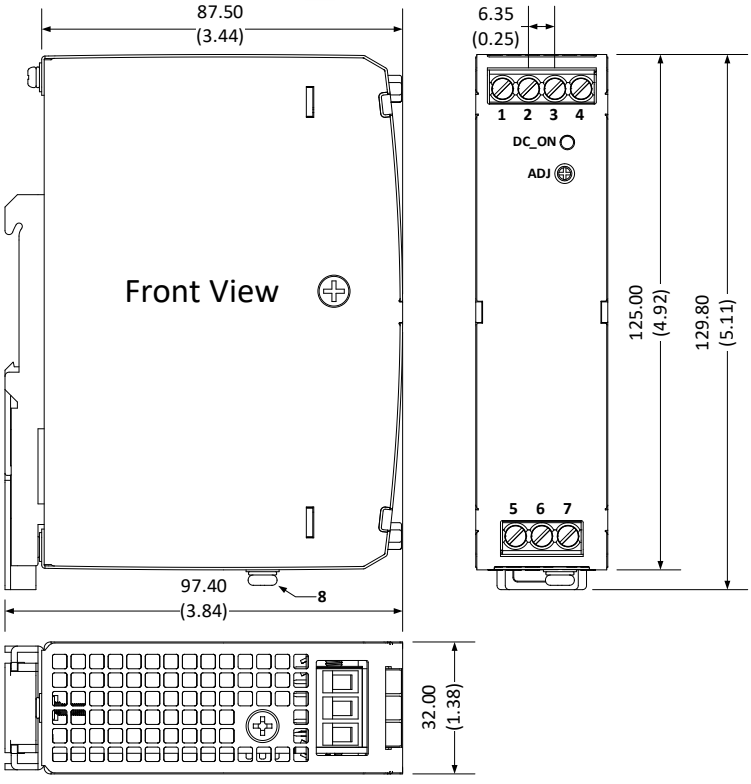
Safety Specifications		
Parameters		
Standards	Designed to meet EN 62368-1, UL61010-1	
	EMC - Conducted and radiated emission	CISPR32 / EN55032, Class B
	Harmonic current	IEC/EN 61000-3-2, Class A
	Electrostatic Discharge Immunity	IEC/EN 61000-4-2 Contact ±6KV, Air ±8KV, Criteria A
	RF, Electromagnetic 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 B

Derating





Dimensions



Pin Output Specifications	
Pin	Function
1	+V Output
2	+V Output
3	-V Output
4	-V Output
5	Input (N)
6	Input (L)
7	GND ⏚
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
7 or 8 must be connected to earth ⏚

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.