

AMED75-JZ







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





Training



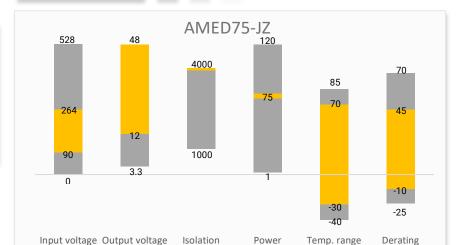
Press Release

Coming Soon!

Product Training Video (click to open)

Application Notes

Summary



Applications

(V)

(VAC)





(VAC)



(W)

(°C)



(°C)

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 | Α |
| | 230VAC | | 1 | Α |
| Inrush Current | 115VAC, cold start | 25 | | Α |
| | 230VAC, cold start | 45 | | Α |
| Leakage Current | 240VAC | <0.5 | | mA |

| Output Specifications | | | | |
|--------------------------------------|--|------------------|------------------|----------------|
| Parameters | Conditions | Typical | Maximum | Units |
| Voltage accuracy | 0 - 100% load, 12 VDC Output | ± 2 | | % |
| Voltage accuracy | 0 - 100% load, 24,48 VDC Output | ± 1 | | % |
| Line regulation | Rated load | ± 0.5 | | % |
| Load regulation | 0 - 100% load | ± 1 | | % |
| | 12 VDC Output | | 80 | mV p-p |
| Ripple & Noise* | 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 |
| * Rinnle and Noise are measured at 3 | 20MHz bandwidth. Please refer to the application not for speci | fic details Meas | ured with a 47ul | F electrolytic |

^{*} 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 | | ΜΩ |



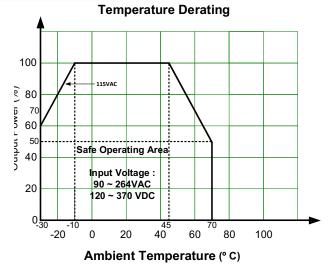
| General Specifications | | | | |
|---|---|-----------------|-------------------|-------------|
| Parameters | Conditions | Typical | Maximum | Units |
| One Command and testion | Constant current, self- recovery, room temp. | 105 - 150 | | % of lout |
| Over Current protection | Constant current, self- recovery, low/high temp. | >105 | | % of lout |
| | 12 VDC Output, manual-recovery | ≤ 17 | | VDC |
| Over voltage protection | 24 VDC Output, manual-recovery | ≤ 33 | | VDC |
| | 48 VDC Output, manual-recovery | ≤ 60 | | VDC |
| Over temperature protection | Output voltage turn off, m | anual-recovery | | |
| Short circuit protection | Hiccup, Continuous, Self-recover | y (Recovery tim | e < 3S) | |
| Switching Frequency | | 65 | | KHz |
| Operating temperature | | -30 to +70 | | °C |
| Storage temperature | | -40 to +85 | | °C |
| | -30°C to -10°C | 2.0 | | %/°C |
| Power derating | 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=+25°C) | | | |
| NOTE: All specifications in this datasl output load unless otherwise specific | neet are measured at an ambient temperature of 25°C, humided. | ity<75%, nomina | l input voltage a | nd at rated |

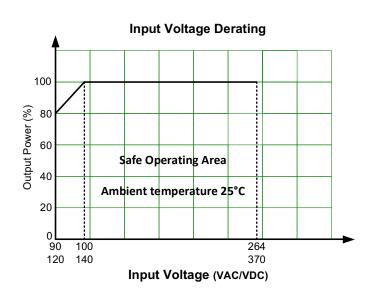
| Safety Specifications | | |
|-----------------------|--|---|
| Parameters | | |
| | Designed to meet EN 62368-1, UL61010-1 | |
| | EMC - Conducted and radiated emission | CISPR32 / EN55032, Class B |
| | Harmonic current | IEC/EN 61000-3-2, Class A |
| | Electrostatic Discharge Immunity | IEC/EN 61000-4-2 Contact ±6KV, Air ±8KV, Criteria A |
| Standards | RF, Electromagnetic Field Immunity | IEC/EN 61000-4-3 10V/m, Criteria A |
| Stallualus | 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 | IEC/EN 61000-4-11 0%, 70%, Criteria B |
| | Immunity | |



Derating







| 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 \equiv | |
| ADJ | 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 \equiv

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.