aimtec
Your Power Partner

Series AME5-JZ

5 Watt | AC-DC / DC-DC Converter

FEATURES:

- I/O Isolation 3000VAC
- Operating Temp: -40°C to +70°C
- Over current Protection
- Input: 85-305VAC, 47-63Hz, or 100-430VDC
- Low Ripple and Noise
- Over Voltage Protection
- Up to 84% efficiency
- Short Circuit Protection

Models
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 (%)
							230 VAC
AME5-3.3SJZ	85-305/47-63	100-430	4	3.3	1.25	4000	72
AME5-5SJZ	85-305/47-63	100-430	5	5	1	4000	77
AME5-9SJZ	85-305/47-63	100-430	5	9	0.55	1800	79
AME5-12SJZ	85-305/47-63	100-430	5	12	0.42	1800	81
AME5-15SJZ	85-305/47-63	100-430	5	15	0.33	1500	82
AME5-24SJZ	85-305/47-63	100-430	5	24	0.23	330	84

Note:
Add suffix "-ST" for optional screw terminal bottom plate , add suffix "-STD" for optional DIN Rail screw terminal bottom plate

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current (full load)	115 VAC		125	mA
	230 VAC		80	mA
Inrush current <2ms (cold start)	115 VAC	10		A
	230 VAC	15		A
Leakage current			0.25	mA
External fuse	Recommended slow blow type	1		A

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Line regulation	(LL-HL)	±0.5		%
Load regulation	10-100% load	±1		%
Ripple & Noise			100	mV p-p
Hold-up time	115 VAC	15		ms
	230 VAC	80		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	Input to Output, 60 sec		3000	VAC
	Input to Ground		2000	
Isolation resistance		>1000		MΩ

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		65	132	KHz
Over current protection		≥110		% of Iout
Over voltage protection	Over voltage shutdown			
Short circuit protection	Auto recovery			
Operating temperature	See derating curve	-40 to +70		°C
Maximum case temperature			100	°C
Storage temperature		-40 to +105		°C
Temperature coefficient		±0.02		% / °C

General Specifications (continued)

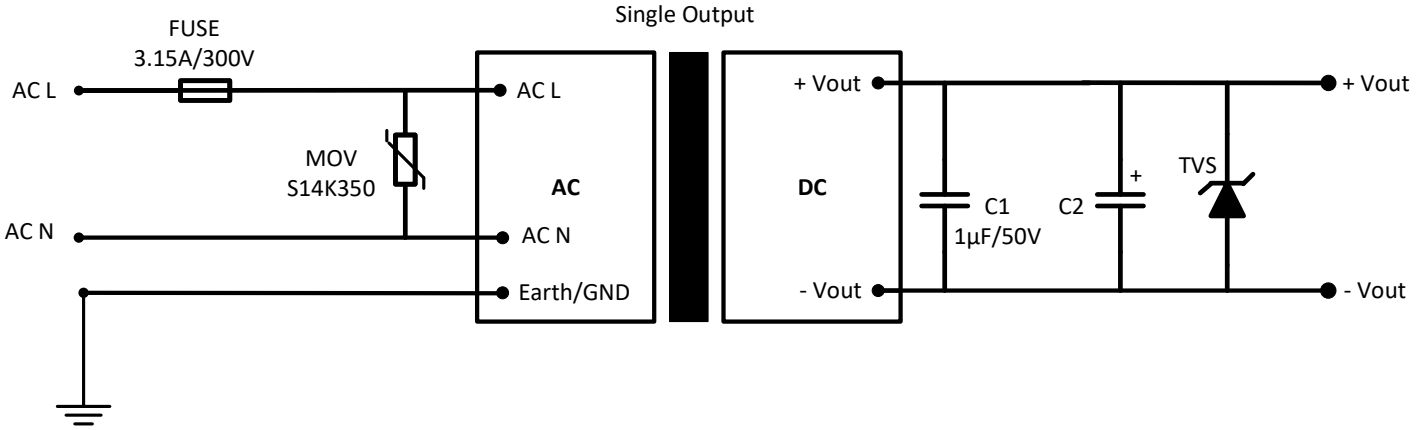
Parameters	Conditions	Typical	Maximum	Units
Cooling	Free air convection			
Humidity	Non condensing		95	% RH
Case material	Plastic (flammability to UL 94V-0)			
Weight		75		g
Dimensions (L x W x H)	Pin mountable Screw terminal bottom plate DIN Rail screw terminal bottom plate	55.0 x 45.0 x 21.0 mm (2.17 x 1.77 x 0.83 inches) 96.1 x 54.0 x 29.5 mm (3.78 x 2.13 x 1.16 inches) 96.1 x 54.0 x 34.1 mm (3.78 x 2.13 x 1.34 inches)		
MTBF	> 300 000 hrs (MIL-HDBK -217F, t=+25ºC)/ Full Load			

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage (115/230VAC) and at rated output load unless otherwise specified.

Safety Specifications

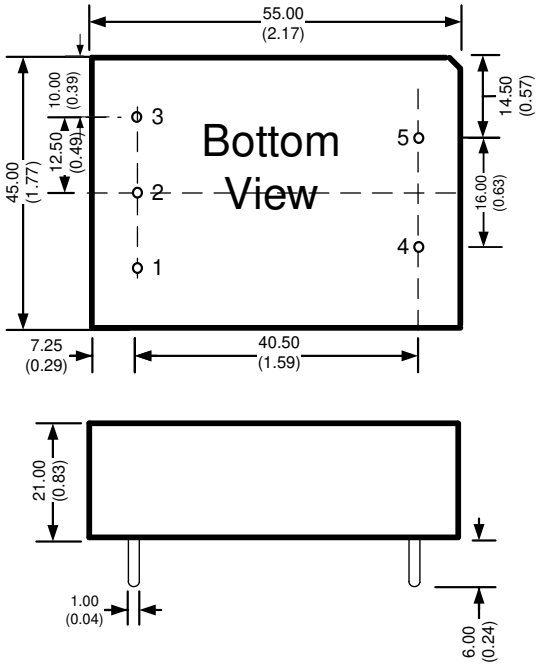
Parameters		
Agency approvals	CE, UL	
Standards	Information Technology Equipment	IEC/EN/UL 60950-1
	EMI - Conducted and radiated emission	EN55022, class B EN55024: 2010
	Electrostatic Discharge Immunity	IEC 61000-4-2: Contact ±6KV/Air ±8KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3: 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4: ±2KV, Criteria B
	Surge Immunity	IEC 61000-4-5: ±1KV/±2KV, Criteria B
	RF, Conducted Disturbance Immunity	IEC 61000-4-6: 10Vrms, Criteria A
	Power frequency Magnetic Field Immunity	IEC 61000-4-8: 10A/m, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11: 0-70%, Criteria B

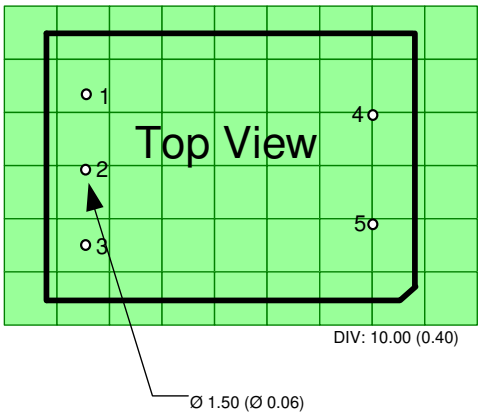
Typical Application circuit



Vout	C2	TVS
3.3 & 5V	330 µF/50V	7A
9V	120 µF/50V	12A
12V	120 µF/50V	20A
15V	68 µF/50V	20A
24V	68 µF/50V	30A

Dimensions



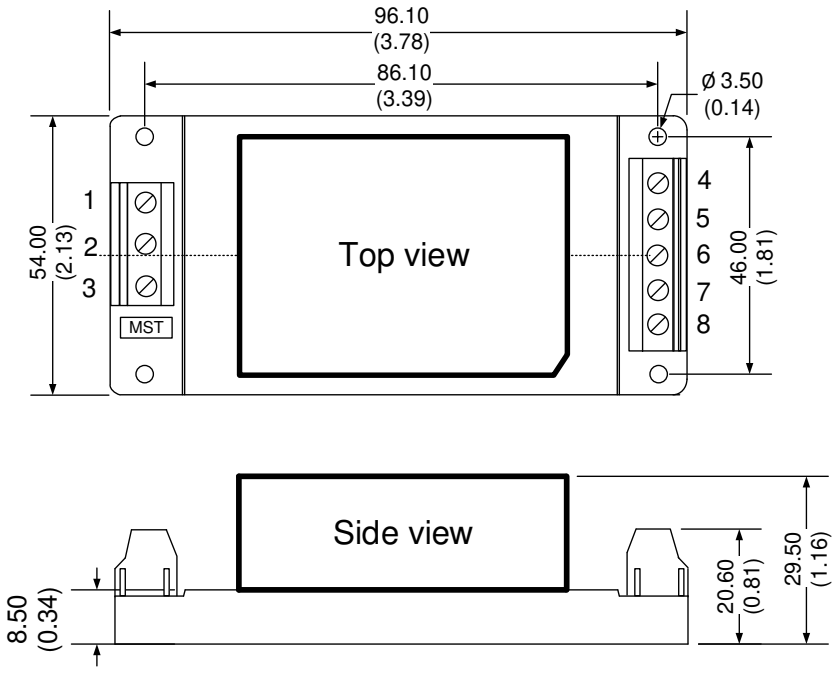


Dimensions mm (inch)
Case Tolerance ±0.50 (±0.02)
Pin Diameter 1.0 ± 0.10 (0.04 ± 0.004)

Pin Out Specifications

Pin	Single
1	Earth/Ground
2	AC Input (L)
3	AC Input (N)
4	- V output
5	+ V output

Dimensions with optional ST model

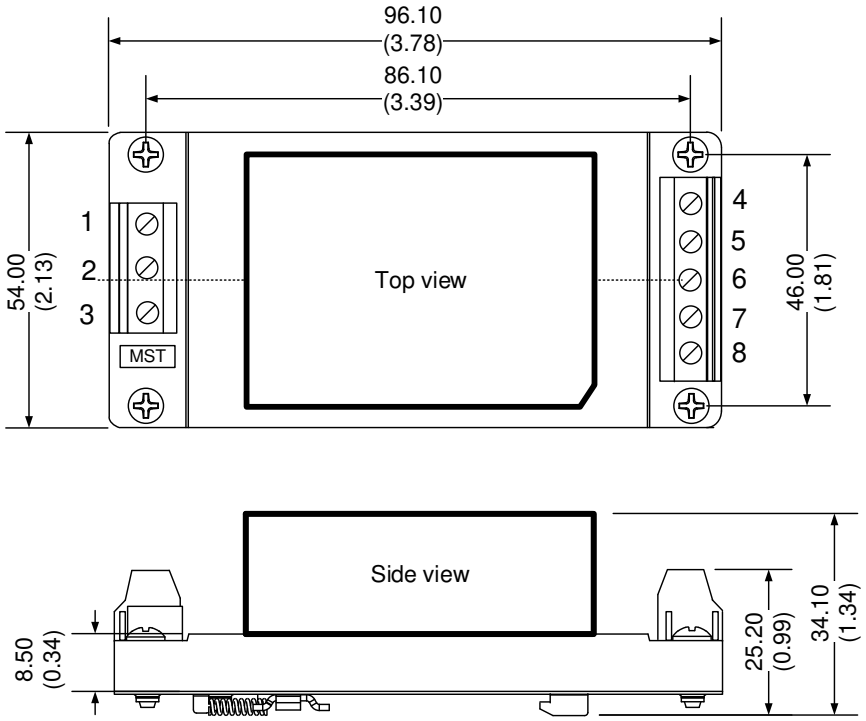


Pin Out Specifications

Pin	Single
1	Earth/Ground
2	AC Input (L)
3	AC Input (N)
4	- V output
5	No Connection
6	No Connection
7	No Connection
8	+ V output

Dimensions: mm (inch)
Case Tolerance: ±1.00 (0.04)
Holding holes tolerance: ±0.20 (0.01)
Wire gauge: 24-12AWG

Dimensions with optional STD model

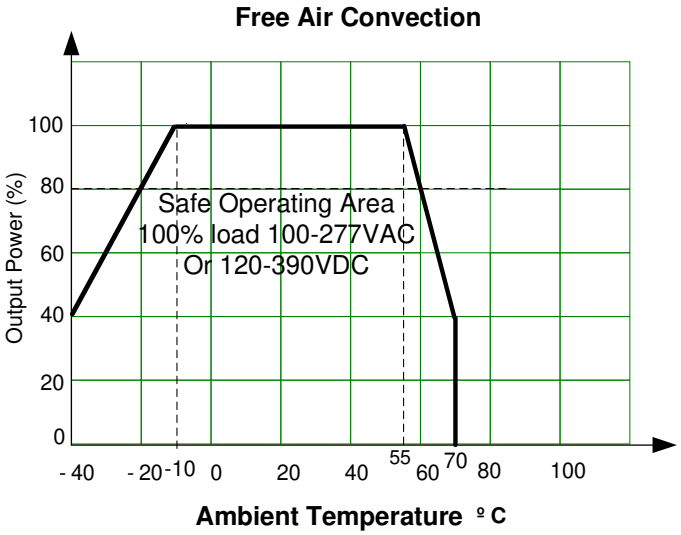


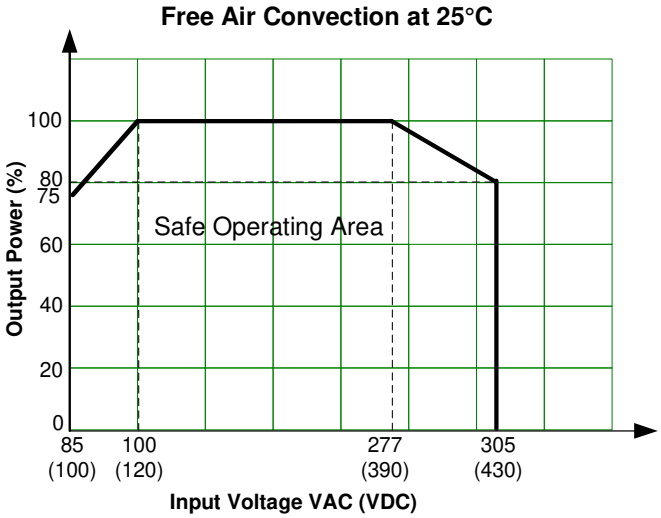
Pin Out Specifications

Pin	Single
1	Earth/Ground
2	AC Input (L)
3	AC Input (N)
4	- V output
5	No Connection
6	No Connection
7	No Connection
8	+ V output

Dimensions: mm (inch)
General Tolerance: ±1.00 (0.04)
Holding holes tolerance: ±0.20 (0.01)
Wire gauge: 24-12AWG
DIN rail type: TS35

Derating





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