

Series AME3-CJZ

3 Watt | AC-DC / DC-DC Converter



FEATURES:

- I/O Isolation 3000VAC
- Operating Temp: -25°C to +70°C
- Input: 85-264VAC, 47-63Hz, or 100-370 VDC
- Over current and Over voltage Protection
- Class II Power supply
- Low no load consumption $\leq 0.3W$
- Continuous Short Circuit Protection

Models Single output



Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Temperature range (°C)	Output Voltage (V)	Output Current max (mA)	Maximum capacitive Load (μF)	Efficiency (%)
							230 VAC
AME3-3.3SCJZ	85-264/47-63	100-370	-25 to +70	3.3	700	6000	66
AME3-5SCJZ	85-264/47-63	100-370	-25 to +70	5	600	6000	74
AME3-9SCJZ	85-264/47-63	100-370	-25 to +70	9	330	1500	75
AME3-12SCJZ	85-264/47-63	100-370	-25 to +70	12	250	1500	77
AME3-15SCJZ	85-264/47-63	100-370	-25 to +70	15	200	1000	77
AME3-24SCJZ	85-264/47-63	100-370	-25 to +70	24	125	330	78

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current (full load)	115 VAC	65		mA
	230 VAC	30		mA
Inrush current <2ms (cold start)	115 VAC	10		A
	230 VAC	20		A
Leakage current	230VAC/50Hz, rms	0.1		mA
External fuse	Recommended slow blow type	1		A

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	3.3V output	± 3		%
	Others	± 2		%
Line regulation	LL-HL, Full Load	± 0.5		%
Load regulation	10% - 100% load, nominal input	± 1		%
Minimum load		10		%
Ripple & Noise	20MHz bandwidth, 115/230VAC, Full Load	50	100	mV p-p
Hold up time	230VAC	50		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		3000	VAC
Isolation Resistance		>1000		M Ω

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		115		KHz
Over Current protection	Auto recovery	≥ 110		% of Iout
Over Voltage protection	3.3/5V output		7.5	VDC
	9V output		12	
	12/15V output		20	
	24V output		30	
Short circuit protection	Auto recovery, Continuous			
Operating temperature	With derating above 55°C	-25 to +70		°C
Storage temperature		-25 to +105		°C
Temperature coefficient		± 0.02		%/°C
Maximum Case temperature			95	°C
Humidity	Non condensing		95	% RH
Case material	Plastic resin (flammability to UL 94V-0)			

General Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Weight		25		g
Cooling		Free air convection		
Dimensions (L x W x H)		1.46 x 0.96 x 0.71 (37.00 x 24.50 x 18.00mm)		
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 and at rated output load unless otherwise specified.

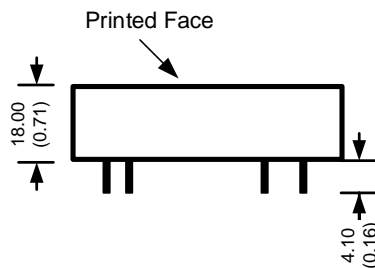
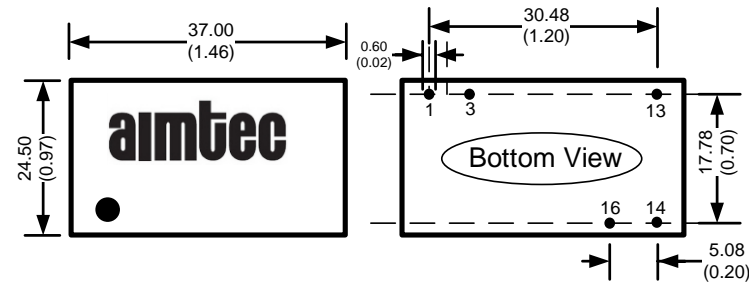
Safety Specifications

Parameters		
Approvals	cULus, CE	
Standards	Information technology Equipment	IEC/EN/UL 60950-1, IEC/EN/UL 62368-1
	EMI - Conducted and radiated emission	EN55022, class A
	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, with application circuit
	Surge Immunity(1KV)	IEC 61000-4-5, ±1KV/±2KV, Criteria B, with application circuit
	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

Pin Out Specifications

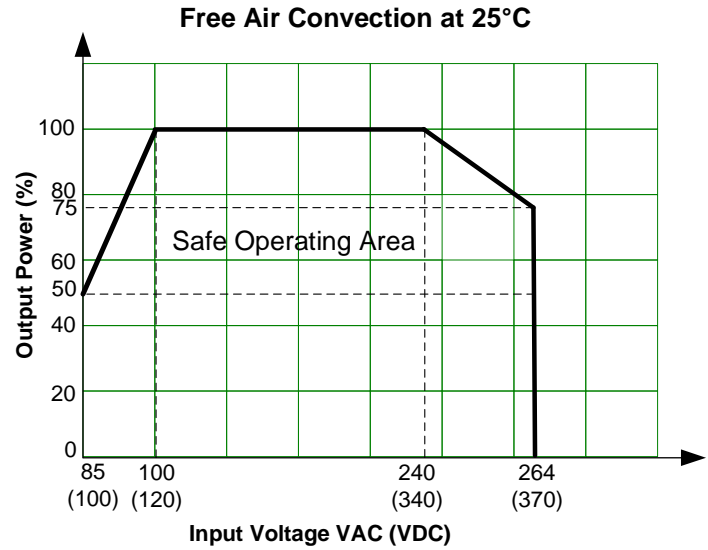
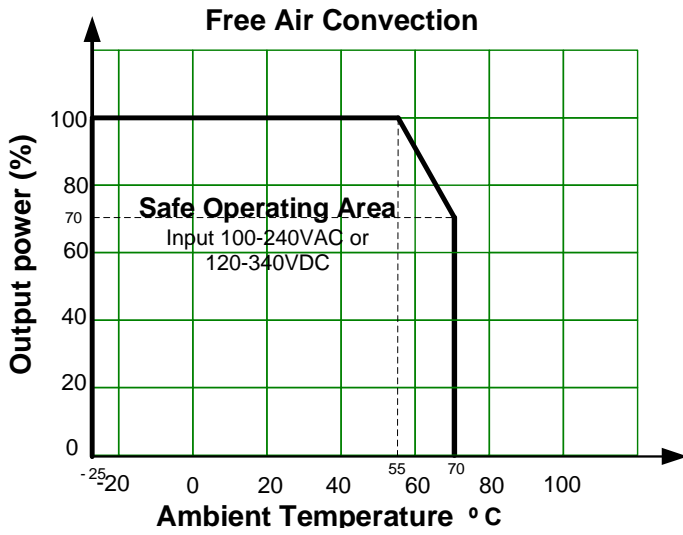
Pin	Single
1	AC Input (L)
3	AC Input (N)
13	NC
14	-V Output
16	+V Output

Dimensions

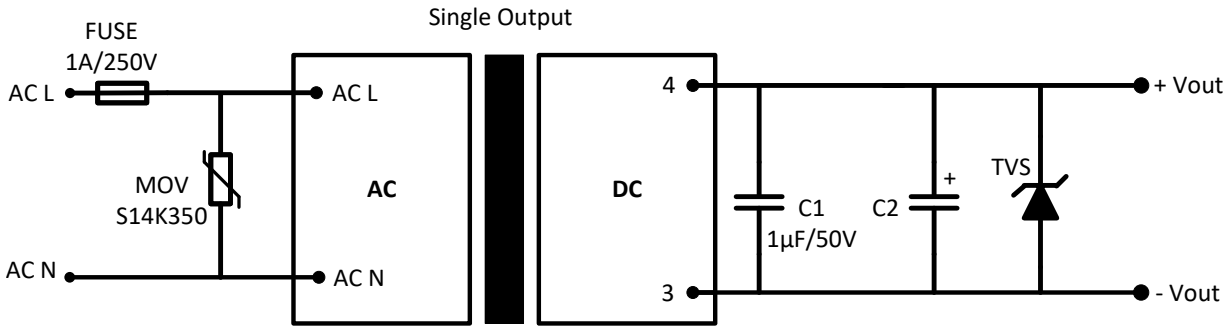


All dimensions are typical: millimeters (inches)
 Pin Diameter: 0.60 ± 0.10 (0.02 ± 0.004)
 Pin Pitch Tolerance: ± 0.35 (±0.014)
 Case Tolerance: ± 0.5 (±0.02)

Derating

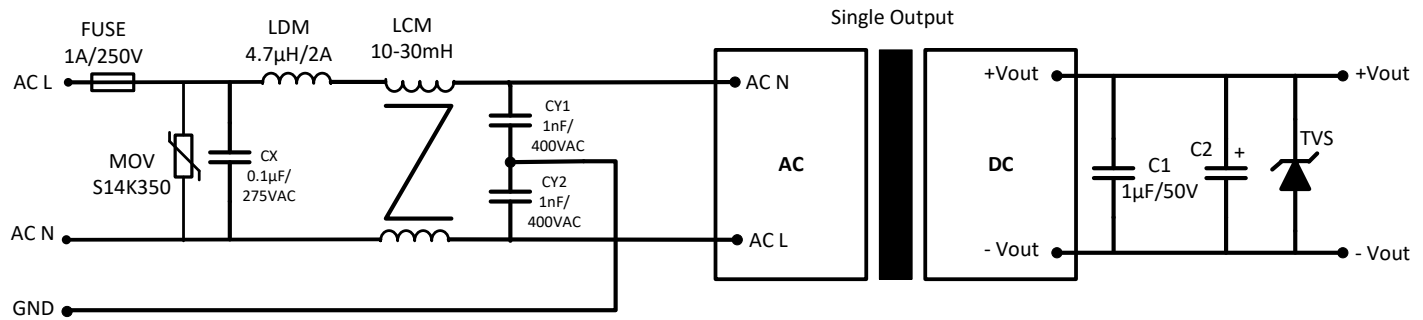


Application circuit



*GND connection not allowed

Class B compliance recommended circuit



Model	C2	TVS
3.3 & 5 Vout	150 µF / 35V	7V
9Vout	120 µF / 35V	12V
12 & 15 Vout	120 µF / 35V	20V
24 Vout	68 µF / 35V	30V

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 than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.