

Series AME5-CVZ

5 Watt | AC-DC / DC-DC Converter

FEATURES:

- I/O Isolation 4000VAC
- Operating Temp: -40 °C to +85 °C
- Input: 85-264VAC, 47-63Hz, or 100-370VDC
- Over current, Over Voltage Protection
- Continuous Short circuit protection
- Regulated Output
- Compact package
- Efficiency up to 82%

Picture coming soon

Models Single output



Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Output Voltage (V)	Output Current max (A)	Maximum capacitive Load (μF)	Efficiency 230VAC (%)
AME5-3.3SCVZ	85-264/47-63	100-370	3.3	1.25	8100	70
AME5-5SCVZ	85-264/47-63	100-370	5	1	6800	75
AME5-9SCVZ	85-264/47-63	100-370	9	0.55	1200	77
AME5-12SCVZ	85-264/47-63	100-370	12	0.42	1000	79
AME5-15SCVZ	85-264/47-63	100-370	15	0.330	680	80
AME5-24SCVZ	85-264/47-63	100-370	24	0.23	270	82

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	20		A
Leakage current	230VAC/50Hz		0.3	mA
External fuse	Recommended slow blow type	1		A

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Line regulation	Full load	±0.5		%
Load regulation (single output)	0%-100% load	±1		%
Minimum load	Single output	0		%
Ripple & Noise *		50	150	mV p-p
Hold-up time	115VAC, 20MHz bandwidth	15		ms
	230VAC, 20MHz bandwidth	80		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		4000	VAC
Isolation Resistance		>1000		MΩ

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Protection class	Class I			
Over current protection		150-300		% of Iout
Over voltage protection	Zener diode clamp			
Short circuit protection	Continuous, Auto recovery			
Operating temperature	See derating curve	-40 to +85		°C
Storage temperature		-40 to +105		°C
Temperature coefficient		±0.02		% / °C
Cooling	Free air convection			

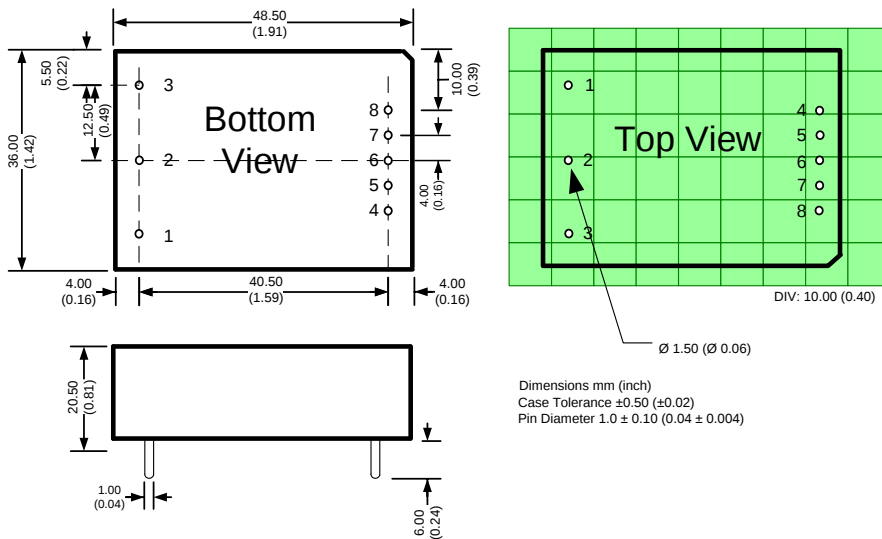
Humidity	Non condensing	95	% RH
Case material	Plastic (flammability to UL 94V-0)		
Weight		55	g
Dimensions (L x W x H)	1.909 x 1.417 x 0.807 inches (48.50 x 36.00 x 20.50mm)		
MTBF	> 300,000 hrs (MIL-HDBK -217F, $t=+25^{\circ}\text{C}$)/Full Load		

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		
Agency approvals	Designed to meet UL62368	
	Designed to meet IEC/EN/UL 62368-1	
Standards	EMI - Conducted and radiated emission	EN55032, class B
	Electrostatic Discharge Immunity	IEC 61000-4-2, Contact: $\pm 6\text{KV}$ /Air: $\pm 8\text{KV}$, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3, 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4, $\pm 2\text{KV}$, Criteria B
		IEC 61000-4-4, $\pm 4\text{KV}$, Criteria B with EMC recommended circuit
	Surge Immunity	IEC 61000-4-5, $\pm 1\text{KV}$ Criteria B
		IEC 61000-4-5, $\pm 2\text{KV}$, Criteria B with EMC recommended circuit
	RF, Conducted Disturbance Immunity	IEC 61000-4-6, 10Vrms, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11, 0-70%, Criteria B

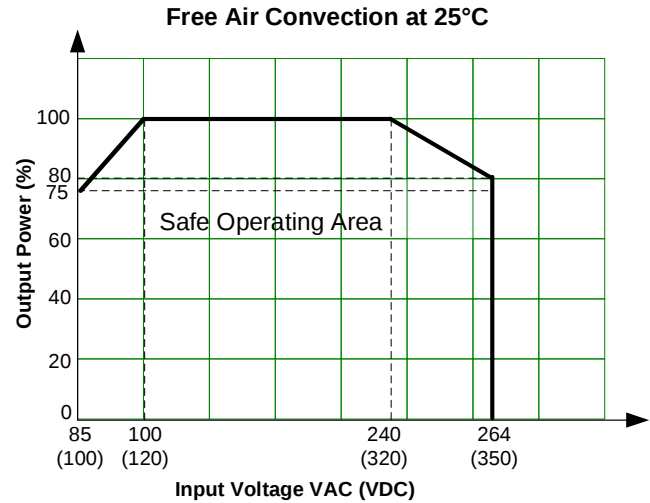
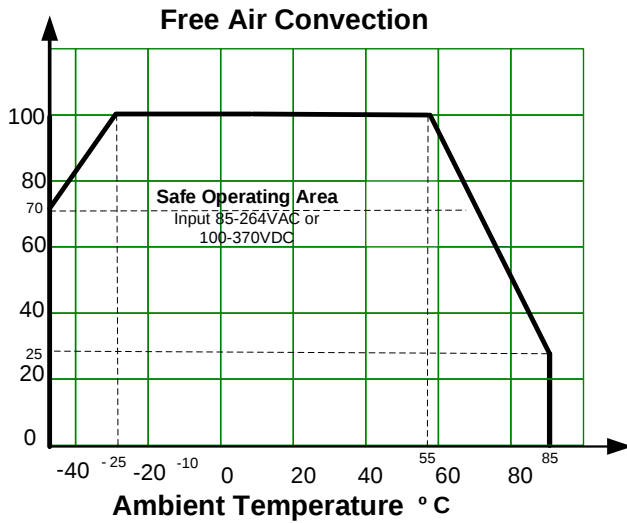
Dimensions



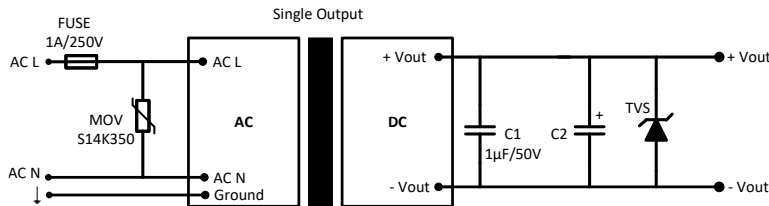
Pin Out Specifications

Pin	Single
1	Ground
2	AC Input (N)
3	AC Input (L)
4	-V Output
5	No pin
6	No pin
7	No pin
8	+V Output

Derating

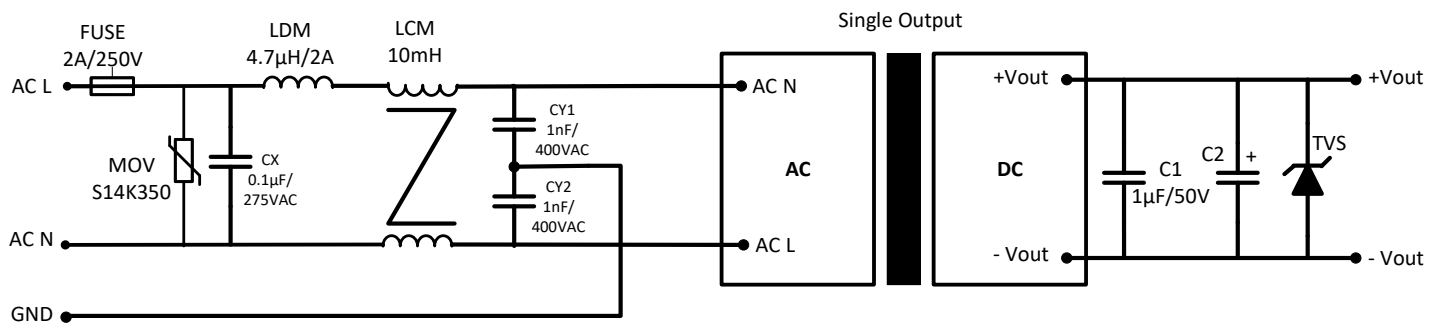


Typical application circuit



Model	C2	TVS
3.3 & 5 Vout	330 µF / 35V	7V
9 Vout	120 µF / 35V	12V
12 Vout	120 µF / 35V	20V
15 Vout	68 µF / 35V	20V
24 Vout	68 µF / 35V	30V

EMC recommended circuit



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.