AME5-VZ

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Encapsulated

The new AME5-VZ 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 3.3-24V, this series will offer many benefits to your new system design.
This new series offers great operating temperatures, from -40°C to 85°C with full power up to 55°C. It 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) and an output over-voltage protection (OVP) come standard with the series.
The AME5-VZ is perfect for street lighting controls, grid power, LED, instrumentation, industrial controls, communication and civil applications.

Features

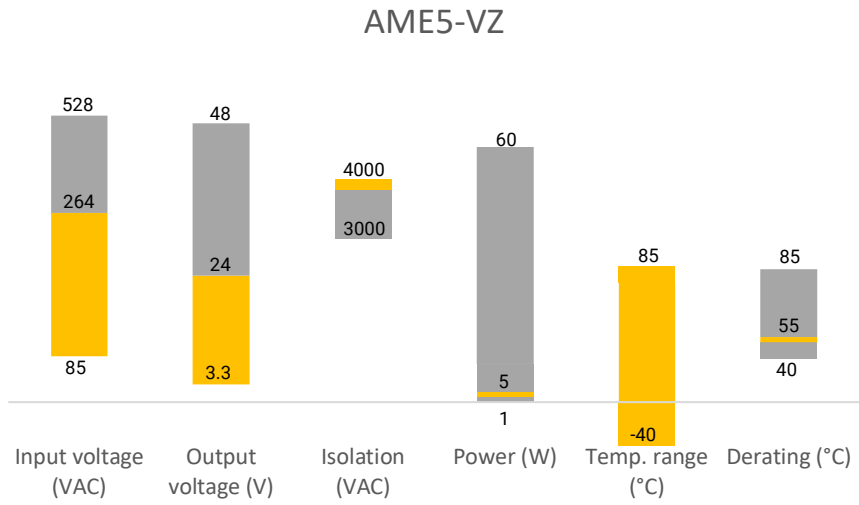
- Universal Input: 85 - 264VAC/100 - 370VDC
- Operating Temp: -40 °C to +85 °C
- High isolation voltage: 4000VAC
- Output short circuit, over-current, over-voltage protection
- EMI performance meets CISPR32/EN55032 CLASS B Meets IEC62368, UL62368, EN62368 standards

c UL us

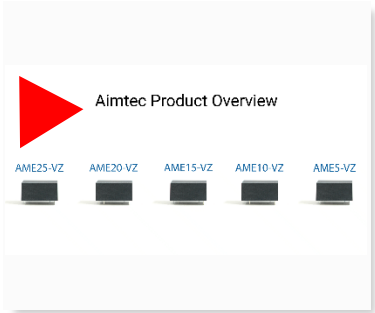
RoHS

3yr Warranty

Summary



Training



Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

Applications

IoT

Industrial

Telecom

Portable Equipment

Models & Specifications

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

Input Specifications					
Parameters	Conditions	Minimum	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
External fuse	Recommended slow blow type		1		A
Leakage Current	230VAC/50Hz			0.3	mA
Input Voltage	VAC	85		264	V
	VDC	100		370	V

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

*Ripple and Noise are measured at 20MHz bandwidth by using the referenced Application circuit.

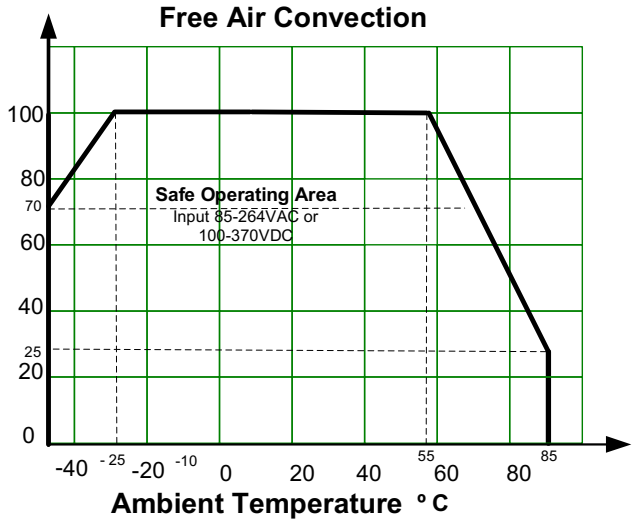
Isolation Specifications				
Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec	4000		VAC
Isolation Resistance		>1000		MΩ

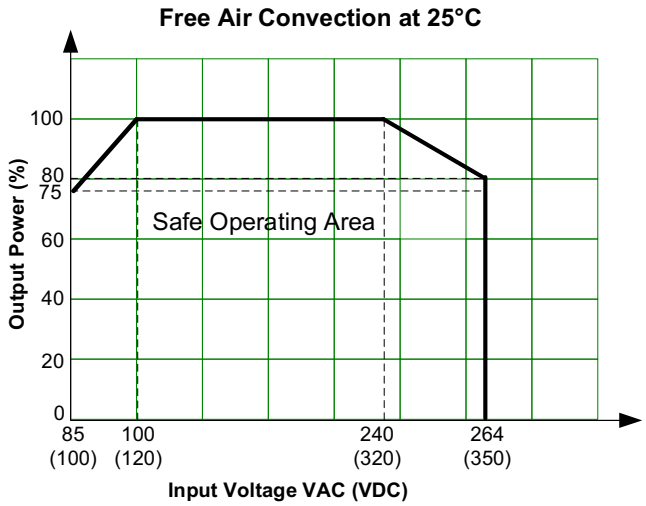
General Specifications				
Parameters	**Conditions**	**Typical**	**Maximum**	**Units**
Switching frequency		68-110		Khz
Protection class	Class I			
Over Current protection	Auto recovery	150-300		% of Iout
Over voltage protection	Zener diode clamp			
Short circuit protection	Continuous, hiccup, Auto recovery			
Operating temperature	See derating curve	-40 to 85°C	°C	
Storage temperature		-40 to +105	°C	
Temperature coefficient		±0.02		% /°C
Cooling	Free air convection			
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=+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.

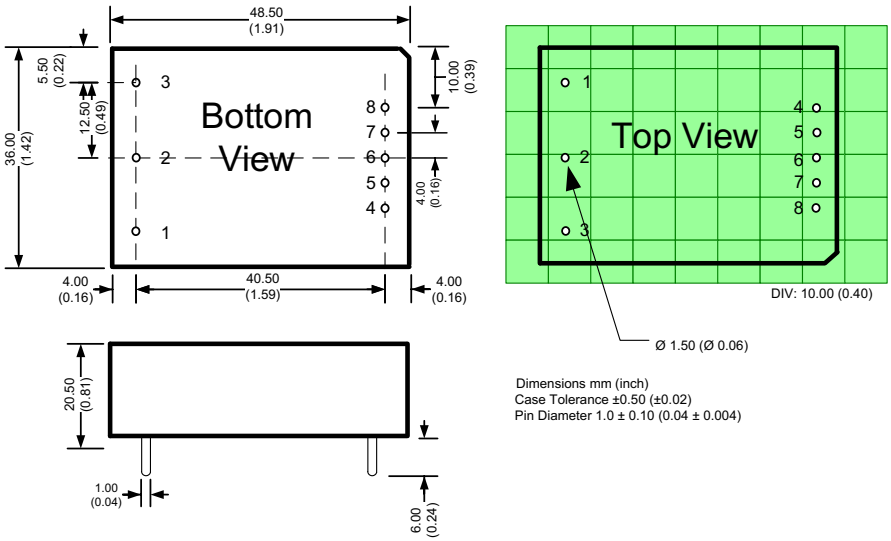
Safety Specifications		
Parameters		
Agency approvals	cULus	
Standards	Information technology Equipment	IEC/UL/EN 62368
	EMI - Conducted and radiated emission	EN55032, class B
	Electrostatic Discharge Immunity	IEC 61000-4-2, Contact: ±6KV/Air: ±8KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3, 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4, ±2KV, Criteria B
		IEC 61000-4-4, ±4KV, Criteria B with EMC recommended circuit
	Surge Immunity	IEC 61000-4-5, ±1KV Criteria B
		IEC 61000-4-5, ±2KV, 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

Derating



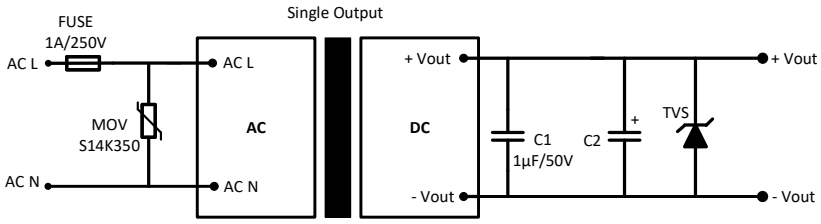


Dimensions



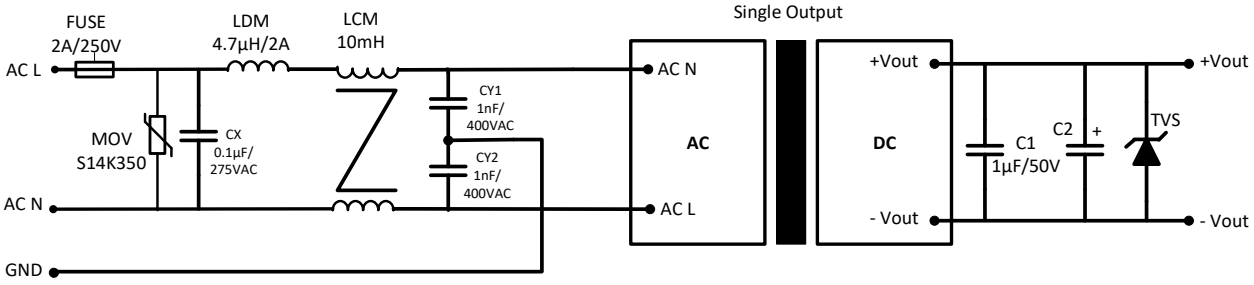
Pin Output Specifications	
Pin	**Single**
1	Ground
2	AC Input (N)
3	AC Input (L)
4	-V Output
5	No pin
6	No pin
7	No pin
8	+V Output

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



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