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AMEM3-EZ



Encapsulated

AMEM3-EZ series is an efficient 3W AC-DC power supply module. Offering a commercial input voltage range of 90-264VAC, output voltage ranges from 3.3-48V, and safer isolation.

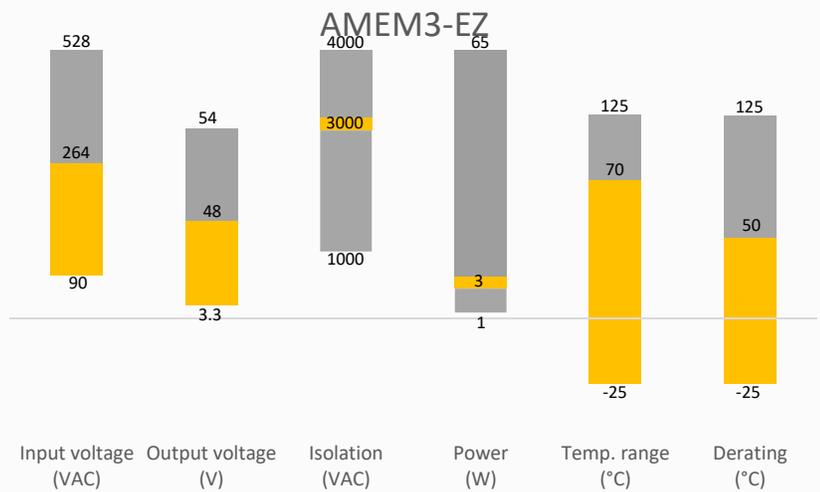
This new series offers great operating temperatures, from -25°C to 70°C with full power up to 50°C and features an isolation of 3000VAC for improved reliability and system safety. Furthermore, an output short circuit protection (OSCP), output over-current protection (OCP) and an output over-voltage protection (OVP) come standard with the series.

The AMEM3-EZ is suitable for grid power, LED, instrumentation, industrial controls, communication, and civil applications.

Features

- Ultra Compact Size 1.0" x 1.0" x 0.63" Package
- Universal Input: 90 - 264VAC/120 - 370VDC
- Operating Temp: -25 °C to +70 °C
- High isolation voltage: 3000VAC
- Output short circuit, over-current, over-voltage protection
- Efficiency up to 80%
- Certified: UL 62368-1
- Designed to meet: IEC 62368-1
- Made in Taiwan

Summary



Training



Product Training Video
(click to open)



Press Release

Coming Soon!

Application Notes

Applications



Power Grid



Industrial



Telecom



Instrumentation

Models & Specifications

Single Output							
Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Output Voltage (V)	Output Current (mA)	*Ripple & Noise (mV)	Maximum capacitive load (μ F)	Efficiency Typ. (%)
AMEM3-3SEZ	90-264/47-63	120-370	3.3	1000	60	2200	71
AMEM3-5SEZ	90-264/47-63	120-370	5	600	60	1000	75
AMEM3-9SEZ	90-264/47-63	120-370	9	333	90	300	77
AMEM3-12SEZ	90-264/47-63	120-370	12	250	120	160	77
AMEM3-15SEZ	90-264/47-63	120-370	15	200	150	100	77
AMEM3-24SEZ	90-264/47-63	120-370	24	125	240	43	78
AMEM3-48SEZ	90-264/47-63	120-370	48	62.5	480	10	80

* Ripple & noise is measured by using 20 MHz bandwidth, measured with a 10 μ f electrolytic capacitor paralleled with a 1 μ f ceramic capacitor across each output by full load. Please refer to the Parallel Lines Measure.

Input Specifications				
Parameters	Conditions	Typical	Maximum	Units
Rated Input Voltage	Vo, Io nom	100~240		VAC
Inrush current	115VAC, Io nom		10	A
	230VAC, Io nom		20	A
Input Fuse	FUZE 2.5A/250V (Slow blow)			

Output Specifications				
Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Vi, Io Nom, 3.3V / 5V output models		\pm 3	%
	Vi, Io Nom, other output models		\pm 2	%
Line regulation	Vi nom, Io nom		\pm 1	%
Load regulation			\pm 1	%
Minimum Load	Vi nom	0		A
Transient Recovery time	Vi nom, Io nom = $\leftarrow \rightarrow$ 0.5 Io nom	1000		μ S

Isolation Specification				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	5 sec, leakage \leq 5mA	3000		VAC
Resistance	500VDC	>100		M Ω

General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Over current protection	Auto recovery	\geq 110		% of Iout
Over voltage protection	120-150% rated Vout, Protection type: Zener diode clamp			
Short circuit protection	Auto recovery			
Switching Frequency		65		KHz
Operating temperature	See derating graph	-25 to +70		$^{\circ}$ C
Storage temperature		-40 to +85		$^{\circ}$ C

Power Derating	+50 °C to +70 °C	2		%/°C
Cooling	Free air convection			
Humidity	Vi nom, lo nom		95	% RH
Weight		20		g
Dimensions (L x W x H)	1.00 x 1.00 x 0.63 inches (25.40 x 25.40 x 16.10 mm)			

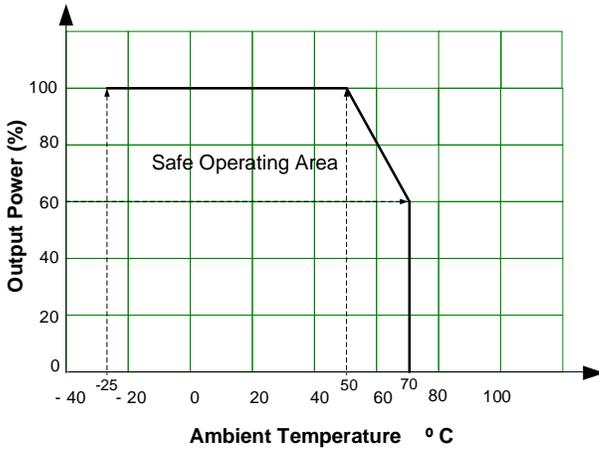
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Safety Specifications

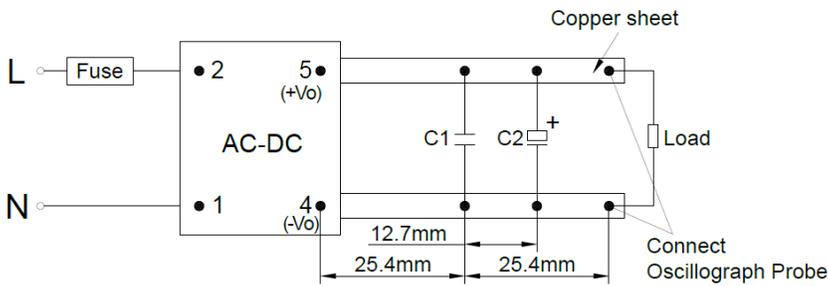
Parameters

Agency Approvals	UL 62368-1		
	Designed to meet IEC 62368-1		
Standards	EMI Conducted & Radiated	EN55032, CLASS B	
	EMS Immunity	EN61000	

Derating

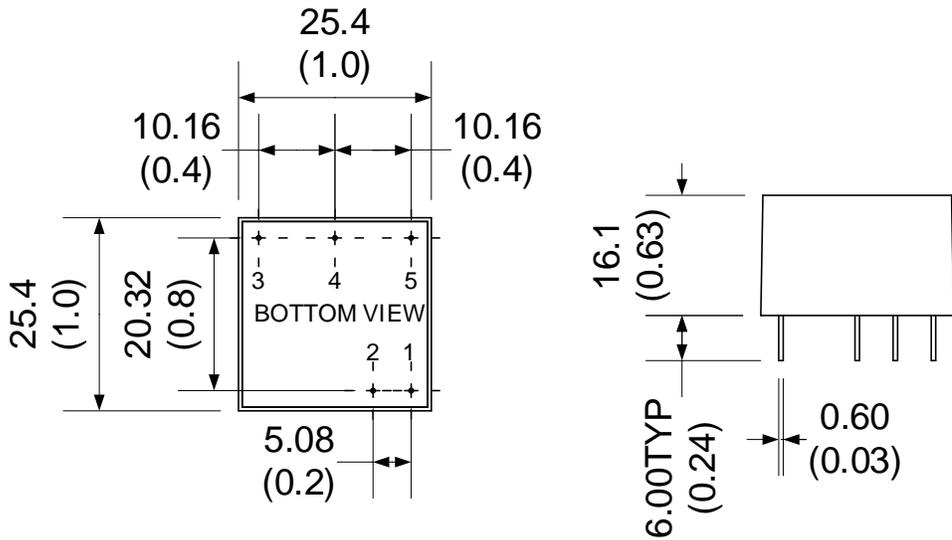


Parallel Lines Measure



C1: Ceramic capacitor, 1uF; C2: Electrolytic capacitor, 10uF

Dimensions



Pin Output Specifications	
Pin	Function
1	AC Input (N)
2	AC Input (L)
3	NC
4	-V Output
5	+V Output

Unit:mm(inch)

Unless otherwise specified, all tolerances are $\pm 0.50(0.02)$

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.