

Series AME3-BJZ

3 Watt | AC-DC / DC-DC Converter



FEATURES:

- I/O Isolation 3000VAC
- Operating Temp: -40°C to +70°C
- Input 90-528VAC, 47-63Hz, or 100-745 VDC
- Over current Protection
- Class II Power supply
- Low no load consumption $\leq 0.5W$
- 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 (μ F)	Efficiency (%)
							230 VAC
AME3-3.3SBJZ	90-528/47-63	100-745	-40 to +70	3.3	500	2200	63
AME3-5SBJZ	90-528/47-63	100-745	-40 to +70	5	500	1100	70
AME3-9SBJZ	90-528/47-63	100-745	-40 to +70	9	333	680	73
AME3-12SBJZ	90-528/47-63	100-745	-40 to +70	12	250	680	76
AME3-15SBJZ	90-528/47-63	100-745	-40 to +70	15	200	560	76
AME3-24SBJZ	90-528/47-63	100-745	-40 to +70	24	125	470	76

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current (full load)	115 VAC		120	mA
	230 VAC		60	mA
	480 VAC		40	mA
Inrush current <2ms (cold start)	115 VAC	9		A
	230 VAC	15		A
	480 VAC	27		A
Leakage current	230VAC/50Hz, rms	0.25		mA
External fuse*	Slow blow type recommended	2		A

* Fuse is required to meet the safety standards.

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	3.3V output	± 6		%
	Others	± 5		%
Line regulation	LL-HL, Full Load, 3.3V output	± 2.5		%
	LL-HL, Full Load, Others	± 1.5		%
Load regulation	10% - 100% load, nominal input	± 2.5		%
Ripple & Noise*	20MHz bandwidth, 115/230VAC, Full Load		180	mV p-p
Hold up time	230VAC	40		ms

*With output filter capacitors referenced in the application circuit.

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		65		KHz
Over Current protection	Auto recovery	150-300		% of Iout
No load consumption	230VAC		0.3	W
	528VAC		0.5	W
Short circuit protection	Auto recovery, Continuous			
Operating temperature	See derating curve	-40 to +70		°C
Storage temperature		-40 to +105		°C
Temperature coefficient		± 0.15		%/°C

Maximum Case temperature			95	°C
Wave soldering temperature	Duration 5 - 10s	260 ± 5		°C
Manual soldering temperature	Duration 5 - 10s	360 ± 10		°C
Humidity	Non-condensing		85	% RH
Case material	Plastic resin (flammability to UL 94V-0)			
Weight		30		g
Cooling	Free air convection			
Dimensions (L x W x H)	2.0 x 1.0 x 0.6 inches 50.80 x 25.40 x 15.16mm			
MTBF	> 300,000 hrs (MIL-HDBK -217F, t _a +25°C) at Full Load			

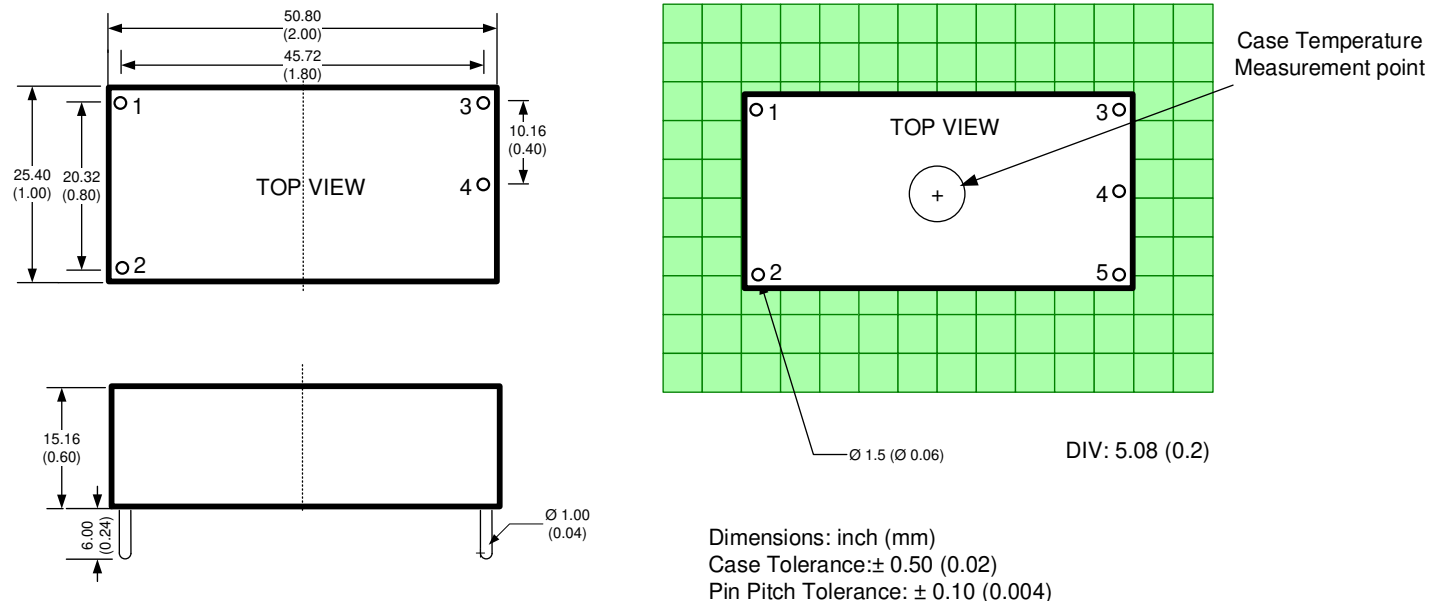
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Safety Specifications

Parameters

Agency approvals	cULus	
Standards	Information technology Equipment	UL 60950-1, UL 62368-1
	EMI - Conducted and radiated emission	CISPR32, EN55032, FCC part 15 class A; class B with the recommended EMC circuit
	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 with the recommended EMC circuit
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4, ±2KV; ±4KV with the recommended EMC circuit, Criteria B
	Surge Immunity	IEC 61000-4-5, ±1KV; ±2KV with the recommended EMC circuit, Criteria B
	RF, Conducted Disturbance Immunity	IEC 61000-4-6, 3Vrms, Criteria A with the recommended EMC circuit
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11, 0-70%, Criteria B with the recommended EMC circuit

Dimensions

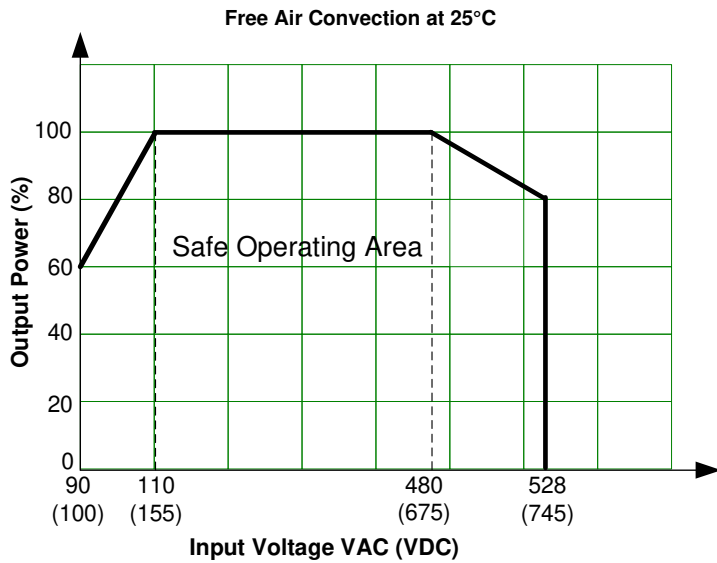
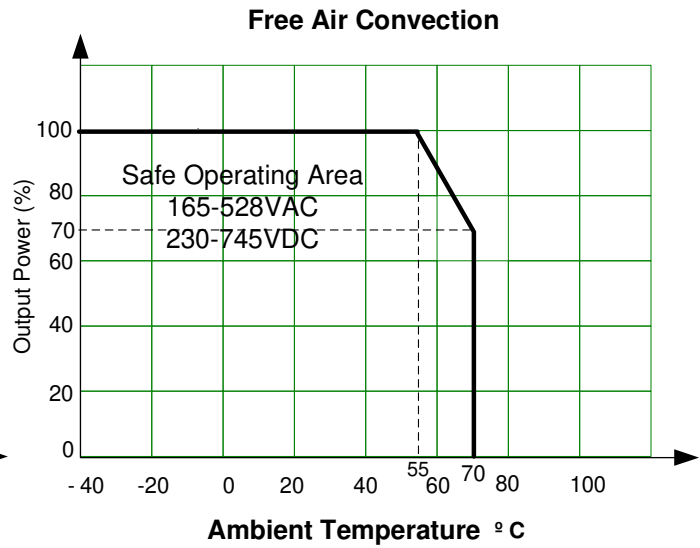
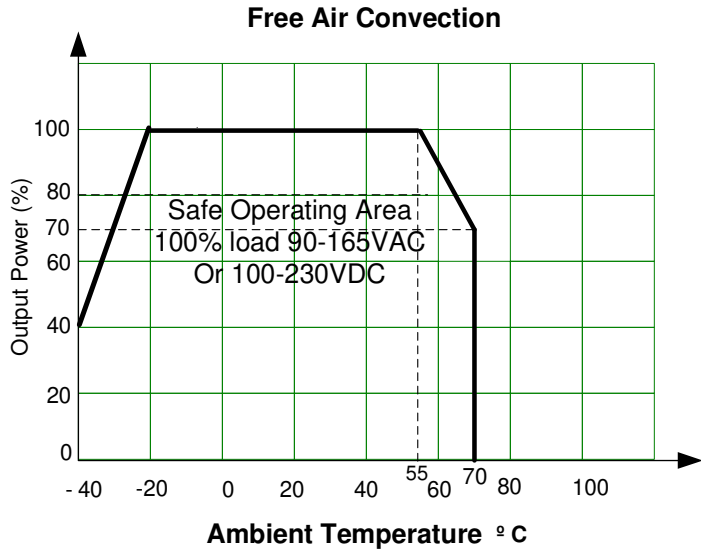


Pin Out Specifications

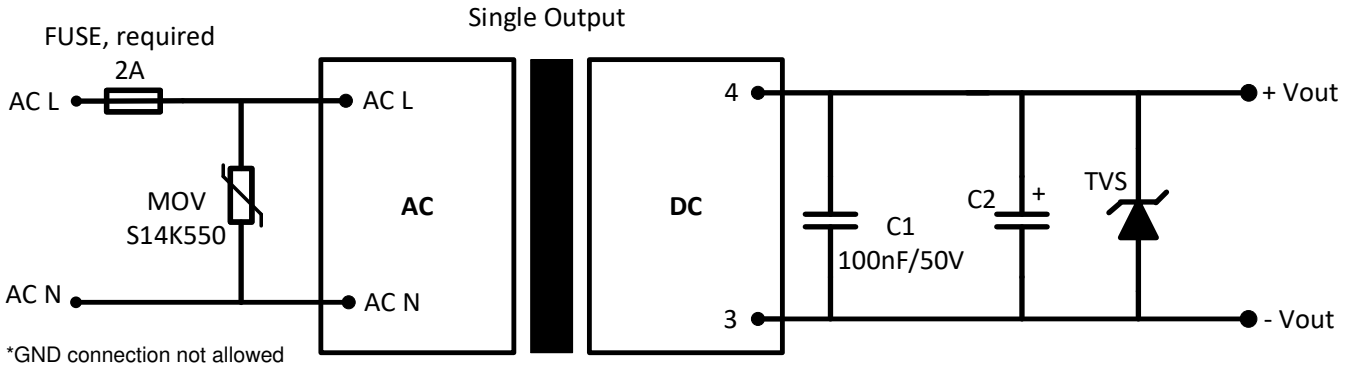
Pin	Single
1*	AC Input (N) or (L1)
2*	AC Input (L) or (L2)
3	+V Output
4	-V Output

* Note: Input Pins 1 and 2 can be "N" and "L" respectively when the input voltage is supplied from a single phase. Input Pins 1 and 2 can be "L1" and "L2" respectively when the input voltage is supplied from 3 phase line to line voltage 208-480Vac (208 Y/ 120V 3-phase, 240 Y/ 120V 3-phase, 400 Y/ 230V 3-phase or 480 Y/ 277V 3-phase).

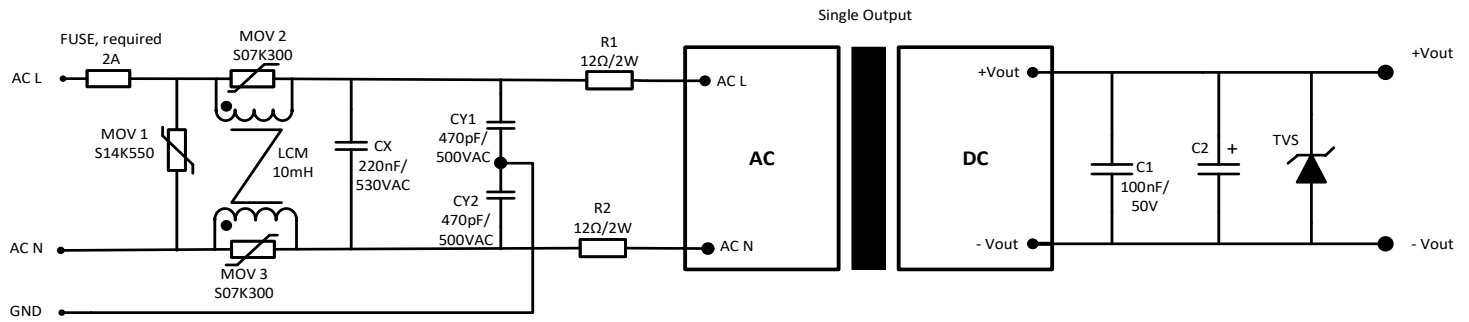
Derating



Application circuit



Class B compliance recommended circuit



Model	C2	TVS
3.3 Vout	100 μ F / 16V	7V
5 Vout	47 μ F / 16V	7V
9 Vout	47 μ F / 35V	12V
12 & 15 Vout		20V
24 Vout		30V

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