

# Preliminary

# Series AME20-BJZ 20 Watt | AC-DC / DC-DC Converter

#### Picture coming soon

**FEATURES:** 

- Input: 90-528VAC, 47-63Hz, or 100-745VDC
- Operating Temp: -40°C to +70°C
- Over current Protection
- I/O Isolation of 4000VAC

- Class II power supply
- Over Voltage Protection
- Up to 83% efficiency
- Short Circuit Protection



Models	6
Single	output

	Output urrent max	Maximum capacitive load	Efficiency (%)
(VAC/Hz) (VDC) wattage (V)			(**)
AME20-3 3SB IZ 90-528/47-63 100-745 11.88 3.3	(A)	(μF)	230 VAC
7111220 0.00002 00 020/47 00 100 740 11.00 0.0	3.6	10,000	74
AME20-5SBJZ 90-528/47-63 100-745 18 5	3.6	10,000	78
AME20-9SBJZ 90-528/47-63 100-745 20 9	2.23	7,000	79
AME20-12SBJZ 90-528/47-63 100-745 20 12	1.66	5,000	82
AME20-15SBJZ 90-528/47-63 100-745 20 15	1.33	3,000	83
AME20-24SBJZ 90-528/47-63 100-745 20 24	0.833	1,000	83

### **Input Specifications**

Parameters	Conditions	Typical	Maximum	Units
Current (full lood)	115 VAC		800	mA
Current (full load)	230 VAC		400	mA
Inrush current <2ms (cold start)	115 VAC	35		A
	230 VAC	60		A
Leakage current	230VAC/50Hz		0.25	mA
External fuse	Recommended slow blow type	3.15		A
No load consumption			0.75	W

#### **Output Specifications**

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2	±3	%
Line regulation	(LL-HL)	±0.5		%
Load regulation	0-100% load	±1		%
Ripple & Noise*	20MHz bandwidth		150	mV p-p
Hold up time	230 VAC	35		ms

\*Tested as per the referenced Application Circuit.

#### **Isolation Specifications**

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	Input to Output, 60 sec		4000	VAC
Isolation resistance		>1000		MΩ

#### **General Specifications**

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		65		KHz
Over current protection	130	- 400		% of lout
Over voltage protection		Zener Diode Clamp		
Short circuit protection	Continu	ious, Hiccup, Auto re	ecovery	
Operating temperature	See derating curve	-40	to +70	°C
Maximum case temperature			100	°C
Storage temperature		-40 to +85		°C
Temperature coefficient		±0.02		% / °C
Cooling		Free air convection		
Humidity	Non condensing		95	% RH

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Case material	Plastic (flammability to UL 94V-0)	
Weight	160	g
Dimensions (L x W x H)	70.00 x 48.00 x 30.0 mm (2.76 x 1.89 x 1.18 inches)	
MTBF	> 300 000 hrs (MIL-HDBK -217F, t=+25°C)/ Full Load	

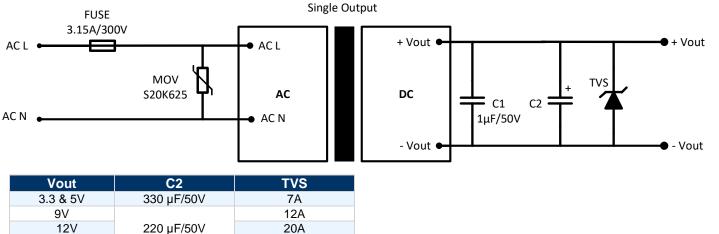
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage (115/230VAC) and at rated output load unless otherwise specified.

## **Safety Specifications**

Information Technology Equipment	Designed to meet IEC/EN/UL 62368-1
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
Surge Immunity*	IEC 61000-4-5: line to line: ±2KV, Criteria B
RF, Conducted Disturbance Immunity	IEC 61000-4-6: 10Vrms, Criteria A
Voltage dips, Short Interruptions Immunity	IEC 61000-4-11: 0-70%, Criteria B
	EMI - Conducted and radiated emission Electrostatic Discharge Immunity RF, Electromagnetic Field Immunity Electrical Fast Transient/Burst Immunity Surge Immunity* RF, Conducted Disturbance Immunity

For higher values, external circuit would be required.

# **Typical Application circuit**



30A

1.00 ≁∣∣∢ (0.04)

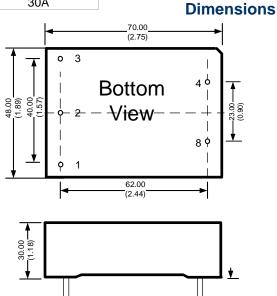
#### **Pin Out Specifications**

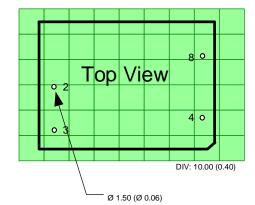
15 & 24V

Pin	Single
1	NA (No Pin Present)
2*	AC Input (N) or (L1)
3*	AC Input (L) or (L2)
4	+ V output
5	- V output

\* Note: Input Pins 2 and 3 can be "N" and "L" respectively when the input voltage is supplied from a single phase.

Input Pins 2 and 3 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).





Dimensions mm (inch) Case Tolerance ±0.50 (±0.02) Pin Diameter  $1.0 \pm 0.10 (0.04 \pm 0.004)$ 

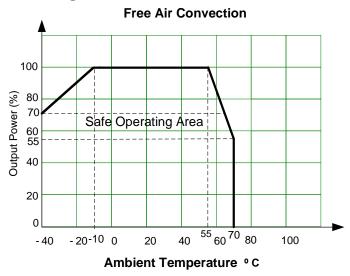
6.00

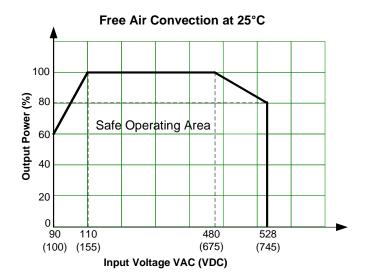
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Derating





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