NRND; EOL by December 30, 2020

Series AME3-NJZ

3 Watt | AC-DC / DC-DC Converter

FEATURES:



- I/O Isolation 3000VAC
- Operating Temp: -40˚C to +70˚C
- Input: 165-264VAC, 47-63Hz, or 233-370 VDC
- No internal electrolytic capacitors
- Longer product life
- Class II Power supply
- Low no load consumption ≤ 0.4W
- Continuous Short Circuit Protection
- Over current Protection

RoHS

Models
Single output

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Temperature range (ºC)	Output Voltage (V)	Output Current max (mA)	Maximum capacitive Load (µF)	Efficiency (%)
							230 VAC
AME3-5SNJZ	165-264/47-63	233-370	-40 to +70	5	600	2200	71

Note: The AME3-5SNJZ will be discontinued (EOL) by December 30, 2020; for new designs, please refer to model AMEL3-5SVZ.

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current (full load)	165 VAC		40	mA
	230 VAC		35	mA
Inrush current <2ms (cold start)	165 VAC	6		A
	230 VAC	10		A
Leakage current	230VAC/50Hz, rms	0.1		mA
External fuse	Recommended slow blow type	2		A

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Full Load	±2		%
Line regulation	LL-HL, Full Load	±1		%
Load regulation	10% - 100% load, nominal input	±1		%
Minimum load		10		%
Ripple & Noise	20MHz bandwidth	50	150	mV p-p
Hold up time	165VAC 230VAC	6 10		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		3000	VAC
Isolation Resistance		>1000		MΩ

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		115		KHz
Over Current protection	Auto recovery	≥110		% of Iout
Short circuit protection	Hiccup, Auto recovery, Continuous			
Operating temperature*	No derating	-40 to +70		°C
Storage temperature		-40 to +105		°C
Temperature coefficient		±0.01		%/°C
Maximum Case temperature			100	°C
Humidity	Non condensing		95	% RH
Case material	Plastic resin (flammability to UL 94V-0)			
Weight		25		g
Cooling	Free air convection			
Dimensions (L x W x H)	1.46 x 0.96 x 0.71 (37.00 x 24.50 x 18.00mm)			
MTBF	> 300,000 hrs (MIL-HDBK -217F, t=+25oC)/Full Load			

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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.
***** Sufficient air space around is needed.

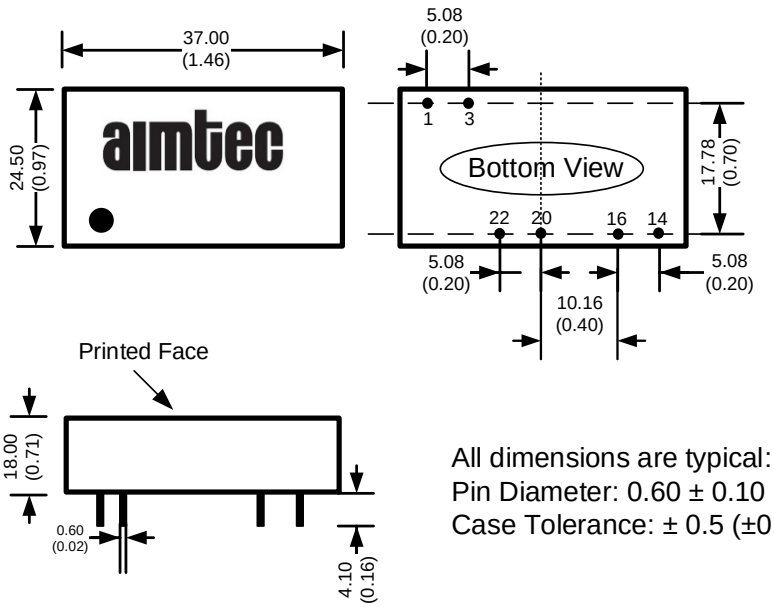
Safety Specifications

Parameters		
Standards	Information technology Equipment	IEC/EN/UL 60950-1
	EMI - Conducted and radiated emission	EN55022, 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, with application circuit
	Surge Immunity(1KV)	IEC 61000-4-5, ±1KV/±2KV, Criteria B, with application circuit
	RF, Conducted Disturbance Immunity	IEC 61000-4-6, 10Vrms, Criteria A
	Power frequency Magnetic Field Immunity	IEC 61000-4-8, 10A/m, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11, 0-70%, Criteria B

Pin Out Specifications

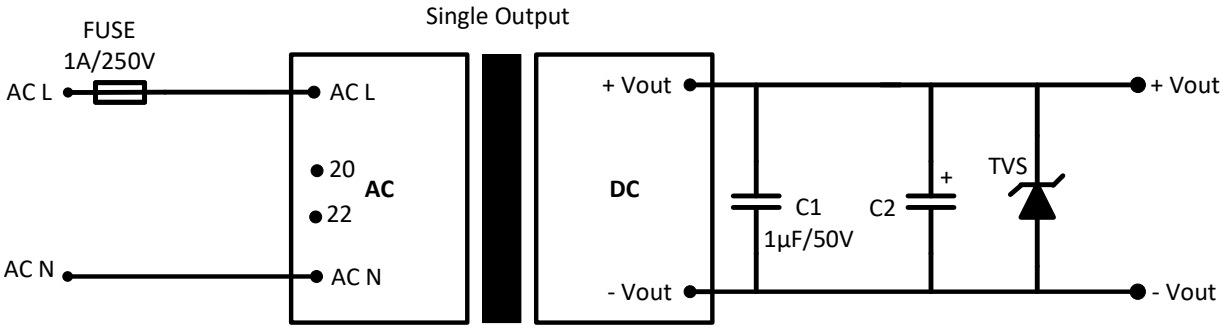
Pin	Single
1	AC Input (L)
3	AC Input (N)
14	-V Output
16	+V Output
20	+V Cap
22	-V Cap

Dimensions



All dimensions are typical: millimeters (inches)
Pin Diameter: 0.60 ± 0.10 (0.02 ± 0.004)
Case Tolerance: ± 0.5 (±0.02)

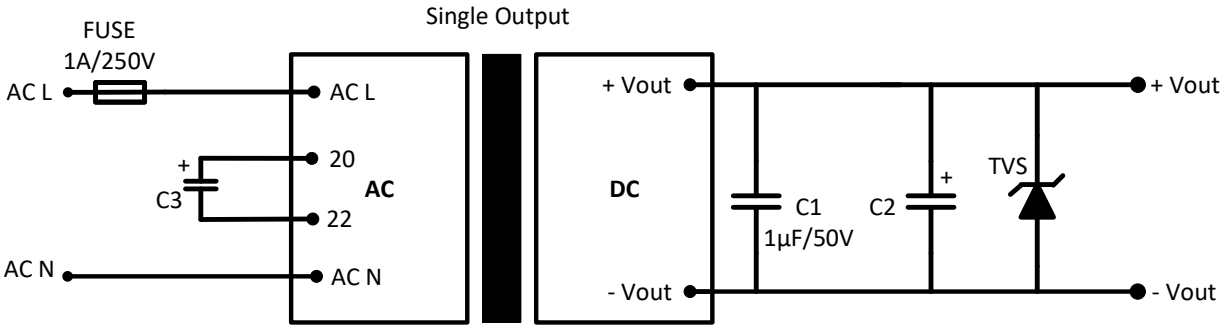
Application circuit for Vin: 165-264VAC



*GND connection not allowed

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Application circuit for Vin: 85-264VAC



*GND connection not allowed

Model	C2	C3	TVS
5 Vout	100 µF / 35V	6.8 µF / 400V	7V

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.

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