AMEOF60-TZ

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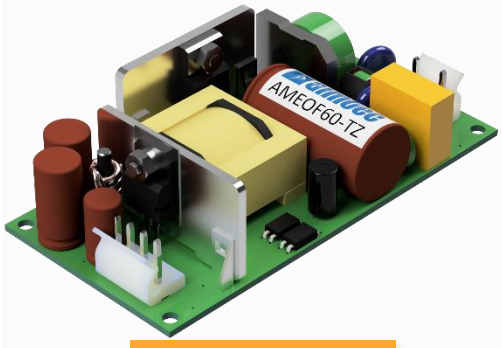


Open Frame

The AMEOF60-TZ series is one of Aimtec's compact size (2" x 4") 60W AC/DC converter. It features a universal AC input and accepts a DC input voltage, while also coming standard with high efficiency, high reliability and double or reinforced isolation.
These converters offer excellent EMC and safety performance, which with CE: EN62368-1 approval and designed to meet UL/cUL UL62368-1, EN62368-1 Ed2, IEC60950-1 / IEC62368 Ed2 standards.
This series is suitable for industrial, streetlight control, security, telecommunications, and smart home applications.

Features

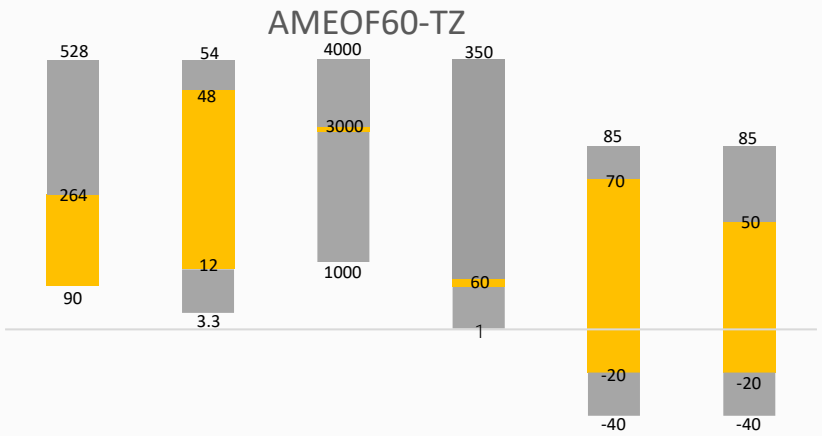
- Universal Input: 90 - 264VAC
- Low leakage current: 3.5mA max
- High isolation voltage: 3000VAC
- Output short circuit, over-current, over-voltage protection
- Certified : CE: EN62368-1
- Designed to meet UL/cUL UL62368-1, EN62368-1 Ed2, IEC60950-1 / IEC62368 Ed2

RoHS

3yr Warranty

CE

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

Applications

Power Grid

Industrial

Telecom

Models & Specifications

Model	Input Voltage (VAC/Hz)	Nominal Output wattage (W)	Output Voltage (V)	Output Voltage Adjustable Range (V)	Output Current (A)	Efficiency @230VAC Typ. (%)
AMEOF60-12STZ	90-264/47-63	60	12	10.8-13.2	5.00	87
AMEOF60-24STZ	90-264/47-63	60	24	21.6-26.4	2.50	87
AMEOF60-48STZ	90-264/47-63	60	48	43.2-52.8	1.25	87

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Input current	100VAC		1.4	A (RMS)
Inrush current	115VAC, 25°C cold start		30	A
	230VAC, 25°C cold start		60	A
Leakage	264VAC, single fault condition		3.5	mA

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Line regulation	100% load	±1.0		%
Load regulation	230VAC	±5.0		%
Ripple & Noise*	12V, tested with 1μf and 10μf ceramic capacitors		120	mV p-p
	24V, tested with 1μf and 10μf ceramic capacitors		200	mV p-p
	48V, tested with 1μf and 10μf ceramic capacitors		300	mV p-p
Hold up time	115VAC at maximum load	≥16		ms
	230VAC at maximum load	≥16		ms

* Ripple and Noise are measured at 20MHz bandwidth. Please refer to the application note for specific details.

Isolation Specification

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	60 sec, leakage ≤ 10mA	≥3000		VAC
Tested I/O to case voltage	60 sec, leakage ≤ 10mA	≥1500		VAC
Resistance I/O*	500VDC	>50		MΩ

* Tested under 25±5°C ambient temperature with relative humidity <95% and no condensation.

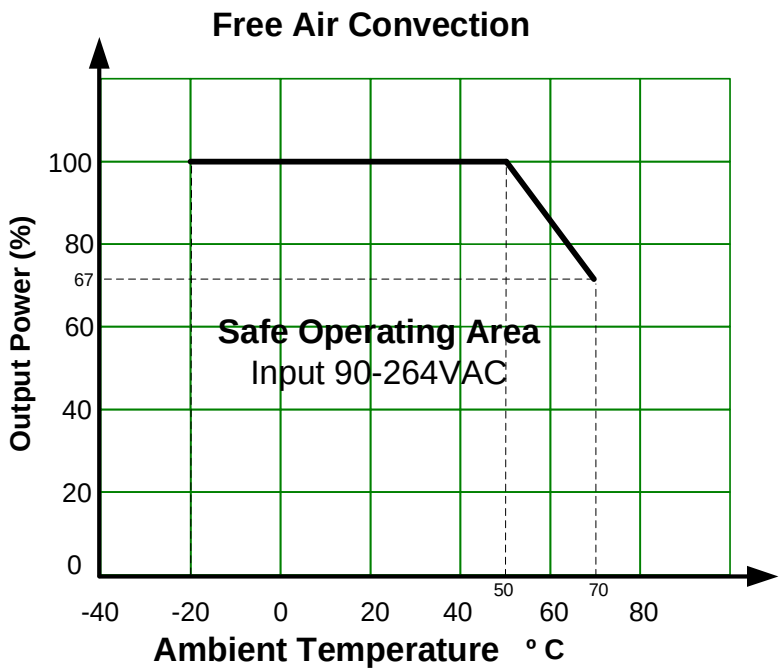
General Specifications

Parameters	Conditions	Typical	Maximum	Units
Protection class	Class II			
Over current protection	12V, Auto recovery		10	A
	24V, Auto recovery		5	A
	48V, Auto recovery		3	A
Over voltage protection	12Vout, if the power supply is protected, it will latch off	>13.5	16	VDC
	24Vout, if the power supply is protected, it will latch off	>26	32	VDC
	48Vout, if the power supply is protected, it will latch off	>51	58	VDC

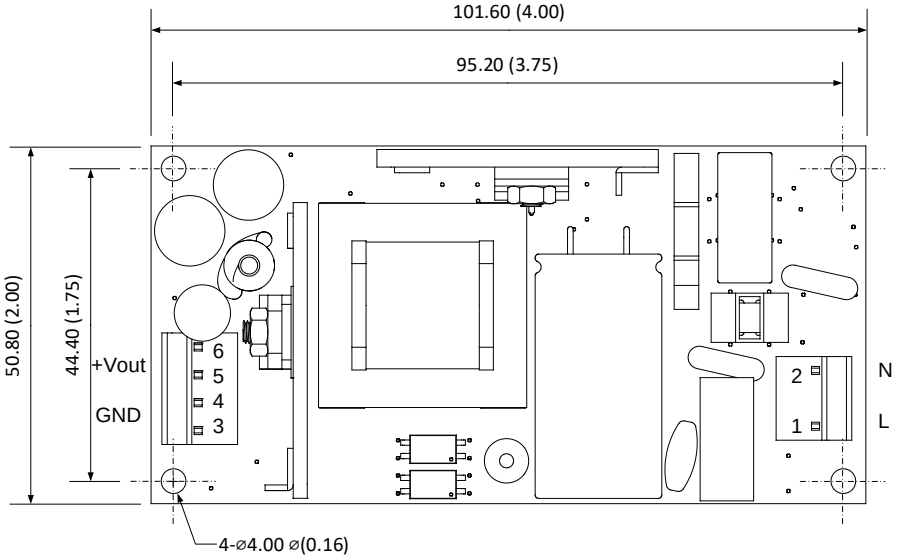
Short circuit protection	Auto recovery			
Operating temperature	See derating graph	-20 to +70		°C
Storage temperature		-40 to +85		°C
Operating altitude			5000	m
Power Derating	+50 °C to +70 °C	1.67		%/°C
Cooling	Free air convection			
Humidity	Non-condensing, storage		90	% RH
Weight		130		g
Dimensions (L x W x H)		2.00 x 4.00 x 1.10 inches (50.8 x 101.6 x 27.94 mm)		
MTBF	> 100 000 hrs (Telcordia SR-332, issue 2, t=+25°C)			
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.				

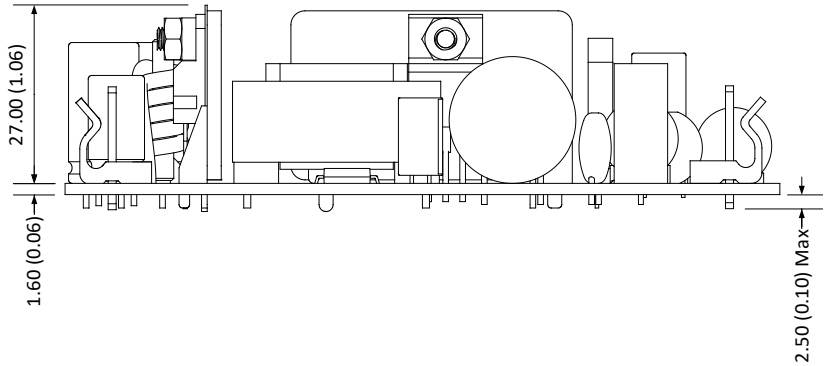
Safety Specifications		
Parameters		
Agency approvals	CE: EN62368-1	
Standards	Design to meet UL/cUL UL62368-1, EN62368-1 Ed2, IEC60950-1 / IEC62368 Ed2	
	EMC - Conducted and radiated emission	FCC Class B, EN55032 Class B
	Electrostatic Discharge Immunity	IEC 61000-4-2 Contact ±8KV / Air ±15KV, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4 ±2KV
	Surge Immunity	IEC 61000-4-5 L-L ±2KV/L-G ±4KV, Criteria A
	Power frequency magnetic field test	IEC 61000-4-8
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11

Derating

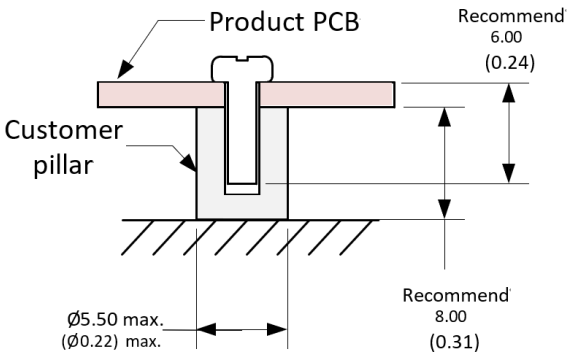


Dimensions





Pin Output Specifications		
Pin	Function	Recommended connector
1	AC Input (L)	TKP P8800I-03N2-V0 JWT A3961WV0-3P-D or equivalent
2	AC Input (N)	
3	GND	WST M4-I39601 TKP P8800I-04 JWT A3961WV2-4P or equivalent
4	GND	
5	+V Output	
6	+V Output	



Note:
Unit: mm [inch]
General tolerance: ± 0.5 (±0.02)
Mounting screw: M3
Mounting screw tightening torque: 0.4N max.

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.