

FEATURES:

- Input: 90-528VAC, 47-63Hz or 100-745VDC
- Operating temperature -40°C to +85°C
- Low power consumption $\leq 0.5W$ at 528VAC
- Continuous short circuit protection
- I/O Isolation 4000VAC
- Compact open frame SIP
- Over current protection
- Class II power supply

Models

Single output straight pins



Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Full power temperature range (°C)	Output Voltage (V)	Output Current max (mA)	Maximum capacitive load (μF)	Efficiency (%)
AMEOF3-3.3SBJZ	90-528/47-63	100-745	-20 to +55	3.3	500	2200	63
AMEOF3-5SBJZ ✖	90-528/47-63	100-745	-20 to +55	5	500	1100	67
AMEOF3-9SBJZ	90-528/47-63	100-745	-20 to +55	9	333	680	70
AMEOF3-12SBJZ ✖	90-528/47-63	100-745	-20 to +55	12	250	680	76
AMEOF3-15SBJZ	90-528/47-63	100-745	-20 to +55	15	200	560	76
AMEOF3-24SBJZ ✖	90-528/47-63	100-745	-20 to +55	24	125	470	76

Single output bended pins

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Full power temperature range (°C)	Output Voltage (V)	Output Current max (mA)	Maximum capacitive load (μF)	Efficiency (%)
AMEOF3-3.3SLBJZ	90-528/47-63	100-745	-20 to +55	3.3	500	2200	63
AMEOF3-5SLBJZ	90-528/47-63	100-745	-20 to +55	5	500	1100	67
AMEOF3-9SLBJZ	90-528/47-63	100-745	-20 to +55	9	333	680	70
AMEOF3-12SLBJZ	90-528/47-63	100-745	-20 to +55	12	250	680	76
AMEOF3-15SLBJZ	90-528/47-63	100-745	-20 to +55	15	200	560	76
AMEOF3-24SLBJZ	90-528/47-63	100-745	-20 to +55	24	125	470	76

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.

NOTE: Add suffix "-324" to a part numbering when ordering with 324 MPQ.

For models marked with ✖ will be discontinued (EOL).

- Model AMEOF3-5SBJZ will be discontinued; for new designs, please refer to model AMEOF3-5S277HANZ.
- Model AMEOF3-12SBJZ will be discontinued; for new designs, please refer to model AMEOF3-12S277HANZ.
- Model AMEOF3-24SBJZ will be discontinued; for new designs, please refer to model AMEOF3-24S277HANZ.

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current	115VAC		120	mA
	230VAC		60	mA
	480VAC		40	mA
Inrush current <2ms	115VAC	9		A
	230VAC	15		A
	480VAC	27		A
External fuse	Recommended slow blow type	2		A
Input dissipation	No Load, 230VAC		0.3	W
	No Load, 528VAC		0.5	W
Leakage current	230VAC/50Hz	250		mA

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Full load, 3.3V output Full load, others	±6 ±5		%
Line regulation	Full load, 3.3V output Full load, others	±2.5 ±1.5		%
Load regulation	10% - 100% load	±2.5		%
Ripple & Noise	20MHz Bandwidth		180	mV p-p
Hold up time	230VAC	40		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		4000	VAC
Isolation Resistance		>1000		MΩ

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		70		KHz
Over current protection	Auto-recovery	150-300		% of I out
Short circuit protection		Hiccup, Continuous		
Short circuit restart		Auto-recovery		
Operating temperature	See derating curve	-40 to +85		°C
Storage temperature		-40 to +105		°C
Temperature coefficient		±0.15		% / °C
Cooling		Free air convection		
Humidity			85	% RH
Weight		8		g
Dimensions (L x H x W)		1.75 x 0.94 x 0.51 inches	44.5 x 24 x 13 mm	
MTBF		>300,000 hours (MIL-HDBK -217F, Ground Benign, t=+25°C)		

Safety Specifications

Parameters		
Agency approvals	cULus	
Standards	Information technology Equipment	UL 60950-1
	EMI – Conducted and Radiated Emission	CISPR22/EN55022/FCC part 15, Class A & B, with external filter circuits, as referenced
	Electrostatic Discharge Immunity	IEC 61000-4-2, Contact ±4KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3, 10V/m, Criteria A, with Class B external filter, as referenced
	Electrical Fast Transient / Burst Immunity	IEC 61000-4-4, ±2KV/±4KV, Criteria B, with Class A/B external filter referenced
	Surge Immunity	IEC 61000-4-5, ±1KV/±2KV, Criteria B, with Class A/B external filter referenced
	RF, Conducted Disturbance Immunity	IEC 61000-4-6, 3Vrms, Criteria A, with Class B external filter, as referenced
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11, 0-70%, Criteria B, with Class B external filter, as referenced

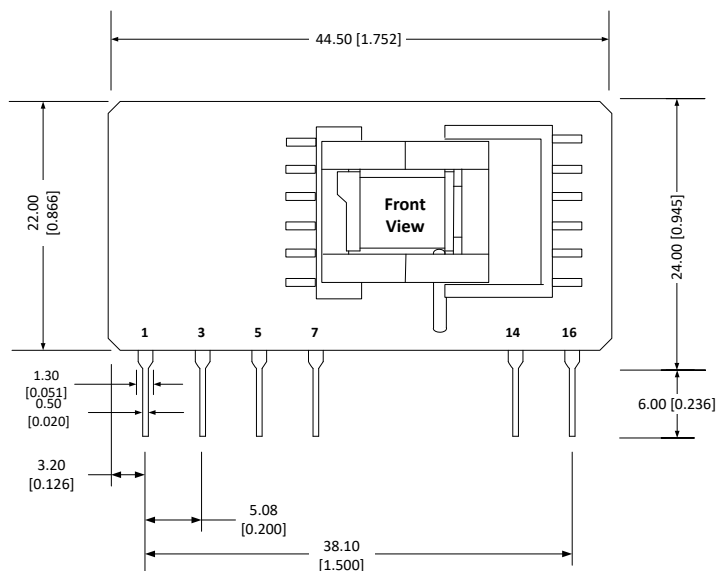
Pin Out Specifications*

Pin	Single
1	AC N
3	AC L
5	+V sc
7	-V sc
14	-V Output
16	+V Output

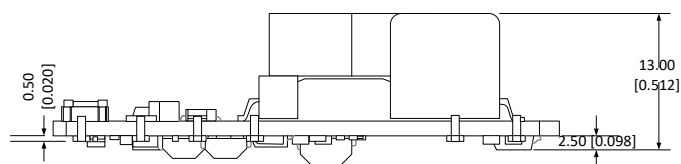
* Add C1, C2, R1 and R2 between pin 5 & 7.

**Add pi-filter to the output as suggested in the Application circuit below.

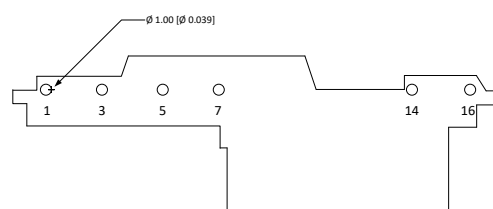
Dimensions



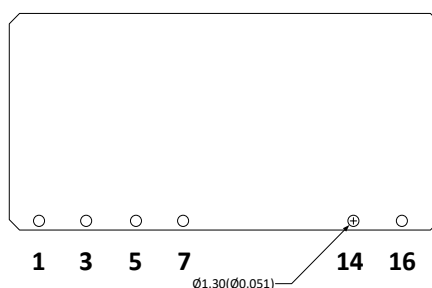
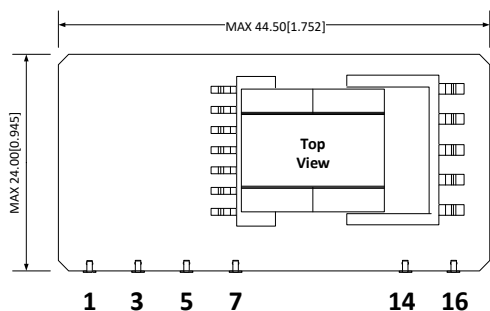
Bottom View



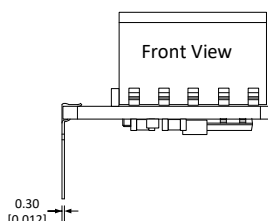
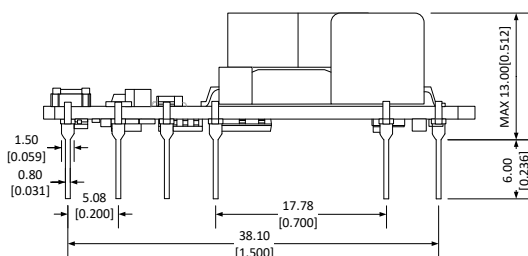
Note:
Unit: mm [inch]
Pin section tolerances: ± 0.10 [± 0.004]
General tolerances: ± 0.50 [± 0.020]



L Models Dimension

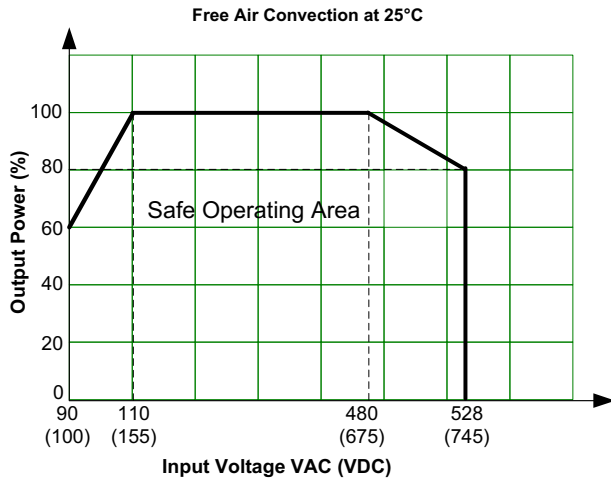
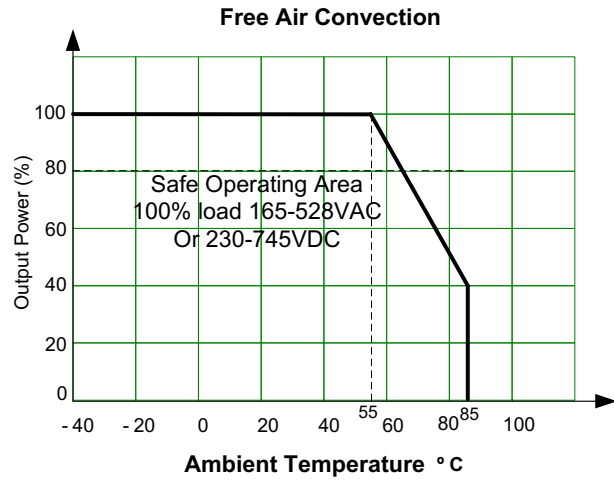
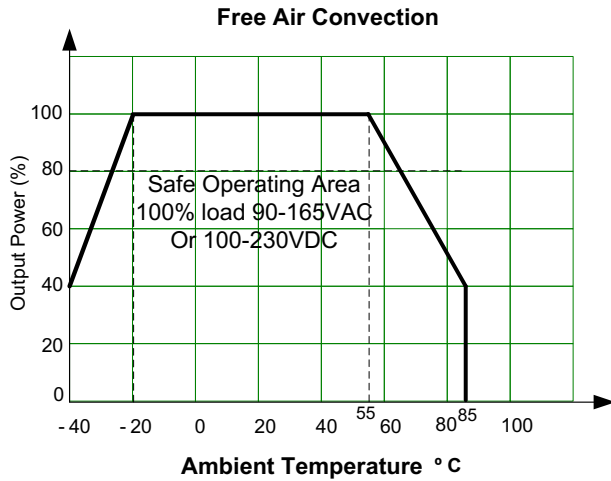


Side View

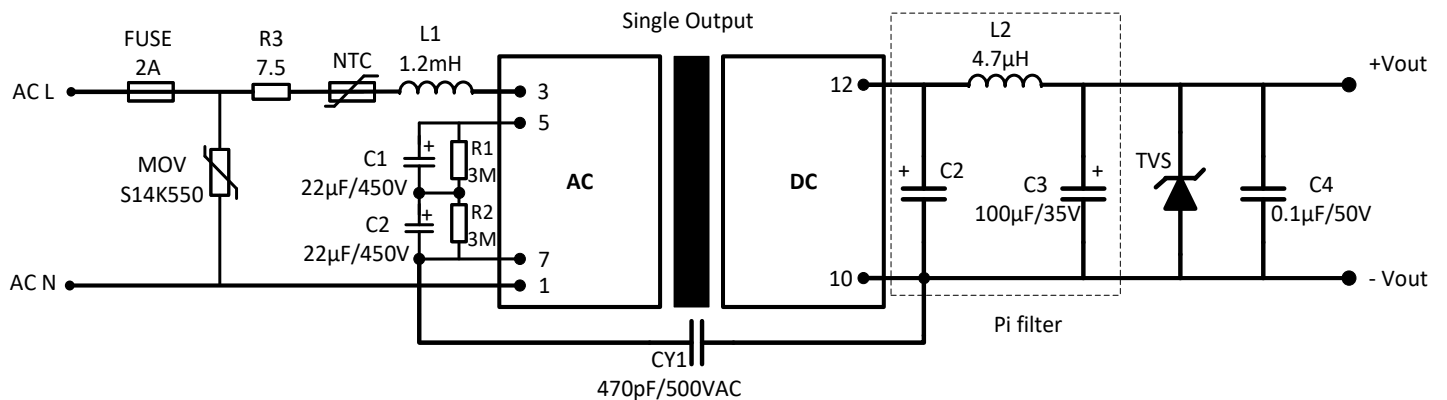


Note:
Unit: mm [inch]
Pin section tolerances: ± 0.10 [± 0.004]
General tolerances: ± 0.50 [± 0.020]

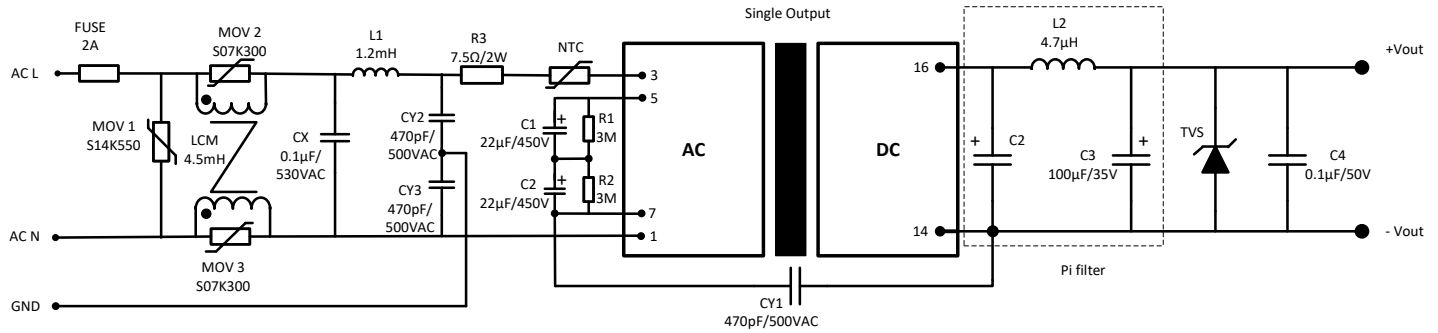
Derating*



Recommended EMC class A external circuit:



Recommended EMC class B external circuit:



Model	C5	TVS
3.3 Vout	270µF/16V	7V
5 Vout		12V
9 Vout		20V
12 Vout	470µF/35V	30V
15 Vout		
24 Vout		

- Notes:**
- ① For Safety compliance, we recommend minimum PCB trace distance of 3mm, minimum distance between PCB traces of 6mm, primary to secondary circuit traces distance between minimum of 6.4mm.
 - ② Operation voltage of the balancing resistors R1 and R2 should be over 450V.
 - ③ At cold temperature full load operations from -40 to -20°C some of the external components need different values to meet the EMC levels:
C1 & C2: 33µF/450V instead of 22µF/450V;
R1 & R2: 1MΩ instead of 3MΩ;
R3: 12Ω instead of 7.5Ω.

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.