

**FEATURES:**



- Input: 85-305VAC, 47-63Hz or 70-430VDC
- Operating temperature -40°C to +85°C
- Low power consumption  $\leq 0.3W$
- Continuous short circuit protection
- I/O Isolation 3000VAC
- Ultra slim open frame SIP
- Over current protection
- Class II power supply

**Models**  
**Single output**



Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Output Voltage (V)	Output Current max (mA)	Maximum capacitive load ( $\mu F$ )	Efficiency (%)
AMEOF1-5SJZ ✖	85-305/47-63	70-430	5	200	220	66
AMEOF1-9SJZ	85-305/47-63	70-430	9	111	100	67
AMEOF1-12SJZ	85-305/47-63	70-430	12	83	100	70
AMEOF1-15SJZ	85-305/47-63	70-430	15	67	100	69
AMEOF1-24SJZ	85-305/47-63	70-430	24	42	100	68
AMEOF1-5SLJZ	85-305/47-63	70-430	5	200	220	66
AMEOF1-9SLJZ	85-305/47-63	70-430	9	111	100	67
AMEOF1-12SLJZ	85-305/47-63	70-430	12	83	100	70
AMEOF1-15SLJZ	85-305/47-63	70-430	15	67	100	69
AMEOF1-24SLJZ	85-305/47-63	70-430	24	42	100	68

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.

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

- Model AMEOF1-5SJZ will be discontinued; for new designs, please refer to model AMEOF13-5S277HANZ.

**Input Specifications**

Parameters	Conditions	Typical	Maximum	Units
Current	115VAC		120	mA
	277VAC		60	mA
Inrush current <2ms	115VAC	9		A
	277VAC	15		A
External fuse	Recommended slow blow type	1		A
Input dissipation	No Load, 24V output	0.2	0.3	W
	No Load, others	0.15	0.25	W

**Output Specifications**

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Full load, 5V output		$\pm 8$	%
	Full load, others		$\pm 5$	%
Line regulation	Full load	$\pm 1.5$		%
Load regulation	5% - 100% load, 24V output	$\pm 6$		%
	5% - 100% load, others	$\pm 3$		%
Ripple & Noise	20MHz Bandwidth	50	120	mV p-p
Hold-up time (min)	230VAC	180		ms
Minimum load		5		% of Max

**Isolation Specifications**

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		3000	VAC

### General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency		100		KHz
Over current protection	Auto-recovery	110-500		% of I out
Short circuit protection		Continuous, auto recovery		

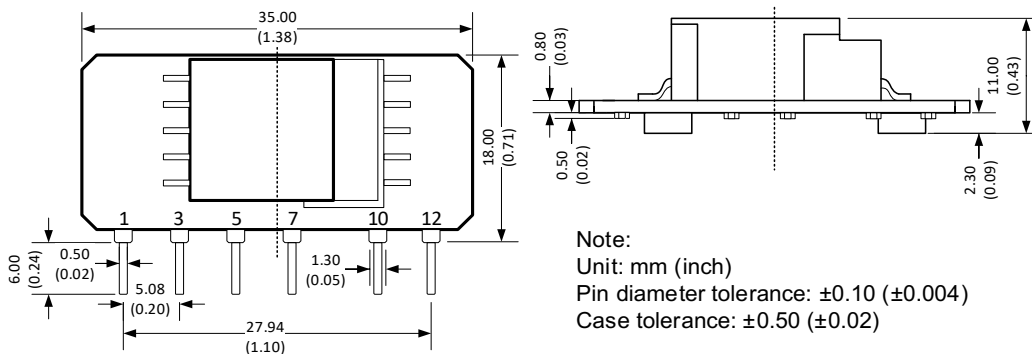
### General Specifications (Continued)

Parameters	Conditions	Typical	Maximum	Units
Operating temperature	Without derating	-40 to +85		°C
Storage temperature		-40 to +105		°C
Temperature coefficient		±0.15		% / °C
Cooling	Free air convection			
Humidity			85	% RH
Weight		6		g
Dimensions (L x W x H)		1.38 x 0.71 x 0.43 inches	35 x 18 x 11 mm	
MTBF		>200,000 hours (MIL-HDBK -217F, t=+25°C)		

### Safety Specifications

Parameters		
Agency approvals	UL 60950-1	
Standards	IEC 60950-1, Design to meet EN60335 (With the EN60335 recommended circuit)	
	EMC - Conducted and radiated emission	CISPR32 / EN55032 Class A, (With typical application circuit, EMI Class A circuit) CISPR32 / EN55032 Class B, (With EMI Class B circuit)
	Electrostatic Discharge Immunity	IEC 61000-4-2 Contact ±4KV, 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 typical application circuit, EMS Class III circuit) IEC 61000-4-4 ±4KV, Criteria B (With EMS Class IV circuit)
	Surge Immunity	IEC 61000-4-5 L-L ±1KV, Criteria B (with typical application circuit, EMS Class III and EMI Class A circuit)
		IEC 61000-4-5 L-L ±2KV, Criteria B (with EMS Class IV and EMI Class A circuit)
		IEC 61000-4-5 L-L ±1KV, L-G ±2KV, Criteria B (with EMS Class III and EMI Class B circuit) IEC 61000-4-5 L-L ±2KV, L-G ±4KV, Criteria B (with EMS Class IV and EMI Class B circuit)
	RF, Conducted Disturbance Immunity	IEC 61000-4-6 10Vr.m.s, Criteria A
	Voltage dips, Short Interruptions Immunity	IEC 61000-4-11 0%, 70%, Criteria B

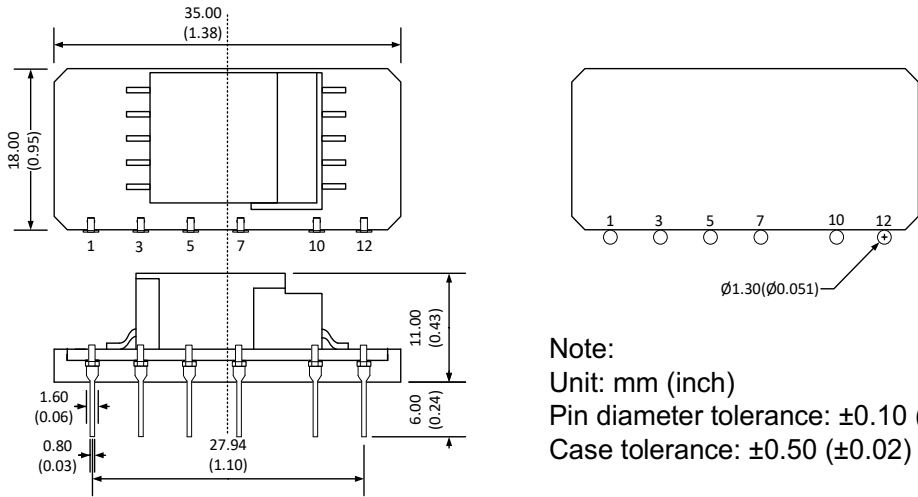
### Dimensions



### Pin Out Specifications

Pin	Single
1	AC N
3	AC L
5	+V sc
7	-V sc
10	-V Output
12	+V Output

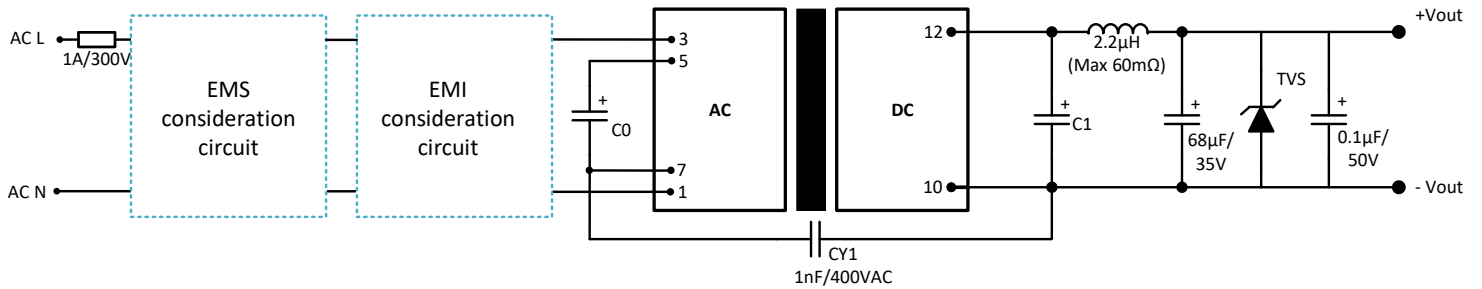
### L Model Dimensions



Note:  
Unit: mm (inch)  
Pin diameter tolerance:  $\pm 0.10$  ( $\pm 0.004$ )  
Case tolerance:  $\pm 0.50$  ( $\pm 0.02$ )

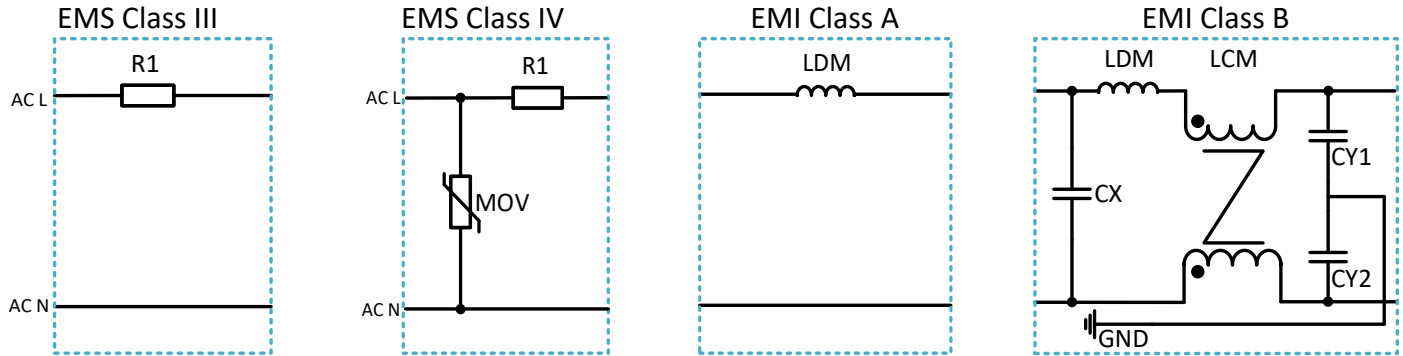
- Note:
1. Capacitor between pin5 and pin7 is necessary.
  2. External circuit on the output side is necessary. Please refer to the recommended circuit.
  3. It is needed to have distance  $\geq 6.4\text{mm}$  for safety between external components in primary circuit and secondary circuit.
  4. The layout of the device is for reference only, please refer to the actual product.

### Recommended EMC external circuit



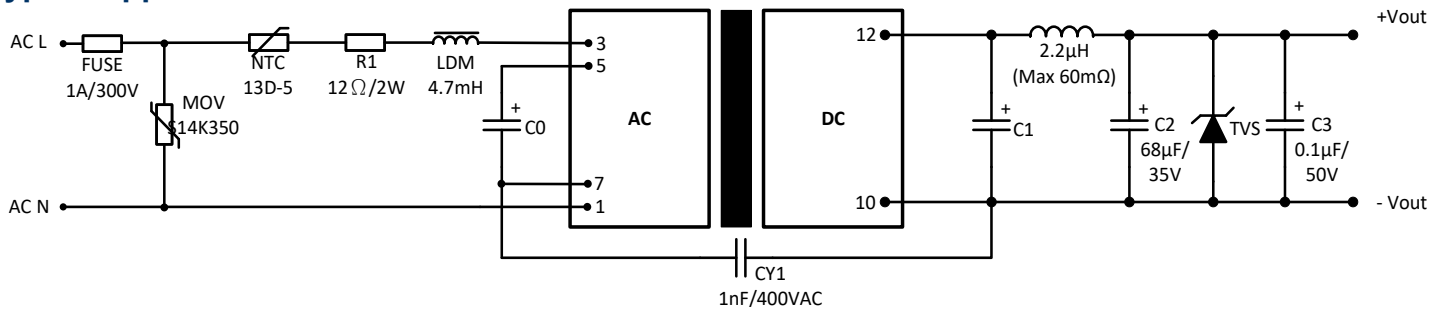
Model	C0	C1	TVS
5 VDC output	4.7µF/450V (-20°C to +85°C)	270µF/16V (Solid capacitor)	7V
9 VDC output		100µF/16V (Solid capacitor)	12V
12 VDC output	10µF/450V (-40°C to +85°C)	100µF/16V (Solid capacitor)	20V
15 VDC output		100µF/35V	20V
24 VDC output		100µF/35V	30V

### EMI & EMS Recommended Circuit

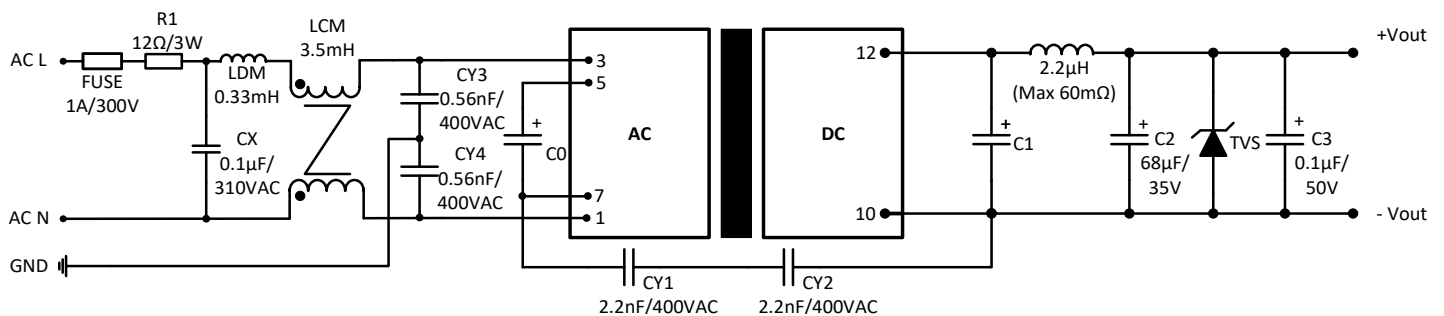


Component	EMS		EMI	
	Class III	Class IV	CLASS A	CLASS B
MOV	-	S14K350	-	-
R1	12Ω/3W	12Ω/3W	-	-
CX	-	-	-	0.1μF/310VAC
CY1	-	-	-	0.56nF/400VAC
CY2	-	-	-	0.56nF/400VAC
LCM	-	-	-	3.5mH
LDM	-	-	4.7mH	0.33mH
FUSE	1A/300V	2A/300V	1A/300V	1A/300V

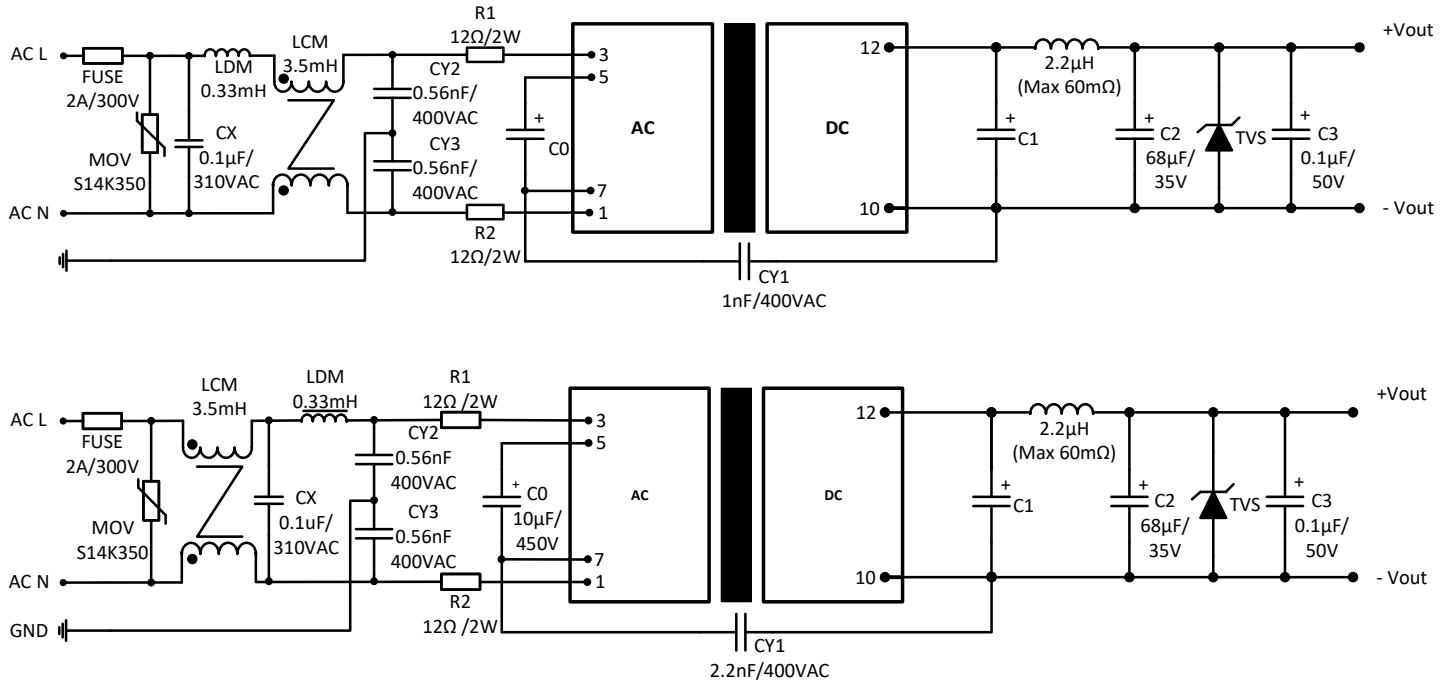
### Typical application circuit



### Recommended EMC circuit for EN60335



**Recommended EMC circuit for EMS Class IV, EMI Class B**



**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](http://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 than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at [www.aimtec.com](http://www.aimtec.com).