



FEATURES:

- I/O Isolation 4000VAC
- Operating Temp: -40°C to +70°C
- Over current, Over Voltage
- Input: 85-264VAC, 47-440Hz, or 100-370VDC
- Low no load consumption $\leq 0.1W$
- Continuous Short Circuit Protection
- Up to 89% efficiency



Models
Single output

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Max Output wattage (W)	Output Voltage (V)	Output Current max (A)	Maximum capacitive load (μF)	Efficiency @230VAC (%)
AME25-5SMJZ	85-264/47-440	100-370	20.5	5	4.10	10,000	82
AME25-12SMJZ	85-264/47-440	100-370	25	12	2.10	5,000	88
AME25-15SMJZ	85-264/47-440	100-370	25	15	1.60	4,000	88
AME25-18SMJZ	85-264/47-440	100-370	25	18	1.40	3,000	88
AME25-24SMJZ	85-264/47-440	100-370	25	24	1.10	1,000	89

*Output power must not exceed the listed values.

Note: Add suffix "-ST" for optional screw terminal bottom plate. Add suffix "-STD" for optional Din-Rail bottom plate.

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.

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Current	115VAC		0.6	A
	230VAC		0.34	A
Inrush current <2ms (cold start)	115VAC	10		A
	230VAC	25		A
Leakage current			0.1	mA
External fuse	slow blow type	3.15		A
Input dissipation	No Load		≤ 0.1	W

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		± 2		%
Line regulation	Full load	± 0.5		%
Load regulation	0-100% load	± 1		%
Ripple & Noise	20MHz bandwidth	50	100	mV p-p
Hold up time	115VAC	15		ms
	230VAC	80		ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		4000	VAC
Isolation resistance		>1000		M Ω

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	65		KHz
Protection class		Class II		
Over current protection	Auto recovery	110		% of Iout
Over voltage protection		Zener Diode Clamp		
Short circuit protection		Continuous		
Short circuit restart		Auto recovery		
Operating temperature	See derating table	-40 to +70		°C

General Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
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
Case material	Heat resistant black Plastic (flammability to UL 94V-0)			
Weight	PCB mountable models		120	g
	With optional -ST mounting plate:		170	
	With optional -STD mounting plate:		210	
Dimensions (L x W x H)	PCB mountable models	2.75 x 1.89 x 0.92 inches (70.00 x 48.00 x 23.50mm)		
	With optional -ST mounting plate:	3.78 x 2.12 x 1.26 inches (96.10 x 54.00 x 32.00 mm)		
	With optional -STD mounting plate:	3.78 x 2.12 x 1.44 inches (96.10 x 54.00 x 36.60 mm)		
MTBF	> 300 000 hrs (MIL-HDBK -217F, t _a =+25°C)/Full Load			

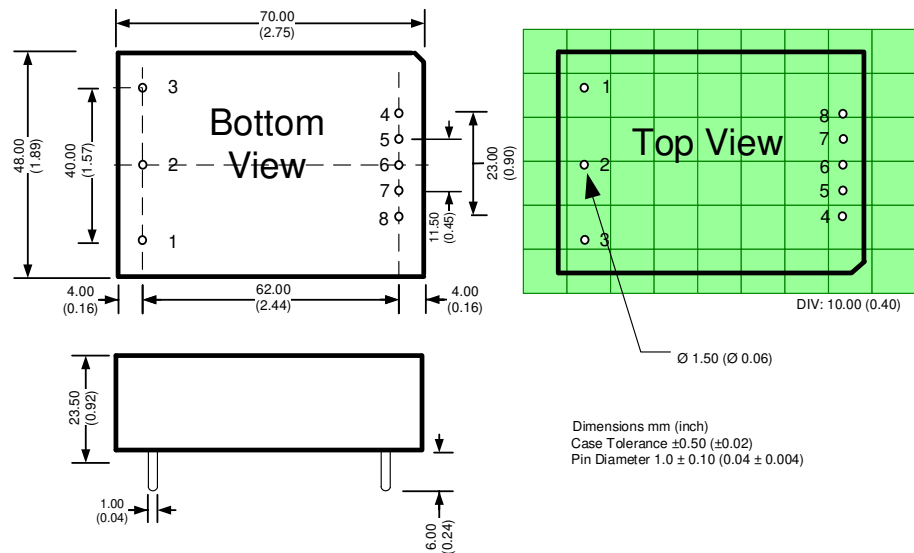
Safety Specifications

Parameters		
Standards	Medical Electrical Equipment	Meets IEC/EN/UL 60601-1, 2 x MOPP
	EMI - Conducted and radiated emission	EN55011 and 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, ±4KV with recommended circuit, Criteria B
	Surge Immunity	IEC 61000-4-5 ±1KV, ±2KV with recommended circuit, 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

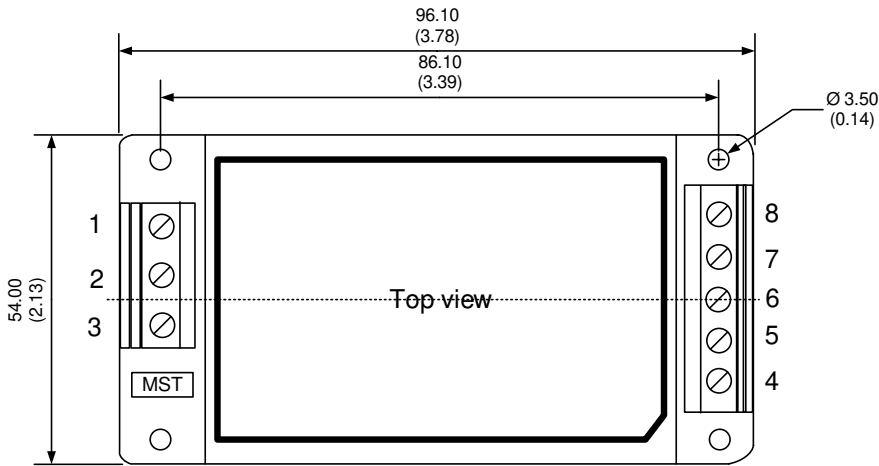
Pin Out Specifications

Pin	Single
1	No Pin
2	AC Input (N)
3	AC Input (L)
4	+V Output
5	No Pin
6	No Pin
7	No Pin
8	-V Output

Dimensions

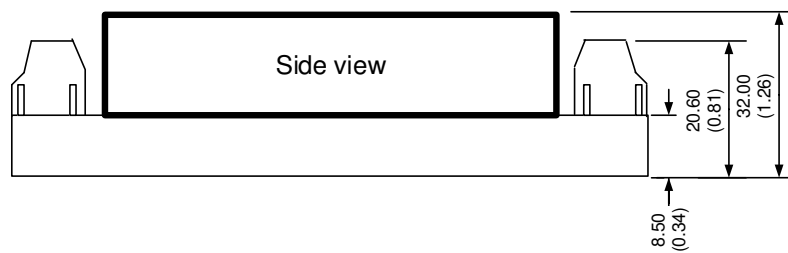


With optional -ST bottom plate



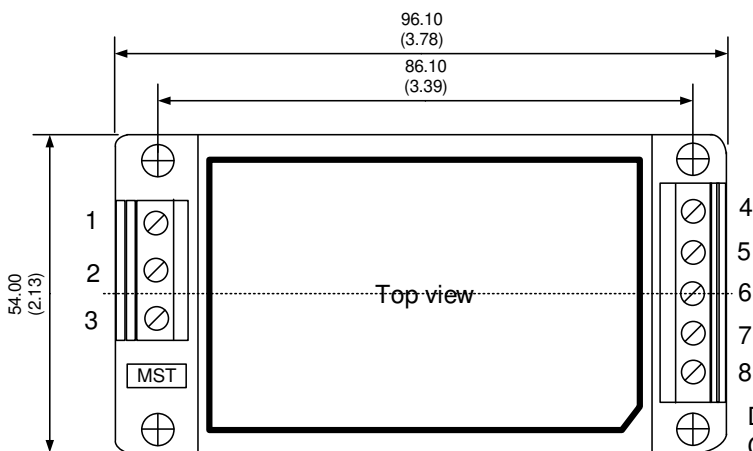
Pin Out Specifications

Pin	Single
1	No Pin
2	AC Input (N)
3	AC Input (L)
4	+V Output
5	No Pin
6	No Pin
7	No Pin
8	-V Output



Dimensions: mm (inch)
Case Tolerance: ± 0.50 (0.02)
Wire gauge: 24-12AWG

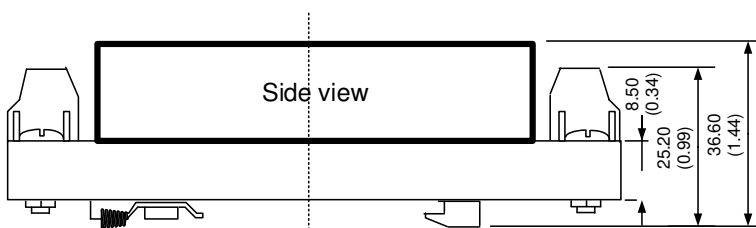
With optional -STD bottom plate



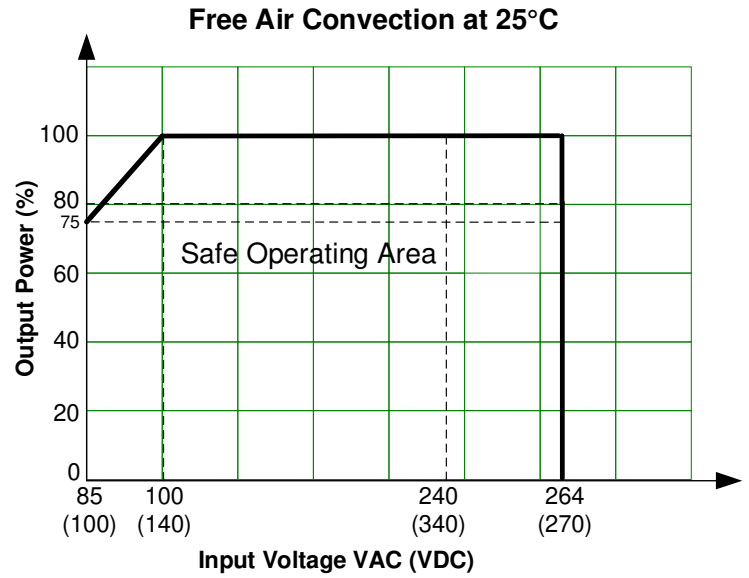
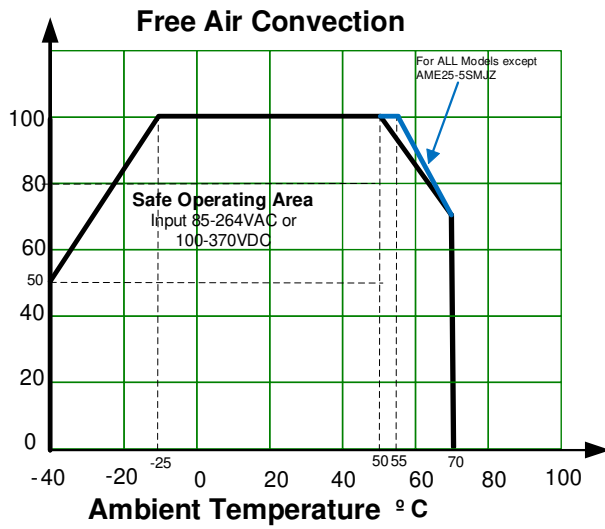
Pin Out Specifications

Pin	Single
1	No Pin
2	AC Input (N)
3	AC Input (L)
4	+V Output
5	No Pin
6	No Pin
7	No Pin
8	-V Output

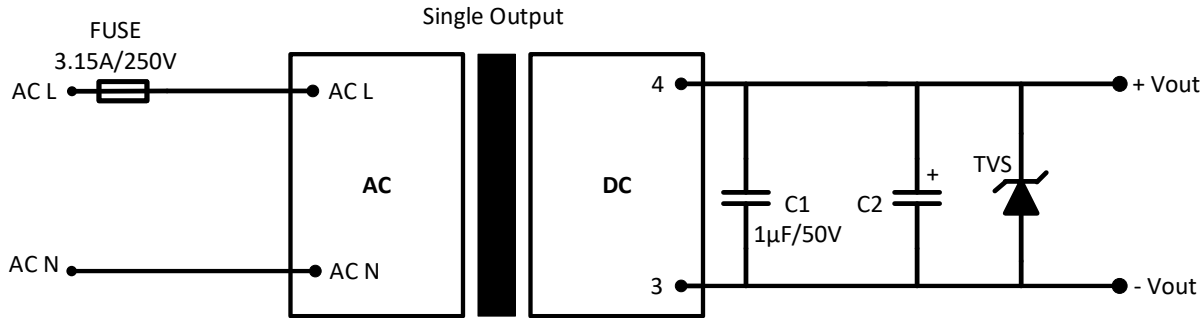
Dimensions: mm (inch)
Case Tolerance: ± 0.50 (0.02)
Wire gauge: 24-12AWG
DIN Rail TS35



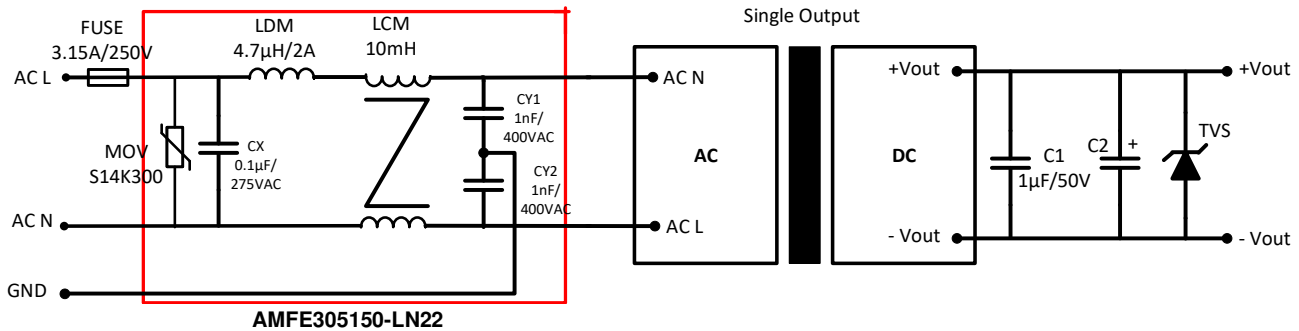
Derating



Typical application circuit



Recommended circuit for EFT ±4KV, Surge ±2KV



As indicated by the red box Aimtec's AMFE305150-LN22 EMC filter can be used to simplify design for EFT ±4KV, surge ±2KV.

Model	C2	TVS
5,12 & 15 Vout	330 µF	12V
18 Vout	120 µF	30V
24 Vout	68 µF	48V

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.