AMEOF250-MUU

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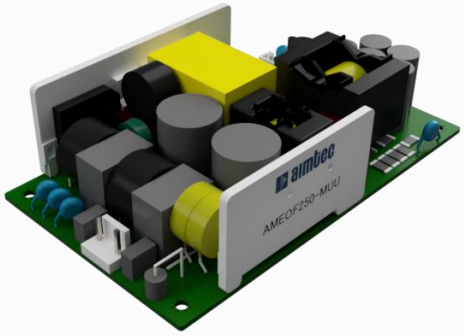


Open Frame

The AMEOF250-MUU series is one of Aimtec's compact (3"x5"x1.4") 250W AC/DC converter and is suitable for medical equipment. It features a universal AC input, which also accepts a DC input voltage, is cost-effective, has a high efficiency and high reliability.

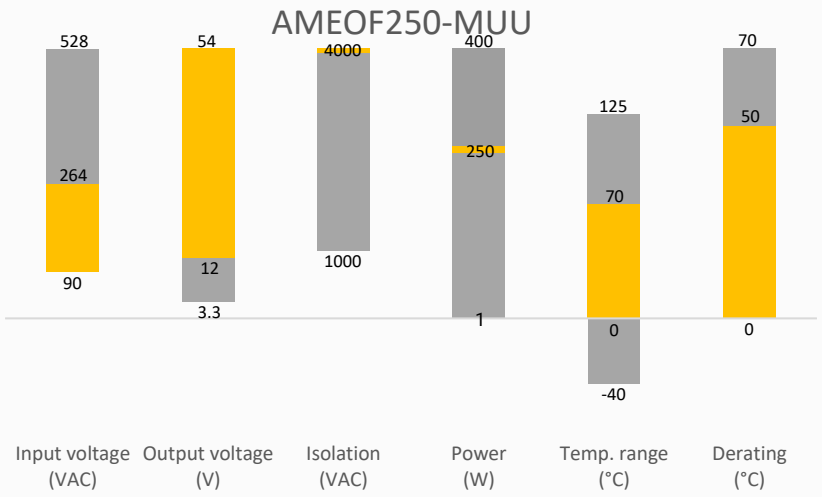
These converters offer excellent EMC and safety performance, meet IEC/EN/UL60601-1 standards and can be widely used in industrial, LED, street light control, security, telecommunications, smart home and medical applications.

Features

- Universal Input: 90 - 264VAC/127 - 373VDC
- Low leakage current: 0.3mA max.
- High isolation voltage: 4000VAC
- Output short circuit, over-current, over-voltage protection
- Design references IEC/EN/UL60601-1 standard, 2xMOPP

RoHS

Summary



Training

Product Training Video (click to open)

Press Release

Coming Soon!

Application Notes

Applications

Power Grid

Industrial

Telecom

Models & Specifications

Single Output								
Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Cooling method	Max Output wattage (W)	Output Voltage (V)	Max Output Current (A)	Maximum capacitive load (µF)	Efficiency @230VAC Typ. (%)
AMEOF250-12SMUU	90-264/47-63	127-373	15CFM/600LFM	250	12	20.84	8000	90
AMEOF250-24SMUU	90-264/47-63	127-373	15CFM/600LFM	250	24	10.42	3000	91
AMEOF250-48SMUU	90-264/47-63	127-373	15CFM/600LFM	250	48	5.21	1500	92
AMEOF250-54SMUU	90-264/47-63	127-373	15CFM/600LFM	250	54	4.63	1300	92

Input Specifications				
Parameters	Conditions	Typical	Maximum	Units
Input current	90VAC, full load		5	A
Inrush current	230VAC, cold start		100	A
Leakage current			0.3	mA

Output Specifications				
Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	0-100% load	±4		%
Line regulation	Full load	±4		%
Load regulation	0-100% load	±4		%
Ripple & Noise*	12V output	150		mV p-p
	24V output	240		mV p-p
	48V output	480		mV p-p
	54V output	540		mV p-p
Hold up time	115VAC input, full load	12		ms
* Ripple and Noise are measured at 20MHz bandwidth with a 0.1uF ceramic capacitor and a 47uF E.L. capacitor to the output connector.				

Isolation Specification				
Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage		4000		VAC
Tested I/PE voltage		1500		VAC
Resistance I/O	500VDC	>50		MΩ

General Specifications

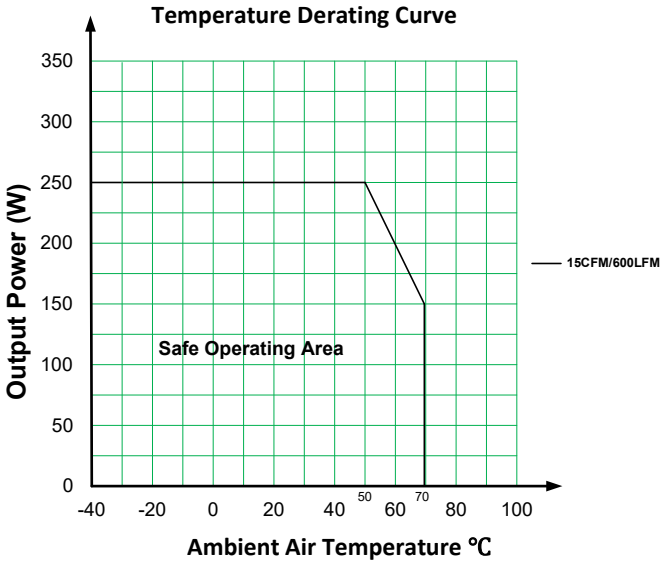
Parameters	Conditions	Typical	Maximum	Units
Over current protection		≥ 105	200	% of Iout
Over voltage protection		≥ 110	150	% of Vout
Short circuit protection	Auto recovery			
Operating temperature	See derating graph	0 to +70		°C
Storage temperature		-40 to +85		°C
Power Derating	+50 °C to +70 °C, forced air convection 15CFM/600LFM	5		W/°C
Cooling	Forced air convection 15CFM / 600LFM			
Humidity	Non-condensing	>5	95	% RH
Operating altitude			5000	M
Weight		480		g
Dimensions (L x W x H)		5.00 x 3.00 x 1.40 inches (127.0 x 76.0 x 35.6 mm)		
MTBF	> 300 000 hrs Telcordia SR-332			

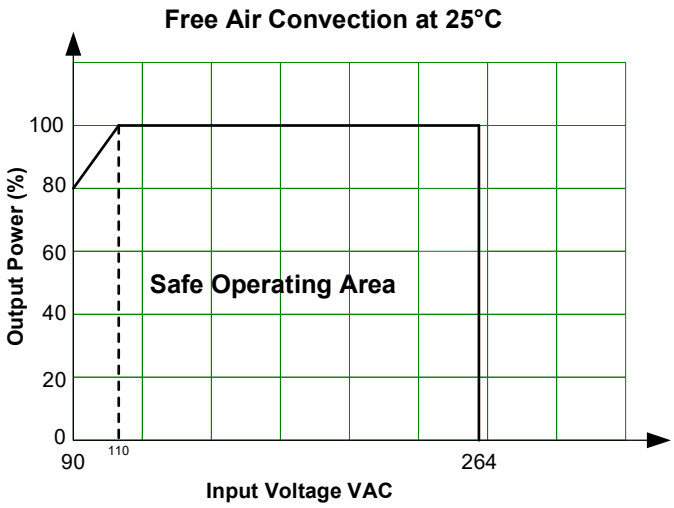
NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Safety Specifications

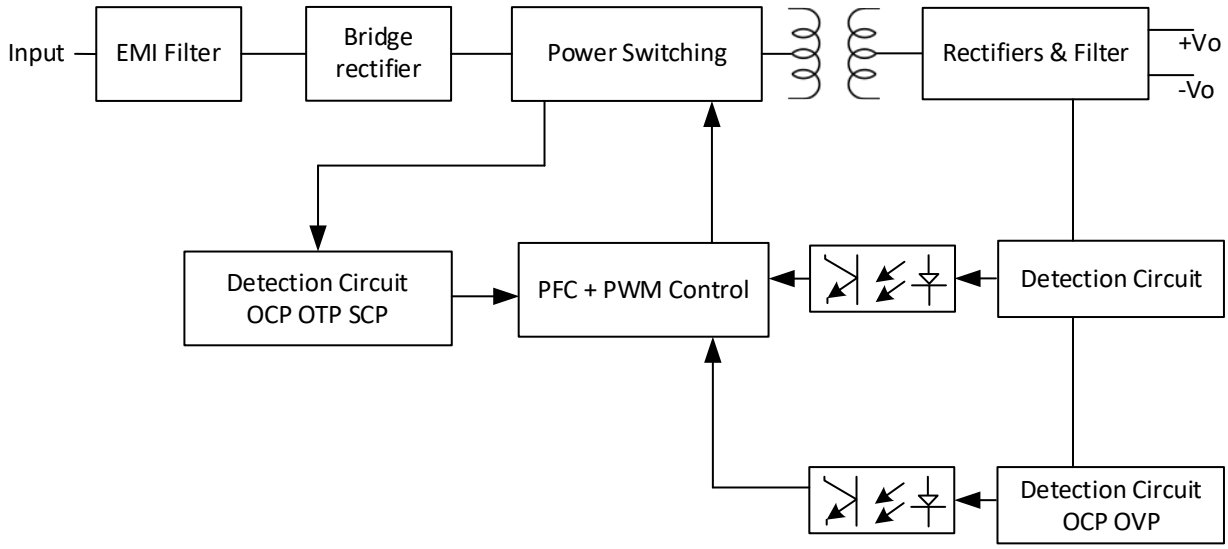
Parameters		
Standards	Designed to meet IEC/EN/UL 60601-1, 2xMOPP	
	EMC - Conducted and radiated emission	Conducted: EN55011, Class B Radiated: EN55011, Class A
	EMC - Harmonic current emissions	EN 61000-3-2, Class D
	EMC – Voltage flicker	EN 61000-3-3
	Electrostatic Discharge Immunity	EN 61000-4-2 Level 2 Contact ±8KV, Level 3 Air ±15KV, Criteria A
	RF, Electromagnetic Field Immunity	EN 61000-4-3 Level 3, 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	EN 61000-4-4 Level 3, ±2KV, Criteria A
	Surge Immunity	EN 61000-4-5 Level 3, ±1KV/DM ±2KV/CM, Criteria A
	RF, Conducted Disturbance Immunity	EN 61000-4-6 Level 3, 6Vr.m.s, Criteria A
	Magnetic Field	EN 61000-4-8 Level 4, 30A/m, Criteria A
	Voltage dips, Short Interruptions Immunity	EN 61000-4-11 >90% dip 0.5 periods Criteria A, 30% dip 25 periods Criteria C, >95% interruptions 250 periods, Criteria C

Derating

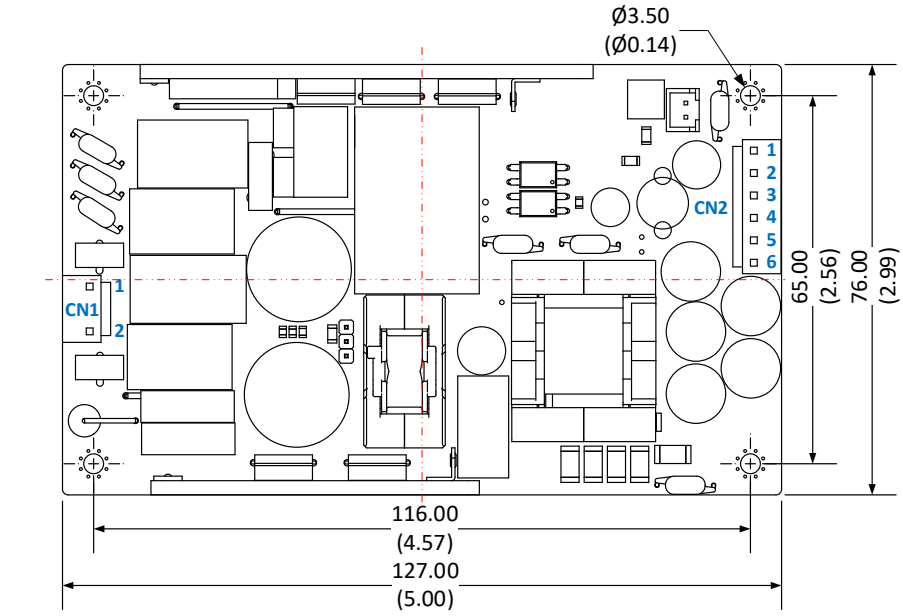


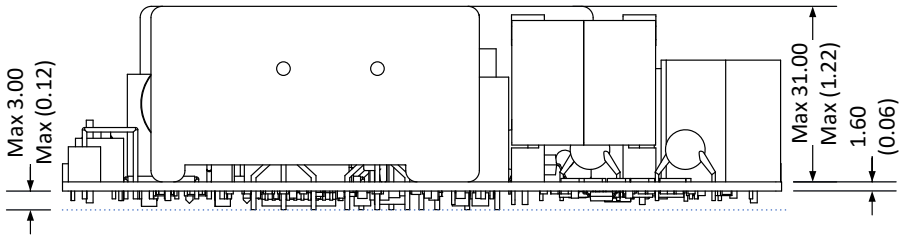


Block Diagram



Dimensions





CN1 JST B 3P-VH with second pin removed or equivalent	
Pin	Function
1	AC L
2	AC N

CN2 JST B 6P-VH 6 Pin or equivalent	
Pin	Function
1	+V output
2	+V output
3	+V output
4	-V output
5	-V output
6	-V output

Note:
Unit: mm (inch)
General tolerance : ±1.00 (0.04)

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