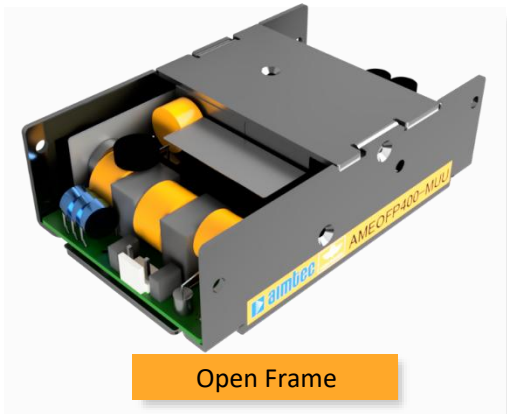


AMEOFP400-MUU

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samples



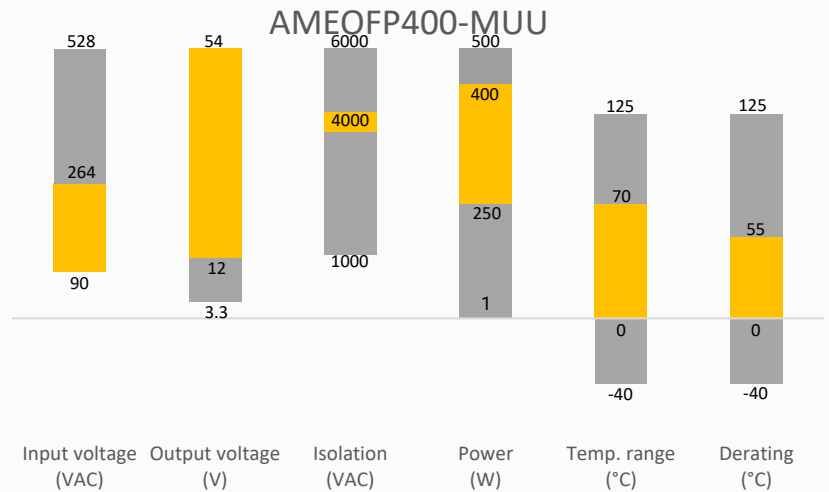
AMEOFP400-MUU series is one of Aimtec's 400W AC/DC converter with active PFC and suitable for medical system equipment. It features universal AC input and at the same time accepts DC input voltage, cost-effective, high efficiency, high reliability and double or reinforced isolation.

These converters offer excellent EMC and safety performance, which meet IEC/EN/UL60601-1 standards and they are widely used in areas of industrial, LED, street light control, electricity, security, telecommunications, smart home, medical, etc.

Features

- Universal Input: 90 - 264VAC
- Low leakage current: 0.3mA max.
- High isolation voltage: 4000VAC
- Output short circuit, over-current, over-voltage protection
- Designed to meet IEC/EN/UL60601-1(Pending)

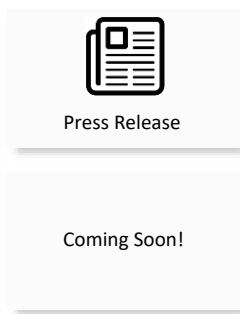
Summary



Training



Product Training Video
(click to open)



Application Notes

Applications



Power Grid



Industrial



Telecom



Medical

Models & Specifications

Single Output

Model	Input Voltage (VAC/Hz)	Cooling method	Max Output wattage (W)	Output Voltage (V)	Max Output Current (A)	Maximum capacitive load (μF)	Efficiency @230VAC Typ. (%)
AMEOFP400-12SMUU	90-264/47-63	Free air	250	12	20.8	20000	91
		25CFM	400		33.3		
AMEOFP400-24SMUU	90-264/47-63	Free air	250	24	10.5	10000	93
		25CFM	400		16.7		
AMEOFP400-48SMUU	90-264/47-63	Free air	250	48	5.2	5000	94
		25CFM	400		8.33		
AMEOFP400-54SMUU	90-264/47-63	Free air	250	54	4.63	4000	94
		25CFM	400		7.4		

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Input current	90VAC, full load		5.5	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	±5		%
Line regulation	Full load	±0.5		%
Load regulation	0-100% load	±1		%
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 0.1μF ceramic capacitor and a 47μF E.L. capacitor to the output connector.

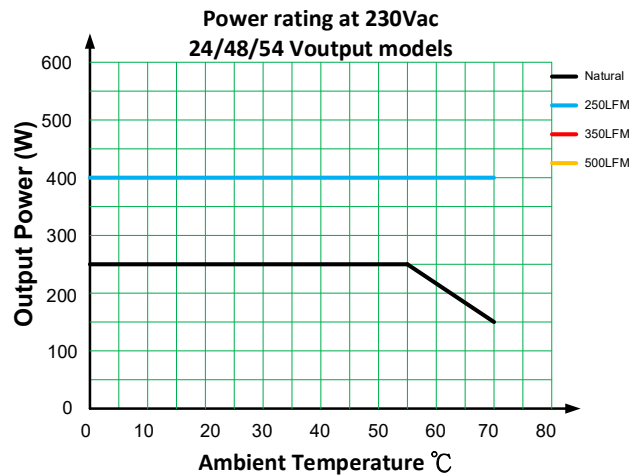
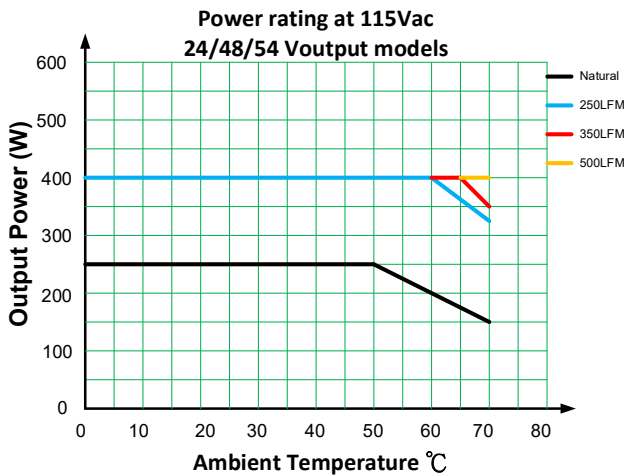
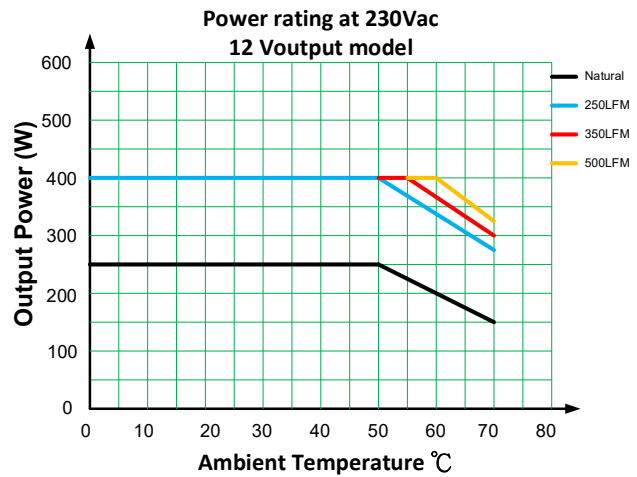
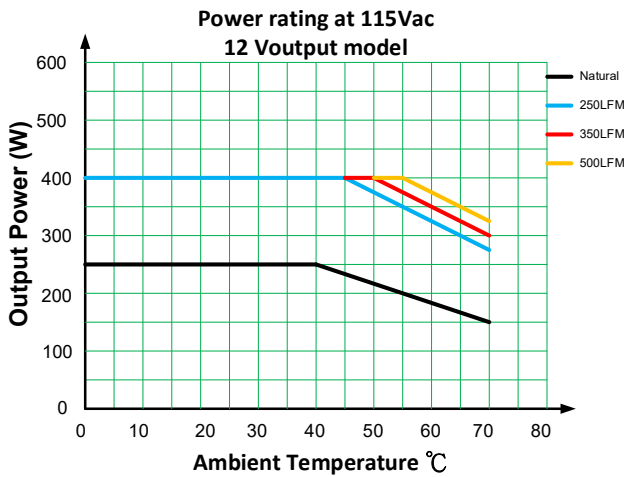
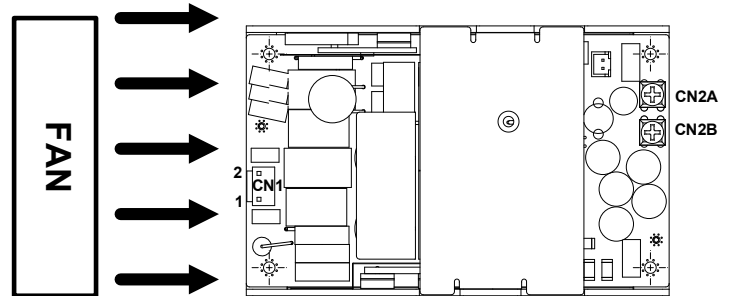
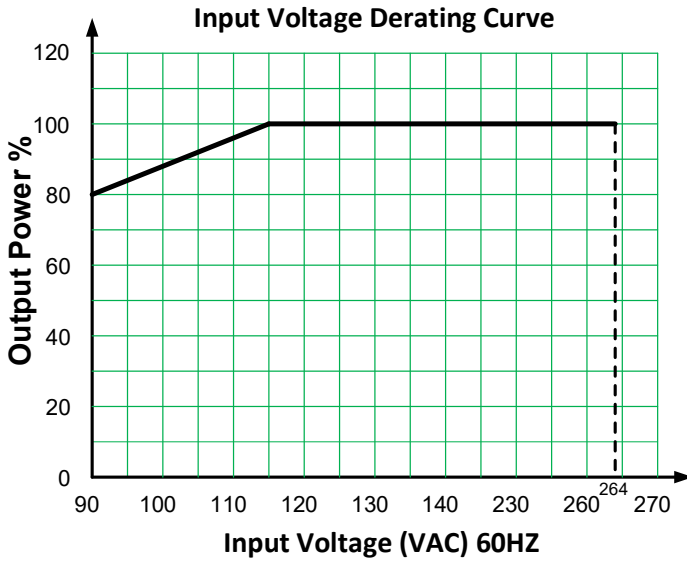
Isolation Specification

Parameters	Conditions	Typical	Maximum	Units
Input to output voltage		4000		VAC
Input or Output to PE voltage		1500		VAC
Resistance I/O	500VDC	>50		MΩ
MOP I/O			2xMOPP	
MOP I/PE			1xMOPP	
MOP O/PE			1xMOPP	

General Specifications				
Parameters	Conditions	Typical	Maximum	Units
Over current protection		≥ 105	140	% of Iout
Over voltage protection		≥ 110	140	% of Vout
Short circuit protection	Auto recovery			
Operating temperature	See derating graph	0 to +70		°C
Storage temperature		-40 to +85		°C
Cooling	Free air convection			
Humidity	Non-condensing	≥ 5	95	% RH
Operating altitude			5000	M
Weight		480		g
Dimensions (L x W x H)		5.08 x 3.25 x 1.64 inches (129.0 x 82.6 x 41.6 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	Design to meet IEC/EN/UL 60601-1 (Pending)	
	EMC - Conducted	EN55011, Class B
	EMC - 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 3 15KV Air; Level 2 8KV Contact, 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 >95% dip 0.5 periods Criteria A 30% dip 25 periods Criteria C >95% interruptions 250 periods Criteria C

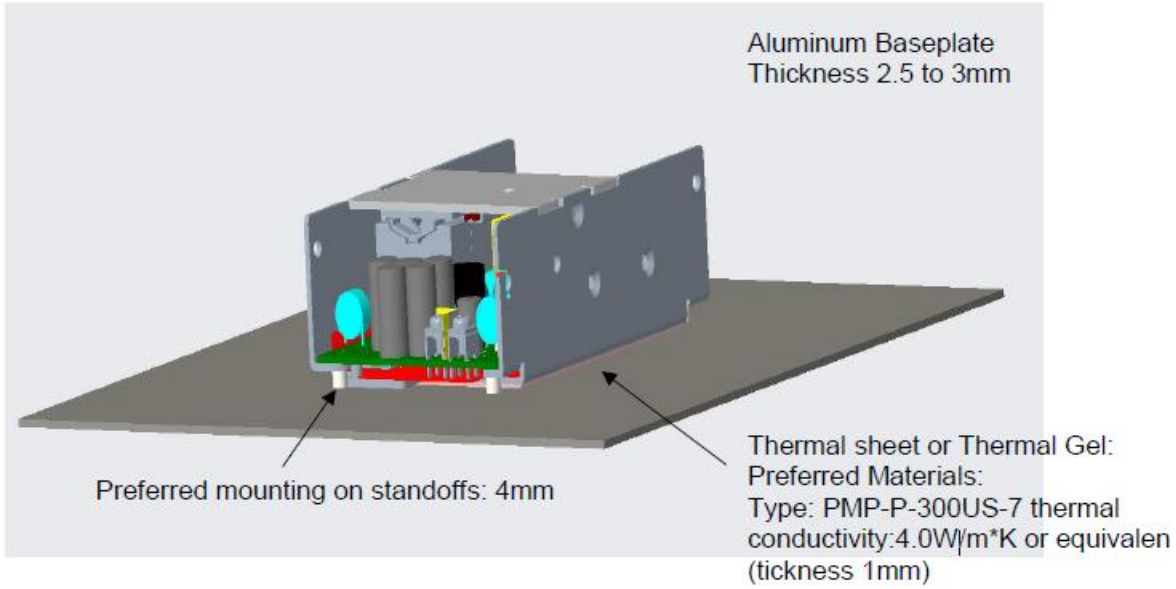
Derating



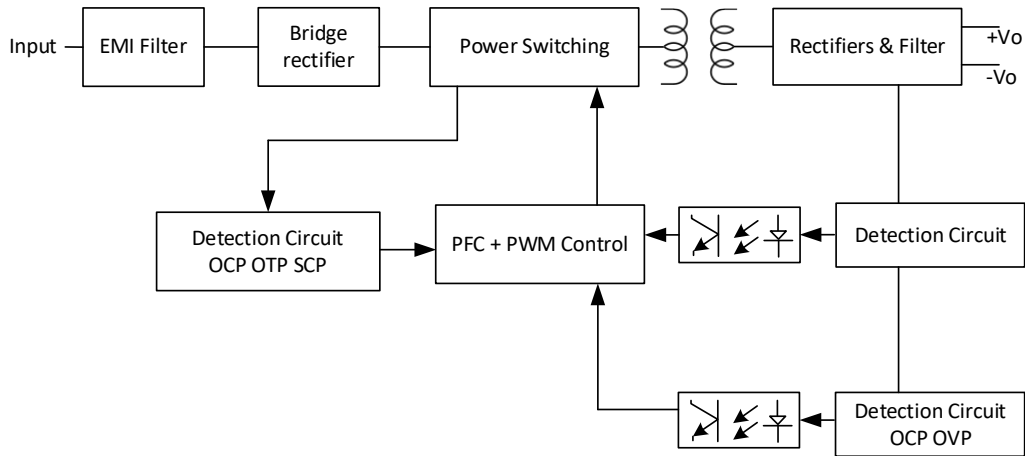
Thermal Considerations

Conduction Cooling Image (and Preferred Interface Materials)

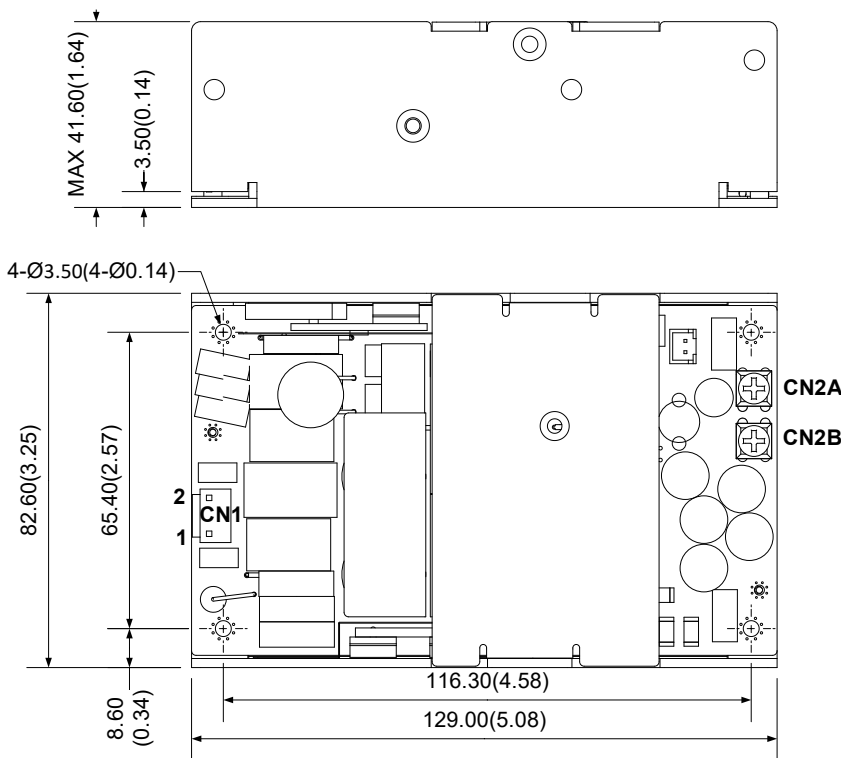
For 250W NO FAN



Block Diagram



Dimensions



NOTES:

1. All dimensions in mm (inch)
2. Tolerance $\pm 1.00 (\pm 0.04)$

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

CN2 P-820W	
Pin	Function
CN2A	+V output
CN2B	-V output

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 than the ones listed in this datasheet. **7.** Warranty is in accordance with Aimtec's standard Terms of Sale available at www.aimtec.com.