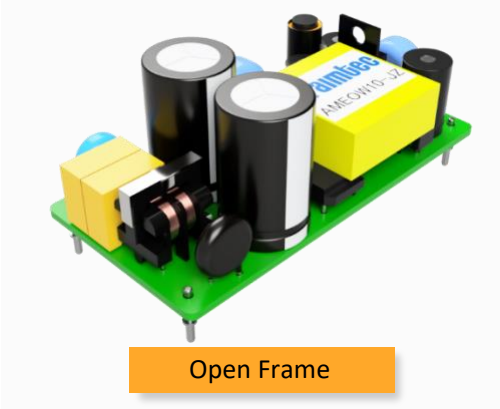


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samples

AMEOW10-JZ



Open Frame

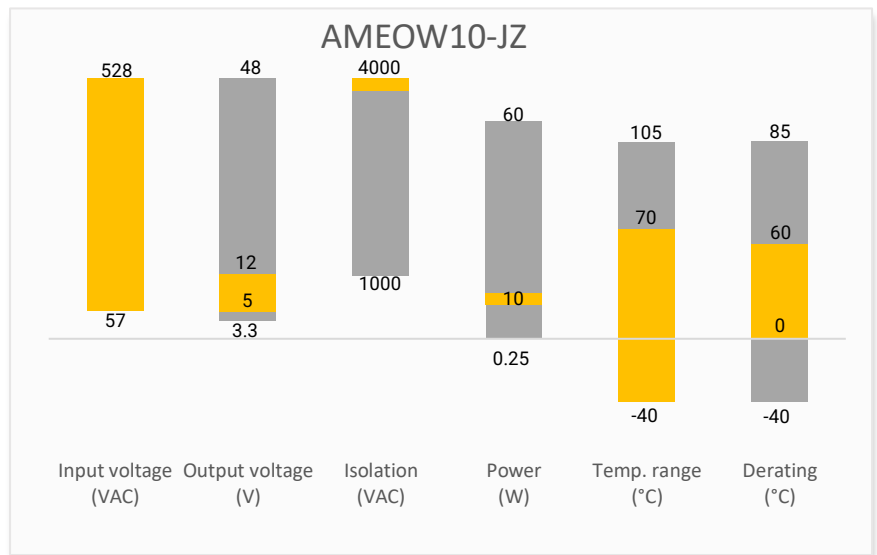
The AMEOW10-JZ series is an open frame switched-mode power supply that is designed to accept an ultrawide input voltage range of 57-528VAC or 80-745VDC. This converter can operate with any two wire connections from the three-phase three-wire or four-wire systems thus enhancing its ease of use.

The AMEOW10-JZ series is designed with an isolation voltage of 4000VAC and meets IEC/EN61000 "Burst (4kV)", "Surge (2kV)" and "EN55032 Class B Conduction/Radiation" requirements. The typical applications of this series are meters or industrial equipment that have extremely harsh EMC requirements such as electric-meters that are powered from a three-phase AC supply.

Features

- Input: 57 - 528VAC/80 - 745VDC
- Operating Temp: -40 °C to +70 °C
- High isolation voltage: 4000VAC
- Ripple & noise, 250mV(p-p), max.
- Output short circuit, over-current, over-voltage protection

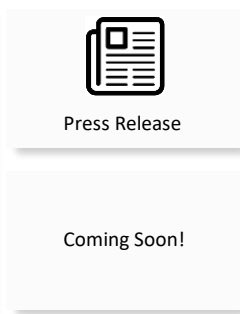
Summary



Training



Product Training Video
(click to open)



Application Notes

Applications



Power Grid



Industrial



Instrumentation



IoT

Models & Specifications

Single Output

Model	Input Voltage (VAC/Hz)	Input Voltage (VDC)	Max Output wattage (W)	Output Voltage (Vo1/Vo2)(V)	Output Current max (Vo1/Vo2) (A)	Maximum capacitive load (Vo1/Vo2) (μF)	Efficiency @ 230VAC (%) Typ.
AMEOW10-5S12SJZ	57~528/47~63	80~745	10.92	5.1 / 12	1.2 / 0.4	4000 / 1200	78

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Input current	100VAC Input		400	mA
Inrush current	115VAC Input	25		A
	220VAC Input	40		
Leakage current	220VAC Input	0.3		mA
Input fuse	3.15A Slow-blow type required			

Output Specifications

Parameters	Conditions		Typical	Maximum	Units
Voltage accuracy	Balance load	Output 1	± 2		%
		Output 2	± 10		
Line regulation	100% load	Output 1	± 0.5		%
		Output 2	± 1.5		
Load regulation	10-100% load	Output 1	± 3		%
		Output 2	± 5		
Ripple & Noise*	57-528VAC Input	Output 1		150	mV p-p
		Output 2		250	
	220VAC Input	Output 1	60		
		Output 2	120		
Minimum load			≥10		%
Hold-up time	220VAC Input, 100% load		80		ms

*20MHz bandwidth

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	Input / Output, 60 sec	4000		VAC
	Output / Output, 60 sec	4000		
Insulation resistance		≥100		MΩ

General Specifications

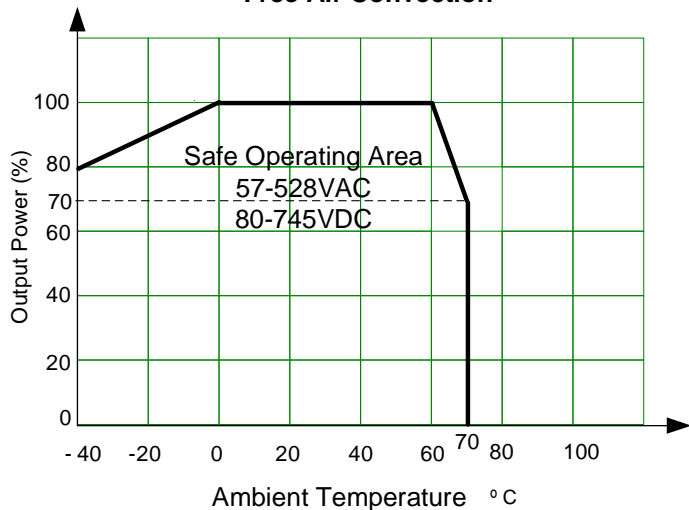
Parameters	Conditions	Typical	Maximum	Units
Switching frequency		60-80		Khz
Over current protection	Auto recovery	≥ 120	300	% of Iout
Over voltage protection	Output 1		8	V
	Output 2		20	

Short circuit protection	Hiccup, Continuous, Auto recovery		
Operating temperature	-40 to +70		°C
Storage temperature	-40 to +85		°C
No-load power consumption	220VAC Input	0.3	0.5
Switching frequency	65		KHz
Temperature coefficient	Output 1	±0.02	% / °C
	Output 2	±0.06	
Derating	-40°C to 0°C	0.5	% / °C
	60°C to 70°C	3	
Altitude	2000		m
Wave soldering	260±5°C, Duration 5~10 Sec		
Manual soldering	360±10°C, Duration 3~5 Sec		
Safety class	Class II		
Cooling	Free air convection		
Storage Humidity	90		% RH
Weight	70		g
Dimensions (L x W x H)	3.15 x 1.57 x 1.38 inches (80.00 x 40.00 x 35.00mm)		
MTBF	> 300 000 hrs (MIL-HDBK -217F, t=+25°C)		
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.			

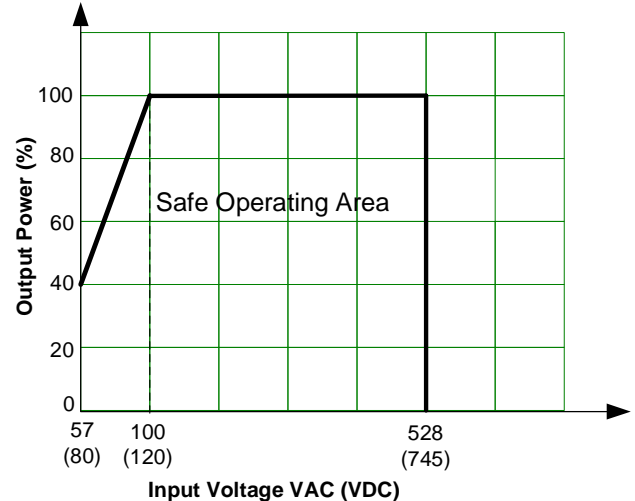
Safety Specifications		
Parameters		
Standards	EMC - Conducted and radiated emission	CISPR22 / EN55022 Class B
	Electrostatic Discharge Immunity	IEC 61000-4-2 Contact ±6KV/ Air ±8KV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4 ±4KV, Criteria B
	Surge Immunity	IEC 61000-4-5 L-L ±2KV, Criteria B
		IEC 61000-4-5 L-L ±4KV with EMC recommended circuit, Criteria B
	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

Derating

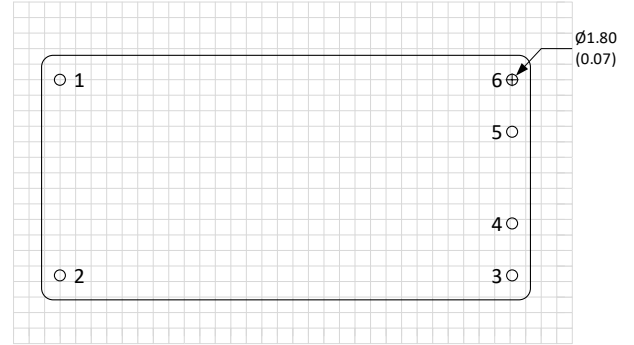
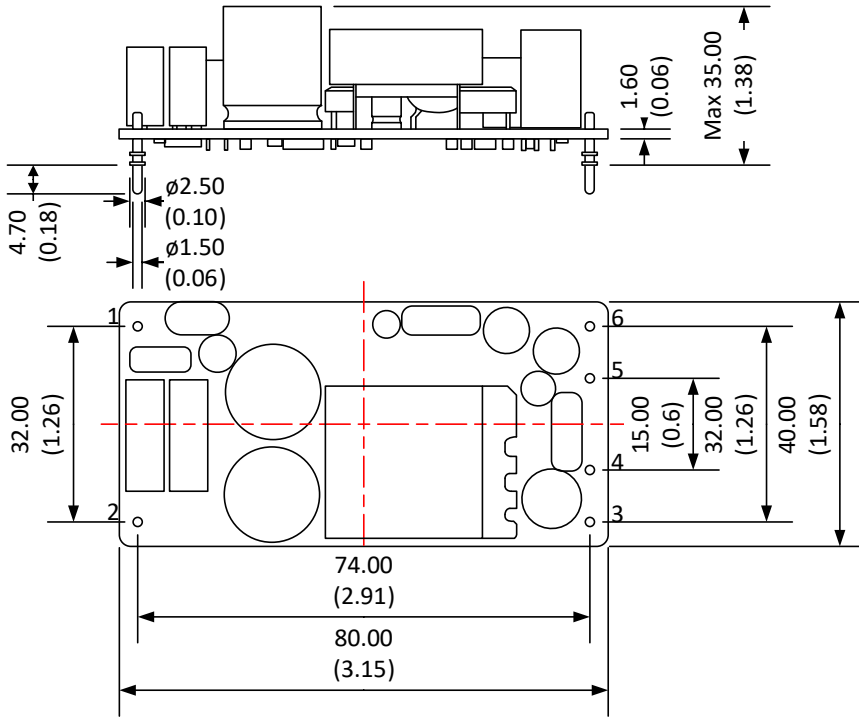
Free Air Convection



Free Air Convection at 25°C



Dimensions

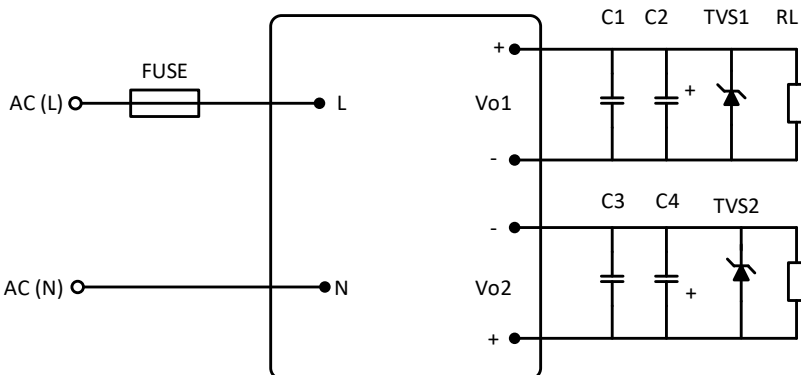


Note:
 Unit: mm(inch)
 General tolerance: ± 0.5 (± 0.02)
 Pin tolerance: ± 0.1 (± 0.004)

Pin Output Specifications

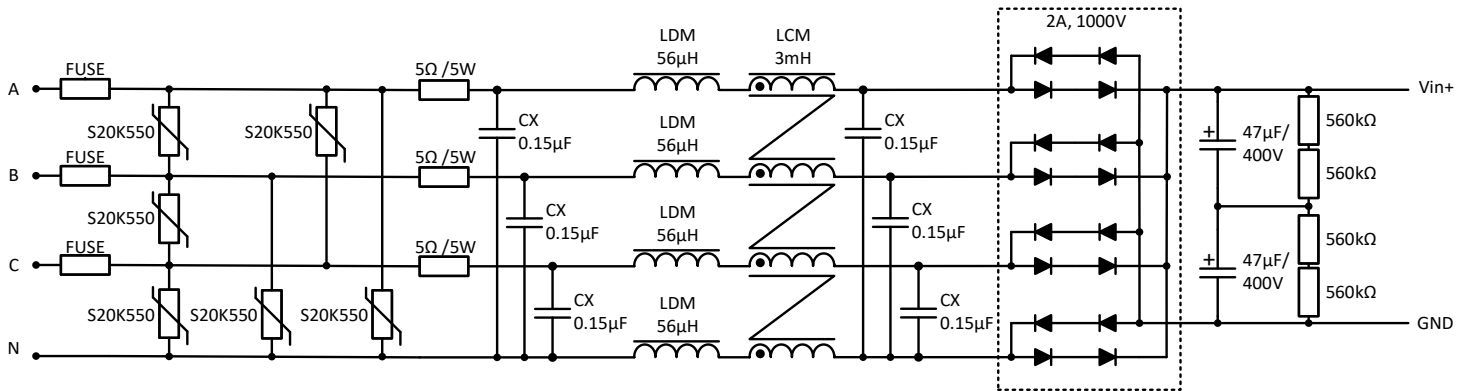
Pin	Function
1	AC Input (L)/ +V
2	AC Input (N)/ -V
3	+V Output2
4	-V Output2
5	-V Output1
6	+V Output1

Typical application circuit

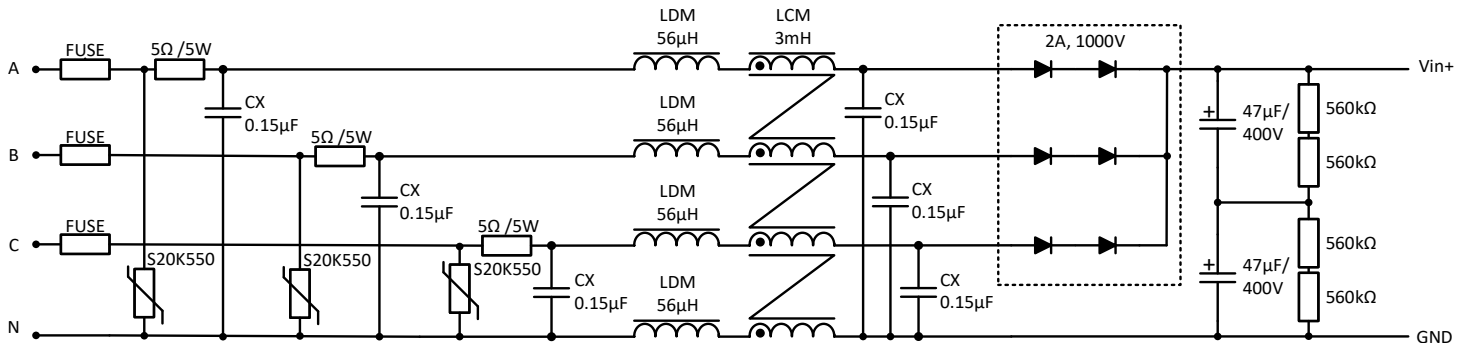


Component	Value
C1	0.1 μ F/50V (Ceramic capacitor)
C2	220 μ F/10V (Electrolytic capacitor)
C3	0.1 μ F/50V (Ceramic capacitor)
C4	100 μ F/25V (Electrolytic capacitor)
TVS1	P6KE6.8A
TVS2	P6KE15A

Recommended EMC circuit (Full-wave Rectification)



Recommended EMC circuit (Half-wave Rectification)



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