

ACO250W-xxVMU

FEATURES



- Wide input range (90-264VAC)
- Size 101.6*50.8*27mm, 4"*2"
- No load power consumption<0.5W
- Protection type: short circuit/over load/over temperature/over voltage
- 160W with Natural Convection, 250W with 12 CFM Forced Air Cooling
- Meets ANSI/AAMI ES60601-1 and IECEN 60601-1 medical safety standards
- Built-in EMI Filter: CLASS B Level
- Conducted EMI meets Class B, Radiated EMI meets Class B for Class I units (with FG) and Class A for Class II units (without FG).
- Operating temperature range -40°C to +80°C
- 4000V isolation voltage
- Built-in 12V/0.4A fan auxiliary power supply
- 100% high temperature aging and testing
- 3 years warranty

MODEL NUMBERING

ACO250W-xxVMU



SELECTION GUIDE

Product Model	Input Voltage	Rated Power (W)	Output Voltage (V)	Output Current (A) (12 CFM)
ACO250W-12VMU	90-264VAC	250	12	20.83
ACO250W-15VMU		250	15	16.67
ACO250W-24VMU		250	24	10.41
ACO250W-27VMU		250	27	9.26
ACO250W-36VMU		250	36	6.94
ACO250W-48VMU		250	48	5.2

INPUT

Parameter	Units
VOLTAGE RANGE	90-264VAC
NOMINAL VOLTAGE	100-240VAC
POWER FACTOR (TYP.)	PF>0.95/230VAC PF>0.98/115VAC at full load
CURRENT (TYP.)	2.5A/115VAC 1.3A/230VAC
INRUSH CURRENT (TYP.)	Cold boot 30A/115VAC 60A/230VAC at full load
LEAKAGE CURRENT (TYP.)	<0.75mA/230VAC/50Hz

OUTPUT

Parameter	Units	Model
VOLTAGE TOLERANCE	±1.0%	
LINE REGULATION	±1.0%	
LOAD REGULATION	±1.0%	
EFFICIENCY(TYP.)	91%	ACO250W-12VMU
	91%	ACO250W-15VMU
	92%	ACO250W-24VMU
	93%	ACO250W-27VMU
	93%	ACO250W-36VMU
	93%	ACO250W-48VMU
SETUP, RISE TIME (TYP.)	1000ms, 50ms/230VAC 1500ms, 50ms/115VAC at full load	
HOLD UP TIME (TYP.)	15ms/230VAC 5ms/115VAC at full load	
RIPPLE & NOISE (MAX.)	120 mVp-p	ACO250W-12VMU, ACO250W-15VMU
	240 mVp-p	Others
AUXILIARY POWER SUPPLY	12V @ 0.4A AUXILIARY POWER, CAN BE USED TO DRIVE A FAN	

PROTECTION

Parameter	Units		
OVER LOAD	≥110% load, recovers automatically after fault condition is removed		
SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed		
OVER VOLTAGE	Output off, recovers automatically after fault condition is removed	12VDC output	≤18VDC
		15VDC output	≤19.5VDC
		24VDC output	≤31.2VDC
		27 VDC output	≤35VDC
		36 VDC output	≤51VDC
		48 VDC output	≤62VDC
OVER TEMPERATURE	Power reduction or no output; requires power-off and discharge before restarting.		

ENVIRONMENT

Parameter	Units
WORKING TEMP.	-40°C to +80°C (Refer to "Derating curve")
WORKING HUMIDITY	10-85%RH
STORAGE TEMP. HUMIDITY	-40°C to +85°C
TEMP. COEFFICIENT	0.03%/ (0-50°C)
VIBRATION	10-500Hz, 2G, 10min./1cycle, 60min.each along X, Y, Z axes
MTBF	165K hrs min. MIL-HDBK-217F (25°C)

SAFETY & EMC

Parameter	Units
SAFETY STANDARDS	EN/EN62368-1, IEC62368-1
ISOLATION GRADE	Primary-Secondary: 2xMOPP Primary-Ground: 1xMOPP Secondary-Ground: 1xMOPP
ISOLATION VOLTAGE	I/P-O/P : 4.0kVAC I/P-FG(CASE) : 2.5kVAC O/P-FG(CASE) : 0.5kVAC

Parameter	Units
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG : >100M Ohms/500VDC 25°C 70% RH
EMC EMISSION & IMMUNITY	EN55011, EN55032 (CISPR32)

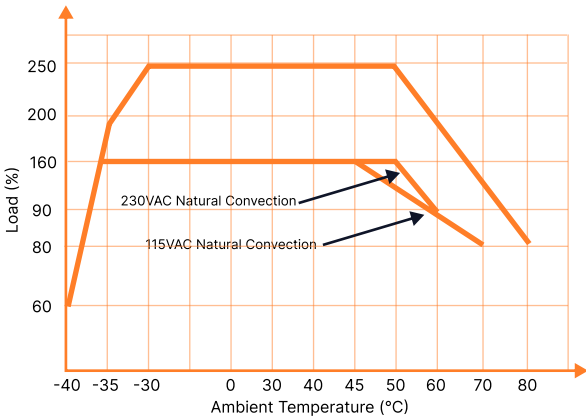
EMC CHARACTERISTICS

Parameter	Category	Content	
EMI	CE	CISPR11/EN55011	CLASS B
	RE	CISPR11/EN55011	CLASS A (FOR CLASS II) CLASS B (FOR CLASS I)
EMC	ESD	EN61000-4-2	CLASS A LEVEL 4 CONTACT 8KV/AIR 15KV
	Radiated RF Immunity	EN61000-4-3	LEVEL 3 10V/m
	EFT	EN61000-4-4	LEVEL 3 2KV
	Surge	EN61000-4-5	LEVEL 4 LINE-LINE 2KV/LINE-FG 4KV
	Conducted RF Immunity	IEC/EN61000-4-3	LEVEL 3 10V
	Magnetic Field Immunity	IEC/EN61000-4-6	LEVEL 4 30A/m
	Voltage Dips & Interruptions	EN61000-4-11	
	Harmonic Current	EN61000-3-2	CLASS A
	Voltage Flicker	EN61000-3-3	

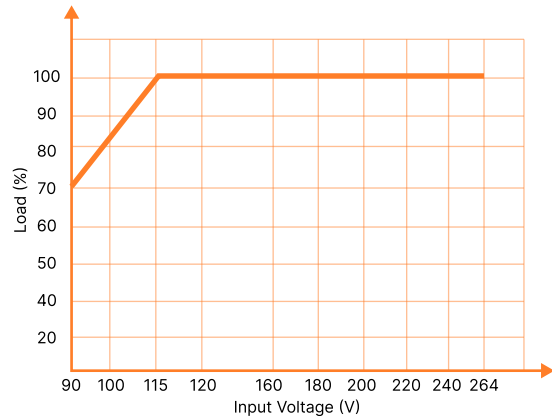
DIMENSION, WEIGHT & PACKING

Parameter	Units
DIMENSION (LxWxH)	101.6 × 50.8 × 32 mm
CARTON	360 × 300 × 250 mm
WEIGHT	142g
PACKAGE	8 PCS/Box 12 Box/Carton

PRODUCT CHARACTERISTIC CURVE

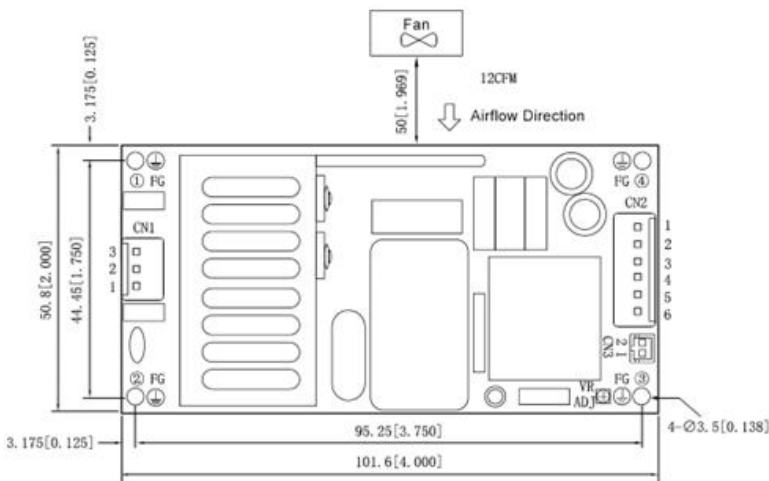


Temperature Derating Curve



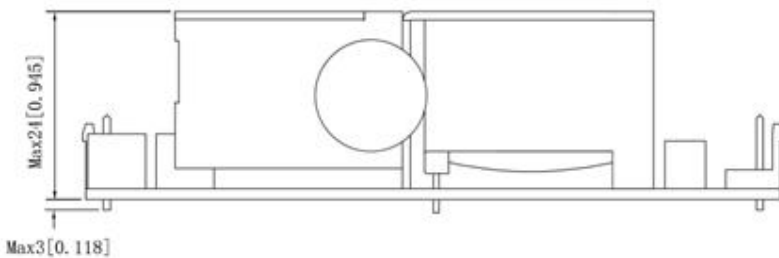
Input Voltage Derating Curve

DIMENSIONS AND INSTALLATION

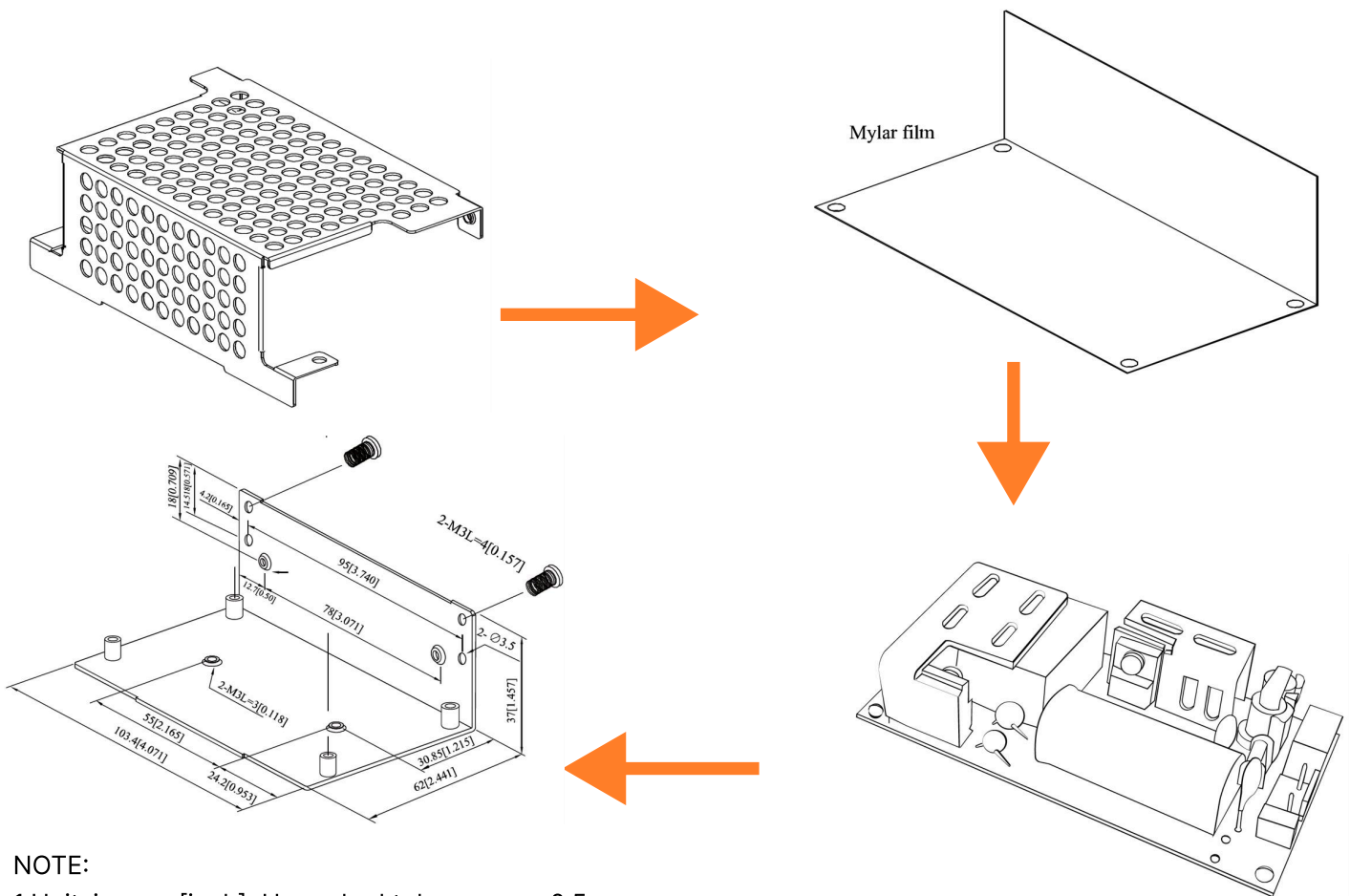


Connector	Pin	Function
CN1	1	AC(N)
	2	No Pin
	3	AC(L)
CN2	1-3	+Vo
	4-6	-Vo
CN3	1	+12V
	2	COM

Installation Location	Screw Specification	L (Suggestion)	Toeque (max)
① - ④	M3	6mm	0.4Nm



Note:
Unit size: mm[inch] Unmarked tolerances: ±0.5mm



NOTE:

1. Units size: mm[inch] Unmarked tolerances: ± 0.5 mm
2. CLASS I system: Mounting holes marked with \perp must be connected to safety earth
3. CLASS II system: Unnecessary to connect with safety earth

NOTE

1. If the product works under the minimum required load, it cannot guarantee that the performance of the product complies with all the performance indicators in this manual;
2. The maximum capacitive load is tested under the input voltage range and full load condition;
3. Unless otherwise stated, all indexes in this manual are measured at $T_a=25^\circ\text{C}$, humidity $<75\%RH$, nominal input voltage and rated output load;
4. All index testing methods in this manual are based on the enterprise standards of the company;
5. Our company can provide product customization, specific needs can directly contact our technical staff;
6. RHENXV reserves the right to make changes to the product at any time without notice.