

ACO350W-xxV



FEATURES

- Wide input range (90-264VAC)
- Size 127*76.2*38mm, 5"*3"
- No load power consumption<0.3W
- Protection type: short circuit/over temperature/over load/over voltage
- Air cooling 250W, 23CFM cooling 350W
- 4000V isolation voltage
- Built-in EMI filter: CLASS B
- Suitable for CLASS I or CLASS II installations
- Built-in 12V/0.5A fan auxiliary power supply
- 100% high temperature burn-in and function test
- 3 years warranty



MODEL NUMBERING

ACO350W-xxV

Series Name
Rated Wattage Output Voltage

SELECTION GUIDE

Product Model	Input Voltage	Rated Power (W)	Out Voltage (V)	Out Current (A)
ACO350W-12V	90-264VAC	350	12	29.1
ACO350W-15V		350	15	23.3
ACO350W-24V		350	24	14.58
ACO350W-27V		350	27	12.96
ACO350W-36V		350	36	9.72
ACO350W-48V		350	48	7.29

INPUT CHARACTERISTICS

Parameter	Units
VOLTAGE RANGE	90-264VAC
POWER FACTOR (TYP.)	PF>0.95/230VAC PF>0.98/115VAC at full load
CURRENT (TYP.)	3.8A/115VAC 1.85A/230VAC
INRUSH CURRENT (TYP.)	Cold boot 30A/115VAC 60A/230VAC
LEAKAGE CURRENT (TYP.)	<0.75mA/230VAC/60Hz

OUTPUT CHARACTERISTICS

Parameter	Units	Model
VOLTAGE TOLERANCE	±1.0%	
LINE REGULATION	±1.0%	
LOAD REGULATION	±1.0%	
EFFICIENCY(TYP.)	91%	ACO350W-12V
	92%	ACO350W-15V
	93%	ACO350W-24V
	93%	ACO350W-27V
	93%	ACO350W-36V
	94%	ACO350W-48V
SETUP, RISE TIME (TYP.)	1000ms, 50ms/230VAC 2000ms,60ms/115VAC at full load	
HOLD UP TIME (TYP.)	10ms/230VAC 10ms/115VAC at full load	
RIPPLE & NOISE (MAX.)	120 mVp-p	ACO350W-24V, ACO350W-27V
	150 mVp-p	ACO350W-12V, 15V, 36V, 48V
AUXILIARY POWER SUPPLY	12V @ 0.5A Auxiliary power supply for fan drive	

PROTECTION CHARACTERISTICS

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	Shut-off output	12VDC output	≤16VDC
		15VDC output	≤18.5VDC
		24VDC output	≤30VDC
		27 VDC output	≤33.5VDC
		36 VDC output	≤45VDC
		48 VDC output	≤59.5VDC
OVER TEMPERATURE	Shut-off output, normal output can be restored after power restart		

ENVIRONMENT CHARACTERISTICS

Parameter	Units
WORKING TEMP.	-30°C to +70°C (Refer to "Derating curve")
WORKING HUMIDITY	10-85%RH
STORAGE TEMP. HUMIDITY	-40°C to +105°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

Parameter	Units
SAFETY STANDARDS	EN/IEC62368-1
ISOLATION VOLTAGE	I/P-O/P: 4000VAC I/P-FG(CASE): 2500VAC O/P-FG(CASE): 500VAC
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms/500VDC 25°C 70% RH

Parameter	Units
EMC EMISSION & IMMUNITY	EN55011, EN55032 (CISPR32) CLASS B

EMC CHARACTERISTICS

Parameter	Category	Content
EMC	ESD	IEC/EN 61000-4-2 level 4 Contact $\pm 8\text{kV}$ /Air $\pm 15\text{kV}$
	RF	IEC/EN 61000-4-3 level 4 lev3
	EFT	IEC/EN 61000-4-4 level 4 4kV
	Surge	IEC/EN 61000-4-5 level 4 line to line 2kV/line to ground 4kV

DIMENSION, WEIGHT & PACKING

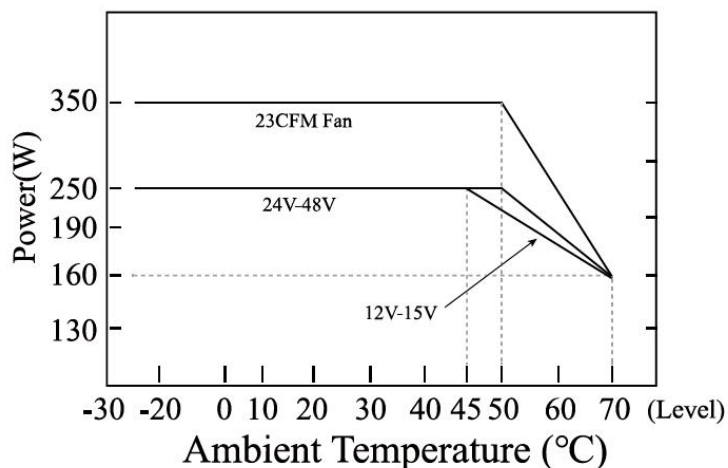
Parameter	Units
DIMENSION (LxWxH)	127 × 76.2 × 38 mm
WEIGHT	342g
PACKAGE	24 PCS/Carton
CARTON SIZE	360 × 300 × 250mm

NOTE

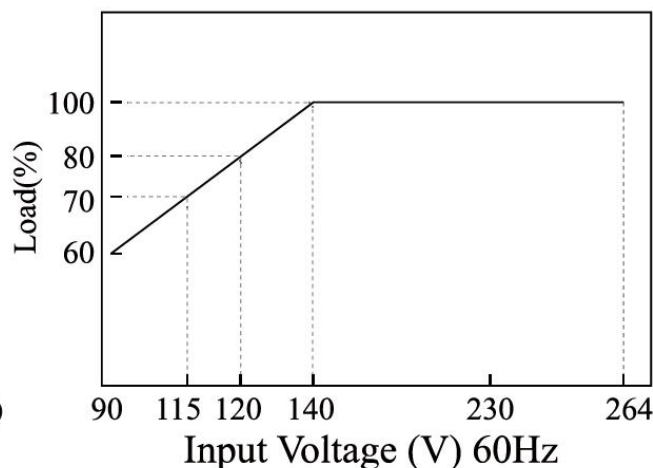
1. All parameters not specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives.

PRODUCT CHARACTERISTIC CURVE

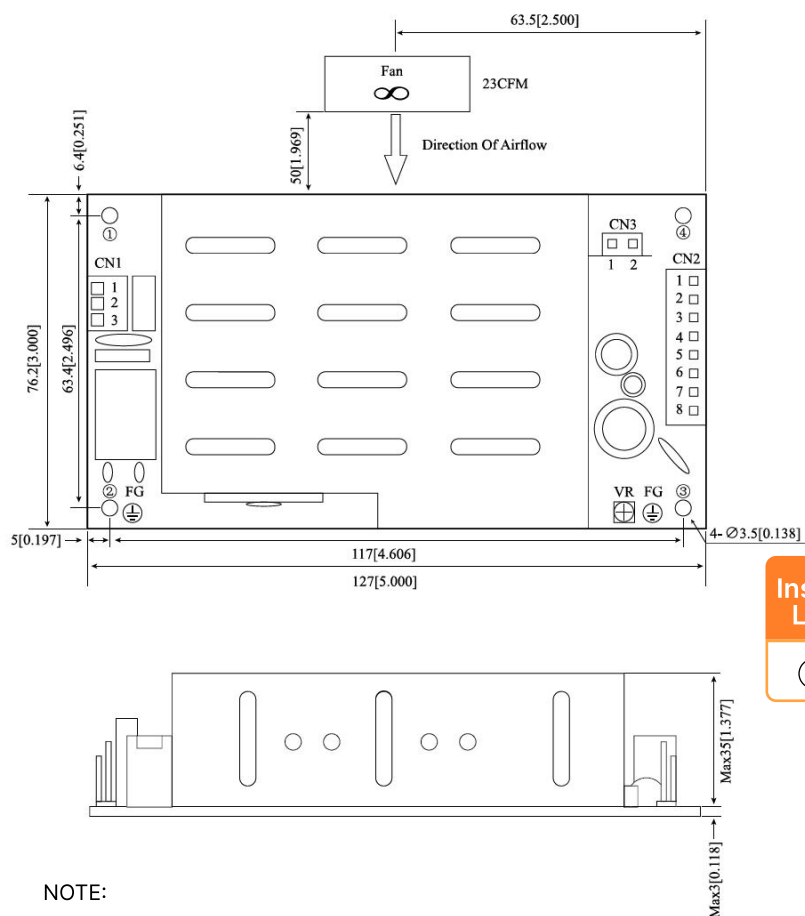
Temperature Derating Curve



Input Voltage Derating Curve



DIMENSIONS AND INSTALLATION

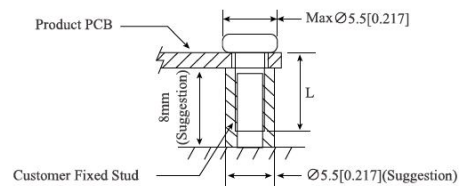


NOTE:

- Unit size: mm[inch] Unmarked tolerances: $\pm 0.5\text{mm}$
- CLASS I system: Mounting holes marked with $\perp$ must be connected to safety earth
- CLASS II system: Unnecessary to connect with safety earth

Connector	Pin	Function	
CN1	1	AC(N)	Connector: JST VHR Connector Terminals: JST SVH-21T-P1.1 Or Equivalent Products
	2	NC	
	3	AC(L)	
CN2	1-4	+Vo	Connector: JST VHR Connector Terminals: JST SVH-21T-P1.1 Or Equivalent Products
	5-8	-Vo	
CN3	1	+12V	Connector: kangdao 2.5XHS-2Y Connector Terminals: Kangdao -2.5XH-TE or Equivalent Products
	2	COM	

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



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 $<75\%\text{RH}$, 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.