

Features:

1. Wide input range (90-264VAC)
2. Size 127*76.2*38mm, 5"*3"
3. No-load power consumption<0.5W
4. Protection type: short circuit/over temperature/over load/over voltage
5. Air cooling 320W, 25CFM cooling 500W
6. 3000V isolation voltage
7. Built-in EMI filter: CLASS B
8. Suitable for CLASS I or CLASS II installations
9. Built-in 12V/0.5A fan auxiliary power supply
10. 100% high temperature aging and testing
11. 3 years warranty



3 years
Warranty

Selection Guide

Model	Input Voltage	Rated Power (W)	Output Voltage (V)	Voltage Adjustable Range (V)	Output Current (A)	Ripple & Noise (mVp-p)	Efficiency (%)
ADF-500-12	90-264VAC	500	12	11.2-13.5	41.6	100	93
ADF-500-13		500	13.8	13-14.5	36.2	100	93
ADF-500-15		500	15	14.3-15.8	33.3	100	93
ADF-500-24		500	24	22.8-26	20.9	120	94
ADF-500-27		500	27	26.9-29.3	18.5	120	94
ADF-500-36		500	36	33.3-37.8	13.9	150	95
ADF-500-48		500	48	46.6-52.8	10.4	150	95
ADF-500-54		500	54	51.2-57.8	9.3	150	95

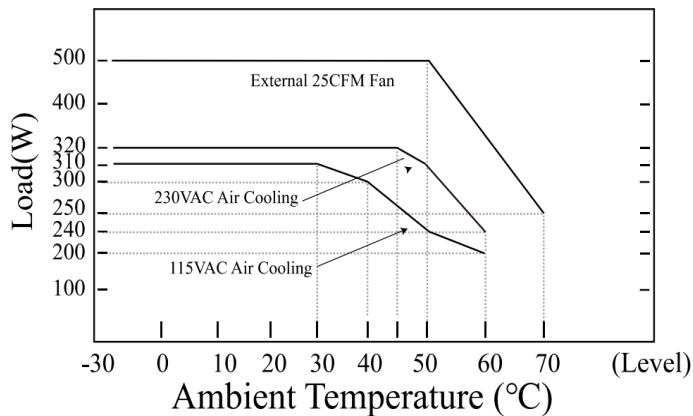
Specifications

OUTPUT	Voltage Tolerance	±2.0%							
	Line Regulation	±1.0%							
	Load Regulation	±1.0%							
	Setup, Rise Time (Typ.)	1000ms, 50ms/230VAC 2000ms, 60ms/115VAC at full load							
	Hold Up Time (Typ.)	12ms/230VAC 12ms/115VAC at full load							
INPUT	Voltage Range	90-264VAC							
	Power Factor (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load							
	Current (Typ.)	5.2A/115VAC 2.9A/230VAC							
	Inrush Current (Typ.)	Cold boot 30A/115VAC 60A/230VAC							
	Leakage Current (Typ.)	<0.75mA/230VAC/60Hz							
PROTECTION	Over Load	160%-180% load, self-recovery after troubleshooting							
	Short Circuit	Hiccup mode, self-recovery after troubleshooting							
	Over Temperature	Shut-off output, normal output can be restored after power restart							
	Over Voltage	Shut-off output, normal output can be restored after power restart							
		Voltage	12VDC	15VDC	24VDC	27VDC	36VDC	48VDC	54VDC
		Range	≤15.6V	≤19.5V	≤36V	≤35.1V	≤46.8V	≤60.0V	≤63.0V
FUNCTION	Auxiliary Power Supply	12V@0.5A Auxiliary power supply for fan drive							
ENVIRONMENT	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							
SAFETY & EMC (NOTE 3.)	Safety Standards	Meet to UL62368-1, EN/EN62368-1, IEC62368-1							
	Isolation Voltage	I/P-O/P: 3000VAC I/P-FG(CASE): 1500VAC O/P-FG(CASE): 500VAC							
	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) CLASS B							
	ESD	IEC/EN 61000-4-2 level 4 Contact ±8kV/Air ±15kV							
	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							

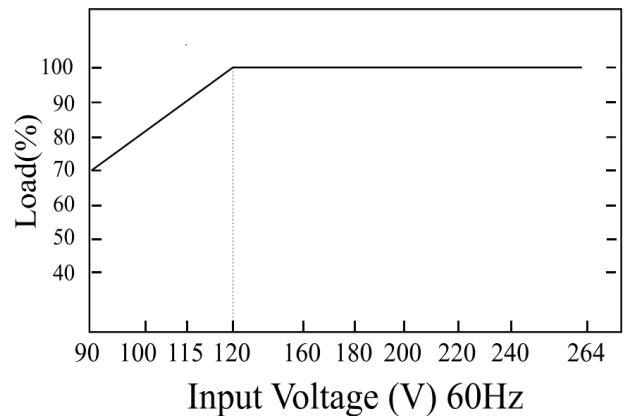
OTHERS	MTBF	165K hrs min. MIL-HDBK-217F (25°C)
	Dimension	127*76.2*38mm (L*W*H)
	Weight	344g
	Package	24 PCS/Carton
	Carton Size	360*300*250mm
NOTE	1. All parameters not specially mentioned, are measured when TA=25°C, humidity<75%, input nominal voltage and output rated load.	
	2. Measurement method of ripple & noise: Parallel line test method shall be adopted. Meanwhile, 0.1uF high-frequency ceramic capacitor and one 47uF electrolytic capacitor shall be connected in parallel at the terminal for measurement under 20Mhz bandwidth.	
	3. The power supply is regarded as a component in the system, and electromagnetic compatibility shall be confirmed in combination with the terminal equipment.	

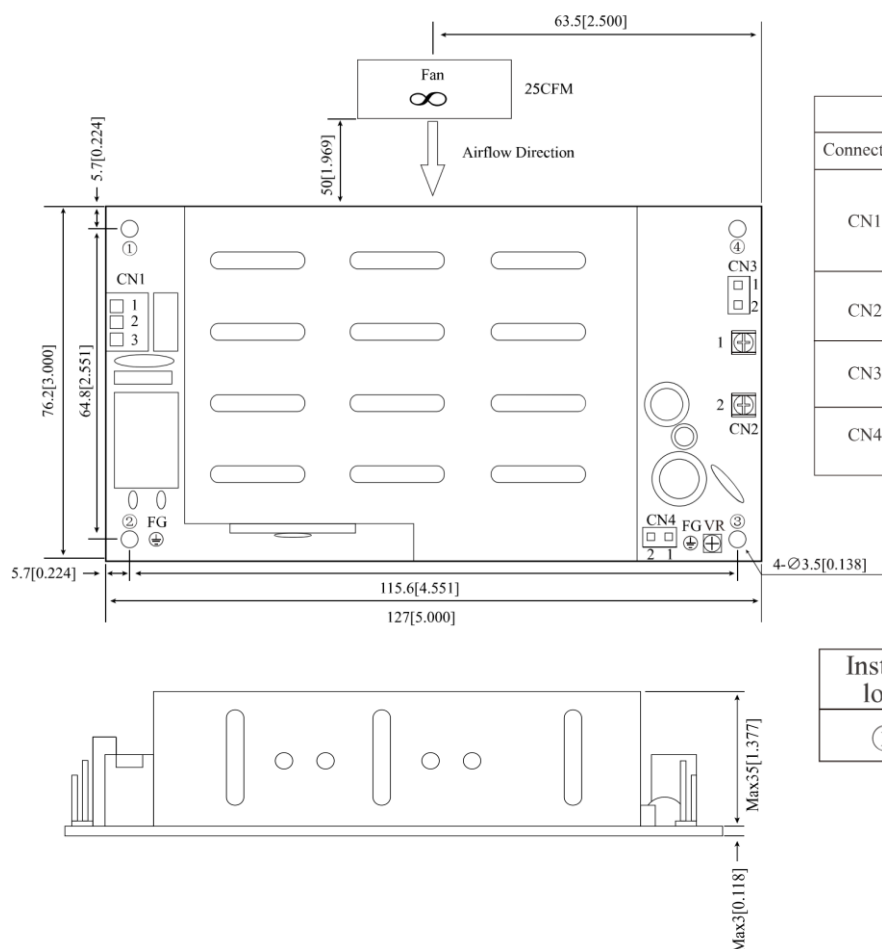
Typical Characteristics Curve

Temperature Derating Curve



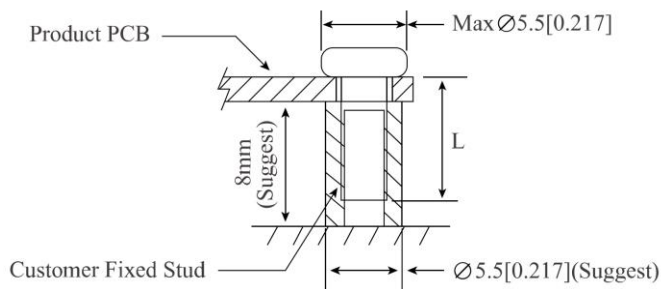
Input Voltage Derating Curve





Pin Method			
Connector	Pin	Function	Customer Connection End
CN1	1	AC(L)	Connector: JST VHR Connector Terminals: JST SVH-21T-P1.1 Or Equivalent Products
	2	No Pin	
	3	AC(N)	
CN2	1	+Vo	Wire
	2	-Vo	
CN3	1	+12V	Connector: TKP DH2-4P Or HRSDF11-4DS-2C Or Equivalent Terminal: TKP DHT Or HRSDF11-22SC Or Equivalent
	2	COM	
CN4	1	RS-	Connector: TKP DH2-4P Or HRSDF11-4DS-2C Or Equivalent Terminal: TKP DHT Or HRSDF11-22SC Or Equivalent
	2	RS+	

Installation location	Screw Specifications	L (Suggest)	Torque (max)
①-④	M3	6mm	0.4N·m



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

Notes:

- 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;
- The maximum capacitive load is tested under the input voltage range and full load condition;
- 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;
- All index testing methods in this manual are based on the enterprise standards of the company;
- Our company can provide product customization, specific needs can directly contact our technical staff;
- AMCHARD reserves the right to make changes to the product at any time without notice.