

## Features:

1. Wide input range (90-264VAC)
2. Size 127\*76.2\*39mm, 5"\*3"
3. No load power consumption<0.6W
4. Protection type: short circuit/over temperature/over load/over voltage
5. Air cooling 250W, 25CFM cooling 420W
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 burn-in and function test
11. 3 years warranty



3 years  
Warranty

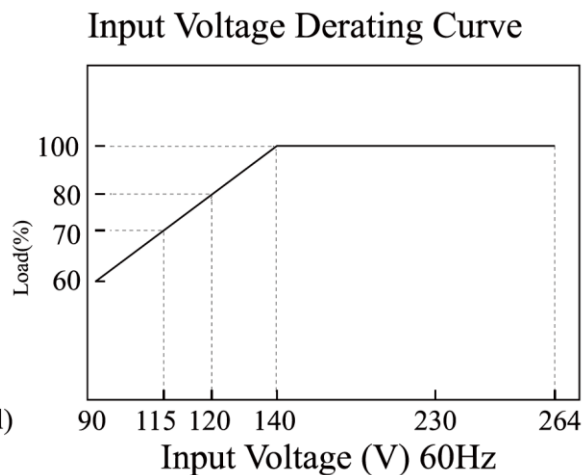
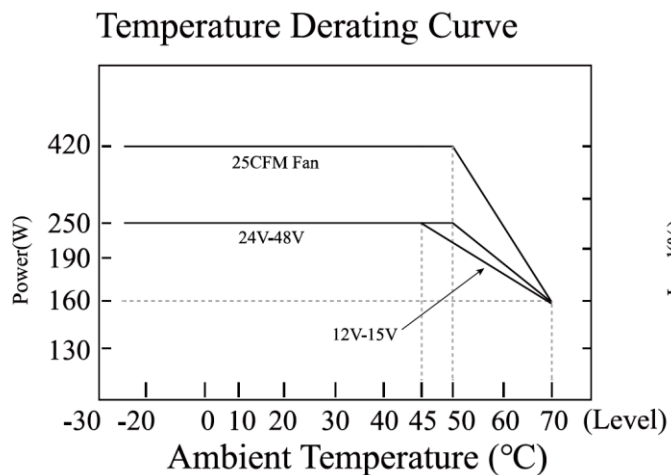
## Selection Guide

Model	Input Voltage	Rated Power (W)	Output Voltage (V)	Voltage Adjustable Range (V)	Output Current (A)	Ripple & Noise (mVp-p)	Efficiency (%)
ADF-420-12	90-264VAC	400	12	11.5-13.2	33.3	100	91.5
ADF-420-15		400	15	14.3-15.8	26.7	100	92
ADF-420-24		420	24	22.8-25.2	17.5	240	93
ADF-420-27		420	27	25.6-28.4	15.5	240	93
ADF-420-29		420	29	27.5-30	14.5	240	91
ADF-420-36		420	36	33.8-38.0	11.6	240	93
ADF-420-48		420	48	47.3-53.2	8.7	240	94
ADF-420-54		420	54	51.2-57.8	7.7	240	94

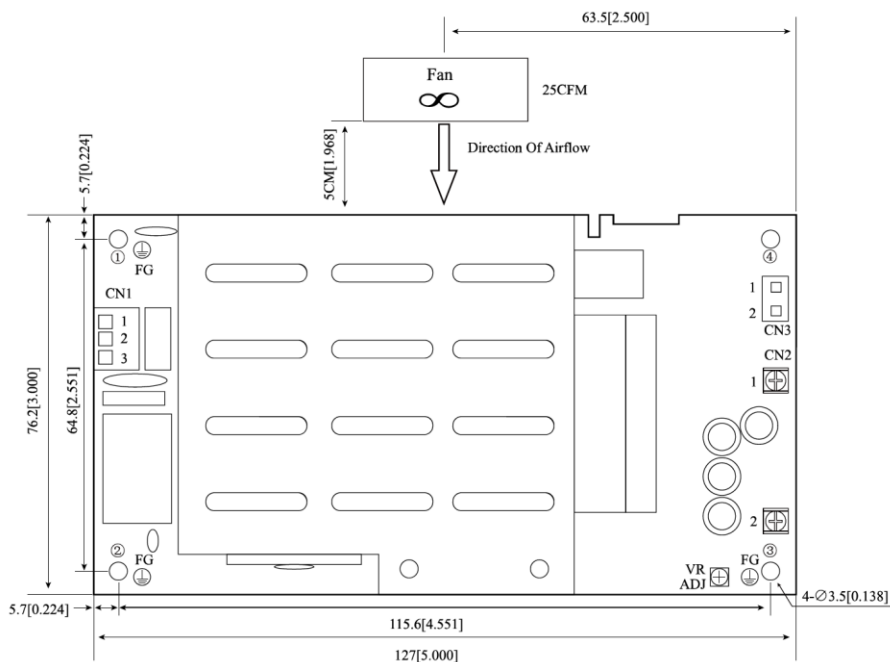
OUTPUT	Voltage Tolerance	±1.0%							
	Line Regulation	±1.0%							
	Load Regulation	±1.0%							
	Setup, Rise Time (Typ.)	1000ms, 50ms/230VAC 2000ms, 60ms/115VAC at full load							
	Hold Up Time (Typ.)	12ms/230VAC 5ms/115VAC at full load							
INPUT	Voltage Range	90-264VAC							
	Power Factor (Typ.)	PF>0.95/230VAC PF>0.98/115VAC at full load							
	Current (Typ.)	4.6A/115VAC 2.1A/230VAC							
	Inrush Current (Typ.)	Cold boot 30A/115VAC 60A/230VAC							
	Leakage Current (Typ.)	<0.75mA/230VAC/60Hz							
PROTECTION	Over Load	≥110% load, recovers automatically after fault condition is removed							
	Short Circuit	Hiccup mode, recovers automatically after fault condition is removed							
	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	≤60V	≤63V
FUNCTION	Auxiliary Power Supply	<a href="#">12V@0.5A</a> 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	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*39mm (L*W*H)
	Weight	344g
	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.	

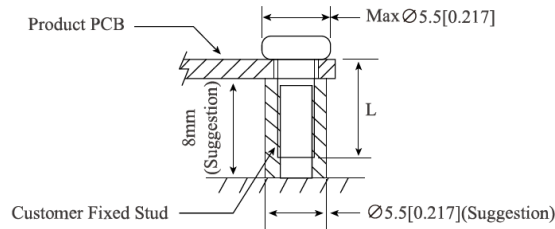
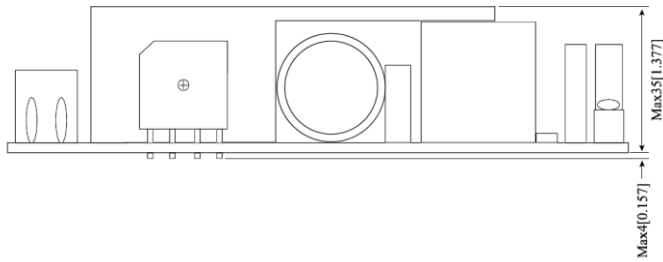
### Typical Characteristics Curve



### Mechanical Specification



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	M3.5 Pan HD Screw In 2 Positions Torque To 8 Lbs-In(90cNm)max.
	2	-Vo	
CN3	1	+12V	Connector: TKP DH2 Connector Terminal: TKP Or Equivalent Products
	2	COM	



Installation location	Screw Specifications	L (Suggestion)	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.

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