

### Features:

1. Wide input range (90-264VAC)
2. Size 101.6\*50.8\*27mm, 4"\*2"
3. No load power consumption < 0.5W
4. Protection type: short circuit/over load/over temperature/over voltage
5. 160W with Natural Convection, 250W with 12 CFM Forced Air Cooling
6. Complies with ANSI/AAMI ES60601-1 and IEC/BS EN/EN 60601-1 medical safety certifications (2 x MOPP)
7. Built-in EMI Filter: CLASS B Level
8. 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).
9. Operating temperature range -40°C to +80°C
10. 4000V isolation voltage
11. Built-in 12V/0.4A fan auxiliary power supply
12. 100% high temperature aging and testing
13. 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-250-12MU	90-264VAC	250	12	11.7-12.4	20.83	120	91
ADF-250-15MU		250	15	14.3-15.8	16.67	120	91
ADF-250-24MU		250	24	22.9-24.8	10.41	240	92
ADF-250-27MU		250	27	26.5-27.8	9.26	240	93
ADF-250-36MU		250	36	33.5-38	6.94	240	93
ADF-250-48MU		250	48	45.2-53.5	5.2	240	93

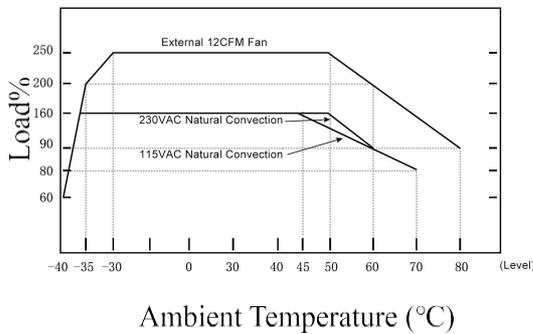
## Specifications

OUTPUT	Voltage Tolerance	±1.0%						
	Line Regulation	±1.0%						
	Load Regulation	±1.0%						
	Setup, Rise Time (Typ.)	1000ms, 50ms/230VAC 1500ms, 50ms/115VAC at full load						
	Hold Up Time (Typ.)	15ms/230VAC 5ms/115VAC at full load						
INPUT	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.)	G<0.75mA/230VAC/60Hz						
PROTECTION	Over Load	≥110% load, self-recovery after troubleshooting						
	Short Circuit	Hiccup mode, self-recovery after troubleshooting						
	Over Temperature	Power reduction or no output; requires power-off and discharge before restarting.						
	Over Voltage	Output off, Automatic recovery upon fault removal						
Voltage		12VDC	15VDC	24VDC	27VDC	36VDC	48VDC	
	Range	≤18V	≤19.5V	≤31.2V	≤35V	≤51V	≤62V	
Function	Auxiliary power supply	12V @ 0.4A auxiliary power, can be used to drive a fan						
ENVIRONMENT	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						
SAFETY & EMC (NOTE 3.)	Safety Standards	UL62368-1, 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						
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms/500VDC 25°C 70% RH						
	CE	BS EN/EN55011 (CISPR11) CLASS B						
	RE	BS EN/EN55011 (CISPR11) CLASS A(FOR CLASS II) CLASS B(FOR CLASS I)						
	Harmonic Current	BS EN/EN61000-3-2 CLASS A						
	Voltage Flicker	BS EN/EN61000-3-3						
	ESD	BS EN/EN61000-4-2 CLASS A level 4 Contact 8kV/Air 15kV						
	Radiated RF Immunity	BS EN/EN61000-4-3 level 3 10V/m						
	EFT	BS EN/EN61000-4-4 level 3 2kV						
	Surge	BS EN/EN61000-4-5 level 4 line-line 2kV/line-FG 4kV						
	Conducted RF Immunity	BS EN/EN61000-4-6 level 3 10V						
	Magnetic Field Immunity	BS EN/EN61000-4-8 level 4 30A/m						
Voltage Dips & Interruptions	BS EN/EN61000-4-11							

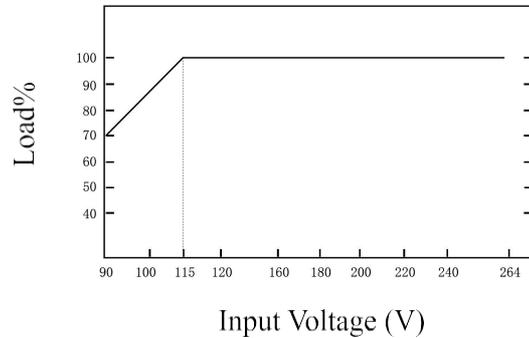
OTHERS	MTBF	165K hrs min. MIL-HDBK-217F (25°C)
	Dimension	101.6*50.8*32mm (L*W*H)
	Weight	142g
	Package	8 PCS/Box 12 Box/Carton
	Carton Size	360*300*250mm
Note	1, All parameters not specially mentioned, are measured when TA=25°C, humidity<75%, input nominal voltage and output rated load.	
	2, Measurement 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.	
	The power supply is regarded as a component in the system, and electromagnetic compatibility shall be confirmed in combination with the terminal equipment.	

### Derating Curve

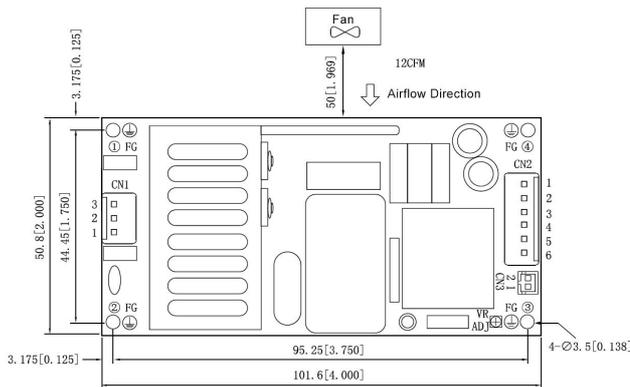
Temperature Derating Curve



Input Voltage Derating Curve

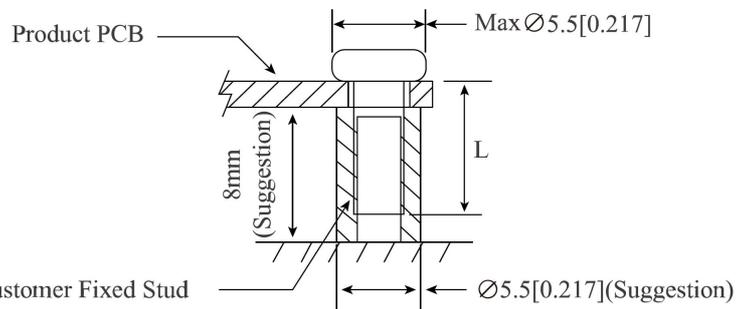
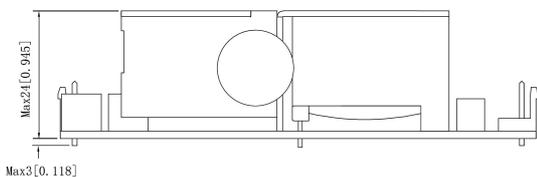


### Mechanical Specification



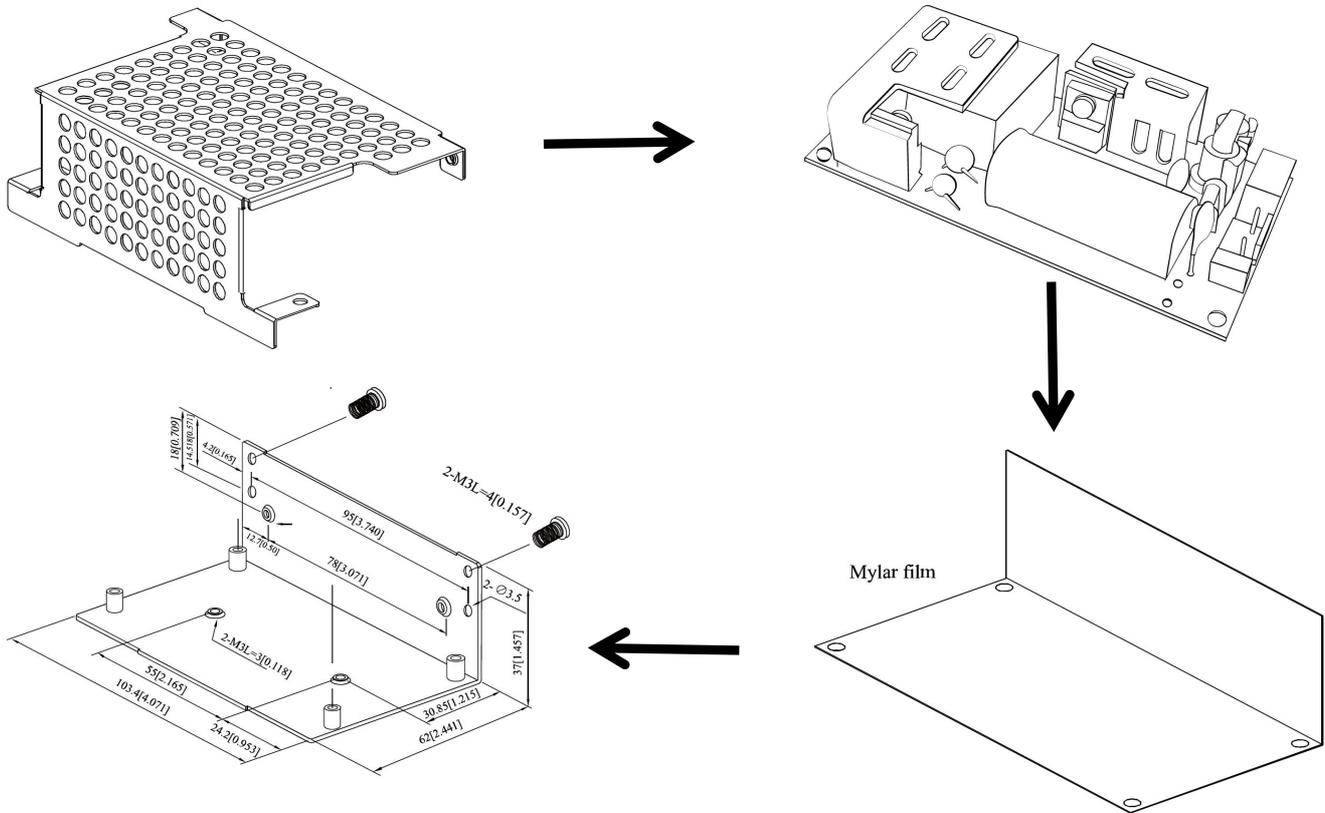
Pin Method			
Connector	Pin	Function	Customer Connection End
CN1	1	AC(N)	Connector: JST VHR Connector Terminals: JST SVH-21T-P1.1 Or Equivalent Products
	2	No Pin	
	3	AC(L)	
CN2	1-3	+Vo	Connector: JST VHR Connector Terminals: JST SVH-21T-P1.1 Or Equivalent Products
	4-6	-Vo	
CN3	1	+12V	Connector: JST VHR Connector Terminals: JST SVH-21T-P1.1 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: ±0.5mm

Enclosure type (C) package size



**NOTE:**

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

**Notes:**

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. AMCHARD reserves the right to make changes to the product at any time without notice.

**GUANGZHOU AMCHARD-POWER TECHNOLOGY CO., LTD.**

www.amchard-power.com

Mail:info@amchard-power.com