

Features:

- 1) Wide Voltage Input (90-264VAC)
- 2) Dimensions: 101.6 * 50.8 * 30mm
- 3) No-load power consumption is <0.5W
- 4) Protection type: overload / short circuit / overtemperature / overvoltage
- 5) Natural air cooling, 160W; 12 CFM forced air cooling, 250W
- 6) The 3KV isolation voltage
- 7) Built-in EMI filter: CLASS B grade
- 8) Active PFC function
- 9) Built-in 12V/0.4A fan auxiliary power supply
- 10) 100% high temperature aging and testing



3 years
Warranty

Selection Guide

Item	Vin	Output power (W)	Output voltage (V)	Voltage-adjustable range (V)	I out (A)	Ripple & noise (m Vp-p)	Efficiency (%)
ADF-250-12	90-264VAC	250	12	11.7-12.4	20.83	120	91
ADF-250-15		250	15	14.3-15.8	16.67	120	91
ADF-250-24		250	24	22.9-24.8	10.41	240	92
ADF-250-27		250	27	26.5-27.8	9.26	240	93
ADF-250-36		250	36	33.5-38	6.94	240	93
ADF-250-48		250	48	45.2-53.5	5.20	240	93

Output Specification

Voltage accuracy	±1.0%
Linear regulation rate	±1.0%
Load regulation rate	±1.0%
Start, rise time (typical value)	1000ms, 50ms / 230VAC; 1500ms, 50ms / 115VAC full load
Hold time (typical value)	15ms / 230VAC 5ms / 115VAC is full load

Input Specification

Voltage range	90-264VAC
Nominal voltage	100-240VAC, 2.5A, 50/60Hz
Power factor (typical value)	PF>0.95/230VAC PF>0.98/115VAC Full-load
Current (typical value)	2.5A/115VAC 1.3A/230VAC
Impact current (typical value)	Cold start at 30A / 115VAC 60A / 230VAC
Leakage current (typical value)	< 0.75mA / 230VAC/60Hz

Protection & Function

Overload protection	≥110% load, which can be recovered from itself after trouble shooting						
Short-circuit protection	Protection mode: hiccup mode, the load abnormal condition is removed, and it can be restored after trouble shooting						
Overtemperature protection	Protection mode: output off, product can resume normal operation after cooling						
Over voltage protection	Protection mode: turn off the output, and it can be restored by itself after troubleshooting						
	Item	ADF-250-12	ADF-250-15	ADF-250-24	ADF-250-27	ADF-250-36	ADF-250-48
	Over Voltage protection point	≤18V	≤19.5V	≤31.2V	≤35V	≤51V	≤62V
Accessory power supply	12V@0.4A Auxiliary power supply, which can be used to drive the fan						

Working Environment

Working temperature	-40°C to + 80°C (refer to the derating curve)
Working humidity	10 - 85% RH
Storage temperature	-40°C to +85°C
Temperature drift coefficient	0.03%/(0°C-50°C)
The vibration coefficient	10-500 Hz, 2G 10 mins / cycle, and 60 mins each for the X, Y, and Z axes

EMC Specification

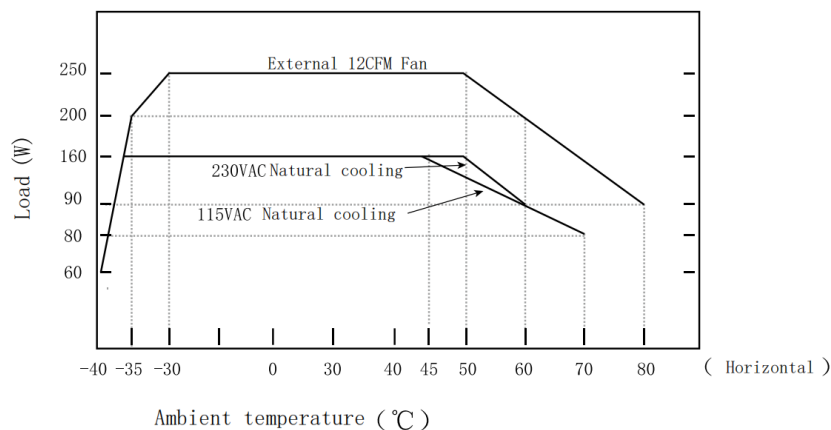
Safety standards	meet to UL62368-1, EN/EN62368-1, IEC62368-1
Insulation voltage	I/P-O/P: 3KVAC I/P-FG(CASE): 2.5KVAC O/P-FG(CASE): 0.5KVAC
insulation resistance	I/P-O/P,I/P-FG,O/P-FG: >100M Ohms/500VDC 25°C 70% RH
Transmission and radiation	EN55011, EN55022 (CISPR32) CLASS B
Electrostatic discharge	IEC/EN 61000-4-2 level 4 Contact ±8KV/Air ±15KV
Radio frequency radiation resistance	IEC/EN 61000-4-3 level 4 level 3
Electric fast transient pulse population	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

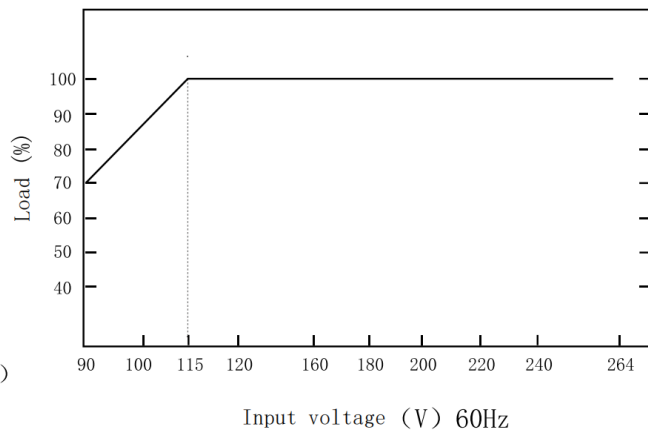
MTBF	165K hrs min. MIL-HDBK-217F(25°C)
Volume	101.6*50.8*30mm (L*W*H)
Weight	170g
Package	8pcs/ box 12 boxes /carton
Outerbox	360*300*250mm

Typical Characteristics Curve

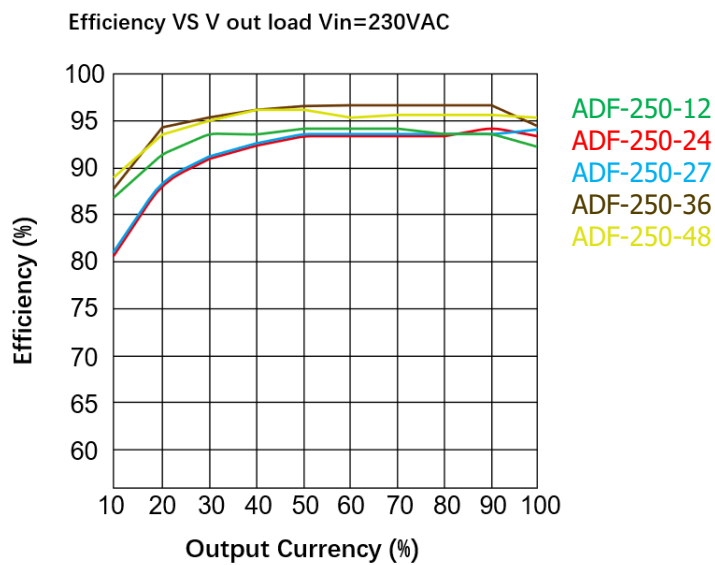
Temperature Derating Curve



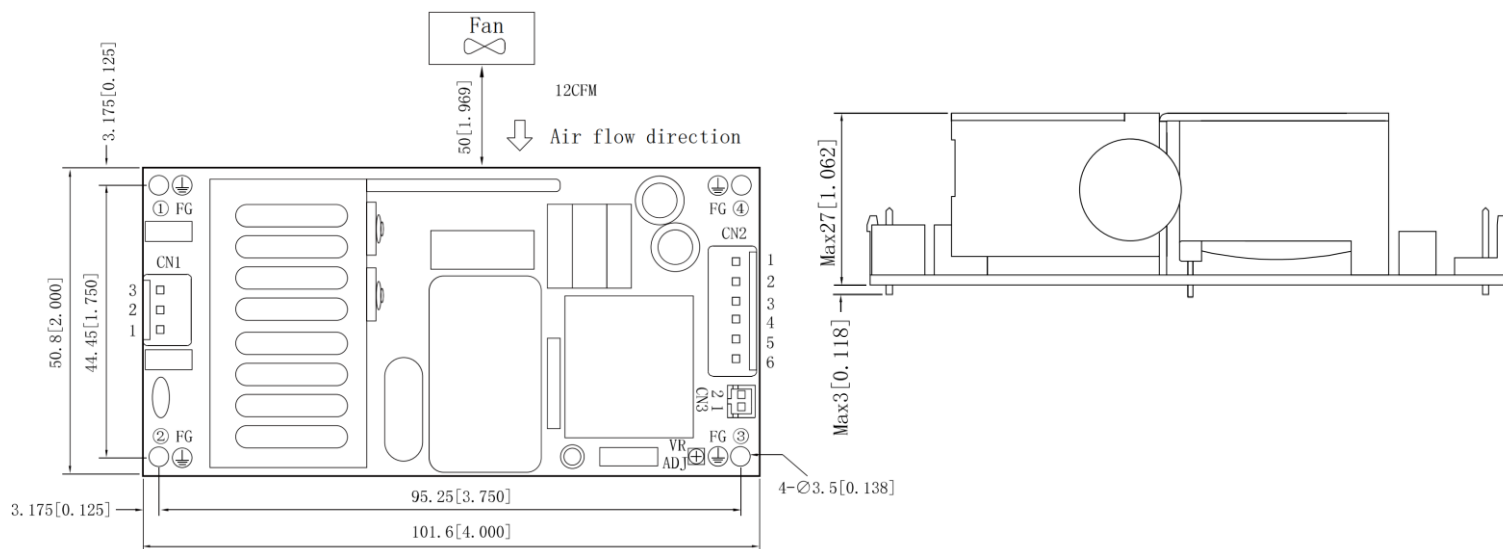
Input voltage Derating Curve



Efficiency Curve



Mechanical Specification



AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/L	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/N		

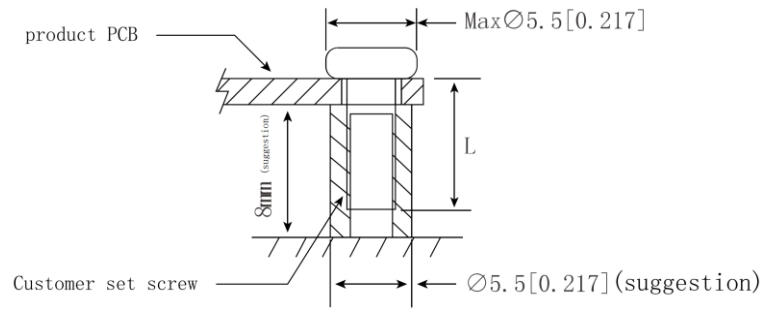
⊥ : Grounding required

DC Output Connector (CN2) : JST B6P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	+V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4,5,6	-V		

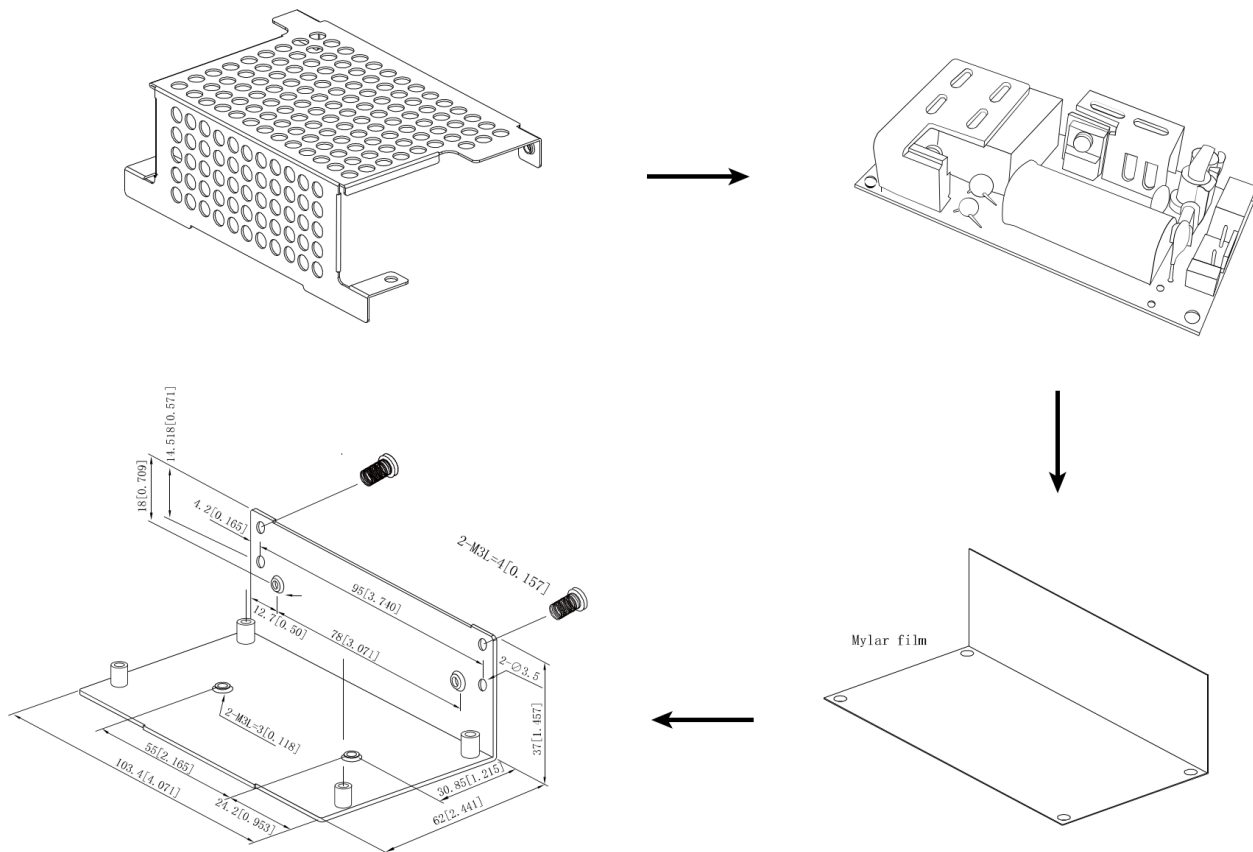
FAN Connector(CN101) : JST B2B-PH-K-S or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	+12V	JST PHR-2 or equivalent	JST SPH-002T-P0.5S or equivalent
2	DC COM		



Installation	Screw specification	L(suggest)	Twisting force(max)
①-④	M3	6mm	0.4N ·m

Enclosed type(-C)



NOTE: Unit size: mm[inch] Terminal tolerance: $\pm 0.1\text{mm}$ Unmarked tolerances: $\pm 0.5\text{mm}$

CLASS I systems: Mounting holes marked \perp must be securely connected

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