

Features

1. Wide input range (90-264VAC)
2. Size 101.6*50.8*30mm, 4"*2"
3. No-load power consumption<0.4W
4. Protection type: short circuit/over temperature/over load/over voltage
5. Air cooling 180W, 12CFM cooling 300W
6. 3000V isolation voltage
7. Built-in EMI filter: CLASS B
8. Suitable for CLASS I or CLASS II installations
9. Built-in 12V/0.4A fan auxiliary power supply
10. 100% high temperature aging and testing
11. 3 years warranty



3 years
Warranty

Selection Guide

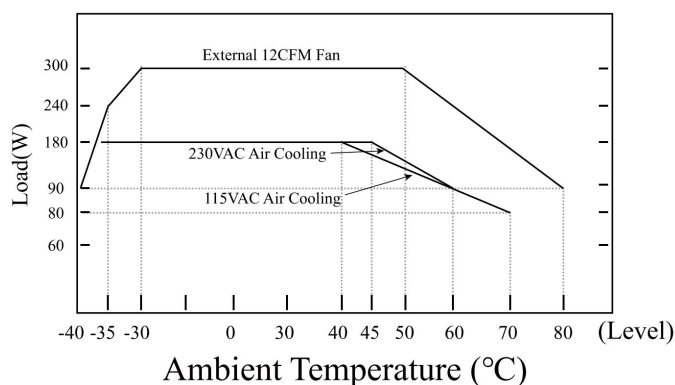
| Model | Input Voltage | Rated Power (W) | Output Voltage (V) | Voltage Adjustable Range (V) | Output Current (A) | Ripple & Noise (mVp-p) | Efficiency (%) |
|------------|---------------|-----------------|--------------------|------------------------------|--------------------|------------------------|----------------|
| ADF-300-12 | 90-264VAC | 300 | 12 | 11.7-12.4 | 25 | 120 | 91 |
| ADF-300-15 | | 300 | 15 | 14.3-15.8 | 20 | 120 | 91 |
| ADF-300-24 | | 300 | 24 | 22.9-24.8 | 12.5 | 240 | 92 |
| ADF-300-27 | | 300 | 27 | 26.5-27.8 | 11.11 | 240 | 93 |
| ADF-300-36 | | 300 | 36 | 33.5-38.0 | 8.33 | 240 | 93 |
| ADF-300-48 | | 300 | 48 | 45.2-53.5 | 6.25 | 240 | 93 |
| ADF-300-54 | | 300 | 54 | 52-58 | 5.55 | 240 | 93 |

| | | | | | | | | | |
|---------------------------|-------------------------|---|-------|--------|-------|-------|-------|-------|-------|
| 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.) | 10ms/230VAC 10ms/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.) | 3.2A/115VAC 1.5A/230VAC | | | | | | | |
| | Inrush Current (Typ.) | Cold boot 30A/115VAC 60A/230VAC | | | | | | | |
| | Leakage Current (Typ.) | <0.75mA/230VAC/60Hz | | | | | | | |
| PROTECTION | Over Load | ≥110% load, self-recovery after troubleshooting | | | | | | | |
| | Short Circuit | Hiccup mode, self-recovery after troubleshooting | | | | | | | |
| | Over Temperature | Shut-off output, normal output can be restored when temperature drops | | | | | | | |
| | Over Voltage | Shut-off output | | | | | | | |
| | | Voltage | 12VDC | 15VDC | 24VDC | 27VDC | 36VDC | 48VDC | 54VDC |
| | | Range | ≤18V | ≤19.5V | ≤37V | ≤38V | ≤51V | ≤62V | ≤67V |
| FUNCTION | Auxiliary Power Supply | 12V@0.4A Auxiliary power supply for fan drive | | | | | | | |
| 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 | Meet UL62368-1, EN/EN62368-1, IEC62368-1 | | | | | | | |
| | Isolation Voltage | I/P-O/P: 3000VAC 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 | | | | | | | |
| | 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 | | | | | | | |

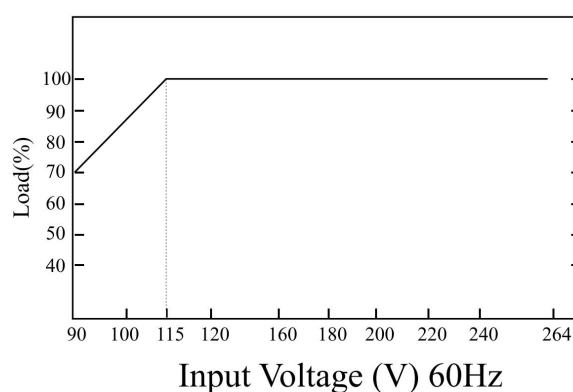
| | | |
|--------|--|------------------------------------|
| OTHERS | MTBF | 165K hrs min. MIL-HDBK-217F (25°C) |
| | Dimension | 101.6*50.8*30mm (L*W*H) |
| | Weight | 150g |
| | Package | 8 PCS/Box 12 Box/Carton |
| | Carton Size | 360*300*250mm |
| NOTE | 1. All parameters not specially mentioned, 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. | |
| | 3. 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

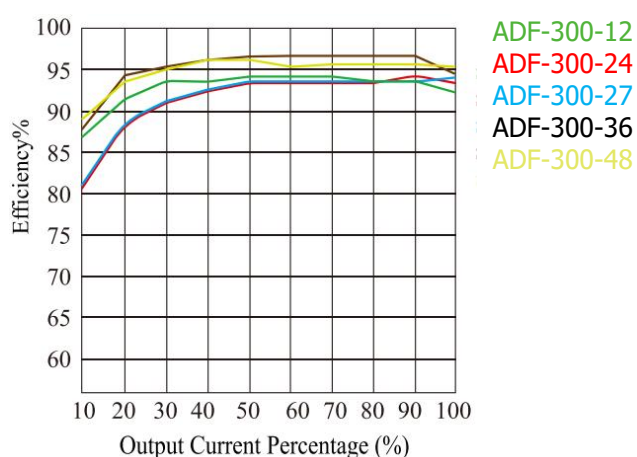


Input Voltage Derating Curve

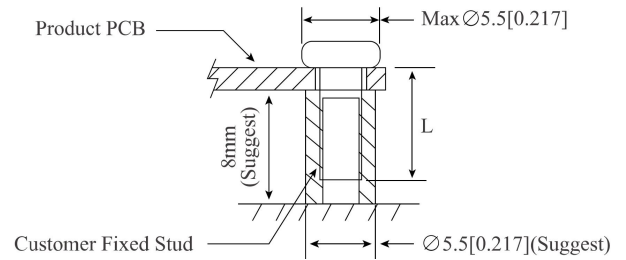
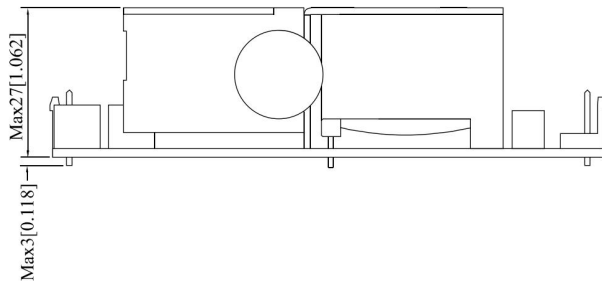
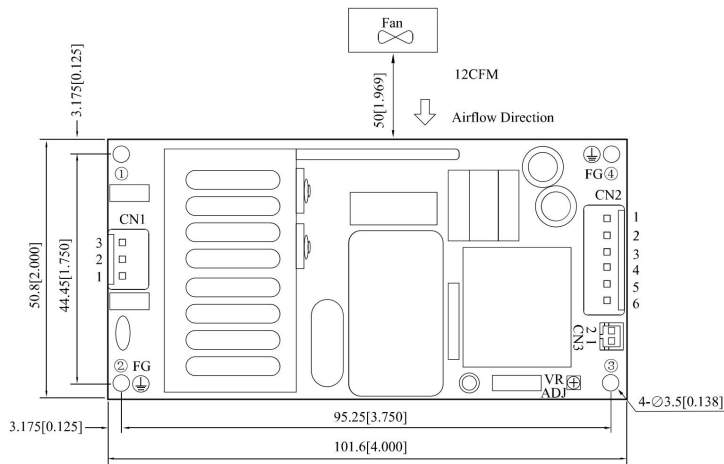


Efficiency Curve

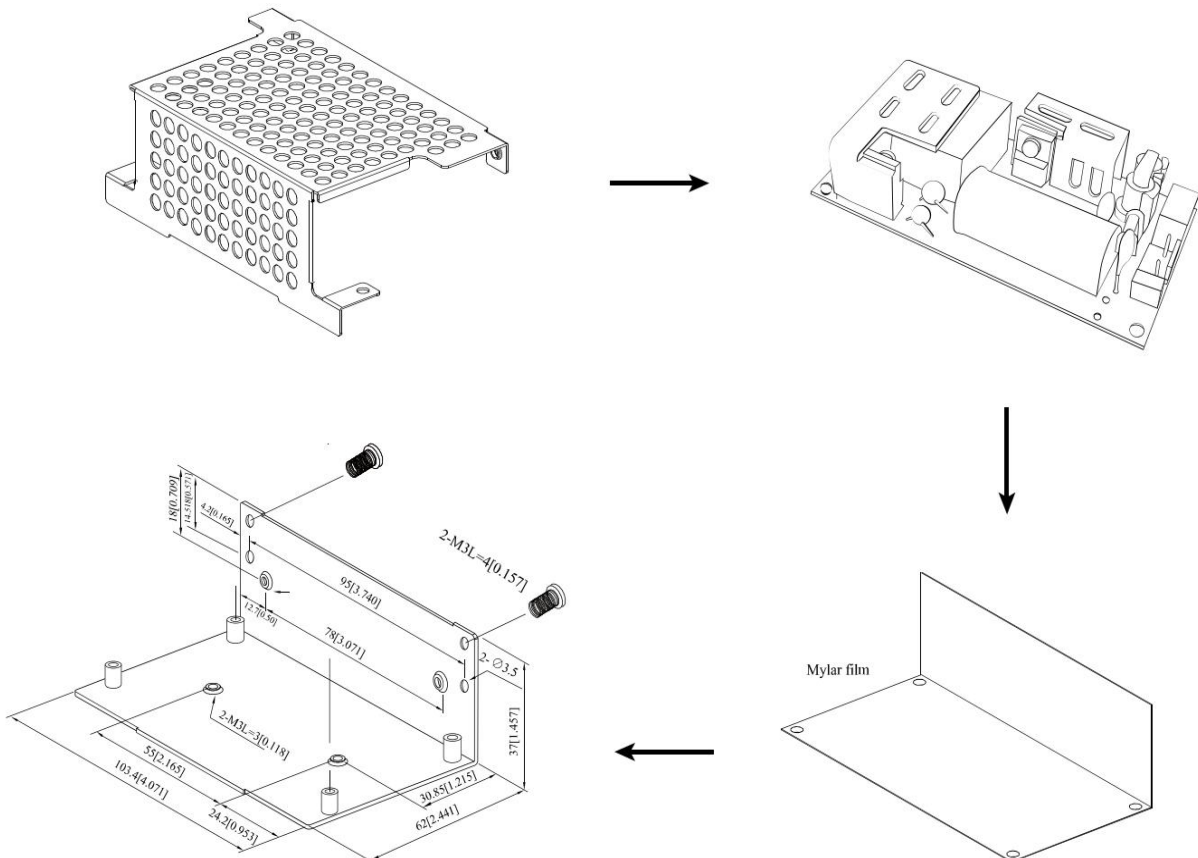
Efficiency Vs Output Load (Vin=230VAC)



Dimensions & Function



Enclosure type (C) package size



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:

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.