

■ Features :

- Universal AC input / Full range
- Built in active PFC circuit compliance to EN61000-3-2
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Free air convection for 300W and 350W with 23.5CFM forced air
- High power density 6.3w/in³
- ZVS technology to reduce power dissipation
- Active AC surge current limiting
- U-bracket low profile:38mm
- 3 years warranty

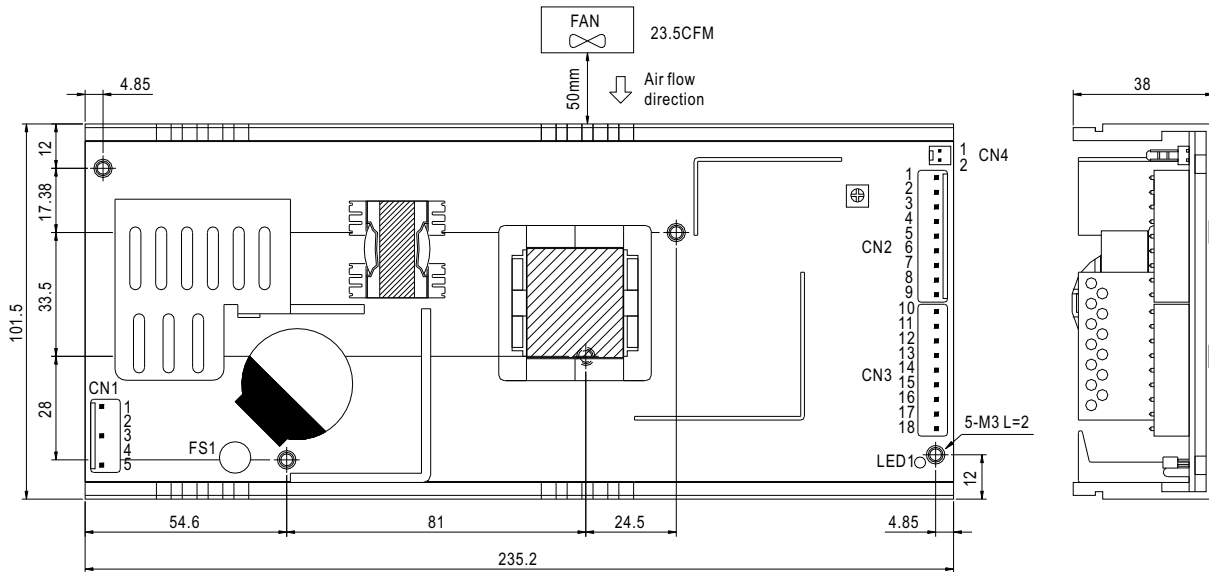


SPECIFICATION

| MODEL | USP-350-3.3 | USP-350-5 | USP-350-12 | USP-350-15 | USP-350-24 | USP-350-48 | |
|-----------------------|---|---|--------------------------|-------------------------------|--------------|----------------|--------------|
| OUTPUT | DC VOLTAGE | 3.3V | 5V | 12V | 15V | 24V | 48V |
| | RATED CURRENT | 70A | 70A | 29.2A | 23.4A | 14.6A | 7.3A |
| | CURRENT RANGE (convection) | 0 ~ 50A | 0 ~ 50A | 0 ~ 25A | 0 ~ 20A | 0 ~ 12.5A | 0 ~ 6.25A |
| | CURRENT RANGE (23.5CFM FAN) | 0 ~ 70A | 0 ~ 70A | 0 ~ 29.2A | 0 ~ 23.4A | 0 ~ 14.6A | 0 ~ 7.3A |
| | RATED POWER (convection) | 165W | 250W | 300W | 300W | 300W | 300W |
| | RATED POWER (23.5CFM FAN) | 231W | 350W | 350.4W | 351W | 350.4W | 350.4W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 80mVp-p | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 2.97 ~ 3.6V | 4.5 ~ 5.5V | 10.8 ~ 13.2V | 13.5 ~ 16.5V | 21.6 ~ 26.4V | 43.2 ~ 52.8V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±2.0% | ±2.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 2000ms, 100ms/230VAC 4000ms, 100ms/115VAC at full load | | | | | |
| HOLD UP TIME (Typ.) | 12ms/230VAC | 16ms/230VAC | 16ms/115VAC at full load | | | | |
| INPUT | VOLTAGE RANGE Note.5 | 90 ~ 264VAC | 127 ~ 370VDC | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | POWER FACTOR (Typ.) | 0.94/230VAC | 0.95/230VAC | 0.98/115VAC at full load | | | |
| | EFFICIENCY (Typ.) | 78% | 84% | 88% | 88% | 88% | 89% |
| | AC CURRENT (Typ.) | 4A/115VAC | 2A/230VAC | | | | |
| | INRUSH CURRENT (Typ.) | 22A/115VAC | 44A/230VAC | | | | |
| | LEAKAGE CURRENT | <2mA / 240VAC | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 120% rated output power | | 105 ~ 130% rated output power | | | |
| | OVER VOLTAGE | 3.7 ~ 4.6V | 5.7 ~ 7V | 13.5 ~ 16.3V | 17 ~ 21V | 26.7 ~ 32.4V | 53 ~ 64.8V |
| | OVER TEMPERATURE | 80°C ±5°C (TSW1) detect on heatsink of power transistor 80°C ±5°C (TSW2) detect on heatsink of power diode Protection type : Shut down o/p voltage with auto-recovery | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +65°C (Refer to output load derating curve) | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 45°C) | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 approved | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC | | I/P-FG:1.5KVAC | | O/P-FG:0.5KVAC | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | | | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | | | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, light industry level, criteria A | | | | | |
| OTHERS | MTBF | 106.3K hrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 235.2*101.5*38mm (L*W*H) | | | | | |
| | PACKING | 1.1Kg; 16pcs/18Kg/0.72CUFT | | | | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</p> <p>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</p> | | | | | | |

Mechanical Specification

Case No. 941A-D Unit:mm



AC Input Connector (CN1) : JST B5P-VH or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|-----------------------------------|
| 1 | FG | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2,4 | No Pin | | |
| 3 | AC/N | | |
| 5 | AC/L | | |

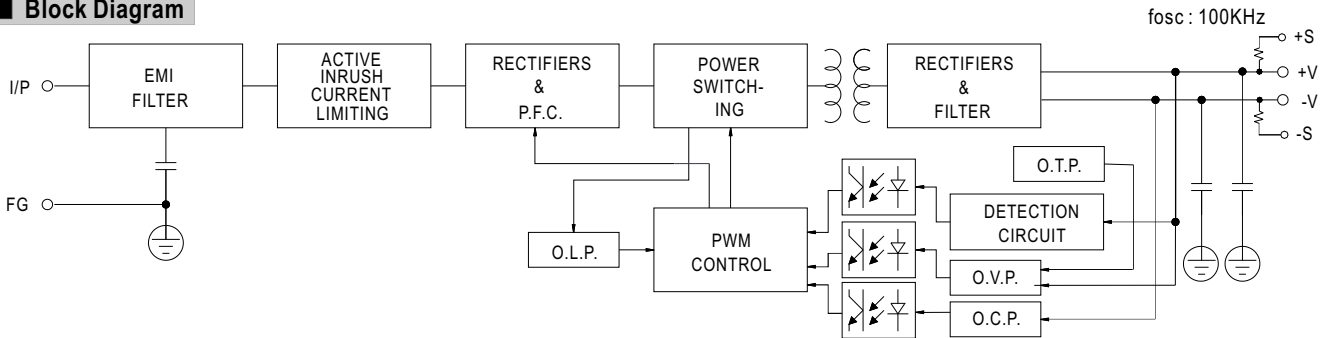
DC Output Connector (CN2,CN3) : JST B9P-VH*2 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|-----------------------------------|
| 1~9 | -V | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 10~18 | +V | | |

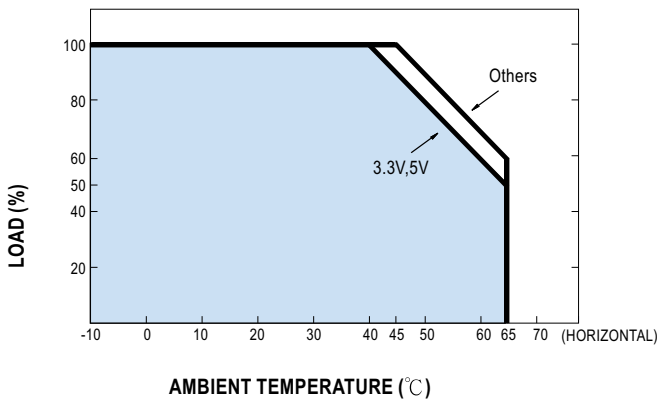
Remote Sense(CN4) : Molex 5045-02 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------------|-----------------------------|
| 1 | RS+ | Molex 5051 or equivalent | Molex 4809 or equivalent |
| 2 | RS- | | |

Block Diagram



Derating Curve



Static Characteristics (5V)

