

■ Features :

- Universal AC input / Full range
- Built-in active PFC function
- Protections: Short circuit / Overload / Over voltage / Over temperature
- 5"x3" compact size
- Free air convection for 100W and 150W with 20.5 CFM forced air
- With power good and fail signal output
- No load power consumption under 0.75W by PS-ON control (Optional)
- Standby 5V@0.8A with Fan/0.6A without Fan (Optional)
- 3 years warranty

RPD **G** - 160B

G: With 5Vsb
Blank: Without 5Vsb

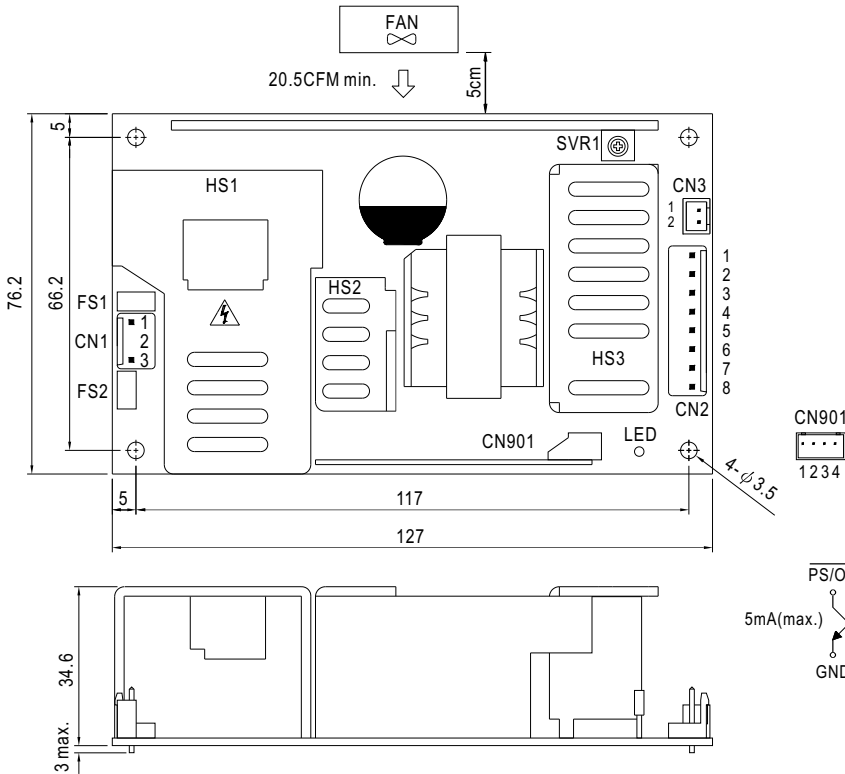


SPECIFICATION

| MODEL | | RPD-160B | |
|-----------------------|--|--|----------------------------------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 |
| | DC VOLTAGE | 5V | 24V |
| | RATED CURRENT (20.5CFM) | 12A | 3.6A |
| | CURRENT RANGE (convection) | 1 ~ 6A | 0.2 ~ 2.8A |
| | CURRENT RANGE (20.5CFM) | 1 ~ 12A | 0.2 ~ 3.6A |
| | RATED POWER (convection) Note.7 | 100.2W | |
| | RATED POWER (20.5CFM) Note.8 | 150.4W | |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 200mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 5 ~ 5.5V | |
| | VOLTAGE TOLERANCE Note.3 | ±2.5% | ±6.0% |
| | LINE REGULATION | ±0.5% | ±1.0% |
| LOAD REGULATION | ±1.5% | ±3.0% | |
| SETUP, RISE TIME | 1200ms, 30ms/230VAC 2500ms, 30ms/115VAC at full load | | |
| HOLD UP TIME (Typ.) | 16ms/230VAC/115VAC at full load | | |
| INPUT | VOLTAGE RANGE Note.6 | 90 ~ 264VAC | 127 ~ 370VDC |
| | FREQUENCY RANGE | 47 ~ 63Hz | |
| | POWER FACTOR (Typ.) | PF>0.93/230VAC | PF>0.98/115VAC at full load |
| | EFFICIENCY (Typ.) | 84% | |
| | AC CURRENT (Typ.) | 1.7A/115VAC | 0.9A/230VAC |
| | INRUSH CURRENT (Typ.) | COLD START 35A/115VAC | 70A/230VAC |
| LEAKAGE CURRENT | Earth leakage current <300uA / 264VAC, Patient leakage current <100uA/264VAC | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | |
| | OVER VOLTAGE | CH1: 5.75 ~ 6.75V Protection type : Shut down o/p voltage, re-power on to recover | |
| | OVER TEMPERATURE | 105°C (TSW1) detect on heatsink of power transistor | |
| | | 90°C (TSW2) detect on heatsink of power transistor Protection type : (TSW1) Shut down o/p voltage, recovers automatically after temperature goes down Protection type : (TSW2) Shut down o/p voltage, re-power on to recover | |
| FUNCTION | 5V STANDBY | 5VSB : 5V@0.6A without Fan, 0.8A with Fan 20.5CFM ; tolerance ± 2%, ripple : 50mVp-p(max.) | |
| | PS-ON INPUT SIGNAL (OPTIONAL) | Power on: PS-ON = "Hi" or ">2V" ; Power off: PS-ON = "Low" or "<0.5V" | |
| | POWER GOOD / POWER FAIL | 500ms>PG>10ms | PF>1ms |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +70°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 ~ 50°C) | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60601-1, TUV EN60601-1 approved | |
| | WITHSTAND VOLTAGE | I/P-O/P:4KVAC | 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 / 25°C / 70% RH | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55011 (CISPR11), EN55022 (CISPR22) Class B | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | |
| OTHERS | EMSI IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A | |
| | MTBF | 196.3Khrs min. MIL-HDBK-217F (25°C) | |
| OTHERS | DIMENSION | 127*76.2*34.6mm (L*W*H) | |
| | PACKING | 0.33Kg; 36pcs/12.9Kg/0.79CUFT | |
| NOTE | <ol style="list-style-type: none"> 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. Tolerance : includes set up tolerance, line regulation and load regulation. 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. 5. HS1,HS2 & HS3 can not be shorted. 6. Derating may be needed under low input voltages. Please check the derating curve for more details. 7. The rated power includes 5Vsb @ 0.6A. 8. The rated power includes 5Vsb @ 0.8A. | | |

Mechanical Specification

Unit:mm



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

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

DC Output Connector (CN2) : JST B8P-VH or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1,2,3,4 | COM | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 5,6 | CH1 | | |
| 7 | CH2 | | |
| 8 | NC | | |

Power Good Connector(CN3):JST B2B-XH or equivalent

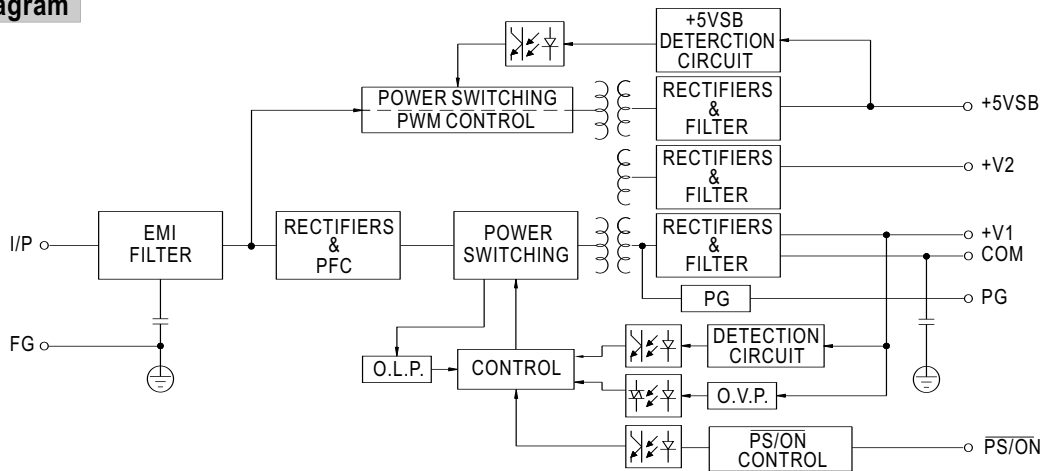
| Pin No. | Status | Mating Housing | Terminal |
|---------|--------|-----------------------|---------------------------------|
| 1 | PG | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 2 | GND | | |

5VSB Connector(CN901) : JST B-XH or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|----------------------------|
| 1 | PS/ON | JST XHP or equivalent | JST SXH-001T or equivalent |
| 2,4 | GND | | |
| 3 | 5VSB | | |

⚠ HS1,HS2,HS3 can not be shorted

Block Diagram



fosc :100KHz

Derating Curve

Output Derating VS Input Voltage

