



■ 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 110W and 160W with 20.5 CFM forced air
- Medical safety approved (2 x MOPP between primary to secondary)
- With power good and fail signal output
- Built-in remote sense function for 5~15V
- No load power consumption under 0.75W by PS-ON control (G model)
- Standby 5V@0.8A with fan, @0.6A without fan (G model)
- Suitable for BF application with appropriate system consideration
- 3 years warranty

G: With 5Vsb & no load power consumption < 0.75 W
 Blank: Basic function (without 5Vsb)

RPS **G** - 160 - 12

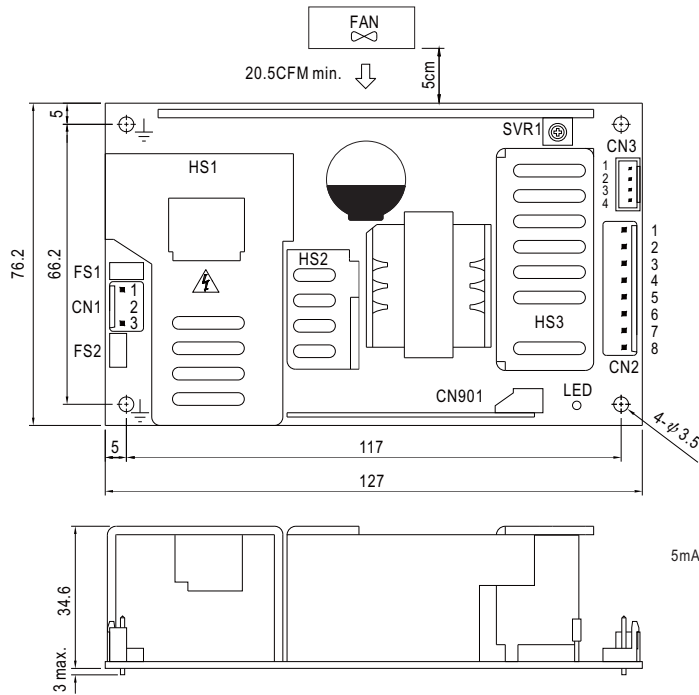


SPECIFICATION

| MODEL | RPS□-160-5 | RPS□-160-12 | RPS□-160-15 | RPS□-160-24 | RPS□-160-48 | |
|------------------------|---|--|------------------|-----------------------------|--------------|------------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V | 48V |
| | RATED CURRENT (20.5CFM) | 30A | 12.9A | 10.3A | 6.5A | 3.25A |
| | CURRENT RANGE (convection) | 0 ~ 20A | 0 ~ 9.1A | 0 ~ 7.3A | 0 ~ 4.6A | 0 ~ 2.3A |
| | CURRENT RANGE (20.5CFM) | 0 ~ 30A | 0 ~ 12.9A | 0 ~ 10.3A | 0 ~ 6.5A | 0 ~ 3.25A |
| | RATED POWER (convection) Note.7 | 103W | 112.2W | 112.5W | 113.4W | 113.4W |
| | RATED POWER (20.5CFM) Note.8 | 155W | 159.8W | 159.5W | 161W | 161W |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 100mVp-p | 120mVp-p | 150mVp-p | 250mVp-p |
| | VOLTAGE ADJ. RANGE | CH1:4.5 ~ 5.5V | CH1:10.8 ~ 13.2V | CH1:13.5 ~ 16.5V | CH1:22 ~ 27V | CH1:43.2 ~ 52.8V |
| | VOLTAGE TOLERANCE Note.3 | ± 4.0% | ± 3.0% | ± 3.0% | ± 2.0% | ± 2.0% |
| | LINE REGULATION | ± 0.5% | ± 0.5% | ± 0.5% | ± 0.5% | ± 0.5% |
| LOAD REGULATION | ± 1.0% | ± 1.0% | ± 1.0% | ± 1.0% | ± 1.0% | |
| SETUP, RISE TIME | 1800ms, 30ms/230VAC 3500ms, 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.) | 85% | 87% | 87% | 87% | 88% |
| | AC CURRENT (Typ.) | 2A/115VAC | 1.1A/230VAC | | | |
| | INRUSH CURRENT (Typ.) | COLD START 35A/115VAC | | 70A/230VAC | | |
| LEAKAGE CURRENT Note.9 | Earth leakage current < 200µA/264VAC , Touch current < 100µA/264VAC | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | |
| | OVER VOLTAGE | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V | 55.2 ~ 64.8V |
| | OVER TEMPERATURE | 110°C(5V),105°C(12V,15V,24V,48V) (TSW1 : detect on heatsink of power transistor) | | | | |
| | | 95°C(5V),90°C(12V,15V,24V,48V) (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 (G model) | 5VSB : 5V@0.6A without fan, 0.8A with fan 20.5CFM ; tolerance ± 2%, ripple : 50mVp-p(max.) | | | | |
| | PS-ON INPUT SIGNAL (G model) | Power on: PS-ON = "Hi" or " > 2 ~ 5V" ; Power off: PS-ON = "Low" or " < 0 ~ 0.5V" | | | | |
| | POWER GOOD / POWER FAIL | 500ms>PG>10ms | PF>1ms | | | |
| | REMOTE SENSE | 5 ~ 15V | | | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +70°C (Refer to "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 | ANSI/AAMI ES60601-1, TUV EN60601-1 approved | | | | |
| | ISOLATION LEVEL | Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP, Secondary-Earth:1xMOPP | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:4KVAC | I/P-FG:2KVAC | O/P-FG:1.5KVAC | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH | | | | |
| | EMC EMISSION | Compliance to EN55011 (CISPR11), EN55022 (CISPR22) Class B, EN61000-3-2,-3 | | | | |
| OTHERS | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A | | | | |
| | MTBF | 230.5K hrs min. MIL-HDBK-217F (25°C) | | | | |
| | DIMENSION | 127*76.2*34.6mm (L*W*H) | | | | |
| | PACKING | 0.32Kg; 36pcs/12.5Kg/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 0.1µf & 47µf 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 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. 9. Touch current was measured from primary input to DC output. | | | | | |

Mechanical Specification

Unit:mm



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 | | |

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

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

Power Good Connector(CN3):JST B4B-XH or equivalent

| Pin No. | Status | Mating Housing | Terminal |
|---------|--------|-----------------------|---------------------------------|
| 1 | PG | JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |
| 2 | GND | | |
| 3 | -S | | |
| 4 | +S | | |

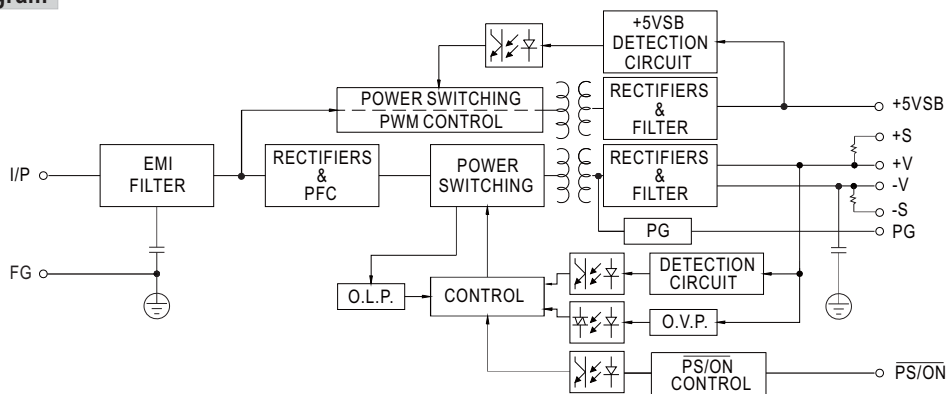
5VSB Connector(CN901) : JST B-XH or equivalent

| 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

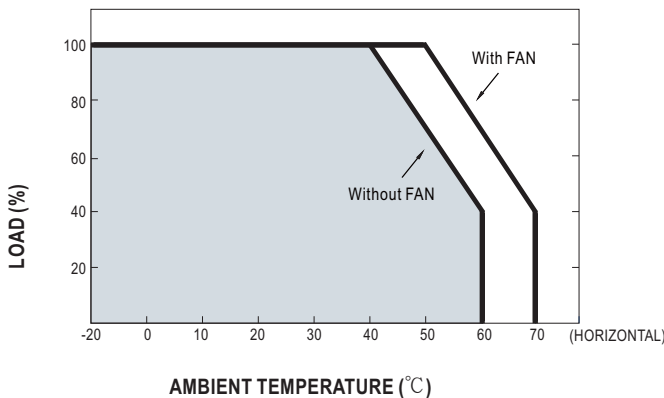
⊕ : Grounding required

Block Diagram



fosc : 100KHz(5V)
70KHz(12~48V)

Derating Curve



Output Derating VS Input Voltage

