

■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Input reverse polarity
- 4000VDC I/O isolation
- Cooling by free air convection
- Built-in constant current limiting circuit
- 1U low profile 36mm
- Compliance to EN50155 railway certificate
- All using 105°C long life electrolytic capacitors
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

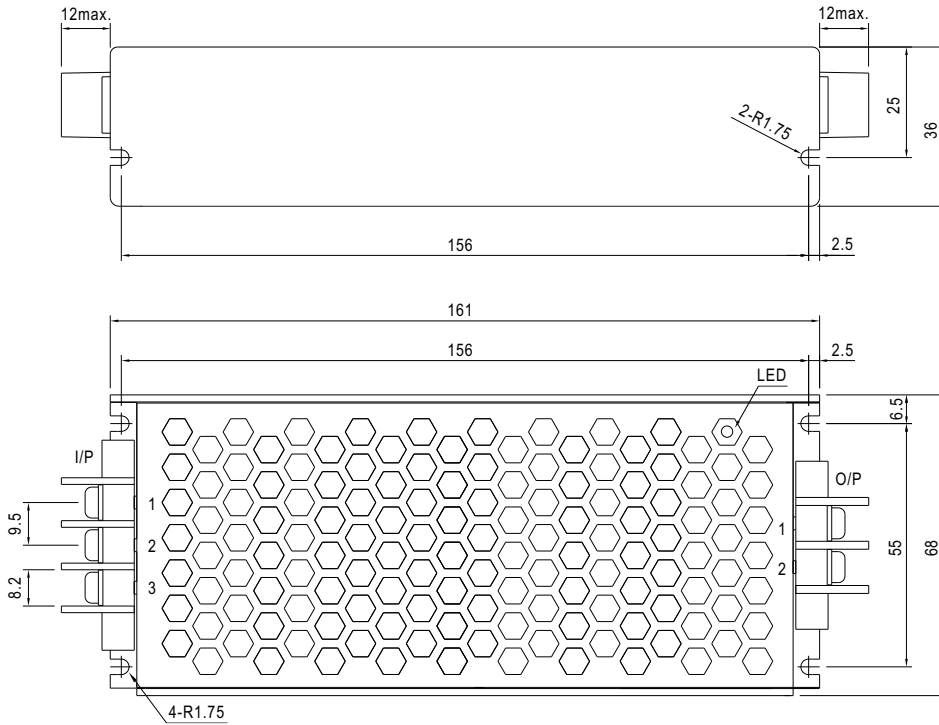


SPECIFICATION

| MODEL | | RSD-100B-5 | RSD-100B-12 | RSD-100B-24 | RSD-100C-5 | RSD-100C-12 | RSD-100C-24 | RSD-100D-5 | RSD-100D-12 | RSD-100D-24 | |
|-----------------------|---|---|----------------|----------------|------------|----------------|--------------|------------|---------------|--------------|--|
| OUTPUT | DC VOLTAGE | 5V | 12V | 24V | 5V | 12V | 24V | 5V | 12V | 24V | |
| | RATED CURRENT | 20A | 8.4A | 4.2A | 20A | 8.4A | 4.2A | 20A | 8.4A | 4.2A | |
| | CURRENT RANGE | 0 ~ 20A | 0 ~ 8.4A | 0 ~ 4.2A | 0 ~ 20A | 0 ~ 8.4A | 0 ~ 4.2A | 0 ~ 20A | 0 ~ 8.4A | 0 ~ 4.2A | |
| | RATED POWER | 100W | 100.8W | 100.8W | 100W | 100.8W | 100.8W | 100W | 100.8W | 100.8W | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 120mVp-p | 150mVp-p | 100mVp-p | 120mVp-p | 150mVp-p | 100mVp-p | 120mVp-p | 150mVp-p | |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | |
| | LINE REGULATION | ±0.5% | ±0.3% | ±0.2% | ±0.5% | ±0.3% | ±0.2% | ±0.5% | ±0.2% | ±0.2% | |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | |
| | SETUP, RISE TIME | 800ms, 50ms at full load | | | | | | | | | |
| HOLD UP TIME (Typ.) | 3 ~ 30ms @ full load ; B/C- type comply with S1 level ; D-type comply with S2 level | | | | | | | | | | |
| INPUT | VOLTAGE RANGE | CONTINUOUS | 16.8 ~ 31.2VDC | | | 33.6 ~ 62.4VDC | | | 67.2 ~ 143VDC | | |
| | | 1 SEC. | 14.4 ~ 33.6VDC | | | 28.8 ~ 67.2VDC | | | 57.6 ~ 154VDC | | |
| | EFFICIENCY (Typ.) | 88% | 89% | 89% | 89% | 91% | 91% | 89.5% | 91% | 90% | |
| | DC CURRENT (Typ.) | 4.8A/24V | 4.8A/24V | 4.8A/24V | 2.4A/48V | 2.4A/48V | 2.4A/48V | 1.2A/110V | 1.2A/110V | 1.2A/110V | |
| INRUSH CURRENT (Typ.) | 30A/24VDC | | | 30A/48VDC | | | 30A/110VDC | | | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | | | | | |
| | OVER VOLTAGE | 5.75 ~ 7V | 13.8 ~ 16.2V | 27.6 ~ 32.4V | 5.75 ~ 7V | 13.8 ~ 16.2V | 27.6 ~ 32.4V | 5.75 ~ 7V | 13.8 ~ 16.2V | 27.6 ~ 32.4V | |
| ENVIRONMENT | WORKING TEMP. | -40 ~ +55°C (no derating) ; +70°C @ 60% load by free air convection ; +70°C (no derating with external base plate) | | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 95% RH non-condensing | | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes ; Mounting : compliance to IEC61373 | | | | | | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | Design refer to IEC60950-1, EN50155 (IEC60571) | | | | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:4KVDC | | I/P-FG:2.5KVDC | | O/P-FG:2.5KVDC | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH | | | | | | | | | |
| | EMC EMISSION | Compliance to EN55022 (CISPR22) Conduction Emission: Class A, Radiation Emission: Class B ; EN50155(EN50121-3-2) | | | | | | | | | |
| OTHERS | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,6,8; ENV50204, EN50155(EN50121-3-2), light industry level, criteria A | | | | | | | | | |
| | MTBF | 254.1K hrs min. MIL-HDBK-217F (25°C) | | | | | | | | | |
| | DIMENSION | 161*68*36mm (L*W*H) | | | | | | | | | |
| NOTE | PACKING | 0.6Kg; 24pcs/15.4Kg/0.98CUFT | | | | | | | | | |
| | | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 24,48,110VDC 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. | | | | | | | | | |

Mechanical Specification

Case No.999A Unit:mm



Input Terminal Pin No. Assignment :

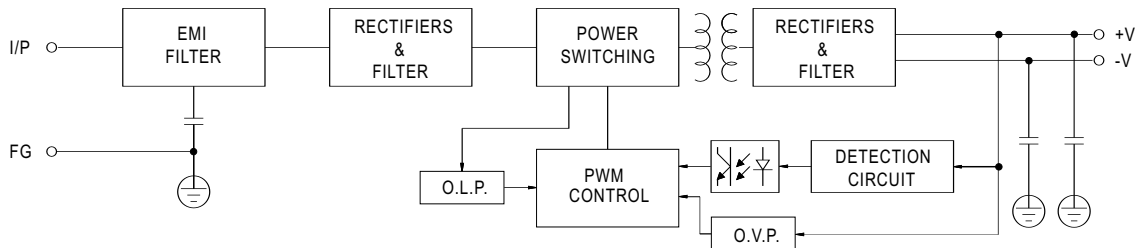
| Pin No. | Assignment |
|---------|-------------|
| 1 | DC INPUT V+ |
| 2 | DC INPUT V- |
| 3 | FG \perp |

Output Terminal Pin No. Assignment :

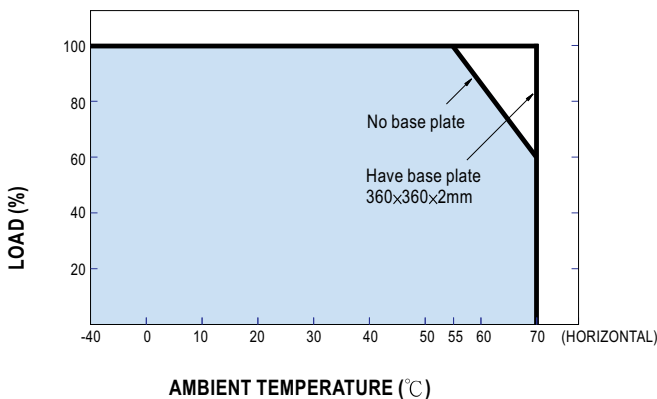
| Pin No. | Assignment |
|---------|--------------|
| 1 | DC OUTPUT -V |
| 2 | DC OUTPUT +V |

Block Diagram

fosc : 130KHz



Derating Curve



Static Characteristics(RSD-100D-24)

