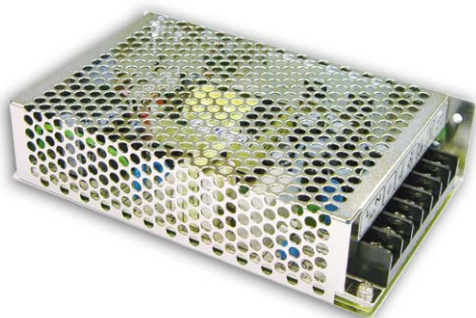




100W Single Output Switching Power Supply

RS-100 series



■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- All using 105°C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70°C
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

User's Manual



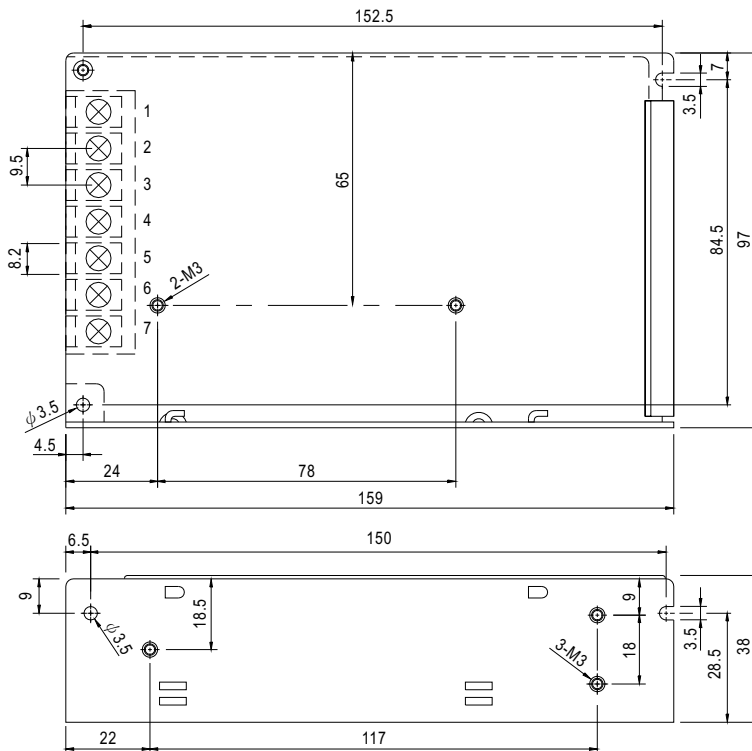
SPECIFICATION



| MODEL | | RS-100-3.3 | RS-100-5 | RS-100-12 | RS-100-15 | RS-100-24 | RS-100-48 |
|--------------------------|---|--|--------------|--------------|----------------|--------------|--------------|
| OUTPUT | DC VOLTAGE | 3.3V | 5V | 12V | 15V | 24V | 48V |
| | RATED CURRENT | 20A | 16A | 8.5A | 7A | 4.5A | 2.3A |
| | CURRENT RANGE | 0 ~ 20A | 0 ~ 16A | 0 ~ 8.5A | 0 ~ 7A | 0 ~ 4.5A | 0 ~ 2.3A |
| | RATED POWER | 66W | 80W | 102W | 105W | 108W | 110.4W |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 80mVp-p | 80mVp-p | 120mVp-p | 120mVp-p | 120mVp-p | 200mVp-p |
| | VOLTAGE ADJ. RANGE | 3.2V ~ 3.5V | 4.75 ~ 5.5V | 11.4 ~ 13.2V | 14.25 ~ 16.5V | 22.8 ~ 26.4V | 45.6 ~ 52.8V |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ±3.0% | ±2.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION <small>Note.4</small> | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION <small>Note.5</small> | ±2.0% | ±1.0% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE TIME | 500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load | | | | | |
| HOLD UP TIME (Typ.) | 95ms/230VAC 17ms/115VAC at full load | | | | | | |
| INPUT | VOLTAGE RANGE | 88 ~ 264VAC 125 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage) | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | EFFICIENCY (Typ.) | 74% | 77% | 81% | 82% | 84% | 84% |
| | AC CURRENT (Typ.) | 2.5A/115VAC 1.5A/230VAC | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 40A/230VAC | | | | | |
| | LEAKAGE CURRENT | <2mA / 240VAC | | | | | |
| PROTECTION | OVERLOAD | 110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 3.8 ~ 4.45V | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V | 55.2 ~ 64.8V |
| | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| ENVIRONMENT | WORKING TEMP. | -25 ~ +70℃ (Refer to "Derating Curve") | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85℃, 10 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/℃ (0 ~ 50℃) | | | | | |
| | VIBRATION | 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC (Note 6) | SAFETY STANDARDS | UL62368-1, TUV BS EN/EN62368-1, AS/NZS 62368.1, EAC TP TC 004 approved | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH | | | | | |
| | EMC EMISSION | Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020 | | | | | |
| | EMC IMMUNITY | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, criteria A, EAC TP TC 020 | | | | | |
| OTHERS | MTBF | 260.8Khrs min. MIL-HDBK-217F (25℃) | | | | | |
| | DIMENSION | 159*97*38mm (L*W*H) | | | | | |
| | PACKING | 0.6Kg; 24pcs/15.4Kg/0.83CUFT | | | | | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. Line regulation is measured from low line to high line at rated load. 5. Load regulation is measured from 0% to 100% rated load. 6. 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) 7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply very quickly may lead to increase of the set up time. 8. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx | | | | | | |

Mechanical Specification

Case No. 901C Unit:mm

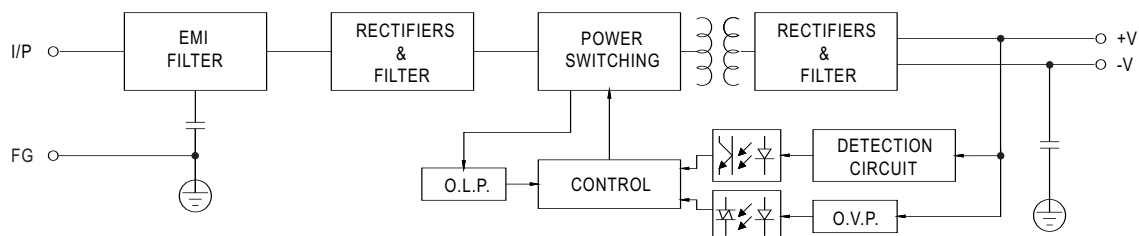


Terminal Pin No. Assignment

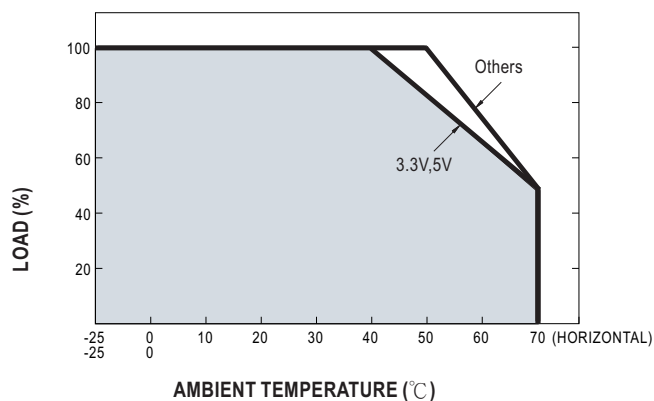
| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|--------------|
| 1 | AC/L | 4,5 | DC OUTPUT -V |
| 2 | AC/N | 6,7 | DC OUTPUT +V |
| 3 | FG \perp | | |

Block Diagram

fosc : 60KHz



Derating Curve



Static Characteristics

