# 15W Single Output Switching Power Supply

# RS-15 series



## ■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- LED indicator for power on
- 100% full load burn-in test
- No load power consumption<0.5W
- All using 105℃ long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 70℃
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- 3 years warranty

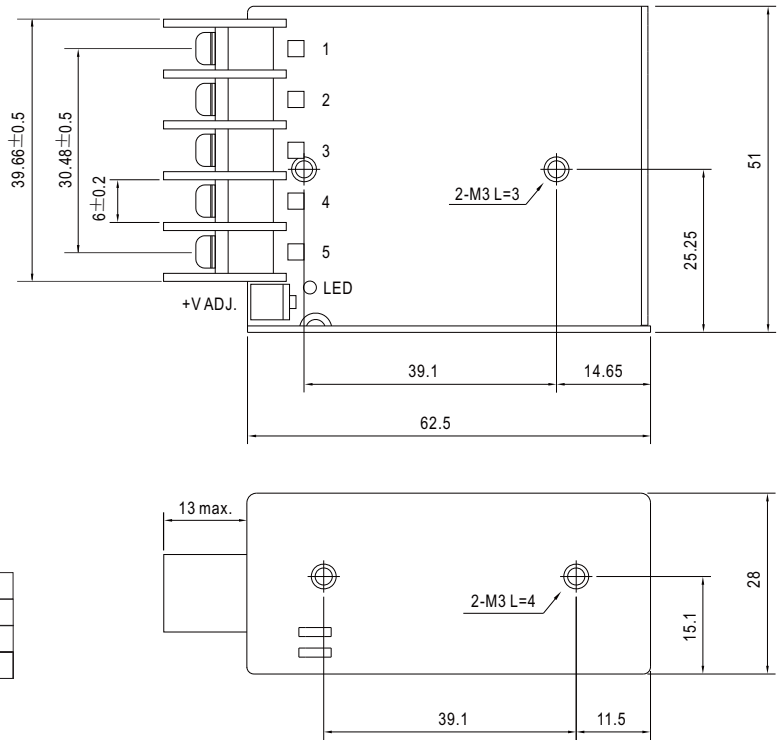
## ■ GTIN CODE

## SPECIFICATION

| MODEL | | RS-15-3.3 | RS-15-5 | RS-15-12 | RS-15-15 | RS-15-24 | RS-15-48 |
|---|---|---|---|---|---|---|---|
| OUTPUT | DC VOLTAGE | 3.3V | 5V | 12V | 15V | 24V | 48V |
| | RATED CURRENT | 3A | 3A | 1.3A | 1A | 0.625A | 0.313A |
| | CURRENT RANGE | 0 ~ 3A | 0 ~ 3A | 0 ~ 1.3A | 0 ~ 1A | 0 ~ 0.625A | 0 ~ 0.313A |
| | RATED POWER | 9.9W | 15W | 15.6W | 15W | 15W | 15.024W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 80mVp-p | 120mVp-p | 120mVp-p | 200mVp-p | 200mVp-p |
| | VOLTAGE ADJ. RANGE | 2.9 ~ 3.6V | 4.75 ~ 5.5V | 10.8 ~ 13.2V | 13.5 ~ 16.5V | 22 ~ 27.6V | 43.2 ~ 52.8V |
| | VOLTAGE TOLERANCE Note.3 | ±3.0% | ±2.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION Note.4 | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION Note.5 | ±2.0% | ±1.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE TIME | 1000ms, 30ms/230VAC 1000ms, 30ms/115VAC at full load | | | | | |
| | HOLD UP TIME (Typ.) | 70ms/230VAC 12ms/115VAC at full load | | | | | |
| INPUT | VOLTAGE RANGE | 85 ~ 264VAC 120 ~ 370VDC | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | EFFICIENCY (Typ.) | 72% | 77% | 81% | 81% | 82% | 82% |
| | AC CURRENT (Typ.) | 0.35A/115VAC 0.25A/230VAC | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 65A / 230VAC | | | | | |
| | LEAKAGE CURRENT | <2mA / 240VAC | | | | | |
| PROTECTION | OVERLOAD | Above 105% 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 | 28.4 ~ 32.4V | 55.2 ~ 64.8V |
| | | Protection type : Shut off o/p voltage, clamping by zener diode | | | | | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +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, CCC GB4943.1, BSMI CNS15598-1, BIS IS13252(Part1):2010/IEC 60950-1: 2005 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,GB9254 class B,GB17625.1, EAC TP TC 020, CNS15936 Class B | | | | | |
| | EMC IMMUNITY | Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8,11, BS EN/EN55035, BS EN/EN61000-6-1, light industry level, EAC TP TC 020 | | | | | |
| OTHERS | MTBF | 4914.9K hrs min. Telcordia SR-332 (Bellcore) ; 1608.9K hrs min. MIL-HDBK-217F (25℃) | | | | | |
| | DIMENSION | 62.5*51*28mm (L*W*H) | | | | | |
| | PACKING | 0.13Kg; 108pcs/15Kg/0.8CUFT | | | | | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF & 47 μF parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Line regulation is measured from low line to high line at rated load.<br>5. Load regulation is measured from 0% to 100% rated load.<br>6. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 230mm*230mm metal plate with 1mm of thickness. 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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf )<br>7. 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).<br>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx | | | | | | |

## ■ Mechanical Specification

Case No.971A Unit:mm





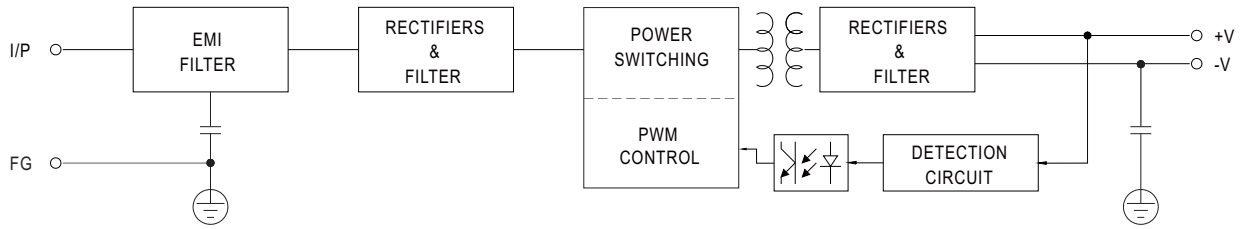


Terminal Pin No. Assignment

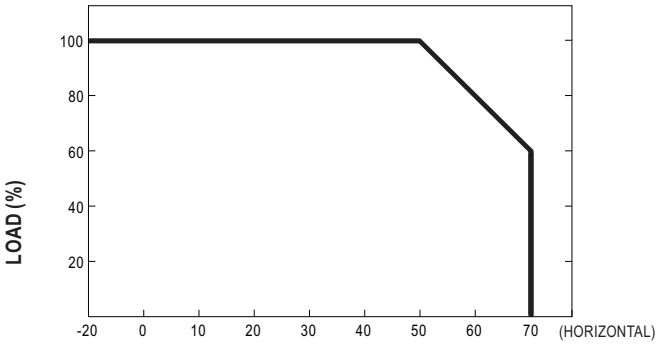
| Pin No. | Assignment | Pin No. | Assignment |
|---|---|---|---|
| 1 | AC/L | 4 | DC OUTPUT -V |
| 2 | AC/N | 5 | DC OUTPUT +V |
| 3 | FG ⏚ | | |

## ■ Block Diagram

fosc : 132KHz

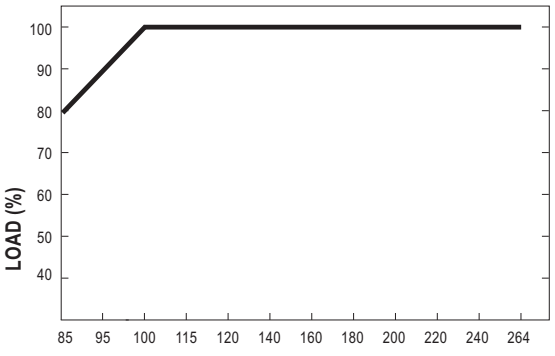



## ■ Derating Curve




AMBIENT TEMPERATURE (℃)

## ■ Output Derating VS Input Voltage




INPUT VOLTAGE (VAC) 60Hz