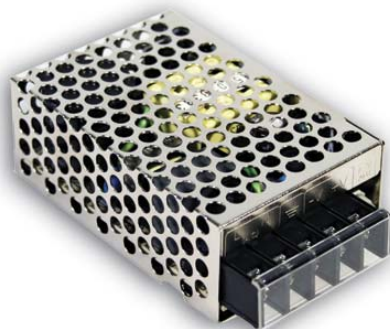




## 25W Single Output Switching Power Supply

## RS-25 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
- No load power consumption<0.5W
- High efficiency, long life and high reliability
- 3 years warranty

User's Manual



IS13252 AS/NZS62368-1



UL62368-1



GB4943.1



BS EN/EN62368-1



R33100 RoHS



TPTC004 IEC62368-1



EAC CB CE UK

## SPECIFICATION

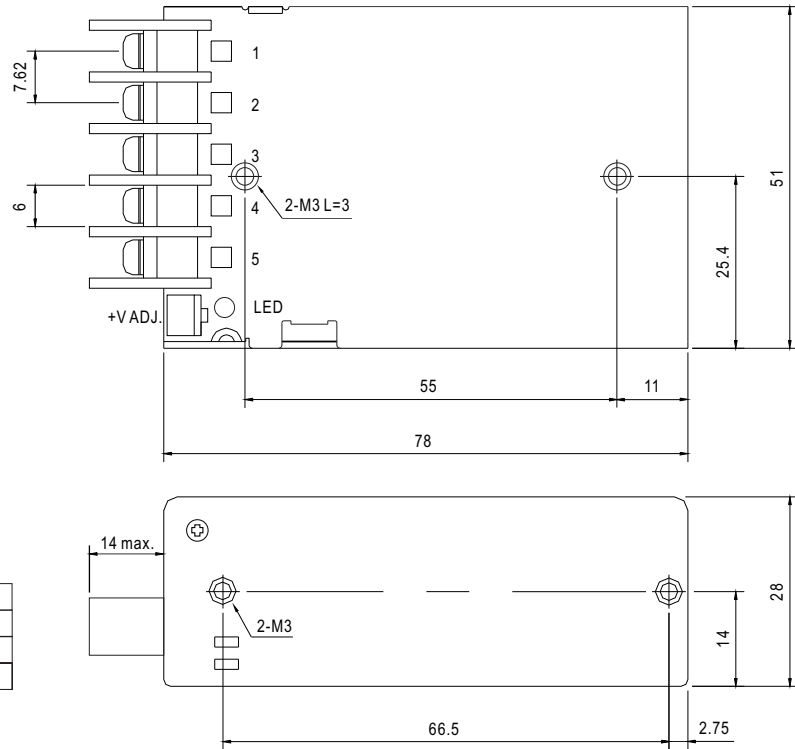
| MODEL                    |   | RS-25-3.3  | RS-25-5      | RS-25-12     | RS-25-15       | RS-25-24     | RS-25-48     |
|--------------------------|---|--|--------------|--------------|----------------|--------------|--------------|
| OUTPUT                   | DC VOLTAGE  | 3.3V   | 5V           | 12V          | 15V            | 24V          | 48V          |
|                          | RATED CURRENT   | 6A   | 5A           | 2.1A         | 1.7A           | 1.1A         | 0.57A        |
|                          | CURRENT RANGE   | 0 ~ 6A   | 0 ~ 5A       | 0 ~ 2.1A     | 0 ~ 1.7A       | 0 ~ 1.1A     | 0 ~ 0.57A    |
|                          | RATED POWER   | 19.8W  | 25W          | 25.2W        | 25.5W          | 26.4W        | 27.36W       |
|                          | RIPPLE & NOISE (max.) <small>Note.2</small>   | 80mVp-p  | 80mVp-p      | 120mVp-p     | 120mVp-p       | 120mVp-p     | 200mVp-p     |
|                          | VOLTAGE ADJ. RANGE  | 2.85 ~ 3.6V  | 4.75 ~ 5.5V  | 10.8 ~ 13.2V | 13.5 ~ 16.5V   | 22 ~ 27.6V   | 42 ~ 54V     |
|                          | 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  | 1800ms, 23ms/230VAC      4000ms, 30ms/115VAC at full load  |              |              |                |              |              |
| HOLD UP TIME (Typ.)      | 80ms/230VAC      14ms/115VAC at full load   |  |              |              |                |              |              |
| INPUT                    | VOLTAGE RANGE   | 88 ~ 264VAC      125 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage)  |              |              |                |              |              |
|                          | FREQUENCY RANGE   | 47 ~ 63Hz  |              |              |                |              |              |
|                          | EFFICIENCY(Typ.)  | 73.5%  | 78.5%        | 81.5%        | 83.5%          | 86%          | 85%          |
|                          | AC CURRENT (Typ.)   | 0.7A/115VAC      0.4A/230VAC   |              |              |                |              |              |
|                          | INRUSH CURRENT (Typ.)   | COLD START 45A/230VAC  |              |              |                |              |              |
|                          | LEAKAGE CURRENT   | <2mA / 240VAC  |              |              |                |              |              |
| PROTECTION               | OVERLOAD  | 110 ~ 180% rated output power<br>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 |
| 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<br>(Note 6) | SAFETY STANDARDS  | UL62368-1, TUV BS EN/EN62368-1, AS/NZS 62368.1, EAC TP TC 004, CCC GB4943.1, BSMI CNS14336-1, 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, CNS13438 Class B                    |              |              |                |              |              |
|                          | EMC IMMUNITY  | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A, EAC TP TC 020  |              |              |                |              |              |
| OTHERS                   | MTBF  | 309.7Khrs min.      MIL-HDBK-217F (25℃)  |              |              |                |              |              |
|                          | DIMENSION   | 78*51*28mm (L*W*H)   |              |              |                |              |              |
|                          | PACKING   | 0.2Kg; 60pcs/13Kg/0.46CUFT   |              |              |                |              |              |
| 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 0.1uf & 47uf 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 360mm*360mm 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 <a href="http://www.meanwell.com">http://www.meanwell.com</a> )<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 <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> |  |              |              |                |              |              |

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. 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. All the EMC tests are been executed by mounting the unit on a 360mm\*360mm 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 <http://www.meanwell.com>)
7. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/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.931A Unit:mm

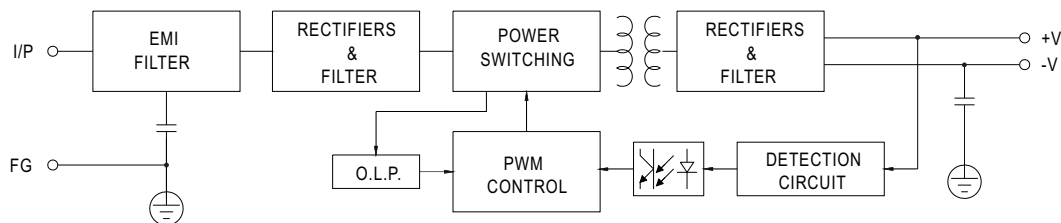


Terminal Pin No. Assignment

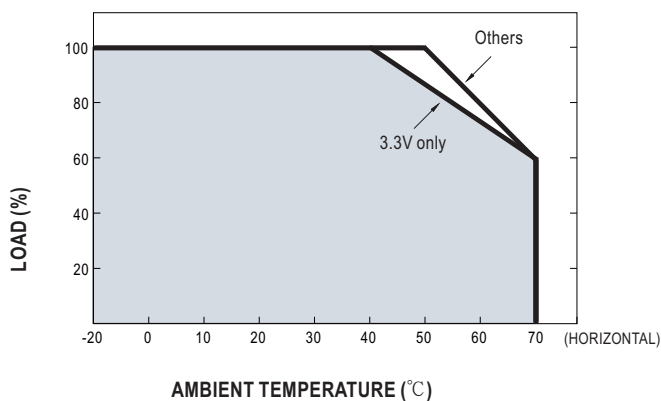
| Pin No. | Assignment | Pin No. | Assignment   |
|---------|------------|---------|--------------|
| 1       | AC/L       | 4       | DC OUTPUT -V |
| 2       | AC/N       | 5       | DC OUTPUT +V |
| 3       | FG $\perp$ |         |              |

### Block Diagram

fosc : 60KHz



### Derating Curve



### Output Derating VS Input Voltage

