



## 150W Single Output Switching Power Supply

# RS-150 series



### ■ Features :

- 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



### ■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

### SPECIFICATION



| MODEL                 | RS-150-3.3   | RS-150-5  | RS-150-12    | RS-150-15    | RS-150-24      | RS-150-48    |              |
|-----------------------|--|---|--------------|--------------|----------------|--------------|--------------|
| OUTPUT                | DC VOLTAGE   | 3.3V  | 5V           | 12V          | 15V            | 24V          | 48V          |
|                       | RATED CURRENT  | 30A   | 26A          | 12.5A        | 10A            | 6.5A         | 3.3A         |
|                       | CURRENT RANGE  | 0 ~ 30A   | 0 ~ 26A      | 0 ~ 12.5A    | 0 ~ 10A        | 0 ~ 6.5A     | 0 ~ 3.3A     |
|                       | RATED POWER  | 99W   | 130W         | 150W         | 150W           | 156W         | 158.4W       |
|                       | RIPPLE & NOISE (max.) Note.2   | 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 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%   | ±1.0%        | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%        |
|                       | SETUP, RISE TIME   | 800ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load   |              |              |                |              |              |
| HOLD UP TIME (Typ.)   | 28ms/230VAC 20ms/115VAC at full load   |   |              |              |                |              |              |
| INPUT                 | VOLTAGE RANGE  | 88 ~ 132VAC / 176 ~ 264VAC selected by switch 248 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage)                           |              |              |                |              |              |
|                       | FREQUENCY RANGE  | 47 ~ 63Hz   |              |              |                |              |              |
|                       | EFFICIENCY(Typ.)   | 74%   | 78%          | 83%          | 84%            | 86%          | 86%          |
|                       | AC CURRENT (Typ.)  | 3A/115VAC 2A/230VAC   |              |              |                |              |              |
|                       | INRUSH CURRENT (Typ.)  | COLD START 40A/230VAC   |              |              |                |              |              |
|                       | LEAKAGE CURRENT  | <2mA / 240VAC   |              |              |                |              |              |
| PROTECTION            | OVERLOAD Note.8  | 110 ~ 150% 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.  | -25 ~ +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, 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°C/ 70% RH   |              |              |                |              |              |
|                       | EMC EMISSION   | Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020  |              |              |                |              |              |
| OTHERS                | EMC IMMUNITY   | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 (BS EN/EN50082-2), heavy industry level, EAC TP TC 020 |              |              |                |              |              |
|                       | MTBF   | 3044.1K hrs min. Telcordia SR-332 (Bellcore) ; 437.3K hrs min. MIL-HDBK-217F (25°C)   |              |              |                |              |              |
|                       | DIMENSION  | 199*98*38mm (L*W*H)   |              |              |                |              |              |
|                       | PACKING  | 0.7Kg; 20pcs/14Kg/0.85CUFT  |              |              |                |              |              |
| NOTE                  | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Line regulation is measured from low line to high line at rated load.</p> <p>5. Load regulation is measured from 0% to 100% rated load.</p> <p>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>)</p> <p>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.</p> <p>8. Extra consideration should be taken when selecting output wiring for 3.3V and 5V models. This is to prevent the protection modes for overload and short circuit from becoming constant power.</p> <p>9. 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).</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p> |   |              |              |                |              |              |

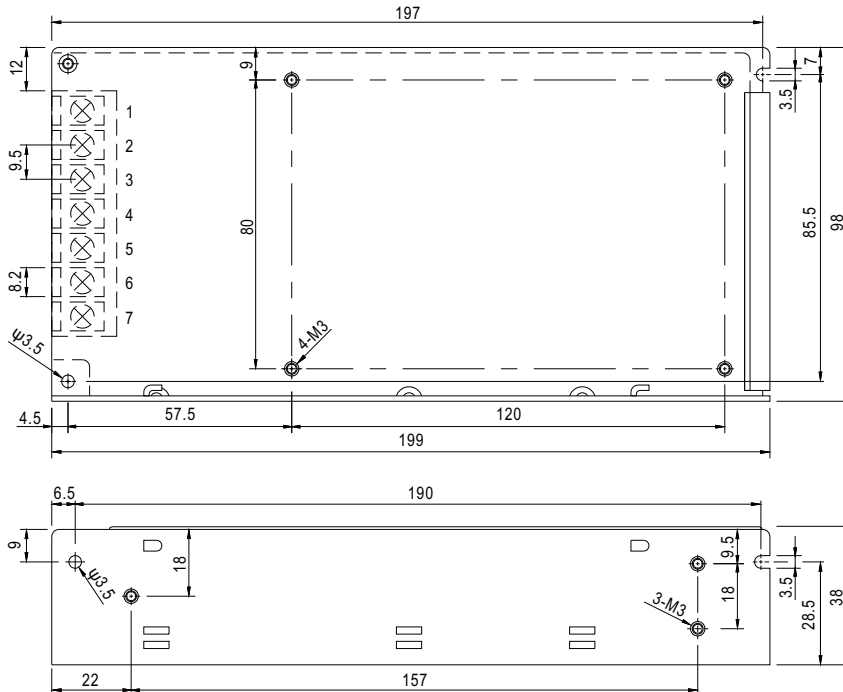


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# RS-150 series

## Mechanical Specification

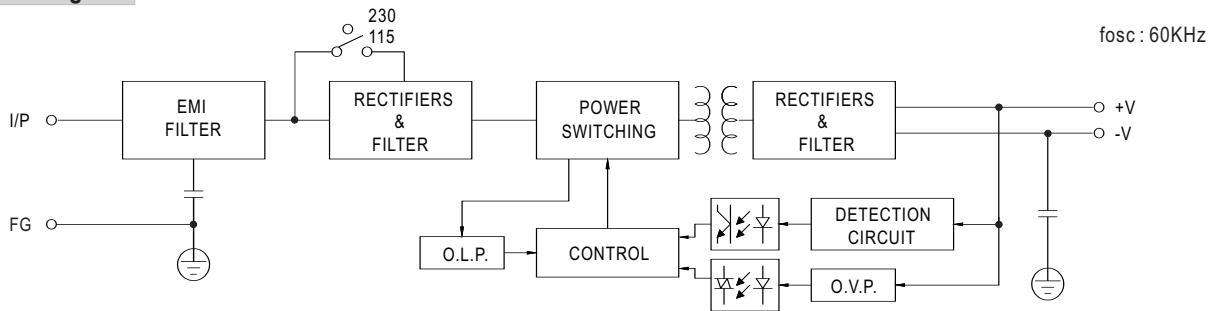
Case No. 902A Unit:mm



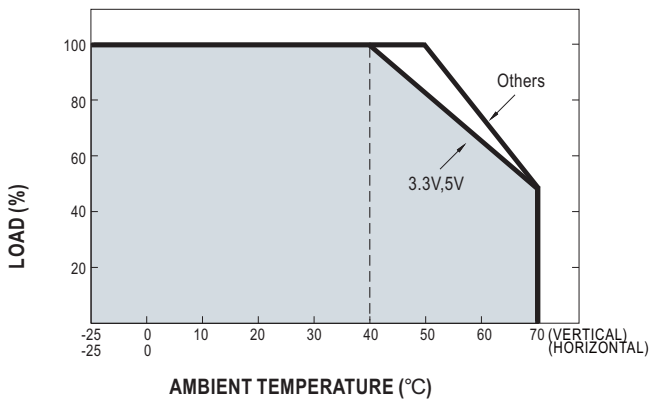
Terminal Pin No. Assignment

| 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



## Derating Curve



## Static Characteristics

