



MEAN WELL RT-50 Series Triple Output Switching Power Supply



MEAN WELL RT-50 Series Triple Output Switching Power Supply Installation Guide

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MEAN WELL RT-50 Series Triple Output Switching Power Supply



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 1050C long life electrolytic capacitors
- Withstand 300VAC surge input for 5 second
- High operating temperature up to 700C
- Withstand 5G vibration test High efficiency, long life and high reliability 3 years warranty

GTIN CODE

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

SPECIFICATION

| MODEL | | RT-50A | | | RT-50B | | | RT-50C | | | RT-50D | | |
|-------|---------------------------------|------------------|----------|----------|------------------|----------|----------|------------------|----------|----------|------------------|----------|----------|
| | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH1 | CH2 | CH3 | CH1 | CH2 | CH3 | CH1 | CH2 | CH3 |
| | DC VOLTAGE | 5V | 12V | -5V | 5V | 12V | -12V | 5V | 15V | -15V | 5V | 24V | 12V |
| | RATED CURRENT | 4A | 2A | 0.5A | 4A | 2A | 0.5A | 4A | 1.5A | 0.5A | 3A | 1A | 1A |
| | CURRENT RANGE Note.3 | 0 ~ 5A | 0 ~ 2.5A | 0 ~ 1A | 0 ~ 5A | 0 ~ 2.5A | 0 ~ 1A | 0 ~ 5A | 0 ~ 2A | 0 ~ 1A | 0 ~ 5A | 0 ~ 1.5A | 0 ~ 1A |
| | RATED POWER | 46.5W | | | 50W | | | 50W | | | 51W | | |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 100mVp-p | 80mVp-p | 120mVp-p | 120mVp-p | 80mVp-p | 120mVp-p | 120mVp-p | 80mVp-p | 150mVp-p | 120mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 4.75 ~ 5.5V | | | CH1: 4.75 ~ 5.5V | | | CH1: 4.75 ~ 5.5V | | | CH1: 4.75 ~ 5.5V | | |

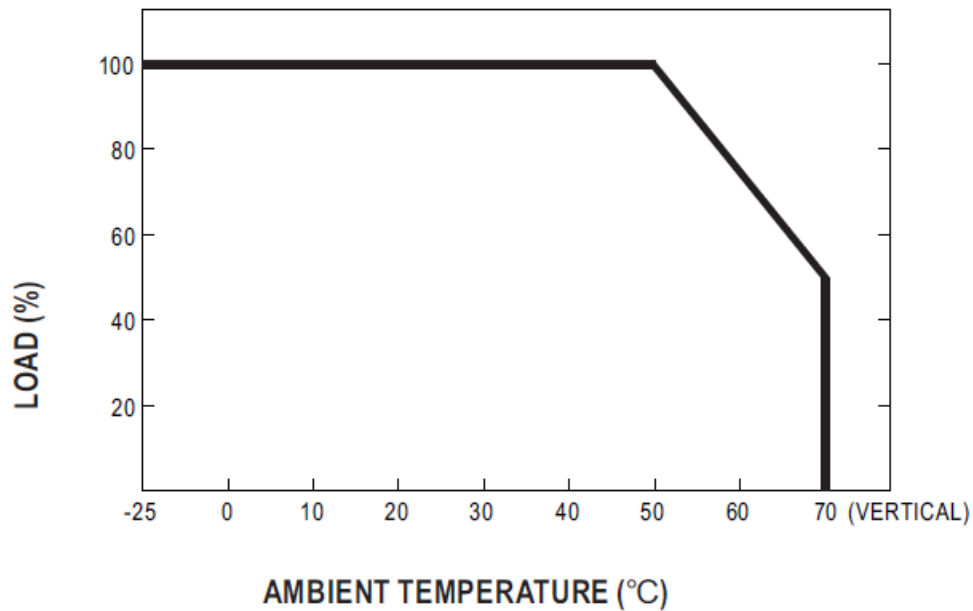
| | | | | | | | | | | | | | |
|-------------|--------------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| OUTPUT | VOLTAGE TOLERANCE Note.3 | ±2.0 % | ±8.0 % | ±3.0 % | ±2.0 % | ±8.0 % | ±3.0 % | ±2.0 % | ±8.0 % | ±3.0 % | ±2.0 % | ±8.0 % | ±6.0 % |
| | LINE REGULATION Note.4 | ±0.5 % | ±1.5 % | ±0.5 % | ±0.5 % | ±1.5 % | ±0.5 % | ±0.5 % | ±1.5 % | ±0.5 % | ±0.5 % | ±2.0 % | ±2.0 % |
| | LOAD REGULATION Note.5 | ±1.0 % | ±3.0 % | ±1.0 % | ±1.0 % | ±3.0 % | ±1.0 % | ±1.0 % | ±3.0 % | ±1.0 % | ±1.0 % | ±3.0 % | ±4.0 % |
| | SETUP, RISE TIME | 500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load | | | | | | | | | | | |
| | HOLD UP TIME (Typ.) | 60ms/230VAC 10ms/115VAC at full load | | | | | | | | | | | |
| INPUT | VOLTAGE RANGE | 88 ~ 264VAC 125 ~ 373VDC (Withstand 300VAC surge for 5sec. Without damage) | | | | | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | | | | | |
| | EFFICIENCY (Typ.) | 75.5% | | | 75.5% | | | 76% | | | 78% | | |
| | AC CURRENT (Typ.) | 1.3A/115VAC 0.8A/230VAC | | | | | | | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 48A/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 | CH1: 5.75 ~ 6.75V | | | | | | | | | | | |
| | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | | | | |
| 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)on +5V output | | | | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | | | | | |
| SAFETY & | SAFETY STANDARDS | UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004, 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 | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| | | |
|------------------------|--|--|
| EMC (Note 6) | 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 |
| | 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 |
| OTHERS | MTBF | 2788.1K hrs min. Telcordia SR-332 (Bellcore) ; 504.7K hrs min. MIL-HDBK-217F (25°C) |
| | DIMENSION | 99*97*36mm (L*W*H) |
| | PACKING | 0.41Kg; 45pcs/19.5Kg/0.94CUFT |
| 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 & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF & 47μF parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation, when multi-channel output, it is recommended that CH1 load > 10%.</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 https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf</p> <p>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).</p> <p>Product Liability Disclaimer For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p> | |

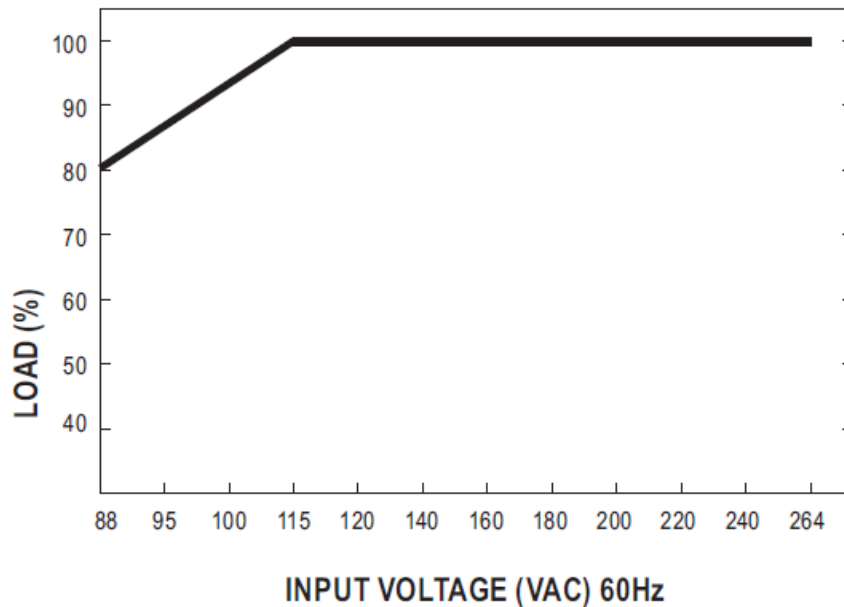
Mechanical Specification

| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|---------------|
| 1 | AC/L | 5 | DC OUTPUT V3 |
| 2 | AC/N | 6 | DC OUTPUT +V2 |
| 3 | FG \perp | 7 | DC OUTPUT COM |
| 4 | NC | 8 | DC OUTPUT +V1 |

Derating Curve



Output Derating VS Input Voltage



Downloaded from [Arrow.com](https://www.arrow.com)

FAQs

- **Q: What should I do if the LED indicator does not turn on?**

A: Check the input power source and connections. Ensure the power supply is receiving the correct voltage.

- **Q: Can I adjust the output voltage range?**

A: The voltage adjustment range is specified for each output channel. Refer to the user manual for details on adjusting voltages.

Documents / Resources



[MEAN WELL RT-50 Series Triple Output Switching Power Supply](#) [pdf] Installation Guide
RT-50A, RT-50B, RT-50C, RT-50D, RT-50 Series Triple Output Switching Power Supply, RT-50
Series, Triple Output Switching Power Supply, Output Switching Power Supply, Switching
Power Supply, Power Supply

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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