



125W Dual Output Switching Power Supply

RD-125 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



SPECIFICATION

| MODEL | | RD-125A | | RD-125B | |
|--------------------------|--|---|-----------|---|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH1 | CH2 |
| | DC VOLTAGE | 5V | 12V | 5V | 24V |
| | RATED CURRENT | 7.7A | 7.7A | 4.6A | 4.6A |
| | CURRENT RANGE Note.6 | 2 ~ 15A | 0.5 ~ 10A | 2 ~ 10A | 0.4 ~ 5A |
| | RATED POWER Note.6 | 130.9W | | 133.4W | |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 80mVp-p | 120mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 4.75 ~ 5.5V | | CH1: 4.75 ~ 5.5V | |
| | VOLTAGE TOLERANCE Note.3 | ±5.0% | ±7.0% | ±5.0% | ±7.0% |
| | LINE REGULATION Note.4 | ±1.0% | ±2.0% | ±1.0% | ±2.0% |
| | LOAD REGULATION Note.5 | ±3.0% | ±4.0% | ±3.0% | ±4.0% |
| | SETUP, RISE TIME | 500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load | | | |
| | HOLD UP TIME (Typ.) | 25ms/230VAC 30ms/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.) | 82% | | 85% | |
| | AC CURRENT (Typ.) | 3A/115VAC 2A/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 | CH1: 5.75 ~ 6.75V 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℃) on CH1 output | | | |
| | VIBRATION | 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | |
| SAFETY & EMC (Note 7) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 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 EN55032 (CISPR32) Class B, EN61000-3-2,-3 | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A | | | |
| OTHERS | MTBF | 232.4Khrs min. MIL-HDBK-217F (25℃) | | | |
| | DIMENSION | 199*98*38mm (L*W*H) | | | |
| | PACKING | 0.7Kg; 20pcs/15Kg/0.8CUFT | | | |
| 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 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. 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) 8. 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. | | | | |



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■ 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



SPECIFICATION

| MODEL | | RD-125-1224 | | RD-125-1248 | | RD-125-2448 | |
|--------------------------|--|---|----------|-------------------|------------|---|------------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH1 | CH2 | CH1 | CH2 |
| | DC VOLTAGE | 12V | 24V | 12V | 48V | 24V | 48V |
| | RATED CURRENT | 3.7A | 3.7A | 2.3A | 2.3A | 2A | 2A |
| | CURRENT RANGE <small>Note.6</small> | 1 ~ 7A | 0.4 ~ 5A | 1 ~ 7A | 0.2 ~ 2.5A | 0.5 ~ 4A | 0.2 ~ 2.5A |
| | RATED POWER <small>Note.6</small> | 133.2W | | 138W | | 144W | |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 120mVp-p | 200mVp-p | 120mVp-p | 240mVp-p | 200mVp-p | 240mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 11.4 ~ 13.2V | | CH1: 11.4 ~ 13.2V | | CH1: 22.8 ~ 26.4V | |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ±2.0% | +8,-5% | ±2.0% | +8,-5% | ±1.0% | ±4.0% |
| | LINE REGULATION <small>Note.4</small> | ±0.5% | ±1.0% | ±0.5% | ±1.0% | ±0.5% | ±1.0% |
| | LOAD REGULATION <small>Note.5</small> | ±1.0% | ±5.0% | ±1.0% | ±5.0% | ±1.0% | ±3.0% |
| SETUP, RISE TIME | 500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load | | | | | | |
| HOLD UP TIME (Typ.) | 25ms/230VAC 30ms/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.) | 85% | | 86% | | 86% | |
| | AC CURRENT (Typ.) | 3A/115VAC 2A/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 | CH1: 13.8 ~ 16.2V | | CH1: 13.8 ~ 16.2V | | CH1: 27.6 ~ 32.4V 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℃) on CH1 output | | | | | |
| | VIBRATION | 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC (Note 7) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 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 EN55032 (CISPR32) Class B, EN61000-3-2,-3 | | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A | | | | | |
| OTHERS | MTBF | 218.2Khrs min. MIL-HDBK-217F (25℃) | | | | | |
| | DIMENSION | 199*98*38mm (L*W*H) | | | | | |
| | PACKING | 0.7Kg; 20pcs/15Kg/0.8CUFT | | | | | |
| 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 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. 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) 8. 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. | | | | | | |



■ 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
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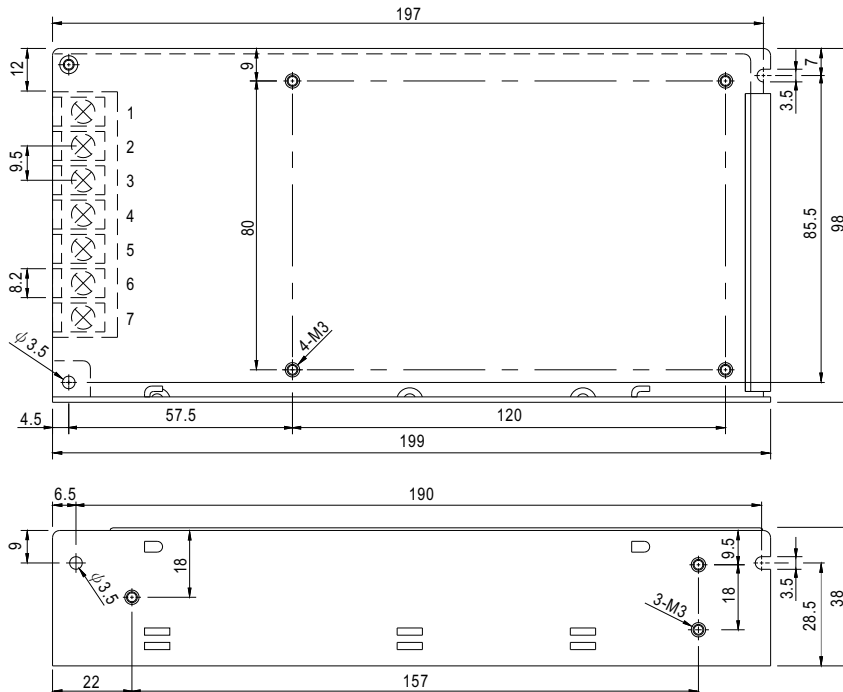
SPECIFICATION

| MODEL | | RD-125-2412 | | RD-125-4812 | | RD-125-4824 | |
|--------------------------|--|---|----------|-------------------|----------|---|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH1 | CH2 | CH1 | CH2 |
| | DC VOLTAGE | 24V | 12V | 48V | 12V | 48V | 24V |
| | RATED CURRENT | 3.7A | 3.7A | 2.3A | 2.3A | 2A | 2A |
| | CURRENT RANGE Note.6 | 0.5 ~ 5A | 1 ~ 7A | 0.3 ~ 2.5A | 1 ~ 7A | 0.3 ~ 2.5A | 0.5 ~ 4A |
| | RATED POWER Note.6 | 133.2W | | 138W | | 144W | |
| | RIPPLE & NOISE (max.) Note.2 | 200mVp-p | 120mVp-p | 240mVp-p | 120mVp-p | 240mVp-p | 240mVp-p |
| | VOLTAGE ADJ. RANGE | CH1: 22.8 ~ 26.4V | | CH1: 45.6 ~ 52.8V | | CH1: 45.6 ~ 52.8V | |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±10% | ±2.0% | ±10% | ±1.0% | ±8.0% |
| | LINE REGULATION Note.4 | ±0.5% | ±1.0% | ±0.5% | ±1.0% | ±0.5% | ±1.0% |
| | LOAD REGULATION Note.5 | ±1.0% | ±5.0% | ±1.0% | ±5.0% | ±1.0% | ±5.0% |
| | SETUP, RISE TIME | 500ms, 20ms/230VAC 1200ms, 30ms/115VAC at full load | | | | | |
| HOLD UP TIME (Typ.) | 25ms/230VAC 30ms/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.) | 85% | | 86% | | 86% | |
| | AC CURRENT (Typ.) | 3A/115VAC 2A/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 | CH1: 27.6 ~ 32.4V | | CH1: 55.2 ~ 64.8V | | CH1: 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℃) on CH1 output | | | | | |
| | VIBRATION | 10 ~ 500Hz, 5G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC (Note 7) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1 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 EN55032 (CISPR32) Class B, EN61000-3-2,-3 | | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61000-6-2 (EN50082-2), heavy industry level, criteria A | | | | | |
| OTHERS | MTBF | 232.4Khrs min. MIL-HDBK-217F (25℃) | | | | | |
| | DIMENSION | 199*98*38mm (L*W*H) | | | | | |
| | PACKING | 0.7Kg; 20pcs/15Kg/0.8CUFT | | | | | |
| 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 20% to 100% rated load, and other output at 60% rated load. 6. Each output can work within current range. But total output power can't exceed rated output power. 7. 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) 8. 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. | | | | | | |

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.
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Mechanical Specification

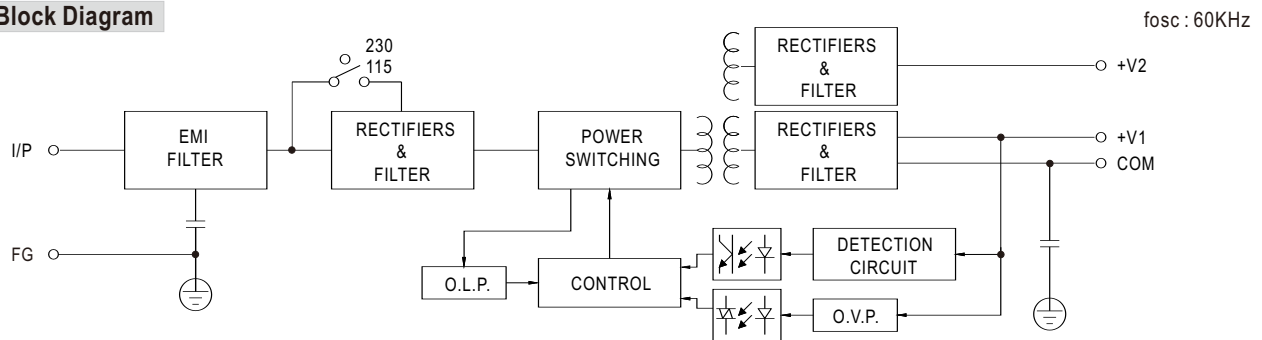
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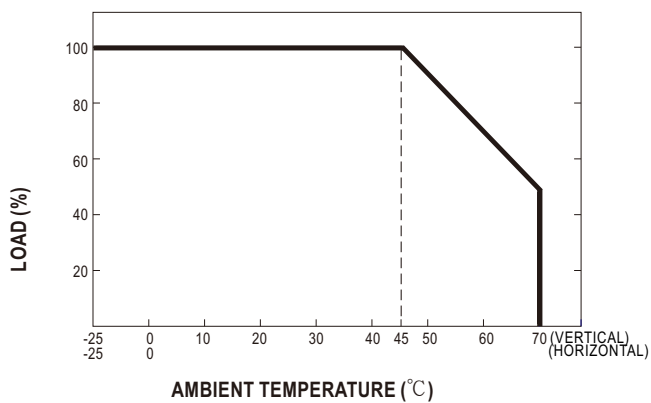
Terminal Pin No. Assignment

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

Block Diagram



Derating Curve



Static Characteristics

