



40W Single Output Industrial DIN Rail Power Supply

MDR-40 series



■ Features :

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- NEC class 2 / LPS compliant (12V,24V,48V only)
- LED indicator for power on
- DC OK relay contact
- No load power consumption<0.75W
- 100% full load burn-in test
- 3 years warranty



SPECIFICATION

| MODEL | MDR-40-5 | MDR-40-12 | MDR-40-24 | MDR-40-48 | |
|-----------------------|---|---|--------------------|----------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 24V | 48V |
| | RATED CURRENT | 6A | 3.33A | 1.7A | 0.83A |
| | CURRENT RANGE | 0 ~ 6A | 0 ~ 3.33A | 0 ~ 1.7A | 0 ~ 0.83A |
| | RATED POWER | 30W | 40W | 40.8W | 39.8W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 150mVp-p | 200mVp-p |
| | VOLTAGE ADJ. RANGE | 5 ~ 6V | 12 ~ 15V | 24 ~ 30V | 48 ~ 56V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME Note.5 | 500ms, 30ms/230VAC | 500ms, 30ms/115VAC | at full load | |
| HOLD UP TIME (Typ.) | 50ms/230VAC | 20ms/115VAC | at full load | | |
| INPUT | VOLTAGE RANGE | 85 ~ 264VAC | 120 ~ 370VDC | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | EFFICIENCY (Typ.) | 78% | 86% | 88% | 88% |
| | AC CURRENT (Typ.) | 1.1A/115VAC | 0.7A/230VAC | | |
| | INRUSH CURRENT (Typ.) | COLD START 30A/115VAC | 60A/230VAC | | |
| | LEAKAGE CURRENT | <1mA/ 240VAC | | | |
| PROTECTION | OVERLOAD | 105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | |
| | OVER VOLTAGE | 6.25 ~ 7.25V | 15.6 ~ 18V | 31.2 ~ 36V | 57.6 ~ 64.8V |
| | | Protection type : Shut down o/p voltage, re-power on to recover | | | |
| FUNCTION | DC OK SIGNAL | Relay contact rating(max.): 30V/1A resistive | | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +70°C (Refer to output load 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 | Component : 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes ; Mounting : Compliance to IEC60068-2-6 | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL508, UL60950-1, TUV EN60950-1 approved, NEC class 2 / LPS compliant (12V,24V,48V only) | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC | I/P-FG:1.5KVAC | O/P-FG:0.5KVAC | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:>100M Ohms/500VDC 25°C 70%RH | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55011, EN55022 (CISPR22), EN61204-3 Class B | | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, ENV50204, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A | | | |
| OTHERS | MTBF | 301.7K hrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 40*90*100mm (W*H*D) | | | |
| | PACKING | 0.3Kg; 42pcs/13.6Kg/0.82CUFT | | | |
| NOTE | <ol style="list-style-type: none"> 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. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 5. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. | | | | |

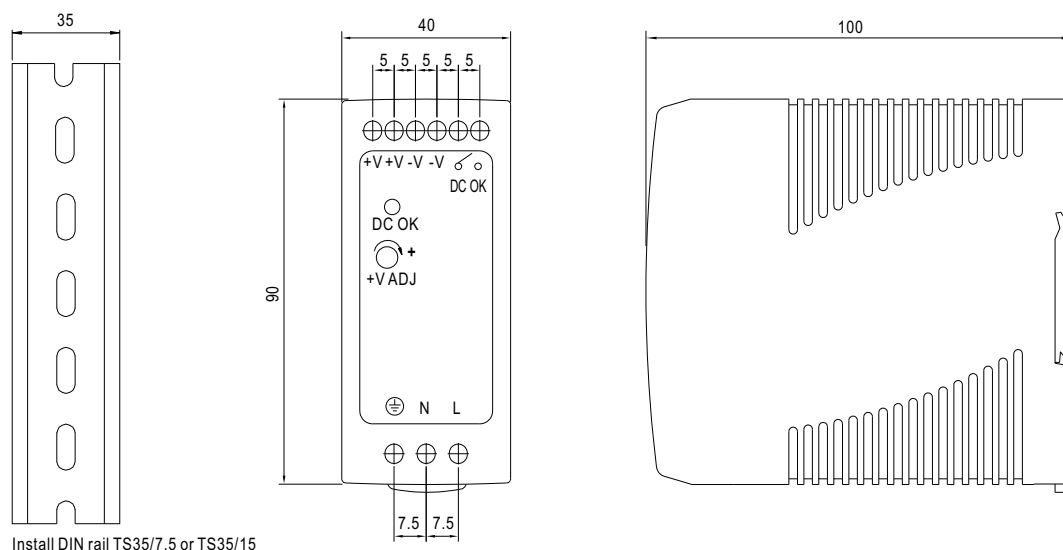


40W Single Output Industrial DIN Rail Power Supply

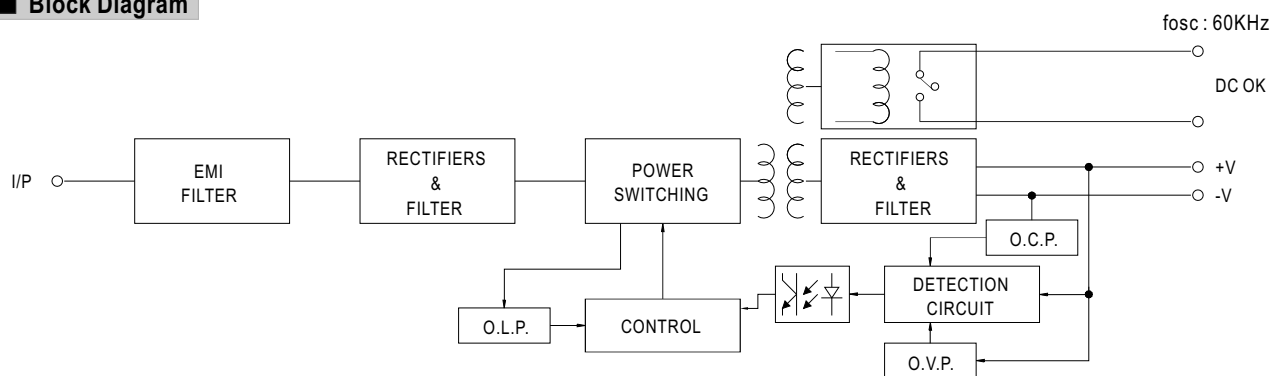
MDR-40 series

Case No.962A Unit:mm

Mechanical Specification



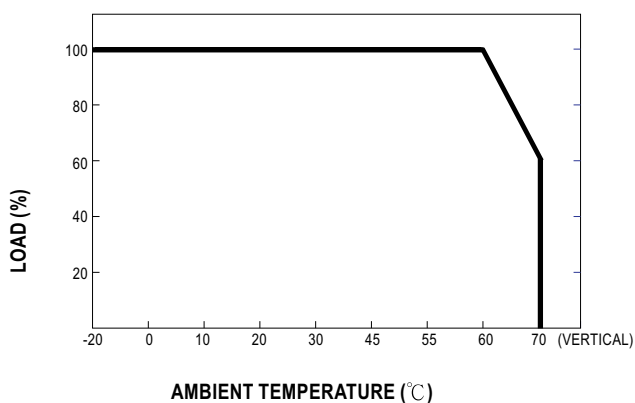
Block Diagram



DC OK Relay Contact

| | |
|------------------------|--|
| Contact Close | When the output voltage reaches the adjusted output voltage. |
| Contact Open | When the output voltage drop below 90% output voltage. |
| Contact Ratings (max.) | 30V/1A resistive load |

Derating Curve



Output Derating VS Input Voltage

