



■ 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
- LED indicator for power on
- DC OK relay contact
- No load power consumption<0.75W
- 100% full load burn-in test
- 3 years warranty

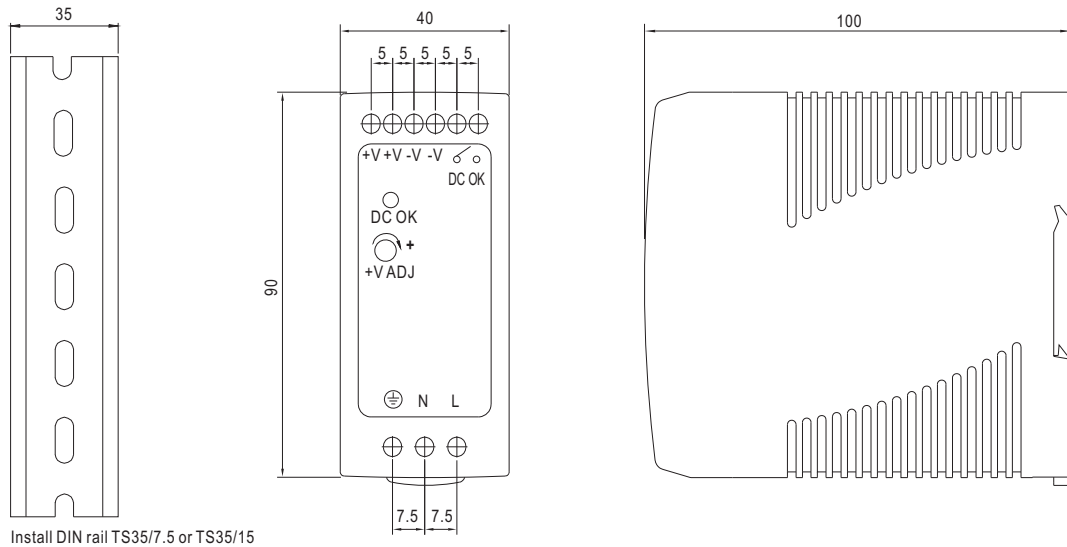


**SPECIFICATION**

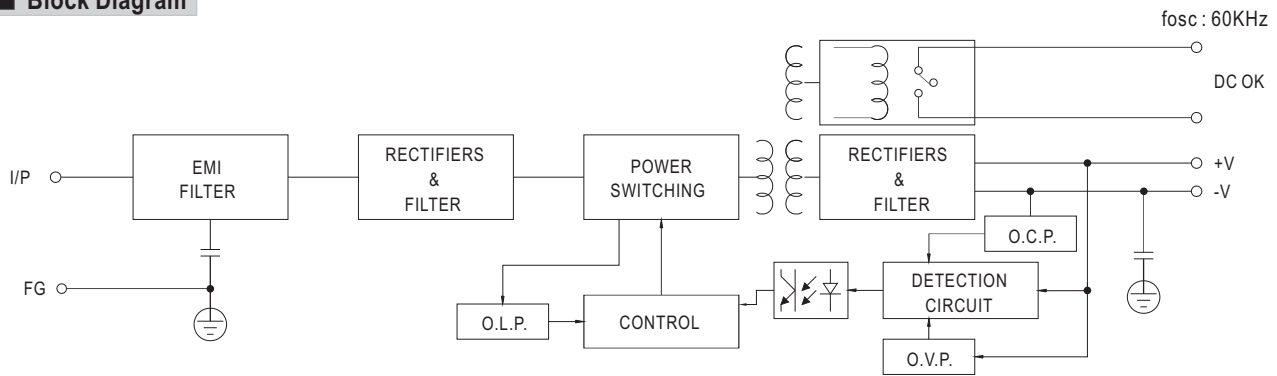
| MODEL                 | MDR-60-5   | MDR-60-12   | MDR-60-24  | MDR-60-48  |              |
|-----------------------|--|---|------------|------------|--------------|
| OUTPUT                | DC VOLTAGE   | 5V  | 12V        | 24V        | 48V          |
|                       | RATED CURRENT  | 10A   | 5A         | 2.5A       | 1.25A        |
|                       | CURRENT RANGE  | 0 ~ 10A   | 0 ~ 5A     | 0 ~ 2.5A   | 0 ~ 1.25A    |
|                       | RATED POWER  | 50W   | 60W        | 60W        | 60W          |
|                       | 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  | ± 1.5%  | ± 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%        | 87%          |
|                       | AC CURRENT (Typ.)  | 1.8A/115VAC    1A/230VAC  |            |            |              |
|                       | INRUSH CURRENT (Typ.)  | COLD START 30A/115VAC    60A/230VAC   |            |            |              |
|                       | LEAKAGE CURRENT  | <1mA / 240VAC   |            |            |              |
| PROTECTION            | OVERLOAD   | 105 ~ 150% rated output power<br>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 "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  |            |            |              |
|                       | 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 EN55011, EN55022 (CISPR22), EN61204-3 Class B, EN61000-3-2,-3   |            |            |              |
|                       | EMC IMMUNITY   | Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, EN61000-6-2, EN61204-3, heavy industry level, criteria A                       |            |            |              |
| OTHERS                | MTBF   | 299.2K hrs min.    MIL-HDBK-217F (25°C)   |            |            |              |
|                       | DIMENSION  | 40*90*100mm (W*H*D)   |            |            |              |
|                       | PACKING  | 0.33Kg; 42pcs/14.8Kg/0.82CUFT   |            |            |              |
| 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. 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.</p> <p>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.</p> |   |            |            |              |

Case No.962A Unit:mm

**Mechanical Specification**



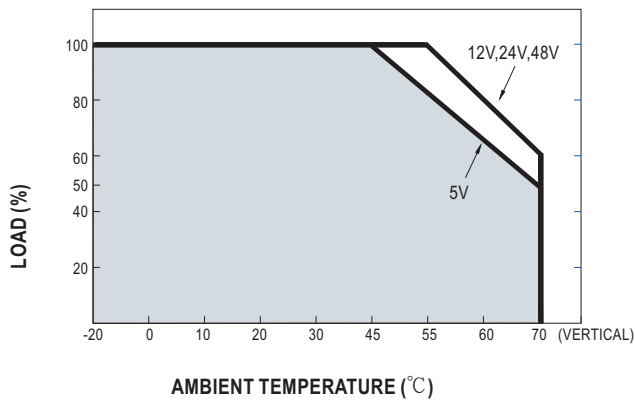
**Block Diagram**



**DC OK Relay Contact**

|                        |                          |
|------------------------|--------------------------|
| Contact Close          | PSU turns on / DC OK.    |
| Contact Open           | PSU turns off / DC Fail. |
| Contact Ratings (max.) | 30V/1A resistive load.   |

**Derating Curve**



**Output Derating VS Input Voltage**

