



96W Single Output Industrial DIN Rail Power Supply

MDR-100 series



■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- ZCS/ZVS technology to reduce power dissipation
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- DC OK relay contact
- No load power consumption<1W
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

User's Manual



■ GTIN CODE

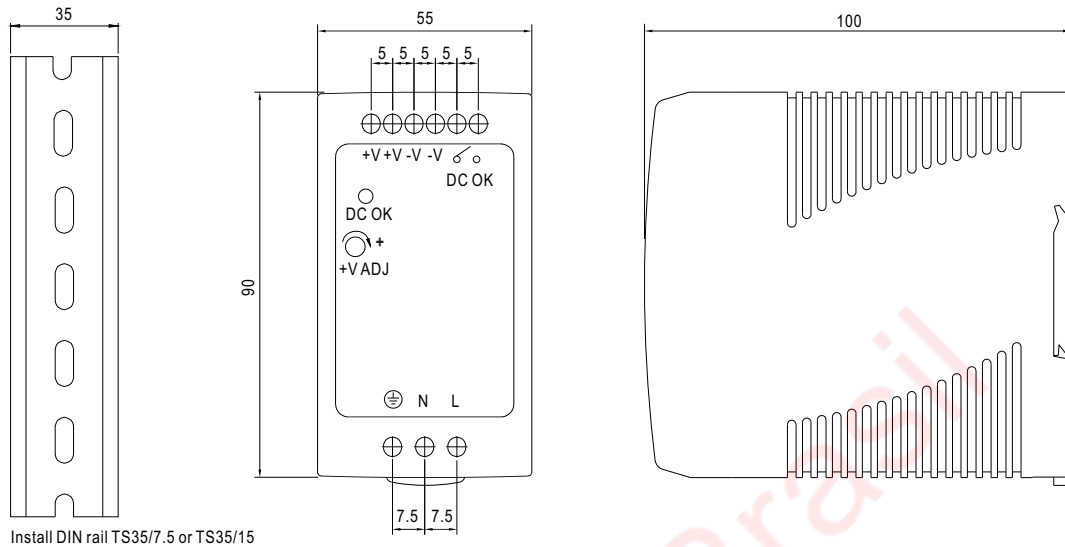
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>



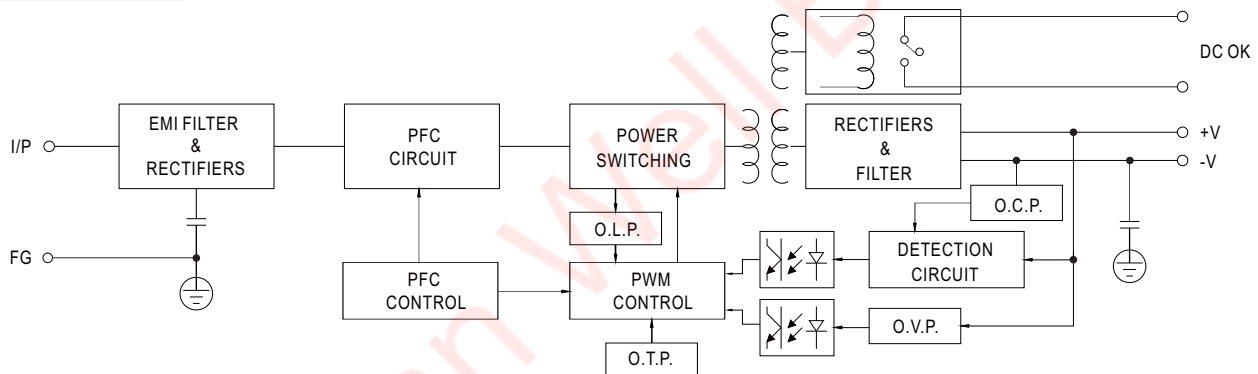
SPECIFICATION

| MODEL | | MDR-100-12 | | MDR-100-24 | MDR-100-48 |
|---|---|---|--|------------|--------------|
| OUTPUT | DC VOLTAGE | 12V | | 24V | 48V |
| | RATED CURRENT | 7.5A | | 4A | 2A |
| | CURRENT RANGE | 0 ~ 7.5A | | 0 ~ 4A | 0 ~ 2A |
| | RATED POWER | 90W | | 96W | 96W |
| | RIPPLE & NOISE (max.) <small>Note.2</small> | 120mVp-p | | 150mVp-p | 200mVp-p |
| | VOLTAGE ADJ. RANGE | 12 ~ 15V | | 24 ~ 30V | 48 ~ 56V |
| | VOLTAGE TOLERANCE <small>Note.3</small> | ± 1.0% | | ± 1.0% | ± 1.0% |
| | LINE REGULATION | ± 1.0% | | ± 1.0% | ± 1.0% |
| | LOAD REGULATION | ± 1.0% | | ± 1.0% | ± 1.0% |
| | SETUP, RISE TIME <small>Note.5</small> | 3000ms, 50ms/230VAC 3000ms, 50ms/115VAC at full load | | | |
| HOLD UP TIME (Typ.) | 50ms/230VAC 20ms/115VAC at full load | | | | |
| INPUT | VOLTAGE RANGE <small>Note.6</small> | 85 ~ 264VAC 120 ~ 370VDC | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | POWER FACTOR (Typ.) | PF ≥ 0.95/230VAC PF ≥ 0.98/115VAC at full load | | | |
| | EFFICIENCY (Typ.) | 83% | | 86% | 87% |
| | AC CURRENT (Typ.) | 1.3A/115VAC 0.8A/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 | 15.6 ~ 18V | | 31.2 ~ 36V | 57.6 ~ 64.8V |
| | | Protection type : Shut down o/p voltage, re-power on to recover | | | |
| | OVER TEMPERATURE | Shut down o/p voltage, auto-recovery or re-power on to recover | | | |
| FUNCTION | DC OK SIGNAL | Relay contact rating(max.): 30V/1A resistive | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60°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 <small>(Note 4)</small> | SAFETY STANDARDS | UL508, TUV BS EN/EN62368-1, EAC TP TC 004, BSMI CNS14336-1, AS/NZS 60950.1 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 BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Class B, BS EN/EN61000-3-2, -3, EAC TP TC 020, CNS13438 Class B | | | |
| | 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/EN61204-3, heavy industry level, EAC TP TC 020 | | | |
| OTHERS | MTBF | 2217.8K hrs min. Telcordia SR-332 (Bellcore) ; 346.5K hrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 55*90*100mm (W*H*D) | | | |
| | PACKING | 0.42Kg; 30pcs/13.6Kg/0.82CUFT | | | |

Mechanical Specification



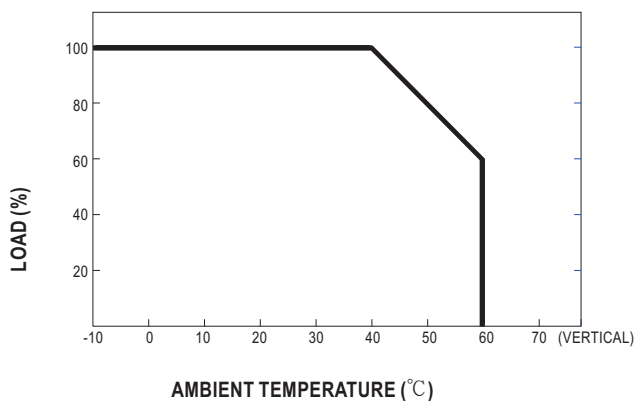
Block Diagram



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

