



120W Single Output Industrial DIN RAIL Power Supply

WDR-120 series



■ Features :

- Single and two phase wide input range 180 ~ 550VAC
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit
- Can be installed on DIN rail TS-35/7.5 or 15
- UL508(industrial control equipment)approved
- EN61000-6-2(EN50082-2) industrial immunity level
- 100% full load burn-in test
- Built-in DC OK relay contact
- 3 years warranty

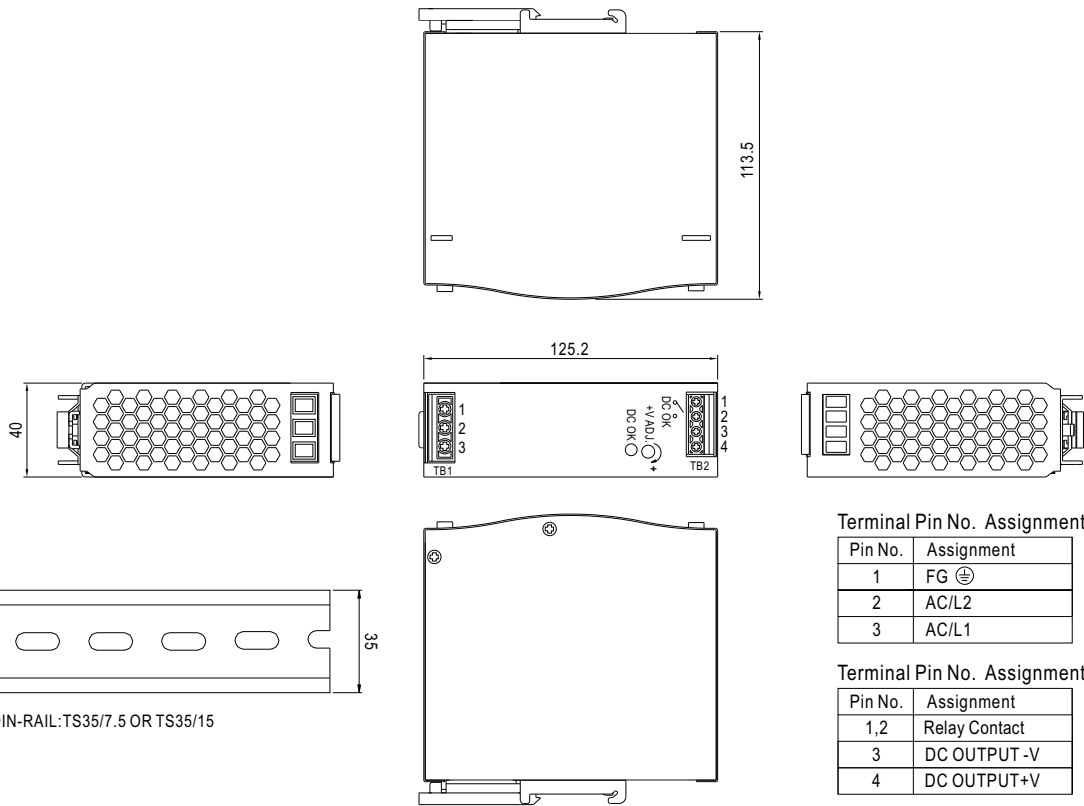


SPECIFICATION

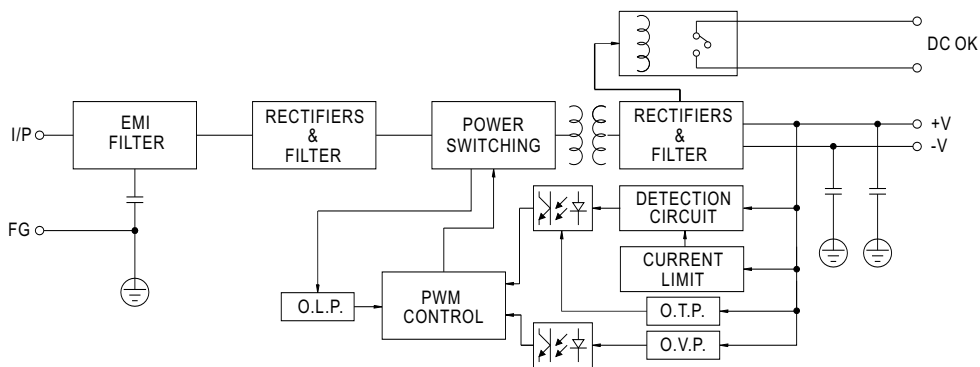
| MODEL | WDR-120-12 | WDR-120-24 | WDR-120-48 | |
|---------------------------|--|--|------------|------------|
| OUTPUT | DC VOLTAGE | 12V | 24V | 48V |
| | RATED CURRENT | 10A | 5A | 2.5A |
| | CURRENT RANGE | 0 ~ 10A | 0 ~ 5A | 0 ~ 2.5A |
| | RATED POWER | 120W | 120W | 120W |
| | RIPPLE & NOISE (max.) Note.2 | 120mVp-p | 120mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 12 ~ 15V | 24 ~ 29V | 48 ~ 58V |
| | VOLTAGE TOLERANCE Note.3 | ±1.5% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±0.5% | ±0.5% | ±0.5% |
| SETUP, RISE, HOLD UP TIME | 2000ms, 70ms, 50ms/400VAC 2000ms, 70ms, 10ms/230VAC at full load | | | |
| INPUT | VOLTAGE RANGE | 180 ~ 550VAC 254 ~ 780VDC | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | |
| | EFFICIENCY (Typ.) | 89.5% / 400V | 91% / 400V | 92% / 400V |
| | AC CURRENT | 0.55A/400VAC 1.2A/230VAC | | |
| | INRUSH CURRENT (max.) | COLD START 50A | | |
| | LEAKAGE CURRENT | <3.5mA / 530VAC | | |
| PROTECTION | OVERLOAD | 105 ~ 130% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed | | |
| | OVER VOLTAGE | 16 ~ 18V | 31 ~ 37V | 60 ~ 67V |
| | OVER TEMPERATURE | 105°C±5°C(12V),110°C±5°C(24V) (TSW1) detect on heatsink of power transistor ; 100°C±5°C(48V) (TSW1) detect on heatsink of power diode Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | |
| FUNCTION | DC OK SIGNAL | Relay contact rating(max.) : 30V / 1A resistive | | |
| ENVIRONMENT | WORKING TEMP. | -25 ~ +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, 60min. each along X, Y, Z axes; Mounting clip: Compliance to IEC60068-2-6 | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL508 approved, IEC60950-1 CB approved by SIQ, design refer to GL | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC O/P-DC OK: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 (CISPR11), EN55022 (CISPR22), EN61204-3 Class B | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN61204-3, EN61000-6-2 (EN50082-2), heavy industry level, criteria A | | |
| OTHERS | MTBF | 268Khrs min. MIL-HDBK-217F (25°C) | | |
| | DIMENSION | 40*125.2*113.5mm (W*H*D) | | |
| | PACKING | 0.65Kg; 20pcs/14Kg/1.16CUFT | | |
| NOTE | <ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 400VAC 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 cold first start. Turning ON/OFF the power supply very quick may lead to increase of the set up time. | | | |

Mechanical Specification

Case No.992B Unit:mm



Block Diagram

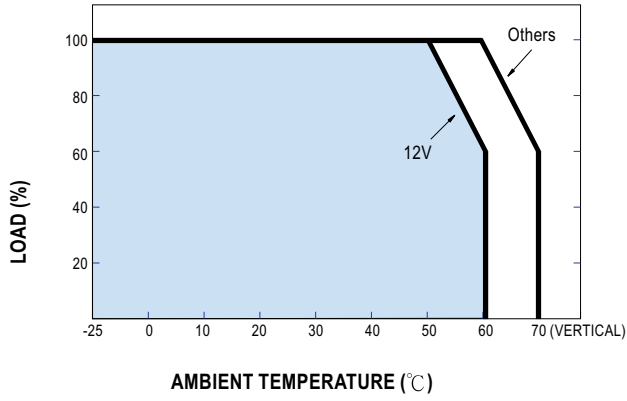


DC OK Relay Contact

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



■ Derating Curve



■ Static Characteristics

