



120W Single Output Industrial DIN RAIL with PFC Function

SDR-120 series



■ Features :

- High efficiency 91% and low power dissipation
- 150% peak load capability
- Built-in active PFC function, PF>0.93
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- EN61000-6-2(EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

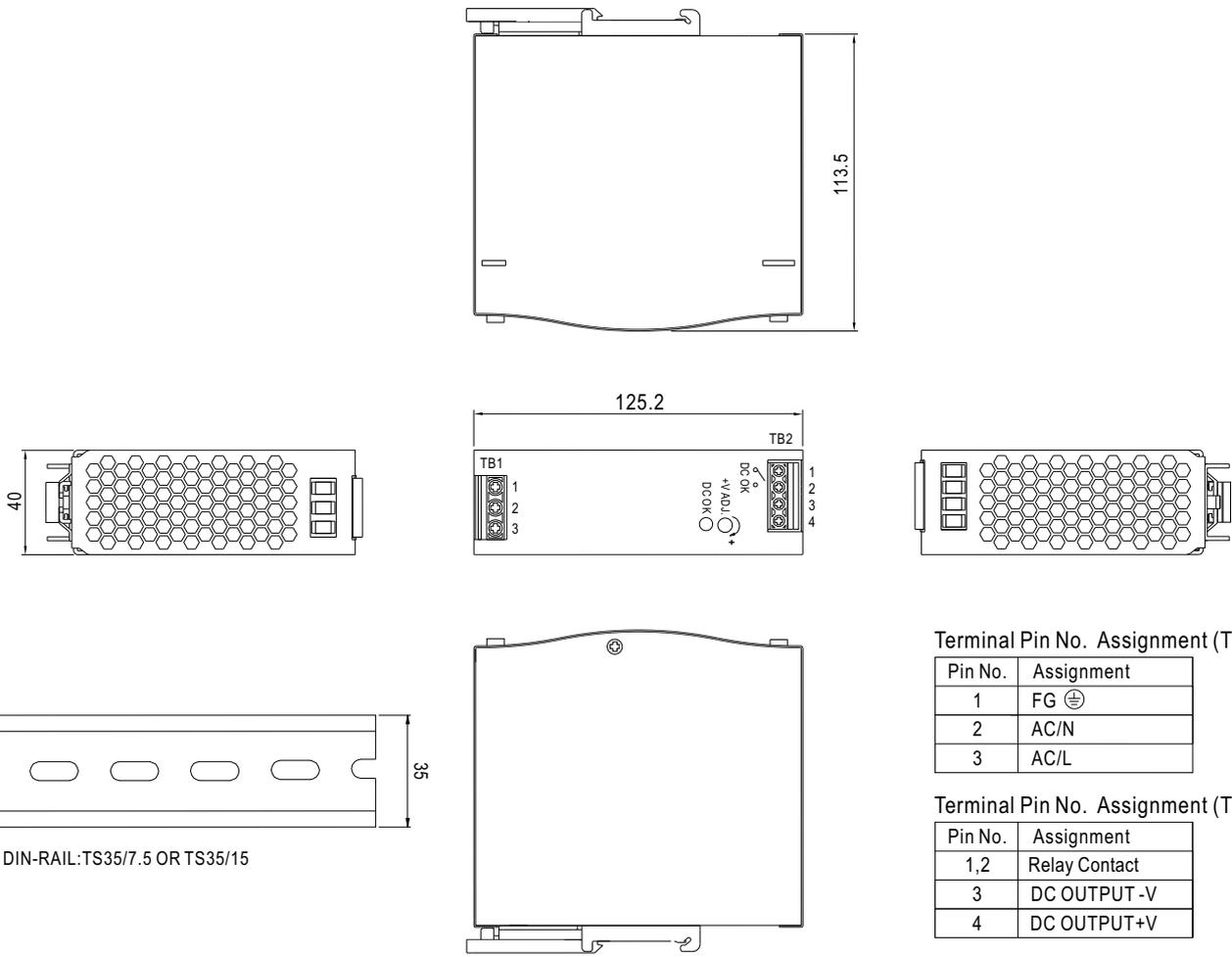


SPECIFICATION

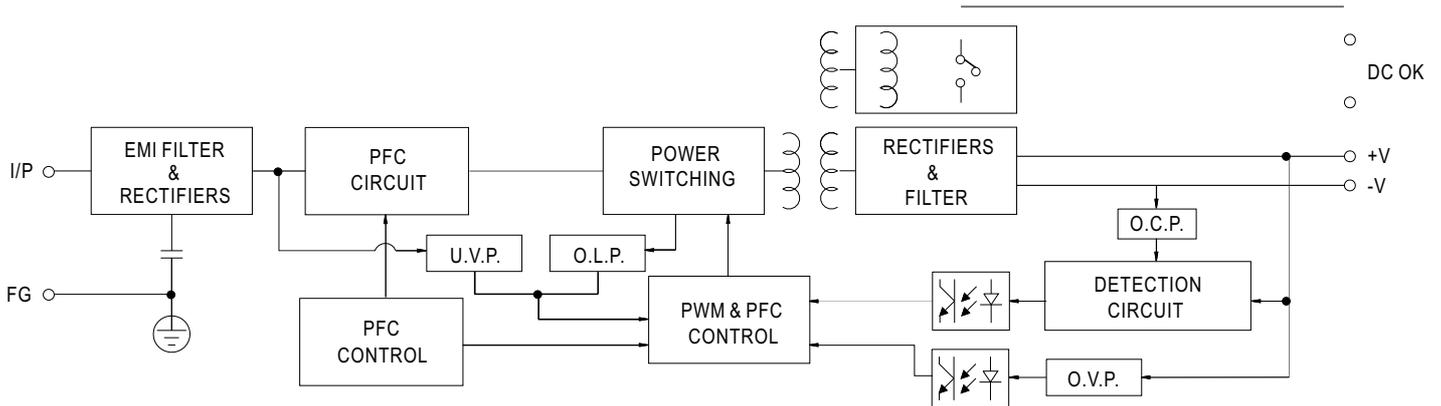
| MODEL | SDR-120-12 | SDR-120-24 | SDR-120-48 | |
|-----------------------|--|--|----------------------------------|----------|
| OUTPUT | DC VOLTAGE | 12V | 24V | 48V |
| | RATED CURRENT | 10A | 5A | 2.5A |
| | CURRENT RANGE | 0 ~ 10A | 0 ~ 5A | 0 ~ 2.5A |
| | RATED POWER | 120W | 120W | 120W |
| | PEAK CURRENT | 15A | 7.5A | 3.75A |
| | PEAK POWER Note.6 | 180W (3sec.) | | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 100mVp-p | 120mVp-p |
| | VOLTAGE ADJ. RANGE | 12 ~ 14V | 24 ~ 28V | 48 ~ 55V |
| | VOLTAGE TOLERANCE Note.3 | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 1500ms, 60ms/230VAC | 3000ms, 60ms/115VAC at full load | |
| HOLD UP TIME (Typ.) | 20ms/230VAC | 20ms/115VAC at full load | | |
| INPUT | VOLTAGE RANGE | 88 ~ 264VAC | 124 ~ 370VDC | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | |
| | POWER FACTOR (Typ.) | 0.93/230VAC | 0.96/115VAC at full load | |
| | EFFICIENCY (Typ.) | 89% | 91% | 90% |
| | AC CURRENT (Typ.) | 1.4A/115VAC | 0.7A/230VAC | |
| | INRUSH CURRENT (Typ.) | 35A/115VAC | 70A/230VAC | |
| LEAKAGE CURRENT | <1mA / 240VAC | | | |
| PROTECTION | OVERLOAD | Normally works within 110 ~ 150% rated output power for more than 3 seconds and then shut down o/p voltage >150% rated power, constant current limiting with auto-recovery within 3 seconds and more than 3 seconds shut down o/p voltage | | |
| | OVER VOLTAGE | 14 ~ 17V | 29 ~ 33V | 56 ~ 65V |
| | OVER TEMPERATURE | 95°C ±5°C (TSW : detect on heatsink of power switch) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | |
| FUNCTION | DC OK REALY CONTACT RATINGS (max.) 60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A resistive load | | | |
| ENVIRONMENT | WORKING TEMP. Note.5 | -25 ~ +70°C (Refer to output load derating curve) | | |
| | WORKING HUMIDITY | 20 ~ 95% 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: Compliance to IEC60068-2-6 | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL508, TUV EN60950-1 approved | | |
| | 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 EN55022 (CISPR22) Class B | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | |
| OTHERS | EMM IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55024, EN61000-6-2 (EN50082-2), EN61204-3, heavy industry level, criteria A, SEMI F47 approved | | |
| | MTBF | 289.9Khrs min. MIL-HDBK-217F (25°C) | | |
| | DIMENSION | 40*125.2*113.5mm (W*H*D) | | |
| NOTE | PACKING | 0.67Kg; 20pcs/14.4Kg/1.19CUFT | | |
| | | 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. Installation clearances : 40mm on top, 20mm on the bottom, 5mm on the left and right side are recommended when loaded permanently with full power. In case the adjacent device is a heat source, 15mm clearance is recommended. 6. 4 seconds max., please refer to peak loading curves. 7. Derating may be needed under low input voltage. Please check the derating curve for more details. | | |

Mechanical Specification

Case No.992A Unit:mm



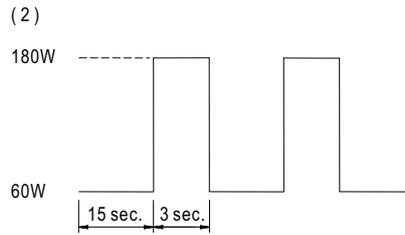
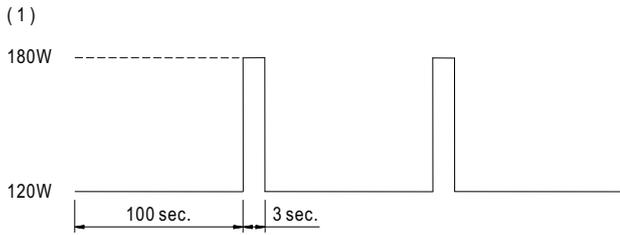
Block Diagram



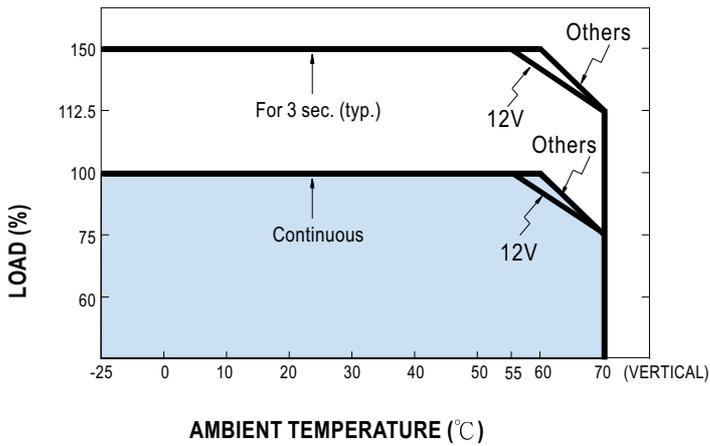
DC OK Relay Contact

| | |
|------------------------|--|
| 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 |

Peak Loading



Derating Curve



Output derating VS input voltage

