



#### ■ 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
- BS EN/EN61000-6-2(BS EN/EN50082-2) industrial immunity level
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty

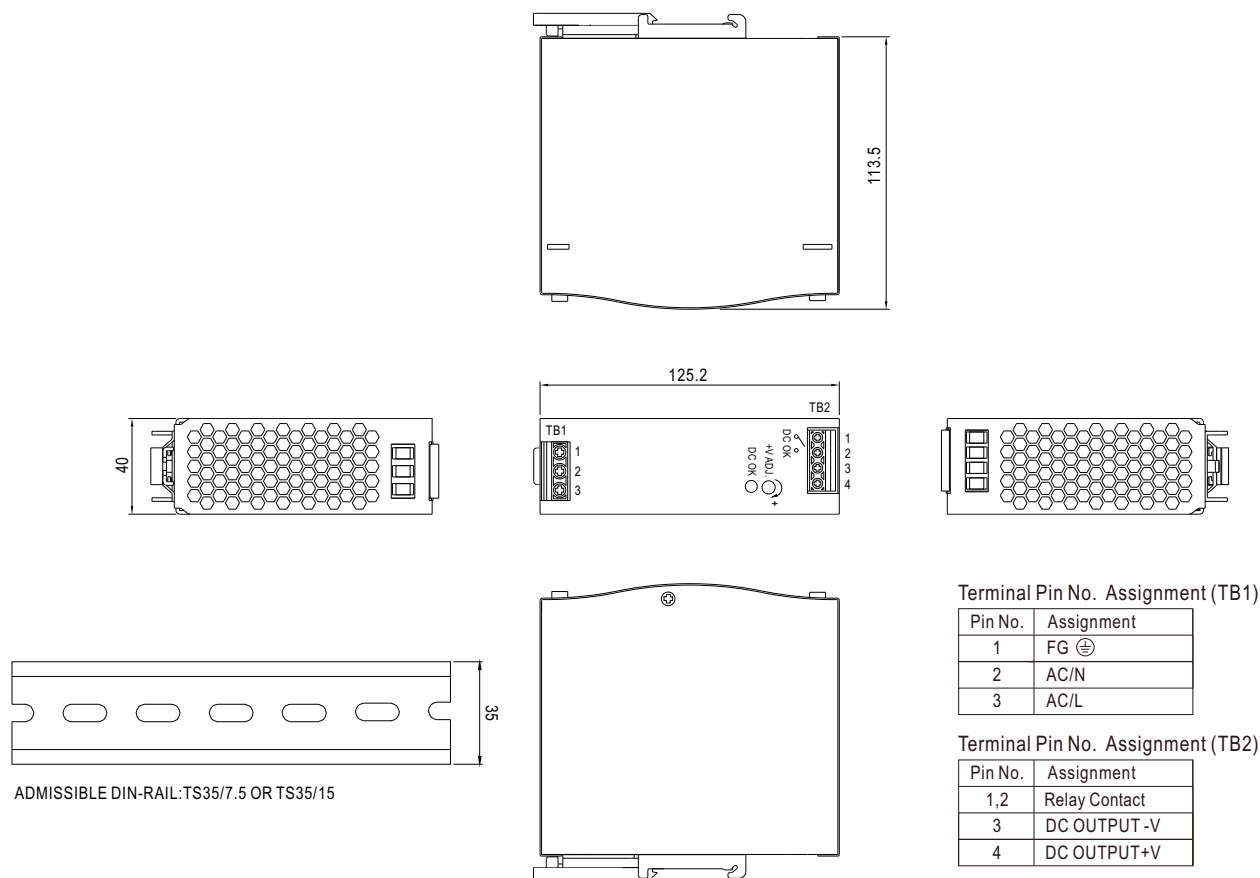


#### SPECIFICATION

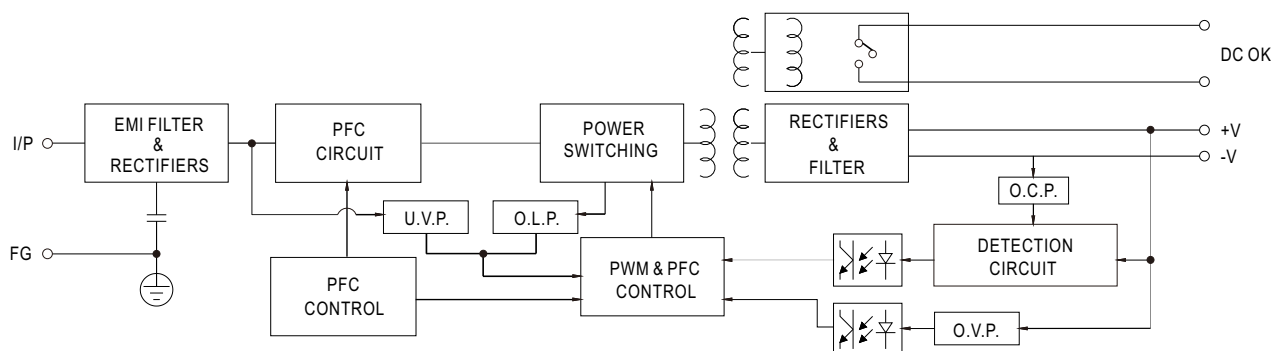
| MODEL                                   |  | SDR-120-12   |  | SDR-120-24               |  | SDR-120-48 |  |
|---|--|--|--|--------------------------|--|------------|--|
| OUTPUT                                  | DC VOLTAGE   | 12V  |  | 24V                      |  | 48V        |  |
|   | RATED CURRENT  | 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 <small>Note.6</small>   | 180W (3 sec.)  |  |                          |  |            |  |
|   | RIPPLE & NOISE (max.) <small>Note.2</small>  | 100mVp-p   |  | 100mVp-p                 |  | 120mVp-p   |  |
|   | VOLTAGE ADJ. RANGE   | 12 ~ 14V   |  | 24 ~ 28V                 |  | 48 ~ 55V   |  |
|   | VOLTAGE TOLERANCE <small>Note.3</small>  | ± 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 <small>Note.7</small>  | 88 ~ 264VAC  |  | 124 ~ 370VDC             |  |            |  |
|   | FREQUENCY RANGE  | 47 ~ 63Hz  |  |                          |  |            |  |
|   | POWER FACTOR (Typ.)  | 0.93/230VAC  |  | 0.96/115VAC at full load |  |            |  |
|   | EFFICIENCY (Typ.)  | 89%  |  | 91%                      |  | 90.5%      |  |
|   | 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<br>>150% rated power, constant current limiting with auto-recovery within 3 seconds and shut down o/p voltage after 3 seconds |  |                          |  |            |  |
|   | OVER VOLTAGE   | 14 ~ 17V   |  | 29 ~ 33V                 |  | 56 ~ 65V   |  |
|   |  | Protection type : Shut down o/p voltage, re-power on to recover  |  |                          |  |            |  |
|   | OVER TEMPERATURE   | 95℃ ± 5℃ (TSW) detect on heatsink of power switch<br>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.  | -25 ~ +70℃ (Refer to "Derating Curve")   |  |                          |  |            |  |
|   | WORKING HUMIDITY   | 20 ~ 95% RH non-condensing   |  |                          |  |            |  |
|   | STORAGE TEMP., HUMIDITY  | -40 ~ +85℃, 10 ~ 95% RH  |  |                          |  |            |  |
|   | TEMP. COEFFICIENT  | ± 0.03%/℃ (0 ~ 50℃ )   |  |                          |  |            |  |
|   | VIBRATION  | Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6  |  |                          |  |            |  |
| SAFETY & EMC<br><small>(Note 4)</small> | SAFETY STANDARDS   | UL508, TUV BS EN/EN62368-1, AS/NZS 62368.1, EAC TP TC 004, BSMI CNS14336-1 approved;(meet BS EN/EN60204-1)   |  |                          |  |            |  |
|   | WITHSTAND VOLTAGE  | I/P-O/P:3KVAC    I/P-FG:2KVAC    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℃ / 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/EN55024, BS EN/EN61000-6-2 (BS EN/EN50082-2), BS EN/EN61204-3, heavy industry level, criteria A, EAC TP TC 020, SEMI F47 approved  |  |                          |  |            |  |
| OTHERS                                  | MTBF   | 289.9K hrs min.      MIL-HDBK-217F (25℃)   |  |                          |  |            |  |
|   | DIMENSION  | 40*125.2*113.5mm (W*H*D)   |  |                          |  |            |  |
|   | PACKING  | 0.67Kg; 20pcs/14.4Kg/1.16CUFT  |  |                          |  |            |  |
| NOTE                                    | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>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.<br>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.<br>6. 3 seconds max., please refer to peak loading curves.<br>7. Derating may be needed under low input voltage. Please check the derating curve for more details.<br>8. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).<br>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> |  |  |                          |  |            |  |

Case No.992A Unit:mm

## Mechanical Specification



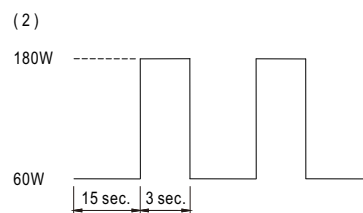
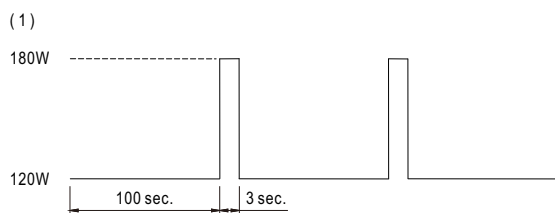
## Block Diagram



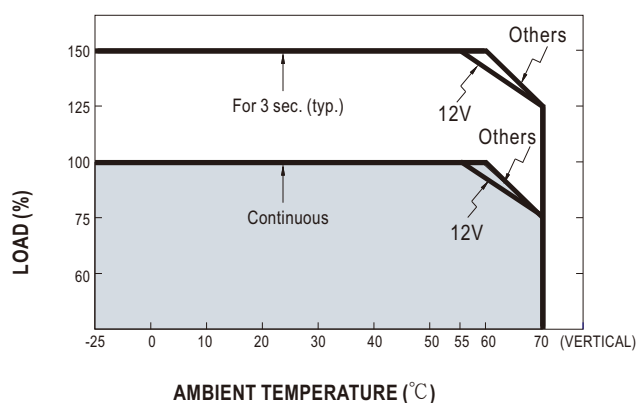
## DC OK Relay Contact

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

## ■ Peak Loading



## ■ Derating Curve



## ■ Output derating VS input voltage

