



#### ■ Features :

- .High efficiency 90% and low power dissipation
- .150% peak load capability
- .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
- .100% full load burn-in test
- .3 years warranty



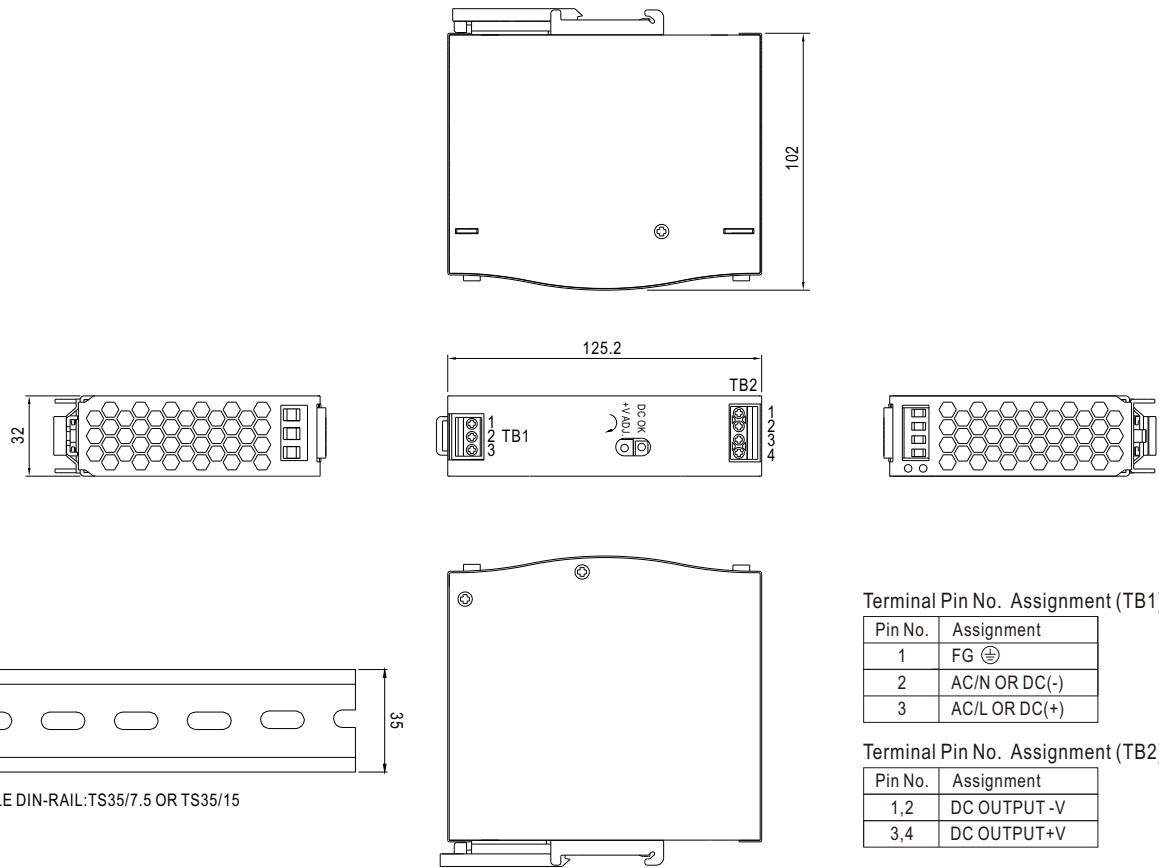
#### SPECIFICATION

| MODEL                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SDR-75-12                                                                                                                                                                                                                                                                                         |  | SDR-75-24 |  | SDR-75-48 |  |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------|--|-----------|--|
| OUTPUT                                  | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 12V                                                                                                                                                                                                                                                                                               |  | 24V       |  | 48V       |  |
|                                         | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 6.3A                                                                                                                                                                                                                                                                                              |  | 3.2A      |  | 1.6A      |  |
|                                         | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0 ~ 6.3A                                                                                                                                                                                                                                                                                          |  | 0 ~ 3.2A  |  | 0 ~ 1.6A  |  |
|                                         | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 75.6W                                                                                                                                                                                                                                                                                             |  | 76.8W     |  | 76.8W     |  |
|                                         | PEAK CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 9.375A                                                                                                                                                                                                                                                                                            |  | 4.69A     |  | 2.34A     |  |
|                                         | PEAK POWER <small>Note.6</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 112.5W (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.)                     | 80ms/230VAC      20ms/115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                   |  |           |  |           |  |
| INPUT                                   | VOLTAGE RANGE <small>Note.7</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 88 ~ 264VAC      124 ~ 370VDC [DC input operation possible by connecting AC/L(+),AC/N(-)]                                                                                                                                                                                                         |  |           |  |           |  |
|                                         | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 47 ~ 63Hz                                                                                                                                                                                                                                                                                         |  |           |  |           |  |
|                                         | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 88.5%                                                                                                                                                                                                                                                                                             |  | 89%       |  | 90%       |  |
|                                         | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.4A/115VAC      0.85A/230VAC                                                                                                                                                                                                                                                                     |  |           |  |           |  |
|                                         | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30A/115VAC      50A/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, re-powr on to recover<br>150 ~ 170% rated power, constant current limiting with auto-recovery within 3 seconds, and then shut down o/p voltage after 3 seconds, re-powr on to recover |  |           |  |           |  |
|                                         | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 14 ~ 17V                                                                                                                                                                                                                                                                                          |  | 29 ~ 33V  |  | 56 ~ 65V  |  |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                   |  |           |  |           |  |
|                                         | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 100℃ ± 10℃ (RTH2) detect on main of power transistor<br>Protection type : Shut down o/p voltage, re-powr on to recover after temperature goes down                                                                                                                                                |  |           |  |           |  |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -30 ~ +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 ~ 60℃                                                                                                                                                                                                                                                                                |  |           |  |           |  |
|                                         | 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 EN60950-1 approved, design refer to GL ;(meet EN60204-1)                                                                                                                                                                                                                               |  |           |  |           |  |
|                                         | 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℃ / 70% RH                                                                                                                                                                                                                                        |  |           |  |           |  |
|                                         | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Compliance to 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 (EN50082-2), EN61204-3, heavy industry level, criteria A, SEMI F47 approved                                                                                                                                                          |  |           |  |           |  |
| OTHERS                                  | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 481.9K hrs min.    MIL-HDBK-217F (25℃)                                                                                                                                                                                                                                                            |  |           |  |           |  |
|                                         | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 32*125.2*102mm (W*H*D)                                                                                                                                                                                                                                                                            |  |           |  |           |  |
|                                         | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.51Kg; 28pcs/15.3Kg/1.22CUFT                                                                                                                                                                                                                                                                     |  |           |  |           |  |
| 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.<br>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. |                                                                                                                                                                                                                                                                                                   |  |           |  |           |  |

## Mechanical Specification

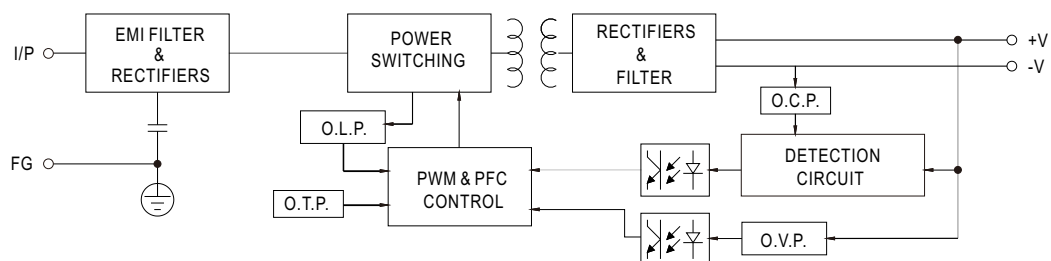
Case No.

Unit:mm

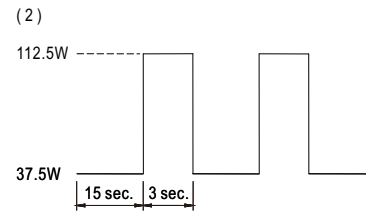
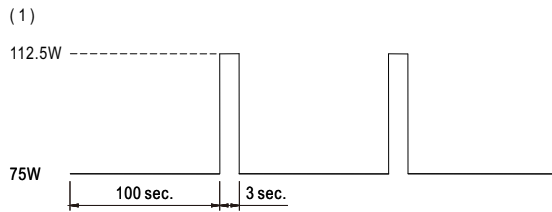


## Block Diagram

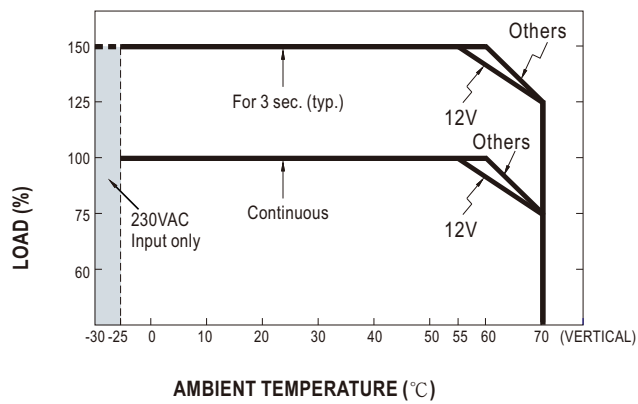
fosc : 85KHz



## ■ Peak Loading



## ■ Derating Curve



## ■ Output derating VS input voltage

