



■ Features :

- AC input 180~264VAC only
- 130% peak load capability
- 110mm slim design
- Built-in active PFC function compliance to BS EN/EN61000-3-2
- High efficiency 94% and low power dissipation
- 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
- BS EN/EN61000-6-2(BS EN/EN50082-2) industrial immunity level
- Current sharing up to 3840W(3+1)
- Built-in DC OK relay contact
- 100% full load burn-in test
- 3 years warranty



■ GTIN CODE

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

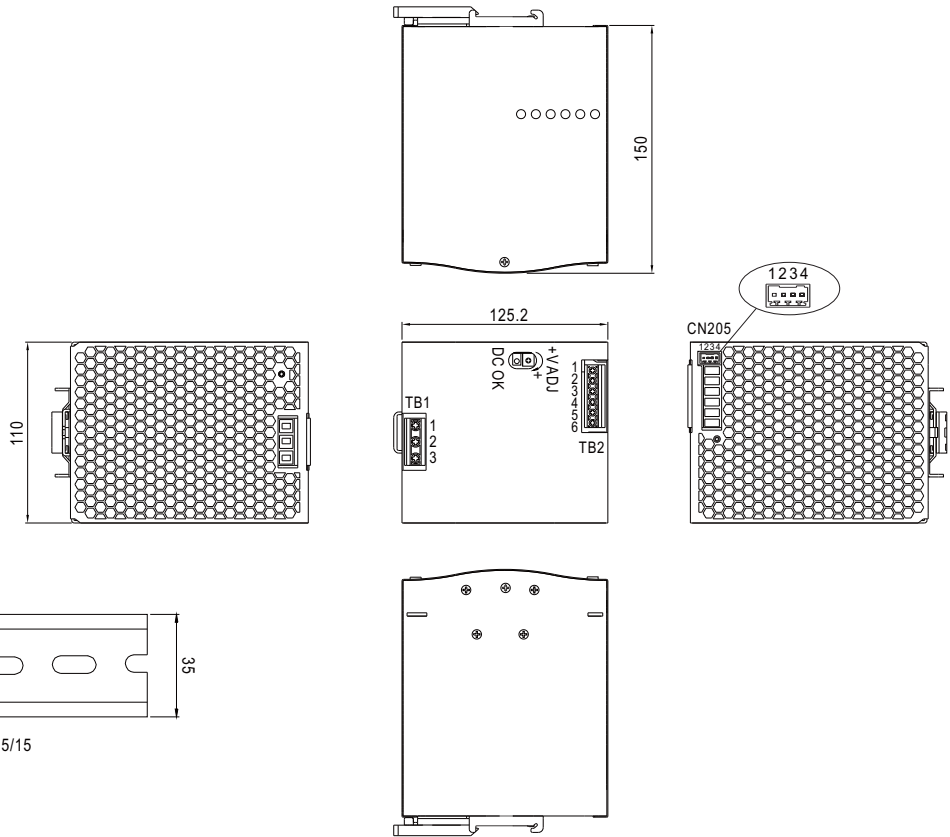


SPECIFICATION

| MODEL                                | SDR-960-24  | SDR-960-48  |          |
|--------------------------------------|---|---|----------|
| OUTPUT                               | DC VOLTAGE  | 24V   | 48V      |
|                                      | RATED CURRENT   | 40A   | 20A      |
|                                      | CURRENT RANGE   | 0 ~ 40A   | 0 ~ 20A  |
|                                      | RATED POWER   | 960W  | 960W     |
|                                      | PEAK CURRENT  | 52A   | 26A      |
|                                      | PEAK POWER <small>Note.6</small>  | 1248W (3sec.)   |          |
|                                      | RIPPLE & NOISE (max.) <small>Note.2</small>   | 180mVp-p  | 250mVp-p |
|                                      | VOLTAGE ADJ. RANGE  | 24 ~ 28V  | 48 ~ 55V |
|                                      | VOLTAGE TOLERANCE <small>Note.3</small>   | ± 1.0%  | ± 1.0%   |
|                                      | LINE REGULATION   | ± 0.5%  | ± 0.5%   |
|                                      | LOAD REGULATION   | ± 1.0%  | ± 1.0%   |
| SETUP, RISE TIME                     | 1000ms, 100ms/230VAC at full load   |   |          |
| HOLD UP TIME (Typ.)                  | 14ms / 230VAC at full load  |   |          |
| INPUT                                | VOLTAGE RANGE <small>Note.7</small>   | 180 ~ 264VAC 254 ~ 370VDC   |          |
|                                      | FREQUENCY RANGE   | 47 ~ 63Hz   |          |
|                                      | POWER FACTOR (Typ.)   | PF ≥ 0.95/230VAC at full load   |          |
|                                      | EFFICIENCY (Typ.)   | 94%   | 94%      |
|                                      | AC CURRENT (Typ.)   | 6A/230VAC   |          |
|                                      | INRUSH CURRENT (Typ.)   | COLD START 50A / 230VAC   |          |
| LEAKAGE CURRENT                      | <3.5mA / 240VAC   |   |          |
| PROTECTION                           | OVERLOAD  | Normally works within 105 ~ 130% rated output power for more than 3 seconds and then shut down o/p voltage with auto-recovery after 30 seconds if the peak load condition is removed<br>Constant current limiting within 130 ~ 150% rated output power for more than 3 seconds and then shut down o/p voltage, re-power on to recover |          |
|                                      | OVER VOLTAGE  | 29 ~ 33V  | 56 ~ 65V |
|                                      | OVER TEMPERATURE  | 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   |          |
|                                      | CURRENT SHARING   | Please refer to function manual   |          |
| ENVIRONMENT                          | WORKING TEMP. <small>Note.5</small>   | -30 ~ +70°C (Refer to "Derating Curve")   |          |
|                                      | WORKING HUMIDITY  | 20 ~ 95% RH non-condensing  |          |
|                                      | STORAGE TEMP., HUMIDITY   | -40 ~ +85°C, 10 ~ 95% RH non-condensing   |          |
|                                      | 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 <small>(Note 4)</small> | SAFETY STANDARDS  | UL508, TUV BS EN/EN62368-1, BSMI CNS14336-1, BIS IS13252(Part1) (only for 24V), AS/NZS62368.1, EAC TP TC 004 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°C / 70% RH   |          |
|                                      | EMC EMISSION <small>Note.8</small>  | Compliance to BS EN/EN55032 (CISPR32), BS EN/EN61204-3 Conduction class B, Radiation class A, BS EN/EN61000-3-2,-3, EAC TP TC 020, BSMI CNS13438  |          |
| OTHERS                               | 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/EN50082-2), BS EN/EN61204-3, heavy industry level, EAC TP TC 020  |          |
|                                      | MTBF  | 660.2K hrs min. Telcordia SR-332 (Bellcore) ; 70.7K hrs min. MIL-HDBK-217F (25°C)   |          |
|                                      | DIMENSION   | 110*125.2*150mm (W*H*D)   |          |
| NOTE                                 | PACKING   | 2.47Kg ; 6pcs/15.8Kg/1.55CUFT   |          |
|                                      | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>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.</p> <p>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.</p> <p>6. 3 seconds peak power max. and the average output power should not exceed the rate power.</p> <p>7. Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>8. Consult MEAN WELL for deployment of Radiation class B.</p> <p>9. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p> |   |          |

**Mechanical Specification**

Case No.214A Unit:mm



ADMISSIBLE DIN-RAIL: TS35/7.5 OR TS35/15

Terminal Pin No. Assignment (TB1)

| Pin No. | Assignment |
|---------|------------|
| 1       | FG ⊕       |
| 2       | AC/N       |
| 3       | AC/L       |

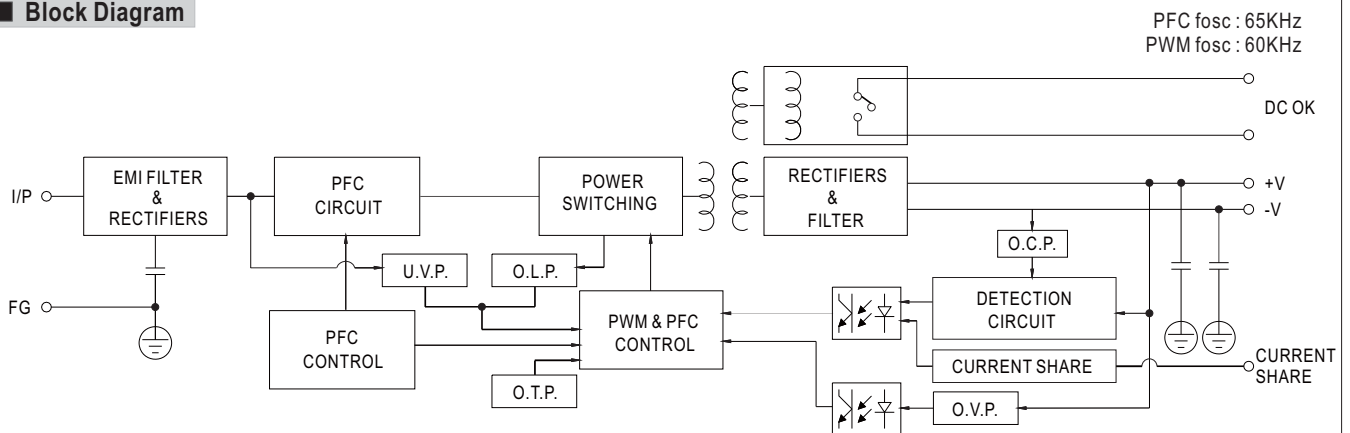
Terminal Pin No. Assignment (TB2)

| Pin No. | Assignment   |
|---------|--------------|
| 1,2,3   | DC OUTPUT +V |
| 4,5,6   | DC OUTPUT -V |

Control Pin (CN205) : DINKLE ECH250R-04P or equivalent

| Pin No. | Assignment          | Mating Housing   | Wire Diameter                         |
|---------|---------------------|--|---------------------------------------|
| 1       | P-(Current Share)   | DINKLE ESC250V-04P or equivalent (including in the single package) | 0.081~0.517mm <sup>2</sup> (28~20AWG) |
| 2       | P+(Current Share)   |  |                                       |
| 3,4     | DC OK Relay Contact |  |                                       |

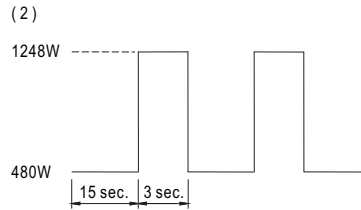
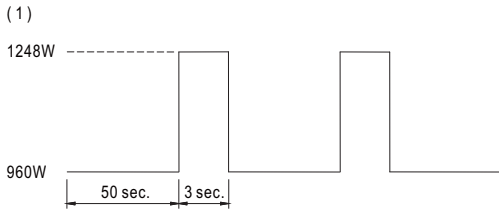
**Block Diagram**



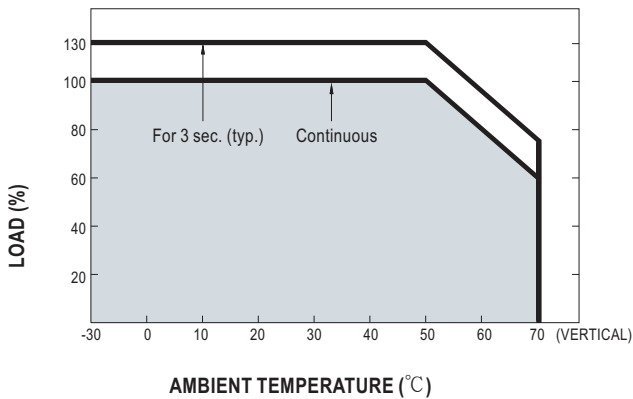
**DC OK Relay Contact**

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

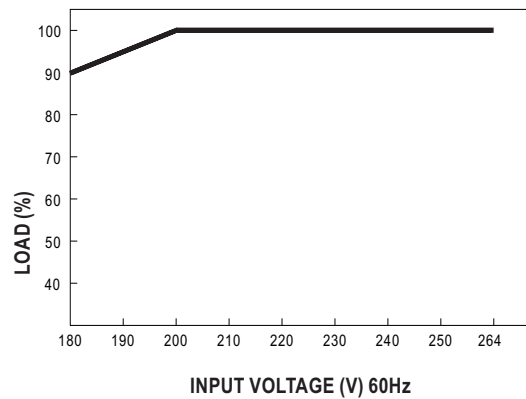
■ Peak Loading



■ Derating Curve



■ Output derating VS input voltage



■ Function Manual

1. Current sharing

- (1) Parallel operation is available by connecting the units shown as below (P+,P- are connected mutually in parallel).
- (2) Difference of output voltages among parallel units should be less than 0.2V.
- (3) The total output current must not exceed the value determined by the following equation (Output current at parallel operation)=(The rated current per unit) x (Number of unit) x 0.9.
- (4) In parallel operation 4 units is the maximum, please consult the manufacture for other applications.
- (5) The power supplies should be paralleled using short and large diameter wiring and then connected to the load.
- (6) When in parallel operation, the minimum output load should be greater than 5% of total output load.  
(Min. load >5% rated current per unit x number of unit)
- (7) In parallel connection, maybe only one unit (master) operate if the total output load is less than 5% of rated load condition.  
The other PSUs (slaves) may go into standby mode and their output LEDs & relays will not turn on.
- (8) Some minor noise may be heard at light load condition under parallel operation.  
This is a normal phenomenon and the performance of the PSU will not be influenced.

