



■ Features :

- AC input 180~264VAC only
- 130% peak load capability
- 110mm slim design
- Built-in active PFC function compliance to 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
- EN61000-6-2(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

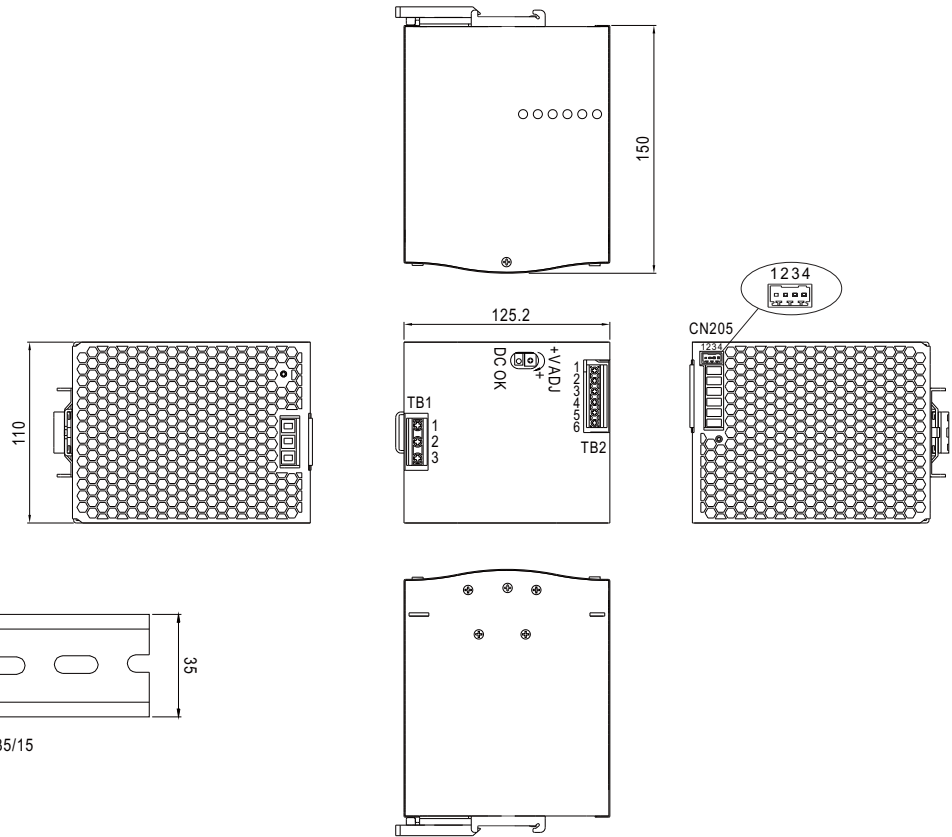


SPECIFICATION

| 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 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 Protection type : Shut down o/p voltage, with auto-recovery or re-power on to recover | |
| 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) | |
| SAFETY & EMC (Note 4) | VIBRATION | Component:10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes; Mounting: Compliance to IEC60068-2-6 | |
| | SAFETY STANDARDS | UL508, TUV EN62368-1, BSMI CNS14336-1, AS/NZS62368.1, EAC TP TC 004 approved ; (meet 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 | |
| OTHERS | EMC EMISSION <small>Note.8</small> | Compliance to EN55032 (CISPR32), EN61204-3 Conduction class B, Radiation class A, EN61000-3-2,-3, EAC TP TC 020, BSMI CNS13438 | |
| | 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, EAC TP TC 020 | |
| | MTBF | 69.8K hrs min. MIL-HDBK-217F (25°C) | |
| NOTE | DIMENSION | 110*125.2*150mm (W*H*D) | |
| | 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 & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 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 https://www.meanwell.com/serviceDisclaimer.aspx</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 |

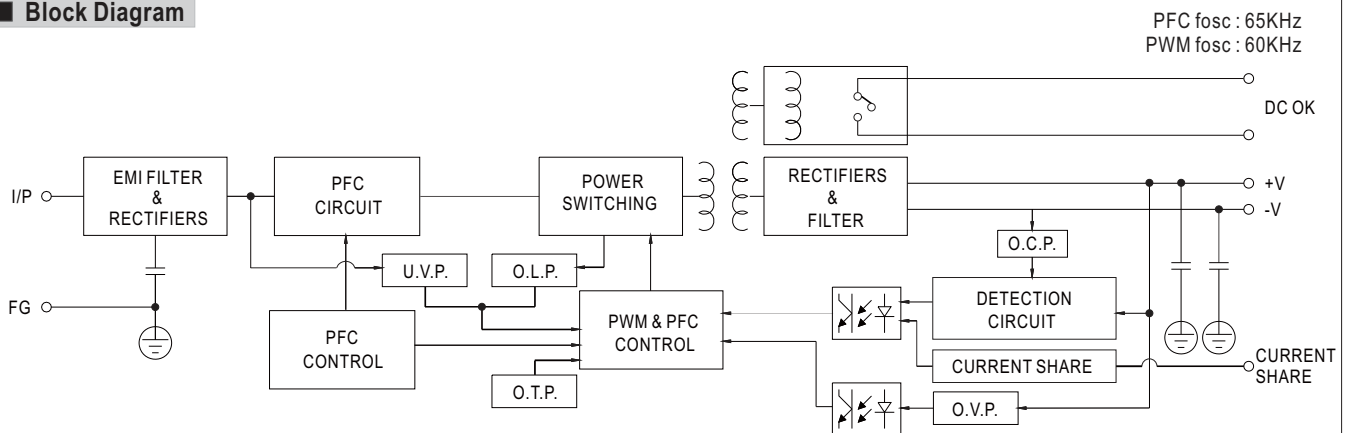
Terminal Pin No. Assignment (TB2)

| 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 ² (28~20AWG) |
| 2 | P+(Current Share) | | |
| 3,4 | DC OK Relay Contact | | |

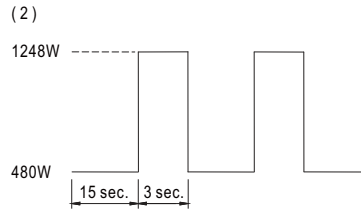
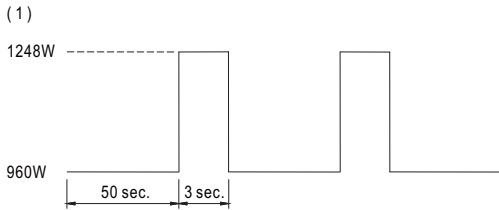
Block Diagram



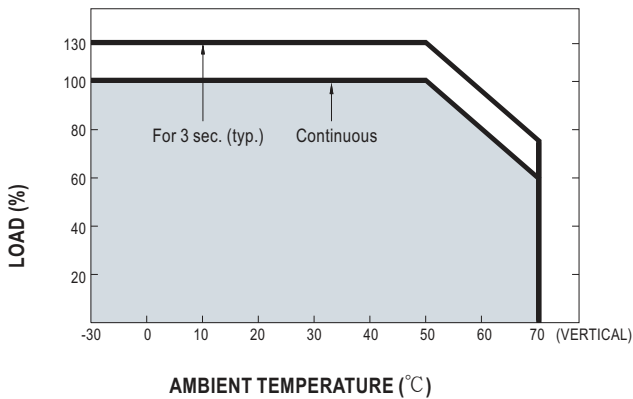
DC OK Relay Contact

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

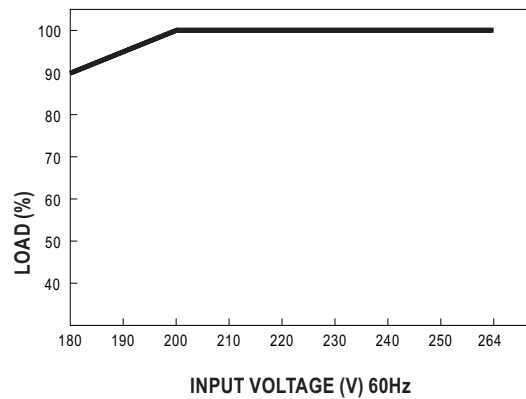
■ Peak Loading



■ 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.

