



## 240W Single Output Industrial DIN RAIL Power Supply

# DRP-240 series



- Features :
- Universal AC input / Full range
- Built in active PFC function
- 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
- LED indicator for power on
- 100% full load burn-in test
- Fixed switching frequency at 100KHz
- 3 years warranty

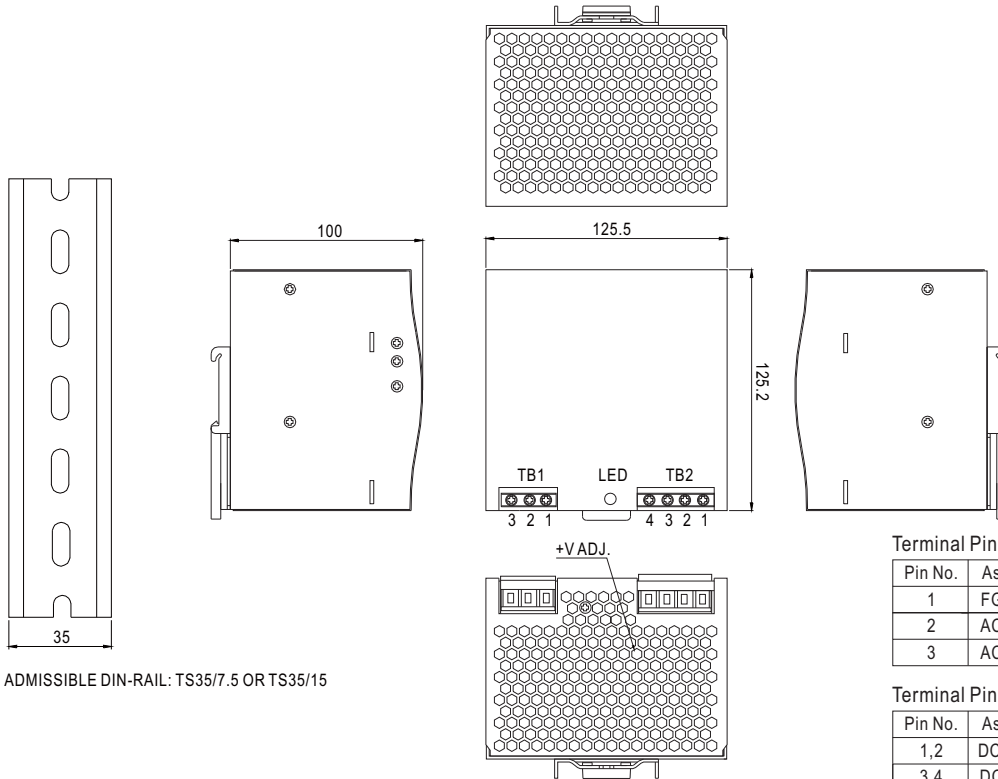


### SPECIFICATION

| MODEL                 | DRP-240-24  | DRP-240-48  |  |
|-----------------------|---|---|--|
| OUTPUT                | DC VOLTAGE  | 24V   | 48V  |
|                       | RATED CURRENT   | 10A   | 5A   |
|                       | CURRENT RANGE   | 0 ~ 10A   | 0 ~ 5A   |
|                       | RATED POWER   | 240W  | 240W   |
|                       | RIPPLE & NOISE (max.) Note.2  | 80mVp-p   | 150mVp-p   |
|                       | VOLTAGE ADJ. RANGE  | 24 ~ 28V  | 48 ~ 53V   |
|                       | VOLTAGE TOLERANCE Note.3  | ±1.0%   | ±1.0%  |
|                       | LINE REGULATION   | ±0.5%   | ±0.5%  |
|                       | LOAD REGULATION   | ±1.0%   | ±1.0%  |
|                       | SETUP, RISE TIME  | 800ms, 40ms/230VAC  | 800ms, 40ms/115VAC at full load  |
| HOLD UP TIME (Typ.)   | 24ms/230VAC   | 24ms/115VAC at full load  |  |
| INPUT                 | VOLTAGE RANGE Note.5  | 85 ~ 264VAC   | 120 ~ 370VDC   |
|                       | FREQUENCY RANGE   | 47 ~ 63Hz   |  |
|                       | POWER FACTOR (Typ.)   | 0.96/230VAC   | 0.99/115VAC at full load   |
|                       | EFFICIENCY (Typ.)   | 84%   | 85%  |
|                       | AC CURRENT (Typ.)   | 2.8A/115VAC   | 1.4A/230VAC  |
|                       | INRUSH CURRENT (Typ.)   | COLD START 27A/115VAC   | 45A/230VAC   |
| LEAKAGE CURRENT       | <3.5mA / 240VAC   |   |  |
| PROTECTION            | OVERLOAD  | 105 ~ 150% rated output power   | Protection type : Constant current limiting, recovers automatically after fault condition is removed |
|                       | OVER VOLTAGE  | 30 ~ 36V  | 54 ~ 60V   |
|                       | OVER TEMPERATURE  | Shut down o/p voltage, recovers automatically after temperature goes down   |  |
| ENVIRONMENT           | WORKING TEMP.   | -10 ~ +70°C (Refer to "Derating Curve")   |  |
|                       | WORKING HUMIDITY  | 20 ~ 90% RH non-condensing  |  |
|                       | STORAGE TEMP., HUMIDITY   | -20 ~ +85°C, 10 ~ 95% RH  |  |
|                       | TEMP. COEFFICIENT   | ±0.03%/°C (0 ~ 50°C)  |  |
| VIBRATION             | 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, UL60950-1, TUV EN60950-1, EAC TP TC 004 approved   |  |
|                       | 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  |  |
|                       | EMC EMISSION  | Compliance to EN55011, EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020   |  |
|                       | EMC IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61000-6-2 (EN50082-2), heavy industry level, criteria A, EAC TP TC 020 |  |
| OTHERS                | MTBF  | 289.9Khrs min. MIL-HDBK-217F (25°C)   |  |
|                       | DIMENSION   | 125.5*125.2*100mm (W*H*D)   |  |
|                       | PACKING   | 1.2Kg; 12pcs/15.5Kg/1.29CUFT  |  |
| NOTE                  | <ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>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.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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.</li> <li>Derating may be needed under low input voltages. Please check the derating curve for more details.</li> <li>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).</li> </ol> |   |  |

## Mechanical Specification

Case No. 922A Unit:mm



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

Terminal Pin Number Assignment (TB1)

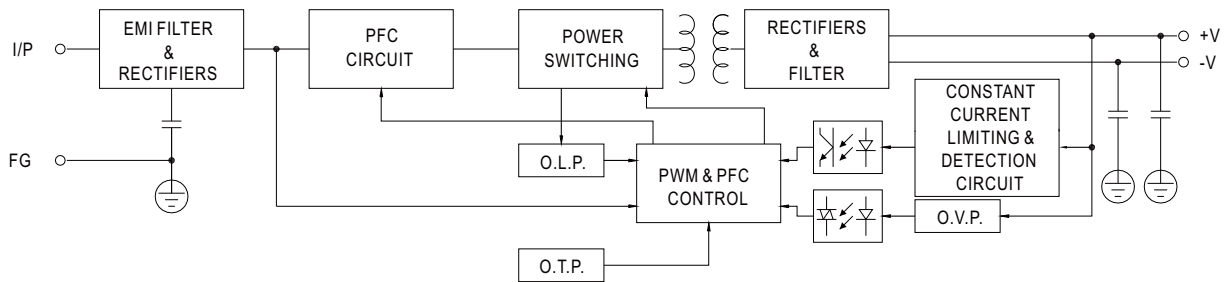
| Pin No. | Assignment |
|---------|------------|
| 1       | FG ⊕       |
| 2       | AC/N       |
| 3       | AC/L       |

Terminal Pin Number Assignment (TB2)

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

## Block Diagram

fosc: 100KHz



## Derating Curve

## Output derating VS input voltage

