



## 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

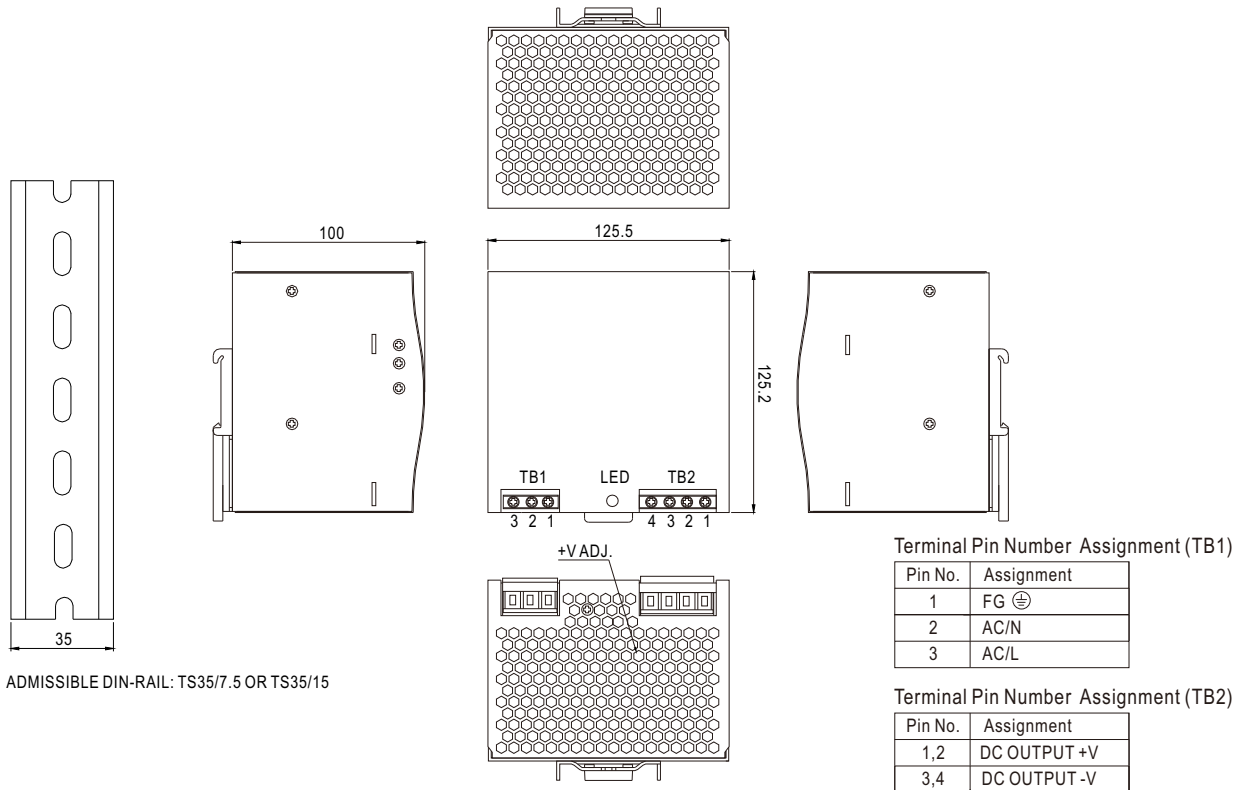


### SPECIFICATION

| 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.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 80mVp-p                                                                                                                               |  | 150mVp-p                                                                    |  |
|                                         | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 24 ~ 28V                                                                                                                              |  | 48 ~ 53V                                                                    |  |
|                                         | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 800ms, 40ms/230VAC      800ms, 40ms/115VAC at full load                                                                               |  |                                                                             |  |
|                                         | HOLD UP TIME (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 24ms/230VAC      24ms/115VAC at full load                                                                                             |  |                                                                             |  |
| INPUT                                   | VOLTAGE RANGE <small>Note.5</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 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<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed |  |                                                                             |  |
|                                         | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 30 ~ 36V                                                                                                                              |  | 54 ~ 60V<br>Protection type : Shut down o/p voltage, re-power on to recover |  |
|                                         | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Shut down o/p voltage, recovers automatically after temperature goes down                                                             |  |                                                                             |  |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                       |  |                                                                             |  |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -10 ~ +70℃ (Refer to "Derating Curve")                                                                                                |  |                                                                             |  |
|                                         | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 20 ~ 90% RH non-condensing                                                                                                            |  |                                                                             |  |
|                                         | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -20 ~ +85℃, 10 ~ 95% RH                                                                                                               |  |                                                                             |  |
|                                         | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ± 0.03%/℃ (0 ~ 50℃                                                                                                                    |  |                                                                             |  |
|                                         | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 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, UL60950-1, TUV EN60950-1 approved                                                                                              |  |                                                                             |  |
|                                         | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | I/P-O/P:3KVAC   I/P-FG:1.5KVAC   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,EN55022 (CISPR22) 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), heavy industry level, criteria A                            |  |                                                                             |  |
| OTHERS                                  | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 289.9Khrs min.    MIL-HDBK-217F (25℃)                                                                                                 |  |                                                                             |  |
|                                         | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 125.5*125.2*100mm (W*H*D)                                                                                                             |  |                                                                             |  |
|                                         | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1.2Kg; 12pcs/15.5Kg/1.29CUFT                                                                                                          |  |                                                                             |  |
| 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. Derating may be needed under low input voltages. Please check the derating curve for more details. |                                                                                                                                       |  |                                                                             |  |

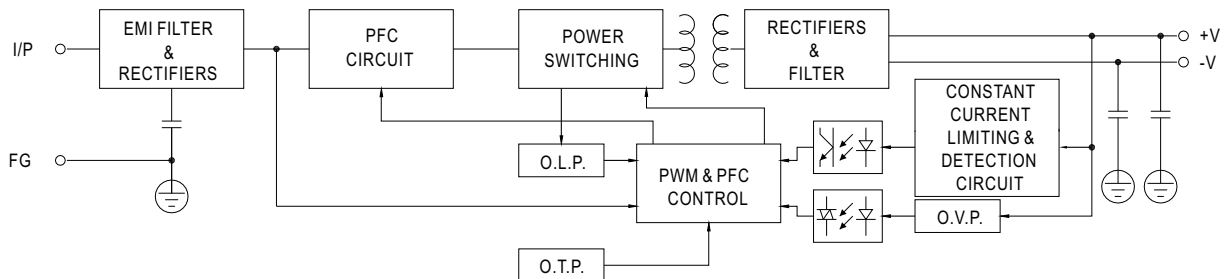
## Mechanical Specification

Case No. 922A Unit:mm



## Block Diagram

fosc : 100KHz



## Derating Curve

## Output derating VS input voltage

