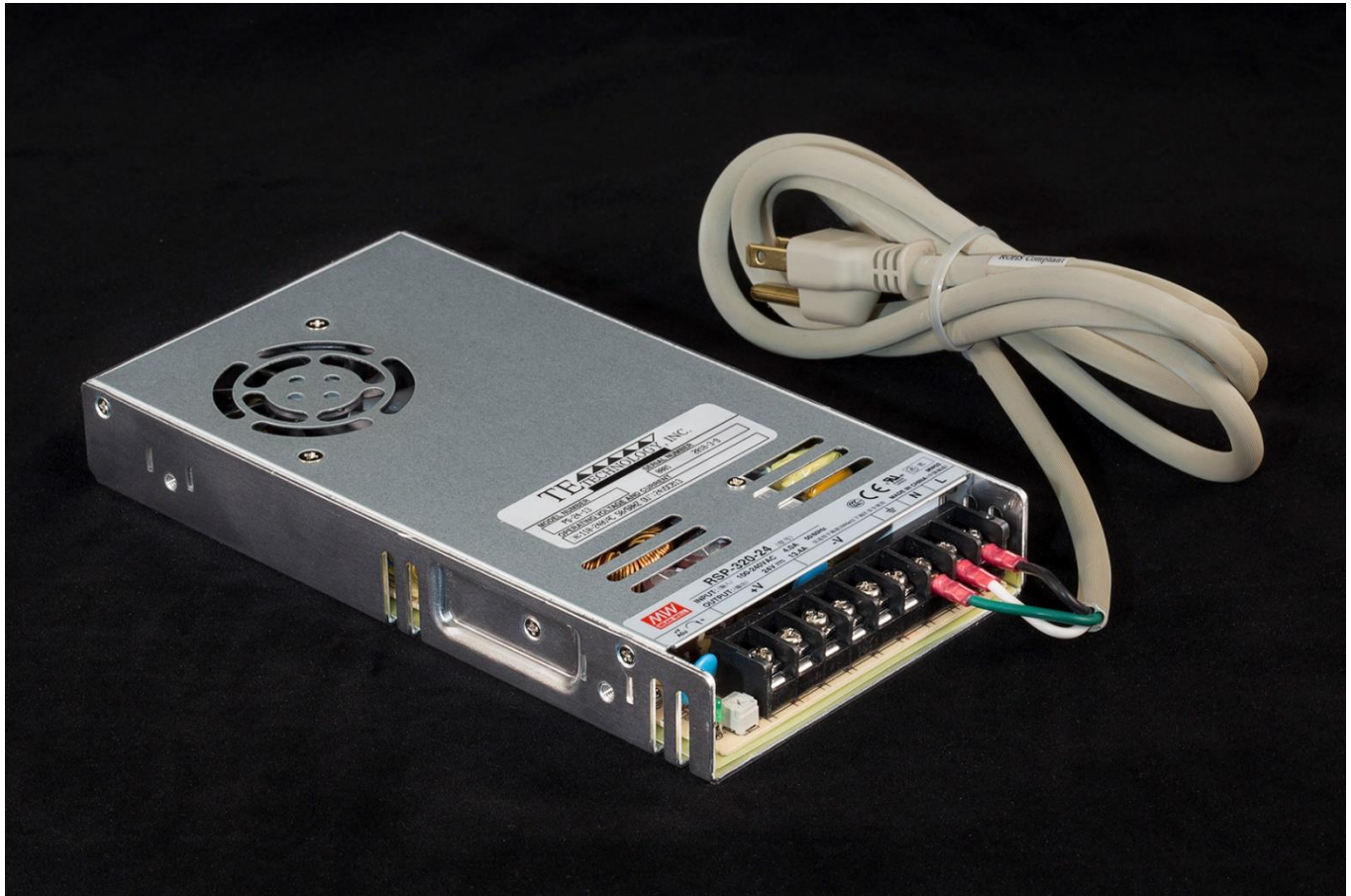


# PS-24-13 Power Supply



The PS-24-13 Power Supply consists of a 24 VDC single output power supply with PFC function and one North American standard power cord.

- Input Voltage: 88~264 VAC; 47~63 Hz
- Output Voltage: 24 VDC
- Maximum Output Current: 13 A
- Dimensions: 215 x 115 x 30 mm
- Power cords for the UK, EU, and Italy can be purchased separately.
- When ordered in conjunction with TE Technology coolers and temperature controllers the interconnection cables are included free of charge.
- See additional pages for base power supply specifications.



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■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 90%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan with fan speed control function
- 1U low profile 30mm
- Optional conformal coating models (RSP-320-□CC)
- LED indicator for power on

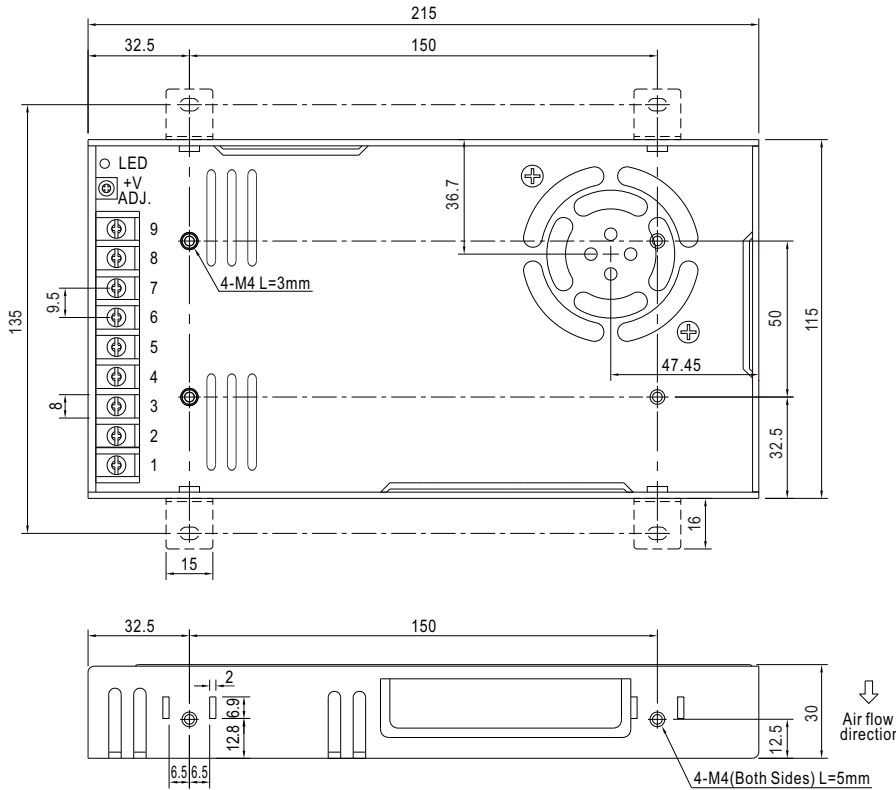


SPECIFICATION

| MODEL                 |   | RSP-320-24  |
|-----------------------|---|---|
| OUTPUT                | DC VOLTAGE  | 24V   |
|                       | RATED CURRENT   | 13.4A   |
|                       | CURRENT RANGE   | 0 ~ 13.4A   |
|                       | RATED POWER   | 321.6W  |
|                       | RIPPLE & NOISE (max.) Note.2  | 150mVp-p  |
|                       | VOLTAGE ADJ. RANGE  | 20 ~ 26.4V  |
|                       | VOLTAGE TOLERANCE Note.3  | ± 1.0%  |
|                       | LINE REGULATION   | ± 0.2%  |
|                       | LOAD REGULATION   | ± 0.5%  |
|                       | SETUP, RISE TIME  | 1500ms, 50ms/230VAC    3000ms, 50ms/115VAC at full load   |
| HOLD UP TIME (Typ.)   | 8ms at full load    230VAC /115VAC  |   |
| INPUT                 | VOLTAGE RANGE Note.4  | 88 ~ 264VAC    124 ~ 370VDC   |
|                       | FREQUENCY RANGE   | 47 ~ 63Hz   |
|                       | POWER FACTOR (Typ.)   | PF>0.95/230VAC    PF>0.98/115VAC at full load   |
|                       | EFFICIENCY (Typ.)   | 89%   |
|                       | AC CURRENT (Typ.)   | 4A/115VAC    2A/230VAC  |
|                       | INRUSH CURRENT (Typ.)   | 20A/115VAC    40A/230VAC  |
|                       | LEAKAGE CURRENT   | <1mA / 240VAC   |
| PROTECTION            | OVERLOAD  | 105 ~ 135% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |
|                       | OVER VOLTAGE  | 27.6 ~ 32.4V<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.   | -30 ~ +70°C (Refer to "Derating Curve")   |
|                       | WORKING HUMIDITY  | 20 ~ 90% RH non-condensing  |
|                       | STORAGE TEMP., HUMIDITY   | -40 ~ +85°C, 10 ~ 95% RH  |
|                       | TEMP. COEFFICIENT   | ± 0.03%/°C (0 ~ 50°C)   |
| SAFETY & EMC (Note 5) | VIBRATION   | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes  |
|                       | SAFETY STANDARDS  | UL60950-1, TUV EN60950-1, EAC TP TC 004, CCC GB4943.1 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 / 25°C / 70% RH  |
|                       | EMC EMISSION  | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020, GB9254 Class B, GB17625.1                       |
| OTHERS                | EMC IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020                        |
|                       | MTBF  | 206.5K hrs min.    MIL-HDBK-217F (25°C)   |
|                       | DIMENSION   | 215*115*30mm (L*W*H)  |
| NOTE                  | PACKING   | 0.9Kg; 15pcs/14.5Kg/0.78CUFT  |
|                       | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.<br/>                 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.<br/>                 3. Tolerance : includes set up tolerance, line regulation and load regulation.<br/>                 4. Derating may be needed under low input voltages. Please check the derating curve for more details.<br/>                 5. 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."<br/>                 (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)<br/>                 6. For charging related applications, please consult Mean Well for details.<br/>                 7. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-320-2.5/-3.3/-4/-5/-7.5/-12/-13.5/-15)<br/>                 8. 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> |   |

**Mechanical Specification**

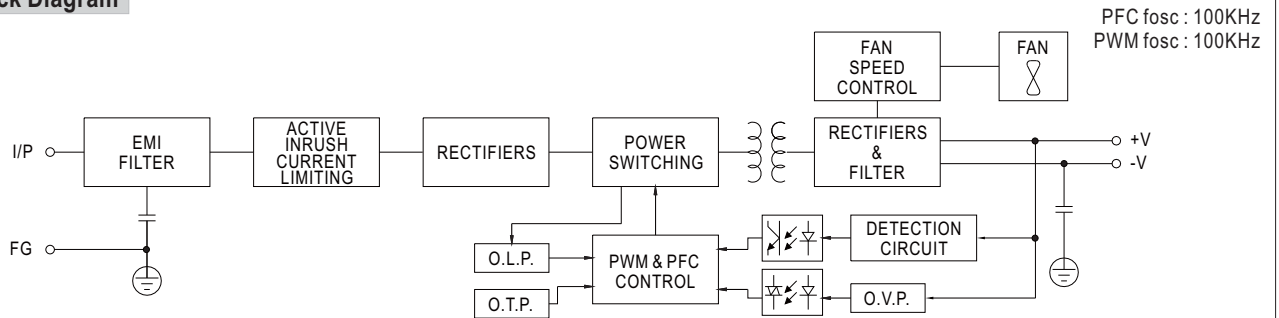
Case No.207A Unit:mm



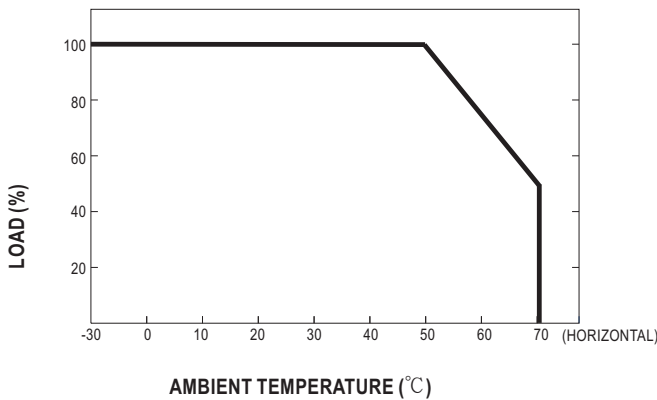
Terminal Pin No. Assignment :

| Pin No. | Assignment | Pin No. | Assignment   |
|---------|------------|---------|--------------|
| 1       | AC/L       | 4~6     | DC OUTPUT -V |
| 2       | AC/N       | 7~9     | DC OUTPUT +V |
| 3       | FG $\perp$ |         |              |

**Block Diagram**



**Derating Curve**



**Static Characteristics**

