



2400W Power Supply with Single Output

RSP-2400 series



Dimension

| L | * | W | * | H | |
|------|---|-------|---|----------|------|
| 278 | * | 177.8 | * | 63.5(2U) | mm |
| 10.9 | * | 7 | * | 2.5 (2U) | inch |



Features

- AC input 180~264VAC
- Built-in active PFC function
- High efficiency up to 91.5%
- Forced air cooling by built-in DC fan
- Output voltage programmable
- Active current sharing up to 7200W (2+1)
- Built-in remote ON-OFF control / remote sense / auxiliary power / power OK signal
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Optional conformal coating
- 5 years warranty

Certificates

- Safety: UL/EN/IEC 60950-1
- EMC: EN 55022 / 55024

Applications

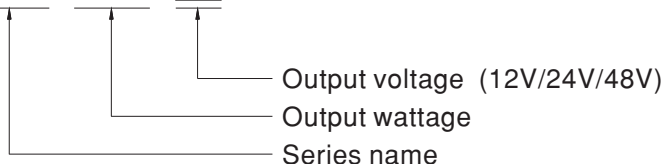
- Factory control or automation apparatus
- Test and measurement instrument
- Laser related machine
- Burn-in facility
- Digital broadcasting
- RF application

Description

RSP-2400 is a 2.4KW single output enclosed type AC/DC power supply. This series operates for 180~264VAC input voltage and offers the models with the DC output mostly demanded from the industry. Each model is cooled by the built-in fan with fan speed control, working for the temperature up to 70°C. Moreover, RSP-2400 provides vast design flexibility by equipping various built-in functions such as the output programming, active current sharing, remote ON-OFF control, auxiliary power, etc.

Model Encoding / Order Information

RSP - 2400 - 24



SPECIFICATION

| MODEL | | RSP-2400-12 | RSP-2400-24 | RSP-2400-48 | |
|--------------------------------|---|--|--|--|--|
| OUTPUT | DC VOLTAGE | 12V | 24V | 48V | |
| | RATED CURRENT | 166.7A | 100A | 50A | |
| | CURRENT RANGE | 0 ~ 166.7A | 0 ~ 100A | 0 ~ 50A | |
| | RATED POWER | 2000.4W | 2400W | 2400W | |
| | RIPPLE & NOISE (max.) Note.2 | 150mVp-p | 150mVp-p | 200mVp-p | |
| | VOLTAGE ADJ. RANGE | 10.8 ~ 13.2V | 22 ~ 28V | 43 ~ 56V | |
| | VOLTAGE TOLERANCE Note.3 | ± 1.0% | ± 1.0% | ± 1.0% | |
| | LINE REGULATION | ± 0.5% | ± 0.5% | ± 0.5% | |
| | LOAD REGULATION | ± 0.5% | ± 0.5% | ± 0.5% | |
| | SETUP, RISE TIME | 1000ms, 80ms at full load | | | |
| HOLD UP TIME (Typ.) | 12ms at full load | | | | |
| INPUT | VOLTAGE RANGE | 180 ~ 264VAC 254 ~ 370VDC | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | POWER FACTOR (Typ.) | 0.95/230VAC at full load | | | |
| | EFFICIENCY (Typ.) | 88% | 90.5% | 91.5% | |
| | AC CURRENT (Typ.) | 15.5A/180VAC | 12A/230VAC | | |
| | INRUSH CURRENT (Typ.) | 60A/230VAC | | | |
| | LEAKAGE CURRENT | <2.0mA / 240VAC | | | |
| PROTECTION | OVERLOAD (OLP) | 100 ~ 112% rated output power User adjustable continuous constant current limiting or constant current limiting with delay shutdown after 5 seconds, re-power on to recover | | | |
| | OVER VOLTAGE | 13.8 ~ 16.8V | 28.8 ~ 33.6V | 57.6 ~ 67.2V | |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down Protection type : Shut down o/p voltage, re-power on to recover | | | |
| FUNCTION | OUTPUT VOLTAGE PROGRAMMABLE(PV) | 2.4 ~ 13.2V | 4.8 ~ 28V | 9.6 ~ 56V | |
| | CURRENT SHARING | Up to 7200W or (2+1) units. Please refer to the Function Manual. | | | |
| | AUXILIARY POWER | 12V@0.1A(Only for Remote ON-OFF control) | | | |
| | REMOTE ON-OFF CONTROL | Please refer to the Function Manual | | | |
| | REMOTE SENSE | Compensate voltage drop on the load wiring up to 0.25V. Please refer to the Function Manual. | | | |
| | ALARM SIGNAL OUTPUT | Power OK signal. Please refer to the Function Manual | | | |
| | ENVIRONMENT | WORKING TEMP. | -20 ~ +70°C (Refer to "Derating Curve") | | |
| WORKING HUMIDITY | | 20 ~ 90% RH non-condensing | | | |
| STORAGE TEMP., HUMIDITY | | -40 ~ +85°C, 10 ~ 95% RH non-condensing | | | |
| TEMP. COEFFICIENT | | ± 0.05%/°C (0 ~ 50°C) | | | |
| VIBRATION | | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1, EAC TP TC 004, BSMI CNS14336-1 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 | Parameter | Standard | Test Level / Note | |
| | | Conducted | EN55032 (CISPR32) / EN55011 (CISPR11) | Class B | |
| | | Radiated | EN55032 (CISPR32) / EN55011 (CISPR11) | Class A | |
| | | Harmonic Current | EN61000-3-2 | ----- | |
| | | Voltage Flicker | EN61000-3-3 | ----- | |
| | EMC IMMUNITY | EN55024 , EN61204-3, EN61000-6-2, BSMI CNS13438 | | | |
| | | Parameter | Standard | Test Level / Note | |
| | | ESD | EN61000-4-2 | Level 3, 8KV air ; Level 2, 4KV contact | |
| | | Radiated | EN61000-4-3 | Level 3 | |
| | | EFT / Burst | EN61000-4-4 | Level 3 | |
| | | Surge | EN61000-4-5 | Level 3, 2KV/Line-Earth ; Level 2, 1KV/Line-Line | |
| | | Conducted | EN61000-4-6 | Level 3 | |
| Magnetic Field | | EN61000-4-8 | Level 4 | | |
| Voltage Dips and Interruptions | | EN61000-4-11 | >95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods | | |
| OTHERS | MTBF | 234.1K hrs min. Telcordia SR-332 (Bellcore) ; 83.9K hrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 278*177.8*63.5mm (L*W*H) | | | |
| | PACKING | 3.3Kg; 4pcs/14.2Kg/1.81CUFT | | | |
| NOTE | <ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 720mm*360mm metal plate with 1mm of thickness. 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." (as available on http://www.meanwell.com) 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). | | | | |