



**Dimension**

| L    | * | W   | * | H             |
|------|---|-----|---|---------------|
| 295  | * | 127 | * | 41 (1U) mm    |
| 11.6 | * | 5   | * | 1.61(1U) inch |



**■ Features**

- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 90%
- Forced air cooling by built-in DC fan
- Output voltage programmable
- Active current sharing up to 4000W (3+1)
- Built-in remote ON-OFF control / remote sense / auxiliary power / DC 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**

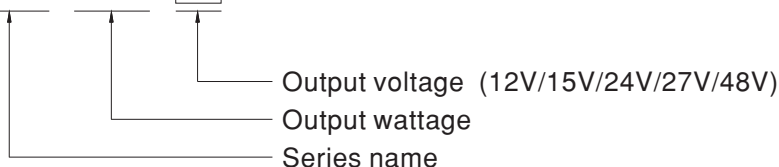
- Factory control or automation apparatus
- Test and measurement instrument
- Laser related machine
- Burn-in facility
- RF application

**■ Description**

RSP-1000 is a 1KW single output enclosed type AC/DC power supply with 1U low profile. This series operates for 90~264VAC 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 60°C. Moreover, RSP-1000 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 - 1000 - 24



**SPECIFICATION**

| MODEL                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | RSP-1000-12                                                                                                                           | RSP-1000-15                           | RSP-1000-24                                                              | RSP-1000-27                                      | RSP-1000-48       |  |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------|-------------------|--|
| OUTPUT                         | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 12V                                                                                                                                   | 15V                                   | 24V                                                                      | 27V                                              | 48V               |  |
|                                | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 60A                                                                                                                                   | 50A                                   | 40A                                                                      | 37A                                              | 21A               |  |
|                                | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0 ~ 60A                                                                                                                               | 0 ~ 50A                               | 0 ~ 40A                                                                  | 0 ~ 37A                                          | 0 ~ 21A           |  |
|                                | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 720W                                                                                                                                  | 750W                                  | 960W                                                                     | 999W                                             | 1008W             |  |
|                                | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 150mVp-p                                                                                                                              | 150mVp-p                              | 150mVp-p                                                                 | 150mVp-p                                         | 150mVp-p          |  |
|                                | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10 ~ 13.5V                                                                                                                            | 13.5 ~ 16.5V                          | 20 ~ 26.4V                                                               | 24 ~ 30V                                         | 43 ~ 55V          |  |
|                                | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ±1.0%                                                                                                                                 | ±1.0%                                 | ±1.0%                                                                    | ±1.0%                                            | ±1.0%             |  |
|                                | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ±0.5%                                                                                                                                 | ±0.5%                                 | ±0.5%                                                                    | ±0.5%                                            | ±0.5%             |  |
|                                | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ±0.5%                                                                                                                                 | ±0.5%                                 | ±0.5%                                                                    | ±0.5%                                            | ±0.5%             |  |
|                                | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 300ms, 50ms at full load                                                                                                              |                                       |                                                                          |                                                  |                   |  |
| HOLD UP TIME (Typ.)            | 16ms/230VAC 16ms/115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                       |                                       |                                                                          |                                                  |                   |  |
| INPUT                          | VOLTAGE RANGE Note.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 90 ~ 264VAC                                                                                                                           | 127 ~ 370VDC                          |                                                                          |                                                  |                   |  |
|                                | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 47 ~ 63Hz                                                                                                                             |                                       |                                                                          |                                                  |                   |  |
|                                | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.95/230VAC 0.98/115VAC at full load                                                                                                  |                                       |                                                                          |                                                  |                   |  |
|                                | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 83%                                                                                                                                   | 85%                                   | 88%                                                                      | 88%                                              | 90%               |  |
|                                | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 12A/115VAC                                                                                                                            | 6A/230VAC                             |                                                                          |                                                  |                   |  |
|                                | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 25A/115VAC                                                                                                                            | 40A/230VAC                            |                                                                          |                                                  |                   |  |
| LEAKAGE CURRENT                | <2.0mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                       |                                       |                                                                          |                                                  |                   |  |
| PROTECTION                     | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 105 ~ 125% rated output power<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed |                                       |                                                                          |                                                  |                   |  |
|                                | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 13.8 ~ 16.8V                                                                                                                          | 17 ~ 20.5V                            | 27.6 ~ 32.4V                                                             | 31 ~ 36.5V                                       | 56.6 ~ 66.2V      |  |
|                                | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Shut down o/p voltage, recovers automatically after temperature goes down                                                             |                                       |                                                                          |                                                  |                   |  |
| FUNCTION                       | OUTPUT VOLTAGE PROGRAMMABLE(PV)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Adjustment of output voltage is allowable to 40 ~ 110% of nominal output voltage. Please refer to the Function Manual.                |                                       |                                                                          |                                                  |                   |  |
|                                | CURRENT SHARING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Up to 4000W or (3+1) units. Please refer to the Function Manual.                                                                      |                                       |                                                                          |                                                  |                   |  |
|                                | AUXILIARY POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5V @ 0.5A (+5%, -8%)                                                                                                                  |                                       |                                                                          |                                                  |                   |  |
|                                | REMOTE ON-OFF CONTROL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Power ON : short Power OFF : open. Please refer to the Function Manual.                                                               |                                       |                                                                          |                                                  |                   |  |
|                                | REMOTE SENSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Compensate voltage drop on the load wiring up to 0.5V. Please refer to the Function Manual.                                           |                                       |                                                                          |                                                  |                   |  |
| ENVIRONMENT                    | DC OK SIGNAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | The TTL signal out, PSU turn on = 0 ~ 1V ; PSU turn off = 3.3 ~ 5.6V. Please refer to the Function Manual.                            |                                       |                                                                          |                                                  |                   |  |
|                                | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | -20 ~ +60°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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±0.02%/°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, 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                           |                                                                          |                                                  | -----             |  |
|                                | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Voltage Flicker                                                                                                                       | EN61000-3-3                           |                                                                          |                                                  | -----             |  |
|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | En55024, EN61204-3, EN61000-6-2, CCC GB17625.1, GB/T9254, 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 4, 4KV/Line-Earth ; Level 3, 2KV/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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 313.1K hrs min. Telcordia SR-332 (Bellcore) ; 116.75K hrs min. MIL-HDBK-217F (25°C)                                                   |                                       |                                                                          |                                                  |                   |  |
|                                | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 295*127*41mm (L*W*H)                                                                                                                  |                                       |                                                                          |                                                  |                   |  |
|                                | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.95Kg; 6pcs/12.7Kg/1.15CUFT                                                                                                          |                                       |                                                                          |                                                  |                   |  |
| NOTE                           | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>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.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltages. Please check the derating curve for more details.</p> <p>5. 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 360mm*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 <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> <p>6. 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> |                                                                                                                                       |                                       |                                                                          |                                                  |                   |  |