



## RPS-100

Industrial Redundant Power Supply Module (100W)

### Features

- Support 100W power output
- Support load balancing
- Support hot-swap
- Support temperature, current, status, runtime info



### Introduction

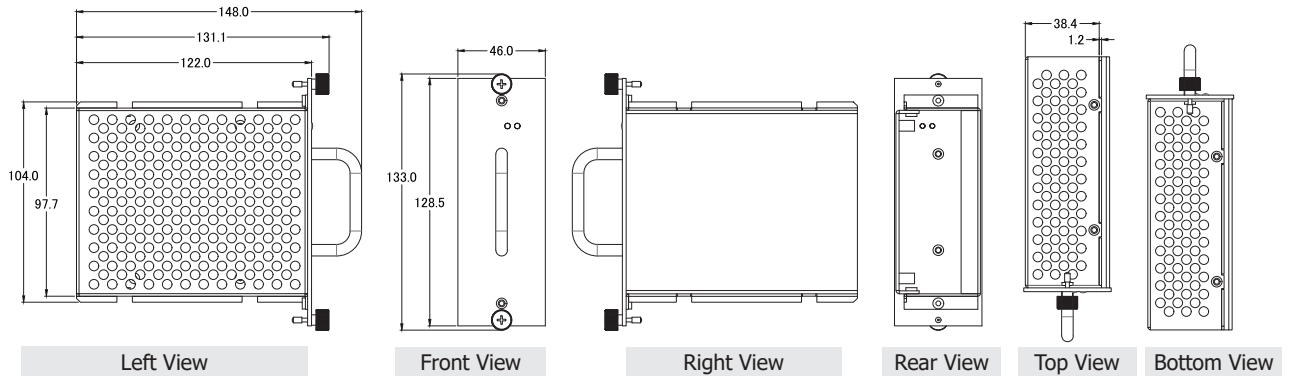
The RPS-100 is a highly intelligent redundant power supply module with the ability to return various power supply information to the communication module, including current, temperature, status, and runtime. These functions can be used not only to assess the health of the power module, but also to record the power consumption of the entire power system, and to send real-time alarms under abnormal conditions, thus achieving the effect of predictive alarms and early warning of faults.

In addition, the RPS-100 is equipped with a runtime logging function, which can be used for maintenance and replacement decisions, as well as MTBF (Mean Time Between Failure), which allows for early replacement of power modules as they approach the end of their useful life, further enhancing the reliability and stability of the power supply.

The RPS-100 has a built-in load balancing function that eliminates the need to install additional load balancing modules, and the slot design supports hot-swappable replacement, which makes the replacement process simple and does not require a power failure, reducing wiring hassles. The RPS-100's design is simpler and safer than traditional redundant power supply architectures.

These features make the RPS-100 highly reliable and convenient for industrial applications, especially for critical systems that require a stable and safe power supply.

### Dimensions (Units: mm)



## Electrical Specification

| Output                        |  |
|-------------------------------|--|
| DC Voltage                    | 24V  |
| Rated Current                 | 4.16A  |
| Current Range                 | 0~4.16A  |
| Rated Power                   | 100W   |
| Ripple & Noise(max.)          | 50mVp-p  |
| Voltage Tolerance             | ±1.0%  |
| Line Regulation               | ±1.0%  |
| Load Regulation               | ±5.0%  |
| Setup, Rise Time              | 1300ms,120ms at full load  |
| Hold Up Time(Typ.)            | 40ms at full load  |
| Input                         |  |
| Voltage Range                 | 90~264VAC  |
| Frequency Range               | 47 ~ 63Hz  |
| Power Factor(Typ.)            | PF=0.961/230VAC at full load, PF=0.985/115VAC at full load   |
| Efficiency(Typ.)              | 86%  |
| AC Current(Type)              | 1.01A/115VAC 0.51A/230VAC  |
| Inrush Current                | COLD START 30A/115VAC 60A/230VAC   |
| Leakage Current               | Earth<3.5mA ,Touch<0.25mA  |
| Protection                    |  |
| Overload                      | 110%~200% (Automatic recovery)   |
| Over Voltage                  | 26.4~31.2 (Automatic recovery)   |
| Environment                   |  |
| Working Temperature           | -20~50°C   |
| Working Humidity              | 5~95%RH Non-condensing.  |
| Storage Temperature, Humidity | -40~85°C   |
| Vibration                     | 0.26~6.09 G<br>Frequency Type: Sweep Frequency<br>Frequency Range: 10~55 Hz<br>Displacement: 1.0mm<br>Sweep Rate: 60 minute / cycle<br>Number of cycle: 1 cycle / axis<br>Direction: X ,Y and Z axis |
| MTBF                          | 100K (hours@25°C)  |
| Safety & EMC                  |  |
| Safety Standards              | Design to meet 62368   |
| Withstand Voltage             | I/P-O/P:3KVAC I/P-FG:1.8KVAC O/P-FG:0.5KVAC  |
| Isolation Resistance          | I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC  |
| EMC Emission                  | EN 55032<br>CISPR 32 & FCC Part 15 B<br>CLASS B : System with 4 module in parallel   |
| EMC Immunity                  | EN 55022, CISPR 22 & FCC Part 15, EN 61000-3-2, EN 61000-3-3, EN 61204-3<br>IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11                 |

## Ordering Information

|                   |  |
|-------------------|--|
| <b>RPS-100 CR</b> | Industrial Redundant Power Supply Module (100W) (RoHS) |
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