

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

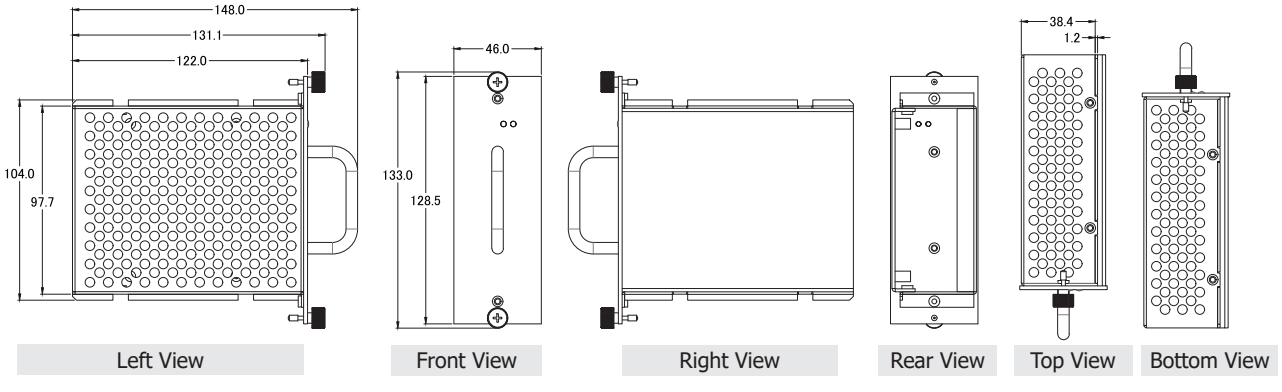
The RPS-100 is a highly intelligent redundant power supply module with the ability to return various power supply information to the communication module, including current, temperature, status, and runtime. These functions can be used not only to assess the health of the power module, but also to record 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)



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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 Frequency Type: Sweep Frequency Frequency Range: 10~55 Hz Displacement: 1.0mm Sweep Rate: 60 minute / cycle Number of cycle: 1 cycle / axis 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 CISPR 32 & FCC Part 15 B 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 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

RPS-100 CR	Industrial Redundant Power Supply Module (100W) (RoHS)

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