

High Voltage Power Supply
325 VDC 72 KW 24-U 19 in.
AC-DC Front End Power Rack
PS-1872



The **Digital Power PS-1872** is a high power, high voltage power system solution suitable for use in a wide variety of military and commercial applications. Scalable from 24 KW to 72 KW, the PS-1872 includes three redundant 24 KW sub-rack modules. Each sub-rack module contains up to twelve 2 KW modules in an N + 1 redundant configuration.

Key Features

- Up to 72 KW total output power
- User-friendly operation, optimized for service
- Fully protected for over load, short circuit, over voltage, over temperature, and input phase fail
- Redundant cooling liquid from independent chillers
- Meets all MIL-STD 461D / EN 55024 Class A and Class B EMI requirements

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Typical Applications

- DC power source for use in mobile shelters
- Radar and satellite transmitters/receivers
- Naval applications
- Power generation plants

Product Specifications

Input

- Input voltage: 380 VAC $\pm$ 10% line-to-line 3 phase star connection or 440 VAC $\pm$ 10.0% per MIL-STD-1399 (navy) Section 300A
- Power factor: 0.99 typical
- Efficiency: > 89%
- Total harmonic distortion: < 5%
- Soft start: Initial inrush current limit

Output

- Output voltage & current: 325 Vdc 225 A
- Ripple & noise: 3.2 V max. p-p
- Hold-up time: > 16 ms
- Transient load: $\pm$ 3% max. for 50% step load

Controls

- Power on/off via switch or via remote control
- Indicator lights for each module
- Indicator lights identify each phase, output status, and output on/off
- Output voltage and current monitoring via analog meter

Immunity

- ESD: EN61000-4-2 Level 3
- Fast transient: EN61000-4-4 Level 3
- Surge: EN61000-4-5 Level 3

Environmental Conditions

- Temperature: MIL-STD 810F, Method 501.4, -30°C to 50°C
- Storage: -30°C to 71°C
- Humidity: 95% RH at 35°C per MIL-STD-810F Method 507.4
- Altitude (operating): 15,000 ft. per MIL-STD810F Method 500.4
- Vibration: Per MIL-STD 810F, Method 514.5, Category 10 equipment
- Mechanical shock: Half-sine 11 ms duration, 20 g peak per MIL-STD-810F, Method 516.5, Process 1
- Fungus: Per MIL-HDBK-454A Guideline 4
- Salt fog: Per MIL-STD-810F Method 509.4
- EMI: Per MIL-STD-461D

Mechanical

- Size: 19 in. x 24-U x 31 in. (W x H x D)
- Weight (with all sub-racks and modules): 220 Kg
- J1 input connector: MS3102E-4P
- J2 output connector: MS3102E-4S
- J3 220 VAC input: D38999-24WC98PN

