

**High Voltage Power Supply**  
325 VDC 24 KW 5-U 19 in.  
AC-DC Front End Power Rack  
PS-2400



The **Digital Power PS-2400** is a high power, high voltage power system solution suitable for use in a wide variety of military and commercial applications. Scalable from 2 KW to 24 KW, the PS-2400 supports up to twelve 2 KW power modules in an N + 1 redundant configuration.

### Key Features

- 24 KW total output power
- Supports up to 12 modules of N + 1 redundant power share configuration
- User-friendly operation, optimized for service
- Fully protected for over load, short circuit, over voltage, over temperature, and input phase fail
- Control and monitoring via built-in RS-422 communication interface
- Redundant liquid cooling from independent chillers
- Meets all MIL-STD 461D / EN 55024 Class A and Class B EMI requirements

## High Voltage Power Supply

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AC-DC Front End Power Rack

**PS-2400**

### 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: > 90%
- Total harmonic distortion: < 5%
- Soft start: Initial inrush current limit

#### Output

- Output voltage & current: 325 VDC 75 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

#### 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,  $-30^{\circ}\text{C}$  to  $50^{\circ}\text{C}$
- Storage:  $-30^{\circ}\text{C}$  to  $71^{\circ}\text{C}$
- Humidity: 95% RH at  $35^{\circ}\text{C}$  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 5-U x 25 in. (W x H x D)
- Weight: 56 Kg
- Input/output connector: MS302E-36-4P/ MS3102E-36-4S
- Cooling: Redundant cooling liquid from four standard 19 in. 7-U independent chillers

#### Monitoring and Command via RS-422 Interface

- Output voltage and current
- Input voltage 3 phase status
- Over temperature
- Output voltage
- Modules status
- Main on/off
- Over voltage
- Over current
- Input 3-phase status

