

HPS48

High Power | DC Indoor Systems up to 4800A

FLEXIBLE + CONDENSED

The HPS48 is a condensed DC power system utilizing flexible cost effective modules for system configuration between 600 and 1600 Amps within a single cabinet, resulting in competitive solutions to suit custom requirements on short lead times. System expansion to 4800 Amps is possible with multiple cabinets. The HPS48 utilizes GE POWER high efficiency rectifiers along with adaptive rectifier management software to provide a highly reliable DC power system with minimal operational costs. The GE POWER Galaxy Pulsar Plus system controller provides monitoring and control of all system components via an RS485 digital bus. System status and parameter information are provided by a front panel display or remote network access.

Basic operation

The HPS48 Power System provides a 48V DC power supply for telecommunications equipment with battery backup on external stands. The batteries supply the loads during AC supply failure. Batteries are protected from damage due to deep-discharge by a disconnect contactor. Load shedding options can be used to extend critical service backup times. The rectifiers restart with the AC mains supply reconnection and supply the system loads while recharging the batteries at the same time. Correct battery charging is controlled by adjusting the battery float voltage with respect to the battery terminal temperature measured with thermal probes. Mid battery string voltage measurement is optional.

Power components

The rectifiers are specifically designed to operate as an integral part of a completely distributed power system. The high-density, front to back airflow rectifier is designed for minimal space utilization and is highly expandable for future growth.

It is provided with RS485 and dual-redundant I2C communication busses. The flexible feature set makes this rectifier an excellent solution for applications requiring modular bulk AC to DC power conversion for distributed power applications.

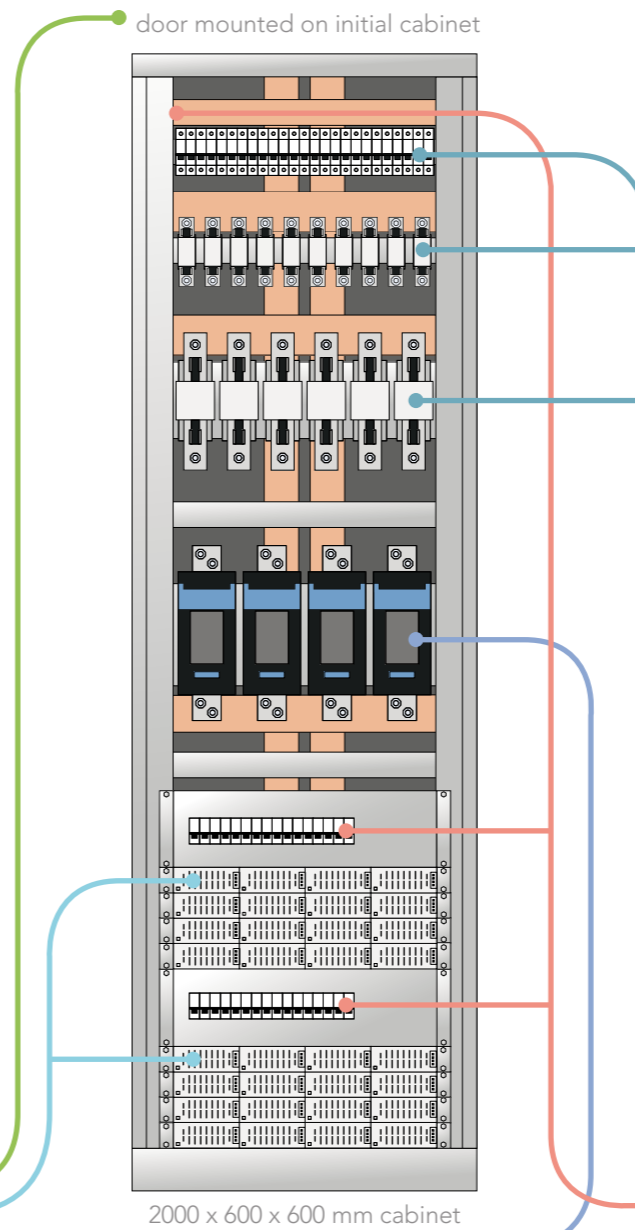


CP 2725 TE Rectifier

- CP2725 TE: 2725W (50A) output
- Front to back forced air cooled
- 1U high, 4 rectifiers per shelf
- Universal AC input
- Efficiency approaching 97%
- Digital communication (RS485)
- Active load current sharing
- Hot pluggable

Galaxy Pulsar Plus Controller

- System monitoring and control
- Alarm history
- Multiple rectifier fail alarms
- Battery discharge testing
- Battery slope thermal compensation
- Battery current monitoring
- Optional battery symmetry monitoring
- Monitoring of ambient parameters
- Customer configurable alarms
- SNMP/Ethernet



Battery Connection Module (BATT)

- High power battery connection units
- 800A and 1600A ratings
- HRC fuse disconnects
- Low voltage battery disconnect (LVBD)
- Battery current shunt
- Optional maintenance bypass switch
- Optional bulk output fuse disconnect 1600A



DC power configuration

HPS48 DC power system options are available with a total capacity of 600, 800, 1200 and 1600 Amps within a single cabinet with total system capacity of 4800 Amps possible with multiple cabinets. The system comprises AC distribution, rectifiers, DC Distribution, battery connection and system controller. AC distribution options include main incoming supply isolation and surge protection. The DC distribution is highly configurable using a variety of breakers or fuses. The battery connection panel provides battery connection, isolation, monitoring and protection. All systems include the GE POWER Galaxy Pulsar Plus system controller providing sophisticated monitoring and control of the DC power system and capability for complete site management with customized monitoring and alarm options. Controller communication is either via front panel controls, local connection of a laptop or Ethernet interface – TCP/IP, FTP, Telnet, HTTP, SMTP are supported. GE POWER high efficiency 2725 Watt CP rectifiers provide a reliable high quality power source.

AC Connection

- Configurable for Star or Delta AC mains input

AC Distribution Options

- Options include:
- AC mains isolation switch
 - Surge protection
 - Sub AC distribution

Customer DC Output

- 600A distribution bus bars
- 800A distribution bus bars
- 1200A distribution bus bars





High Efficiency



CO₂
Reduction



Long Life



Modularity



Minimal
Maintenance



Small Footprint

Key features

- Flexible indoor DC plant
- 600A, 800A, 1200, 1600 Amp single cabinet capacity options @ 54.5 VDC
- Total system capability 4800 Amps
- Standard components reduce cost and lead times
- Flexible distribution options to suit site requirements
- Battery connection, monitoring and protection
- Sophisticated IP capable system controller
- Front access for installation and maintenance



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