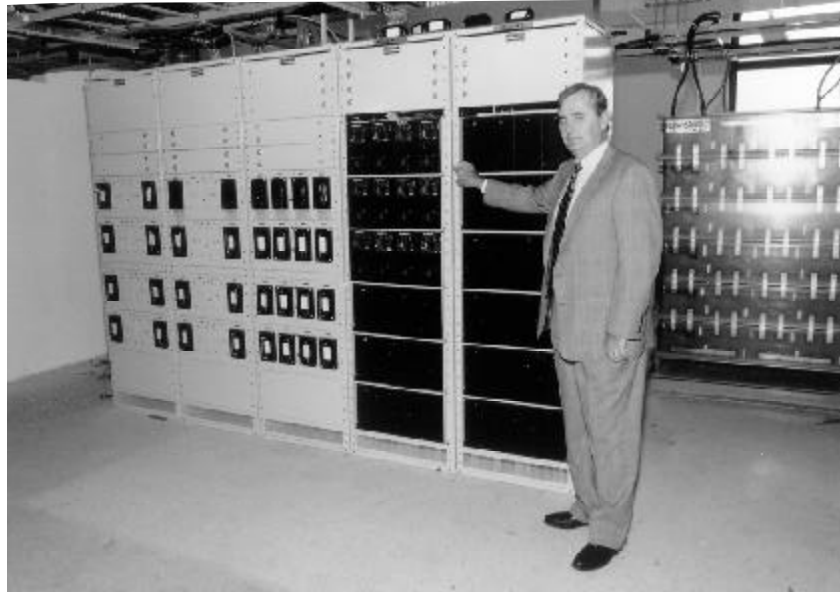


High Current DC Power Systems (HCPS)



Bulletin: 370C

The High Current DC Power System plant shown is rated at 2400 amps (-48 VDC) and is expandable to 4800 amps. Floor space for this five bay, 2400 amp plant is 120" (3.05 m) wide x 24" (61 cm) deep.



Features

- Systems are expandable up through 4,800 amps (24 VDC or 48 VDC).
- Rectifiers are modular, hot plug-in, latest state-of-the-art design with active power factor correction and 90% efficiency (see Bulletin 368 for details on the rectifier modules). Rectifiers are UL, UL Listed for Canada, and CE.
- Rugged design.
- Tin-plated copper bus bars.
- Customer's power connections designed for two-hole lugs.
- Require less floor space and floor loading.
- Easy to maintain and expand.
- Requires 8'4-1/2" (2.6 m) high space (2400A) or 9'4" (2.9 m) high space (4800A).
- Operating environment from -40°C to +65°C (-40°F to 149°F).
- Systems can be furnished with or without low voltage load disconnect.



TwinPack Plus[®], the most advanced rectifier available today.

Optional Monitoring

- SSD3.2 with modem and RS-232 connections
- SSD3-LT with dry contacts.
- TCP/IP Gate Internet Access
- 20-Channel Battery Monitor

Reference Documents

Applicable portions of the following documents are utilized in the design of these plants:

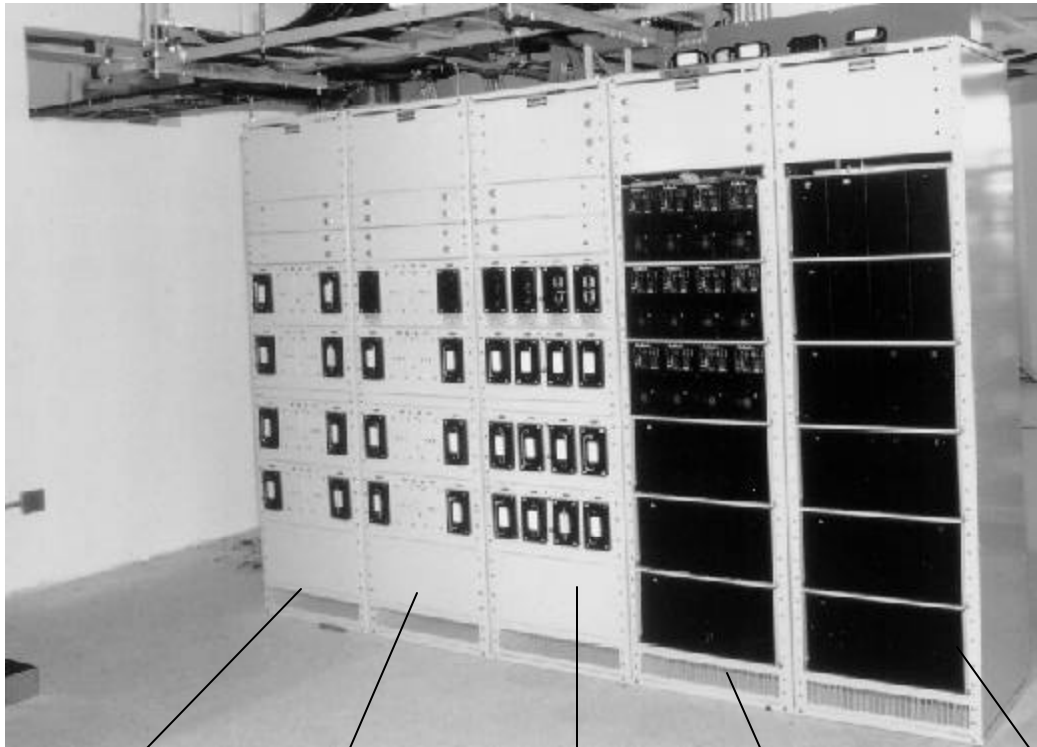
- Telcordia Technologies GR-63-CORE
- A.T.&T. standard 803-500-410 for grounding practices
- Telcordia Technologies GR-947
- Power Conversion Products, LLC, Process Specifications



power conversion products, llc
— an Eltek Company

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www.eltekenergy.com



**Supplementary
Load Distribution
Fuse Bay**

**Originating
Load Distribution
Fuse Bay**

**Originating
Battery Distribution
Fuse Bay**

**Originating
Charge Bay
(1200 Amps of
Rectifiers)**

**Supplementary
Charge Bay
(1200 Amps of
Rectifiers)**

2,400 Amp (-48 VDC) plant installation.

Originating Charge Bay. Contact factory for Part Number.

Rating: 24 or 48 VDC, 1200 ADC.

One of these bays is required for each system.

General Equipment List:

One (1) each System Status & Control Panel, SSD2-48(24)-5000 (see Bulletin 438), six (6) each *TwinPack Plus*[®] rectifier shelves.

The bay is designed to accept six shelves; however, any number may be mounted initially. The bay can be expanded in the field. The bus detail of this bay is designed to accommodate 2400 amps of charge current initially. It is also designed with load returns for two Load Distribution Fuse Bays (LDFB). Expansion of the system only affects the bus bar structure in this bay when the required charge current exceeds 2400 amps and/or the quantity of LDFBs increases beyond two (2).

Rectifiers are ordered separately.

Battery Distribution Fuse Bay (BDFB) - 4800 Amperes. Contact factory for Part Number.

Rating: 24 or 48 VDC, 4800 ADC.

One of these bays is required to distribute power to the battery plant.

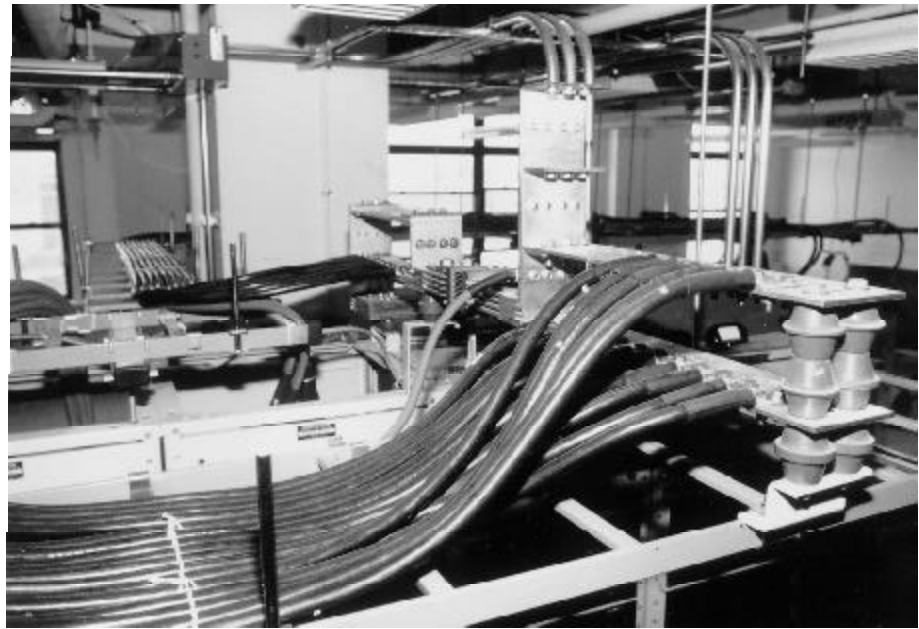
General Equipment List:

This bay is designed with four (4) each 4-position fuse panels equipped with 71-600 ADC dead-front fuseholders. Bus bars to connect to the existing system are incorporated into this bay. This bay is designed for systems that may require 4800 amperes of current, even if the initial configuration is less than that. It is equipped with all the bus bar details necessary for a 4800 ampere installation. Fuses are ordered separately.

Customer's ground bus connections (2-hole lugs).

Load return connections (forefront).

Battery return connections (rear).



Originating Load Distribution Fuse Bay (LDFB) - Contact factory for Part Number.

Rating: 24 or 48 VDC, 1200 ADC.

One of these bays is required to distribute power to the "down-stream" load distribution bays (BDCBB).

General Equipment List:

This bay is designed with four (4) each 2-position fuse panels equipped with 71-600 ADC dead-front fuseholders with an 800 ampere low voltage disconnect contactor connected to the input of each fuse. Bus bars to connect to the existing system are incorporated into this bay. Fuses are ordered separately.

Supplementary Load Distribution Fuse Bay (LDFB)- Contact factory for Part Number.

Rating: 24 or 48 VDC, 1200 ADC.

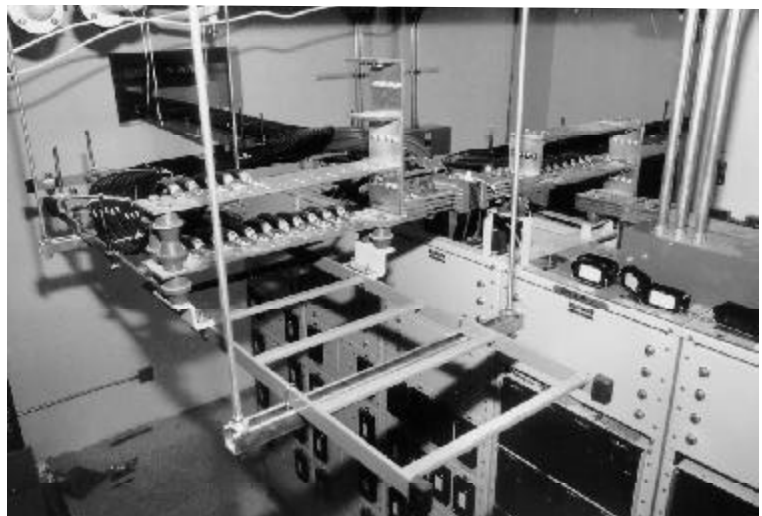
One of these bays is required to distribute power to the "down-stream" load distribution bays (BDCBB) when the load current is between 1200 and 2400 amperes. Another bay is required for load currents between 2400 and 3600 amps and a fourth bay is required for load current between 3600 and 4800 amps.

General Equipment List:

This bay is designed with four (4) each 2-position fuse panels equipped with 71-600 ADC dead-front fuseholders with an 800 ampere low voltage disconnect contactor connected to the input of each fuse. Bus bars to connect to the existing system are incorporated into this bay. Fuses are ordered separately. **Note: PCP can provide the LDFB with metering. Contact factory.**

*See Bulletin 443 for information on PCP's BDCBBs.

Another view of ground return buses and the 5000 amp shunt.



***Customer's load
connections to Load
Distribution Fuse Bay.***

