

SECTION 1: GENERAL

1.1 GENERAL

The 129BD plant is designed to provide a bulk output up to 1200 Amps at -48VDC when fully equipped with six 23-inch rectifier shelves or eight 19-inch shelves, and a total of twenty-four rectifier modules. The plant accepts 184V~264V at 45Hz-65Hz, as an input source. The rectifiers will operate at lower voltages with reduced output. The voltage is applied to the individual rectifier modules through AC wiring located at the rear of each rectifier shelf. The plant controller is interfaced with the output and alarms of the rectifier modules via factory-installed wiring.

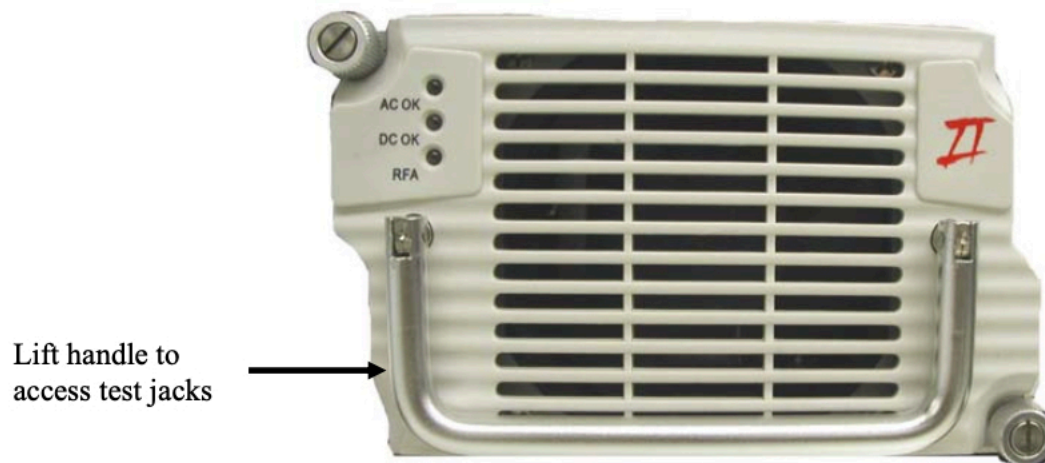
Each modular rectifier may be hot inserted, meaning the rectifiers may be removed or installed without shutting down the entire plant.

In the event of a commercial AC failure, the plant seamlessly powers the load from the batteries. When the commercial AC returns, the plant automatically returns the load to the rectifiers and recharges the batteries in preparation for the next commercial AC power failure.

The plant is fully automatic and provides float and recharge capacity. Alarms are given whenever any plant circuit breaker trips, a fuse fails, a rectifier fails, or the plant output voltage goes out of prescribed limits. The plant can interface with a LAN/WAN. The basic controller offers web browser based monitoring and plant setpoints to be accessed and/or changed. Refer to the controller manual (4380400PD) for complete details.

1.2 RECTIFIER

The compact SM50H48D rectifier provides 50 Amps at -48VDC (220VAC input) and 25 Amps at -48VDC (110 VAC input). Up to 4 rectifier modules can be equipped in a 23-inch rack-mounted shelf, for a total of 200 Amps per shelf. Up to 3 rectifier modules can be equipped in a 19-inch rack mount shelf, for a total of 150A per shelf. For rectifier module details, refer to the rectifier product manual (4380421PD) attached at the rear of this manual. Test jacks are located on the bottom left front of each rectifier module to read individual rectifier current.



Front View

FIGURE 1-1: SM50H48D Rectifier Module

1.2.1 RECTIFIER BLANK PANEL

Each rectifier shelf may accommodate up to three or four rectifier modules. All unused rectifier positions must be covered with a rectifier blank panel (GE part number 4361179P).