

2-12 amp, -48 VDC Power System with 2 amp Rectifiers

Key Features

- **Modular Design**—for redundancy and easy expansion
- **2 amp Rectifier Cards**—simplify configuration to your exact power needs
- **Built-in Distribution Card**—provides protected 10 load distribution
- **Easy Maintenance**—cards can be added or removed without system shutdown
- **UL Listed**—compliance to local codes

Description

The Lorain® MZ12CAB/DF modular power system will accept up to six 2 amp rectifier cards to provide -48 VDC power for a broad range of applications. Modular design gives you the flexibility to configure the rectifier cabinet to your specific power requirements. The compact cabinet provides up to 10 amp redundancy in 3.5" (8.89cm) of vertical rack space, eliminating the need for an additional 10 amp backup unit. Should a single 2 amp rectifier card fail in a 12 amp configuration, the remaining cards will pick up the 10 amp load requirement.

The rectifier cards can be changed-out without costly system shutdown. Spare rectifier cards can be kept on hand for fast, easy replacement.

The cabinet is equipped with a distribution card that provides fuse protected distribution for up to ten loads. Each load can be fused within a range of 0 to 10 amps.

Other features include overvoltage shutdown, rectifier and distribution failure alarms, and a series output diode that permits the rectifier cabinet to be paralleled with like rectifier cabinets for added capacity.

The MZ12CAB/DF is designed for easy installation in either 19" (48.26cm) or 23" (58.42cm) standard relay racks. An AC cord is furnished for convenient plug-in installation.

Application

The Lorain MZ12CAB/DF modular rectifier cabinet is ideal for applications requiring -48 VDC power such as small PBX systems, customer premises installations and special service equipment for communications.

Additional Information

For additional specification, engineering and installation information; specify rectifier cabinet; model MZ12CAB/DF, spec. number 588240800. 2 amp rectifier circuit card: specify quantity and model MZ2A50, spec. number 486541301.

Note: Each cabinet will accept six rectifier cards.



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Specifications

Input

Voltage: 120 (106 to 127) VAC, single phase

Frequency: 50/60 (47-63) Hz

Current: 2.12 amps (1 rectifier card)

10.3 amps (6 rectifier cards)

Output

Voltage: 48.3 to 56.0 VDC, positive ground (factory set at 54 VDC)

Current: 2 amps (1 rectifier card), 12 amps (6 rectifier cards)

Filtering (w/o battery): Voice band noise does not exceed 32dBmC. Wide band noise does not exceed 200 mV over the 10 to 14 MHz range.

Protection

Current Limiting: Output current is limited to 110% \pm 5% of full load

Overvoltage Shutdown: If rectifier output voltage exceeds a preset value, the rectifier circuit card will shut down. If two or more rectifier circuit cards are operating in parallel, only the malfunctioning card is shut down.

Distribution Outputs: GMT Type 0-10 amp fuses are required. **Note:** If the rectifier is operated without being connected to battery, the distribution fuses should be sized so that the rectifier current capacity is 1.5 times the fuse size used to assure the ability of the rectifier to open a fuse in the event of an overload.

Alarms/Indicators: Power on; rectifier failure, extended alarm contacts; fuse alarm (F1-F10 dist.), and extended contacts.

Paralleling: The output can be connected in parallel with the output of other MZ Series rectifier cabinets having the same output voltage ratings.

Test Points: Front access test points on each rectifier circuit card are provided to measure output voltage and current.

EMI Suppression: Conforms to FCC Rules, part 15, Subpart B for Class A computing devices.

Environmental

Operating Temperature: 0° C to +50° C (+32° F to +122° F)

Storage Temperature: -40° C to +85° C (-40° F to +185° F)

Humidity: 0% to 95% relative humidity, non-condensing

Altitude: Sea level to 10,000' (3,048m)

Ventilation: Convection cooled

Heat Dissipation: 102 Btu/hr (1 rectifier card), 529 Btu/hr (6 rectifier cards). **Note:** Cabinet should be positioned so that ventilation is not blocked and air temperature entering the cabinet does not exceed +50° C (+122° F). Optional ventilation baffle plates which install in a 3.5" (8.89cm) rack space can be specified. For 19" (48.27cm) relay racks, specify part number 377761400. For 23" (58.42cm) relay racks, specify part number 377761500.

Audible Noise: Does not exceed 45 dBA 5' (1.52m) from any vertical cabinet surface.

Physical Characteristics

Dimensions:

Mounting: This is furnished with reversible mounting angles for 19" (48.26cm) or 23" (58.42cm) mounting.

Height: 3.47" (8.81cm)

Width: 19" (48.26cm), adaptable to 23" (58.42cm)

Depth: 14.63" (37.15cm)

Weight: Net 30 lbs. (13.61 kgs)

Shipping 33 lbs. (14.97 kgs)



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