

# 6-12 amp, -48 VDC Power System with 6 amp Rectifiers

## Key Features

- **Modular Design and High Density**—more power in less space
- **UL Listed**—compliance to local codes
- **Built-in Distribution**—provides eight fuse protected load positions
- **Easy System Maintenance**—quickly change out modules without system shutdown

## Description

The Lorain® MZ12CAB modular power system is the flexible power solution for -48 VDC applications requiring 6 or 12 amp power. Each rectifier cabinet will accept two 6 amp rectifier circuit cards. These rectifier cards are added or removed without complicated and costly equipment shutdown. The cabinet can be easily configured for redundant 6 amp operation. Spare rectifier cards can be kept on hand as an additional safeguard.

Other features include overvoltage shutdown, a rectifier failure alarm, current limiting, and a series of diodes that permits paralleling of like cabinets for added system capacity.

The compact rectifier cabinets are easily mounted in 3.5" (8.89cm) of vertical rack space. Reversible mounting angles permit 19" (48.26cm) or 23" (58.42cm) equipment rack mounting. The cabinets can also be wall mounted.

A built-in distribution feature is available by specifying the model MZ12CAB, spec. number 588240400. This model is equipped with a distribution circuit card that provides eight fuse protected distribution load positions. Each position can be fused within a range of 0 to 4 amps.

## Application

The Lorain MZ12CAB modular rectifier cabinets are ideal for a wide range of communication power applications that include DLC/loop electronics, microwave carrier, remote sites and customer premise systems.

## Accessories

6/12 amp rectifier system with distribution (or without distribution) protection: Specify one model MZ12CAB, spec. number 588240400 (or 588240300) equipped with one model MZ6A50, spec. number 486808400, 6 amp rectifier circuit card.

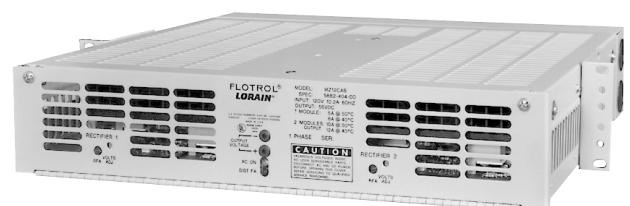
Specify two 486808400, 6 amp rectifier cards for 12 amp operation.

Additional 6 amp rectifier circuit cards:

Specify (quantity required) model MZ6A50, spec. number 486808400, 6 amp rectifier circuit card(s).

## Additional Information

For additional specification, engineering and installation information, specify model MZ12CAB, spec. numbers 588240300 and 588240400.



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## Specifications

### Input

Voltage: 120 (106 to 127) VAC, single phase  
Frequency: 50/60 (47-63) Hz  
Current: 4.9 amps (1 rectifier card)  
9.5 amps (2 rectifier cards)

### Output

Voltage: 48 (47 to 56) VDC positive or negative ground;  
factory set at 54 VDC  
Current: At +40° C (+104° F) max. operating ambient  
temperature:  
(1) rectifier card — 6 amps  
(2) rectifier cards — 12 amps  
At +50° C (+122° F) max. operating ambient temperature:  
(1) rectifier card — 5 amps  
(2) rectifier cards — 10 amps  
Filtering (without battery): Voice band noise does not exceed  
32 dBm-C. Wide band noise does not exceed 200 mV over  
the 10 to 14 MHz range.

### Protection

Current Limiting: Output current is limited to 110% ±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.  
Output Distribution Fuses: Each output (F1-F8) fused at 0  
to 4 amps with GMT Type fuses. Total current of the DC  
outputs must not exceed the full load rating of the rectifier  
cabinet.  
Alarms/Indicators: Power on, rectifier failure, and  
distribution failure alarm  
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: 247 Btu/hr (1 rectifier card); 507 Btu/hr (2  
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" (48.26cm) relay racks, specify  
part number 377763200. For 23" (58.42cm) relay racks,  
specify part number 377764000.  
Audible Noise: Does not exceed 45 dBA 5' (1.52m) from any  
cabinet surface.

### Physical Characteristics

Mounting: This rectifier is furnished with reversible  
mounting angles for 19" (48.26cm) or 23" (58.42cm)  
mounting.  
Dimensions:  
Height: 3.47" (8.81cm)  
Width: 19" (48.26cm), adaptable to 23" (58.42cm)  
Depth: 13.75" (34.92cm); spec. number 588240400, 14.25"  
(36.20cm); spec. number 588240300  
Weight: Net 18 lbs. (8.17 kgs)  
Shipping 21 lbs. (9.53 kgs)



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