

24 amp, -24 VDC Rectifier

Key Features

- **High Frequency Technology**—24 amps of power in 5.25" (13.34cm) of vertical rack space
- **Inaudible Operation**—installs anywhere
- **High Operating Efficiencies**—provide long-term energy savings
- **Lightweight Design**—simplifies installation
- **UL Listed**—compliance to local codes

Description

The Lorain® model A24F25 rectifier provide -24 VDC, 24 amp power for a broad range of applications. High frequency design means more power in less space with quiet operation. Because these Lorain units are quiet, they can be installed near the equipment they power, eliminating long, costly wire runs. Smaller magnetic units reduce space requirements and ease floor loading.

These standard features assure long equipment life and simplified operation. Paralleling provides added capacity and load sharing capability. Selective high voltage shutdown increases rectifier system reliability with a built-in overvoltage shutdown circuit which is activated by a predetermined setting. Current limiting protects against overloads and system damage.

LED indicators on the front panel clearly signal power-on status, rectifier failure, high and low voltage alarms, and equalize operation. An analog meter is also provided.

Application

These units are ideal for cellular radio, microwave tower, remote huts, CEVs, customer premises installations and special service applications operating from 24 VDC.

Accessories

Equalize Charge Timer Panel

Manual or automatic timer panel controls up to eight battery charger eliminators over a 99 hour adjustment range.

19" (48.26cm) mounting, part number 484383500

23" (58.42cm) mounting, part number 484383700

Low Voltage Disconnect Panel

Senses low battery voltage condition and disconnects battery to prevent battery and system damage.

19" (48.26cm) mounting, part number 437711300

23" (58.42cm) mounting, part number 437711800



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Specifications

Input

Voltage: 120 (88-132) VAC, single phase
208 & 240 (176-264) VAC, single phase
Frequency: 47-63 Hz
Protection: Circuit breaker, AC line

Output

Voltage:
Float — Adjustable from 23.0 to 27.0 VDC. Factory set at 26.04 volts.
Equalize — Adjustable from float to 29.0 VDC. Factory set at 27.0 volts.
Current: 24 amps, full load
Regulation: Steady-state $\pm 0.5\%$ from no load to full load over the specified input voltage and frequency ranges
Dynamic Response: Maximum voltage transient does not exceed $\pm 2.5\%$ for a step load change from 25% to 100% of full rated load. Recovery to steady-state voltage range does not exceed 10 ms, and all transient behavior disappears within 100 ms.
Filtering: Voice band noise does not exceed 22dBnC with or without battery.
Wide band noise does not exceed 200mV peak-to-peak over the frequency range of 10 Hz to 14 MHz without battery.

Protection

Current Limiting: Circuit prevents further application of current to the load if output current exceeds 105% of full rated load.
Fuse: A 30 amp fuse is located in the negative output lead
Selective High Voltage Shutdown: If rectifier output voltage exceeds a preset value and the rectifier is delivering more than 3% of full rated current, the rectifier will shut down. If the rectifier is delivering less than 3% of full rated current, the preset shutdown value is automatically increased approximately 1.4 volts. If two or more rectifiers are operating in parallel, only the malfunctioning rectifier will shut down. High voltage shutdown is adjustable from 26.40 to 31.25 volts, and is factory set at 29.5 volts.
Alarms: Rectifier Fail and Fuse Alarm (LED)

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)

Physical Characteristics

Mounting: This rectifier is furnished with reversible mounting angles for 19" (48.26cm) or 23" (58.42cm) mounting.
Dimensions:
Height: 5.25" (13.34cm)
Width: 19" (48.26cm)
Depth: 13.63" (34.61cm)
Weight: Net 27.5 lbs. (12.47 kgs)
Shipping 30.5 lbs. (13.84 kgs)

Additional Information

For additional specification, engineering and installation information, specify model A24F25, spec. number 526102300.



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