Murata Power Solutions

30 AMP
MODULAR SWITCHED MODE RECTIFIER

RM4830

FEATURES

- SWITCHED MODE
- >.99 PFC
- >85% EFFICIENCY
- HOT-SWAP CAPABLE
- AUTOMATIC LOAD SHARING
- COMPACT SIZE
- SHELF MOUNTED
- BELLCORE BASED DESIGN
- REMOTE RESTART FUNCTION
- FRONT PANEL CURRENT METER
- BATTERY OR BATTERYLESS OPERATION
- INTELLIGENT HIGH VOLTAGE SHUTDOWN
- GUARANTEED NO SINGLE PART FAILURE WILL RESULT IN OUTPUT HIGH VOLTAGE
- THD <5%

DESCRIPTION

The RM4830 Modular Switched-Mode Rectifier is one of a family of rectifiers that may be used in modular power plants. This unit will function in parallel with any rectifier with similar current sharing capacities. This compact, versatile and efficient unit is ideal for use in small to medium cellular and PCS sites.

AGENCY APPROVALS

OBSOLETE PRODUCT

Contact Factory for Replacement Model

Technical enquiries - email: sales@murata-ps.com, **tel:** +1 508 339 3000

Input Specifications

Parameter	Conditions	Min	Typ	Max	Units
Operating Range	45 - 65 Hz, single phase, no taps required	106		264	VAC
Current (when supplying 30ADC at 48VDC)	105 VAC		20		AAC
	208 VAC		10		AAC
	240 VAC		8.5		AAC
Efficiency		>85			%
Power Factor Correction (PFC)	input range between 105VAC-264VAC	>.99			

MEASUREMENTS OF RM4830		
Module		
	Weight	14 lbs.
	Height	5 U (8.75")
	Depth	15.55"
	Width	3.35"
Shelf*	Weight	21 lbs.
	Height	5 U (8.75")
	Depth	15.55"
	Width	23" rack mount

* These measurements are specifically for the 180A Power Shelf for up to 6 quantity RM 4830. Please contact factory for other shelf and power plant options.

GENERAL FEATURES

Hot Swappable Modules
These shelf-mounted modules are easy and safe to install or remove while system is operational without affecting the overall system's performance.

Parallel Operation and Automatic Load Sharing
A series of RM4830 rectifiers will automatically share equal amounts of the load current when operating in parallel within ±5% of the average current for the load applied.

N+1 Operation
The rectifier can operate in true N + 1 redundancy mode.

Remote Equalize
The rectifier output may be changed from float to equalize via remote signal.

Current Limit
When rectifier current reaches 30ADC - 32ADC, the unit will automatically limit the current down to short circuit conditions with no fold back.

LED Indicators
The front panel includes a 10 segment yellow LED output current bar graph, a green normal operation LED, and a red rectifier failed LED.

Safety
UL/CUL Recognized: UL 1950/CSA 950.
File No.: E131694
EMI filtering to FCC and VDE-0875 limits.

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Output Specifications

Parameter	Conditions	Min	Typ	Max	Units
Voltage Adjustment Range					
	float voltage	40		60	VDC
	equalize voltage	40		60	VDC
Regulation	0-100% load within specified input voltage and frequency range		±0.5		%
Load Current	within a 10 - 100% rating		± 10		%
Filtering					
Voice band		<32			dBrnC
Wide band noise	20 MHz bandwidth	<250			mV p-p
		<40			mVrms
ENVIRONMENTAL					
Temperature					
Operating		0		+50	°C
		+32		122	°F
Storage		-50		85	°C
		-58		185	°F
Temperature Coefficient	after half hour warm-up	0.01			V/°C
Humidity	non-condensing	0		95	%
Altitude		0		7000	ft.
		0		2133	m
Heat Dissipation	@54V		980		Btu/hr
Audible Noise	2 ft. from any vertical surface	<65			dBa

PROTECTION, ALARM AND CONTROL SYSTEMS

Rectifier Failure Alarm (RFA)
Problems occurring because of an unacceptable relationship between the output power and load conditions will cause a Rectifier Failure Alarm (RFA). This alarm consists of a red LED. Conditions which may lead to an RFA are:

Low Current - Output current has decreased to below 2% of its rated value.

Unit Shutdown - Any shutdown occurrence due to overvoltage, external shutdown command, unacceptable ambient temperature conditions or low AC input voltage.

Fan Malfunction - The fan has stopped operating or is not providing the airflow needed to cool the unit.

Over Temperature - The ambient temperature has exceeded 50°C.

High Voltage Shutdown (HVSD)
The unit's built-in high voltage limit is permanently set at 60.5VDC. When internal shutdown occurs, the unit may be restarted by a local switch or by a remote signal.

Surge Protection
The unit will withstand lightning and input surges of 6000V/3000A.

Under Voltage Protection
When input voltage is below 106 VAC (with tolerance), the rectifier's operation is automatically inhibited.

Output Circuit Protection Device (Fuse)
The unit has one internal output protection fuse which is in series with the -48VDC output.

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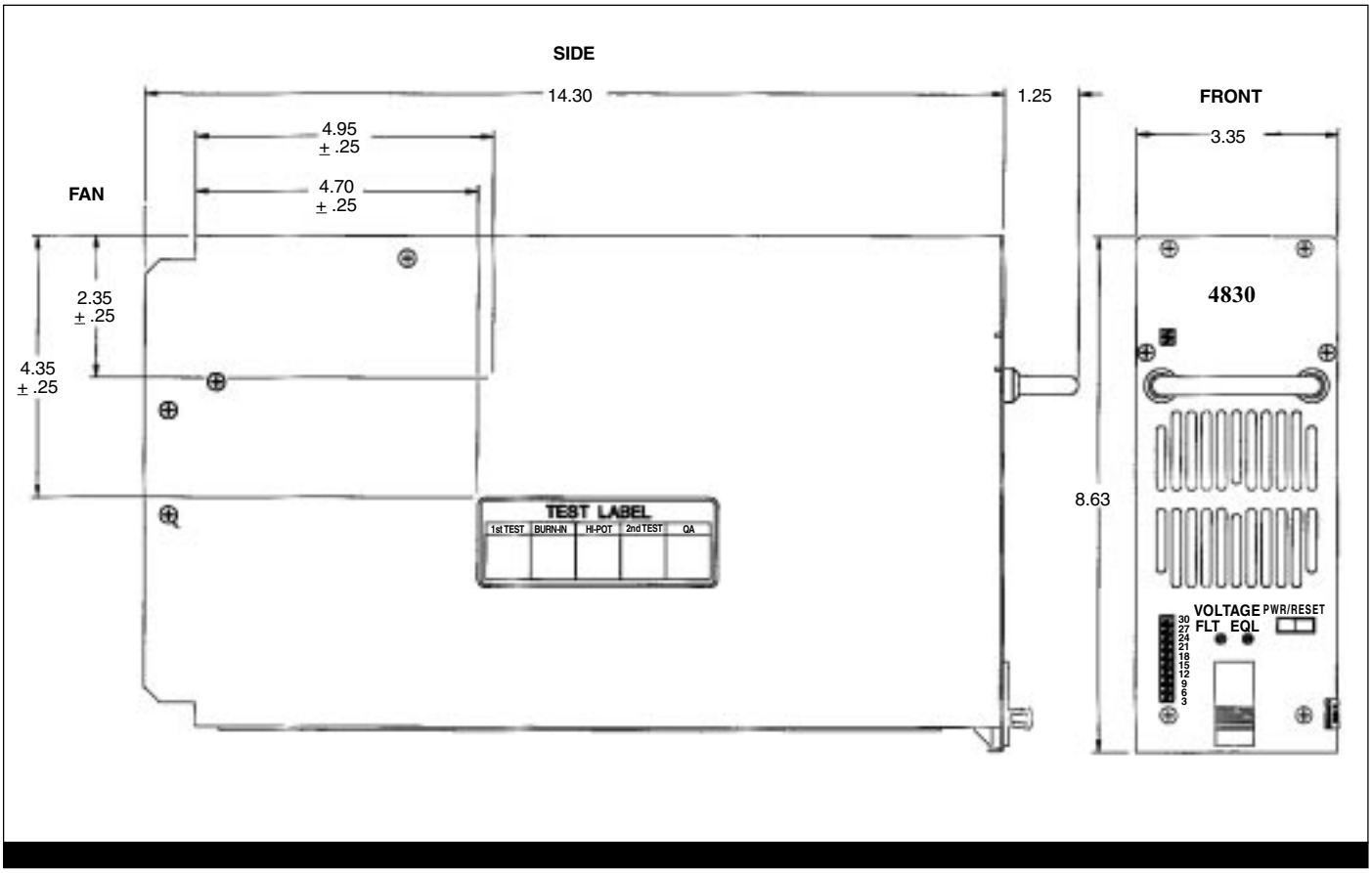
Mechanical



Standard Options are shown, consult factory for other available options.

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