C&D TECHNOLOGIES

Product Data Sheet

150 AMP MODULAR SWITCHED MODE RECTIFIER

RM24150

DESCRIPTION

The RM24150 Modular Switch-Mode Rectifier is one of C&D Technologies' family of rectifiers that may be used in modular power plants. This high power unit will function in parallel with any rectifier with similar current sharing capacities. This versatile and efficient rectifier is ideal for use in advanced telecommunications applications. Its small size allows the user to plan economically for system expansion at minimum cost and makes it ideal for use in fiber optic, microwave and other applications where space is at a premium.

FEATURES

- SWITCHED MODE
- >.99 PFC
- >85% EFFICIENCY
- AUTOMATIC LOAD SHARING
- HOT-SWAP CAPABLE
- COMPACT SIZE
- SHELF MOUNTED
- TELECOM BULK POWER RATED
- BELLCORE BASED DESIGN
- SOFT START TURN-ON
- INFINITE, FULL CURRENT SHORT CIRCUIT CAPABLE
- BUILT IN AC & DC DISCONNECTS
- INTELLIGENT HIGH VOLTAGE SENSE PROTECTION
- BATTERY OR BATTERYLESS OPERATION
- GUARANTEED NO SINGLE PART FAILURE CAN LEAD TO OUTPUT HIGH VOLTAGE
- GUARANTEED SAFE OPERATION TO 300 VAC
- FRONT PANEL METER
- THD <5%

AGENCY APPROVALS

Internet: http://www.cdpowerelectronics.com

Power Electronics Division, United States
3400 E Britannia Drive, Tucson, Arizona 85706
Phone: 800.547.2537 Fax: 520.770.9369

Power Electronics Division, Europe
C&D Technologies (Power Electronics) Ltd.
132 Shannon Industrial Estate, Shannon, Co. Clare, Ireland
Tel: +353.61.474.133 Fax:+353.61.474.141

Input Specifications

Parameter	Conditions	Min	Typ	Max	Units
Operating Range	45 - 65 Hz, single phase, no taps required	183		264	VAC
Current	Adjustable			27	A
Efficiency				>85	%
Power Factor Correction (PFC)				>.99	

MEASUREMENTS OF RM24150		
Module	Weight	25 lbs.
	Height	7U (12.25")
	Depth	15.25"
	Width	5.1"
Shelf*	Weight	18 lbs.
	Height	7U (12.25")
	Depth	15..25" maximum
	Width	23" rack mount

*These measurements are specifically for the 600A Power Shelf for up to 4 quantity RM24150. Please consult 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
Forced or passive load sharing is available between modules of the same operating voltages in parallel applications.

Current Limit
The Current Limit is adjustable between 0A to 150A. Upon exceeding this limit, the rectifier automatically reduces output voltage.

Safety
UL/CUL Recognized: UL 1950/CSA 950
File Number: E181908.

Alarm Outputs	
Rectifier Fail Alarm	(RFA)
Thermal Shutdown Occurring	(THSD)
Open Sense Lead Has Occurred	(OS)
AC Power Has Failed Alarm	(ACF)
DC Breaker Is Open Alarm	(DCBKR)
AC Breaker Is Open Alarm	(ACBKR)

Note: All alarms are "Form A" relay type contacts

Control Inputs		
High Voltage Shutdown	(HVSD)	All control inputs are initiated with a ground closure
Restart	(RS)	
Equalize	(EQ)	
Temporary Restraint	(TR)	
Emergency Shutdown	(EMSD)	24VAC voltage reference to ground

Output Specifications

Parameter	Conditions	Min	Typ	Max	Units
Voltage Adjustment Range					
	float voltage	24		28	VDC
	equalize voltage	24		30	VDC
Regulation	0-100% load within specified input voltage and frequency range		± 0.5		%
Load Current	within a 10 - 100% rating		±10		%
Hold-Up Time	nominal AC line	>16			mS
Filtering					
Voice band		<32			dBrnc
Wide band noise	@ 20MHz	<350			mV p-p
ENVIRONMENTAL					
Temperature					
Operating		-0		+50	°C
		+32		122	°F
Storage		-50		+85	°C
		-58		185	°F
Humidity	non-condensing	0		95	%
Altitude		0		7000	ft.
		0		2133	m
Heat Dissipation	@27V		2440		Btu/hr
Audible Noise	5 ft. from any vertical surface	<55			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 and a flashing green OK LED. Conditions which may lead to an RFA are:

Low Current - Output current has decreased to below **5%** 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.

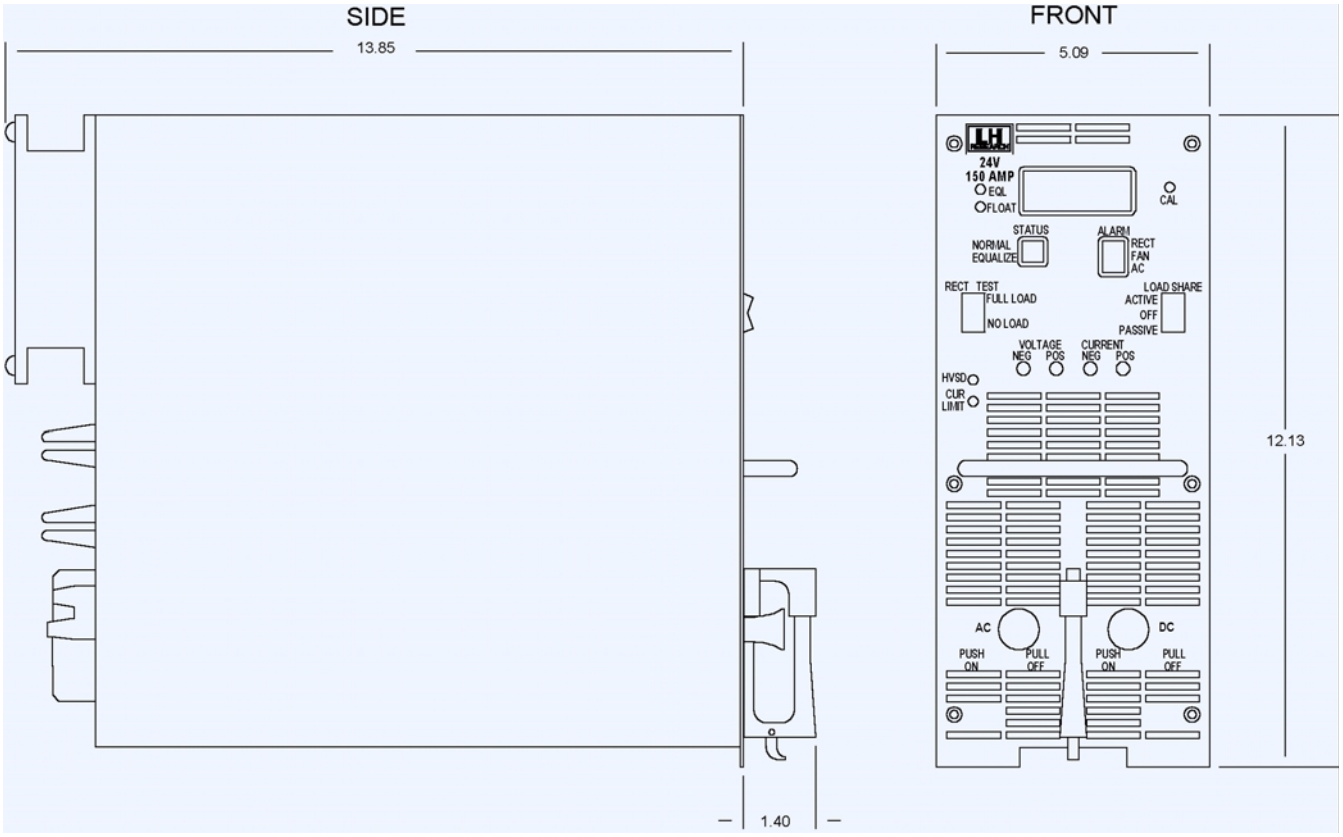
High Voltage Shutdown (HVSD)
The unit's high voltage limit is adjustable up to 30VDC. When internal shutdown occurs, the unit may be restarted by a local switch or by a remote signal.

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

Under Voltage Protection
When input voltage is below 183 VAC, the rectifier's operation is automatically inhibited.

Mechanical

All measurements are in inches



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