



MODULAR SWITCHMODE RECTIFIER SYSTEM

The La Marche model LMHF (La Marche Manufacturing High Frequency) is a 4RU modular design rectifier for telecommunication applications. It is a highly compact self-contained power system. The current limiting circuitry, voltage regulation, high efficiency and high power factor makes the LMHF an ideal choice where power requirements are critical.

These rectifiers are available with nominal output voltages of 24 VDC or 48 VDC, and can deliver 115 amps and 66 amps respectively. The nominal universal input range of 208 VAC to 277 VAC and the frequency range of 45 to 66 Hz provides the flexibility for worldwide power requirements.

The temperature controlled variable fan speed rectifier in a six across 23" rack configuration (five across in 19" configuration) offers high power density and efficiency. These parallel operating rectifiers are ideal for N+1 redundancy. Loss of one rectifier will not affect the operation of the remaining rectifiers. A module can be unplugged and replaced, while maintaining power to critical loads without shutting down the system.

The system controller features a full graphic LCD touch screen, data-logging and advanced alarm notification. This user-friendly graphical (Menu Driven) display allows simple control and monitoring of LMHF rectifiers. Complete configuration and monitoring is possible through the Ethernet port and web browser. The communication ports provide reliable communication between LMHF power system and management system.

LMHF controller easily allows adjustments such as float voltage, equalize voltage, high voltage alarm, low voltage alarm, and high voltage shutdown.

Standard Features

Rectifier

- High Frequency Switchmode Circuitry
- Power Factor Correction Circuitry
- Hot Swappable 4RU Design
- Output Power
 - 3.6KW per 48 Volt Rectifier
 - 3.1KW per 24 Volt Rectifier
- 92% Efficiency
- Parallel Operation
- Over Temperature and Over Voltage Protection
- Operating Temperature -40 to 65°C (-40 to 149°F)
- Indicators
 - AC ON - Green LED
 - DC ON - Green LED
 - Alarm - Red LED

Shelf

- 23" Rack Mounting - up to 6 Modules
(19" up to 5 Modules)
- Easy Installation and Maintenance

Controller

- Shelf or Rack Mount
- LCD touch-screen graphical display for local and remote setup, adjustment and control
- Digital and Analog User-Configurable Inputs
- Temperature Compensation
- User-defined Major/Minor Alarms
- Web server and SNMP support via Ethernet
- Connectivity: Ethernet, RS232, RS485

- 2-year warranty

LMHF

LA MARCHE MANUFACTURING HIGH FREQUENCY

Agency Approvals

Safety: CSA C22.2 No 60950-1-03
 UL 60950-1 1st Edition
 CE marked
 IEC/EN 60950-1
 ANSI / IEEE C62.41 Cat B3



	Model Number	AC Input		DC Output				Overall Dimensions H x W x D (Inches)	Mounting	Shipping Weight	
		Nominal	Operating	Amps	Volts	Range	Frequency			Lbs	Kgs
Rectifier	LMHF-115-24V-D-F1	208-277 VAC	176-312 VAC	115	24	21-29 VDC	45-70 Hz	6.3 x 3.4 x 11.8	4RU	10	4.6
	LMHF-65-48V-D-F1	208-277 VAC	176-312 VAC	66.7	48	42-60 VDC	45-66 Hz	6.3 x 3.4 x 11.8	4RU	10	4.6
Shelf	LMHF-PC690-24V-23*	208-277 VAC	176-312 VAC	690	24	21-29 VDC	45-70 Hz	6.9 x 20.8 x 15.3	4RU	21	9.5
	LMHF-PC390-48V-23*	208-277 VAC	176-312 VAC	400	48	42-60 VDC	45-66 Hz	6.9 x 20.8 x 15.3	4RU	21	9.5

	Model Number	Input		Overall Dimensions H x W x D (Inches)	Mounting		Shipping Weight (approx.)	
		Amps	Voltage		Shelf	Rack	Lbs	Kgs
Controller	LMHF-SSC-0-1	<200mA	20-60 VDC	6.9 x 2.9 x 10	4RU	-	3.9	1.8
	LMHF-SSC-0-2*	<100mA	20-60 VDC	5.1 x 23 x 3.9	-	3RU	13.8	6.2

Factory set @ 48V, to change the settings to 24V refer to the instruction manual.
 *19" configuration available upon request, please contact factory for specifications.

Rectifier specifications

Input Voltage:
 Nominal 208 to 277 VAC
 Operating 176 to 312 VAC
 Extended 176 to 90 VAC (derated power)
 Input Current:
 48 VAC 16.8A @ 240 VAC
 19.4A @ 208 VAC
 22.8A @ 176 VAC (Max)
 24 VAC 14.6A @ 240 VAC
 16.9A @ 208 VAC
 20.2A @ 176 VAC (Max)
 Input Frequency:
 45 to 66Hz (48 VDC Models)
 45 to 70Hz (24 VDC Models)
 Power:
 3600W @ 48 VDC
 3100W @ 24 VDC
 Output Current:
 115A @ 27 VDC (130A max. 24V)
 66A @ 54 VDC (75A max. 48V)

Power Factor: > 0.99 (50 to 100% load)
 THD: < 5%
 Efficiency: > 92%
 Load Regulation: < ± 0.5%
 Line Regulation: < ± 0.1%
 Noise: < 32dBn
 Ripple: < 30mV RMS
 Protection: Current Limit, High Voltage Shutdown, Start Delay, Input/Output Fuses
 Weight: 10lb (4.6Kg)

Environmental

Temperature
 Standard: -40 to 65°C (-40 to 149°F)
 Storage: -40 to 85°C (-40 to 185°F)
 Humidity: 0 to 95% RH non-condensing
 Elevation: -500 to 2800m (-1640 to 9186ft)
 Heat Dissipation: < 1215 BTU per hour



Shelf specifications

23" Shelf Dimensions: 6.9H x 20.8W x 15.3D (inches)
 177H x 530W x 389D (mm)
 Weight: 19lb (8.5Kg)
 Mounting: Flush mount up to 6 modules
 Optional Rear Cover: LMHF-SRC-1

Connections

Input (per rectifier): Box type terminal block 10 to 6AWG (6 to 16mm²)
 Output: Bus adapters with 3/8 studs
 Chassis Ground: Compression lug (10 to 6AWG)
 CAN Communication: RJ12 offset

Note: Adapter is needed when using the system controller.

Adapter: LMHF-SCI-48V-1 (48 Volt models)
 LMHF-SCI-24V-1 (24 Volt models)



Controller specifications

Display: LCD touch screen, 160 x 160 pixels
 LED indicators: System OK, Minor and Major
 Ports: RS232, RS485, Ethernet
 Modem: Optional (consult factory)
 Input voltage: 20 to 60 VDC
 Current: < 100mA @ 48V
 < 200mA @ 24V
 Dimensions: 6.9H x 2.9W x 10D (inches)
 Temperature: -40 to 65 deg. C
 Weight: 3.9lb (1.8kg)
 Adjustments: Float voltage, Equalize voltage, High voltage alarm, Low voltage alarm, High voltage shutdown, Current limit, Slope, Start delay timers

Ordering Information

When ordering, please specify:

- La Marche Model Number

Specifications subject to change without notice

P25-DSLMMHF-1
 ECN 17266
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La MARCHÉ

ISO 9001:2000 CERTIFIED

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