



Unit shown with Digital Meter 16J Option

130VDC Switchmode Utility Rectifier

The La Marche A97 Series provides highly reliable, 130VDC power in a compact rectifier system. It offers high power density combined with high efficiency. With current limiting circuitry, voltage regulation, high efficiency and high power factor, it is the ultimate rectifier for Utility applications.

The A97 is more than a rectifier/battery charger, it is also a power supply/battery eliminator. Its AC input line regulation operates over a range of 185-264 volts, with a frequency range of 45-66 Hz. Steady state output voltage remains within $\pm 0.5\%$ of the setting from no load to full load to handle charging today's diverse battery technologies. This product can be specified in a 20A, 40A or 60A output capability.

Standard Features

- High Frequency Switchmode Technology
- Power Supply / Battery Eliminator
- >85% Efficiency Including Series Output Diode
- Float / Equalize Switch
- Adjustable Float & Equalize Voltage
- Analog DC Voltmeter & Ammeter
- AC Breaker (2 Pole for Single Phase or 3 Pole for Three Phase)
- DC Breaker 2 Pole
- High Voltage Shutdown
- AC Power Failure Alarm Contacts Form "C"
- Walk-In Circuit
- Compact and Light Weight System
- Adaptable Mounting Configurations
- Single Phase or Three Phase AC Input
- Operates on a Grounded or Ungrounded System
- 1-Year Warranty

130 VDC 60L or 92NC	Model Number	DC Output		AC Input Phase	Nominal Current Draw* @ 100% Load (Amps)	Case Size	Overall Dimensions W x D x H	Cable Entry (when facing unit)		Mounting	Shipping Weight	
		Amps	Volts					AC Input	DC Output		lbs	kgs
	A97R-20-130V-V1	20	130	1	15	96RW	16.4 x 18.38 x 8.75	RIGHT/BACK	LEFT/BACK	19/23" Rack	49	22.3
	A97R-40-130V-V1	40	130	1	30	96RW	417 x 467 x 222 mm	RIGHT/BACK	LEFT/BACK	19/23" Rack	60	27.3
	A97W-20-130V-V1	20	130	1	15	96RW	19.02 x 9.30 x 18.38**	RIGHT/TOP/BOTTOM	LEFT/TOP/BOTTOM	WALL/SHELF	49	22.3
	A97W-40-130V-V1	40	130	1	30	96RW	483 x 236 x 467 mm**	RIGHT/TOP/BOTTOM	LEFT/TOP/BOTTOM	WALL/SHELF	60	27.3
	A97-60-130V-V1	60	130	1	45	4	19 x 15 x 24***	RIGHT	LEFT	19" or 23"	130	59.1
	A97-60-130V-V3	60	130	3	Consult Factory	4	483 x 381 x 610 mm***	RIGHT	LEFT	RACK/WALL/SHELF	130	59.1

* AC Current Draws based at 100% load and standard battery cells of 60L (130V).
 ** For the A97W the height of the shelf mount is 19.82" (503mm).
 *** For the A97 the height of the shelf mount is 25.875" (657mm).

INPUT

- **Input Voltage Range**
185-264VAC
- **Input Frequency Range**
45-66Hz
- **Power Factor**
Power factor correction curcuiity corrects the input power factor > 0.95

OUTPUT

- **Regulation**
Dynamic response (with battery). Maximum voltage transient will not exceed $\pm 10\%$ of initial steady state voltage for a step change from 20% to 100% of the full rated load. Recovery to steady state voltage regulation range does not exceed 50ms and all transient behavior disappears within 100ms.
- **Steady State**
Typical output voltage is $\pm 0.5\%$ of the setting from no load to full load over the specified input voltage, and ambient temperature ranges.
- **Current Limit**
Maximum output current limited at 105% of its rated value.

FILTERING

- **Electromagnetic Interference (EMI)**
EMI (cinducted or radiated) rated in accordance with FCC Part 15. Class "A" limits.
- **Ripple Voltage**
Ripple Voltage is less than 30 mv RMS when connected to a battery with an Amp-Hour capacity of four times the rated output of the rectifier. When used as a power supply the ripple voltage is less than 45 mv RMS. NOTE: When the A97 is used as a power supply with inductive loads, consult the factory.

LED STATUS INDICATORS

- **Fan Failure LED**
A Red LED illuminates when the cooling fan is not operating
- **Over-Temperature LED**
A Red LED illuminates upon over temperature (operating at reduced output due to excessive internal temperature) of the rectifier.
- **High DC Voltage Shutdown LED**
A Red LED illuminates when the rectifier has shutdown due to the output voltage being greater than 150V.
- **AC Available LED**
A Green LED illuminates when adequate AC voltage is present.
- **Current Limit LED**
A Red LED illuminates when the rectifier is in current limit.
- **Thermal Control LED**
A Yellow LED illuminates when the rectifier is operating with fan temperature control.
- **DC Amps LED**
A Green LED illuminates when the rectifier is operating above 1.5 amps.
- **DC Volts LED**
A Green LED illuminates when the rectifier is operating in the correct DC voltage range (120-144VDC).
- **Float**
A Green LED illuminates when the rectifier is in the float mode.
- **Equalize**
A Yellow LED illuminates when the rectifier is in the equalize mode.

PROTECTION

- **Walk-In Circuit**
Output voltage will gradually increase after the charger is turned on, eliminating surges and over-shoot.
- **High Voltage Shutdown**
Included

ENVIRONMENTAL

- **Operating Temperature**
0°C (32°F) to 50°C (130°F)
- **Storage Temperature**
-40°C (-40°F) to 85°C (185°F)
- **Humidity**
0% to 95% relative humidity, non-condensing

ADDITIONAL

- **Audible Noise**
Less than 54dBA at any point three feet from any vertical surface of the rectifier.
- **Cooling**
Fan Cooled

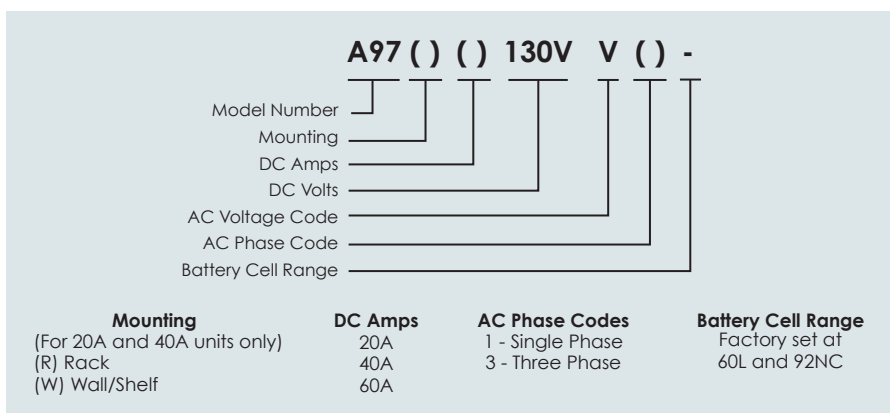
CONTROLS

- **Float/Equalize Switch**
Rectifier may be equalized locally via front panel switch.
- **Float Voltage**
Adjustable From 120-135V
- **Equalize Voltage**
Adjustable From 130-144V

OPTIONS

- 16J or 16T LED Combination Accessory Package with DC Digital Meter (Replaces Analog Meters: See Digital CAP Data Sheet for further details)
- 46J or 46T LCD Combination Accessory Package with DC Digital Meter (Replaces Analog Meters: See LCD CAP Data Sheet for further details)
- Remote Communications (SCADA compatible)
- Wheeled Cart for A97W
- Lifting Eyes for A97W

Model Number Nomenclature



Ordering Information

When ordering, please specify:

- La Marche Model Number A97
- Mounting (For 20A & 40A Units Only)
- DC Amps
- DC Volts
- AC Voltage Code
- AC Phase Code
- Options