



UTILITY SWITCHMODE RECTIFIER

The La Marche A98S is a High Frequency Switchmode DC charger used for Utility applications. The A98S features current limiting circuitry, voltage regulation, high efficiency and high power factor, which makes it suitable for many DC applications.

La Marche A98S systems provides highly filtered DC power which helps extend the life of the battery, and it can also be used as a power supply/battery eliminator. The loss of one rectifier will not affect the operation of the remaining rectifiers as the modules are hot-swappable ensuring quick and convenient installation without the need to shut down the system. Future expansion to your system can be done by simply adding more modules.

The A98S is equipped with AC/DC breakers and a 7-inch TFT Touchscreen display. This model is offered in 24Vdc, 48Vdc or 130Vdc output capabilities. All A98S models operate over a range of 185-264 volts (45-66Hz) AC line.



Standard Features

- High Frequency Switchmode Technology
- Battery Eliminator
- Power Factor of 0.99 at Full-Load
- Efficiency up to 93%
- Front Panel TFT LCD Display Monitors DC Voltage, DC Amp and Alarms
- Adjustable Float / Equalize
- Data Logging Capabilities
- Ground Detection
- AC & DC Breaker
- High Voltage Shutdown
- AC Power Failure Alarm with Form "C" Contacts
- Walk-In Circuit
- 2-Year Warranty

Optional Accessories

- 21J** IEC61850
- 21P** DNP 3.0 Communications
RS232/RS485/Ethernet
- 21Q** Modbus Communications
RS232/RS485/Ethernet
- 21X** SNMP
- Floor Stand - 36" from Floor



	Model Number	Number of Rectifier Positions	DC Output		AC Input Phase	DC Breaker	Nominal Current Draw	AC Feeder Breaker Size	Dimensions	Cable Entry AC and DC		Mounting
			Amps	Volts								
Power Shelf	A98S-240-24V-V1	4	240	24	1	300	65	90	17.5 x 16.25 x 10.5"	Rear	Rear	Rack/Floor
	A98S-200-48V-V1	4	200	48	1	250	65	90	17.5 x 16.25 x 10.5"	Rear	Rear	Rack/Floor
	A98S-400-48V-V1	8	400	48	1	500	125	160	17.5 x 16.25 x 14.0"	Rear	Rear	Rack/Floor
	A98S-60-130V-V1	3	60	130	1	75	50	7	17.5 x 16.25 x 10.5"	Rear	Rear	Rack/Floor
	A98S-120-130V-V1	6	120	130	1	150	95	120	17.5 x 16.25 x 14.0"	Rear	Rear	Rack/Floor
	A98S-180-130V-V1	9	180	130	1	225	140	175	17.5 x 16.25 x 20.0"	Rear	Rear	Rack/Floor
Rectifier	R98S-60-24V-V1	-	60	24	1	-	14.2	-	-	-	-	-
	R98S-50-48V-V1	-	50	48	1	-	13.7	-	-	-	-	-
	R98S-20-130V-V1	-	20	130	1	-	14.2	-	-	-	-	-

*Floor mounting brackets add 2" (51mm) to overall height. Case sizes may differ depending on optional accessories. Consult factory when dimensions are critical. Detailed dimensional drawings are available for mounting purposes.

INPUT

- **Input Voltage Range**
185-264VAC
- **Input Frequency Range**
45-66Hz
- **Power Factor**
Power factor correction circuitry corrects the input power factor to 0.99 at full-load.

OUTPUT

- **DC Output**
DC Amps: 20 to 400 amperes
DC Volts: 24V, 48V and 130V
- **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 100% of its rated value.

FILTERING

- **Ripple Voltage**
With Battery Connected
< 30 mV RMS
Without Battery Connected
< 45 mV RMS
- **Electromagnetic Interference (EMI)**
EMI (conducted or radiated) rated in accordance with FCC Part 15. Class "A" limits.

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

PROTECTION

- **Walk-In Circuit**
Output voltage will gradually increase after the charger is turned on, eliminating surges and over-shoot.
- **High Voltage Shutdown**
Included
- **AC Breaker**
Single Phase
2-pole circuit breaker.
- **DC Breaker**
2-pole circuit breaker.

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**
24V Adjustable From 23.00-28.70V
48V Adjustable From 43.00-57.00V
130V Adjustable From 120-135V
- **Equalize Voltage**
24V Adjustable From 23.00-28.00V
48V Adjustable From 43.00 -57.00V
130V Adjustable From 130-144V

A98S DISPLAY



Alarm Indicators

- Fan Failure
- AC Failure
- Over-Temperature
- HVSD
- AC Available
- Current Limit
- Thermal Control
- DC Amps
- DC Volts
- Float
- Equalize
- Positive and Negative Ground

Relay Contacts

- HVSD
- Low DCA
- High DCV
- Low DCV
- AC Power Failure
- Summary
- Positive Ground*
- Negative Ground*

* 1 Set Form "C"

Model Number Nomenclature

