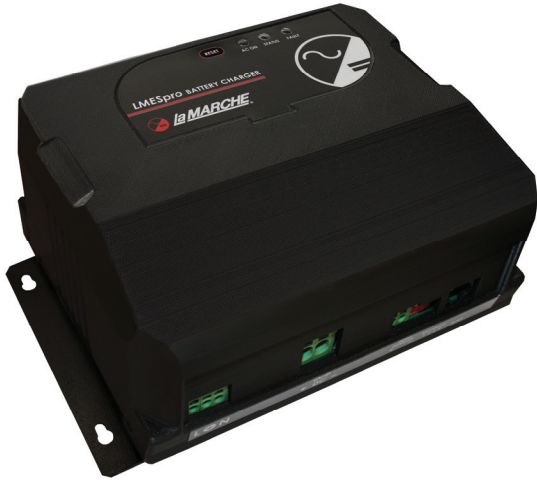




Smart Battery / HCAP Charger



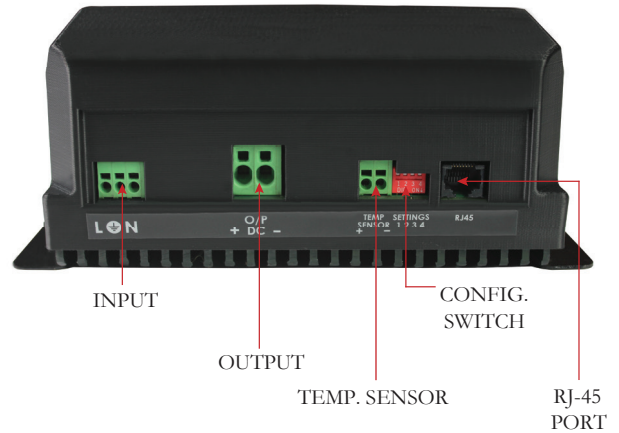
The LMESpro smart battery charger is designed to recharge and extend battery life utilizing multi-stage charging. This charger is completely automatic, lightweight and convection cooled. The LMES Pro accepts a wide range Universal AC-Input with high efficiency and active power factor correction, meeting CEC Efficiency requirements. The output is available for either 12 VDC or 24 VDC. LMESpro battery charger is suitable for various types of technologies such as Lead Acid, NiCad or HCAP (Hybrid Asymmetric LiC Supercapacitors).

Standard Features

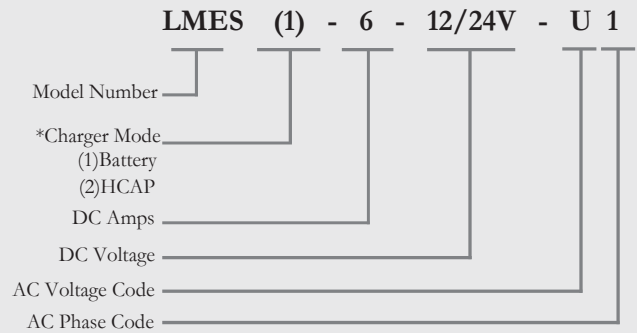
- Microprocessor Controlled High Frequency Technology
- Universal AC Input: 105-264 VAC (45-65Hz)
- Selectable for Lead Acid, NiCad and HCAP Technologies
- Lead Acid Four Stage Charging (Batt Model)
- HCAP Four Stage Charging (HCAP Model)
- Conformal Coated Circuit Boards
- Temperature Compensation
- Input and Output Over Current & Over Voltage Protection
- Status LED Indicators
- Disable/Enable Output with Fault Reset Button
- UL 1236 (Pending)
- Meets CEC Efficiency Regulations
- 2 Year Warranty

Optional Accessories

- 22T** SAE J-1939 Communication (CAN Bus)
- 21S** Modbus RTU
- 11W** External Temperature Probe 24ft
- 11Y** External Temperature Probe 100ft



LMESpro Nomenclature



*When ordering, please specify: La Marche Battery (1) or HCAP (2).



Model Number Chart

Model Number	AC Input (100% load)		DC Output		Overall Dimensions W x D x H	Net Weight*	
	Volts (Nominal)	Amps	Volts (Nominal)	Amps		lbs	kgs
LMES(1)-6-12V/24V-U1	120	1.5	12V or 24V	6	6.937 x 3.842 x 4.750" 176.19 x 126.74 x 80.94 mm	2.6	1.2
	240	0.8					
LMES(1)-10-12V/24V-U1	120	1.5	12V or 24V	10	6.937 x 3.842 x 4.750" 176.19 x 126.74 x 80.94 mm	2.6	1.2
	240	0.8					
LMES(2)-10-12V-U1	120	1.5	12V	10	6.937 x 3.842 x 4.750" 176.19 x 126.74 x 80.94 mm	2.6	1.2
	240	0.8					
LMES(2)-10-24V-U1	120	3.3	24V	10	6.937 x 3.842 x 4.750" 176.19 x 126.74 x 80.94 mm	2.6	1.2
	240	1.7					

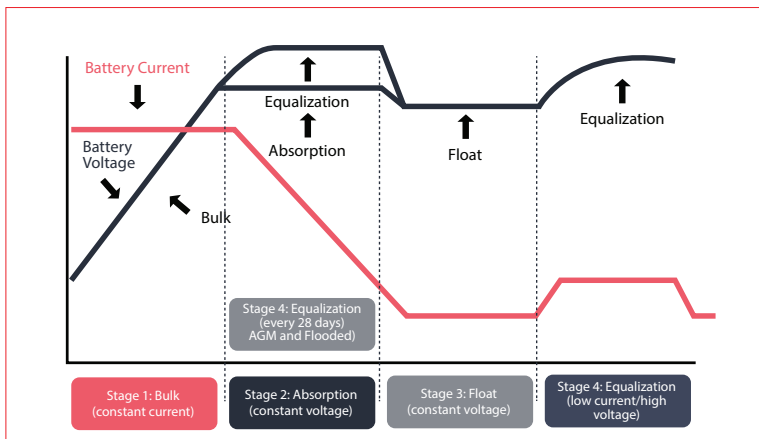
* Weight does not include shipping packaging

Charger Specifications

- AC Input**
 Single Phase AC Input
 Range: (105-264 VAC, 45 - 65Hz)
- DC Output**
 6A @ 12V or 24V
 10A @ 12V or 24V
- Power Factor**
 0.99
- Load Regulation**
 $< \pm 0.5\%$
- Output Filtering**
 $< 1\%$ of Output Voltage
- Input Protection**
 Dual Fuse Over-Current, Over Voltage Protection, Differential & Common Mode Rejection
- Output Current Limit**
 Factory set at 100%
- Output Protection**
 Reverse Battery Protection, Fuse-Over Current, Current Limit & Short Circuit Protection, Over-Discharge Protection, Over Voltage Protection, Differential & Common Mode Rejection

- Thermal Protection**
 Over Temp De-Rate, Extreme Over Temp Shut-Down, Hysteretic & Automatic Recovery
- LED Indicators**
 AC ON
 Status
 Fault
- Communication (Optional)**
 Modbus (RTU)
 CAN SAE J-1939
- Environmental**
 Operating: -40° to 50°C (-40° to 125°F) (Derate $\geq 70^{\circ}\text{C}$ internal)
 Storage: -40° to 60°C (-40° to 140°F)
 Relative Humidity: 0 to 95% non condensing
- Standards**
 UL / CUL 1236 (Pending)
 Complies with CEC Efficiency Regulations
 ANSI C62.41A
 EN 60335-1 (Electrical Safety)
 IEC 60335-2-29 (Electrical Safety)
 IEC 60068-2-6 (Sinusoidal Vibration)
 EN 55011 (Radiated EMI)
 IEC 1000-4-2 (Electrostatic Discharge)
 FCC Part 15B

Lead Acid Four Stage Charge Curve



HCAP Four Stage Charge Curve

