



# LaM<sup>ARCHE</sup>

ISO 9001 CERTIFIED

**A85MD**  
**MINE BATTERY CHARGER**



## **LaM<sup>ARCHE</sup> A85MD MINE BATTERY CHARGER UTILIZES FERRORESONANT TECHNOLOGY FOR RUGGED AND RELIABLE SERVICE**

LaMarche chargers are no strangers to the demanding conditions encountered in mining operations. The A85MD charger is not only rugged and reliable, but also more compact than its predecessor. Smaller in size, lighter in weight, all solid state, and completely automatic, the A85MD takes full advantage of LaMarche technology to meet your battery charging needs. It sports such features as automatic compensation for A.C. line variations, integral current limiting, controlled charging cycle and more.

The model A85MD Mine Battery Charger combines reliable, rugged components with unmatched circuit simplicity. The ferroresonant design eliminates the need for complicated control circuits and lowers the parts count. Four major components make up the inside of the A85MD; transformer, rectifier, capacitors, and electronic control board. LaMarche provides an extra margin of capacity, by designing its magnetics utilizing a UL recognized 180H insulating system.

This assures continued operation under the most severe, damp and dirty conditions present in the mine. In addition, the full wave rectifier includes hermetically sealed silicon diodes and surge suppressors to provide a reliable D.C output.

The model A85MD regulates D.C output voltage to produce the proper charging curves for the battery. Its charge rate is dependent on the state of charge of the battery. A.C. line voltage compensation prevents variations from the D.C.

### **Standard Features**

- Proven Ferroresonant Technology ensures trouble free operation and outstanding performance
- Completely automatic operation
- The charger automatically protects itself and battery from surges and overloads
- Reliable operation under some of the worst conditions of moisture, corrosive atmospheres, dirt, grime, and rugged handling
- Components are rated conservatively to perform well beyond their actual requirements
- A.C line compensation provides a means to stabilize D.C output during varying A.C. input conditions
- Low Maintenance
- Easy Access to internal components

### **Optional Features**

- PA Spec
- Manual Start Button

charging curve due to surges or drops in voltage. This uncomplicated design eliminates the need for voltage sensitive relays. The model A85MD automatically limits the output of the charger to approximately 125% of its rating, thus preventing battery overheating, fuse blowing and assuring a long life for both the battery and the charger.

The model A85MD is also a completely automatic, constant voltage charger. Each unit is designed to operate on a specific type of battery with a specific number of cells. No taps, switches or other devices need to be set. Just plug in the battery. The unit is a tough, all solid state charger with no moving parts. All its electronic components are conservatively rated to assure excellent reliability in severe environments. By using reliable electronic components, LaMarche reduces the need for maintenance and troubleshooting, which can be performed by a mine electrician with a standard volt-ohm-meter. A terminal board is furnished for easy hook-up of A.C. and D.C. power cables,

Abnormal conditions such as a shorted cell, high ambient temperature, or a very old battery can interfere with normal charging and can cause overheating. The electronic control board limits the length of charge time and prevents inadvertent extended charging under abnormal as well as normal conditions.

### **LaMarche Manufacturing Company**

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# A85MD MINE BATTERY CHARGER

## A85M Models

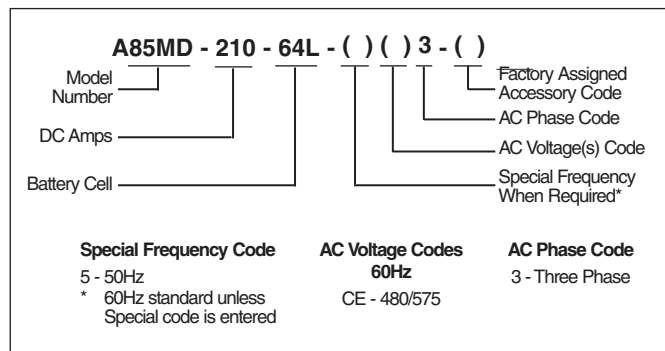
Model Number	DC Output		Battery Amp-Hour Capacity 100%	Battery Amp-Hour Capacity 80%	AC Input Current Draw*	Case No.
	Amps	Volts	Discharge (8hr recharge)	Discharge (8hr recharge)	CE 480/575	
A85M-90-64L	90	128	495-550	495-688	30	26F
A85M-110-64L	110	128	585-650	585-813	33	26F
A85M-140-64L	140	128	750-850	750-1063	41	26F
A85M-180-64L	180	128	900-1020	900-1275	49	26F
A85M-210-64L	210	128	1100-1200	1100-1500	59	26F
A85M-240-64L	240	128	1320-1500	1320-1875	60	26F

All above models designed for optimal performance at 60Hz. Consult factory for units designed specifically at 50Hz. Please consult factory for availability of other DC cell ranges. \*AC Current Draws based @ 100% load. Maximum Current Draw is typically 140% of ratings shown.

## Optional Accessories

- 04L Manual DC Start Kit (Green Pushbutton)
- 091 Special Paint
- 093 Magnetics Treated with a Red Fungus Resistant Dip
- 094 Export Packing
- 119 Multi-Circuit (Two Circuit Unit mounted in one Enclosure Consult Factory for availability)
- 196 AC Ground Fault Detection and Shutdown System with Warning Light (PA Spec. BOTE 314-78)

## Model Number Nomenclature

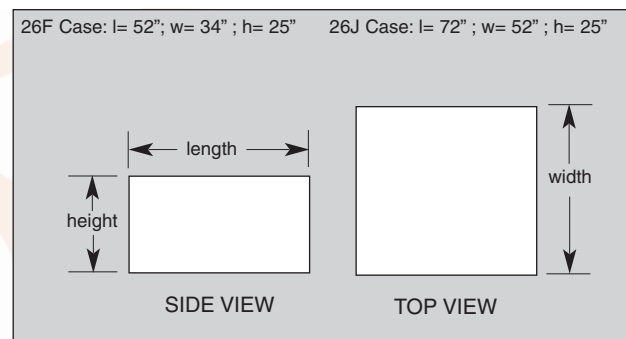


Note: Units do not include AC and DC cables and connectors.

## Ordering Information

When ordering, please specify:

- La Marche Model Number
- Input Voltage, Frequency, Phase
- Number and Type of Battery Cells
- Ampere Hour Capacity of Battery
- Intermittent DC Loads and Duration
- Continuous DC Load
- Allowable Recharge Time from Full Discharge (where applicable)
- Optional Accessories



Dimensions shown above are overall footprint. Detailed dimension drawings are available for mounting purposes.

Specifications subject to change without notice

P25-DSA85MD-1  
5-02



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