La Marche Manufacturing Company

DC POWER SYSTEMS
THE POWERFUL ADVANTAGE

www.lamarchemfg.com  106 Bradrock Drive, Des Plaines, IL 60018  sales@lamarchemfg.com
ABOUT THE COMPANY

La Marche Manufacturing Company

STATIONARY PRODUCTS

04 A77
05 TPSD
06 A12B and A97
07 A31 Inverter and Manual Bypass
08 BI and ARBS
09 BDC and LDC

TELECOM PRODUCTS

11 LTP and TPM
12 DCPS Power System
13 LMHF and LMDC
14 A63 Converter and IX Series Inverter
15 LMPS and HMPS DC Systems

ENGINE START PRODUCTS

17 ESCR and ESCRII
18 USC, A46 and ARBS

MARINE PRODUCTS

20 MSM and MSCR
21 A41
22 Stationary Products

UPS

23 A32P/A32S and AUPS

SOLAR

24 Solar Charge Controller

RAILROAD

25 RHF and A75R

MATERIAL HANDLING

26 A39 and MXM

MINING

27 A75MD

ENCLOSURES

28
Since 1945, La Marche has been providing reliable power conversion products. We are dedicated to the development and production of innovative quality products to meet our customer’s electrical power requirements. La Marche products include battery chargers, rectifiers, power supplies, inverters and others. We serve the Utility, Telecommunication, Engine Start, Material Handling, Railroad, Marine, and Mining markets. All products are designed and manufactured in the USA.
OUR MISSION

DEDICATED TO THE DEVELOPMENT AND PRODUCTION OF INNOVATIVE AND QUALITY PRODUCTS TO MEET OUR CUSTOMERS ELECTRICAL POWER REQUIREMENTS, PROVIDE THEM ON TIME AND CONTINUALLY IMPROVE PRODUCTS, PROCESSES AND SERVICES.

CUSTOM SOLUTIONS
Direct consultative relationship with customers in order to provide complete solutions to their unique requirements.

TECHNOLOGY
Exceptional knowledge and years of experience in Mag Amp, Ferro, SCR, and Switchmode High Frequency technologies.

U.S. COMPANY

24 HOUR SERVICE
Phone support 24 hours / 7 days

The Industry Leader in Custom Solutions
STATIONARY PRODUCTS
A77 SERIES BATTERY CHARGER

PRODUCT FEATURES

- Smart Microprocessor Controlled SCR Technology
- Available AC Input: 120VAC to 600VAC (50Hz or 60Hz)
- Available DC Output: 24VDC to 260VDC
- Filtered / Battery Eliminator Chargers
- Single Phase and Three Phase Units
- Data-Logging all Critical Parameters to Micro-SD Card
- Digital Voltage, Current Limit and Alarm Settings Adjustments
- Temperature Compensation (w/ Adjustable Rate)
- SCR Failure Detection
- Over Temperature Protection
- Capable to Communicate with Other Equipment in the System via CAN Bus
- 5 Year Warranty

OFFERED WITH ADDITIONAL FEATURES

- 12 Pulse Rectifier Arrangement
- Less than 5% THD
- Communications Protocols; MODBUS, DNP3, IEC61850, SNMP & Web Browser, ProﬁBus
- Alarm Contacts
- Digital AC Voltage & Current Sensing w/ 1% Accuracy (Values Included on Data-Log File & Communications Parameters)
- Digitally Adjustable Ground Detection Sensitivity (w/ Reported DC Leakage Current on Data-Log File & Communications Parameters)
- Reverse Polarity Protection
- Blocking Diode

STANDARD APPROVALS:

PENDING APPROVALS:

DATA / EVENT LOG EXAMPLE

INPUT CURRENT WAVEFORM

Input current wave in a 12 Pulse rectifier arrangement with less than 5% THD options
TPSD BATTERY CHARGER

PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microprocessor Controlled Ferroresonant Technology</td>
</tr>
<tr>
<td>Available AC Input: 120VAC to 480VAC (50Hz or 60Hz)</td>
</tr>
<tr>
<td>Available DC Output: 24VDC to 130VDC</td>
</tr>
<tr>
<td>High Power Factor &amp; Efficiency</td>
</tr>
<tr>
<td>Low Harmonic Distortion</td>
</tr>
<tr>
<td>Inherent and Electronic Current Limit Protection</td>
</tr>
<tr>
<td>Filtered / Battery Eliminator Chargers</td>
</tr>
<tr>
<td>Single Phase and Three Phase Units</td>
</tr>
<tr>
<td>Alarm Contacts</td>
</tr>
<tr>
<td>Front Panel LCD/ VFD Display w/ Alarm Indicators and Relays</td>
</tr>
<tr>
<td>Input and Output Breakers</td>
</tr>
<tr>
<td>Multi-tap Input on most Models</td>
</tr>
<tr>
<td>0.5% Regulation</td>
</tr>
<tr>
<td>AC Voltage Compensation</td>
</tr>
<tr>
<td>Digitally Controlled Float and Equalize Adjustments</td>
</tr>
<tr>
<td>Float and Equalize Mode Switch with LED Indication</td>
</tr>
<tr>
<td>Current Limiting Circuit Adjustable 50% -115% of Output Ratings</td>
</tr>
<tr>
<td>Internal Ambient Temperature Compensation</td>
</tr>
<tr>
<td>Limited 5 Year Warranty</td>
</tr>
</tbody>
</table>

OFFERED WITH ADDITIONAL FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications Protocols; MODBUS, DNP3, IEC61850, SNMP</td>
</tr>
<tr>
<td>&amp; Web Browser, ProfiBus</td>
</tr>
<tr>
<td>Reverse Polarity Protection</td>
</tr>
<tr>
<td>Blocking Diode</td>
</tr>
<tr>
<td>Remote Temperature Sensor</td>
</tr>
<tr>
<td>External Ambient Temperature Compensation Probe</td>
</tr>
<tr>
<td>High Interrupting Breakers</td>
</tr>
<tr>
<td>Lighting Arrestors</td>
</tr>
</tbody>
</table>

STANDARD APPROVALS:

[Logos: ABS, UL, etc.]
A12B BATTERY CHARGER

PRODUCT FEATURES

- Magnetic Amplifier Technology
- Available AC Input: 120VAC to 600VAC (50Hz or 60Hz)
- Available DC Output: 12VDC to 260VDC
- Robust with High MTBF Rating
- Inherent and Electronic Current Limit Protection
- Filtered / Battery Eliminator Chargers
- Single Phase and Three Phase Units
- Highly Customizable with many Additional Features in Order to Meet many Specific Application’s Requirements
- Limited 10 Year Warranty

OFFERED WITH ADDITIONAL FEATURES

- Communications Protocols; MODBUS, DNP3, IEC61850, SNMP & Web Browser, ProfiBus
- Reverse Polarity Protection
- Blocking Diode
- Charge Dividers
- Alarm Contacts
- Drip Shield and USCG Accessories
- Available with UL 1481 Listing

STANDARD APPROVALS:

OPTIONAL APPROVALS:

A97 BATTERY CHARGER

PRODUCT FEATURES

- High Frequency Switchmode Technology
- AC Input: 185-264VAC (45-66Hz)
- Available DC Output: 12VDC and 130VDC
- 0.99 Power Factor & High Efficiency
- Filtered / Battery Eliminator Chargers
- Single Phase and Three Phase Units
- LCD Display Monitors DC Voltage, DC Current and Alarm
- Adjustable Float / Equalize Voltage Levels
- 1 Year Warranty

OFFERED WITH ADDITIONAL FEATURES

- Communications Protocols; MODBUS, DNP3, IEC61850, SNMP & Web Browser, ProfiBus
- Wheeled Cart
A31 INVERTER (DC-AC)

The La Marche inverter is the ideal choice when AC power requirements are critical. Applications may include data centers, fire alarms, telecommunications, emergency lighting, security, oil exploration, and utility substation systems.

PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Reliable Ferroresonant Technology</td>
</tr>
<tr>
<td>Available DC Input: 24VDC, 48VDC or 120VDC</td>
</tr>
<tr>
<td>Available AC Output: 120VAC (standard), 208VAC, 220VAC and 240VAC</td>
</tr>
<tr>
<td>Current Limit Approx. 150% - Protected by AC Output Breaker</td>
</tr>
<tr>
<td>DC to AC Isolation</td>
</tr>
<tr>
<td>Overload Protection</td>
</tr>
<tr>
<td>Pure Sine Wave Output</td>
</tr>
<tr>
<td>AC Circuit Breaker</td>
</tr>
<tr>
<td>DC Circuit Breaker</td>
</tr>
<tr>
<td>IGBT Power Block Technology</td>
</tr>
<tr>
<td>Limited 5 Year Warranty</td>
</tr>
</tbody>
</table>

OFFERED WITH ADDITIONAL FEATURES

- 1ms Static Transfer Switch
- 15ms Static Transfer Switch
- Available with UL 1481 Listing

STANDARD APPROVALS: 1012

OPTIONAL APPROVALS: 1481

MANUAL BYPASS

The Manual Bypass Switch provides a mechanical means to transfer between power sources to your critical loads. Whether you are performing regular schedule maintenance on the system or in the event of an unexpected system malfunction, the power to the load can be safely transferred without being interrupted.

PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input &amp; Output Terminal Block</td>
</tr>
<tr>
<td>Rotary CAM Type Switch</td>
</tr>
<tr>
<td>2 - Position for Complete Isolation</td>
</tr>
<tr>
<td>Rack or Wall Mount Available</td>
</tr>
<tr>
<td>20 to 200 AMP Rating Switches</td>
</tr>
</tbody>
</table>
BATTERY INFORMER (TESTER)

The BI can determine the condition of your batteries under load without disrupting the system operation. It stores battery discharge curve as a benchmark to analyze battery health trends.

PRODUCT FEATURES

- Online Battery Test System
- Available for: 24VDC, 48VDC or 130VDC Battery Systems
- Available for: 25AH to 1000AH Battery Systems
- Manual Test Mode
- Programmable Auto Test Interval
- Initiate an Equalize Charging Cycle, when Required for the Battery, if the Charger System is Equipped with a Remote Equalize Capability
- Automatic Self-Diagnostic System and Alarm Relay Contacts
- Available with DNP3 and Modbus Communications
- Available with Quadrant System Connections
- 2 Year Warranty

AUTOMATIC REDUNDANT BATTERY SELECTOR

The ARBS is a solid state device that allows having two redundant and isolated DC power sources, in the same system, connected to a shared load. The ARBS selects power from the best available battery while isolating the alternate battery bank. The ARBS is designed specifically for engine starting and switchgear applications as its special heat sink diode assembly can handle high loads and inrush current requirements.

PRODUCT FEATURES

- Fully Automatic
- Continuous Current: 50A - 200A
- Inrush Current: 500A - 4800A
- Convection Cooled
- Diodes Designed to Carry 100% of the Starter/Load
- Surge Protection
- 1 Year Warranty

SYSTEM APPLICATION DIAGRAMS:
BATTERY DISTRIBUTION CENTER

The La Marche BDC provides quick, easy and flexible means of distributing battery charging current to multiple batteries simultaneously. Ideal for maintenance facilities such as commuter bus and trains, that requires heavy-duty rugged construction throughout to handle extreme conditions.

PRODUCT FEATURES

- Configured for 2, 4 or 6 Batteries Connections
- 200 Amp Capacity
- For 12V Batteries
- 3 Ft Battery Cables with Clips
- DC Pilot Light For Each Battery Position
- Reverse Battery Indicator with Audible Alarm
- On / Off Breaker For Each Battery Position
- 1 Year Warranty

LOAD DISTRIBUTION CENTER

La Marche LDC (Load Distribution Center) delivers the highest level of circuit protection and offers a robust and innovative configuration that simplifies any installation. It is available in four different models: 8, 12, 20, 24 circuit breaker positions, with the option to include a main breaker.

PRODUCT FEATURES

- Configured for 8, 12, 20 and 24 Breaker positions
- UL 489 Listed Breakers
- 2-pole 250 VDC @ 10 KAIC
- 400 Amp Main Breaker
- 15 Amp – 250 Amp Branch Breakers
- Top/Bottom Conduit Entry
- NEMA 1 Enclosure
- 1 Year Warranty
LTP POWER SYSTEM

PRODUCT FEATURES

- High Frequency Switchmode Technology
- Output Power and Alarm Signals Adjustments
- Manual & Automatic Battery Test
- Internal Distribution Panel with GMT Fuse Protection
- Total DC Power of 1.44kW / Shelf in a 48V System
- Form “C” Alarm Dry Contacts
- Separate Load and Battery Current Limiting
- 2 Year Warranty

RECTIFIER MODULE

AC Input: 102-264VAC
- 120W per Module @ 12V Output
- 240W per Module @ 24V Output
- 360W per Module @ 48V Output

INVERTER MODULE

- 300W @ 120VAC (60Hz) Output
- 500W @ 120VAC (60Hz) Output
- 1000W @ 120VAC (60Hz) Output

OFFERED WITH ADDITIONAL FEATURES

- Battery Box for 4 Batteries with a Disconnect Breaker
- Web Monitoring

TPM RECTIFIER SYSTEM

PRODUCT FEATURES

- High Frequency Switchmode Rectifiers
- AC Input: 102-264VAC (47Hz-63Hz)
- 750W per Module @ 24V & 48V Output
- 375W per Module @ 12V Output
- Total Power of 4.5kW per Shelf (for 24V & 48V Systems)
- Load Sharing Circuitry with Current Limiting
- Rectifiers Failure Alarm with Form “C” Dry Contacts
- Two Distribution Panel Configurations
- 2 Year Warranty

OFFERED WITH ADDITIONAL FEATURES

- Distribution Panels (TPCD and TPCDB1)

PENDING APPROVALS:

UL
CE
### DCPS POWER SYSTEM

#### PRODUCT FEATURES
- Complete 12kW DC System with Distribution
- Up to 220A @ 48VDC
- Compact Design (4RU)
- Hot Swappable Rectifiers and Controller
- Intelligent Battery Management and DC System Monitoring
- Battery and Load Distribution Panel with LVBD
- 2 Year Warranty

#### RECTIFIER MODULE
- High Frequency Switchmode Technology
- AC Input: 85-300VAC
- DC Output: 42-58VDC
- >96% Efficiency
- 55A @ 54V Output (176-300 VAC)
- Linearly Derated to 23A @ 54V 85-175 VAC

#### DC DISTRIBUTION
- 220A Maximum @ Nominal
- 2 x up to 200A Battery Breakers
- A Group: 8 x up to 100A Load Breakers
- B Group: 8 x up to 100A Load Breakers

#### CONTROLLER
- Battery Management
- Energy Conservation
- Rectifier Management
- Intelligent Rectifier Hibernation Mode
- Battery Testing
- Battery Charging Controls
- Current Limiting Controls
- Configurable Digital Inputs
- Alarm Dry-Contacts
- Site Sensor Ports

**WebUI for Remote Monitoring and Controls**
# LMHF Rectifier System

## Product Features
- High Frequency Switchmode Rectifiers
- Full graphic LCD Touch-Screen
- Adjustable Output Power and Alarm
- Data Logging
- Digital and Analog User-Configurable Inputs
- User-Defined Alarms
- 2 Year Warranty

## Rectifier Module
- Multiple DC Power Ratings (per Rectifier Module):
  - AC Input: 208-277VAC (45Hz-66Hz)
  - Available DC Output: 24VDC and 48VDC
  - 3.1kW @ 24V (115Amp)
  - 4kW @ 48V (75Amp)
- Parallel Operation
- Over Temperature & Over Voltage Protection
- Status Indicators: AC ON, DC ON & Alarm LED

## Communications
- Complete Configuration and Monitoring Using Web Interface
- Support for SNMP Protocols
- Ethernet, RS232 and RS485 Ports

## Offered with Additional Features
- Distribution Panel – LMDC

## LMDC Distribution Center
*Designed to work with LMHF rectifiers*

## Product Features
- Two Configurations:
  - Single Breaker Tier (Row) Configuration
  - Two Breaker Tier Configuration
  (Distribution Breaker Bus is Rated at 600A per Tier)
- Load Distribution Breakers
- 20 Plug-in Distribution Breaker Positions per Tier
- Independent LVLD Contactor per Distribution Tier
- LVLD Bypass Switch
- Main Charge and Ground Bus Bars
- Controller I/O Card for Signals and Alarms
- Easy Expansion for Higher Power
- 2 Year Warranty
A63 CONVERTER *(DC TO DC)*

**PRODUCT FEATURES**

- High Frequency Switchmode Technology
- 750W per Module @ 24V and 48V Output
- 375W per Module @ 12V Output
- Nominal Input Voltage of 130VDC (Range from 105-150VDC)
- Over Temperature and Voltage Protection
- Converter Failure Alarm with (1) Set of Form “C” Contacts with Light (Alarm Will Initiate for either Low Voltage, High Voltage Shutdown, Low DC Current, Converter Failure or DC Breaker Tripped).
- 2 Year Warranty

**OFFERED WITH ADDITIONAL FEATURES**

- Distribution Panels (TPCD & TPCDB1)

---

**IX SERIES INVERTER**

**PRODUCT FEATURES**

- High Frequency Switchmode Technology
- Include a Controller, Static Transfer Switch (STS), Power Distribution and Maintenance By-Pass Facilities
- DC Input: 48VDC (40.5-58V Range)
- AC Output: 120VAC or 230VAC Nominal
- Output 6kVA Total Capacity (1500VA @ 0.8PF or 1200W @ 1PF per Module)
- 2 Year Warranty

**INTERFACE MODULE**

- Remote Monitoring, Control and Programming
- RS232, RS485 and USB Ports
- Embedded CAN Bus Interface
- Optional SNMP Module

**CONTROLLER**

- Real-Time Monitoring of System Status
- Programmable Alarm Contact
- LCD and LED Indicator
- Audible Alarm
- Hot Swappable

---

**STANDARD APPROVALS:**

- UL
- CE
**LMPS DC SYSTEM**

**PRODUCT FEATURES**

- Up to 48k Watt Power
- Two Load Configurations:
  - 600A Single Breaker Tier Configuration
  - 1200A Two Breaker Tier Configuration
- 20 Plug-In Distribution Breaker Positions per Tier
- LVLD Contactor per Tier
- Up to Two 48V or Two 24V Rectifier Shelves
- Hot-Swappable Rectifiers
- Flexibility for N+1 Redundancy
- Alarms and Communications Capabilities
- 2 Year Warranty

---

**HMPS DC SYSTEM**

**PRODUCT FEATURES**

- Up to 96K Watt Power/Cabinet
- Three 600 Amp Tier Configuration with:
  - 24 Plug-In Distribution Breaker Positions per Tier
  - LVLD Contactor per Tier
- Hot-Swappable Rectifiers
- Flexibility for N+1 Redundancy
- Alarms and Communications Capabilities
- 2 Year Warranty
### ESCR BATTERY CHARGER

#### PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microprocessor Controlled SCR Technology</td>
<td></td>
</tr>
<tr>
<td>AC Input: 120/208-240VAC (50Hz/60Hz)</td>
<td></td>
</tr>
<tr>
<td>Available DC Output: 12VDC and 24VDC</td>
<td></td>
</tr>
<tr>
<td>Field Selectable Output 12/24VDC (Selected Models)</td>
<td></td>
</tr>
<tr>
<td>Filtering Suitable for VRLA Batteries</td>
<td></td>
</tr>
<tr>
<td>Battery Fault Detection</td>
<td></td>
</tr>
<tr>
<td>Front Panel Equipped with LCD Display</td>
<td></td>
</tr>
<tr>
<td>3 Year Warranty</td>
<td></td>
</tr>
</tbody>
</table>

#### OFFERED WITH ADDITIONAL FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drip Shield</td>
<td></td>
</tr>
<tr>
<td>Conformal Coated Circuit Boards</td>
<td></td>
</tr>
<tr>
<td>Three Battery Charge Dividers – Negative Common</td>
<td></td>
</tr>
<tr>
<td>External Temperature Compensation Probe</td>
<td></td>
</tr>
<tr>
<td>CUL Listing</td>
<td></td>
</tr>
</tbody>
</table>

### ESCR II BATTERY CHARGER

#### PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microprocessor Controlled SCR Technology</td>
<td></td>
</tr>
<tr>
<td>AC Input: 120/208-240VAC (50Hz/60Hz)</td>
<td></td>
</tr>
<tr>
<td>DC Input: 24VDC</td>
<td></td>
</tr>
<tr>
<td>Automatic AC Input Voltage Compensation</td>
<td></td>
</tr>
<tr>
<td>AC &amp; DC Breakers</td>
<td></td>
</tr>
<tr>
<td>Filtering Suitable for VRLA Batteries</td>
<td></td>
</tr>
<tr>
<td>Battery Fault Detection</td>
<td></td>
</tr>
<tr>
<td>Front Panel Equipped with LCD Display</td>
<td></td>
</tr>
<tr>
<td>3 Year Warranty</td>
<td></td>
</tr>
</tbody>
</table>

#### Offered with Additional Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drip Shield</td>
<td></td>
</tr>
<tr>
<td>Conformal Coated Circuit Boards</td>
<td></td>
</tr>
<tr>
<td>Three Battery Charge Dividers – Negative Common</td>
<td></td>
</tr>
<tr>
<td>External Temperature Compensation Probe</td>
<td></td>
</tr>
</tbody>
</table>
ULTRA SERIES CHARGER (USC)

PRODUCT FEATURES

- Microprocessor Controlled High Frequency Technology
- AC Input: 105-264VAC (45-65Hz)
- Available DC Output: 12VDC and 24VDC
- Designed for Ultra Capacitors and Lead Acid (Flooded & VRLA) & NiCad Batteries
- Battery Test (Not available in Ultra Cap charging mode)
- Protection: Input/Output Fuses, Transient Protection, Short Circuit Protection, Over Temperature Protection, Reverse Battery Protection, Blocking Device
- 5 Alarm Contacts (Form C)
- 2 Year Warranty

OFFERED WITH ADDITIONAL FEATURES

- Ethernet Communications Modbus RTU (RS485)
- External Temperature Probe

A46/A46F BATTERY CHARGER

PRODUCT FEATURES

- Magnetic Amplifier Technology
- Available AC Input: 120VAC to 240VAC (50Hz or 60Hz)
- Available DC Output: 12VDC, 24VDC, 32VDC and 36VDC
- AC Input and DC Output Filtering
- Automatic DC Voltage Regulation
- Design Prevents Battery from Discharging if AC Line Fails
- Model A46F is Filtered for Valve-Regulated Batteries
- Limited 10 Year Warranty

OFFERED WITH ADDITIONAL FEATURES

- AC / DC Circuit Breakers
- Combination Accessory Packages (Meet NFPA 110)
- ABS / USCG Approvals
- Internal Charge Dividers

AUTOMATIC REDUNDANT BATTERY SELECTOR

The ARBS allows to connect two isolated DC power sources to a shared load. ARBS selects power from the best available battery while isolating the alternate battery bank.

PRODUCT FEATURES

- Fully Automatic
- Continuous Current: 50A - 200A
- Inrush Current: 500A - 4800A
- Convection Cooled
- Diodes Designed to Carry 100% of the Starter/Load
- Surge Protection
- 1 Year Warranty
MARINE PRODUCTS
**MSM BATTERY CHARGER**

**PRODUCT FEATURES**

- Microprocessor Controlled High Frequency Technology
- AC Input: 105-264VAC (45-65Hz) w/Automatic Compensation ±10%
- Available DC Output: 12VDC and 24VDC
- Complete Isolation from AC to DC
- LCD Digital Voltmeter & Ammeter
- Adjustable Current Limit from 50% to 105%
- Filtered Output for VRLA (Gel-Cell & AGM) Batteries
- Battery Isolator (Charge Dividers up to Three Battery Banks)
- Conformal Coated Circuit Boards
- Input & Output Fuses
- On/Off Switch with Disable Option
- AC Power Cord, 7ft NEMA 5-15 Plug
- AC Voltage Metering
- Temperature Compensation (Internal) with Disable Option
- Charger Fail Alarm with LED Indicator and Form “C” Dry Type Relay Contacts
- 2 Year Warranty

**OFFERED WITH ADDITIONAL FEATURES**

- Communication Protocols
- Low Current Alarm
- VFD Display

---

**MSCR BATTERY CHARGER**

**PRODUCT FEATURES**

- Microprocessor Controlled SCR Technology
- Automatic Input Sensing for 120/208-240VAC, 50/60Hz
- Programmable Output 12/24VDC w/Adjustable FL/EQ Levels
- Available Output: 6-40 Amps
- Battery Fault Detection
- Three Isolated Charge Dividers (Negative Common)
- Drip Shield and Water Tight Connectors
- ON /OFF Switch
- 3 Year Warranty

**OFFERED WITH ADDITIONAL FEATURES**

- External Temperature Compensation Probe
- Output Disconnect Relay
- CUL Listing

---

Meets USCG and ANSI C62.41

STANDARD APPROVALS:

- USCG

PENDING APPROVALS:

- ABS
- UL
- CE

Meets USCG

STANDARD APPROVALS:

- ABS
- UL
- CE
- USCG

OPTIONAL APPROVALS:
A41/A41F BATTERY CHARGER

PRODUCT FEATURES

- Magnetic Amplifier Technology
- Available AC Input: 120VAC to 240VAC (50Hz or 60Hz)
- Available DC Output: 12VDC, 24VDC, 32VDC and 130VDC
- Automatic DC Voltage Regulation
- Automatic AC Input Voltage Compensation ±10%
- Dual AC Input and DC Output Fusing
- Analog DC Ammeter
- DC Current Limiting Circuitry
- AC to DC Isolation
- Accessories Include a Drip Shield, ON/OFF Switch & Water Tight Connectors
- Model A41F is Filtered for Valve-Regulated Batteries
- Limited 10 Year Warranty

OFFERED WITH ADDITIONAL FEATURES

- Battery Charge Dividers:
  - For Charging Two Batteries with a Negative Common
  - For Charging Two Batteries with a Positive Common
  - For Charging Three Batteries with a Negative Common
  - For Charging Three Batteries with a Positive Common

MARINE APPLICATION DIAGRAM

Meets USCG

STANDARD APPROVALS:

UL 1236
USCG
STATIONARY BATTERY CHARGERS FOR MARINE APPLICATIONS

La Marche offers multiple Battery Charger Technologies for stationary applications with special features to accommodate the marine shipboard applications requirements. La Marche’s chargers are used in all different applications in the marine industry; from engine starting to supplying vessel’s Switchgear equipment.

MARINE RELATED FEATURES

- Conformal-Coating for Circuit Boards
- Tropicalization Glyptol Dip for Magnetics
- ABS Compliance w/Water Tight Connectors and Drip Shield
- Coast Guard Compliance (USCG)
- AC/DC Breakers
- Blocking Diodes
- Ground Detection (To Protect Against DC Leakage Currents, Which Can Induce Hull Erosion Through Electrolysis)
- Multiple Communication Protocols, such as Ethernet Web Server, DNP3, MODBUS, SNMP, and IEC 61850 (Connects with Sophisticated Vessel Monitoring/Control Systems)

LA MARCHE MODELS: A77D/A77DE, TPSD & A12B
All available with features for marine applications. Consult factory for more details.
A32P/A32S UPS

PRODUCT FEATURES

- High Quality Sine Wave
- AC Input: 120VAC to 240VAC (60Hz)
- AC Output: 120VAC (60Hz)
- 48V DC Bus Voltage
- Ferroresonant Design
- Prime or Standby Design
- Automatic Electronic Transfer Switch (Available in 1ms and 15ms models)
- Local & Remote Alarms
- LED Indicators & Switches
- Limited 5 Year Warranty

* Batteries Sold Separately

STANDARD APPROVALS:

UL 1481

AUPS INDUSTRIAL UPS SYSTEM

PRODUCT FEATURES

- High Power Factor Input
- AC Input: 208-230VAC (50Hz/60Hz)
- AC Output: 230VAC (50Hz)
- 120V DC Bus Voltage
- IGBT Design
- Compact Dimensions
- Manual Bypass Switch
- Static Bypass Switch
- Web Based Monitoring
- Data Logging
- Communications
- 2 Year Warranty

AUPS BLOCK DIAGRAM
SOLAR CHARGE CONTROLLER

PRODUCT FEATURES

- MPPT / PWM Algorithms
- 12/24V Auto-select
- Intelligent Micro Controller
- High Efficiency
- Compact Design
- Status LED Indicators
- Bonus Power Terminal
- USB Connection
- Temperature Sensor
- High Protection Modes (For Solar Modules, Batteries and Load Connections)
- Programmable For Sealed and Flooded Battery Types
- Low Voltage Load Disconnect (LVLD)
- 1 Year Warranty

CHARGE CONTROL DIAGRAM
### RHF BATTERY CHARGER

**PRODUCT FEATURES**

- Microprocessor Controlled High Frequency Technology
- AC Input: 105-264VAC (45-65Hz) with Automatic Compensation ±10%
- Available DC Output: 12VDC and 24VDC
- Complete Isolation from AC to DC
- Adjustable Current Limit from 50% to 105%
- 1 Set Form “C” Dry Type Alarm Contacts for Charger Fail Alarm
- 2 Years Warranty

**OFFERED WITH ADDITIONAL FEATURES**

- Ethernet Communications (SNMP and Remote Monitoring)

---

### A75R BATTERY CHARGER

**PRODUCT FEATURES**

- Microprocessor Controlled SCR Technology
- AC Input: 120/240VAC (50Hz/60Hz)
- Available DC Output: 12VDC and 24VDC
- Superior Surge and Lightning Protection
- Automatic AC Input Voltage Selection for 10-40 Amp Models with No Tap Changes Required
- Integrated Charger Failure Alarm with Form “C” Contacts
- Selectable Low DC Current Alarm to Detect When Charger is Not in Service (Output Current is Below .1A)
- Remote Shutdown Capability for Placing Charger Offline for Battery Testing Purposes
- Higher Temperature (Class H) Transformer Insulation and Conservative Component Selection for Long Life with Greater Safety Margins in Abusive Environments
- 3 Year Warranty

---

Meets AREMA Specifications and ANSI C62-41 Standards for Surge Voltages
A39 BATTERY CHARGER

PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microprocessor Controlled SCR Technology</td>
<td></td>
</tr>
<tr>
<td>Available AC Input</td>
<td>120VAC to 480VAC (60Hz)</td>
</tr>
<tr>
<td>Available DC Output</td>
<td>30VDC, 60VDC, 90VDC and 150VDC</td>
</tr>
<tr>
<td>Auto Start/Stop Circuitry</td>
<td></td>
</tr>
<tr>
<td>Constant Current or Constant Voltage Modes Charging</td>
<td></td>
</tr>
<tr>
<td>Programmable</td>
<td></td>
</tr>
<tr>
<td>Fault Mode Diagnostics</td>
<td></td>
</tr>
<tr>
<td>Automatic Surge Protection</td>
<td></td>
</tr>
<tr>
<td>AC Breaker / DC Breaker</td>
<td></td>
</tr>
<tr>
<td>Limited 10 Year Warranty</td>
<td></td>
</tr>
</tbody>
</table>

The voltage and current limit adjusts from 5% to 100% of the rated value. This provides the flexibility to charge a wide range of Flooded Lead Acid or Ni-Cad battery cells (non-filtered output).

MXM BATTERY CHARGER

PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microprocessor Controlled High Frequency Technology</td>
<td></td>
</tr>
<tr>
<td>AC Input</td>
<td>105-264VAC (45-65Hz) w/Automatic Compensation ±10%</td>
</tr>
<tr>
<td>Available DC Output</td>
<td>12VDC and 24VDC</td>
</tr>
<tr>
<td>High Power Factor</td>
<td></td>
</tr>
<tr>
<td>High Efficiency</td>
<td></td>
</tr>
<tr>
<td>Charge Profiles</td>
<td>IEI, Constant Voltage, dV/dT Charge Termination, Flooded, GEL, AGM and more</td>
</tr>
<tr>
<td>2 Year Warranty</td>
<td></td>
</tr>
</tbody>
</table>

OFFERED WITH ADDITIONAL FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunity Charging</td>
<td></td>
</tr>
<tr>
<td>Custom Battery Cable</td>
<td></td>
</tr>
<tr>
<td>Battery Temperature Sensor</td>
<td></td>
</tr>
</tbody>
</table>
### A75MD BATTERY CHARGER

#### PRODUCT FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microprocessor Controlled SCR Technology</td>
<td></td>
</tr>
<tr>
<td>Controlled I-E-I Charging Cycle</td>
<td></td>
</tr>
<tr>
<td>Multiple AC Voltage Ratings (50Hz and 60Hz)</td>
<td></td>
</tr>
<tr>
<td>Available for 120 Vdc, 240 Vdc and 320 Vdc</td>
<td></td>
</tr>
<tr>
<td>Automatic Start/Stop Circuitry</td>
<td></td>
</tr>
<tr>
<td>Programmable Entry of Battery AH Rating</td>
<td></td>
</tr>
<tr>
<td>Smart DV/DT Termination</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature 0° to 50°C (32° to 122°F)</td>
<td></td>
</tr>
<tr>
<td>Digital Display: DC Volts, DC Amps, Amp Hours Returned, Elapsed Time on</td>
<td></td>
</tr>
<tr>
<td>Charge, Error Codes</td>
<td></td>
</tr>
<tr>
<td>Doors Safety Switches</td>
<td></td>
</tr>
<tr>
<td>Limited 5 Year Warranty</td>
<td></td>
</tr>
</tbody>
</table>

#### OFFERED WITH ADDITIONAL FEATURES

- Data Logging
- Available AC Input: 480VAC to 1100VAC (50Hz or 60Hz)
- Available DC Output: 120VDC, 240 and 320VDC
- Automatic Battery ID Detection
- External 120 VAC Power Outlet Panel (3KVA)
- Tropicalization (Magnetics Only)
- Ground Integrity System (PA SPEC)
ENCLOSURES
Available for all products

Complete DC power systems; including Battery Chargers, Batteries and Distribution in Indoor and Outdoor Cabinets, are available in multiple arrangements in order to meet different applications’ specific requirements.
Cabinets are available in NEMA 1, NEMA 3(R), NEMA 4(X), NEMA 12 and IP ratings.
The different models of stand-alone Battery Chargers are also available in special NEMA 12 or IP protection enclosure ratings.

If you may not be familiar with the NEMA enclosure definitions, below you will find a brief description of the types we are offering. For a more detailed description please see NEMA Standards Publication 250-2003, “Enclosures for Electrical Equipment (1000 Volts Maximum)

NEMA 1 is your basic general purpose indoor enclosure designed to protect people from incidental contact with the components inside as well as a degree of protection against solid objects.

NEMA 3R is your basic outdoor enclosure designed to protect the enclosed equipment against rain. It provides protection against falling dirt, rain, sleet and snow.

NEMA 4 enclosures are watertight and dust tight. They provide protection against falling dirt, windblown dust, rain, sleet, snow, splashing water and hose directed water.

NEMA 12 enclosures are dust tight and drip tight intended for indoor use. They provide protection against falling dirt, circulating dust, lint, fibers, and dripping water.

*NEMA 3R, 4 and 12 also provide protection for people against incidental contact with internal components.
La Marche Mfg. (A U.S. Company)
106 Bradrock Drive, Des Plaines, IL 60018
Tel: 001.847.299.1188
Fax: 001.847.299.3061
sales@lamarchemfg.com
www.lamarchemfg.com

La Marche DC Systems
Maintaining Power Across the Globe