The La Marche model A12B Series Filtered Battery Chargers / Power Supplies are engineered for the demanding requirements of SwitchGear applications, Process Controls and Communications. The magnetic amplifier circuitry is designed to carry continuous and intermittent loads up to the maximum rated output. Its robust design and unmatched reliability has made this workhorse the standard in the industry and with its customizing features.

Refer to Digital C.A.P. System Data Sheet for complete details.

**Standard Features**

- Magnetic Amplifier Circuitry
- Separate Float and Equalize Potentiometers provide simple and precise DC Voltage calibration
- Float/Equalize Mode Switching
- Float and Equalize Lights
- Automatic AC Voltage Compensation
- +/- 0.5% DC Voltage Regulation
- Fused AC input and DC output protects Battery and Charger/Power Supply
- Analog DC Ammeter and DC Voltmeter
- Current Limiting Circuitry prevents overload and provides current control from 50 to 120% of rated output (factory set at 115%)  
- Output Filtered (With or Without a Battery) - 30mV RMS for Single Phase Models and 100mV RMS for Three Phase Models
- AC Power Failure Relay with Form “C” Contacts
- AC Surge Suppression (MOV)
- NEMA Type 1 Enclosure / IP20
- UL 1012 & C-UL Listed (UL 1481 Listing available)
- 10-year Limited Warranty
Specifications

**ELECTRICAL**

- **AC Input Voltages**
  - Single Phase 60Hz: 120, 208, 220, 240, 480 or 600
  - Single Phase 50Hz: 220/240, 380 or 415
  - Three Phase 60Hz: 208, 240, 480 or 600
  - Three Phase 50Hz: 220/240, 380 or 415
- Voltage range: +/- 5% from nominal
- **Power Protection**
  - AC Fuse, DC Fuse and Current Limit Protection
- **DC Output Amps and Voltages**
  - DC Amps: 3 to 400 amperes
  - DC Volts: 12, 24, 48, 130VDC (Others available such as 32, 36 & 260VDC)
- **Output Filtering (With or without a battery)**
  - 30mV RMS for single phase models and 100mV RMS for three phase models
- **DC Voltage Regulation**
  - Plus or minus 0.5% of setting from no load to full load over the specified input voltage, frequency and ambient temperature ranges.

**ENVIROMENTAL**

- **Operating Temperature**
  - 0 to 50°C (32 to 122°F)
- **Storage Temperature**
  - -40 to 65°C (-40 to 185°F)
- **Relative Humidity**
  - 0 to 95% (non-condensing)
- **MTBF**
  - Exceeds 250,000 Hours

**Dimensions**

- Overall dimensions and weights are listed on the last page of this Data Sheet. Case specifications are subject to change due to innovative product development and design. When space requirements are critical, please consult the factory.

**Mounting**

- Discrete Alarm LEDs (w/o Ground Detection) and Equalize after Low DC Voltage.
- Discrete Alarm LEDs (with Ground Detection) and Equalize before Low DC Voltage.

**Finish**

- Pretreated with a seven stage iron phosphate and Equalize after Low DC Voltage.

**Agency Approvals**

- **UL Battery Charger**
  - File E 319331, Guide BBML UL Std. No. 1012
- **C-UL Battery Charger**
  - CAN/CSA Std. C22.2 No. 107-2
- **UL Fire Alarm System Power Supply**
  - File 52768, Guide UTRZ UL Std. No. 1481
  - Must Specify Accessory Code 09A
  - 24V output, 240V or less, 60Hz single phase input only.

**Notes:**

- All models where appropriate will carry the U.L. and C-U.L. Battery Charger listing. When U.L. Fire Alarm System Power Supply Listings are required, you must specify this requirement at the time of order.
- Not all models can be U.L. approved. Accessories, type of charger and rating will determine U.L. approval. Consult our factory for U.L. approvals.

Optional Accessories

**ALARM & CONTROL**

- **16 Series** (Refer to Digital C.A.P. Systems Data Sheet for complete details)
  - LED C.A.P. Systems common features:
    - Selectable Display, Multi-Mode Equalize Timer
    - Equalize Light
  - AC Power Failure Relay w/ (2) sets Form “C”
  - Low DC Current Alarm w/ (2) sets Form “C”
  - Low DC Voltage 1 Alarm w/ (2) sets Form “C” & Adjustable Time Delay (0-235 sec) (Except Ground Detection Alarms)
  - Multi-Mode Equalize Timer with Light adjustable from 1-144 hrs with five selectable modes and various failure alarm & lights.
- **46 Series** (Refer to Digital C.A.P. Systems Data Sheet for complete details)
  - 2 Line LCD C.A.P. Systems common features:
    - Selectable Display, Multi-Mode Equalize Timer
    - Equalize Light
  - AC Power Failure Relay w/ (2) sets Form “C” (Except 46Q)
  - Low DC Current Alarm w/ (2) sets Form “C”
  - Low DC Voltage 1 Alarm w/ (2) sets Form “C” & Adjustable Time Delay (0-235 sec) (Except Ground Detection Alarms)
  - Multi-Mode Equalize Timer with Light adjustable from 1-144 hrs with five selectable modes and various failure alarm & lights.
  - Discrete Alarm LEDs (46A & 46B) Available
- **46A** Discrete Alarm LEDs (with Ground Detection)
  - For use with CAP systems 46J, 46U, 46Q, 46T
- **46B** Discrete Alarm LEDs (w/o Ground Detection)
  - For use with CAP systems 46J, 46U, 46Q, 46T
- **03N** Low DC Current Alarm & Light w/ (1) set Form “C” contacts
- **04J** Electronic Equalize Timer Multi-Mode adjustable from 2-144hrs with five selectable modes; Standard, 7-day, 14-day, 30-day, 45-day and Equalize after Low DC Voltage.
- **050** Ground Detection Switch 3-position with DC Voltmeter indication (110VDC models utilizes two switches)
- **051** Ground Detection Alarm with Reset Pushbutton and (1) set form “C” Positive and (1) set form “C” Negative contacts
- **052** Ground Detection Lights (Positive and Negative)
- **053** Ground Detection Switch & Lights (110VDC models utilizes two switches)
- **054** AC Power Failure Light
- **16C** Hi/Lo-2 Combination Alarm High/Low DC Voltage, Field Calibrations & Adjustments, Individual Lights and (2) Form “C” contacts for each alarm
- **10G** Forced Load Sharing (with same model number only)
- **103** Remote Sensing
- **20Q** Equalize Fan Control Relay

**METEERING & PROTECTION CONTINUED**

- **017** DC Breaker Two Pole
- **01B** AC Breaker Three Pole (3-phase input only)
- **01M** DC Breaker two Pole High Interrupting - 22KAIC (up to 250VDC)
- **01C** AC Breaker two Pole High Interrupting - 65/35/18KAIC (240/480/600VAC)
- **01D** AC Breaker two Pole High Interrupting - 100/65/25KAIC (240/480/600VAC)
- **01F** AC Breaker three Pole High Interrupting - 65/35/18 KAIC (240/480/600VAC)
- **01G** AC Breaker three Pole High Interrupting - 100/65/25KAIC (240/480/600VAC)
- **06G** Zero Center Ammeter w/Battery & Load Terminals (under 250A units)
- **06L** AC Ammeter +/-2% accuracy (single phase)
- **06M** AC Voltmeter +/-2% accuracy (single phase)
- **14V** AC Voltmeter with switch (three phase)
- **14W** AC Ammeter with switch (three phase)
- **102** DC Blocking Diode
- **107** DC Surge Protectors (MOV’s)
- **11L** Lightning Arrestor
- **217** Reverse polarity Protection & LED

**MISCELLANEOUS**

- **09A** UL1481 (24V output, 240V or less, 60Hz single phase)
- **092** Tropicalization (magnetics only) Single Phase
- **093** Tropicalization (magnetics only) Three Phase
- **108** USCG (U.S. Coast Guard) Accessories
- **11L** Battery & Load Terminals (under 250A units)
- **11F** 30mV Filtering for 3-phase units
- **38G** ABS [American Bureau of Shipping] Modifications
- **38J** ABS [38G] & USGC (108) Single Phase
- **38K** ABS [38G] & USGC (108) Three Phase
- **11V** Temperature Compensation (Internal Probe)
- **11W** External Temperature Probe 22 ft
- **38D** Copper Ground Bus Bar
- **095** Heat Shrinkable Wire Markers with Point to Point Wiring Diagram
- **09W** Heat Shrinkable Wire Markers with Electrical Schematic
- **09L** Physical Parts Location Drawing
- **097** SIS Wire (#16 AWG and larger) Markers
- **080** Drip Shield (must order separately)
- **---** Floor Stand (must order separately)
- **---** Special NEMA [3R, 4, 4X and 12] and IP Rated Enclosures

**COMMUNICATION PROTOCOLS**

- **21J** IEC 61850 Ethernet
- **21P** DNP 3.0 Communications RS232/RS485/Ethernet
- **21Q** MODBUS Communications RS232/RS485/Ethernet
- **21W** MODBUS RTU Serial Data Port
- **21X** SNMP

**Notes:**

- Discrete Alarms are not available in conjunction with Digital C.A.P. (Combined Accessory Package) systems. Typically, when ordering two or more discrete components, the Digital C.A.P. system listed above provides a more economical approach.
- Case sizes may differ depending on optional accessories and/or 50Hz input. Please consult factory when dimensions are critical.

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**MODBUS Communications RS232/RS485/Ethernet**

**DNP 3.0 Communications RS232/RS485/Ethernet**

**MODBUS Communications RS232/RS485/Ethernet**

**MODBUS RTU Serial Data Port**

**SNMP**

**COMMUNICATION PROTOCOLS**

- Offered only with 46 series C.A.P.

**Agency Approvals**

- **UL Battery Charger**
  - File E 319331, Guide BBML UL Std. No. 1012
- **C-UL Battery Charger**
  - CAN/CSA Std. C22.2 No. 107-2
- **UL Fire Alarm System Power Supply**
  - File 52768, Guide UTRZ UL Std. No. 1481
  - Must Specify Accessory Code 09A
  - 24V output, 240V or less, 60Hz single phase input only.

**Notes:**

- All models where appropriate will carry the U.L. and C-U.L. Battery Charger listing. When U.L. Fire Alarm System Power Supply Listings are required, you must specify this requirement at the time of order.
- Not all models can be U.L. approved. Accessories, type of charger and rating will determine U.L. approval. Consult our factory for U.L. approvals.
<table>
<thead>
<tr>
<th>Model Number</th>
<th>DC Amps</th>
<th>DC Fuse Size (Amps)</th>
<th>AC Input Phase</th>
<th>AC Input Current Draw @ 100% Load (Amps)</th>
<th>Std. Case Size (lbs)</th>
<th>Shipping Weight (Approx.)</th>
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<tbody>
<tr>
<td>A12B-3-12V</td>
<td>3</td>
<td>10</td>
<td>1</td>
<td>0.6 / 0.4 / 0.4 / 0.8</td>
<td>7</td>
<td>30 / 28</td>
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<td>30 / 28</td>
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<td>2</td>
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<td>90 / 41</td>
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<tr>
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<td>3</td>
<td>5.0 / 2.5 / 2.5</td>
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<td>46 / 31</td>
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<tr>
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<td>4</td>
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<td>32</td>
<td>60 / 26.2 / 26.2</td>
<td>3</td>
<td>430 / 167</td>
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</table>

*Optional DC Breaker when ordered in lieu of standard fuse) may slightly differ in rating. AC Drawn shown with amper* in *when equipped with AC Breaker, a series fuse is included.
AC Current Draw @ 100% load and standard battery cell of 6V, 12V, 24V, 36V, and 48V. Maximum Current Draw is 120% of ratings shown. AC Current Draw shown in Italics have higher current draw for their specific input voltage -- verification of input power requirement should be done prior to ordering. *Denotes units not U.S. Listed

Case sizes shown are for standard 60Hz units and may differ depending on optional accessories and/or 50Hz input. Please consult factory when dimensions are critical.
Case sizes may differ depending on optional accessories and/or 50Hz input. Please consult factory when dimensions are critical.
Dimensions shown above are overall footprint. Detailed dimensions drawings are available for mounting purposes.

When ordering, please specify:
- La Marche Model Number A12B
- Input Voltage, Frequency, Phase
- Number and Type of Battery Cells
- Amp Hour Capacity of Battery
- Intermittent DC Loads and Duration
- Continuous DC Load
- Allowable Recharge Time from Full Discharge (where applicable)
- Optional Accessories
- Verify AC Input Current Draw

46 Series (LCD)

16 Series (LED)

Refer to Digital C.A.P. System Data Sheet for complete details.
Discrete alarm LEDs available.