



LaM^ARCHE®

ISO 9001 CERTIFIED



'Constavolt'®

ENGINE STARTING BATTERY CHARGER

The LaMarche model A40 Battery Charger is renowned throughout the Industry as the Constavolt unit because that's exactly what it does; precise and constant output voltage to charge your Batteries. It has set the standard over the years as the most reliable unit available for Engine Starting applications in the Marine and Standby Service fields where the Batteries are exercised frequently - thus eliminating the need for Battery equalization. Whether your requirement is to charge your Batteries on a small Pleasure Craft or a large Vessel utilizing several Battery banks, the wide range of A40 Constavolt models are offered from 12 to 130 Volts DC to suit your needs.

The Constavolt is a completely automatic, Solid State, constant voltage Battery Charger built to carry continuous and intermittent loads up to 80% of its maximum rated output capacity. It is ideal for applications where it is advantageous to have the Charger permanently connected across the Battery, keeping it fully charged at all times and to simultaneously carry continuous and/or intermittent current loads such as on board peripheral equipment.

The Constavolt is designed and built to charge Flooded Lead-Acid or Nickel-Cadmium Batteries containing a specific number of cells. However, it is not suitable to charge sealed

A40

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Standard Features

- Magnetic Amplifier Circuitry provides increased longevity and worry-free operation
- Automatic AC Input Voltage Compensation +/- 10%
- Automatic Surge Suppression
- Dual AC input and DC output fusing protects Battery and Charger
- Automatic DC Voltage Regulation
- DC Current Limiting Circuitry (typically less than 140%) Eliminates the need for Cranking Disconnect Relay
- 5% Accuracy Analog DC Ammeter
- Charger design prevents Battery from discharging if AC Line Fails
- Complete Isolation of the AC Line from the DC Charging Circuit
- Environmental:
Operating Temperature: 0 to 50°C (32 to 122°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Relative Humidity: 0 to 95% non-condensing
- AC Input Voltages of 120, 208 or 240, single phase
- NEMA 1 Enclosure ANSI 61 Gray Baked Enamel Paint
- All A40 models are U.L. 1564 Listed.
Units are CSA C22.2 No. 107 Listed (except where noted)
- Industry's unparalleled 10-year Warranty

Optional Features

- Built-in Battery Charge Divider to charge 2 or 3 Battery Banks (consult factory - may increase case size)
- External Battery Charge Divider to charge 2 or 3 Battery Banks

Valve-Regulated Batteries since these require output filtering such as a Power Supply (see our model A12B for this type of application).

The operation of the Constavolt is simple - there are no controls to be set for different applications since the amount of loading and the state of charge of the Battery determines the Charger's output current. Once the Battery becomes fully charged, the output current will automatically decrease to a very low Trickle Charge to prevent overcharging of the Batteries.

The reliability and performance of the Constavolt are legendary. The Controlled Magnetic Amplifier circuitry provides years of trouble-free operation - our confidence in the reliability of our A40 Constavolt is reflected by our unparalleled and Industry leading 10-year Warranty. The A40 Constavolt assures the quality, reliability and performance you have come to expect from LaMarche.

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Made in USA

A40 Models

| Model Number | DC Output | | | AC Input Current Draw* @ 100% Load (Amps) | | | Case No. | Shipping Weight (Approximate) | | |
|----------------------------|---------------------------|-------|-----------|---|-------|-------|----------|-------------------------------|-------|-------|
| | Amps | Volts | Fuse Size | A 120 | D 208 | B 240 | | lbs | kgs | |
| 12 VDC 6L, 9 or 10NC | A40-10-12V | 10 | 12V | 20A | 2.5 | 1.4 | 1.3 | 05 | 23 | 10.4 |
| | A40-20-12V | 20 | 12V | 35A | 5 | 2.9 | 2.5 | 2 | 55 | 24.9 |
| | A40-30-12V | 30 | 12V | 50A | 7.5 | 4.3 | 3.8 | 2 | 65 | 29.5 |
| | A40-40-12V | 40 | 12V | 70A | 10 | 5.8 | 5 | 2 | 74 | 33.6 |
| | A40-60-12V | 60 | 12V | 100A | 15 | 8.7 | 7.5 | 7 | 112 | 50.8 |
| | A40-75-12V ⁽¹⁾ | 75 | 12V | 130A | 19 | 11 | 9.4 | 3 | 120 | 54.4 |
| A40-100-12V ⁽¹⁾ | 100 | 12V | 150A | 26 | 15 | 13 | 6 | 170 | 77.1 | |
| 24 VDC 12L, 19 or 20NC | A40-10-24V | 10 | 24V | 20A | 5 | 2.9 | 2.5 | 2 | 61 | 27.7 |
| | A40-20-24V | 20 | 24V | 35A | 10 | 5.8 | 5 | 2 | 72 | 32.7 |
| | A40-30-24V | 30 | 24V | 50A | 15 | 8.7 | 7.5 | 7 | 107 | 48.5 |
| | A40-40-24V | 40 | 24V | 70A | 21 | 12 | 10 | 7 | 110 | 49.9 |
| | A40-60-24V | 60 | 24V | 100A | 31 | 18 | 15 | 3 | 160 | 72.6 |
| | A40-75-24V ⁽¹⁾ | 75 | 24V | 130A | 38 | 22 | 19 | 3 | 200 | 90.7 |
| A40-100-24V ⁽¹⁾ | 100 | 24V | 150A | 51 | 29 | 26 | 8A | 300 | 136.1 | |
| 32 VDC 16L | A40-10-32V | 10 | 32V | 20A | 6.7 | 3.9 | 3.3 | 2 | 66 | 29.9 |
| | A40-20-32V | 20 | 32V | 35A | 14 | 7.7 | 6.7 | 2 | 73 | 33.1 |
| | A40-30-32V | 30 | 32V | 50A | 21 | 12 | 10 | 7 | 108 | 49.0 |
| | A40-40-32V | 40 | 32V | 70A | 27 | 16 | 14 | 3 | 145 | 65.8 |
| | A40-60-32V | 60 | 32V | 100A | 41 | 24 | 21 | 3 | 195 | 88.5 |
| | A40-75-32V ⁽¹⁾ | 75 | 32V | 130A | 51 | 29 | 26 | 8A | 300 | 136.1 |
| 130 VDC 60L/92NC | A40-10-130V | 10 | 130V | 20A | 26 | 15 | 13 | 3 | 155 | 70.3 |
| | A40-20-130V | 20 | 130V | 35A | 51 | 29 | 26 | 6 | 175 | 79.4 |
| | A40-30-130V | 30 | 130V | 50A | 76 | 44 | 38 | 8A | 330 | 149.7 |

All above models designed for optimal performance at 60Hz. They will operate at 50Hz with reduced performance. Consult factory for units designed specifically at 50Hz. Must specify one only battery type and number of cells. Please consult factory for other available cell ranges if desired range not shown.
 *AC Current Draws based @ 100% load and standard battery cells of 6L(12V), 12L(24V), 16L(32V), 60L(130V). Maximum Current Draw is typically 140% of ratings shown.
⁽¹⁾ Denotes units not CSA Listed.

Ordering Information

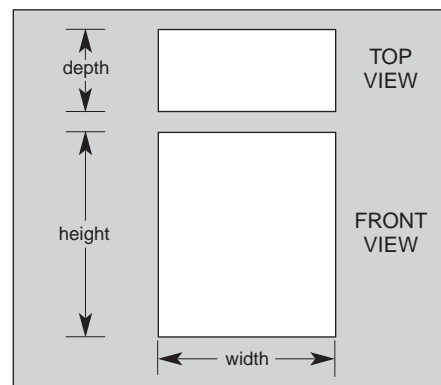
When ordering, please specify:

- LaMarche Model Number A40
- 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
 - Built-in 2 or 3 Battery Charge Divider (may increase case size)
 - External 2 or 3 Battery Charge Divider

Case Specifications

| Case No. | Overall Dimensions | | | | | | Cable Entry (when facing unit) | | Mounting |
|----------|--------------------|-----|--------|-----|--------|-----|--------------------------------|-----------------|------------|
| | Width | | Depth | | Height | | AC input | DC output | |
| | in | mm | in | mm | in | mm | | | |
| 05 | 8.000 | 203 | 7.000 | 178 | 13.000 | 330 | Bottom Right | Bottom Right | Wall |
| 1 | 10.375 | 264 | 7.875 | 200 | 16.250 | 413 | Right | Left | Wall |
| 2 | 12.812 | 326 | 10.000 | 254 | 17.125 | 435 | Right | Left | Wall |
| 3 | 15.375 | 391 | 11.000 | 280 | 23.750 | 603 | Right | Left | Wall/Floor |
| 6 | 25.580 | 650 | 13.935 | 354 | 28.000 | 711 | Right/Top/Bottom | Left/Top/Bottom | Wall/Floor |
| 7 | 14.250 | 362 | 10.625 | 270 | 19.875 | 505 | Right | Left | Wall/Floor |
| 8A | 27.200 | 691 | 15.250 | 387 | 32.500 | 825 | Right | Left | Floor |

Case sizes may differ depending on optional accessories. Please consult factory when dimensions are critical. Dimensions shown above are overall footprint. Detailed dimensions drawings are available for mounting purposes.



Optional External Charge Dividers

| Model Number | Number of Batteries | DC Range | | Case No. | Shipping Weight (Approximate) | |
|----------------------|---------------------|----------|-------|----------|-------------------------------|------|
| | | Amps | Volts | | lbs | kgs |
| CD40-20/30-12/32-N2 | 2 | 10-30 | 12-32 | 05 | 10 | 4.5 |
| CD40-20/30-12/32-N3 | 3 | 10-30 | 12-32 | 05 | 11 | 5.0 |
| CD40-40/60-12/32-N2 | 2 | 40-60 | 12-32 | 1 | 14 | 6.4 |
| CD40-40/60-12/32-N3 | 3 | 40-60 | 12-32 | 1 | 15 | 6.8 |
| CD40-75/100-12/32-N2 | 2 | 75-100 | 12-32 | 2 | 23 | 10.4 |
| CD40-75/100-12/32-N3 | 3 | 75-100 | 12-32 | 2 | 25 | 11.3 |

All above models are configured for Negative Common. For Positive Common, part number changes as follow: CD40-20/30-12/32-P2. Consult Factory for availability of Charge Dividers built in the A40 Charger case (size may increase).

Specifications subject to change without notice

Model Number Nomenclature

