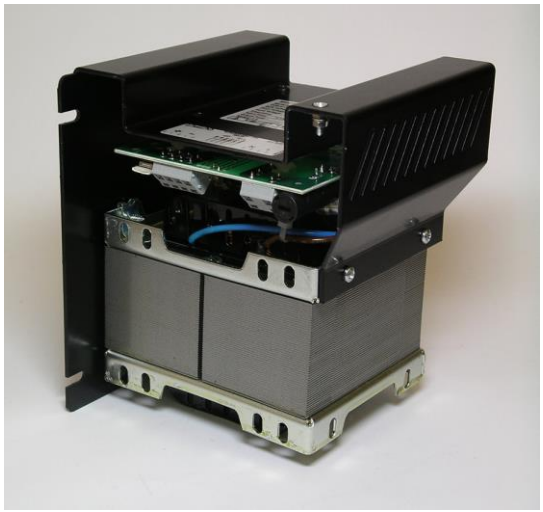
COMPUTRONIC
CONTROLS

# Monitor series

## Automatic Battery Chargers



- **Heavy duty float charging:**
  **Monitor 200: 12V/16A or 24V/9A**
  **Monitor 360: 12V/30A or 24V/15A**
- **Simple, cost-effective design**
- **For vented Lead acid or NiCd batteries**
- **Short circuit and reverse polarity protection**
- **Manual boost and charge fail alarm output options**



## Description

The Monitor range provides fully automatic, heavy duty charging of vented lead acid or NiCd batteries. The chargers may be used in a wide range of industrial battery applications, including standby engines, pumps and generators.

The charger uses an open-frame construction, designed for surface mounting in an enclosed panel. Each unit consists of a transformer, rectifier and control circuit. The control circuit ensures that charger maintains the battery voltage at the pre-calibrated float level, while supplying any additional load current up to the specified maximum.

### Manual boost control

'A' option chargers have an operator-controlled 'boost' mode can be used to temporarily increase output voltage, equalising charge between cells, and improving battery capacity and service life. Control of normal (float) or boost modes is via three terminals, allowing activation by a remotely connected panel switch or relay contacts. An external time relay is recommended to automatically limit excessive boost charging.

### Charge fail alarm output

'A' option chargers are also fitted with a self diagnostic 'charge fail' monitoring circuit and output. The SPDT relay output de-energises in the event of a charging fault, for signalling a remote annunciator or alarm system.

### Installation and connection

Mounting is via slots in the transformer chassis. Spring clamp terminals provide secure electrical connection to stripped panel wiring. The Monitor is powered from a 110V or 230V AC supply (please specify at order), protected by a circuit board mounted fuse. A self-resetting thermal cut-out protects the DC output from short-circuit or overload conditions.

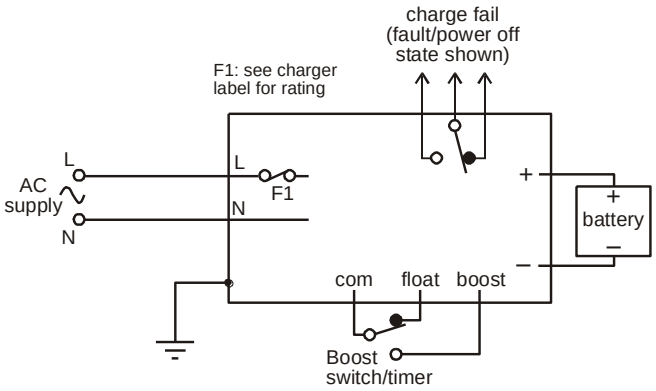
## Product specifications

| **power supply:** | ***Monitor 200*** | ***Monitor 360*** |
|---|---|---|
| nominal operating voltages | 230 VAC or 110 VAC (specify) | |
| permissible voltage variation | –10% to + 6% of nominal | |
| nominal operating frequency | 50 / 60 Hz. | |
| **DC charge output:** | | |
| maximum current / nominal voltage | 12VDC / 16A or 24VDC / 9A | 12VDC / 30A or 24VDC / 15A |
| float/boost voltages | see table overleaf | |
| **charge fail output (CF option):** | | |
| relay type | volt free SPDT contacts, relay de-energised on fault | |
| contact rating | 1A @ 30 VDC (resistive load) | |
| **general:** | | |
| operating temperature | –10 to +55 $^{o}$C | |
| overall dimensions (w x h x d) | see table overleaf | |
| weight | see table overleaf | |
| EMC emission / immunity | EN 61000-6-4 / EN61000-6-2 | |

## Warranty

A two year limited warranty on materials and workmanship is given with this product. Details are available on request.

## Electrical connection




Note: AC supply earth must be connected to an M4 chassis stud.
Battery output is isolated from chassis earth.

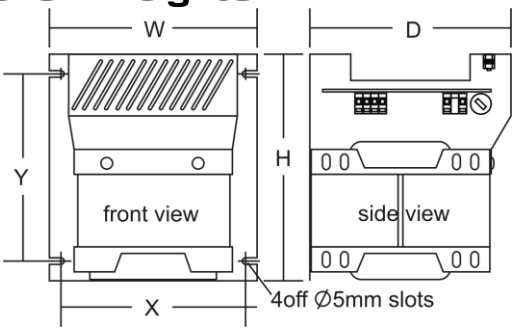
## Output calibration

| Battery type | | float volts (V DC) | boost volts (V DC) |
|---|---|---|---|
| 12V | Vented lead acid (6 cells) | 13.5 | 14.1 |
| | Calcium-Calcium (6 cells) | 13.8 | 15.6 |
| | NiCd (10 cells) | 14.1 | 14.5 |
| 24V | Vented Lead acid (12 cells) | 27.0 | 28.2 |
| | Calcium-Calcium (12 cells) | 27.6 | 31.2 |
| | NiCd (18 cells) | 25.6 | 26.1 |
| | NiCd (20 cells) | 28.2 | 29.0 |

Note:

The Monitor range is designed for use with vented batteries only. These chargers are NOT suitable for valve regulated lead acid (VRLA) or sealed type cells. For charging non-vented cells, see our Guardian or Sentinel ranges.

## Dimensions & weights




For safe heat dissipation, mount product in orientation shown, with minimum air-gap clearance of 40mm above/below and 25mm at sides.

| | MON200 series (mm) | MON360 series (mm) |
|---|---|---|
| **W** | 140 | 157.5 |
| **H** | 161 | 172.5 |
| **D** | 137 | 155 |
| **X** | 122 | 140 |
| **Y** | 125 | 140.5 |
| **Weight** | 4.8 Kg (10.6 lb) | 8.0 Kg (17.6 lb) |

## How to order

When ordering, please specify:

| Product | Nominal o/p voltage, V DC: 12 | 24 | Nominal output current, A DC: 9 | 15 | 16 | 30 |
|---|---|---|---|---|---|---|
| M2001216 | ● | | | | ● | |
| M2002409 | | ● | ● | | | |
| M3601230 | ● | | | | | ● |
| M3602415 | | ● | | ● | | |

| Code | Input voltage: 120 VAC | 230 VAC |
|---|---|---|
| C | ● | |
| D | | ● |

| Code | Battery type: Vented L/acid | Vented L/acid (Ca-Ca) | 10 cell NiCd | 18 cell NiCd | 20 cell NiCd |
|---|---|---|---|---|---|
| LA | ● | | | | |
| CA | | ● | | | |
| 10NC | | | ● | | |
| 18NC | | | | ● | |
| 20NC | | | | | ● |

| Code | Options: charge fail output & manual boost control |
|---|---|
| A | ● |

**product** | **input volts** | **battery type**

*The above 4 part number codes must be used*

**option**

*Insert option codes when required, or leave empty for no options*

**e.g. M3602415 C NC20**

*The above example shows the order code for a 24V/15A charger, with 120VAC input, output calibrated for 20 cell NiCd batteries, without any build option*



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