

Guardian Range of UL/CSA Approved Automatic Battery Chargers



Description

The Guardian is a highly efficient, high performance charger. The output is configured for accurate fast charging, optimum battery life and reliability. Due to utilizing high impedance transformer technology the low ripple output (<1%) is suitable for charging sealed or vented batteries e.g. Nickel Cadmium (NiCd), Lead Acid sealed (VRLA), vented and plate cells. The units may be used in a wide range of industrial charging applications, including standby engines, pumps and generators.

Each unit consists of a transformer, rectifier and control circuit, in an open frame assembly for easy panel mounting. 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.

Auto Boost (Equalizing) Operation

Auto boost operation provides an increased output voltage when batteries are below a preset point. Once the batteries have reached the boost voltage the charger reverts to its float voltage. This operation equalizes the batteries, maximizing battery life and capacity.

Boost Initiate Operation

The boost initiate forces the charger to enter an auto boost cycle (see above) even if battery voltage is above the preset point, once this operation is completed the charger returns to its float voltage.

Temperature Compensation

Temperature compensation provides control of the output voltage based upon temperature, as temperature increases the charging voltage is decreased at a negative coefficient of 3mV/°C/Cell.

Charge fail & alarms option

A self diagnostic 'charge fail' circuit and relay output is provided along with under and over voltage warnings. The volt free relays de-energize in the event of a charging fault or high/low battery voltage.

- **CE cULUS Approvals**
- **Heavy duty float charging:**
10A or 20A @ 12V,DC or 24V,DC output
- **Short circuit and reverse polarity protection**
- **Lead Acid or Ni-Cd calibrations**
- **Auto boost operation**
- **Charge fail relay output**
- **Under volts and over volts alarms**
- **Temperature compensation**
- **NFPA110 Alarms**

Product Specification

Power Supply:

Nominal Operating Voltages	110 - 120 V,AC (120V Units) 220 - 240 V,AC (240V Units)
Permissible Voltage Variation	± 6% of nominal
Nominal Operating Frequency	50-60Hz

DC Charge Output:

Maximum Current A,DC	20	20
Nominal Voltage V,DC	24	12
Float / Boost voltages	see table overleaf	

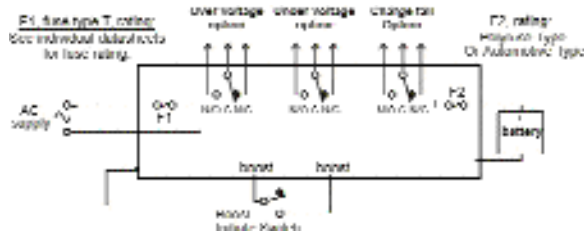
Charge Fail Output:

Relay Type	volt free SPDT contacts relay de-energized on fault
Contact Rating	1A @ 30V,DC (resistive load)

General:

Operating Temperature	-10 to +55°C
Overall Dimensions	see table overleaf
Weight	see table overleaf
EMC Emission / Immunity	EN 58801-2 / EN50082-2

Electrical connection



Notes:

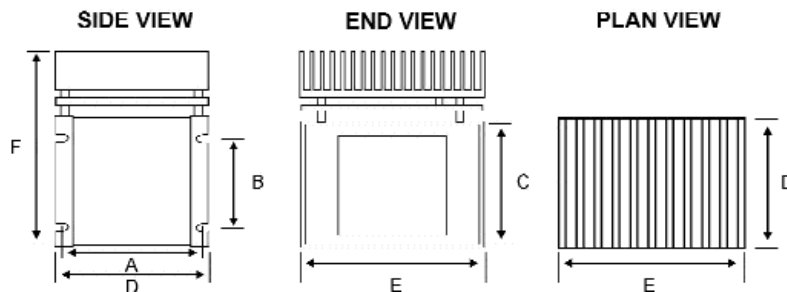
- 1) battery output is isolated from chassis
- 2) chassis must be connected to a low impedance earth

Calibration

Battery type		float volts (V,DC)	boost volts (V,DC)
12V	Lead Acid (6 cells)	13.6	14.1
	Ni-Cd (10 cells)	14.2	14.7
24V	Lead Acid (12 Cells)	27.2	28.2
	Ni-Cd (18 Cells)	25.6	26.6
	Ni-Cd (20 Cells)	28.4	29.4

The above are factory standard settings. Specials are available on request.

Dimensions



Fixing holes Ø=6mm

	G300 All models (mm)	G600 All models (mm)
A	126	126
B	70	90
C	90	120
D	126	126
E	124	124
F	126	156
Weight	4.5Kg	7.8Kg

How to order

When ordering, please specify -

PRODUCT	Nominal Output V,DC		Nominal Output Current	
	12	24	10	20
G1501210	•		•	
G3002410		•	•	
G3001220	•			•
G6002420		•		•

INPUT VOLTAGE		
CODE	120V,AC	240V,AC
A	•	
B		•

	BATTERY TYPE			
	Lead Acid	10 Cell Ni Cad	18 Cell Ni Cad	20 Cell Ni Cad
LA	•			
10		•		
18			•	
20				•

	OPTIONS					
	Remote Temp. Compensation	Mains Circuit Breaker	NFPA110 Alarms			Boost Initiate
Charge Fail / Loss of AC			Under Volts	Over Volts		
TC	•					
A		•				
MCB					•	

	Nominal Output V,DC	
	12	24
Under Volts Alarm	12.5	25
Over Volts Alarm	15.5	31
Delay on under volts	120 seconds	

Product Input volts Battery type

The above 3 part number codes must be filled in to complete your order.

G3002410

B

LA

TC

A

Options Options Options

Insert options when required, if no options are required, leave empty.

The above example shows the order code for a 240V,AC input, 24V@10A,DC output charger, calibrated for a vented lead acid battery, with remote temperature compensation and NFPA110 alarms (charge fail / loss of mains, under volts and over volts) options.

North American Distributor - PC & S / Panel Components & Systems, Inc.		
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