

Sentry-7 Range of Automatic Battery Chargers



Description

The Sentry-7 range provides automatic, current limited and voltage controlled charging of vented lead acid or NiCd batteries. The units may be used in a wide range of industrial charging applications, including standby engines, pumps and generators.

The charger is supplied in an open frame construction, designed for surface mounting in an enclosed panel. Each unit consists of a transformer, rectifier and thyristor control circuit. The control circuit ensures that the charger maintains a 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 switch 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.

Electronic Self-Resetting Fuse

The output is protected by an electronic fuse which protects against both short circuit and reverse polarity faults. In either event, disconnection of the DC output will reset the fuse and allow correct reconnection without the need to manually replace any fuses.


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 option

A self diagnostic 'charge fail' circuit and relay output is provided. The volt free relay de-energizes in the event of a charging fault.

Electrical connection of the AC and DC supply and alarms are via spring-clamp terminals.

-  Approvals
- **Float Charging**
5A or 10A @ 12V - 3A or 5A @ 24V
- **Autoboost operation**
- **Electronic self-resetting output fuse protection**
- **Temperature compensation**
- **Optional charge fail relay output**
- **Short circuit and reverse polarity protection**

Product Specification

Power Supply:

nominal operating voltages	120V,AC Units ±6%
	230V,AC Units ±10%

permissible voltage variation	(see above)
-------------------------------	-------------

nominal operating frequency	50-60Hz
-----------------------------	---------

DC Charge Output:

maximum current A,DC	5	10
nominal voltage V,DC	24	12
float / boost voltages	see table over leaf	

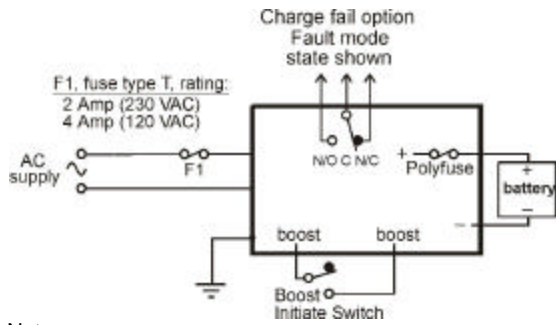
Charge Fail Output:

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 over leaf
weight	see table over leaf
EMC emission / immunity	EN58801-2 / 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)	14.1	16.0
24V	Lead Acid (12 Cells)	27.2	28.2
	Ni-Cd (18 Cells)	25.38	28.8
	Ni-Cd (20 Cells)	28.2	32.0

*Note: the Sentry-7 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 batteries see the switch mode or Guardian range.

If in doubt, contact our technical department .

Dimensions

END VIEW

SIDE VIEW

PLAN VIEW

	L	W	H	Weight
S7100	148mm 5.8"	110mm 4.3"	110mm 4.3"	2.6Kg 5.5lbs
S7120	168mm 6.6"	110mm 4.3"	123mm 4.8"	6.4Kg 13.6lbs

Fixing holes Ø=6mm

How to order

When ordering, please specify -

PRODUCT	Nominal Output V,DC		Nominal Output Current		
	12	24	3	5	10
S7100243		•	•		
S7100125	•			•	
S7120245		•		•	
S71201210	•				•

OPTIONS			
Charge Fail	Remote Temp. Compensation	Manual Boost	
CF	•		
TC		•	
MB			•

INPUT VOLTAGE		
CODE	120V,AC	230V,AC
A	•	
B		•

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

Product	Input volts	Battery type	Options	Options	Options
S7100125	A	LA	CF		

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

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

S7100125 A LA CF

The above example shows the order code for a 120 V,AC input, 12V@5A,DC output charger, calibrated for a vented lead acid battery, and with the charge fail option.

	North American Distributor - PC & S / Panel Components & Systems, Inc. 149 Main Street Stanhope New Jersey 07874 Phone (800) 523 9194 Fax (973) 448 1674	213 Jespersen Avenue Spruce Grove Alberta T7X 2J1 Phone (877) 962 0557 Fax (780) 962 0557	8539 Monroe Road (Suite 104) Charlotte North Carolina 28212 Phone (704) 535 3357 Fax (704) 535 6288
--	---	--	--