



The Powerful Advantage

Since 1945

La MARCHÉ

ISO 9001:2015 CERTIFIED

SGC

STATIONERY BATTERY CHARGER



Unit Shown: SGC-16-125V-ABD1

The La Marche SGC Model is designed specifically to provide an economical and robust solution for Auxiliary DC Control Power Systems in Substations. This Smart Microprocessor controlled Battery Charger is designed with PWM controls to provide the highest reliability that is required for maintaining and recharging the batteries, along with supporting the continuous loads in the auxiliary DC system.

The La Marche SGC is designed per NEMA PE5, C62.41A and UL safety requirements. This Filtered Battery Charger meets NEMA PE5 filtering requirements and has 0.5% DC voltage regulation from no load to full load (over the specified input voltage, frequency and ambient temperature ranges). Those features along with its Temperature Compensation capability make this model suitable for various types of batteries such as flooded lead acid, VRLA and NiCad.

SGC is equipped with a two-line LCD display which shows output voltage and current, along with an alarm status text description. Individual LED indicators provide local supervision and Form "C" Alarm Contacts provide remote annunciation. Communication Protocols are also available.

Standard Features

Smart Microprocessor Controlled SCR Technology	LCD Display
Filtered Battery Charger	-20°C to +70°C Operating Temperature (de-rate above 50°C)
Automatic AC Voltage Compensation	Soft Start
AC & DC Surge Protection (MOV)	Meets NEMA PE5 and IEEE-2405
AC & DC Breaker	Reverse Polarity Protection
Temperature Compensation	UL/CUL 1012 (Pending)
Float/Equalize Mode Switch	2 Year Warranty
Digital Float and Equalize Adjustments	C62.41A
Digital Current Limit Adjustment 50 to 110%	C37.90.1
±0.5% DC Voltage Regulation	FCC Part 15B
Over Temperature Protection	

Optional Accessories

080	Drip Shield	11J	Level-2 Ripple Filter (Aka: Battery Eliminator)
09P	Conformal Coated Circuit Boards	46R	8-Relay Output Alarm Board
11W	External Temperature Compensation Probe 24ft	21S	MODBUS RTU
11Y	External Temperature Compensation Probe 100ft	072	Rack Mount Brackets
11L	Lightning Arrestor	21P	DNP3.0
---	ABD1 Multi-Tap 120/208/240V Input		

Specifications subject to change without notice



Model Number	DC Amps	DC Protection DC Breaker/Rating	Single Phase AC Input Current Draw Amps @ 100% Load (Recommended Feeder AC Supply Breaker)				Case No.	Overall Dimensions W x D x H	Shipping Weight	
			(A) 120	(D) 208	(B) 240	Rating			lbs	kg
SGC-25-24V	25	40/10 KAIC	10 (20)	7 (10)	6 (10)	10 KAIC	3	15.38 x 11.0 x 23.75" 391 x 279 x 603mm	130	59
SGC-50-24V	50	70/10 KAIC	24 (40)	14 (20)	12 (20)	10 KAIC	3	15.38 x 11.0 x 23.75" 391 x 279 x 603mm	140	63.5
SGC-25-48V	25	40/10 KAIC	24 (35)	14 (25)	12 (20)	10 KAIC	3	15.38 x 11.0 x 23.75" 391 x 279 x 603mm	169	77
SGC-50-48V	50	70/10 KAIC	24 (40)	14 (20)	12 (20)	10 KAIC	4	19.0 x 15.7 x 23.75" 483 x 399 x 602mm	190	86
SGC-16-125V	16	25/10 KAIC	39 (60)	23 (40)	20 (30)	10 KAIC	4	19.0 x 15.7 x 23.75" 483 x 399 x 602mm	155	70
SGC-25-125V	25	40/10 KAIC	61 (90)	35 (50)	31 (50)	10 KAIC	4	19.0 x 15.7 x 23.75" 483 x 399 x 602mm	185	84

*Floor mounting brackets add 2" (51mm) to overall height. Case sizes may differ depending on optional accessories. Consult factory when dimensions are critical. Detailed dimensional drawings are available for mounting purposes.

AC INPUT

- Single Phase, +10%/-12%,
120/208/240 VAC, 60Hz \pm 3Hz

DC OUTPUT

- 24VDC/48VDC/125VDC

REGULATION

- Line/Load: $\leq \pm 0.5\%$

OUTPUT FILTERING

SGC	Standard	NEMA-PE5: Filtered IEEE-2405: Level 1 Ripple Limit off Battery	w/opt Level 2 Filter IEEE-2405: Level 2 Ripple Limit off Battery
24 VDC	1% V_{NOM} (240 mV _{NOM})	30mV _{NOM}	
48 VDC	1% V_{NOM} (480 mV _{NOM})	30mV _{NOM}	
125/130 VDC	2% V_{NOM} (2.5 V _{NOM})	100mV _{NOM}	

PROTECTION

- Input**
Breaker with Surge Protection
- Output**
Breaker with Surge Protection

BATTERY CELL SELECTION

- 24VDC:** 12L 18NC-20NC
- 48VDC:** 22L-26L 36NC-40NC
- 125VDC:** 53L-62L 83NC-98NC

OUTPUT CURRENT LIMIT

- Adjustable from 50 - 110%
(Factory set at 110%)

ADJUSTABLE VOLTAGE RANGE

- Float Voltage**
2.12 - 2.35 volts/cell (Lead)
1.35 - 1.45 volts/cell (NiCad)
- Equalize Voltage**
2.25 - 2.45 volts/cell (Lead)
1.45 - 1.6 volts/cell (NiCad)
Dynamic Response (on Battery) per
NEMA-PE5/IEEE-2405

METERING

- LCD DC Output Digital Voltmeter
and Ammeter (1%)

CONTROLS

- Float and Equalize Button**
Switch from Float to Equalize
- Configure Button**
Output Settings
Voltage and Cells
Adjust Voltage for Float & Equalize
Adjust Alarm Settings and Delay
High Voltage Shutdown
Enable/Disable Temperature Compensation
Equalize Timer
~ Multi-Mode Equalize Timer and Light;
adjustable from 1 - 145 hrs
~ Five selectable modes: Manual (Default Factory
Setting), 7-day, 14-day, 30-day and Auto EQ
on LV
- Battery Continuity Test**
Manual and Periodic Battery Test
- Lamp Test**
Tests LCD Display & LED's

ALARM CONTACTS

- AC Failure
 - Low DC Voltage
 - High DC Voltage
 - Charger Failure Alarm
- Form "C" contact rated 2A @ 30VDC/0.5A @ 125VAC

MONITORING

- LCD Display**
Volts
Amps
Status

MONITORING

- LED Indications**
Float (Green)
Equalize (Yellow)
AC ON (Green)
Charger Failure (Red)
Battery Fault (Red)
Current Limit (Yellow)
Low DC Current (Yellow)
High DC Voltage (Red)
Low DC Voltage (Red)
Negative Ground Detection (Red)
Positive Ground Detection (Red)

ENVIRONMENTAL

- Operating**
-20° to 70°C
(derated above 50°C)
- ≤ 62 dB Avg of 4-sides @5'
- Storage**
-40° to 85° C
- Relative Humidity**
5% to 95% non-condensing

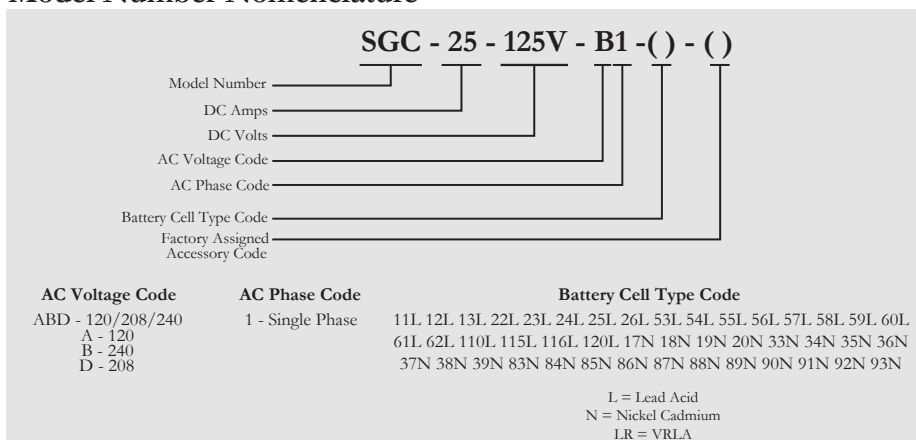
ENCLOSURE

- Structural Design**
Wall/Floor Mount NEMA 1/IP.20
powder coated
- Cable Entry**
Both sides, Top, Bottom

STANDARDS

- UL 1012/1564 dual listing (pending)
- CUL (pending)
- NEMA PE5
- C62.41A
- CE (pending)
- C37.90.1
- FCC Part 15B
- ICES-003
- IEEE-2405

Model Number Nomenclature



Front Panel Display

