



SGC

STATIONARY BATTERY CHARGER



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	Battery Continuity Test
Filtered Battery Charger	Alarm LED's and Form "C" Contacts
Automatic AC Voltage Compensation	LCD Display
AC & DC Surge Protection (MOV)	0°C to +50°C Operating Temperature
AC & DC Breaker	Soft Start
Temperature Compensation	Reverse Polarity Protection
Float/Equalize Mode Switch	Conformal Coated Circuit Boards
Digital Float and Equalize Adjustments	Meets NEMA PE5 and IEEE-2405
Digital Current Limit Adjustment 50 to 110%	UL/CUL 1012 (Pending)
±0.5% DC Voltage Regulation	2 Year Warranty
Over Temperature Protection	

Optional Accessories

11Y External Temperature Compensation Probe 100ft	57Y MODBUS (TCP/IP)
11L Lightning Arrestor	57L MODBUS RTU (RS-485)
11J Level-2 Ripple Filter (Aka: Battery Eliminator)	21P DNP3.0
--- ABD1 Multi-Tap 120/208/240V Input	



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.	Mounting	Overall Dimensions W x D x H	Shipping Weight	
			(A) 120	(D) 208	(B) 240	Rating				lbs	kg
SGC-30-24V	30	40/10 KAIC	10 (20)	7 (10)	6 (10)	10 KAIC	3	Wall/Floor	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	Wall/Floor	15.38 x 11.0 x 23.75" 391 x 279 x 603mm	140	64
SGC-25-48V	25	40/10 KAIC	24 (35)	14 (25)	12 (20)	10 KAIC	3	Wall/Floor	15.38 x 11.0 x 23.75** 391 x 279 x 603mm	145	66
SGC-50-48V	50	70/10 KAIC	24 (40)	14 (20)	12 (20)	10 KAIC	4	Wall/Floor	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	Wall/Floor	19.0 x 15.7 x 23.75** 483 x 399 x 602mm	175	79
SGC-25-125V	25	40/10 KAIC	61 (90)	35 (50)	31 (50)	10 KAIC	4	Wall/Floor	19.0 x 15.7 x 23.75** 483 x 399 x 602mm	200	91
SGC-30-125V	30	40/10 KAIC	73 (100)	42 (60)	37 (50)	10 KAIC	4	Wall/Floor	20.5 x 15.875 x 37.875** 521 x 403 x 962mm	210	95

*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 ±3Hz

DC OUTPUT

- 24VDC/48VDC/125VDC

REGULATION

- Line/Load: <±0.5%

OUTPUT FILTERING

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

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)
Voltage transient < ±5% over a step change in the load from 20% to 100%
Recovery Time < 200 mS

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 Automatic Battery Test
- Lamp Test
Tests LCD Display & LED's

ALARM CONTACTS

- AC Failure
 - Low DC Voltage
 - High DC Voltage
 - Summary
- 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)
Summary (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
0° to 50° C
- Less than 65dBA at any point 5 feet from any vertical surface of the unit.
- Storage
-40° to 85° C
- Relative Humidity
5% to 95% non-condensing

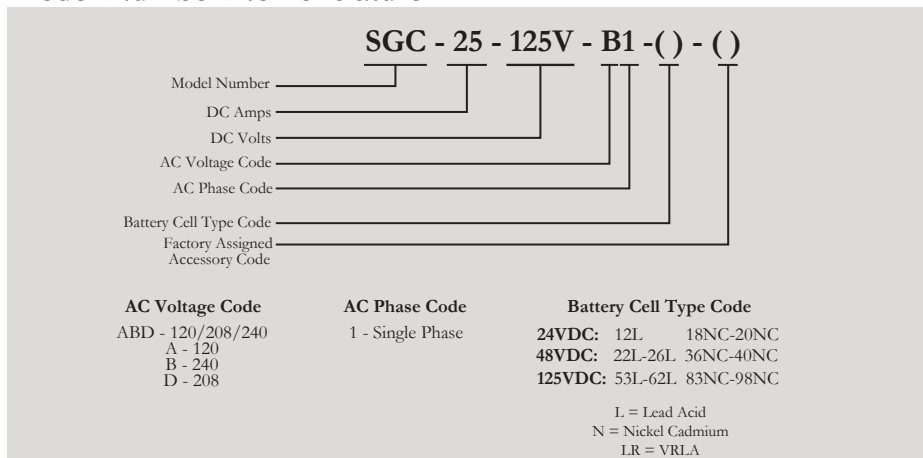
ENCLOSURE

- Structural Design
Wall or Floor mount,
Rack mounting options available
NEMA 1/IP20, 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 • IEEE-2405

Model Number Nomenclature



Front Panel Display

