

12-1007



# SWITCH GEAR & CONTROL

## SGC Series

Valve Regulated Lead Acid (VRLA) Battery Series  
Ideally Suited for Switchgear & Control Applications



### APPLICATIONS

- Battery Change-Out Trucks
- Electric Utility Substations
- Telephone Backup
- Microwave Sites
- Signaling Sites
- Offshore Platforms

### FEATURES & BENEFITS

#### HIGH RELIABILITY

- Thermally welded case-to-cover bond for hermetic, leak free seal
- Molded in terminal bushing for durability and leak free seal
- Thick positive grids and superior grid alloy for improved high temperature performance and longer life
- Complies with UL1778, UL924, UL1989 and UL94

#### SAFE OPERATION

- Flame-arresting one-way pressure-relief vent for safety and long life
- Flame-retardant polypropylene case and cover compliant with UL94 V-0 with an Limiting Oxygen Index greater than 28.
- Absorbent Glass Mat (AGM) technology for efficient gas recombination of 99% plus.

#### REDUCED MAINTENANCE

- No electrolyte maintenance required
- Multi-cell design for ease of installation by significantly minimizing connections
- Threaded copper alloy terminal inserts eliminate connection re-torque requirements

#### EASILY TRANSPORTED

- Not restricted for air transport - Complies with IATA/ICAO Special Provision A67
- Not restricted for surface transport – classified as non-hazardous material as related to DOT-CFR Title 49 parts 171-189
- Not restricted for water transport – Classified as non-hazardous material, complies with IMDG exception 238

Model	Rated Battery Capacity @ 8 hr rate to 1.75 volts per cell @ 77°F (25°C)	Maximum Discharge Current	Short Circuit Current @ 0.1 sec	Ohms Impedance 60 Hz (Ω)	Weight (lbs)	Weight (kg)
SGC 12-30	30.4 Ah	500 Amps	2150 Amps	0.0100 Ohms	27.3	12.4
SGC 12-45	45.5 Ah	600 Amps	2500 Amps	0.0060 Ohms	40.6	18.4
SGC 12-70	69.1 Ah	800 Amps	3100 Amps	0.0050 Ohms	55.8	25.3
SGC 12-80	79.0 Ah	800 Amps	3300 Amps	0.0040 Ohms	66.6	30.2
SGC 12-90	87.6 Ah	800 Amps	3600 Amps	0.0035 Ohms	74.5	33.8
SGC 12-125	126.0 Ah	800 Amps	5000 Amps	0.0023 Ohms	102.3	46.4

# SPECIFICATIONS

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Operating Temperature Range (with temperature compensation)</b>	Discharge: -40°F (-40°C) to +160°F (71°C) Charge: -10°F (-23°C) to +140°F (60°C)
<b>Normal Operating Temperature Range</b>	+74°F (23°C) to +80°F (27°C)
<b>Recommended Maximum Charging Current Limit</b>	C/5 amperes @ 20 hr rate
<b>Float Charging Voltage</b>	13.5 to 13.8 VDC/unit average at 77°F (25°C)
<b>Equalization and Cycle Service Charging and Current Limits</b>	14.4 to 14.8 VDC/unit average at 77°F (25°C)
<b>Maximum AC Ripple (Charger)</b>	0.5% RMS or 1.5% P-P of float charge voltage recommended for best results Maximum voltage allowed = 4% P-P Maximum current allowed = C/20 RMS
<b>Self Discharge</b>	Up to 6 months at 77°F (25°C) and then a freshening charge is required. Batteries stored at temperatures at greater than +77°F (25°C) will require recharge sooner than batteries stored at temperatures less than 77°F (25°C). See C&D brochure 41-7272, Self Discharge and Inventory Control for details.
<b>Accessories</b>	Rack systems are available for all models
<b>Terminal: Inserted</b>	Threaded copper alloy insert terminal to accept 10-32 UNF x 3/8 in. long screws (SGC 12-30 & SGC 12-45) 1/4-20 UNC x 3/4 in. long screws (SGC 12-70, SGC 12-80, SGC 12-90, and SGC 12-125)
<b>Terminal Hardware Torque</b>	25 in.-lbs (2.8 N-m) (SGC 12-30 & SGC 12-45) 110 in.-lbs (12.4 N-m) (SGC 12-70, SGC 12-80, SGC 12-90, and SGC 12-125)

# DIMENSIONS

							Battery Termination		
							SGC 12-30	SGC 12-45	SGC 12-70
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>			
							<b>SGC 12-80</b>	<b>SGC 12-90</b>	<b>SGC 12-125</b>
<b>SGC 12-30</b>	7.77 (197.4)	7.54 (191.4)	5.19 (131.9)	5.02 (127.6)	6.52 (165.7)	6.80 (172.7)			
<b>SGC 12-45</b>	8.99 (228.3)	8.86 (225.1)	5.48 (139.2)	5.31 (134.8)	7.89 (200.3)	8.07 (205.1)			
<b>SGC 12-70</b>	10.26 (260.5)	10.17 (258.4)	6.83 (168.9)	6.65 (168.9)	7.89 (200.3)	8.01 (203.5)			
<b>SGC 12-80</b>	12.04 (305.8)	11.95 (303.5)	6.83 (173.4)	6.65 (168.9)	7.94 (201.6)	8.06 (204.8)			
<b>SGC 12-90</b>	13.42 (340.9)	12.75 (323.7)	6.80 (172.7)	6.54 (166.0)	8.40 (213.2)	8.52 (216.4)			
<b>SGC 12-125</b>	13.57 (344.7)	12.74 (323.6)	6.80 (172.7)	6.63 (168.4)	10.81 (274.5)	10.93 (277.7)			

All dimensions in inches and (millimeters). All dimensions are for reference only. Contact a C&D Representative for complete dimension information.

## RATINGS PER CELL

Models	End Point Volts/Cells	Constant Current Discharge Ratings @ 77°F (25°C)									
		Amperes									
		1 min	15 min	30 min	1 hr	2 hr	3 hr	4 hr	5 hr	8 hr	12 hr
SGC 12-30	1.75	137.8	59.3	36.2	22.1	13.0	9.2	7.2	5.8	3.8	2.7
	1.80	128.0	56.2	34.5	21.0	12.4	8.8	6.9	5.6	3.7	2.6
	1.85	116.0	51.5	32.1	19.6	11.6	8.4	6.6	5.4	3.5	2.5
	1.90	104.2	47.9	29.9	18.5	11.1	8.0	6.4	5.2	3.4	2.4
SGC 12-45	1.75	156.0	79.9	51.8	31.5	18.5	13.2	10.3	8.5	5.7	4.0
	1.80	138.0	71.5	47.7	30.0	18.0	13.0	10.0	8.2	5.5	3.9
	1.85	113.4	63.7	43.9	28.0	17.4	12.7	9.9	8.1	5.4	3.8
	1.90	89.6	54.4	39.4	26.2	16.5	12.2	9.5	7.8	5.2	3.6
SGC 12-70	1.75	198.8	117.3	75.7	46.8	27.5	19.8	15.6	12.9	8.6	6.0
	1.80	178.9	108.0	71.0	44.5	26.8	19.2	15.0	12.3	8.4	5.9
	1.85	163.4	100.1	66.3	41.8	25.5	18.3	14.3	11.9	8.1	5.6
	1.90	147.1	89.4	61.2	39.5	24.2	17.3	13.6	11.3	7.7	5.4
SGC 12-80	1.75	302.0	140.0	88.4	53.8	31.5	22.6	17.5	14.5	9.9	6.9
	1.80	264.7	128.6	81.8	51.1	29.8	21.6	17.0	14.0	9.6	6.7
	1.85	212.0	117.2	77.4	47.0	27.5	20.3	16.1	13.4	9.1	6.4
	1.90	172.4	103.8	67.5	43.0	25.4	18.5	15.0	12.5	8.5	5.9
SGC 12-90	1.75	331.1	159.4	102.3	60.0	34.8	25.0	19.8	16.2	11.0	7.8
	1.80	273.7	145.1	92.6	57.0	33.0	24.0	19.0	15.6	10.6	7.6
	1.85	234.6	130.1	85.5	53.3	31.4	22.8	18.0	15.0	10.1	7.2
	1.90	185.9	115.2	78.8	49.5	29.9	21.7	17.1	14.2	9.5	6.7
SGC 12-125	1.75	445.3	221.3	145.2	87.5	49.0	36.0	28.4	23.6	15.8	10.8
	1.80	370.8	202.1	135.3	82.5	47.3	34.7	27.5	22.7	15.2	10.6
	1.85	309.0	186.4	121.7	77.0	44.0	32.5	26.3	21.8	14.5	10.1
	1.90	275.0	172.1	113.4	71.0	41.5	30.7	24.3	20.2	13.4	9.4



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