

SPG SERIES - GEL DEEP CYCLE BATTERY

SPG12-100 (12V 100Ah)

Features

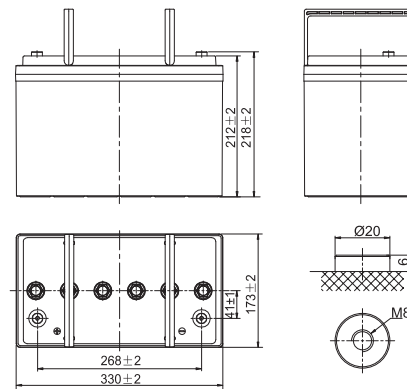
- ✓ 10 years design life (25°C)
- ✓ Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- ✓ PbCaSn alloy for plate grids: less gassing, less self-discharging
- ✓ High quality AGM separator: extend cycle life and prevent micro short circuit
- ✓ High purity raw material: ensure low self discharge rate

Applications

- ✓ All purpose
- ✓ Uninterruptable Power Supply (UPS)
- ✓ Electric Power System (EPS)
- ✓ Emergency backup power supply
- ✓ Alarm and security system
- ✓ Communication power supply
- ✓ DC power supply
- ✓ Auto control system
- ✓ Solar Power Systems
- ✓ Wheel chair and Mobility Scooters



LAYOUT



Standards

- ✓ Compliance with IEC 60896 standards, EU Battery Directive
- ✓ UL, CE Certified
- ✓ Manufactured at Supreme Power Systems, ISO Certified Production facilities® IATF 16949, ISO 45001, ISO 9001 and ISO 14001 certified production facilities

SPECIFICATIONS

Rated Voltage	12V	
Nominal Capacity	100Ah	(C ₆₄ , 1.80V/cell)
Dimensions	Length	330±2mm (13.0 inches)
	Width	173±2mm (6.81 inches)
	Container height	212±2mm (8.35 inches)
	Total height	218±2mm (8.58 inches)
Approx. weight	31.2kg (68.8 lbs)	
Terminal	M8	
	ABS	
Rated capacity (25°C)	100.0 Ah	C20(10.0A,1.80V/cell)
	90.0 Ah	C10(9.00A,1.80V/cell)
	79.5 Ah	C5(15.9A,1.75V/cell)
	71.1 Ah	C3(23.7A,1.75V/cell)
	57.0 Ah	C1(57.0A,1.60V/cell)
Max. discharge current	1000A (5s)	
Internal resistance (25°C)	Approx 3.2mΩ	
Operating temp. range	Discharge	-20~55°C (-4~131°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-15~50°C (5~122°F)
Nominal operating temp. range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 25A. Voltage 2.23V~2.27V at 25°C(77°F)Temp. Coefficient -3mV/°C	
Equalization Use	Initial Charging Current less than 25A.Voltage 2.30V~2.37V at 25°C(77°F)Temp. Coefficient -4mV/°C	
Cycle Use	Initial Charging Current less than 25A.Voltage 2.40V~2.50V at 25°C(77°F)Temp. Coefficient -5mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self discharge	SP series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	

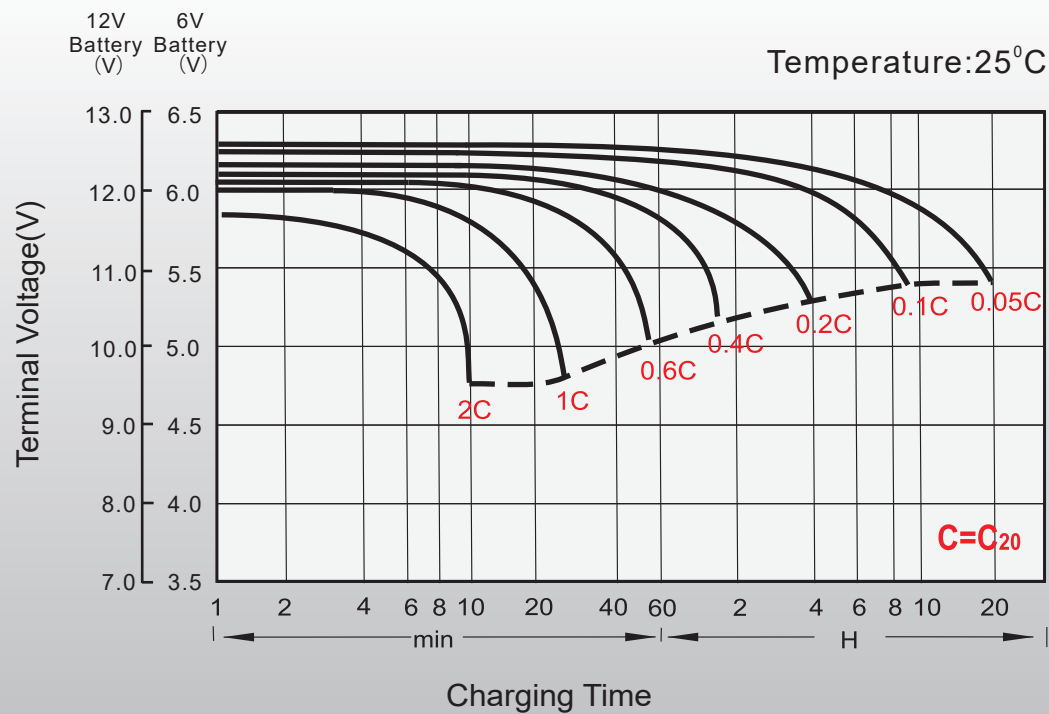
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	2h
1.85V/cell	118.4	102.7	80.8	65.3	52.1	42.3	30.8	26.1	20.8	16.9	14.7	12.8	10.4	8.82	4.75
1.80V/cell	134.4	116.4	91.3	75.8	59.2	46.8	34.0	28.8	22.8	18.3	15.5	13.6	10.9	9.00	5.00
1.75V/cell	145.8	126.0	98.6	79.2	61.4	52.5	37.5	30.9	23.7	18.9	15.9	14.0	11.0	9.27	5.11
1.70V/cell	152.5	132.3	103.7	82.9	63.7	54.2	38.3	31.5	24.5	19.3	16.4	14.3	11.2	9.36	5.26
1.67V/cell	160.4	137.7	107.4	85.2	64.9	55.2	39.1	32.1	24.8	19.6	16.7	14.5	11.3	9.45	5.30
1.60V/cell	165.9	142.0	110.1	90.4	68.0	57.0	40.3	32.8	25.0	19.8	16.8	14.7	11.4	9.51	5.33

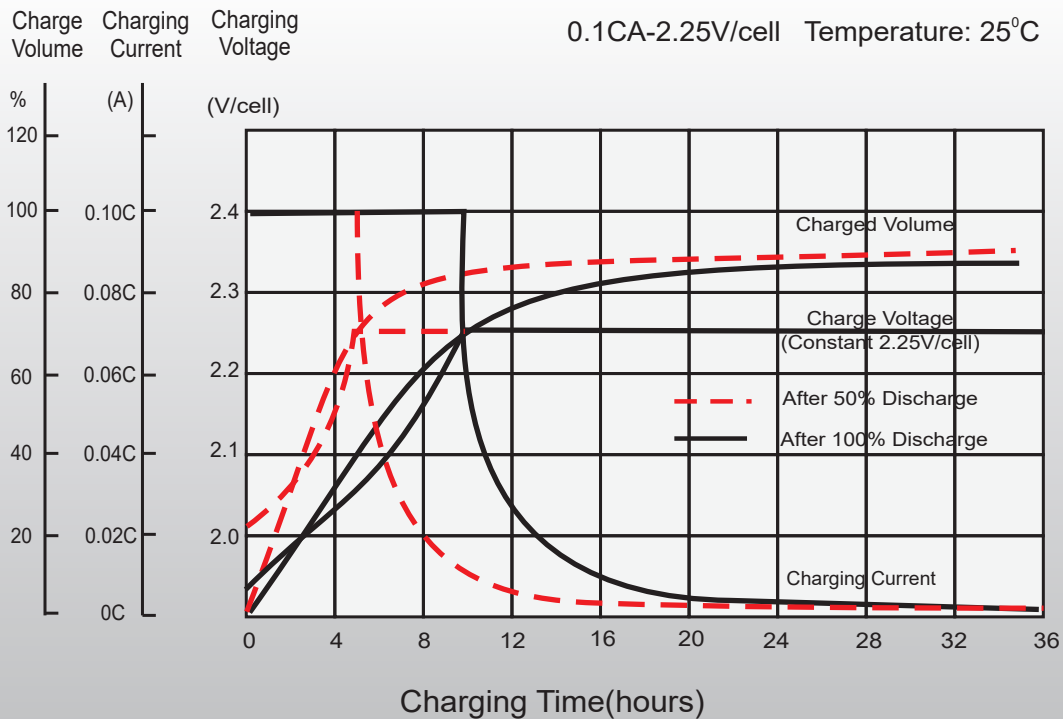
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	2h
1.85V/cell	222.8	194.4	153.6	123.2	98.8	82.2	60.0	51.1	40.7	33.2	28.9	25.3	20.6	17.5	9.10
1.80V/cell	249.2	217.5	171.8	141.6	111.2	90.4	65.9	56.0	44.5	35.9	30.3	26.7	21.4	17.8	9.50
1.75V/cell	266.0	232.1	183.4	146.7	114.6	100.6	72.2	59.8	46.1	36.9	31.2	27.5	21.7	18.3	9.80
1.70V/cell	273.4	240.6	190.6	151.9	117.9	102.8	73.9	61.3	46.9	37.3	32.0	27.9	22.0	18.4	10.0
1.67V/cell	284.2	248.0	195.9	155.2	119.6	104.5	75.2	62.4	47.5	37.8	32.4	28.2	22.1	18.5	10.1
1.60V/cell	288.2	251.5	198.7	162.2	124.2	106.9	76.4	62.8	47.7	32.6	28.4	23.6	22.2	18.6	10.1

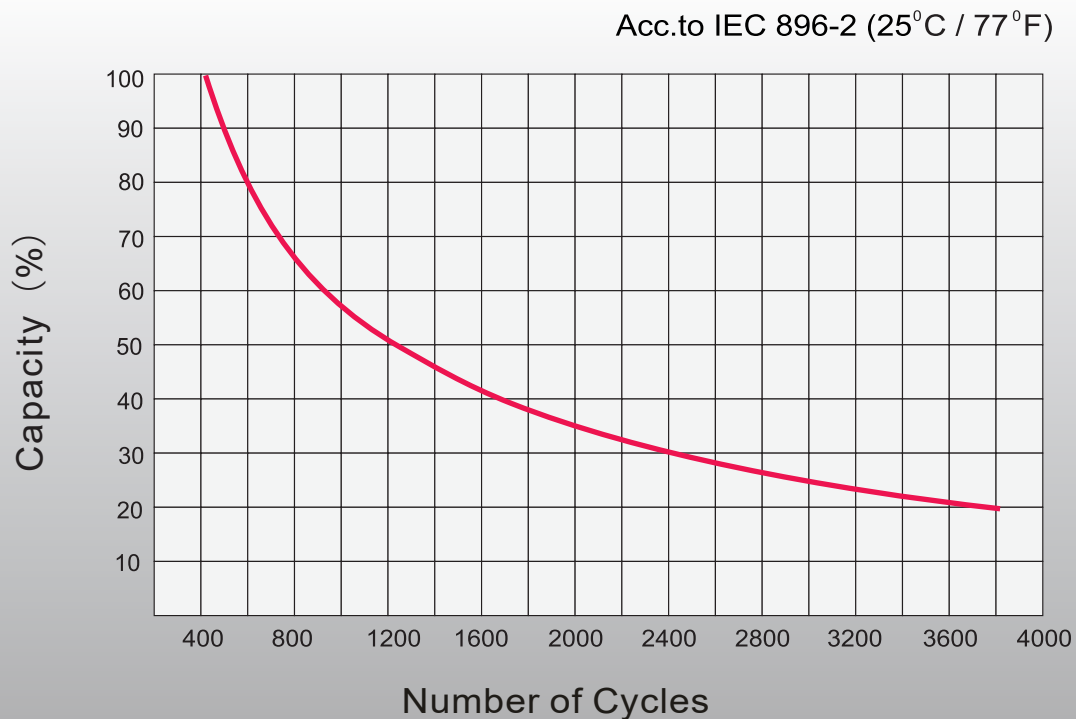
Discharge Characteristics



Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Effect of Temperature on Long Term Float Life

