SCPV12-285DG 12V 285Ah

The SCPV12-285DG is a GEL deep cycle battery has 12 years floating design life and is designed for frequent cyclic discharge applications under extreme temperature. By using strong grid to insure reliable performance under frequent cyclic discharge use 400 cycles could be available at 100% DOD. This model offers extra-durable cyclic performance, high efficiency of recovery which is highly suited for solar applications.

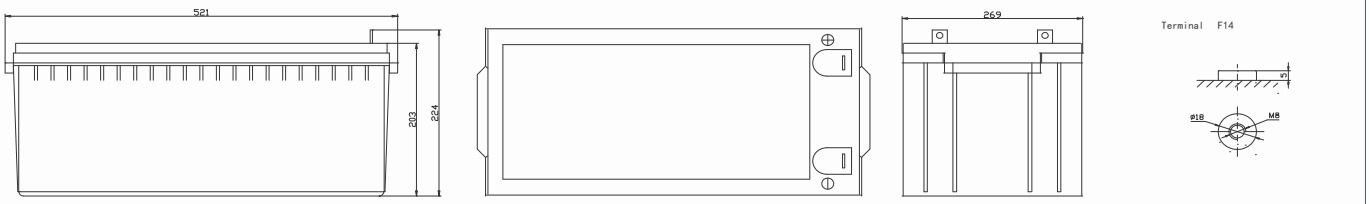
Silicon CPV plc

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	285Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 74.0 Kg
Max. Discharge Current	2600 A (5 sec)
Internal Resistance	Approx. 3.5 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	78A
Equalization and Cycle Service	14.6 to 14.8VDC/unit Average at 25°C
Self-Discharge	Silicon CPV Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge rate is less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal F14
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.

Dimensions

Unit: mm Dimension: 520(L)×268(W)×220(H)



Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	708.7	530.8	448.1	292.9	169.0	101.1	69.90	57.28	46.89	32.30	27.31	15.02
10.0V	688.2	505.1	438.9	288.1	168.2	100.4	69.63	57.02	46.61	32.03	27.05	14.75
10.2V	667.8	487.3	432.0	285.5	166.7	99.60	69.09	56.75	46.34	31.77	26.78	14.47
10.5V	599.6	449.6	411.3	278.4	165.1	98.84	68.82	56.22	45.78	31.51	26.52	14.20
10.8V	541.2	410.0	379.2	266.2	161.2	97.07	66.95	54.90	44.96	30.98	26.26	13.93
11.1V	462.1	366.4	340.1	249.4	153.1	92.76	64.00	52.24	43.03	29.67	25.47	13.11

Constant Power Discharge Characteristics: W (25°C)

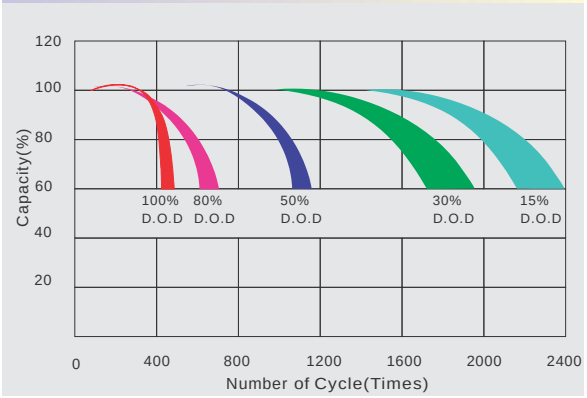
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	7330	5653	4929	3339	1953	1192	831.8	682.8	559.4	385.6	326.3	180.1
10.0V	7185	5480	4850	3299	1948	1186	832.1	681.9	557.9	383.8	324.3	177.0
10.2V	7103	5335	4795	3275	1933	1178	828.4	680.5	556.0	381.3	321.4	173.7
10.5V	6467	4968	4574	3199	1916	1170	825.2	674.1	549.4	378.1	318.2	170.4
10.8V	5890	4580	4228	3066	1880	1155	802.7	658.8	539.5	371.8	315.1	167.1
11.1V	5173	4141	3806	2880	1800	1112	768.1	626.9	516.3	356.1	305.6	157.3

All shown values are average values.

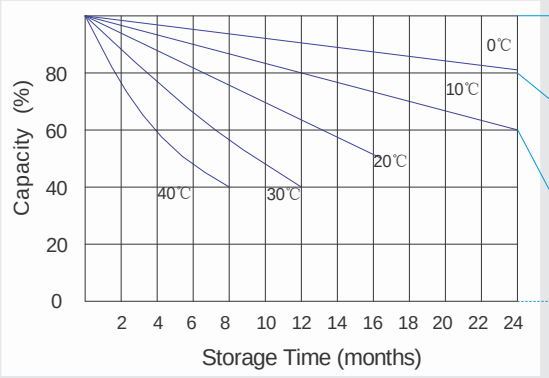
SCPV12-285DG

12V 285Ah

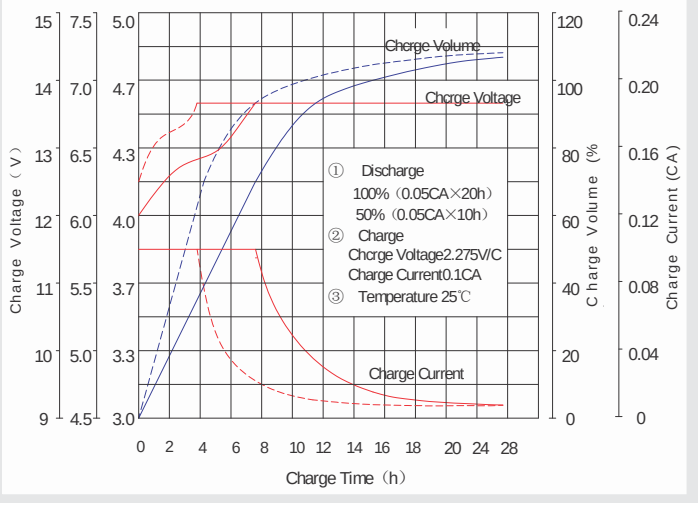
Life characteristics of cyclic use



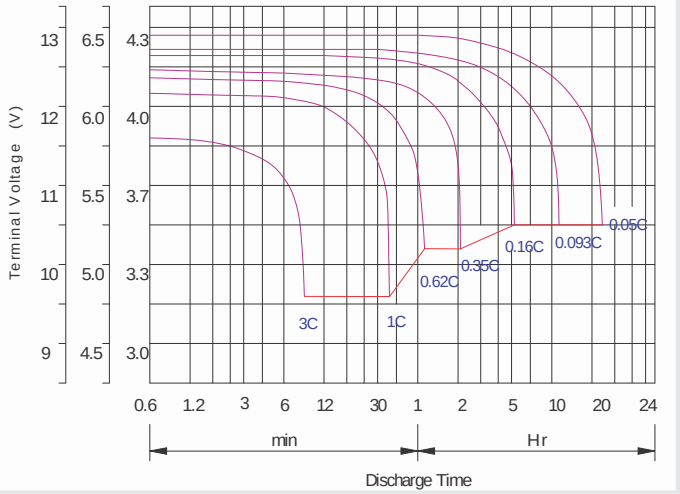
Storage characteristic



Charge characteristic curve for cyclic use



Discharge characteristic curve



Capacity Factors With Different Temperature

Battery Type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	（A）≤0.2C	0.2C＜（A）＜1.0C	（A）≥1.0C

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h,Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

Maintenance & Cautions

Cycle service
※ Avoid battery over discharge, especially battery series connection use.
※ Charged with recommend voltage, ensure battery can be full recharged.
In general, recharge capacity should be 1.1-1.15 times discharge capacity.
※ Effect of temperature on cycle charge voltage: -4mV/℃/Cell.
※ There are a number of factors that will affect the length of cyclic service.
The most significant are depth of discharge, ambient temperature,
discharge rate, and the manner in which the battery is recharged.
Generally speaking, the most important factors is depth of discharge.

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