SCPV2-2000 (2V2000Ah)

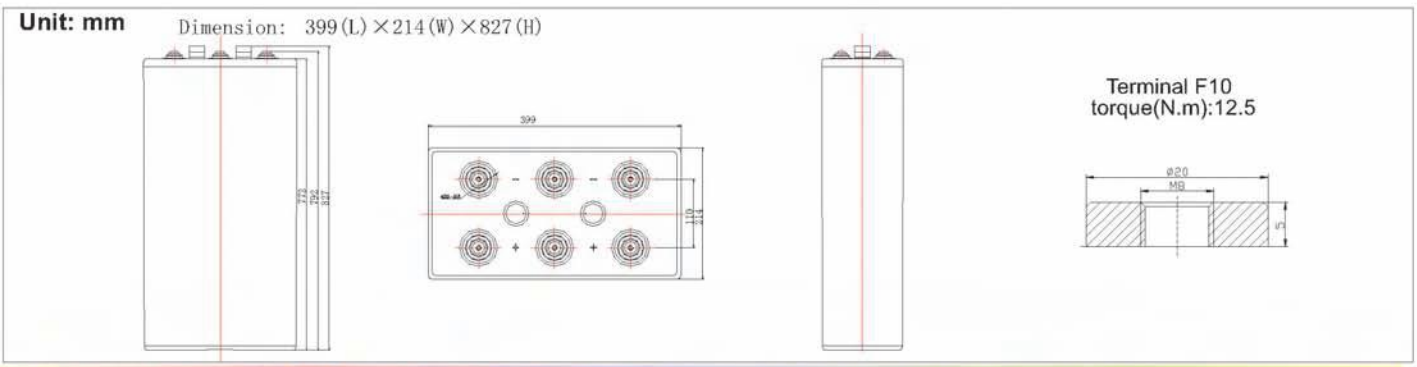
Silicon CPV SCPV2 series is a flooded Lead Acid battery that adopts Tubular Plate technology to offer high reliability and performance. The Battery is designed and manufactured according to DIN40736-2/IEC60896-11 standards and with die-casting positive spine and patent formula of active material. SCPV2 series exceeds DIN40736-2/IEC60896-11 standard values with more than 20 years floating design life at 25℃ and is even more suitable for cyclic use(PV/solar,traction etc) under extreme operating conditions.

Silicon CPV

Specification

Voltage Per Unit	2V
Capacity	2000Ah@10hr-rate to 1.85V per cell @25°C
Approx Weight	Without Electrolyte 112.8 kg With Electrolyte 153.4 kg
Max. Discharge Current	7500 A (5 sec)
Internal Resistance	Approx. 0.17 mΩ
Operating Temperature Range	Discharge: -15°C~50°C Charge: 0°C~40°C Storage: -15°C~50°C
Optimal Operating Temperature Range	25°C±5°C
Float charging Voltage	2.23 to 2.25 V(DC)/cell at 25°C
Maximum Charging Current	200A
Cycle Service	2.40 to 2.45 V(DC)/cell at 25°C
Self Discharge	Self-discharge rate less than 3.5% per month at 25°C. Please charge batteries before using.
Terminal	Thread insert & Bolt (F10-M8)
Container Material	A.S. (UL94-HB), and UL94-V0 is optional

Dimensions



Constant Current Discharge Characteristics : A(25°C)

F.V/ Time	30min	1h	2h	4h	5h	6h	8h	10h	20h
1.90	1064	843.6	594.8	359.1	319.2	279.3	218.0	186.9	107.5
1.87	1190	930.1	638.1	379.1	337.6	296.1	228.1	195.3	112.3
1.83	1363	1038	692.2	399.0	352.8	306.6	238.3	203.7	117.1
1.80	1514	1125	718.1	407.0	361.0	315.0	244.4	210.0	120.8
1.75	1687	1205	750.6	413.7	367.5	321.3	248.5	214.2	123.2
1.70	1860	1244	772.2	420.9	373.2	325.5	250.6	216.3	124.4
1.65	1919	1322	798.1	426.9	378.3	329.7	252.6	218.4	125.6
1.60	2001	1367	828.4	438.9	386.4	333.9	254.6	220.5	126.8

Constant Power Discharge Characteristics : W(25°C)

F.V/ Time	30min	1h	2h	4h	5h	6h	8h	10h	20h
1.90	2037	1619	1150	702.8	627.5	552.3	435.9	380.9	219.0
1.87	2241	1759	1220	740.8	662.3	583.8	454.3	397.2	228.4
1.83	2511	1917	1298	776.7	689.7	602.7	470.5	411.5	236.6
1.80	2743	2046	1341	791.4	704.4	617.4	480.7	421.7	242.5
1.75	2976	2137	1385	802.0	714.9	627.9	486.8	427.8	246.0
1.70	3191	2159	1420	814.7	724.4	634.2	490.9	431.8	248.3
1.65	3246	2254	1459	825.2	732.9	640.5	495.0	433.9	249.5
1.60	3285	2324	1493	846.3	745.5	644.7	497.0	435.9	250.7

All mentioned values are average values.

SCPV2-2000

2V2000Ah

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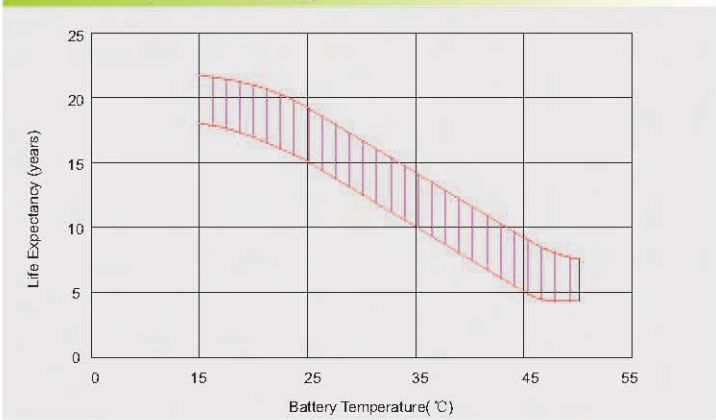
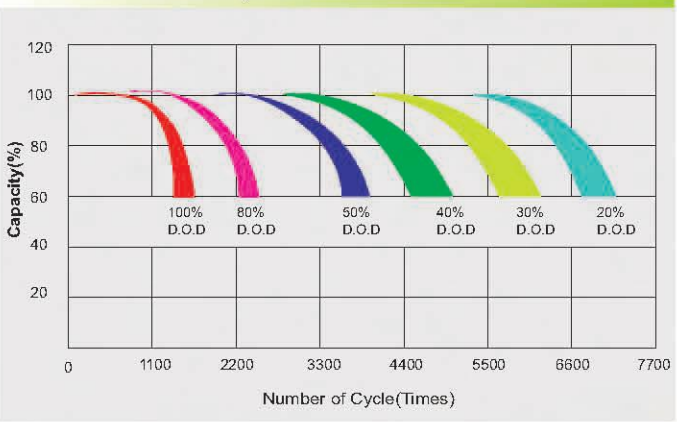
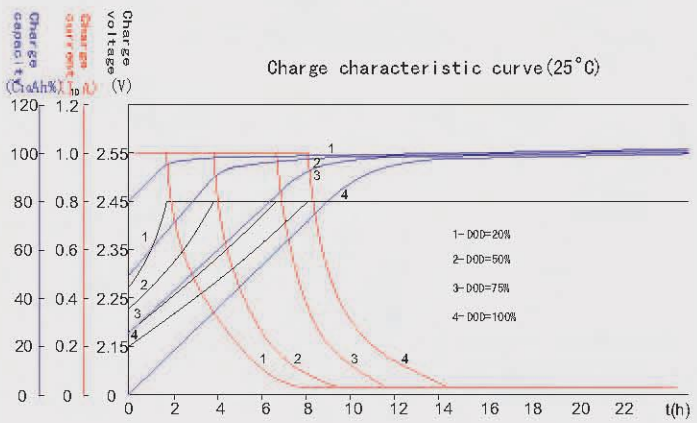
Effect of temperature on long term float life



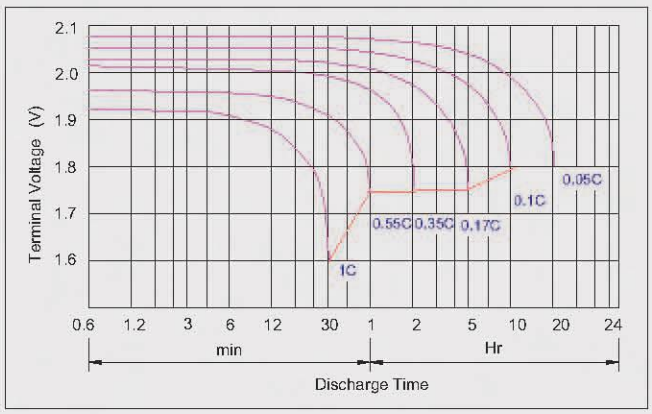
Life characteristics of cyclic use



Charge characteristic Curve for cyclic use



Discharge characteristic Curve



Long time discharge capacity for solar/wind application						
Model \ Capacity	C24 (Ah)	C48 (Ah)	C72 (Ah)	C100 (Ah)	C120 (Ah)	C240 (Ah)
	F.V=1.85VPC					
OPzS2-2000	2394.0	2644.8	2777.0	2840.7	2897.5	2946.0

Capacity factors vs temperature (OPzS series)											
Temperature	-30°C	-20°C	-10°C	0°C	10°C	20°C	25°C	30°C	40°C	45°C	50°C
Capacity	60%	75%	83%	89%	92%	99%	100%	103%	105%	107%	109%

Discharge Current VS. Final Voltage

Discharge current (Amp)	Final voltage (V/cell)
$I_{dis} \leqslant 0.1 I_{10}$	1.90
$0.1 I_{10} < I_{dis} \leqslant I_{10}$	1.85
$I_{10} < I_{dis} \leqslant 4 I_{10}$	1.80
$4 I_{10} < I_{dis} \leqslant 6 I_{10}$	1.75
$6 I_{10} < I_{dis} \leqslant 10 I_{10}$	1.70
$I_{dis} > 15 I_{10}$	1.60

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

Charging Method:

Constant Voltage	-0.1Cx2h+2.40~2.45V,24h,Max. Current 0.1CA
Constant Current	-0.1Cx2h+0.1Cx10h+0.05Cx6h

Maintenance & Cautions

Float Service:
※ Every six months, recommend inspection every battery voltage.
※ Every six months, recommend equalization charge for one time.
Equalization charge method:
Discharge: 40~50% rate capacity discharge.
Charge: Max. current 0.1CA, constant voltage 2.40-2.45V/cell charge 24h.
※ Effect of temperature on float charge voltage: -3mV/℃/cell.
※ Service life will be directly affected by the number of discharge
cycles, depth of discharge, ambient temperature and charging method.

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