

General Application

The Solar Series is highly suited for cyclic applications such as Wheelchair, Solar, Marine or Wind Turbine power systems applications. By combining the newly developed Gel Electrolyte with high density paste, VCELL created an innovative range of Solar Batteries. The range offers high recharge efficiency at very low charge current. The acid Stratification is highly depressed by adding of Gel.

Specification

• NOMINAL VOLTAGE(V)	: 12
• NOMINAL CAPACITY(25°C)	: 250 Ah@10HR-rate (to 1.80Vpc)
• DIMENSIONS	
TOTAL HEIGHT	: 223 mm (8.78 inches)
CONTAINER HEIGHT	: 220 mm (8.66 inches)
LENGTH	: 521 mm (20.51 inches)
WIDTH	: 269 mm (10.59 inches)
• WEIGHT	: APPROX 72.5 Kg (160 lbs)
• CONTAINER MATERIAL	: ABS
• INTERNAL RESISTANCE(25°C)	: Approx.0.0026Ω
• MAX DISCHARGE CURRENT(5S)	: 1500 A
• CAPACITY AFFECTED BY TEMP.	
40°C	: ~103%
25°C	: ~100%
0 °C	: ~86%

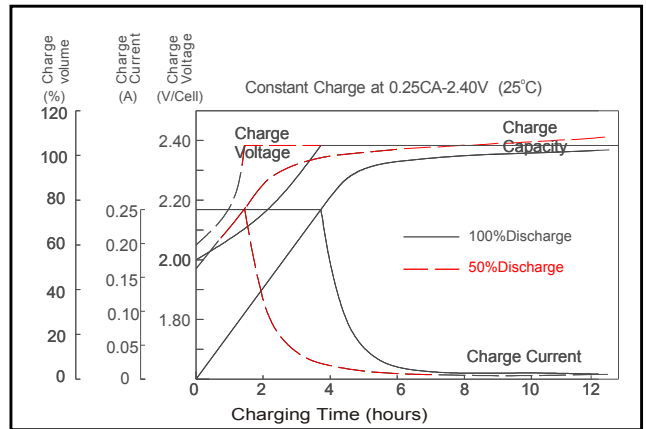
Characteristics

- CYCLE USE CHARGE VOLTAGE(25 °C)
: 14.4~15.0V
(-5mV/ cell / °C)
- STANDBY USE CHARGE VOLTAGE(25°C) : 13.6~13.8V
(-3mV/ cell / °C)
- SELF DISCHARGE: 3% of capacity declined per month@ 25°C

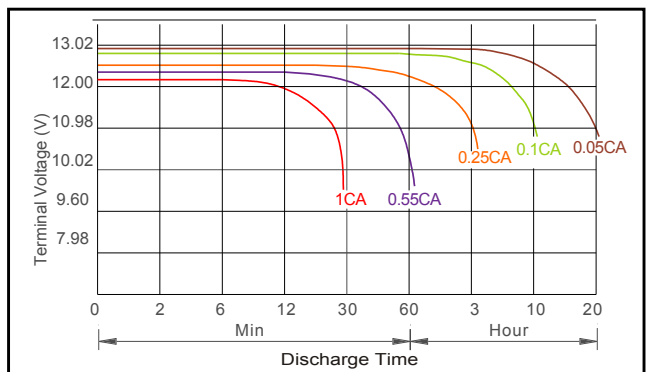
Operating Temperature

- Operating Temp. Range
 - Discharge : -20~55°C
 - Charge : 0~40°C
 - Storage : -20~50°C
- Nominal Operating Temp. Range : 25±3°C

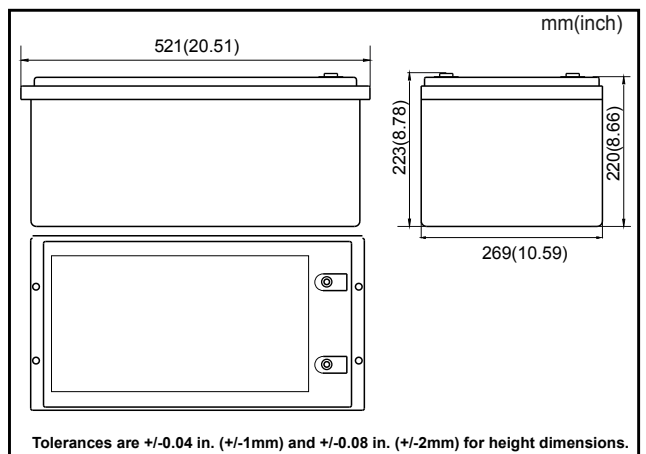
Float Charging Characteristic



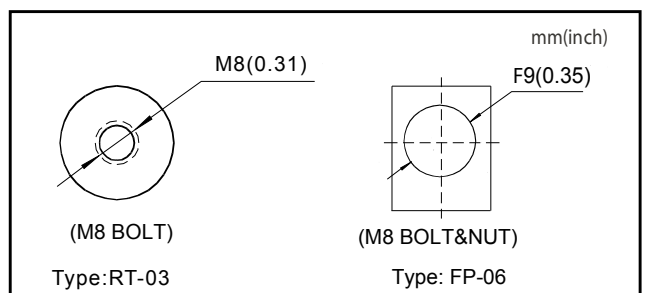
Discharge Characteristics @25 °C



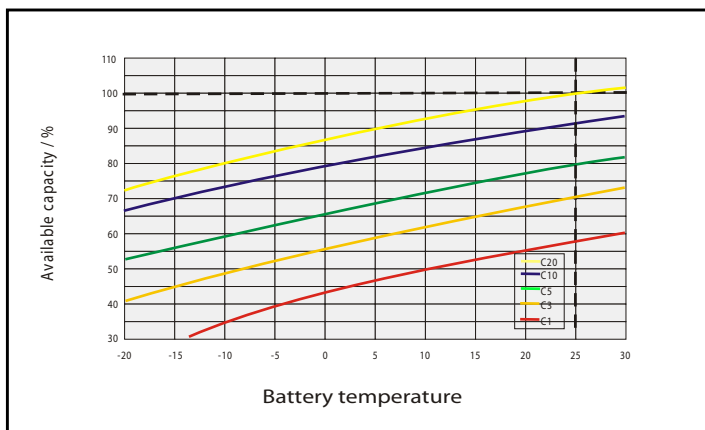
Dimensions



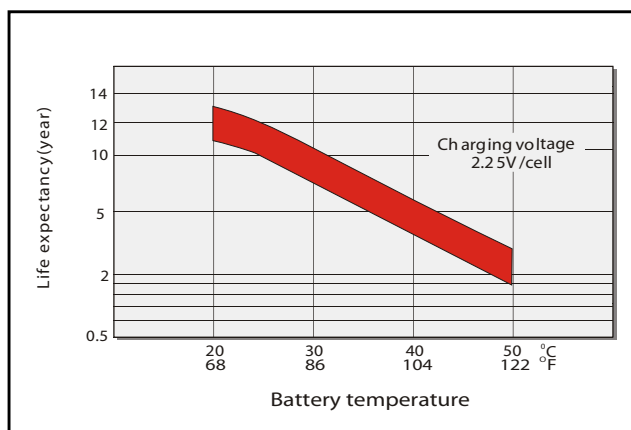
Terminal



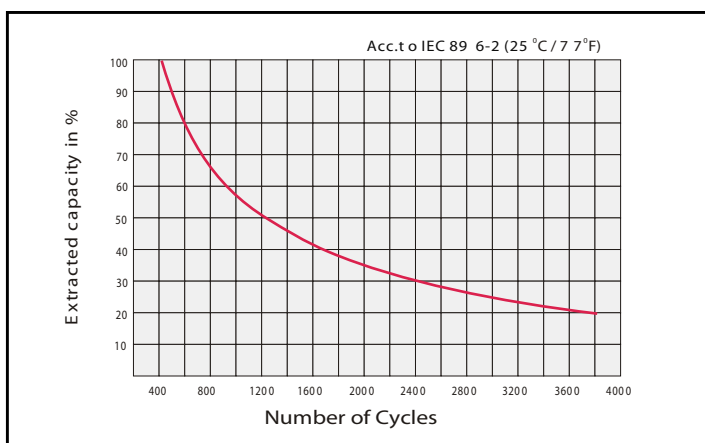
Temperature vs Battery capacity



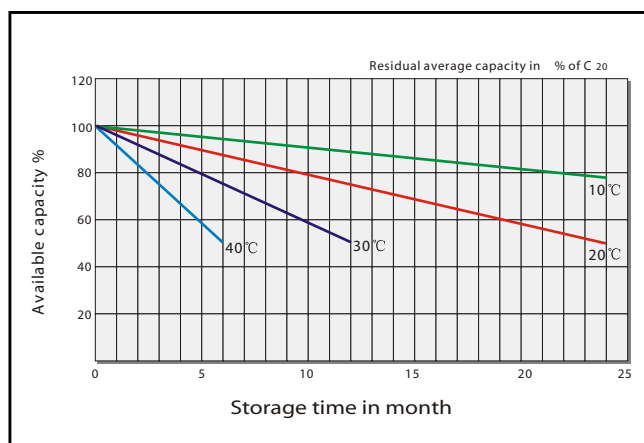
Temperature vs Float life



Depth of Discharge VS Cycle Life @25 °C



Capacity vs Storage Time



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

F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V/cell	254	159	95.2	69.2	55.2	46.0	31.3	25.9	13.6
1.75V/cell	245	156	93.5	68.1	54.6	45.4	30.9	25.5	13.4
1.80V/cell	234	151	91.5	66.8	53.3	44.4	30.2	25.0	13.1
1.85V/cell	221	144	88.0	64.6	51.8	43.3	29.5	24.4	12.8

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

F.V/Time	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.70V/cell	475	300	181	132	105	88.9	61.0	50.6	26.9
1.75V/cell	463	297	180	131	104	88.5	60.6	50.3	26.5
1.80V/cell	446	289	177	130	102	87.1	59.7	49.7	26.2
1.85V/cell	425	280	172	127	100	85.7	58.8	48.7	25.8