



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	65Ah@ 20hr-rate to 1.75V per cell @25°C
Weight	Approx. 21 Kg
Size (L x W x H x Total H)	350 x 167 x 179 x 182 mm.
Max. Discharge Current	325 A (5 sec)
Internal Resistance	Approx. 6 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	19.5 A
Equalization and Cycle Service	14.5 to 14.9 VDC/unit Average at 25°C
Self Discharge	SPA batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
Terminal	Faston F6
Container Material	A. B. S. (UL94-HB) Flammability resistance of UL94-V1 can be available upon request.



Dimensions

Unit: mm



Constant Current Discharge Characteristics Unit: A(25°C)

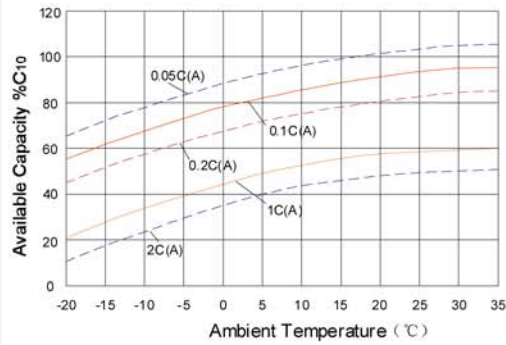
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	243	174	127	75	42.3	25.9	17.0	14.0	11.1	8.0	6.8	3.6
1.67V	237	166	124	74	42.1	25.7	16.9	14.0	11.0	7.9	6.7	3.5
1.70V	223	160	122	73	41.7	25.5	16.8	13.9	10.9	7.9	6.6	3.4
1.75V	200	148	116	71	41.3	25.4	16.7	13.8	10.8	7.8	6.6	3.4
1.80V	181	135	107	68	40.3	24.9	16.3	13.5	10.6	7.7	6.5	3.3
1.85V	157	120	96	64	38.3	23.8	15.5	12.8	10.1	7.3	6.3	3.1

Constant Power Discharge Characteristics Unit: W(25°C)

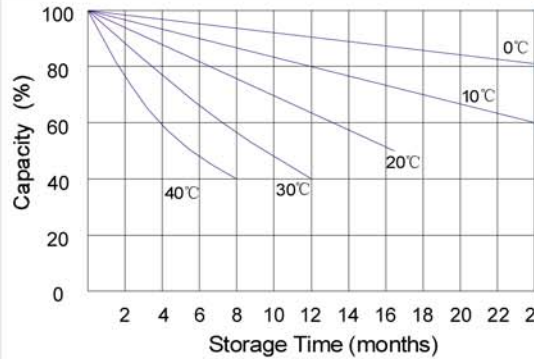
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	436	319	235	141	80.5	49.7	32.6	27.0	21.3	15.5	12.7	6.7
1.67V	427	304	230	139	80.1	49.5	32.6	27.0	21.2	15.4	12.5	6.6
1.70V	403	294	227	137	79.6	49.1	32.4	26.8	21.1	15.3	12.5	6.6
1.75V	363	272	216	134	78.8	48.6	32.2	26.7	20.9	15.1	12.4	6.5
1.80V	326	247	199	128	76.8	47.9	31.4	25.9	20.6	14.8	12.2	6.4
1.85V	282	219	177	120	72.8	45.7	29.8	24.7	19.6	14.3	11.8	6.2

All mentioned values are average values.

Temperature effects curve



Storage characteristic



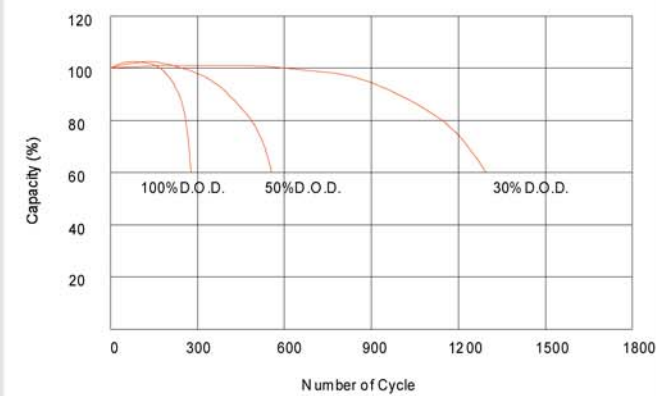
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

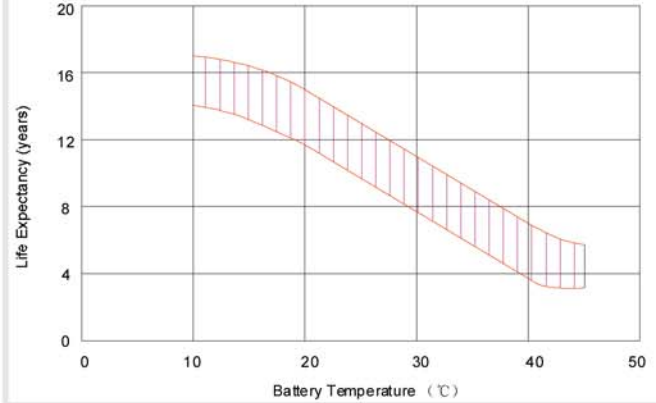
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

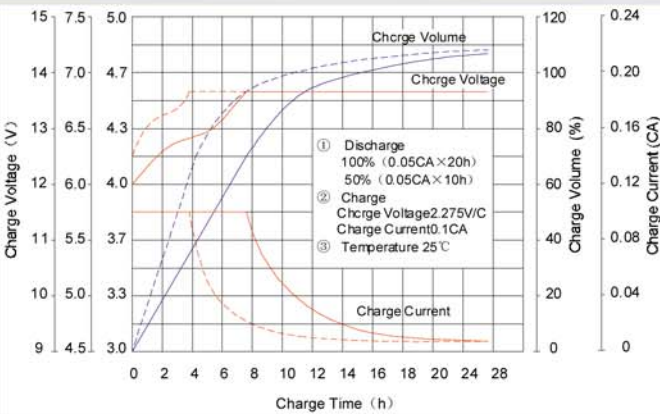
Life characteristics of cyclic use



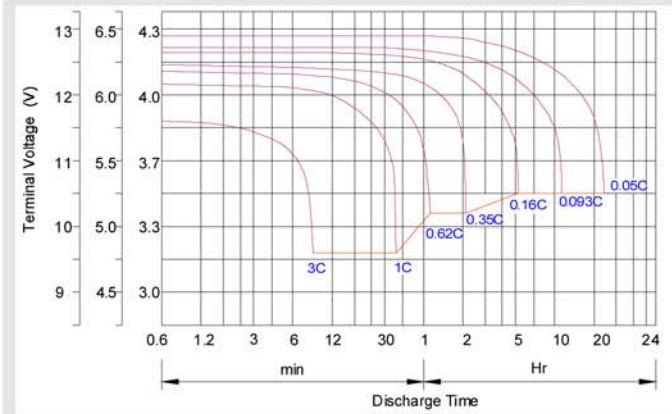
Effect of temperature on long term float life



Charge characteristic Curve for standby use



Discharge characteristic Curve



Charging Procedures

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.7	14.5~14.9	0.3C
Standby	25°C	13.7	13.6~13.8	0.3C

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	14.5~14.9V, 5~11h, Max. Current 0.3CA
------------------	---------------------------------------