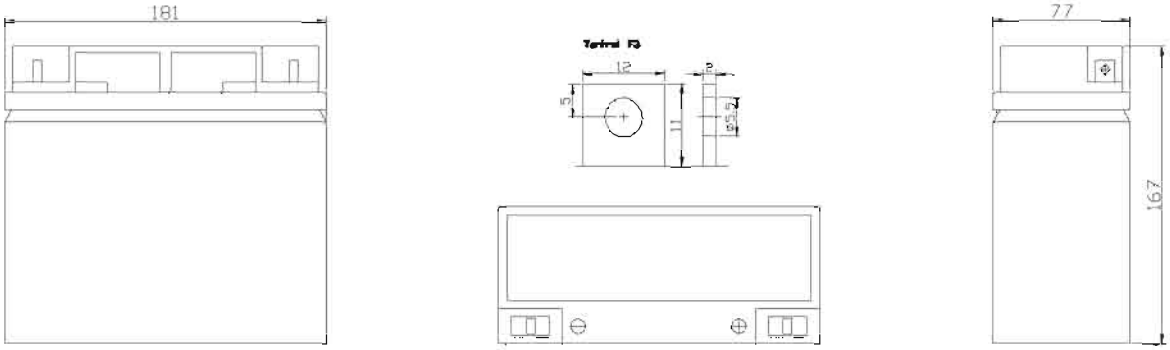
SL12-21 (12V21AH)

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	21.0Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 5.9 Kg
Size (L x W x H x Total H)	181 x 77 x 167 x 167 mm.
Max. Discharge Current	200 A (5 sec)
Internal Resistance	Approx. 12 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	6.0 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 F3
Constainer Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V2 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	87.15	58.28	44.84	24.66	14.60	8.74	5.38	4.41	3.55	2.60	2.06	1.16
1.67V	81.59	54.39	42.11	24.26	14.49	8.67	5.36	4.39	3.53	2.60	2.04	1.11
1.70V	77.18	52.71	41.16	24.05	14.39	8.65	5.33	4.37	3.51	2.60	2.02	1.09
1.75V	69.72	49.35	38.98	23.52	14.18	8.55	5.31	4.35	3.49	2.60	2.00	1.05
1.80V	62.27	14.49	36.88	23.00	13.97	8.40	5.27	4.33	3.47	2.58	1.95	1.01
1.85V	54.92	42.53	34.65	22.37	13.76	8.27	5.23	4.31	3.44	2.58	1.93	0.99

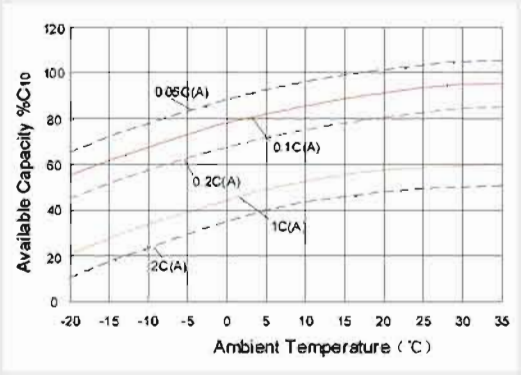
Constant Power Discharge Characteristics Unit: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	168.00	109.20	88.73	49.25	29.09	17.43	10.71	8.78	8.34	5.23	4.10	2.29
1.67V	52.50	105.00	84.21	48.51	28.09	17.33	10.71	8.76	8.27	5.23	4.05	2.21
1.70V	49.35	101.85	82.22	48.20	28.98	17.33	10.71	8.76	8.25	5.19	4.01	2.16
1.75V	139.65	97.65	78.02	47.04	28.48	17.01	10.61	8.69	8.23	5.17	3.97	2.08
1.80V	124.95	91.35	73.71	45.89	28.04	16.80	10.50	8.63	8.21	5.15	3.91	2.02
1.85V	110.25	85.05	69.41	44.73	27.51	16.59	10.50	8.57	8.19	5.15	3.84	1.95

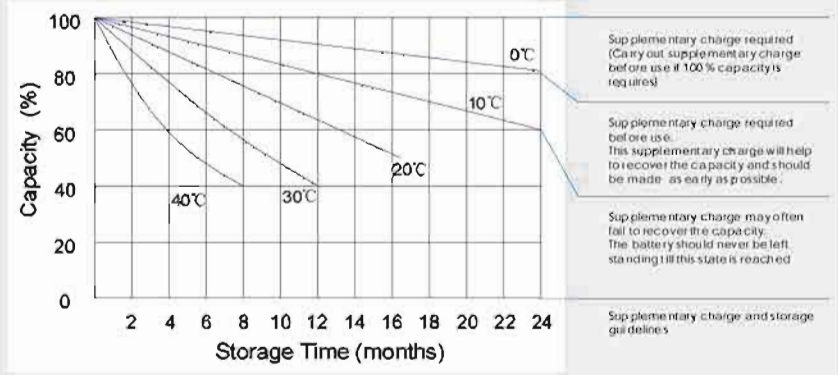
All mentioned values are average values.

SL12-21 (12V21AH)

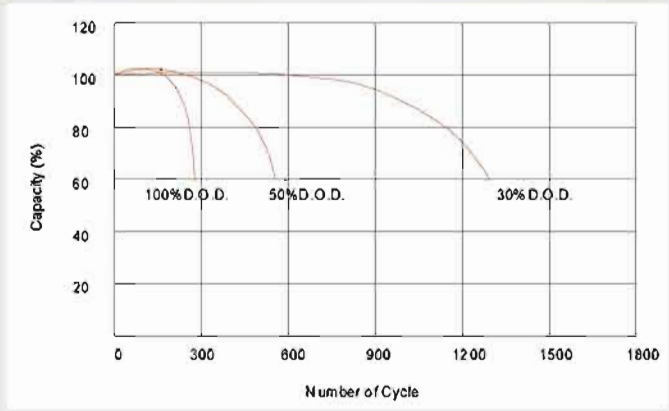
Temperature effects curve



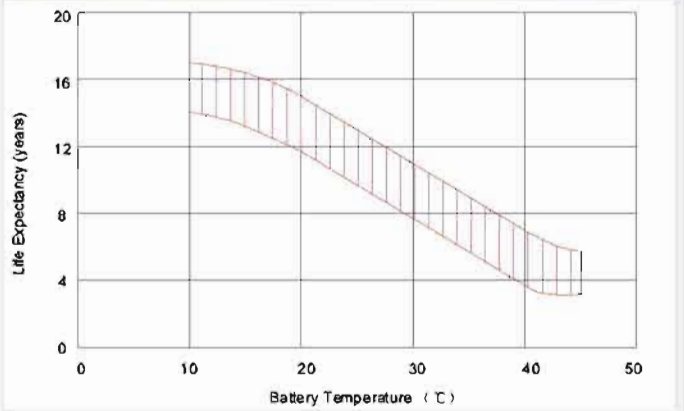
Storage characteristic



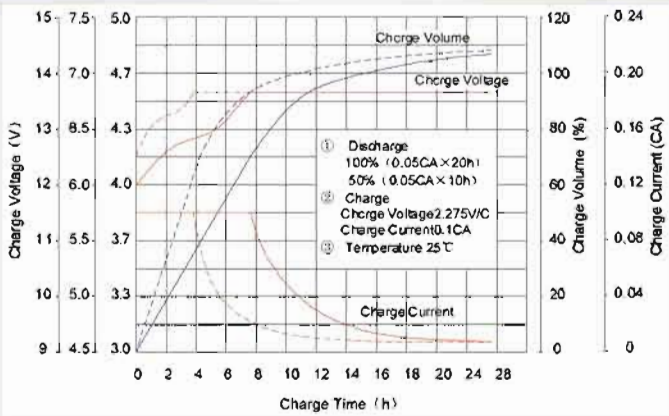
Life characteristics of cyclic use



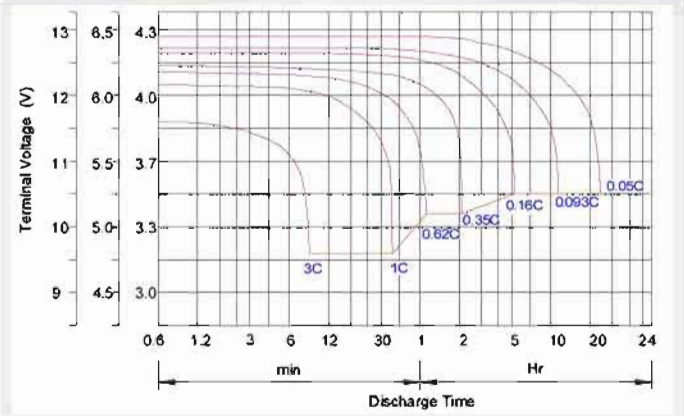
Effect of temperature on long term float life



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

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

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