



## S12

12 Ah | 6 V | 20 h

### Specifications

Voltage	6 V
Nominal Capacity	12 Ah @ 20 hour-rate
Number of Cells	3
Internal Resistance	Approx. 10.0 mΩ
Design Life	6 to 8 years (float charging)
Short Circuit Current	600 A
Self Discharge	Monthly rate < 3% @ 25 °C Recharge after 6 months Charge before using

### Temperature Ranges

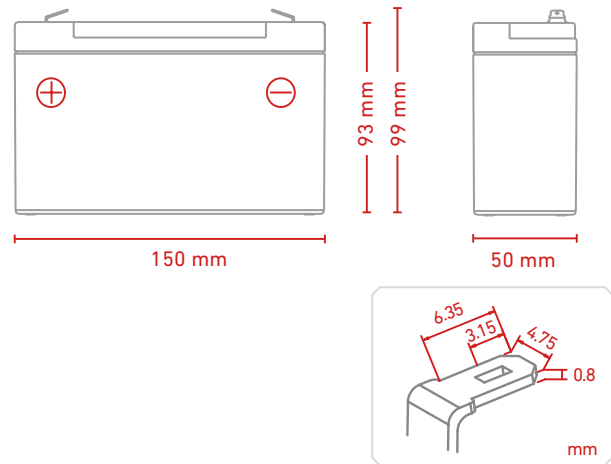
Normal Operation	25 °C ± 5 °C
Discharging	-20 °C to 60 °C
Charging	0 °C to 50 °C
Storage	-20 °C to 60 °C

### Mechanical Specifications

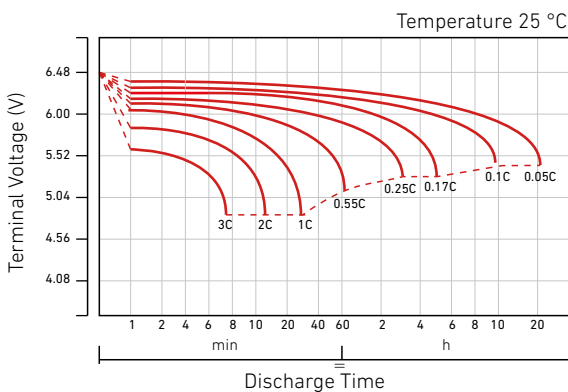
Measurements (L x W x H)	151 x 50 x 93 mm
Weight	Approx. 1.75 kg
Terminals	F1
Case material	A.B.S. UL94-HB, UL94-V0 Optional

### Charging & Discharging

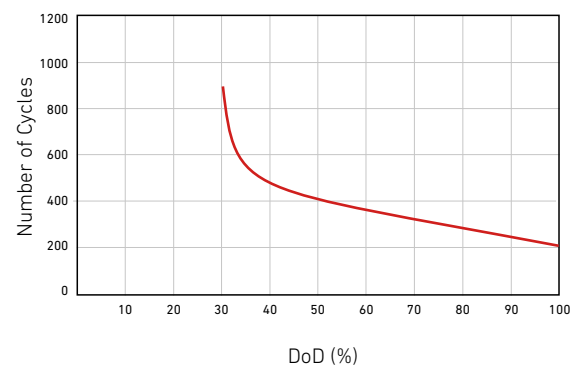
Max. Charging Current	3.60 A
Max. Discharge Current	120 A (5 sec)
Standby Use Voltage	6.85 V to 6.94 V @ 25 °C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	7.30 V to 7.40 V @ 25 °C Temperature Compensation: -4mV/°C/Cell
Reference Capacity	C3 9.3 Ah C5 10.5 Ah C10 11.2 Ah C20 12 Ah



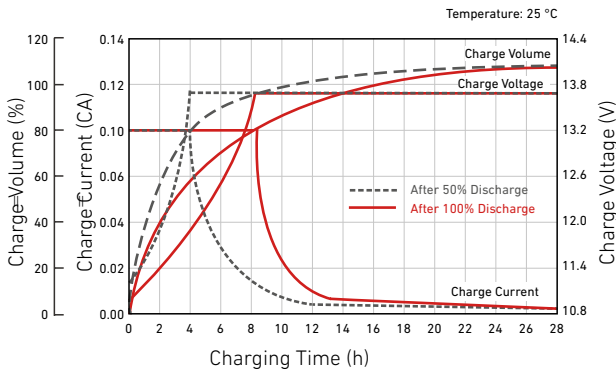
### Discharge Characteristics Curve



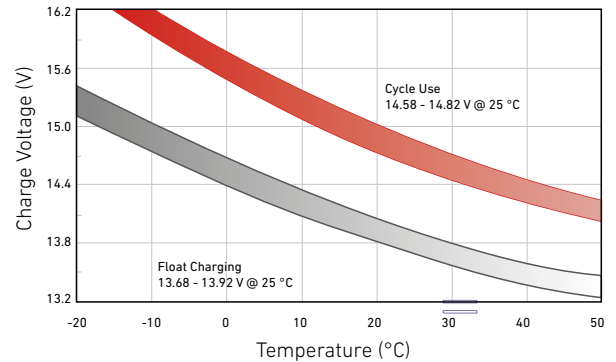
### Cycle Life in Relation to Depth of Discharge



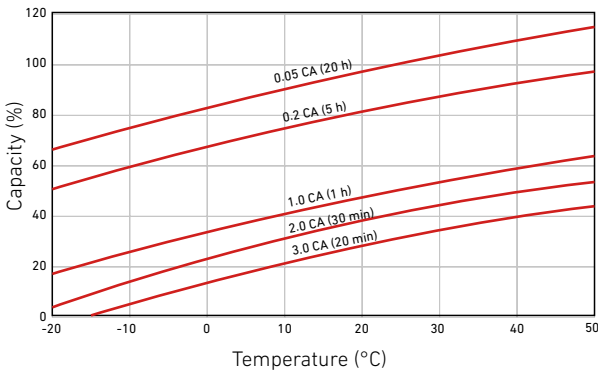
**Discharge Characteristics Curve For Standby Use**



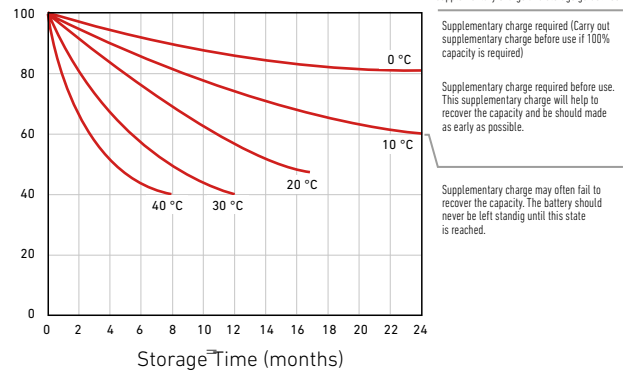
**Relationship Between Charging Voltage and Temperature**



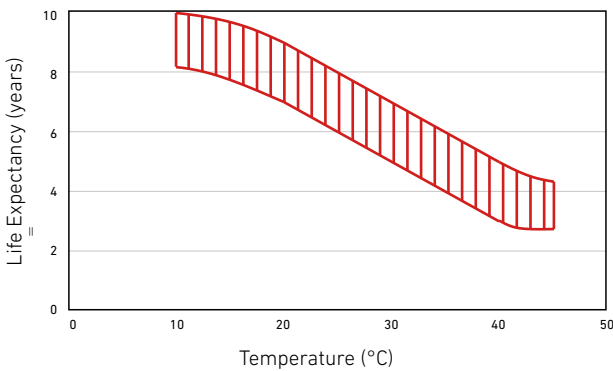
**Temperature Effects on Capacity**



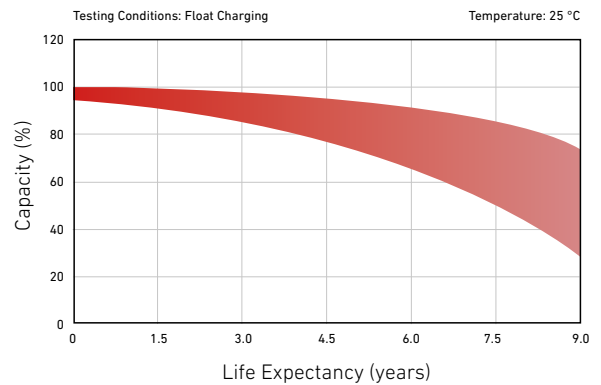
**Storage Characteristics**



**Effect of Temperature on Long-Term Life**



**Life Characteristics of Standby Use**



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

F.V	Time											
	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60 V	47,58	31,03	22,89	13,25	7,654	4,516	3,283	2,614	2,207	1,475	1,201	0,625
1.65 V	45,86	30,10	22,29	12,96	7,513	4,450	3,239	2,582	2,181	1,460	1,190	0,620
1.70 V	43,62	28,89	21,50	12,57	7,325	4,362	3,181	2,539	2,147	1,440	1,174	0,613
1.75 V	40,75	27,32	20,48	12,07	7,078	4,246	3,104	2,481	2,102	1,414	1,154	0,604
1.80 V	37,13	25,32	19,16	11,42	6,755	4,093	3,003	2,405	2,043	1,379	1,127	0,592
1.85 V	32,67	22,81	17,49	10,58	6,340	3,894	2,870	2,306	1,964	1,332	1,092	0,577

**Constant Power Discharge Characteristics: WPC (25 °C)**

F.V	Time											
	5 min	10 min	15 min	30 min	1 h	2 h	3 h	4 h	5 h	8 h	10 h	20 h
1.60 V	81,89	53,53	40,62	24,42	14,53	8,69	6,36	5,09	4,32	2,92	2,40	1,25
1.65 V	81,03	53,32	40,39	24,24	14,41	8,62	6,32	5,06	4,29	2,90	2,38	1,24
1.70 V	77,94	51,74	39,30	23,66	14,10	8,48	6,22	4,98	4,23	2,87	2,35	1,23
1.75 V	74,12	49,81	37,97	22,94	13,69	8,29	6,10	4,89	4,16	2,82	2,31	1,21
1.80 V	68,71	46,96	36,02	21,92	13,13	8,03	5,92	4,76	4,05	2,76	2,26	1,19
1.85 V	61,54	43,06	33,35	20,52	12,41	7,68	5,68	4,58	3,91	2,67	2,19	1,16