

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	7.5 AH	
Dimensions	Length	151±2mm (5.95 inches)
	Width	65±1mm (2.56 inches)
	Container Height	93.5±1mm (3.68 inches)
	Total Height (with Terminal)	99±1mm (3.90 inches)
Approx Weight	Approx 2.15 kg	Terminal: Stainless
Battery Life	10 Years	
Container Material	ABS	
Rated Capacity	7.50AH/0.375A	(20hr, 1.80V/cell, 25°C/77°F)
	7.10 AH/0.720A	(10hr, 1.80V/cell, 25°C/77°F)
	6.25AH/1.25A	(5hr, 1.75V/cell, 25°C/77°F)
	5.49 AH/1.83A	(3hr, 1.75V/cell, 25°C/77°F)
	4.56 AH/4.56A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	112.5A (5s)	
Internal Resistance	Approx 2 9 mΩ	
Operating Temp. Range	Discharge : -15~50°C (5~122°F)	
	Charge : 0~40°C (32~104°F)	
	Storage : -20~50°C (4~122°F)	
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 2.25A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Standby Use No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	DS series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



TSE

UL

ISO 14001

ISO 9001

CE

MSDS

IEC

ISO 45001

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	17.2	12.5	10.7	9.07	6.62	4.84	3.86	2.29	1.71	1.39	1.18	1.02	0.810	0.671	0.368
1.80V/cell	20.6	14.6	12.1	9.86	7.13	5.14	4.10	2.40	1.78	1.45	1.22	1.06	0.839	0.700	0.375
1.75V/cell	23.0	16.0	12.9	10.4	7.41	5.35	4.26	2.48	1.83	1.48	1.25	1.08	0.852	0.711	0.383
1.70V/cell	25.1	17.1	13.7	10.9	7.70	5.49	4.34	2.53	1.87	1.51	1.27	1.10	0.870	0.720	0.387
1.65V/cell	27.3	18.0	14.3	11.3	7.97	5.66	4.46	2.58	1.90	1.54	1.29	1.12	0.881	0.728	0.391
1.60V/cell	28.7	18.9	14.8	11.7	8.19	5.81	4.56	2.64	1.94	1.57	1.32	1.14	0.896	0.739	0.398

Constant Power Discharge (Watts) at 25 °C (77°F)

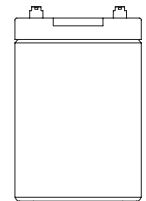
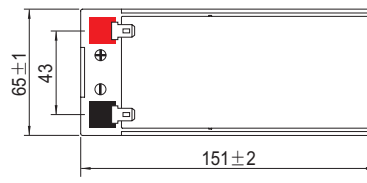
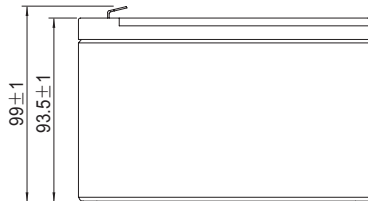
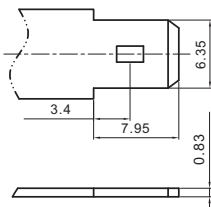
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	32.4	23.9	20.5	17.6	12.9	9.49	7.59	4.53	3.40	2.77	2.35	2.04	1.63	1.35	0.743
1.80V/cell	38.5	27.7	23.0	19.0	13.8	10.0	8.06	4.74	3.53	2.89	2.43	2.12	1.68	1.40	0.755
1.75V/cell	42.7	30.0	24.4	19.9	14.3	10.4	8.35	4.87	3.61	2.93	2.48	2.15	1.70	1.42	0.767
1.70V/cell	45.8	31.6	25.7	20.7	14.7	10.6	8.44	4.94	3.66	2.97	2.51	2.17	1.72	1.43	0.769
1.65V/cell	49.0	32.9	26.5	21.3	15.1	10.8	8.59	4.98	3.69	3.00	2.53	2.19	1.73	1.43	0.771
1.60V/cell	50.3	33.7	26.9	21.6	15.3	11.0	8.71	5.06	3.75	3.03	2.56	2.22	1.75	1.45	0.780

Specifications subject to change without notice.

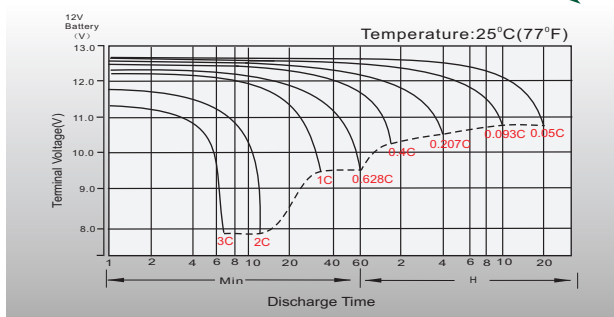
Dimensions

T2 Terminal

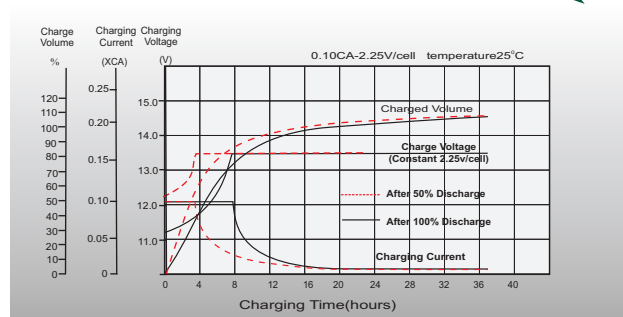
Unit: mm



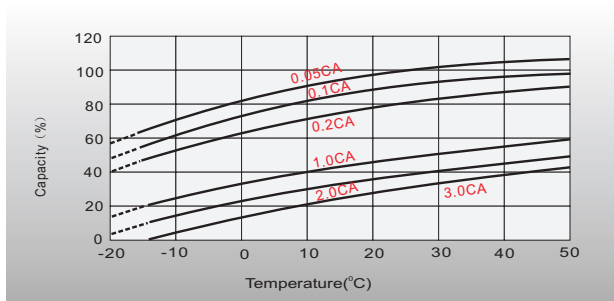
Discharge Characteristics



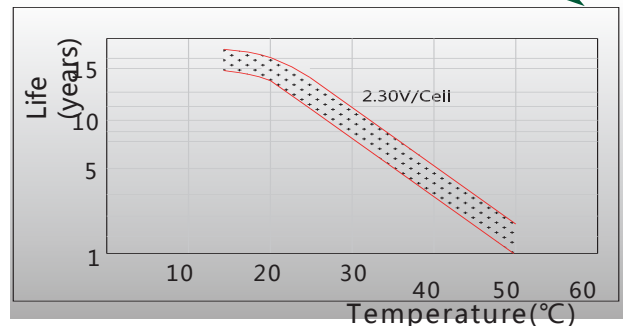
Float Charging Characteristics



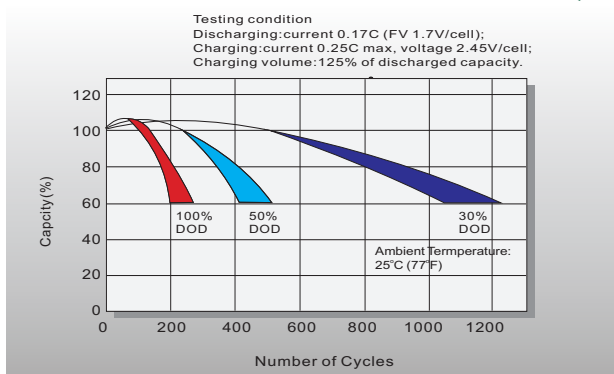
Temperature Effects in Relation to Battery Capacity



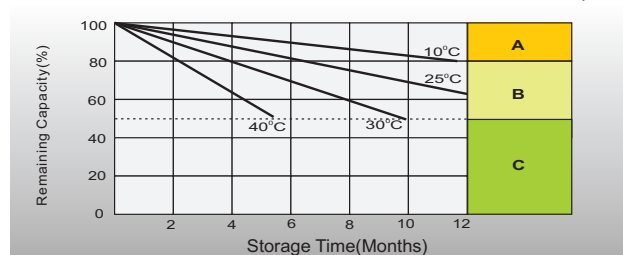
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.
 The battery should never be left standing till this is reached.