

### 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.

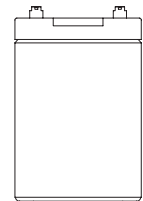
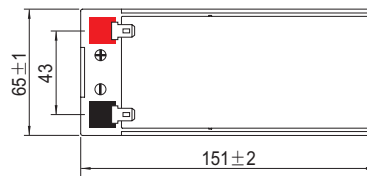
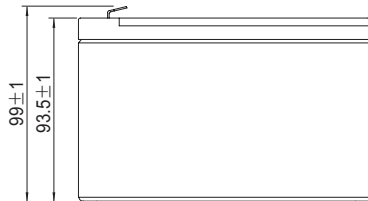
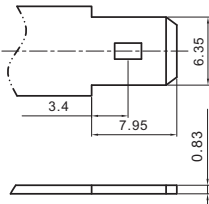
### LEAD ACID BATTERY

### DS 12-7.5 (12V-7.5AH)

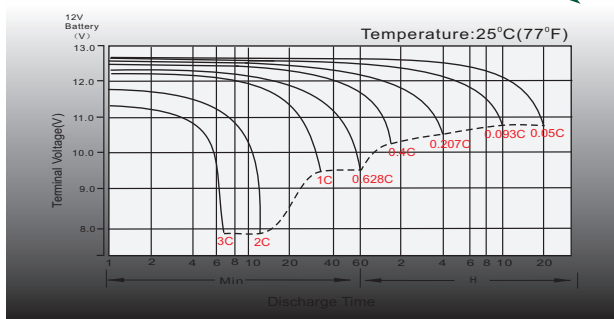
#### Dimensions

##### T2 Terminal

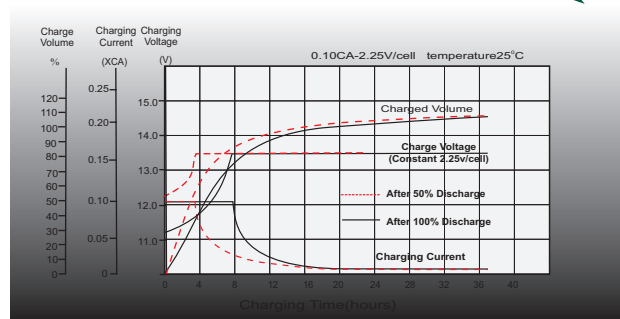
Unit: mm



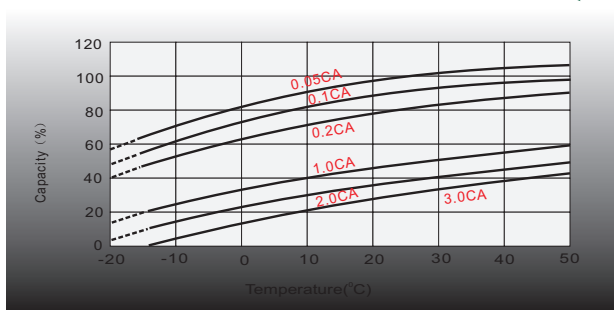
#### Discharge Characteristics



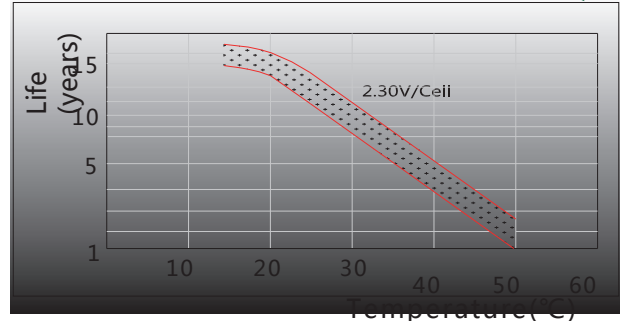
#### Float Charging Characteristics



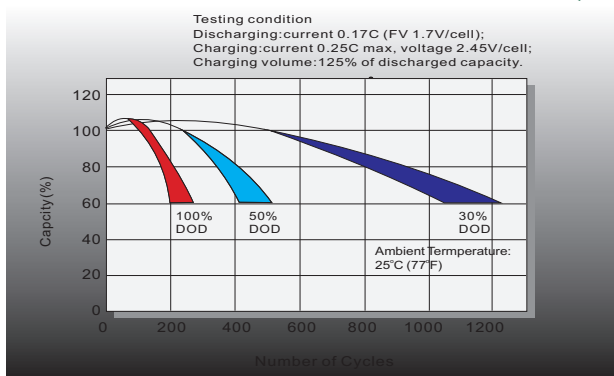
#### Temperature Effects in Relation to Battery Capacity



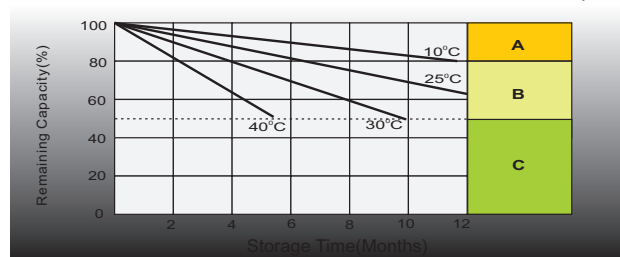
#### Effect of Temperature on Long Term Float Life



#### 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.