



# GENERAL PURPOSE **BATTERIES**

ST6-10 (6V 10AH)



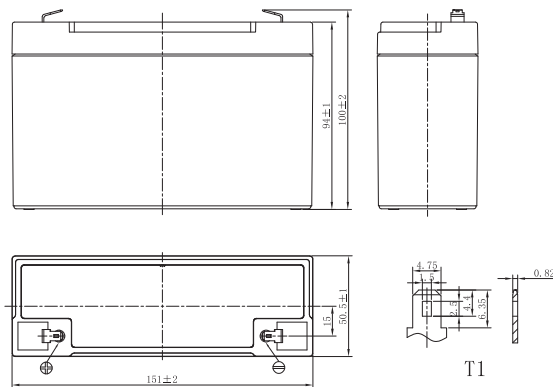
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# ST SERIES - GENERAL PURPOSE

## ST6-10



### LAYOUT



## General Features

- ✓ 5 years design life(25°C)
- ✓ Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- ✓ PbCaSn alloy for plate grids: less gassing, less self-discharging
- ✓ High quality AGM separator: extend cycle life and prevent micro short circuit
- ✓ High purity raw material: ensure low self discharge rate

## Applications

- ✓ All purpose
- ✓ Uninterruptable Power Supply (UPS)
- ✓ Electric Power System (EPS)
- ✓ Emergency backup power supply
- ✓ Alarm and security system
- ✓ Communication power supply
- ✓ DC power supply
- ✓ Auto control system

## Standards

- ✓ Compliance with IEC 60896 standards, EU Battery Directive
- ✓ UL, CE Certified
- ✓ Manufactured in Starmax® IATF16949, ISO45001, ISO 9001 and ISO 14001 certified production facilities



# SPECIFICATIONS

Rated Voltage	6V	
Nominal Capacity	10.0Ah	(C <sub>20</sub> ,1.75V/cell)
Dimensions	Length	151±2mm (5.94 inches)
	Width	50.5±1mm (1.99 inches)
	Container height	94±1mm (3.70 inches)
	Total height	100±2mm (3.94 inches)
Approx. weight	1.54 Kg (3.40 lbs)	
Terminal	T1/T2	
Container material	ABS	
Rated capacity (25°C)	10.0 Ah	(20hr,0.500A,1.75V/cell)
	9.32 Ah	(10hr,0.932A,1.75V/cell)
	8.50 Ah	(5hr,1.70A,1.75V/cell)
	7.69 Ah	(3hr,2.53A,1.75V/cell)
	6.31 Ah	(1hr,6.31A,1.60V/cell)
Max. discharge current	150A (5s)	
Internal resistance (25°C)	Approx 11mΩ	
Operating temp. range	Discharge	-15~50°C (5~122°F)
	Charge	-20~40°C (-4~104°F)
	Storage	-15~40°C (5~104°F)
Nominal operating temp. range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 3.0A. Voltage 7.2V~7.5V at 25°C(77°F)Temp. Coefficient -15mV/°C	
Standby Use	Initial Charging Current less than 3.0A. Voltage 6.75V~6.9V at 25°C(77°F)Temp. Coefficient -10mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self discharge	ST 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.	

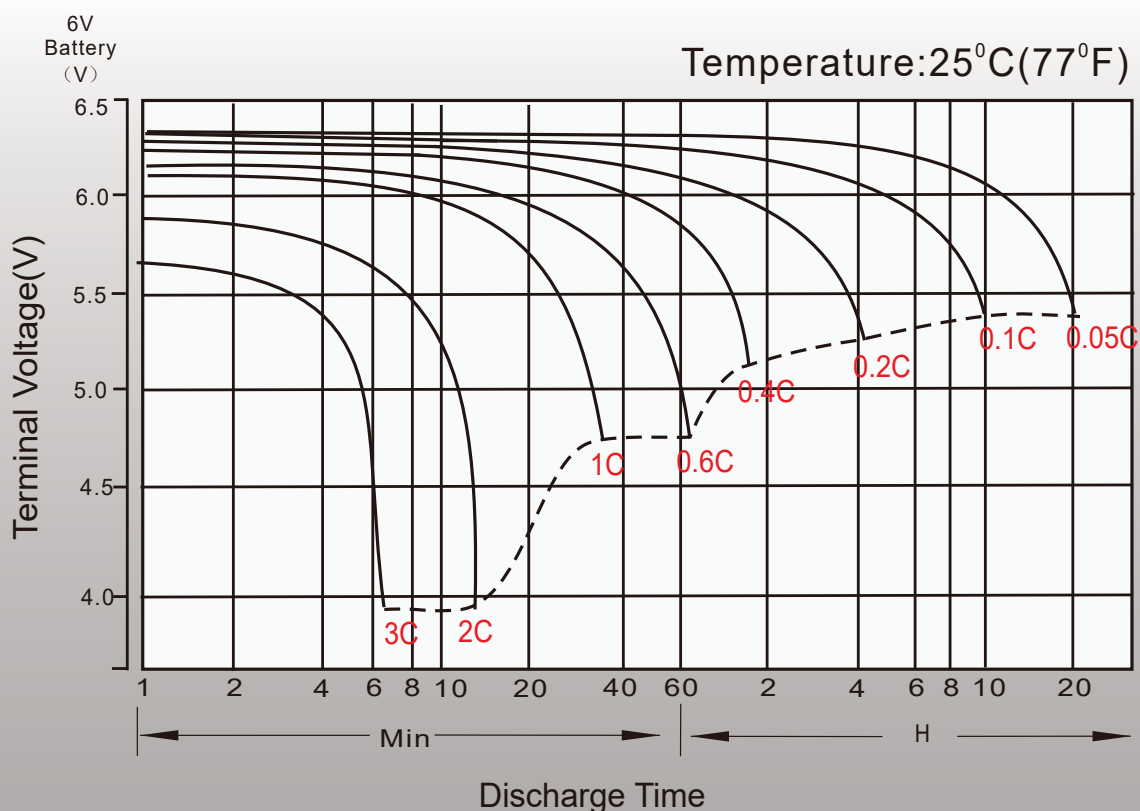
### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	27.2	20.0	15.9	13.0	9.64	7.07	5.78	4.35	3.41	2.45	1.95	1.66	1.42	1.11	0.910	0.490
1.80V/cell	29.5	21.0	16.5	13.4	9.88	7.21	5.89	4.43	3.46	2.49	1.98	1.68	1.44	1.13	0.921	0.495
1.75V/cell	31.9	22.1	17.1	13.8	10.1	7.36	6.00	4.50	3.52	2.53	2.00	1.70	1.46	1.14	0.932	0.500
1.70V/cell	34.3	23.1	17.7	14.2	10.3	7.50	6.10	4.57	3.57	2.56	2.03	1.72	1.48	1.16	0.943	0.505
1.67V/cell	35.7	23.7	18.1	14.4	10.5	7.59	6.16	4.62	3.61	2.58	2.05	1.74	1.49	1.17	0.950	0.508
1.60V/cell	38.9	25.2	18.9	15.0	10.8	7.79	6.31	4.72	3.68	2.64	2.09	1.77	1.51	1.18	0.965	0.516

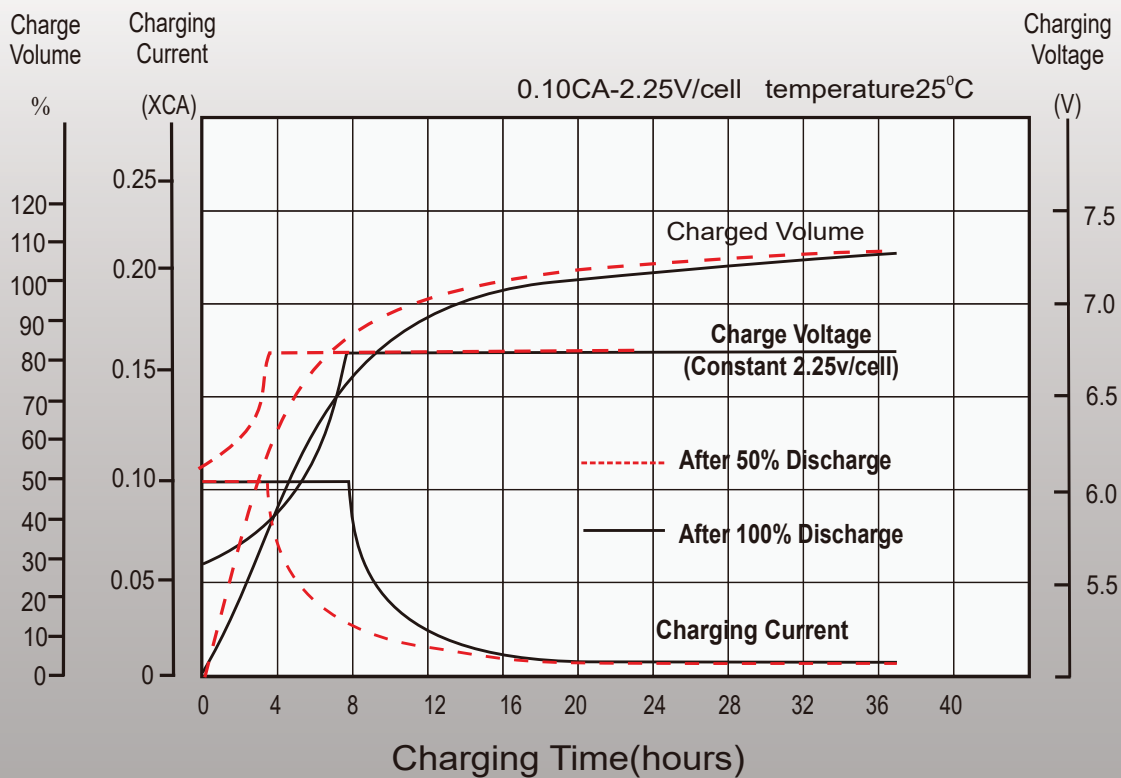
### Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	51.7	38.3	30.5	24.9	18.6	13.7	11.2	8.50	6.68	4.82	3.84	3.27	2.81	2.21	1.81	0.980
1.80V/cell	55.8	40.0	31.5	25.6	19.0	13.9	11.4	8.62	6.76	4.88	3.89	3.31	2.84	2.24	1.83	0.990
1.75V/cell	59.8	41.7	32.5	26.2	19.4	14.2	11.6	8.73	6.85	4.94	3.94	3.35	2.87	2.26	1.85	1.000
1.70V/cell	63.9	43.5	33.5	26.9	19.7	14.4	11.7	8.85	6.94	5.00	3.98	3.39	2.91	2.29	1.87	1.010
1.67V/cell	66.3	44.5	34.1	27.3	20.0	14.5	11.8	8.92	6.99	5.04	4.01	3.41	2.92	2.30	1.88	1.020
1.60V/cell	71.5	46.8	35.4	28.2	20.5	14.8	12.1	9.08	7.11	5.12	4.07	3.47	2.97	2.34	1.91	1.030

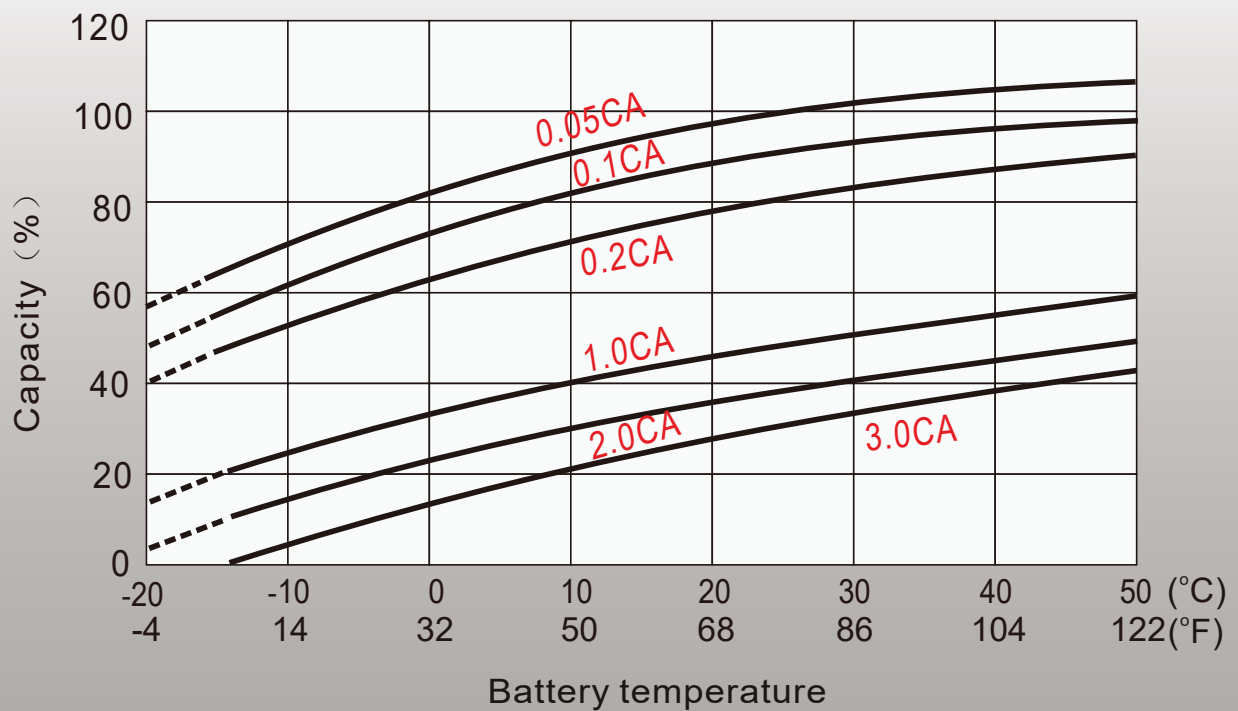
## Discharge Characteristics



# Float Charging Characteristics



# Temperature Effects in Relation to Battery Capacity



# Float Service Life



# ST6-10 (6V 10AH)



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