



# GENERAL PURPOSE **BATTERIES**

ST12-35 (12V 35Ah)



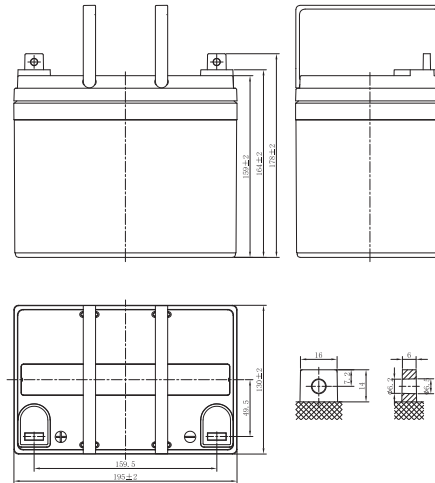
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# ST SERIES - GENERAL PURPOSE

## ST12-35



### 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	12V	
Nominal Capacity	35.0Ah	(C <sub>20</sub> ,1.75V/cell)
Dimensions	Length	195±2mm (7.68 inches)
	Width	130±2mm (5.12 inches)
	Container height	164±2mm (6.46 inches)
	Total height	178±2mm (7.01 inches)
Approx. weight	10.7 Kg (23.6 lbs)	
Terminal	T5	
Container material	ABS	
Rated capacity (25°C)	35.0 Ah	(20hr,1.75A,1.75V/cell)
	33.1 Ah	(10hr,3.31A,1.75V/cell)
	30.1 Ah	(5hr,6.02A,1.75V/cell)
	27.1 Ah	(3hr,9.03A,1.75V/cell)
	23.8 Ah	(1hr,23.8A,1.60V/cell)
Max. discharge current	525A (5s)	
Internal resistance (25°C)	Approx 10mΩ	
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 10.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 10.5A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°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.	

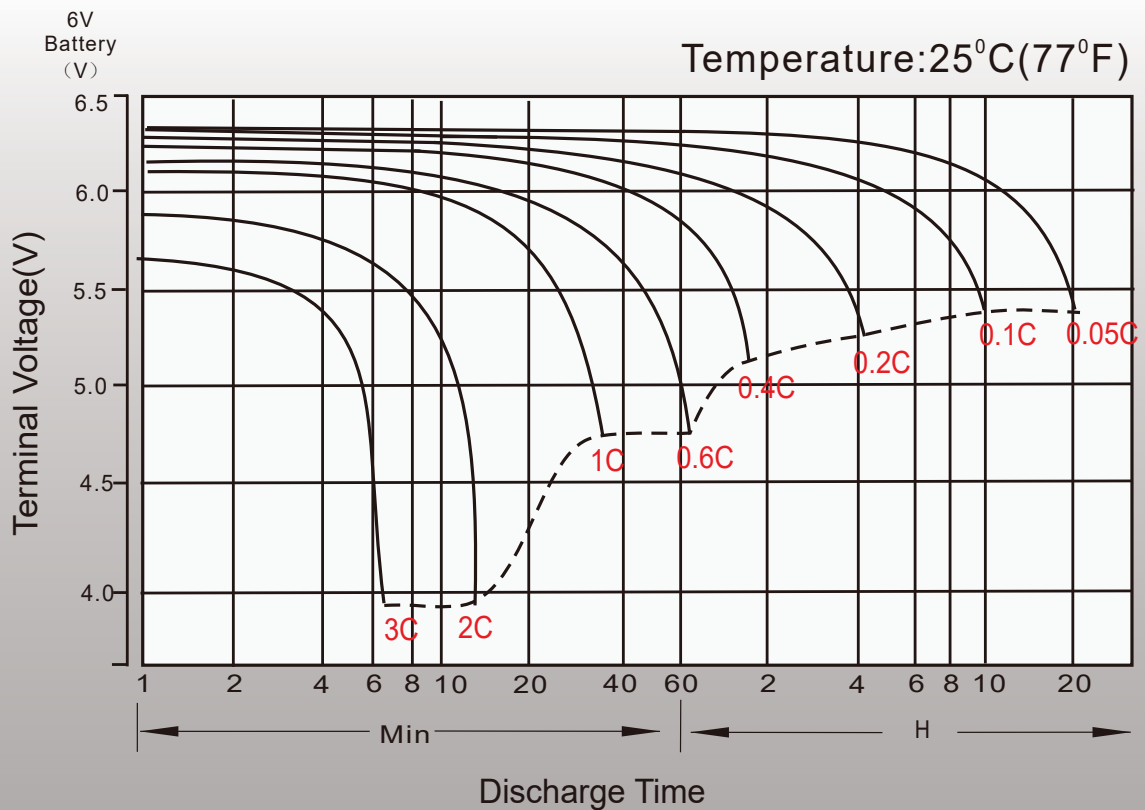
## Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	114.4	78.5	60.4	48.8	36.0	26.3	21.5	15.7	12.3	8.74	6.89	5.86	5.02	3.96	3.23	1.71
1.80V/cell	123.1	83.2	63.4	50.8	37.1	27.0	22.1	16.0	12.5	8.89	6.99	5.95	5.10	4.01	3.28	1.73
1.75V/cell	129.7	86.5	65.5	52.2	38.0	27.6	22.5	16.3	12.7	9.03	7.08	6.02	5.16	4.06	3.31	1.75
1.70V/cell	135.8	90.0	67.7	53.7	39.0	28.2	22.9	16.6	12.9	9.16	7.18	6.11	5.22	4.10	3.34	1.76
1.67V/cell	140.5	92.5	69.3	54.8	39.7	28.6	23.3	16.8	13.0	9.25	7.25	6.16	5.27	4.13	3.37	1.78
1.60V/cell	149.0	96.4	71.7	56.5	40.8	29.4	23.8	17.2	13.3	9.42	7.38	6.26	5.34	4.19	3.41	1.80

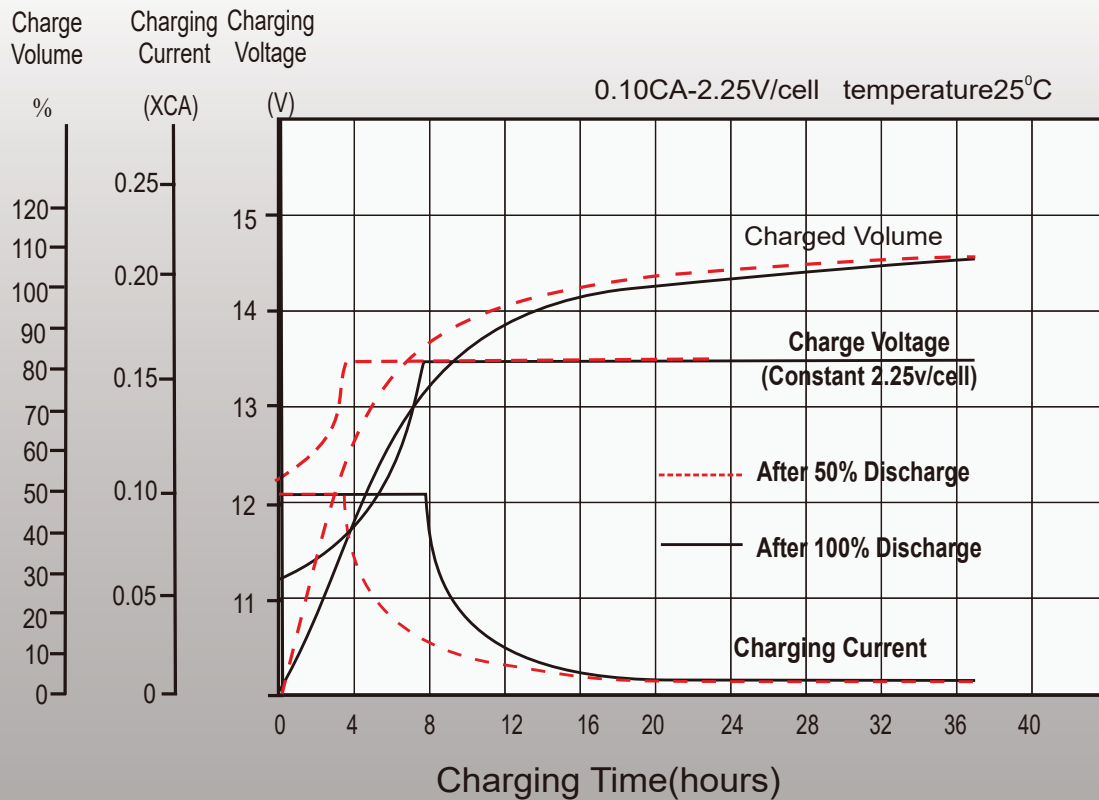
## Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	216.5	149.3	115.6	94.1	69.5	51.0	41.9	30.6	24.0	17.2	13.6	11.6	9.93	7.84	6.43	3.42
1.80V/cell	230.6	157.2	120.6	97.3	71.3	52.2	42.8	31.2	24.4	17.4	13.7	11.7	10.1	7.95	6.51	3.46
1.75V/cell	240.3	162.3	123.8	99.5	72.9	53.1	43.5	31.6	24.8	17.7	13.9	11.9	10.2	8.03	6.57	3.50
1.70V/cell	249.2	167.7	127.2	101.8	74.4	54.1	44.1	32.1	25.1	17.9	14.1	12.0	10.3	8.10	6.63	3.53
1.67V/cell	255.7	171.4	130.0	103.7	75.5	54.8	44.7	32.4	25.3	18.0	14.2	12.1	10.4	8.16	6.68	3.56
1.60V/cell	266.0	176.4	133.5	106.3	77.2	55.8	45.5	33.0	25.7	18.3	14.4	12.3	10.5	8.27	6.75	3.59

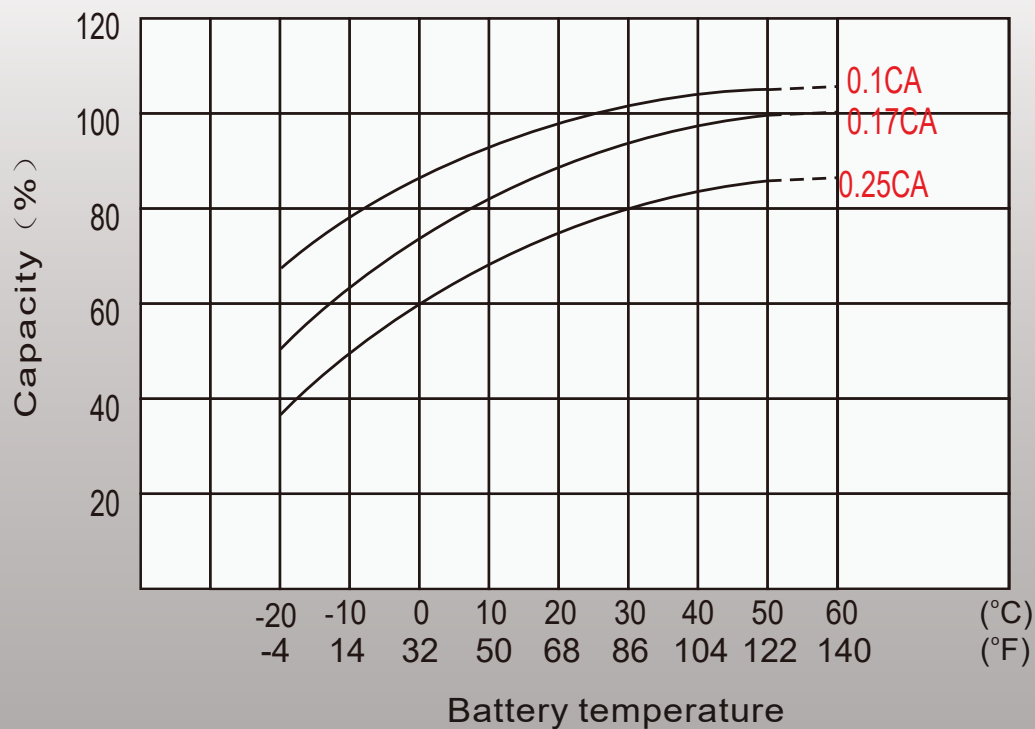
## Discharge Characteristics



# Float Charging Characteristics



# Temperature Effects in Relation to Battery Capacity



# Float Service Life



# ST12-35 (12V 35Ah)



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