STARMAX

GENERAL PURPOSE
BATTERIES

ST12-75 (12V 75Ah)

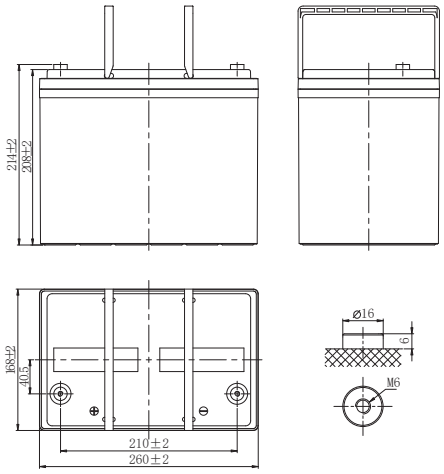
UPS

www.starmaxbatteries.com

ST SERIES - GENERAL PURPOSE

ST12-75

LAYOUT



General Features

- 10 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	75.0Ah	(C_{10},1.80V/cell)
Dimensions	Length	260±2mm (10.2 inches)
	Width	168±2mm (6.61 inches)
	Container height	208±2mm (8.19 inches)
	Total height	214±2mm (8.43 inches)
Approx. weight	22.3 Kg (49.06 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	78.2 Ah	(20hr,3.94A,1.80V/cell)
	75.0 Ah	(10hr,7.50A,1.80V/cell)
	68.5 Ah	(5hr,13.7A,1.75V/cell)
	62.1 Ah	(3hr,20.7A,1.75V/cell)
	47.8 Ah	(1hr,47.8A,1.60V/cell)
Max. discharge current	750A (5s)	
Internal resistance (25°C)	Approx 6.6mΩ	
Operating temp. range	Discharge	-15～50℃ (5～122°F)
	Charge	-20～40℃ (-4～104°F)
	Storage	-15～40℃ (5～104°F)
Nominal operating temp. range	25±3℃ (77±5°F)	
Cycle Use	Initial Charging Current less than 22.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 22.5A. 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.	

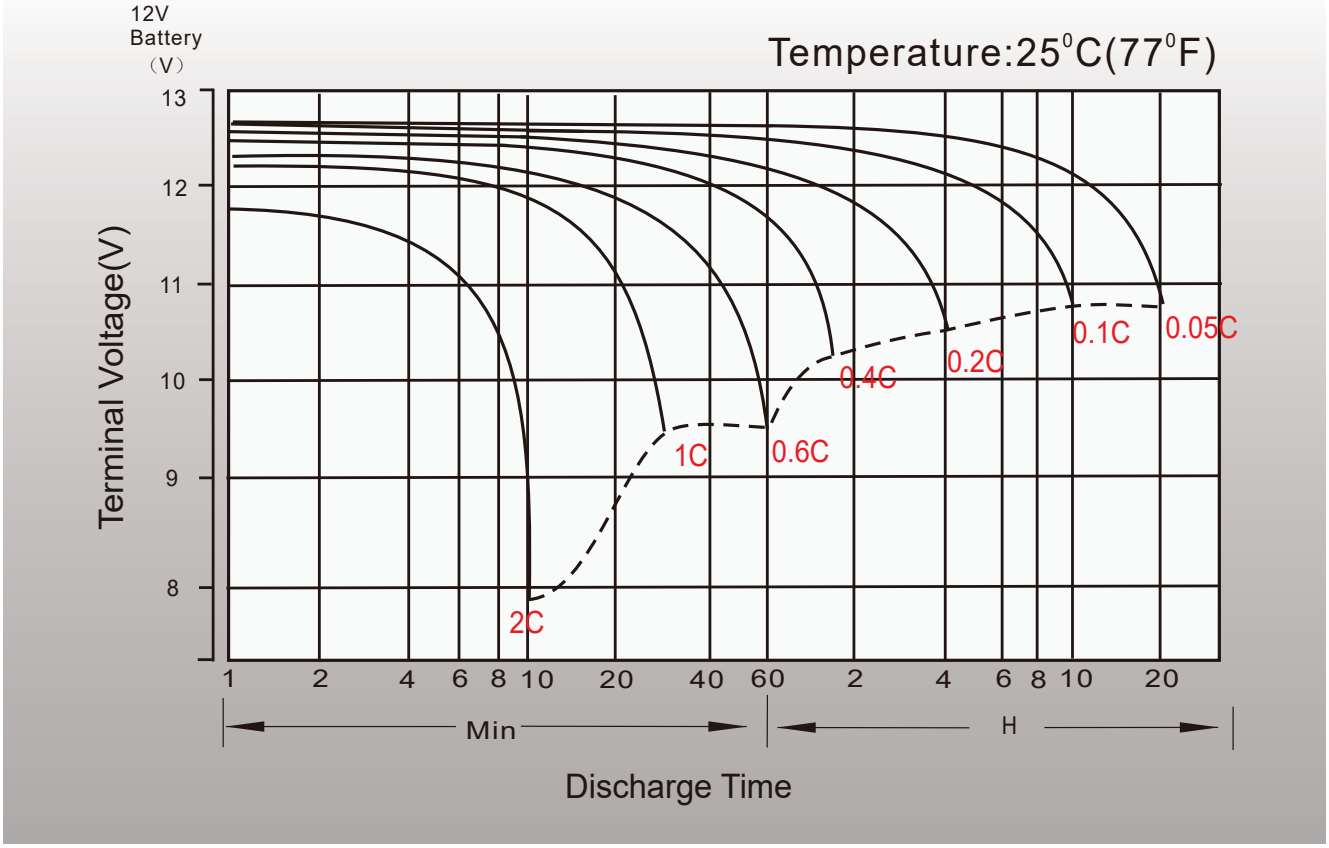
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	149.8	106.5	96. 2	75.7	67.6	49.5	41.9	30.4	25.5	18.7	14.7	12.8	11. 2	8.64	7.16	3.80
1.80V/cell	170.4	120.9	109.0	85.5	73.6	52.4	43.4	31.4	26.4	20.3	15.7	13.4	12.1	9.09	7.50	3.94
1.75V/cell	185.1	131. 1	118.0	92.3	75.2	54.3	45.5	33.0	27.8	20.7	16.0	13.7	12.2	9.14	7.58	3.98
1.70V/cell	197.8	139.8	125.3	97.9	76.7	55.4	46.5	33.7	28.3	21.1	16.3	13.9	12.2	9.28	7.65	4.02
1.67V/cell	204.7	144.2	129.0	100. 6	77.8	56.2	47.1	34.2	28.7	21.3	16.5	14.2	12.3	9. 41	7.75	4.07
1.60V/cell	212.0	149.2	133.0	103. 2	78.9	57.0	47.8	34.7	29.1	21.5	16.7	14.4	12.4	9.53	7.84	4.11

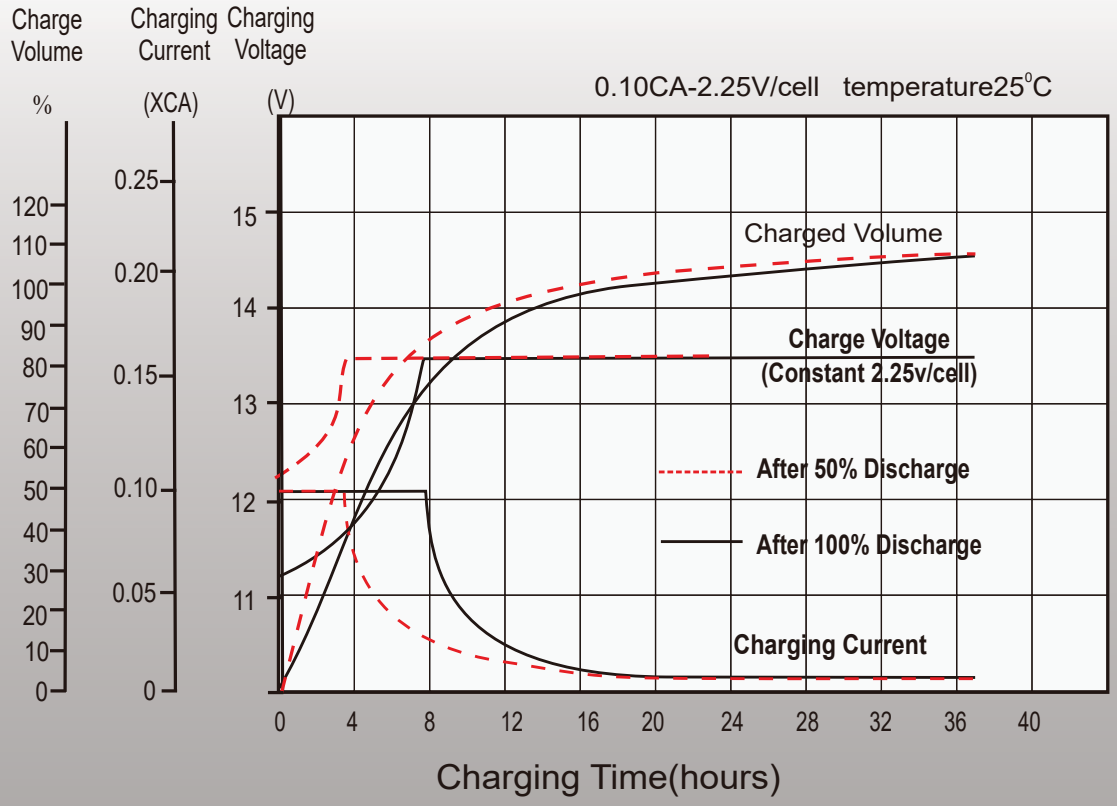
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	279.8	200.4	182.1	143.9	129.3	93.2	81.0	58.9	49.7	36.6	28.8	25. 1	21. 8	17. 2	14. 2	7.57
1.80V/cell	313.0	224.2	203.8	161.0	139.6	98.1	83.5	60.6	51. 0	39.5	30.7	26.3	23.3	18. 0	14. 9	7.83
1.75V/cell	334.0	239.2	217.5	171. 8	141. 4	101.0	87.2	63.4	53.5	40.2	31. 1	26.7	23.4	18. 0	15. 0	7.90
1.70V/cell	351. 1	251.5	228.6	180.6	143.0	102.4	88.5	64.4	54.3	40.8	31. 5	27.0	23.5	18. 3	15. 2	7.97
1.67V/cell	356.9	255.6	232.3	183.5	144.0	103.3	89.3	65.0	54.9	41.0	31. 9	27.5	23.5	18. 5	15. 3	8.06
1.60V/cell	361.9	259.2	235.6	186.1	144.6	103.8	89.9	65.5	55.4	41. 2	32.2	27.8	23.6	18. 7	15. 5	8.14

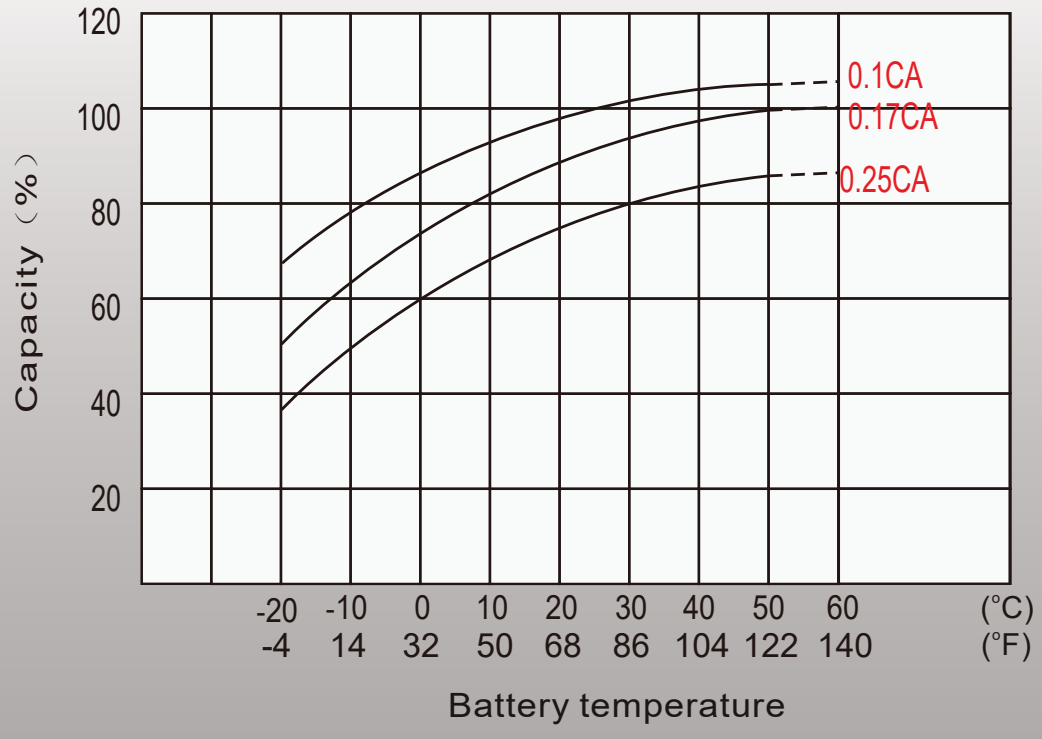
Discharge Characteristics



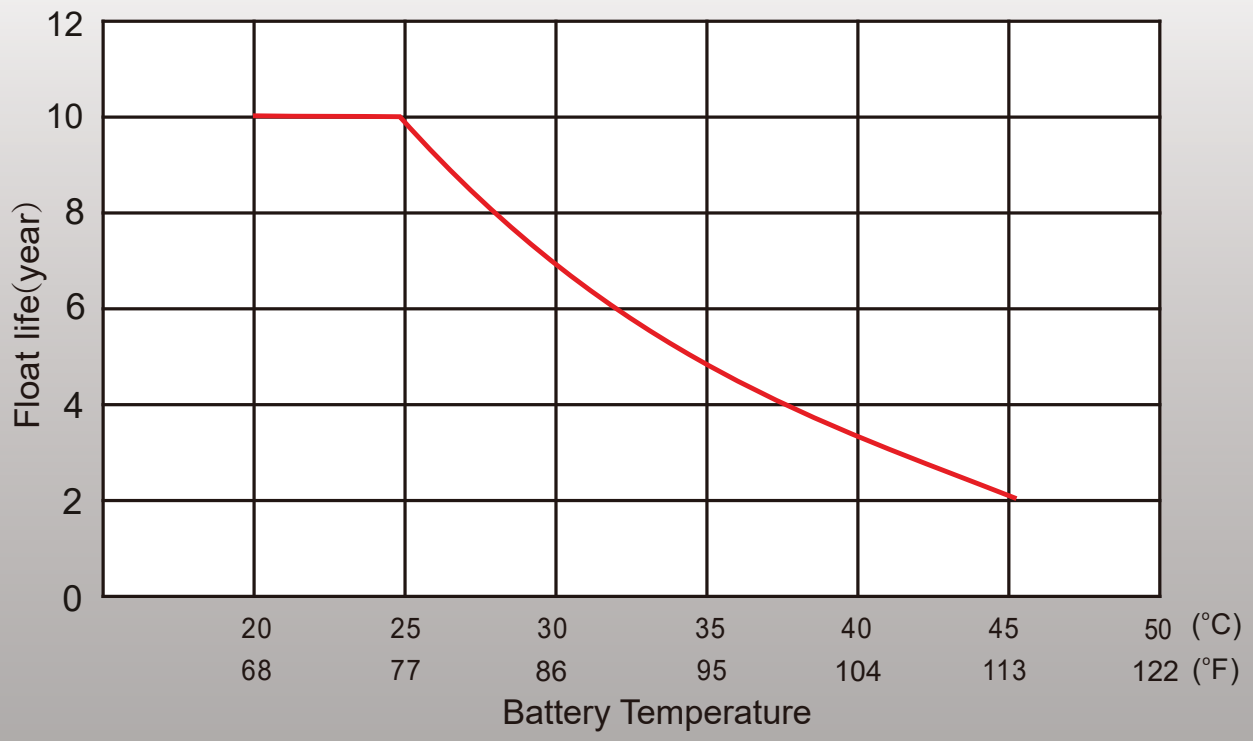
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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Starmax Corporation
1585 Cliveden Avenue, Delta, British Columbia
V3M 6M1, Canada
Phone: +1 888 669 1310
Email: info@starmaxbatteries.com
Website: www.starmaxbatteries.com