



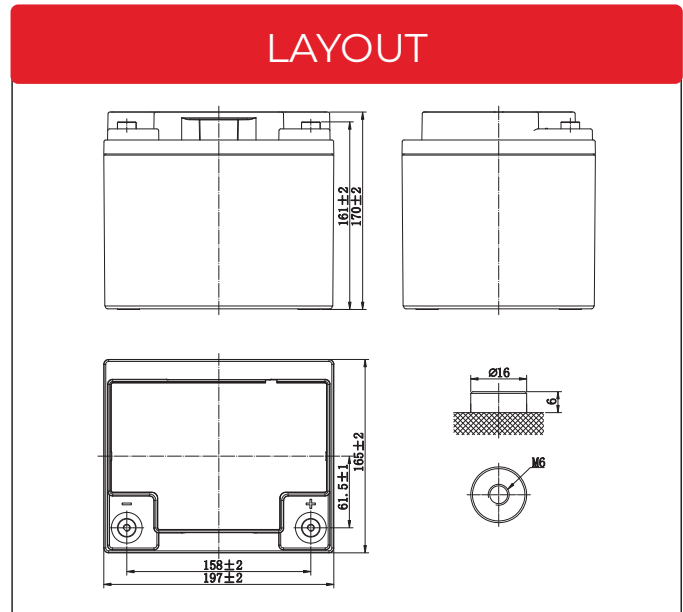
GENERAL PURPOSE **BATTERIES**

ST12-38 (12V 38Ah)



ST SERIES - GENERAL PURPOSE

ST12-38



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	38.0Ah	(C ₁₀ ,1.80V/cell)
Dimensions	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container height	170±2mm (6.69 inches)
	Total height	170±2mm (6.69 inches)
Approx. weight	12.0 Kg (26.9 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	40.0 Ah	(20hr,2.00A,1.80V/cell)
	38.0 Ah	(10hr,3.80A,1.80V/cell)
	32.6 Ah	(5hr,6.52A,1.75V/cell)
	29.2 Ah	(3hr,9.74A,1.75V/cell)
	24.0 Ah	(1hr,24.0A,1.60V/cell)
Max. discharge current	380A (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 11.4A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 11.4A. 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.	

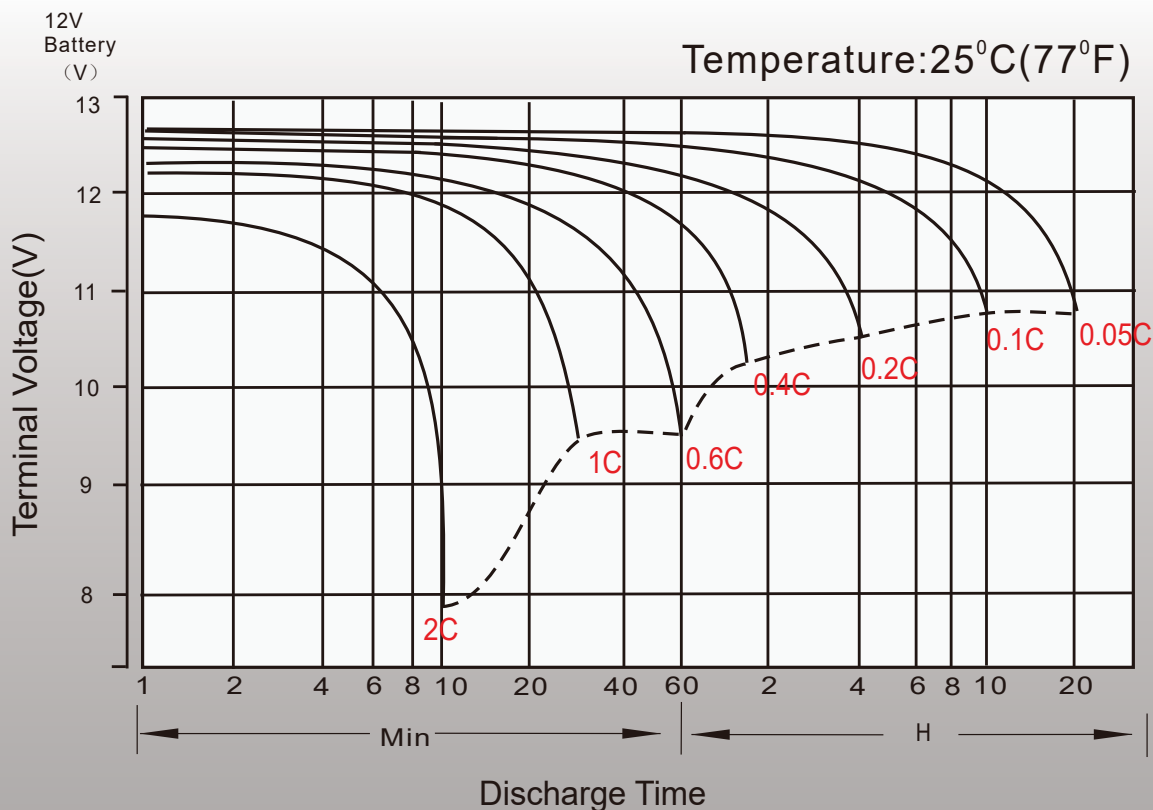
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	87.0	61.8	57.7	45.6	34.6	25.1	18.9	14.7	11.8	8.66	7.08	5.92	5.47	4.17	3.49	1.83
1.80V/cell	98.9	70.2	64.5	51.0	38.7	26.6	20.9	16.1	12.8	9.50	7.63	6.37	5.87	4.47	3.80	2.00
1.75V/cell	107.4	76.1	68.9	54.4	41.3	27.5	21.6	16.6	13.2	9.74	7.82	6.52	5.92	4.55	3.84	2.02
1.70V/cell	114.9	81.2	72.4	57.2	43.5	28.1	22.4	17.2	13.7	9.92	8.02	6.66	5.95	4.63	3.88	2.04
1.67V/cell	118.9	83.7	73.6	58.1	44.1	28.5	22.9	17.5	13.8	10.1	8.13	6.74	5.98	4.68	3.91	2.05
1.60V/cell	123.1	86.6	74.6	59.0	44.8	28.9	24.0	18.3	14.4	10.4	8.36	6.95	6.02	4.79	3.96	2.08

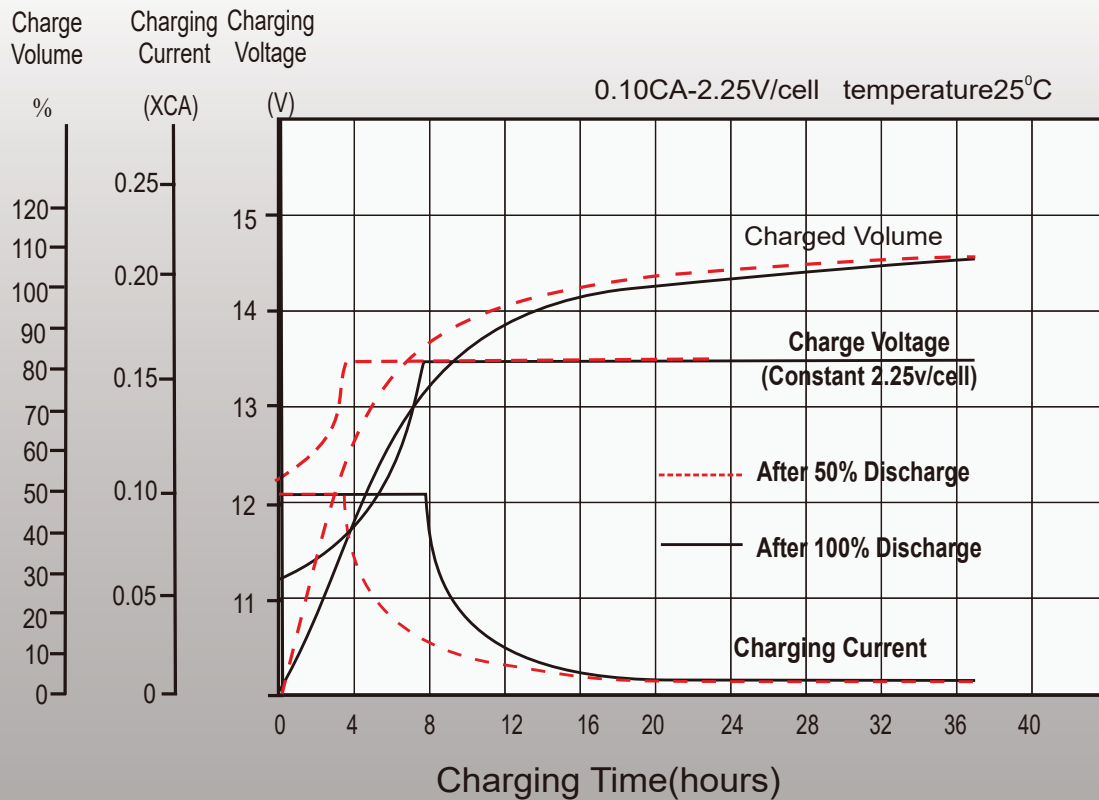
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	159.5	114.2	102.7	81.2	61.7	45.3	40.0	28.4	22.7	17.4	13.8	11.5	10.4	8.16	6.86	3.60
1.80V/cell	178.4	127.8	114.9	90.8	69.0	47.7	43.8	30.9	24.6	18.6	14.7	12.4	11.1	8.71	7.28	3.82
1.75V/cell	190.4	136.4	122.6	96.8	73.5	49.1	45.1	31.7	25.3	19.0	15.1	12.6	11.1	8.88	7.39	3.88
1.70V/cell	200.2	143.4	128.9	101.9	77.4	49.7	46.4	32.6	26.0	19.6	15.4	12.8	11.2	8.98	7.49	3.93
1.67V/cell	203.4	145.7	131.0	103.5	78.6	50.2	47.1	33.1	26.2	19.9	15.6	13.0	11.2	9.09	7.54	3.96
1.60V/cell	206.3	147.7	132.9	105.0	79.7	50.4	48.9	34.2	27.2	20.4	15.9	13.3	11.2	9.28	7.66	4.03

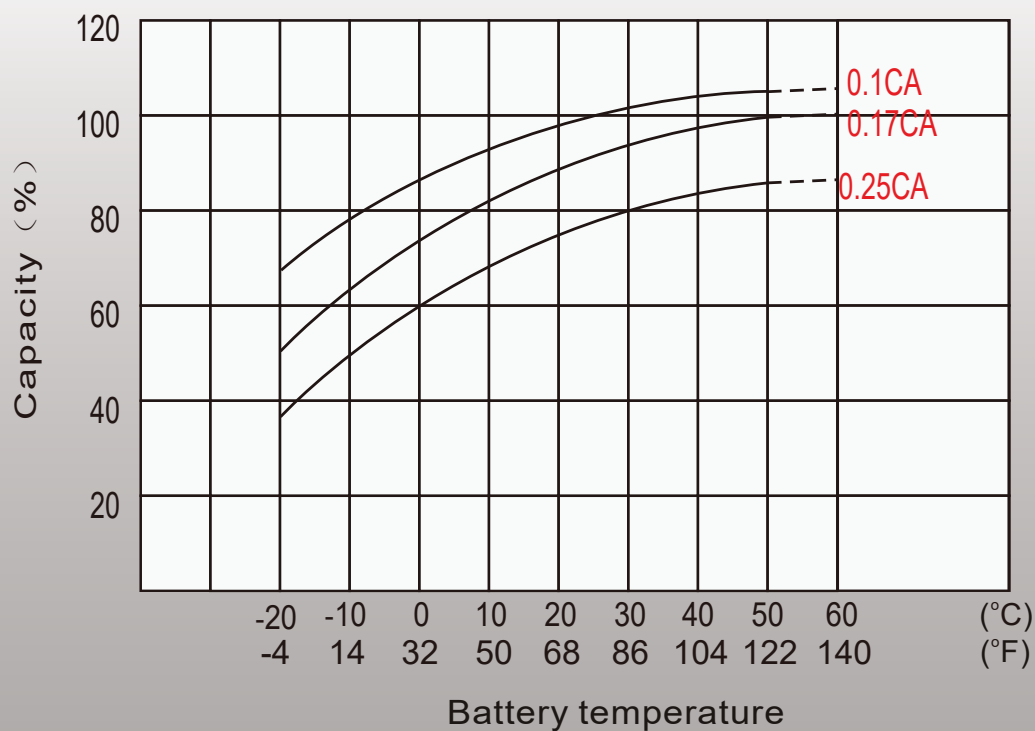
Discharge Characteristics



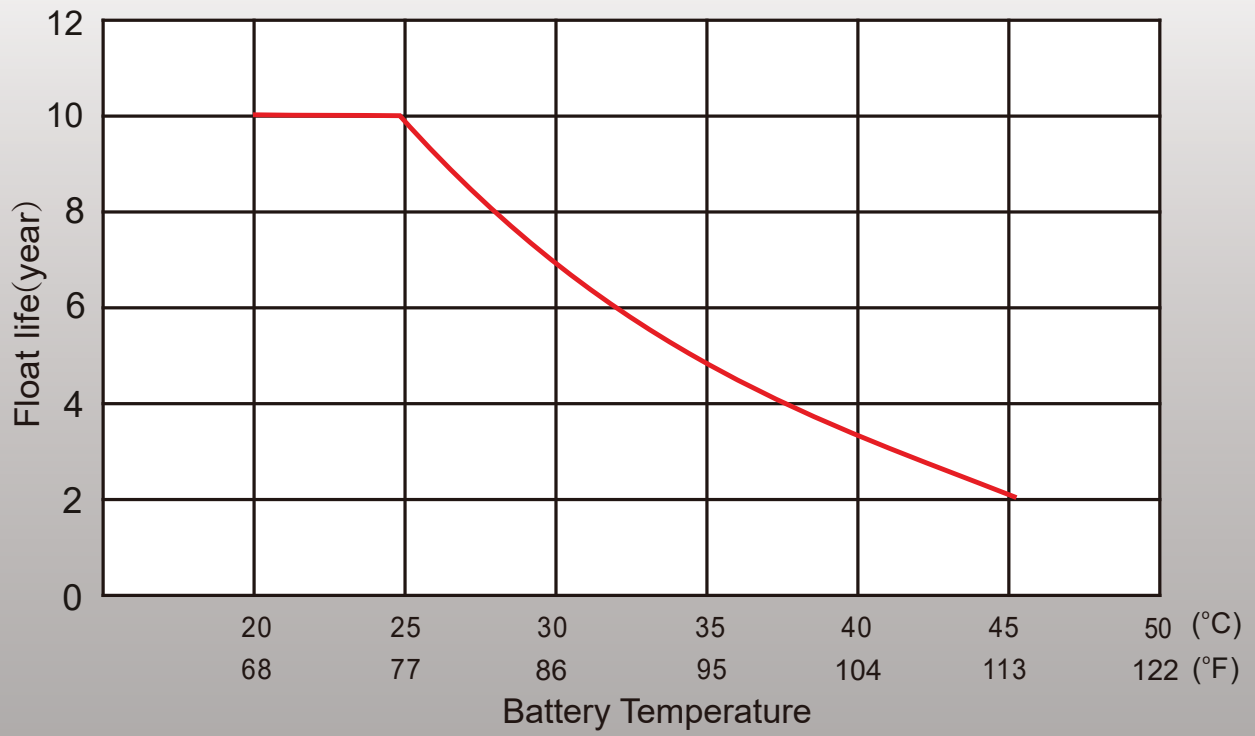
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



ST12-38 (12V 38Ah)



Starmax Corporation

1585 Cliveden Avenue, Delta, British Columbia
V3M 6M1, Canada

Phone: +1 888 669 1310

Email: info@starmaxbatteries.com

Website: www.starmaxbatteries.com

