



GENERAL PURPOSE **BATTERIES**

ST12-55 (12V 55Ah)

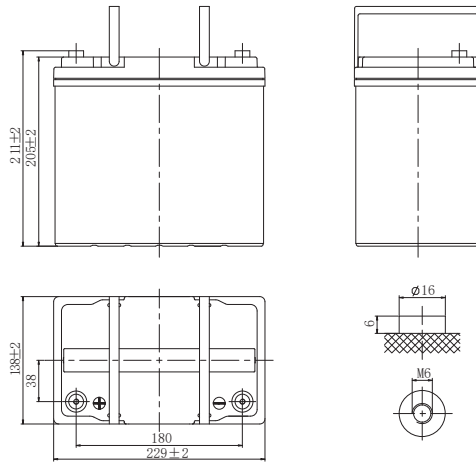


ST SERIES - GENERAL PURPOSE

ST12-55



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	55.0Ah	(C ₁₀ ,1.80V/cell)
Dimensions	Length	229±2mm (9.02 inches)
	Width	138±2mm (5.43 inches)
	Container height	205±2mm (8.07 inches)
	Total height	211±2mm (8.31 inches)
Approx. weight	16.2 Kg (35.7 lbs)	
Terminal	M6	
Container material	ABS	
Rated capacity (25°C)	57.8 Ah	(20hr,2.89A,1.80V/cell)
	55.0 Ah	(10hr,5.50A,1.80V/cell)
	50.0 Ah	(5hr,10.0A,1.75V/cell)
	45.6 Ah	(3hr,15.2A,1.75V/cell)
	35.1 Ah	(1hr,35.1A,1.60V/cell)
Max. discharge current	550A (5s)	
Internal resistance (25°C)	Approx 9.0mΩ	
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 16.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 16.5A. 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.	

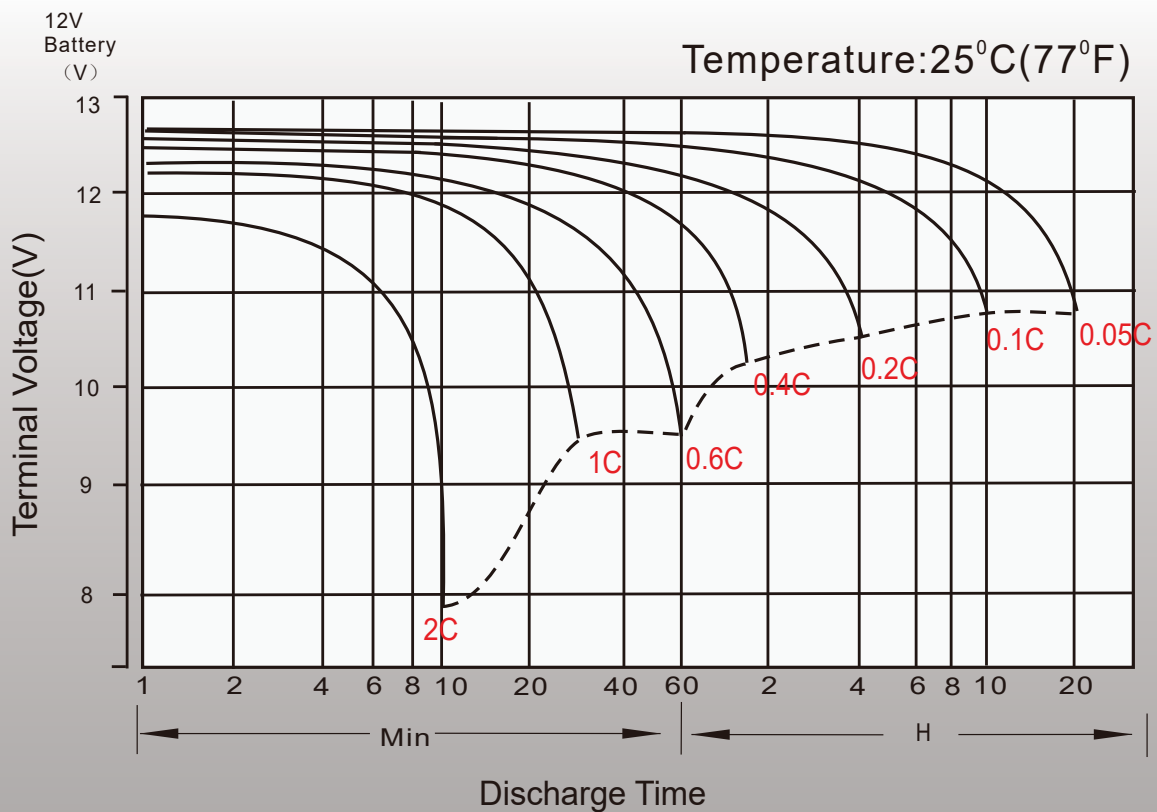
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	112.1	79.7	70.5	55.5	49.6	36.3	30.7	22.3	18.7	13.7	10.8	9.35	8.24	6.34	5.25	2.79
1.80V/cell	127.5	90.5	79.9	62.7	54.0	38.4	31.8	23.0	19.3	14.9	11.5	9.83	8.86	6.67	5.50	2.89
1.75V/cell	138.5	98.2	86.5	67.7	55.1	39.8	33.4	24.2	20.4	15.2	11.7	10.0	8.93	6.70	5.56	2.92
1.70V/cell	148.1	104.7	91.9	71.8	56.2	40.6	34.1	24.7	20.8	15.5	11.9	10.2	8.97	6.81	5.61	2.95
1.67V/cell	153.3	108.0	94.6	73.8	57.0	41.2	34.6	25.1	21.1	15.6	12.1	10.4	9.01	6.90	5.68	2.98
1.60V/cell	158.7	111.7	97.5	75.7	57.9	41.8	35.1	25.4	21.4	15.8	12.2	10.5	9.08	6.99	5.75	3.02

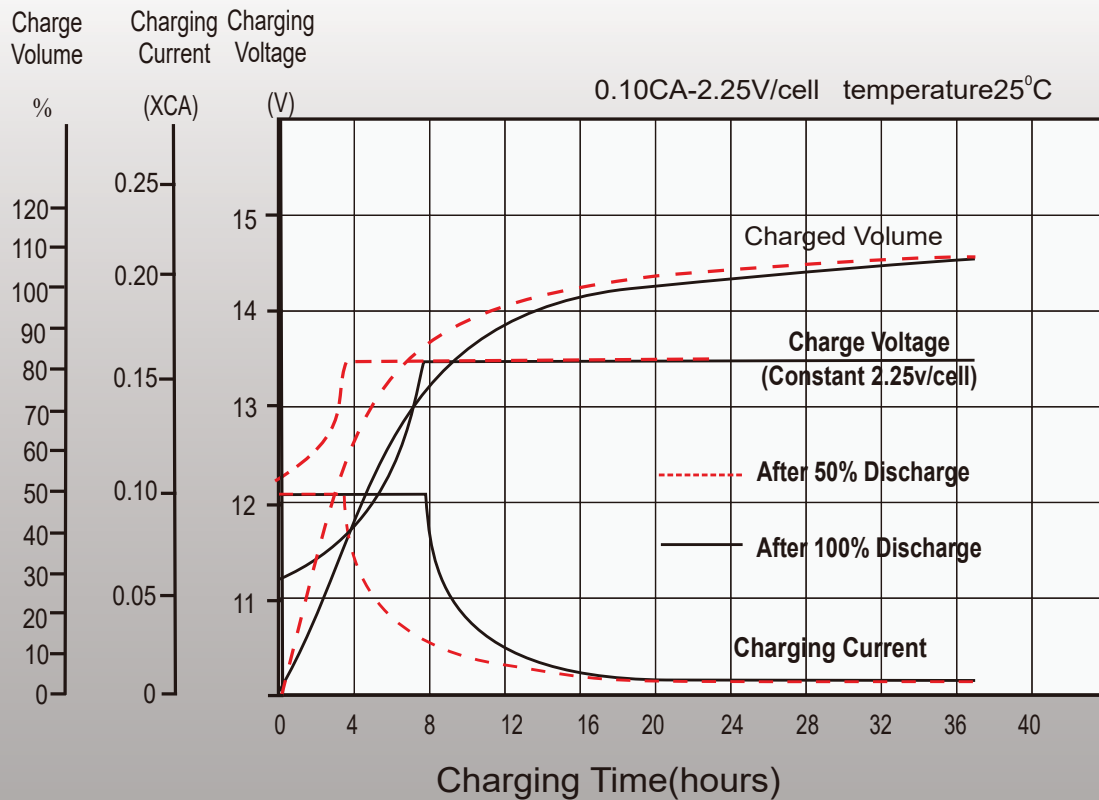
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	203.0	145.4	133.6	105.5	94.8	69.7	59.4	43.2	36.4	26.8	21.1	18.4	16.3	12.6	10.4	5.55
1.80V/cell	227.1	162.7	149.4	118.0	102.4	73.4	61.2	44.4	37.4	29.0	22.5	19.3	17.4	13.2	10.9	5.74
1.75V/cell	242.4	173.6	159.5	126.0	103.7	75.6	64.0	46.5	39.2	29.5	22.8	19.6	17.5	13.2	11.0	5.79
1.70V/cell	254.8	182.5	167.6	132.4	104.9	76.6	64.9	47.2	39.9	29.9	23.1	19.8	17.6	13.4	11.1	5.84
1.67V/cell	259.0	185.5	170.4	134.6	105.6	77.3	65.5	47.7	40.3	30.1	23.4	20.2	17.6	13.6	11.2	5.91
1.60V/cell	262.6	188.1	172.8	136.5	106.1	77.7	66.0	48.0	40.6	30.2	23.6	20.4	17.7	13.7	11.4	5.97

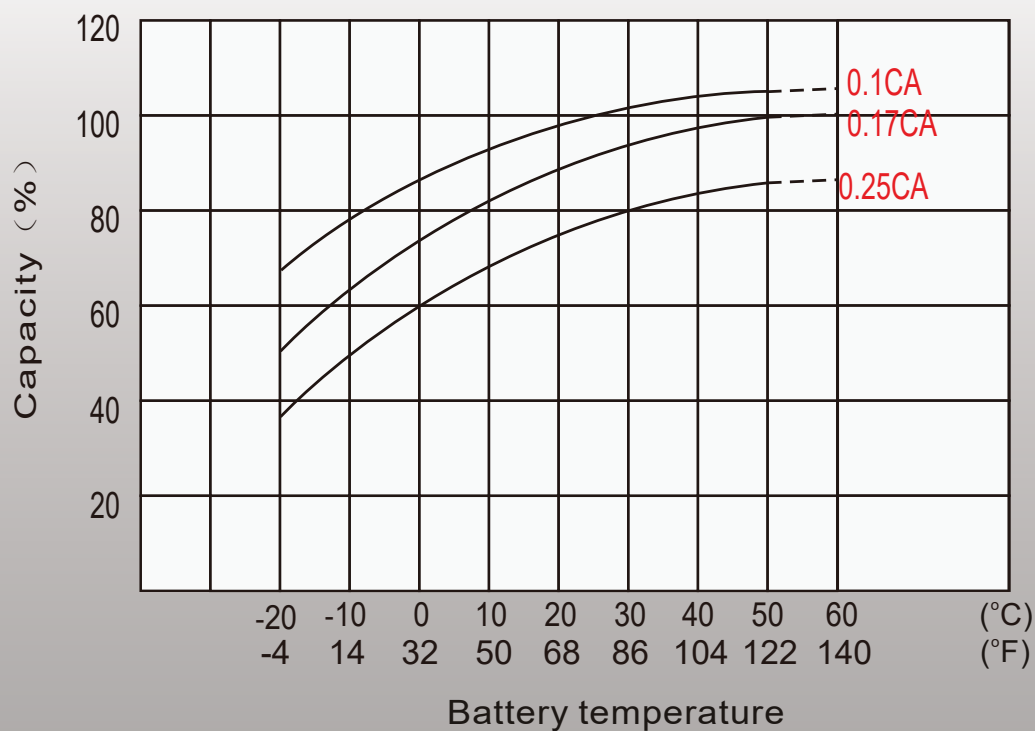
Discharge Characteristics



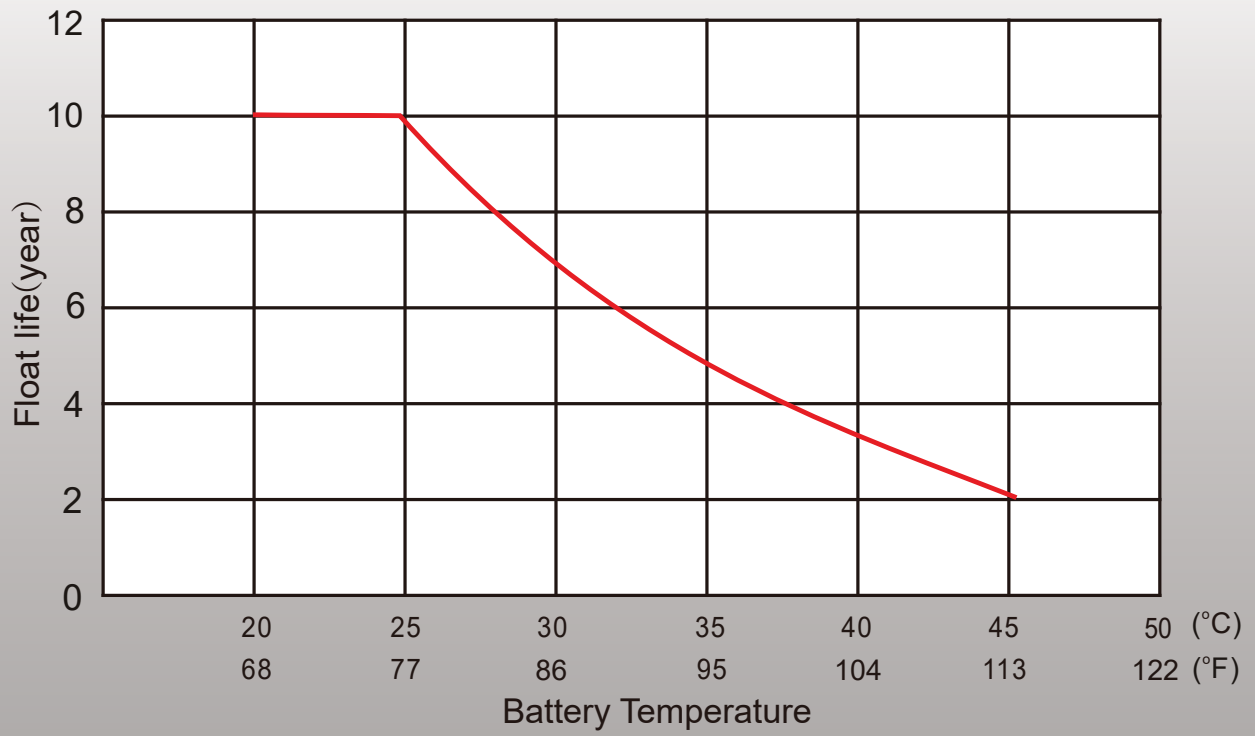
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



ST12-55 (12V 55Ah)



Starmax Corporation

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

Phone: +1 888 669 1310

Email: info@starmaxbatteries.com

Website: www.starmaxbatteries.com

