



GENERAL PURPOSE **BATTERIES**

ST12-33 (12V 33Ah)



www.starmaxbatteries.com

SPECIFICATIONS

Rated Voltage	12V	
Nominal Capacity	33.0Ah	(C ₂₀ ,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	10.15 Kg (22.37 lbs)	
Terminal	T3	
Container material	ABS	
Rated capacity (25°C)	33.0 Ah	(20hr,1.65A,1.75V/cell)
	31.2 Ah	(10hr,3.12A,1.75V/cell)
	28.4 Ah	(5hr,5.68A,1.75V/cell)
	25.3 Ah	(3hr,8.42A,1.75V/cell)
	21.0 Ah	(1hr,21.0A,1.60V/cell)
Max. discharge current	495A (5s)	
Internal resistance (25°C)	Approx 12mΩ	
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 9.9A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 9.9A. 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.	

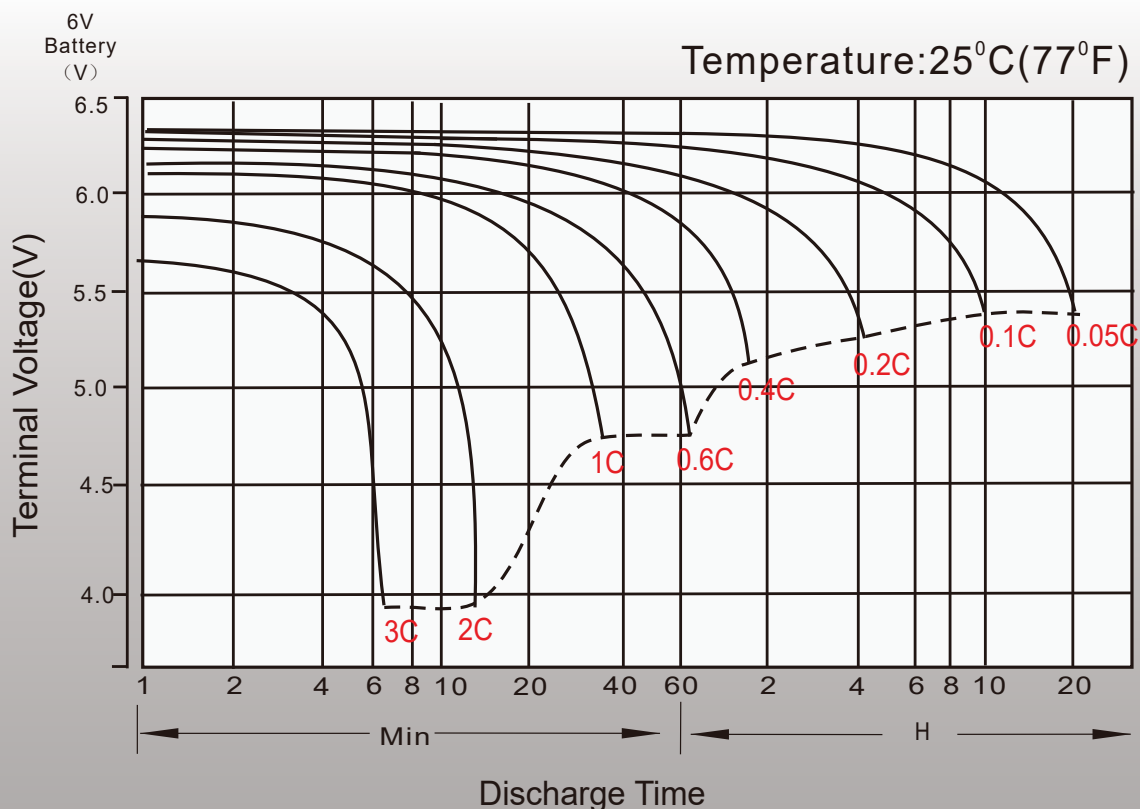
Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	92.4	63.5	49.8	41.0	30.8	22.9	19.0	14.2	11.3	8.15	6.50	5.53	4.73	3.73	3.05	1.61
1.80V/cell	99.3	67.3	52.2	42.7	31.7	23.5	19.5	14.5	11.5	8.29	6.59	5.61	4.81	3.78	3.09	1.63
1.75V/cell	104.6	70.0	54.0	43.8	32.6	24.0	19.9	14.7	11.7	8.42	6.68	5.68	4.86	3.82	3.12	1.65
1.70V/cell	109.6	72.9	55.8	45.1	33.4	24.5	20.3	15.0	11.9	8.54	6.77	5.76	4.92	3.86	3.15	1.66
1.67V/cell	113.4	74.9	57.1	46.1	34.0	24.9	20.6	15.2	12.0	8.62	6.84	5.81	4.97	3.90	3.18	1.68
1.60V/cell	120.3	78.1	59.1	47.4	34.9	25.5	21.0	15.5	12.3	8.78	6.96	5.90	5.04	3.95	3.22	1.69

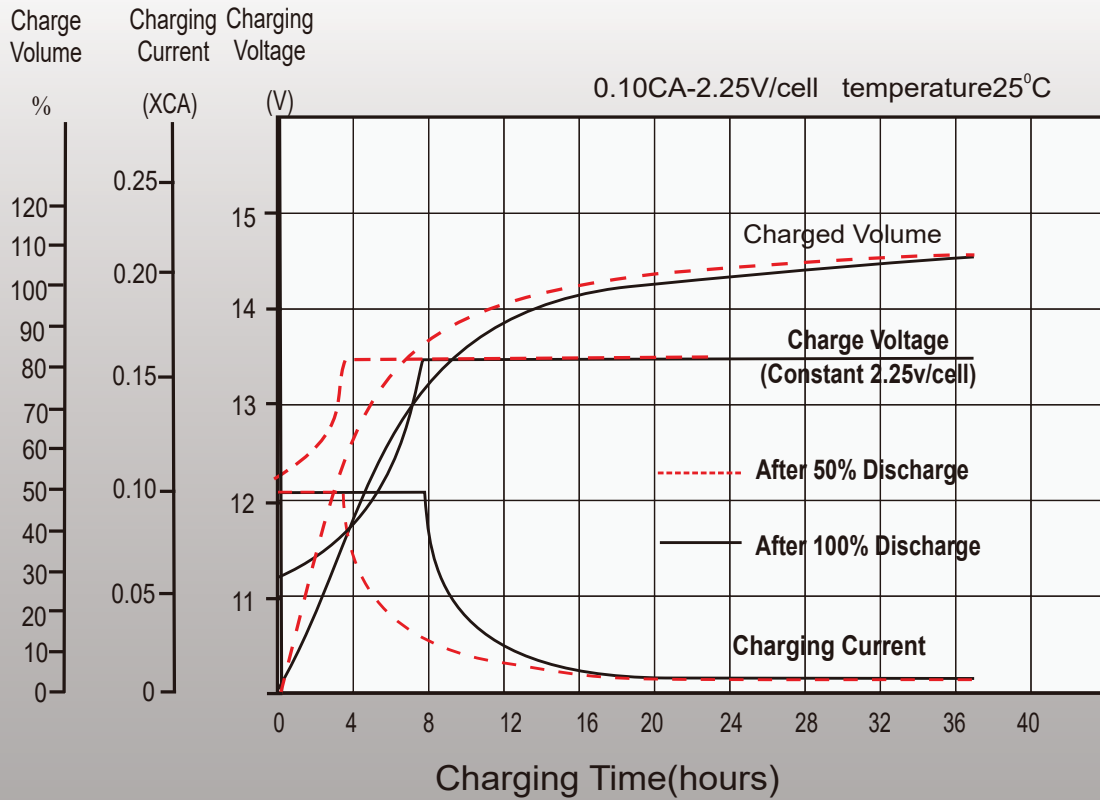
Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	174.7	120.9	95.3	79.0	59.5	44.4	37.0	27.6	22.1	16.0	12.8	10.9	9.37	7.39	6.06	3.23
1.80V/cell	186.1	127.3	99.4	81.7	61.1	45.4	37.8	28.1	22.5	16.3	13.0	11.1	9.50	7.49	6.14	3.26
1.75V/cell	193.9	131.5	102.1	83.6	62.4	46.2	38.4	28.6	22.8	16.5	13.1	11.2	9.60	7.57	6.19	3.30
1.70V/cell	201.1	135.8	104.8	85.5	63.7	47.1	39.0	29.0	23.1	16.7	13.3	11.3	9.70	7.64	6.25	3.33
1.67V/cell	206.4	138.8	107.1	87.1	64.7	47.7	39.5	29.3	23.3	16.8	13.4	11.4	9.78	7.70	6.29	3.35
1.60V/cell	214.7	142.9	110.0	89.2	66.1	48.6	40.2	29.8	23.7	17.1	13.6	11.6	9.89	7.80	6.37	3.39

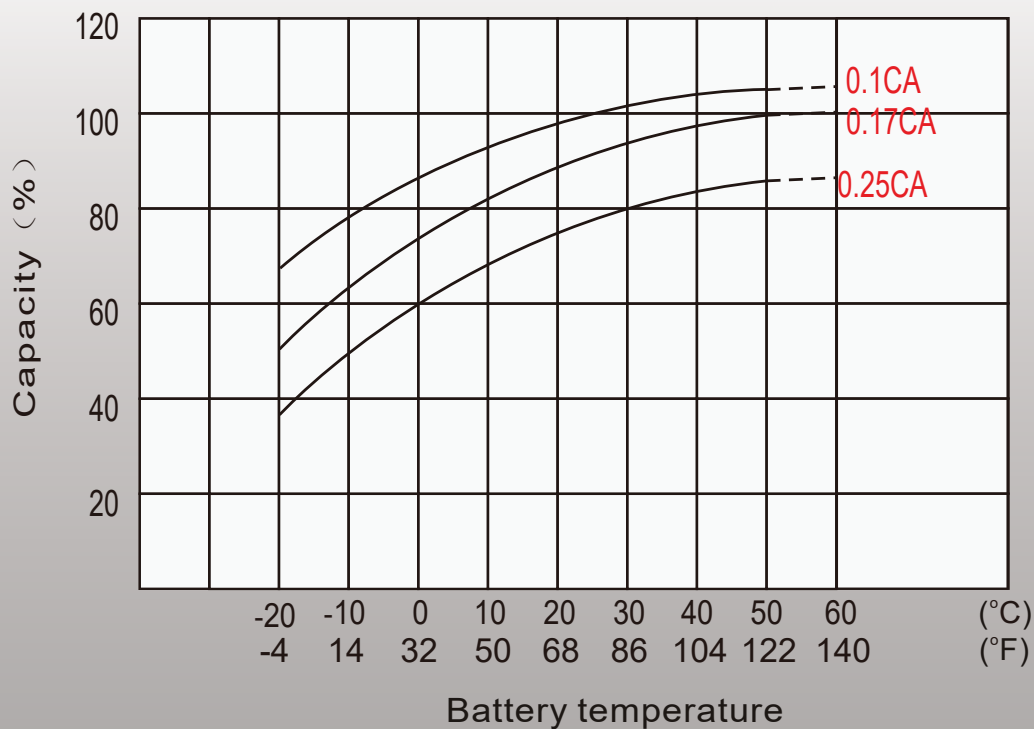
Discharge Characteristics



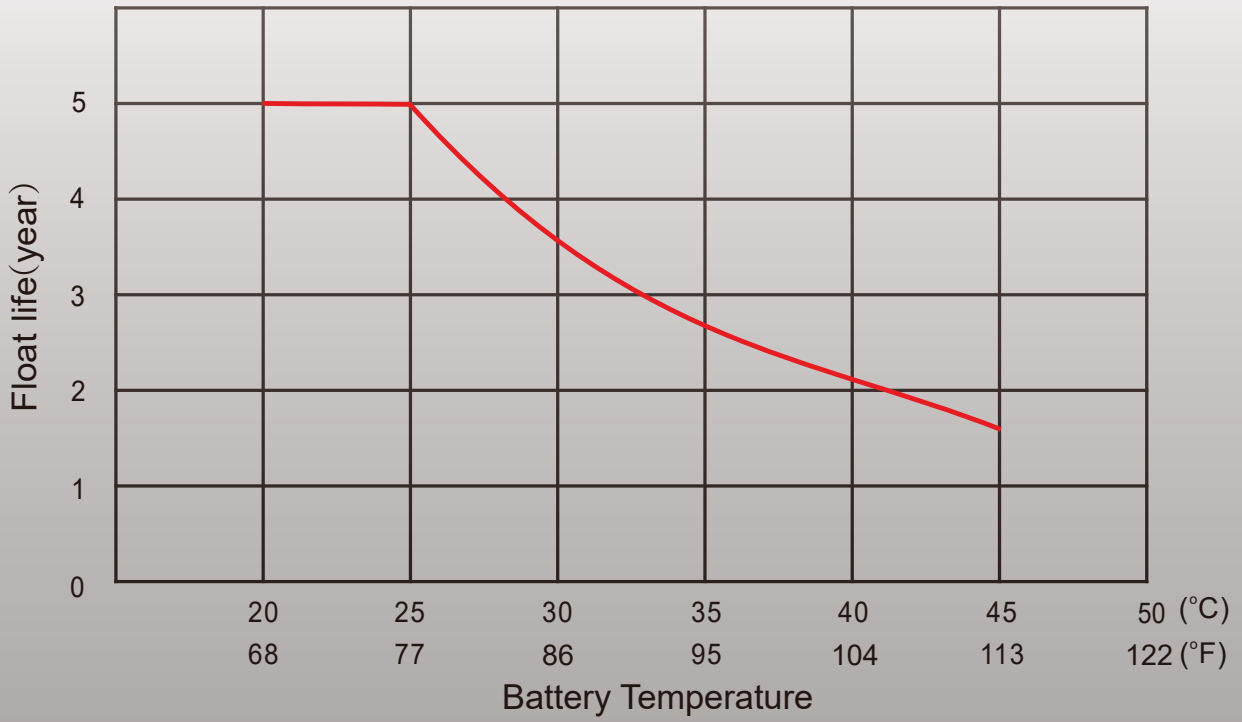
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



ST12-33 (12V 33Ah)



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