

**Specifications**

Nominal Voltage	12V	
Rated Capacity(20 hour rate)	80Ah	
Dimensions	Total Height (with terminals)	8.51inches (216mm)
	Height	8.31inches (211mm)
	Length	10.24inches(260mm)
	Width	6.65inches (169mm)
Weight	Approx. 51.92pound(23.6kg)	

**Characteristics**

Capacity 77°F(25°C)	20 hour rate (4.0A)	80Ah
	10 hour rate (7.36A)	73.6Ah
	5 hour rate (12.8A)	64Ah
	1 hour rate (48A)	48Ah
	15 minute Rate (130A)	32.5Ah
Internal Resistance	Full charged Battery 77°F(25°C)	6.0mΩ
Capacity affected by Temperature (20 hour rate)	104°F(40°C)	102%
	77°F(25°C)	100%
	32°F(0°C)	85%
	5°F(-15°C)	65%
Self-Discharge 77°F(20°C)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	81%
	Capacity after 12 month storage	60%
Max. Discharge Current 77°F(25°C)	680A(5S)	
Terminal	M1	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 24A Voltage 14.4~14.7V/77°F(25°C)
	Float	Voltage 13.5~13.8V/77°F(25°C)

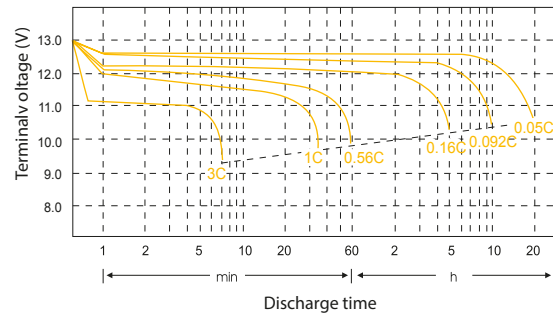
**Constant Current Discharge (AMPERES @25°C)**

F.V/Tme	10Min	15Min	30Min	60Min	2H	3H	4H	5H	8H	10H	20H
1.60	181	130	84.9	50.5	29.7	21.1	16.6	14.1	9.78	7.92	4.19
1.65	174	125	81.6	48.6	28.6	20.9	16.4	14.0	9.68	7.84	4.15
1.70	164	119	69.4	48.2	28.2	20.0	15.8	13.5	9.52	7.67	4.08
1.75	144	114	65.2	48.0	27.9	19.6	15.2	12.8	9.32	7.36	4.00
1.80	138	110	62.7	46.2	26.8	18.9	14.7	12.3	8.96	7.08	3.85
1.85	113	95.4	57.7	42.5	25.7	17.9	13.9	11.7	8.51	6.73	3.66

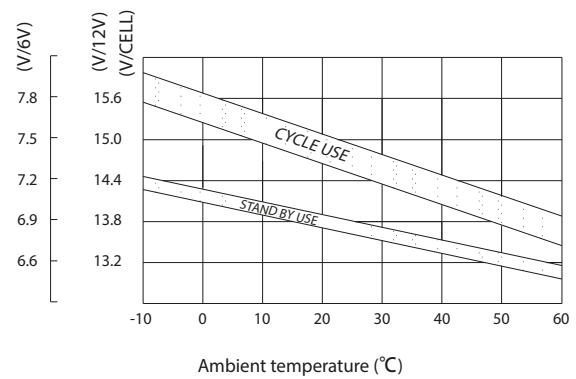
**Constant Power Discharge (WATTS PER CELL @25°C)**

F.V/Tme	10Min	15Min	30Min	60Min	2H	3H	4H	5H	8H	10H	20H
1.60	313	239	157	95.0	55.8	39.1	30.8	25.7	17.5	14.5	7.90
1.65	309	237	153	94.1	55.0	38.7	30.5	25.5	17.4	14.3	7.87
1.70	303	230	149	92.3	53.7	38.4	30.1	25.0	17.1	13.9	7.81
1.75	283	224	137	92.1	53.0	37.9	29.7	24.7	17.0	13.8	7.79
1.80	263	209	128	91.5	52.2	37.0	29.3	24.6	16.6	13.5	7.75
1.85	218	183	118	85.1	51.0	36.6	28.5	23.5	16.0	13.4	7.31

**Discharge Curves 77°F(25°C)**

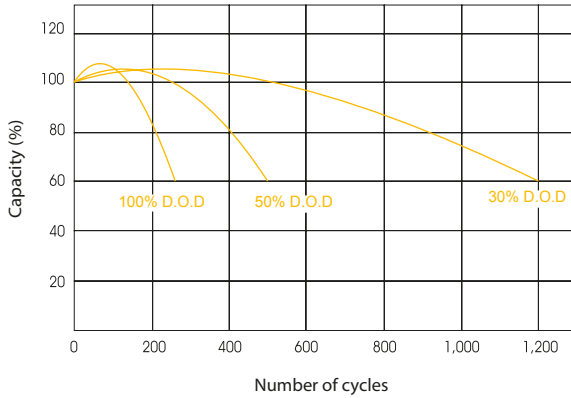


**Relationship between charge voltage and temperature**

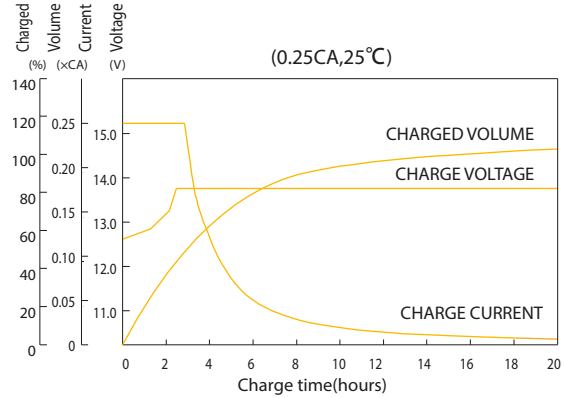


The operating environment temperature above 40°C should be avoided, After long term storage, The battery actual capacity would be less than the rated capacity. Full capacity will be obtained through several charge/discharge cycles. To get the longest life, ENSMART battery should be fully charged before storage.

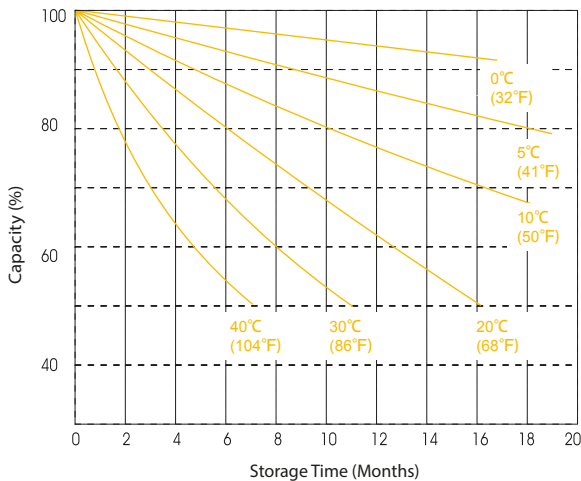
■ Cycle service life in relation to depth of discharge



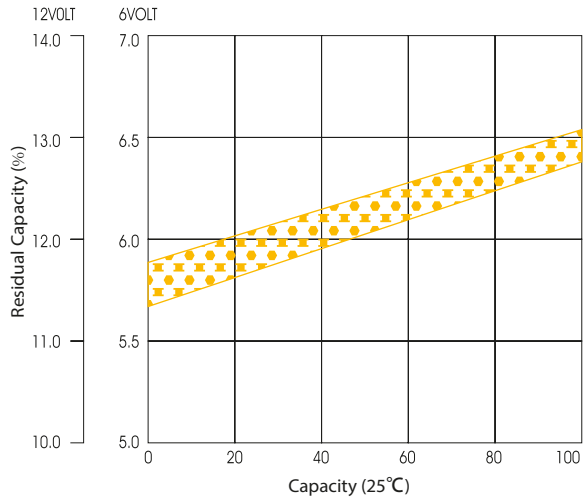
■ Constant voltage charge characteristic



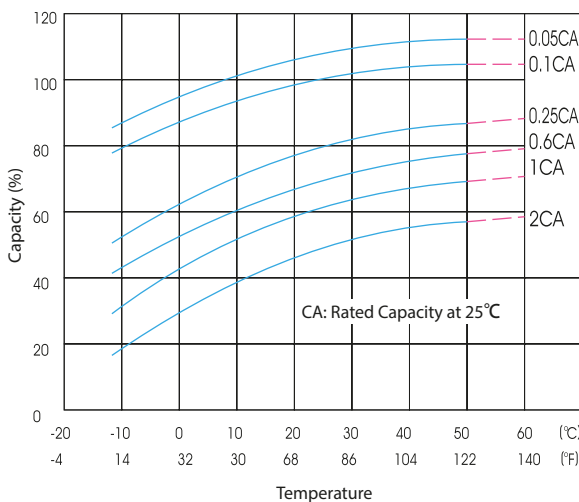
■ Self-Discharge Characteristics



■ Relationship of OCV and Residual Capacity % (25°C)



■ Temperature effects on capacity



■ Temperature effects float life

