

Specifications

Nominal Voltage	12V	
Rated Capacity(20 hour rate)	50Ah	
Dimensions	Total Height (with terminals)	8.39inches (213mm)
	Height	8.19inches (208mm)
	Length	9.02inches (229mm)
	Width	5.43inches (138mm)
Weight	Approx. 35.20pound(16.0kg)	

Characteristics

Capacity 77°F(25°C)	20 hour rate (2.5A)	50Ah
	10 hour rate (4.6A)	46Ah
	5 hour rate (8.0A)	40Ah
	1 hour rate (30A)	30Ah
	15 minute Rate (82.4A)	20.6Ah
Internal Resistance	Full charged Battery 77°F(25°C)	6.5mΩ
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)	500A(5S)	
Terminal	M1	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 15A Voltage 14.4~14.7V/77°F(25°C)
	Float	Voltage 13.5~13.8V/77°F(25°C)

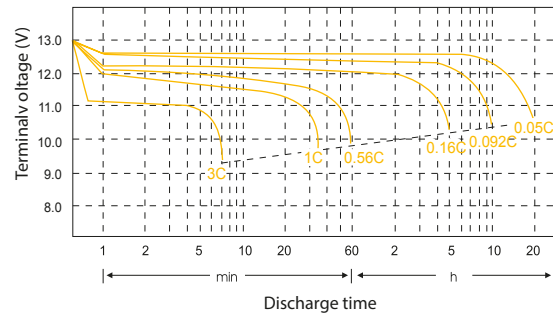
Constant Current Discharge (AMPERES @25°C)

F.V/Time	10Min	15Min	30Min	60Min	2H	3H	4H	5H	8H	10H	20H
1.60	113	82.4	54.1	32.4	18.7	12.9	10.2	8.84	6.16	4.95	2.59
1.65	109	79.2	52.0	31.2	18.0	12.8	10.1	8.75	6.10	4.90	2.56
1.70	103	78.5	48.0	31.0	17.6	12.5	9.85	8.45	5.95	4.80	2.54
1.75	90.0	71.2	46.6	30.0	17.3	12.3	9.53	8.00	5.82	4.60	2.50
1.80	86.5	68.5	44.8	28.8	16.6	11.8	9.16	7.69	5.60	4.42	2.40
1.85	70.9	59.6	41.2	26.5	15.9	11.2	8.70	7.31	5.32	4.20	2.28

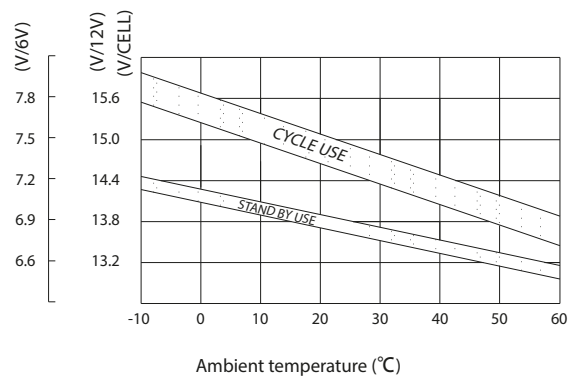
Constant Power Discharge (WATTS PER CELL @25°C)

F.V/Time	10Min	15Min	30Min	60Min	2H	3H	4H	5H	8H	10H	20H
1.60	223	173	103	64.5	38.4	27.2	21.3	17.6	10.9	9.10	4.98
1.65	210	165	101	63.0	37.6	26.6	20.9	17.3	10.9	9.10	4.98
1.70	199	157	100	61.5	36.9	26.1	20.5	17.0	10.9	9.10	4.98
1.75	187	151	98.0	60.2	35.8	25.5	20.1	16.8	10.8	9.00	4.98
1.80	174	144	97.0	58.6	34.8	24.9	19.7	16.6	10.7	8.90	4.88
1.85	144	121	78.0	56.4	33.7	24.2	18.9	15.5	10.6	8.40	4.61

Discharge Curves 77°F(25°C)

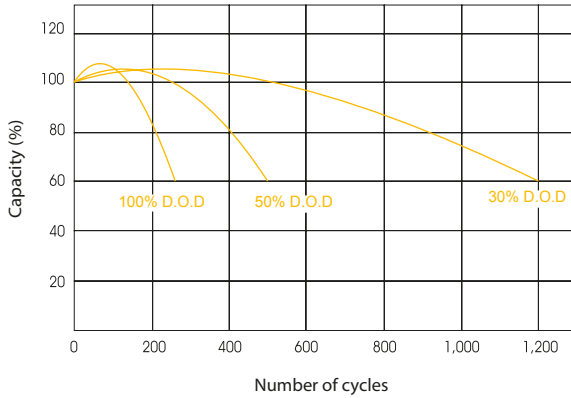


Relationship between charge voltage and temperature

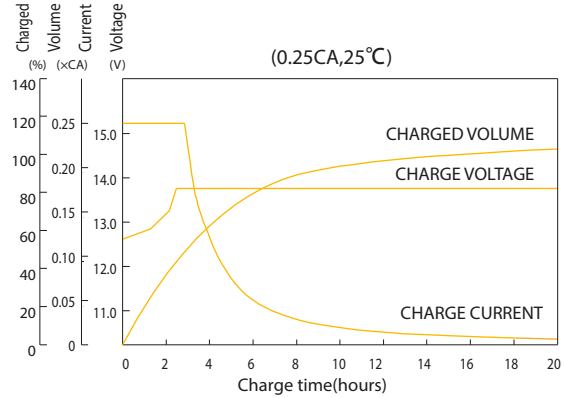


The operating environment temperature above 40°C should be avoided, After long term storage, The battery actual capacity would be less than the rated capacity. Full capacity will be obtained through several charge/discharge cycles. To get the longest life, ENSMART battery should be fully charged before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

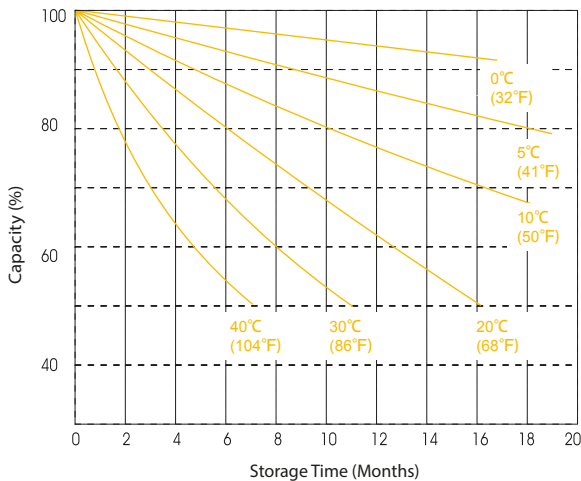
■ Cycle service life in relation to depth of discharge



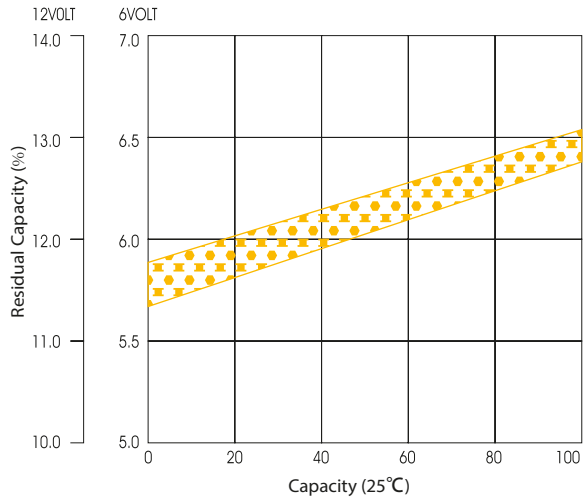
■ Constant voltage charge characteristic



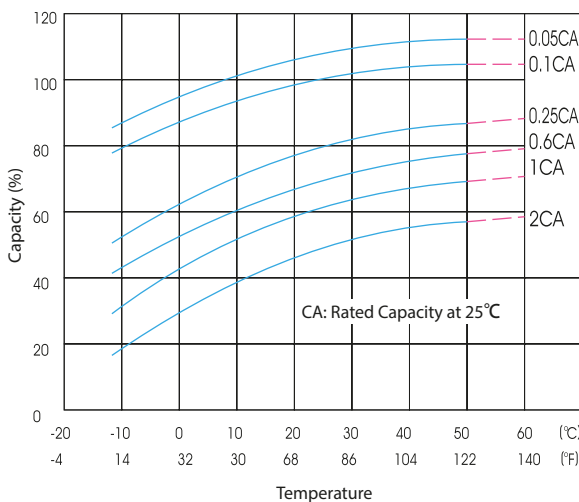
■ Self-Discharge Characteristics



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



■ Temperature effects on capacity



■ Temperature effects float life

