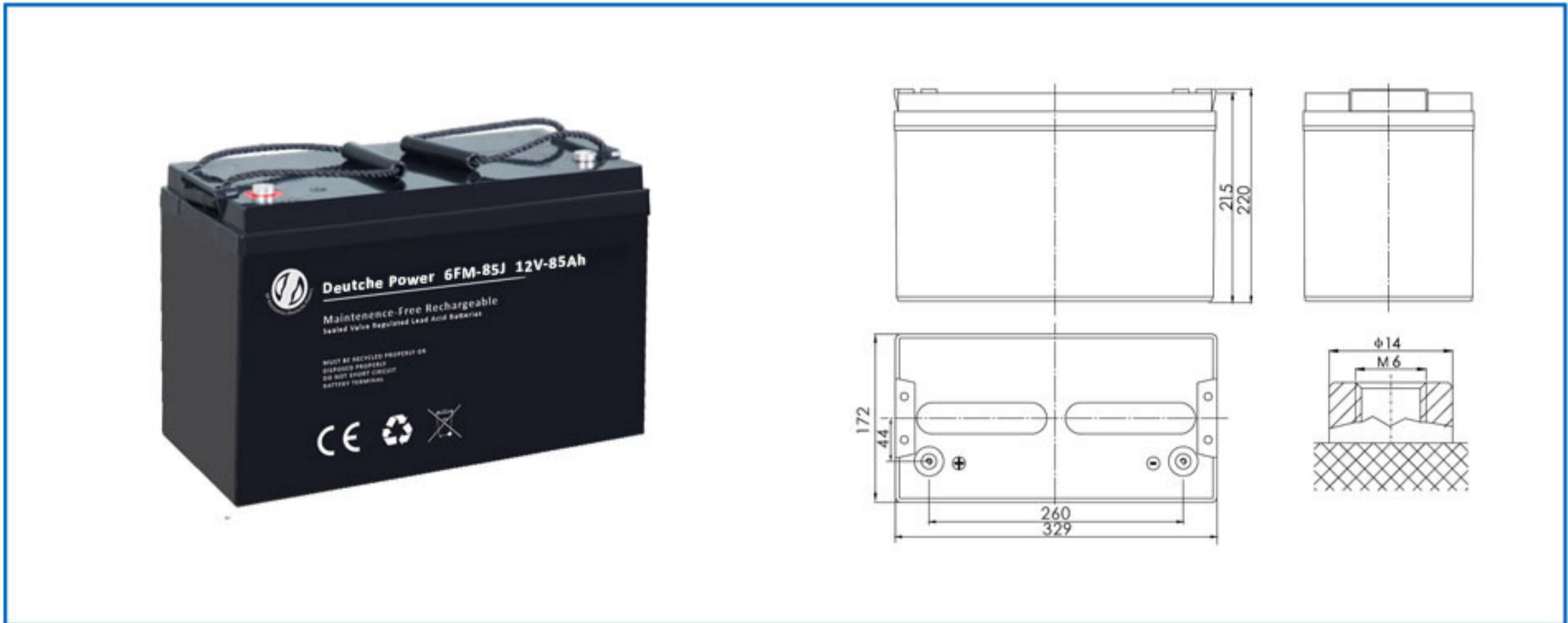


FM/NPG-85

Deep Cycle Gel Design



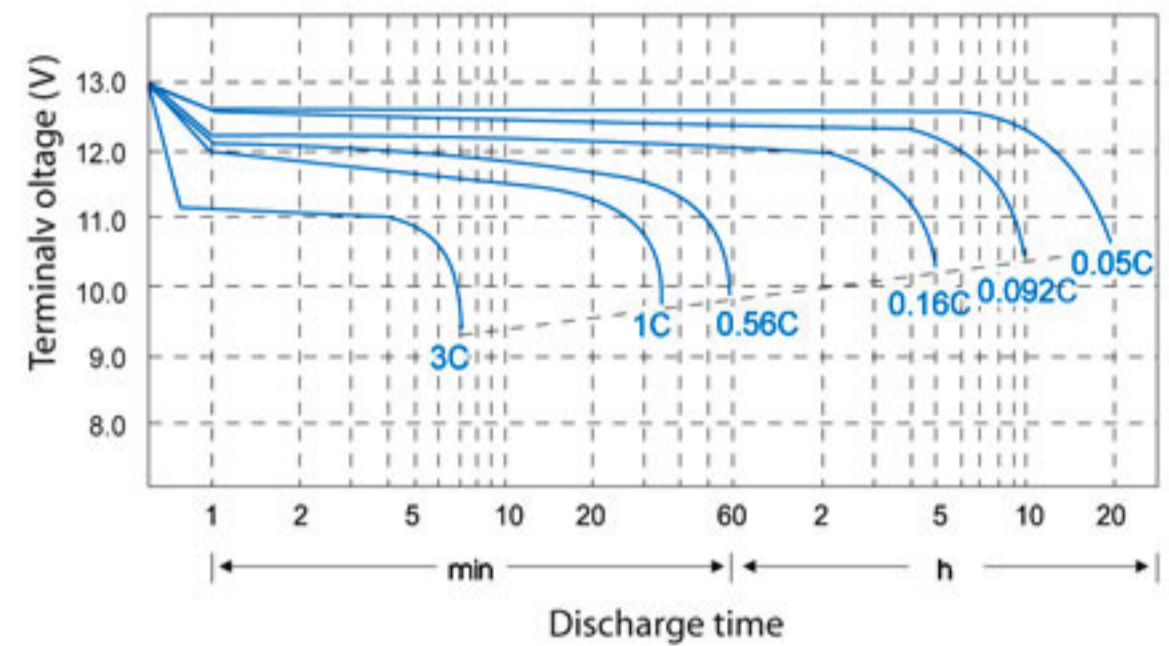
Specifications

Nominal Voltage	12V	
Rated Capacity (20 hour rate)	85Ah	
Dimensions	Total Height (with terminals)	8.66 inches(220mm)
	Height	8.46 inches(215mm)
	length	12.95 inches(329mm)
	width	6.77 inches(172mm)
Weight	Approx.60.5Pound(27.5kg)	

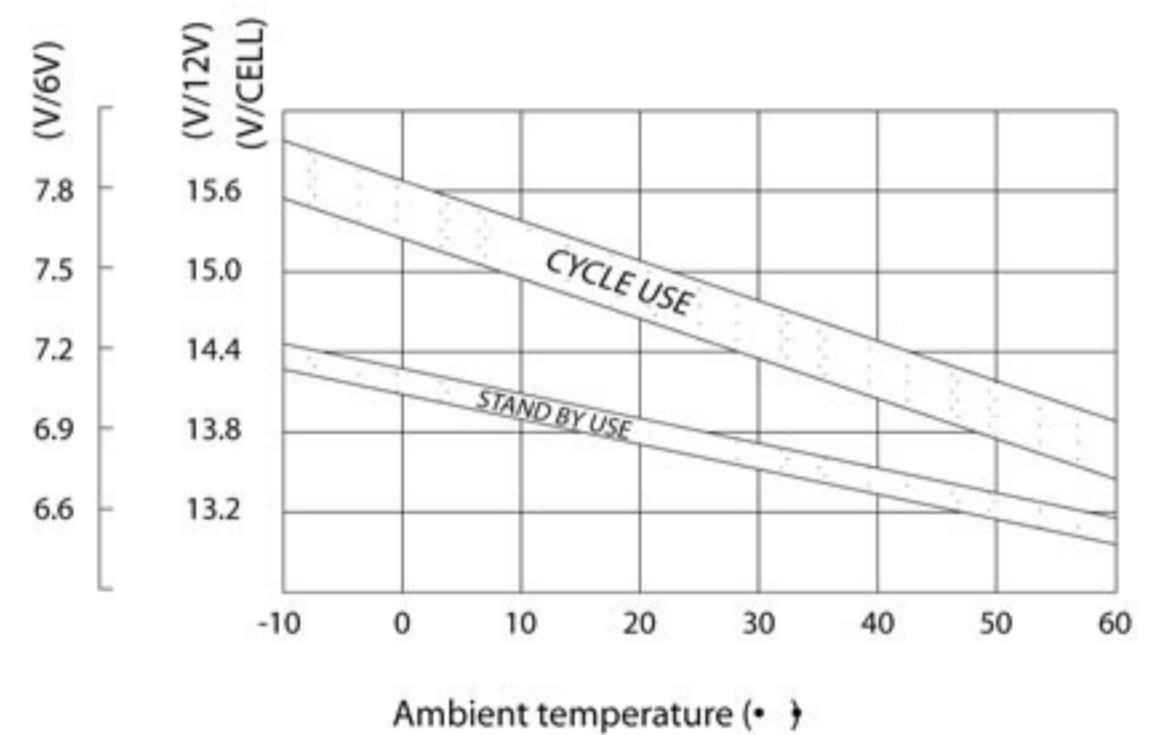
Characteristics

Capacity 77°F (25°C)	20 hour rate (4.25A)	85.0Ah
	10 hour rate (7.82A)	78.2Ah
	5 hour rate (13.6A)	68.0Ah
	1 hour rate (51.0A)	51.0Ah
	15 minute Rate (138A)	34.5Ah
Internal Resistance	Full charged Battery 77°F (25°C)	5.5mΩ
	104°F (40°C)	102%
Capacity affected by Temperature (20hour rate)	77°F (25°C)	100%
	32°F (0°C)	85%
	5°F (-15°C)	65%
	Capacity after 3 month storage	91%
Self-Discharge 77°F (25°C)	Capacity after 6 month storage	81%
	Capacity after 12 month storage	60%
	Max. Discharge Current 77°F (25°C)	723A(5S)
Terminal	M1	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 25.5A
		Voltage 14.4~14.7V / 77°F (25°C)
	Float	Voltage 13.5~13.8V / 77°F (25°C)

Discharge Curves 77°F(25°C)



Relationship between charge voltage and temperature



Constant Current Discharge (AMPERES @25°C)

F.V/Time	10Min	15Min	30Min	45Min	1Hour	2Hour	3Hour	5Hour	8Hour	10Hour	12Hour	24Hour
1.65	187.2	144.9	88.0	69.1	46.8	32.6	22.52	15.10	10.70	8.45	7.26	3.74
1.70	176.9	135.5	74.9	65.3	44.8	31.8	21.57	14.58	10.27	8.27	7.04	3.67
1.80	149.3	118.2	67.6	61.7	42.6	30.5	20.36	13.80	9.66	7.94	6.84	3.61

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

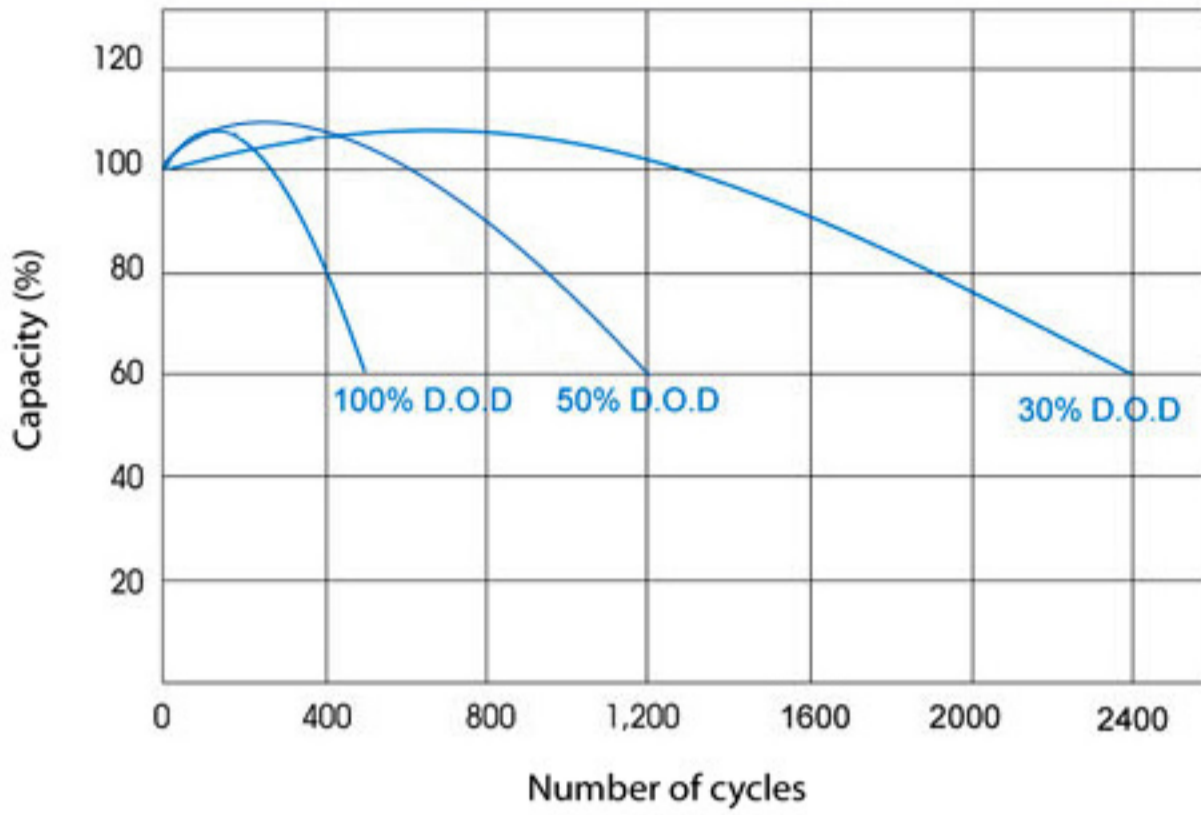
F.V/Time	10Min	15Min	30Min	45Min	1Hour	2Hour	3Hour	5Hour	8Hour	10Hour	12Hour	24H
1.60	338	258	170	126	102.5	60.2	42.1	27.7	18.9	15.63	13.60	7.09
1.65	333	256	165	125	101.5	59.3	41.7	27.5	18.8	15.43	13.50	7.07
1.67	331	253	162	124	100.1	58.7	41.6	27.4	18.6	15.33	13.40	7.05
1.70	327	248	160	123	99.6	58.0	41.4	27.0	18.5	15.02	13.40	7.02
1.75	306	242	148	122	99.4	57.1	40.9	26.6	18.4	14.92	13.40	7.01
1.80	283	225	138	121	98.7	56.3	39.9	26.5	17.9	14.51	12.69	6.96
1.85	235	197	127	109	91.8	55.0	39.5	25.4	17.3	14.41	12.48	6.57

FM/NPG-85

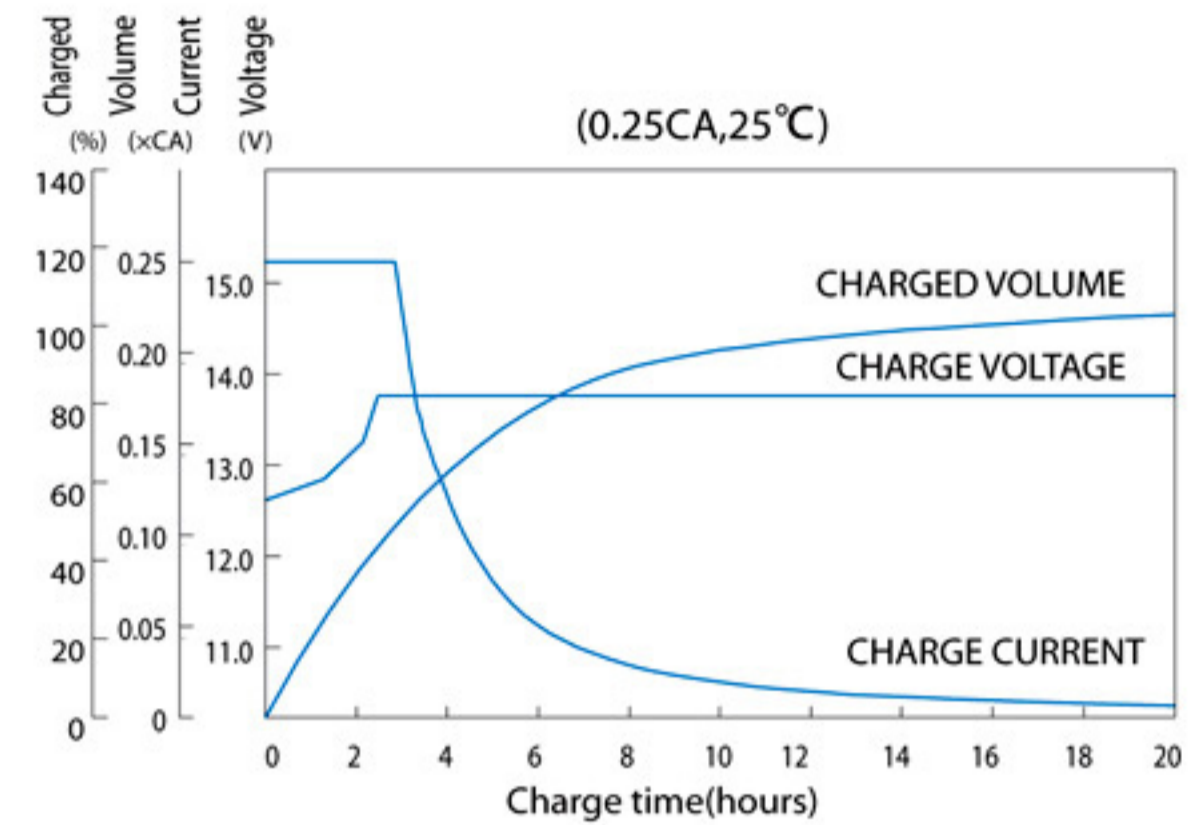
Deep Cycle Gel Design

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, Deutsche Power battery should be fully charged before storage.

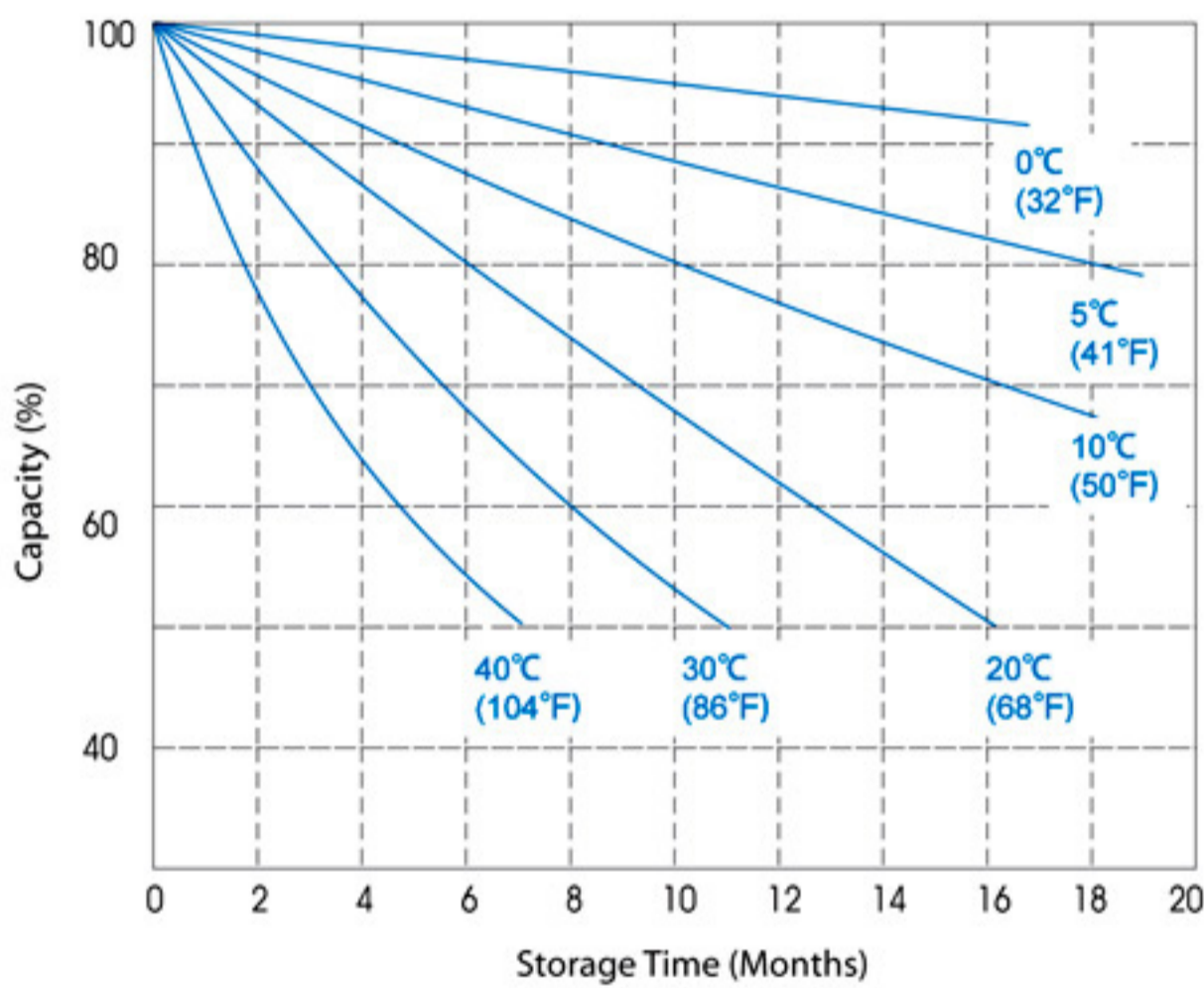
Cycle service life in relation to depth of discharge



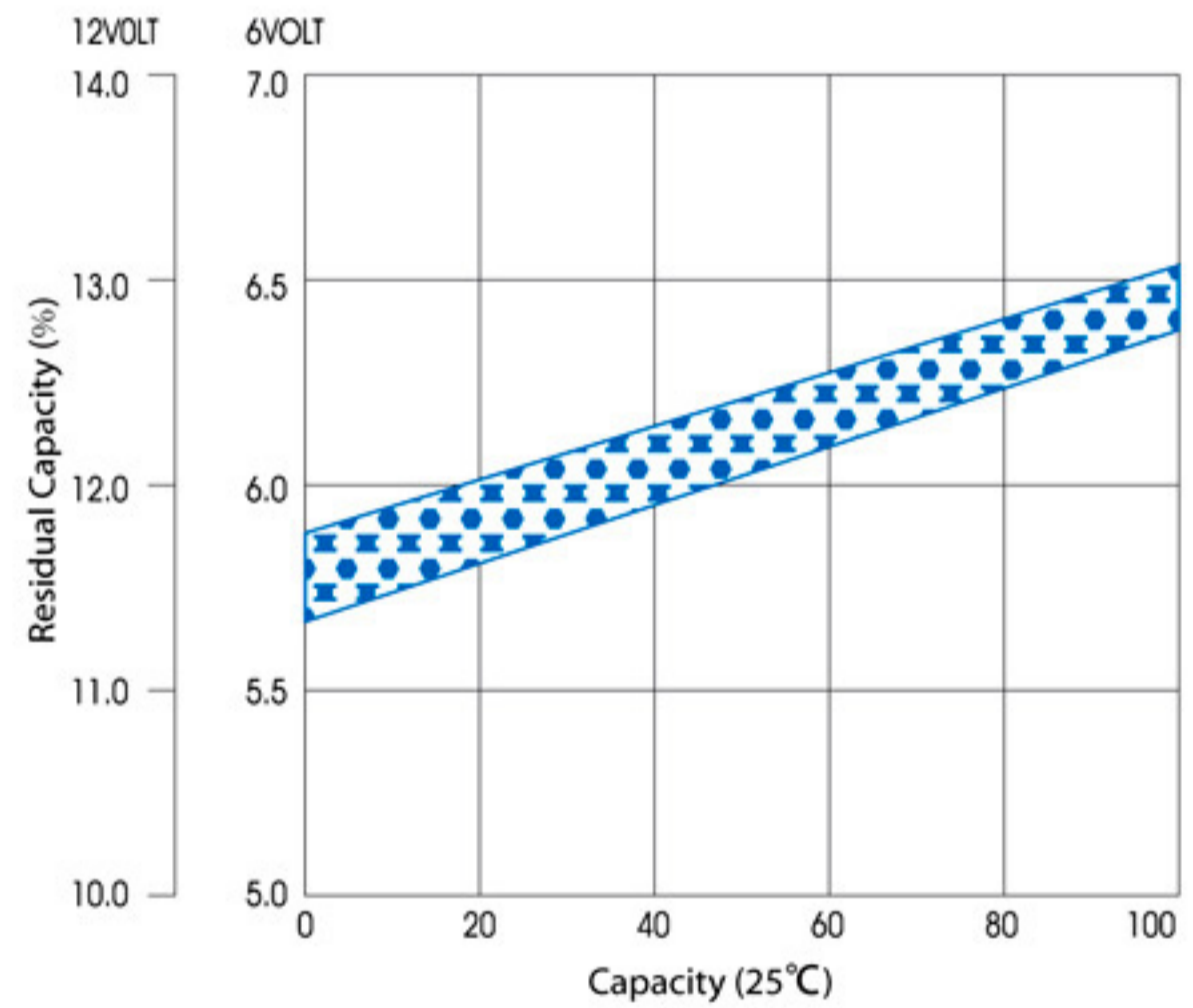
Constant voltage charge characteristic



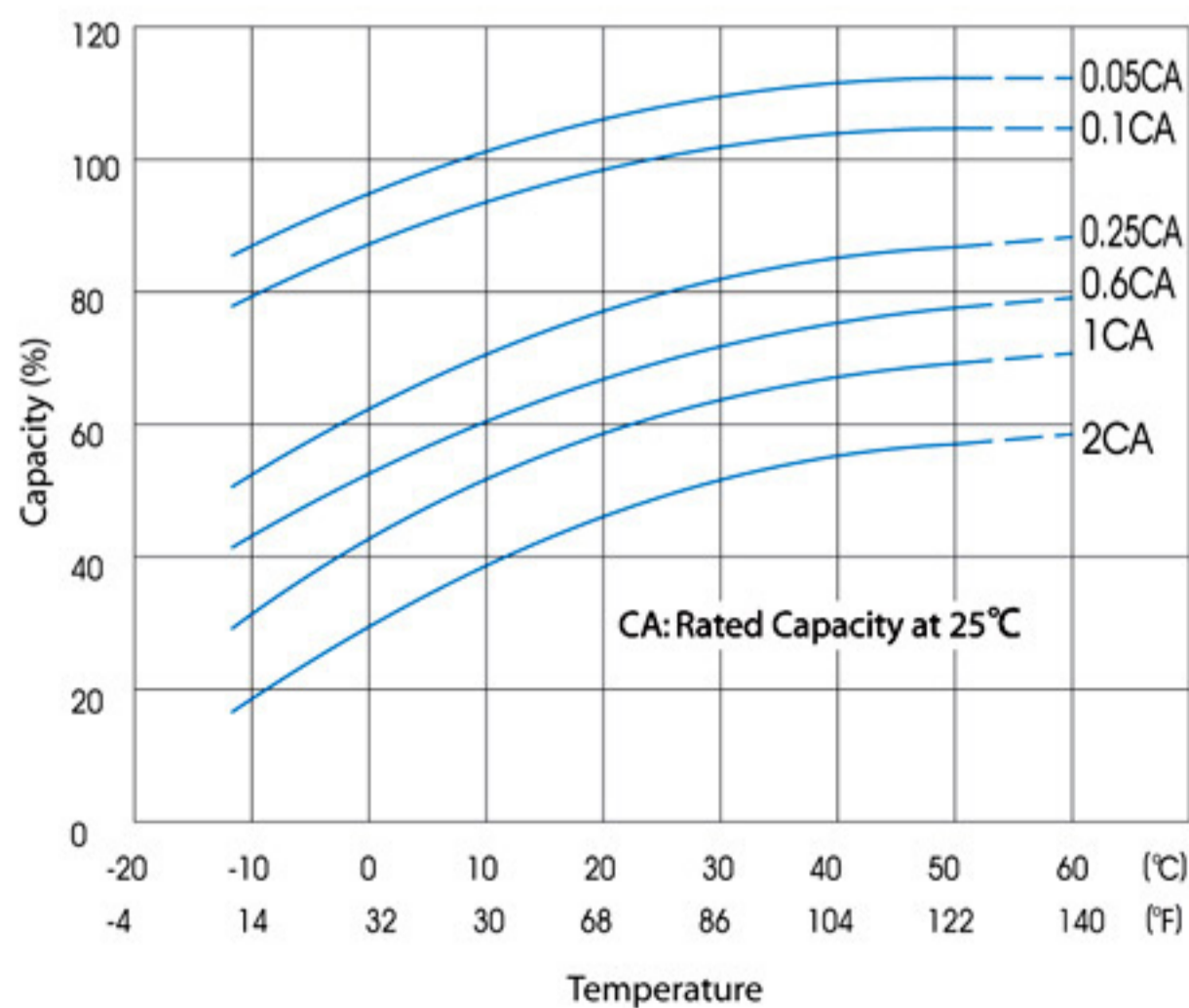
Self-Discharge Characteristics



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



Temperature effects on capacity



Temperature effects float life

