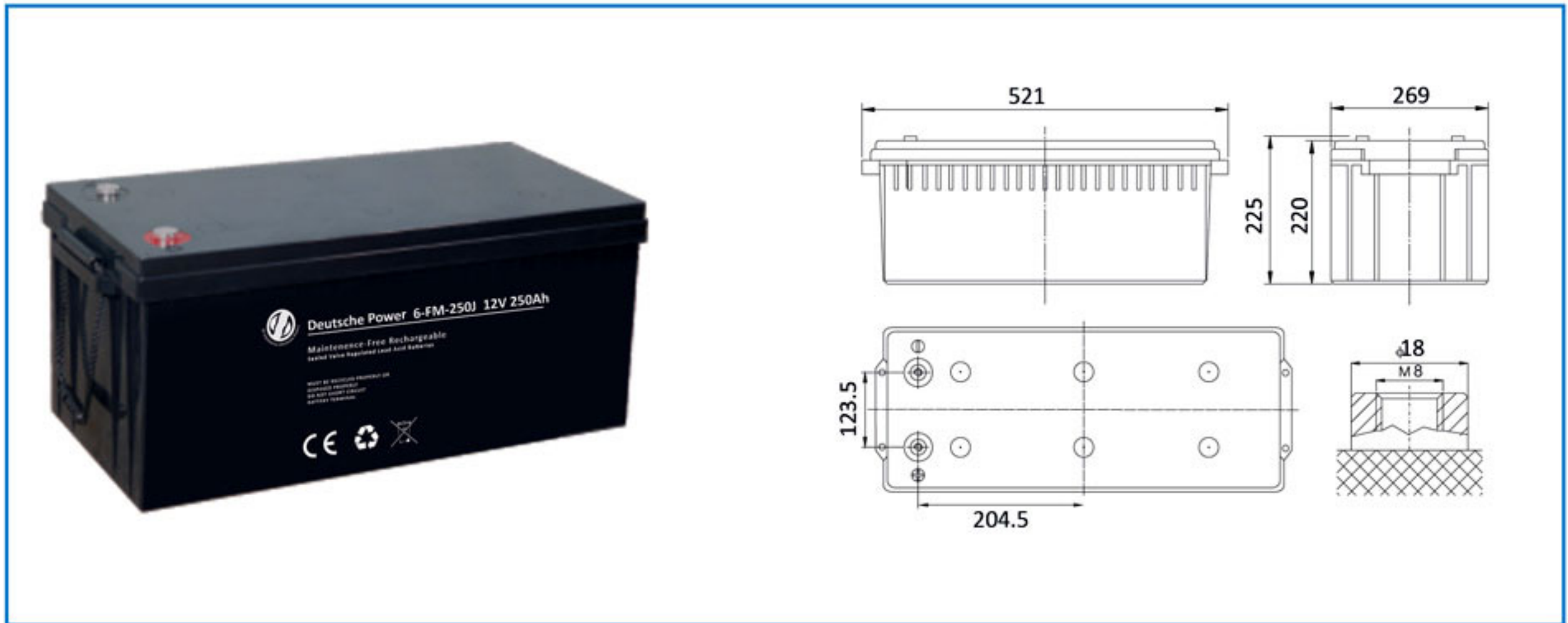


# FM/NPG-250

Deep Cycle Gel Design



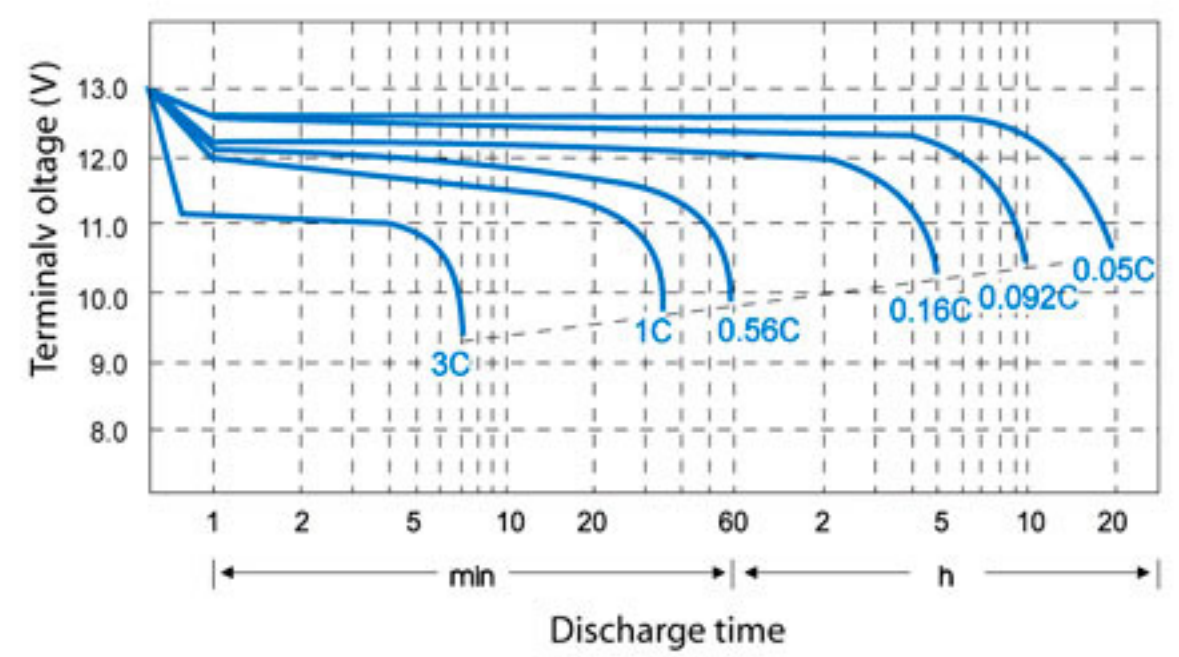
## Specifications

Nominal Voltage	12V	
Rated Capacity (20 hour rate)	250Ah	
Dimensions	Total Height (with terminals)	8.86 inches (220mm)
	Height	8.66 inches (220mm)
	length	20.47 inches (520mm)
	width	10.59 inches (269mm)
Weight	Approx.158.59Pound (72kg)	

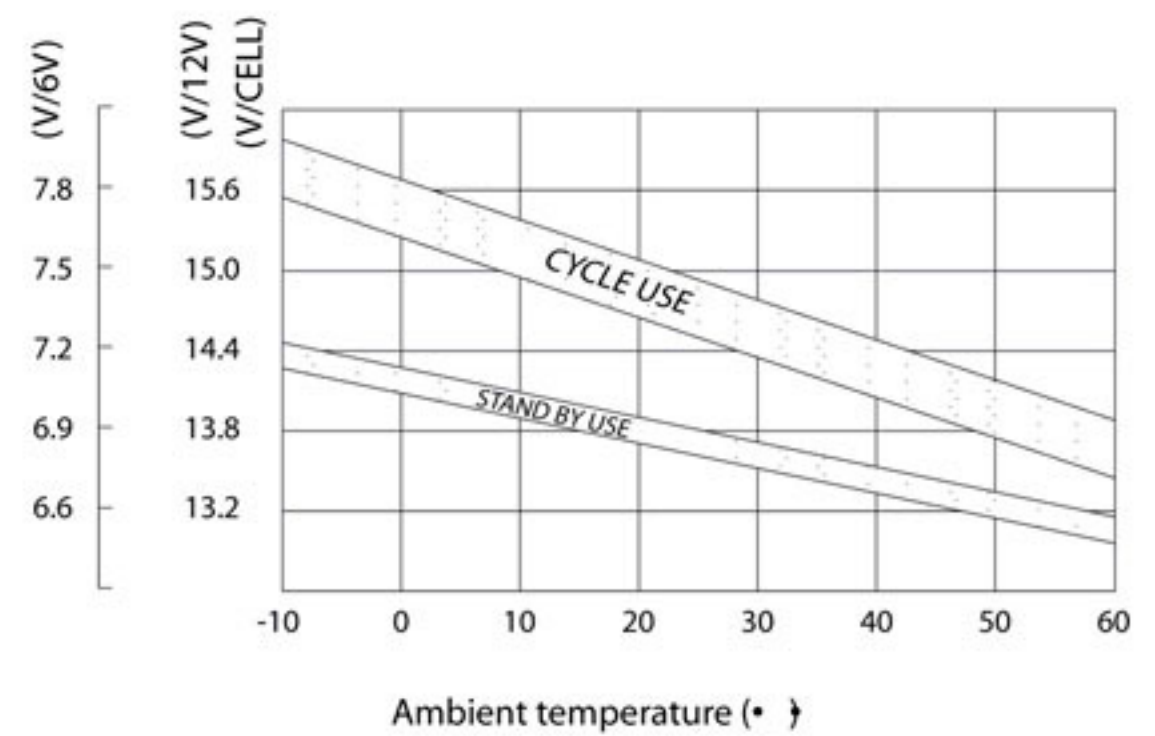
## Characteristics

Capacity 77°F (25°C)	20 hour rate (7.5A)	250 Ah
	10 hour rate (13.8A)	230 Ah
	5 hour rate (24.0A)	200 Ah
	1hour rate (90.0A)	150 Ah
	15Minute Rate (246A)	102.5 Ah
Internal Resistance	Full charged Battery 77°F (25°C)	2.5 M
	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%
Self-Discharge 77°F (25°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)	1666A(5S)	
Terminal	M5	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 30A 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 Power Discharge (WATTS PER CELL@25°C)

Cut off voltage V/cell	10min	15min	30min	45min	1h	2h	3h	5h	10h	15h	24h
1.60	871	681	436	329	289	173	120	79.0	46.6	38.5	19.8
1.65	864	676	429	325	285	170	118	78.8	46.0	38.3	19.5
1.67	856	675	432	320	279	169	118	78.5	45.3	38.1	19.4
1.70	840	661	414	315	274	168	117	78.3	45.0	37.9	19.3
1.75	786	624	370	313	270	166	116	77.5	43.9	37.5	19.1
1.80	730	586	351	308	264	163	115	76.8	43.0	37.3	18.9
1.85	606	513	321	283	259	155	112	71.5	41.0	34.8	18.5

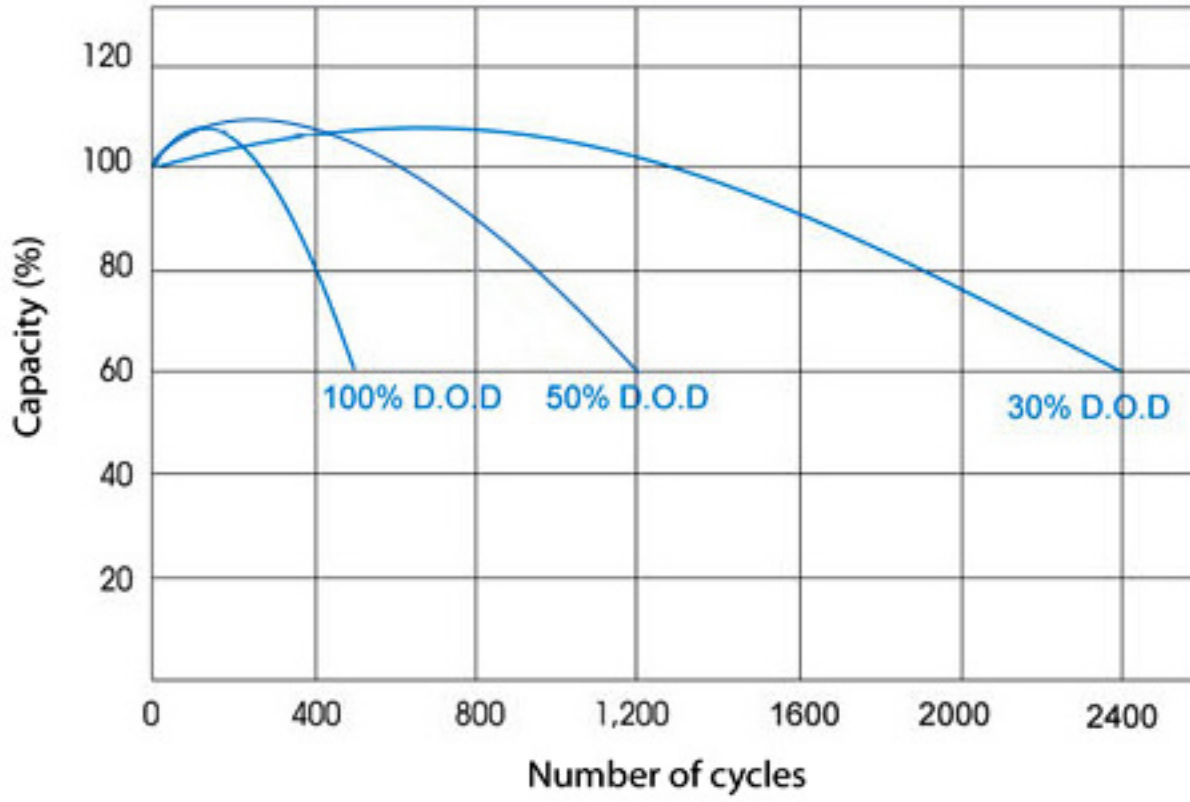


# FM/NPG-250

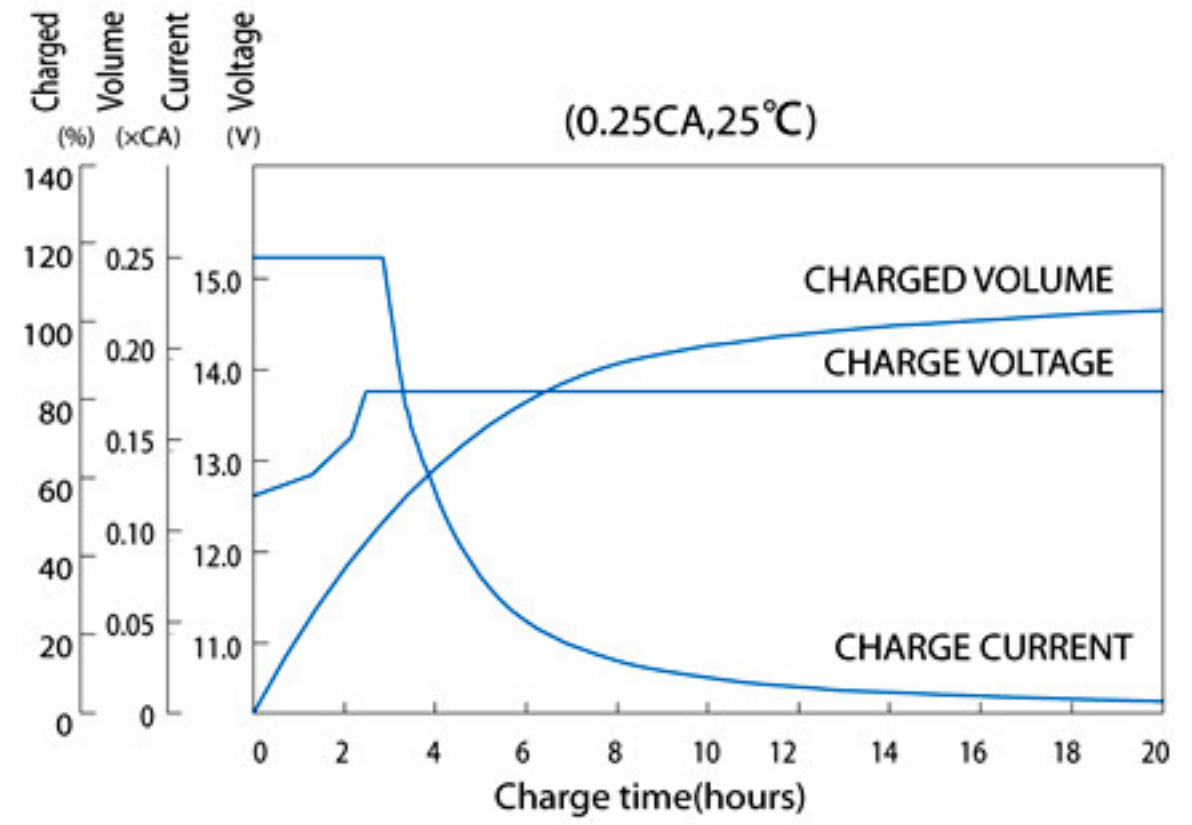
## Deep Cycle Gel Design

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.

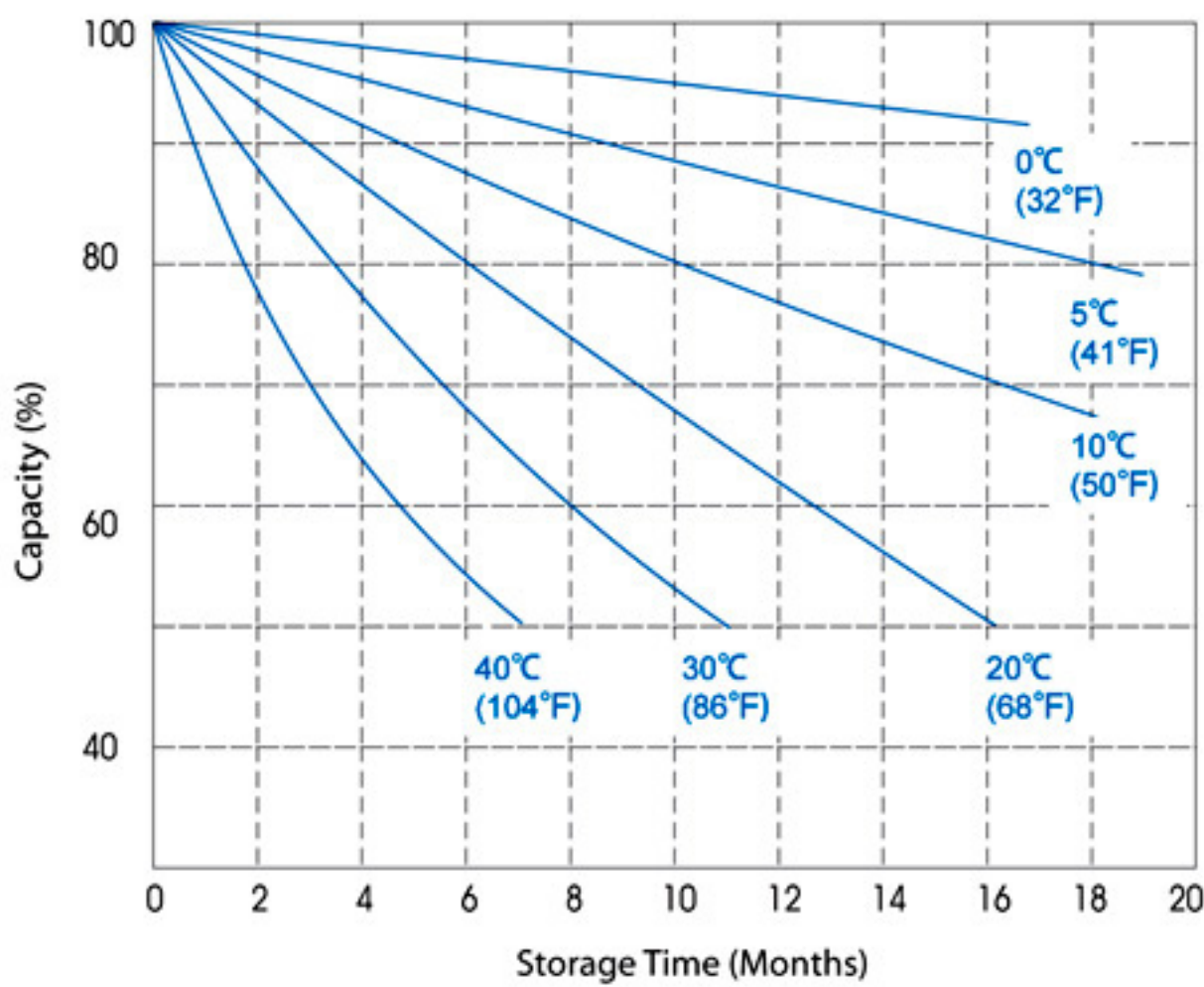
### Cycle service life in relation to depth of discharge



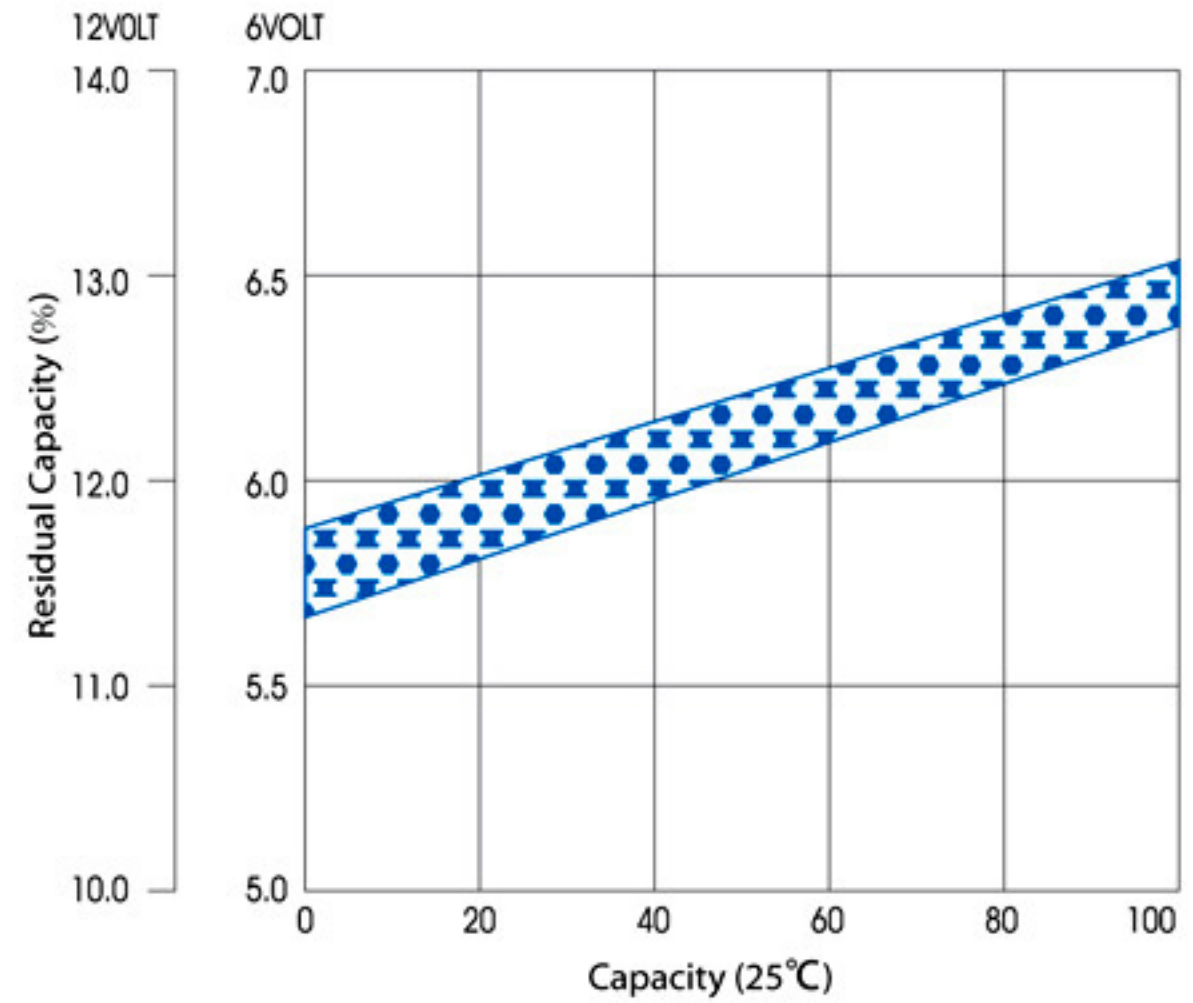
### Constant voltage charge characteristic



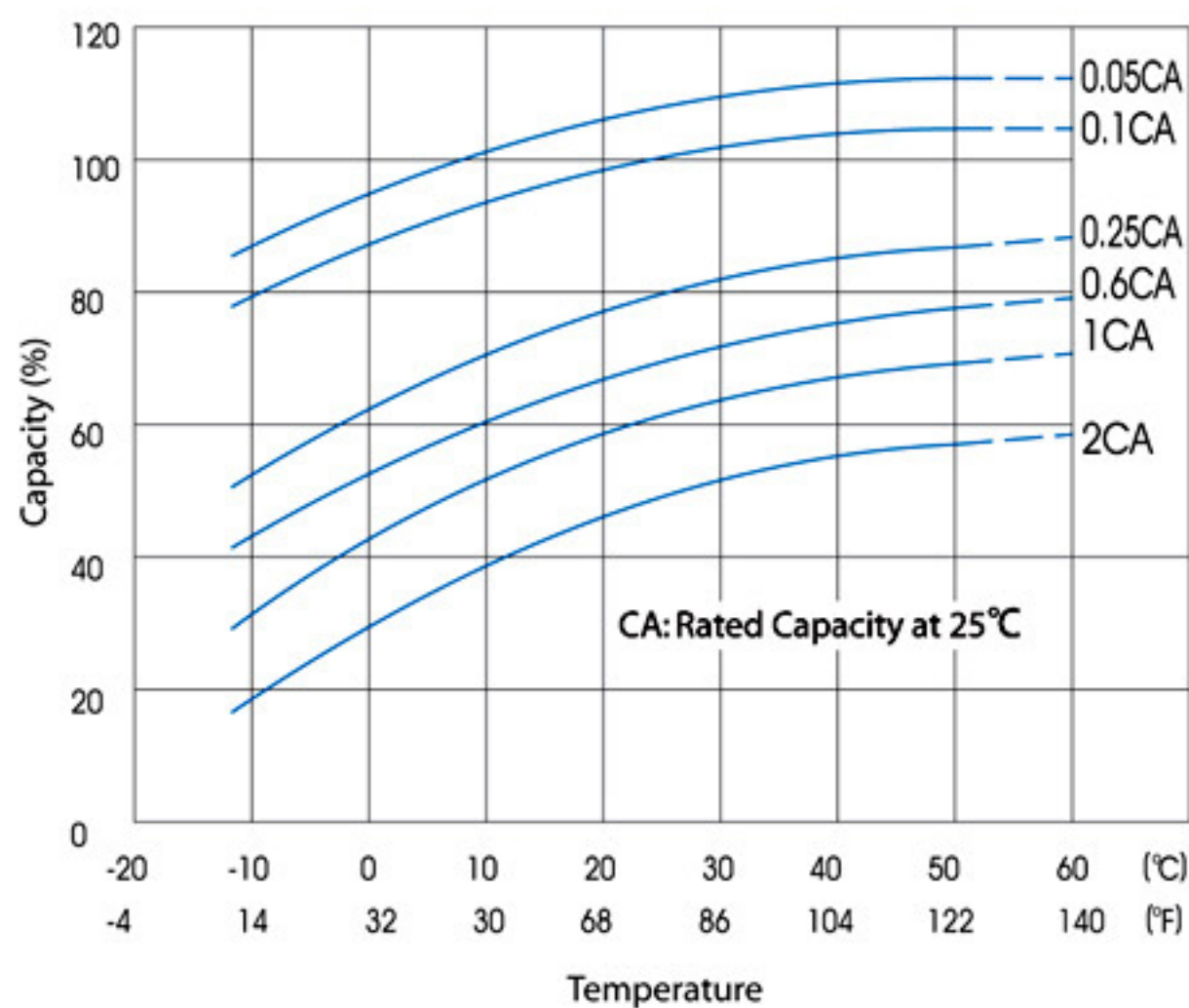
### Self-Discharge Characteristics



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



### Temperature effects on capacity



### Temperature effects float life

