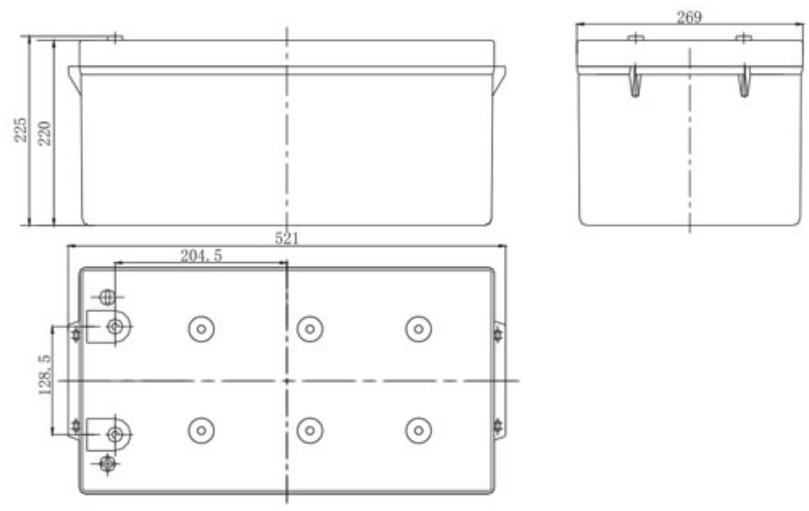
6-FM/NP250

FM/NP Battery Series (General Use Battery)

DP Electronics (Deutsche Power Co., Limited)



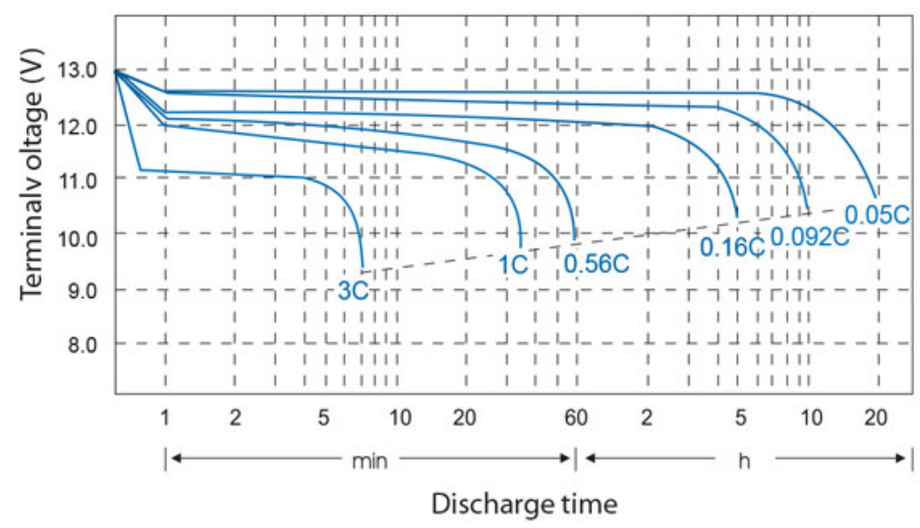
Specifications

Nominal Voltage		12V
Rated Capacity(20 hour rate)		250Ah
Dimensions	Total Height (with terminals)	8.86inches (225mm)
	Height	8.66inches (220mm)
	Length	20.47inches (520mm)
	Width	10.59inches (269mm)
Weight		Approx. 151.8Pound (69kg)

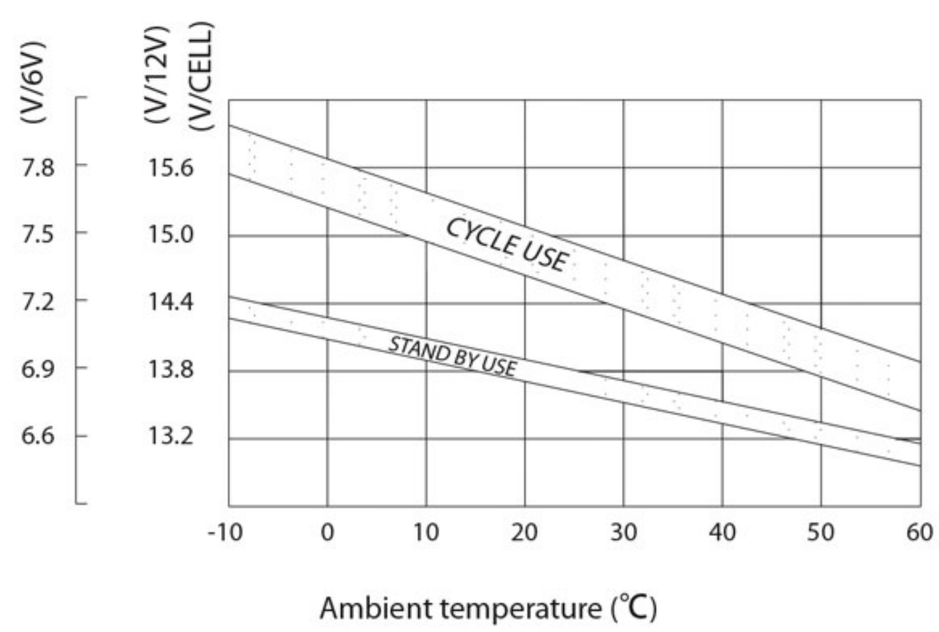
Characteristics

Capacity 77℉(25℃)		250Ah
	10 hour rate (23.0A)	230Ah
	5 hour rate (40A)	200Ah
	1 hour rate (150A)	150Ah
	15 minute Rate (410A)	102.5Ah
Internal Resistance	Full charged Battery 77℉(25℃)	2.5mΩ
Capacity affected by Temperature (20 hour rate)	104℉(40℃)	102%
	77℉(25℃)	100%
	32℉(0℃)	85%
	5℉(-15℃)	65%
Self-Discharge 77℉(20℃)	Capacityafter 3 month storage	91%
	Capacityafter 6 month storage	81%
	Capacityafter 12 month storage	60%
Max. Discharge Current 77℉(25℃)	1666A(5S)	
Terminal	M5	
Charge (ConstantVoltage) Cycle	Initial Charging Current less than 75A	
	Voltage 14.4~14.7V/77℉(25℃)	
Charge (ConstantVoltage) Float	Voltage 13.5~13.8V/77℉(25℃)	

Discharge Curves 77℉ (25℃)



Relationship between charge voltage and temperature



Constant Current Discharge (AMPERES @25℃)

F.V/Time	10Min	15Min	30Min	45Min	1Hour	2Hour	3Hour	5Hour	8Hour	10Hour	12Hour	24Hour
1.65	482.5	373.8	236.3	178.8	136.3	92.9	64.4	42.8	29.4	25.4	20.6	11.1
1.70	455.0	357.5	221.3	167.5	128.8	90.3	62.5	41.9	28.8	24.4	20.1	10.8
1 80	381.3	305.0	182.5	160.0	122.5	86.1	60.4	40.1	27.3	23.0	19.5	10.4

Constant Power Discharge (WATTS PER CELL@25℃)

F.V/Time	10Min	15Min	30Min	45Min	1Hour	2Hour	3Hour	5Hour	8Hour	10Hour	12Hour	24Hour
1.60	871	681	436	329	289	173	120	79.0	54.4	46.6	38.5	19.8
1.65	864	676	429	325	285	170	118	78.8	54.1	46.0	38.3	19.5
1.67	856	675	423	320	279	169	118	78.5	54.0	45.3	38.1	19.4
1.70	840	661	414	315	274	168	117	78.3	53.8	45.0	37.9	19.3
1.75	786	624	370	313	270	166	116	77.5	53.1	43.9	37.5	19.1
1.80	730	586	351	308	264	163	115	76.8	52.1	43.0	37.3	18.9
1.85	606	513	321	283	259	155	112	71.5	48.6	41.0	34.8	18.5

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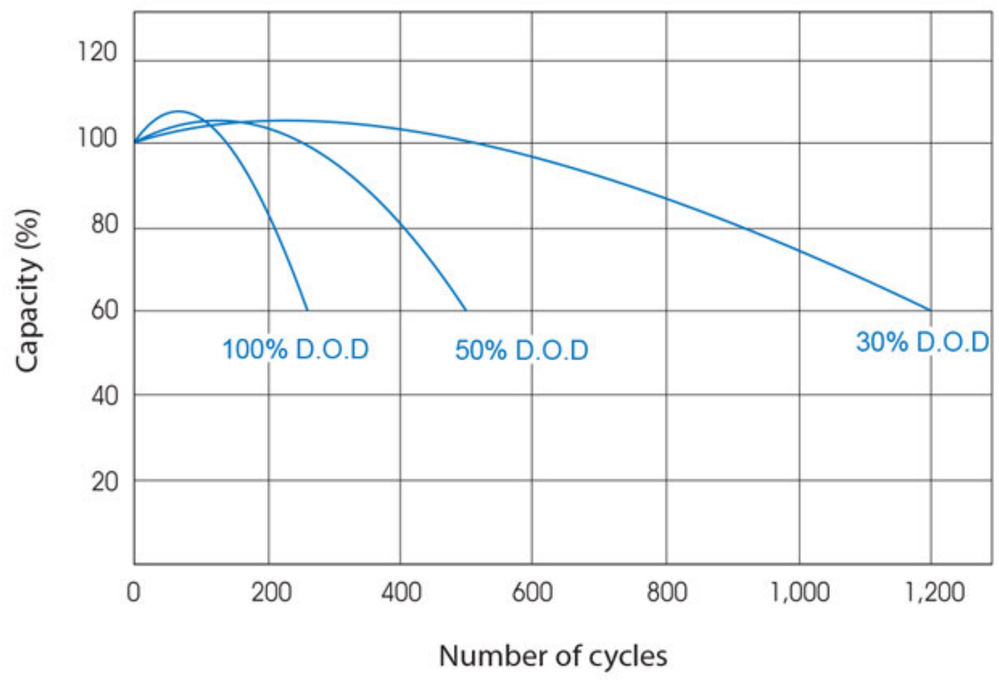
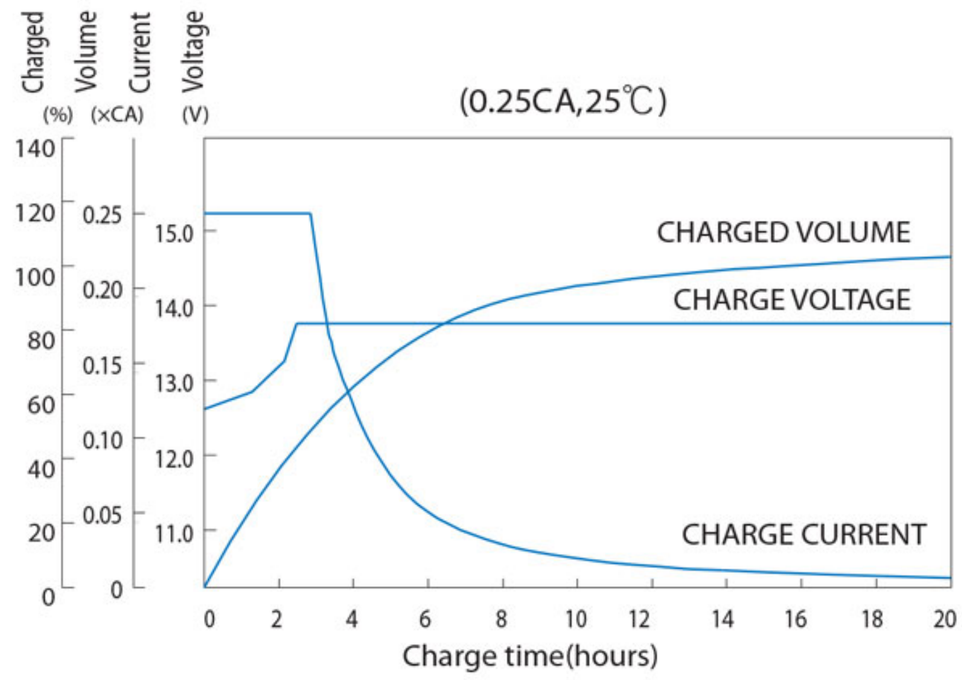
The operating environment temperature above 40℃ should be avoided ,After long term storage, The battery actual capacity would be less than the rated capacity. Full capacity will be obtained through several charge/discharge cycles.
To get the longest life, **Deutsche Power battery should be fully charged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

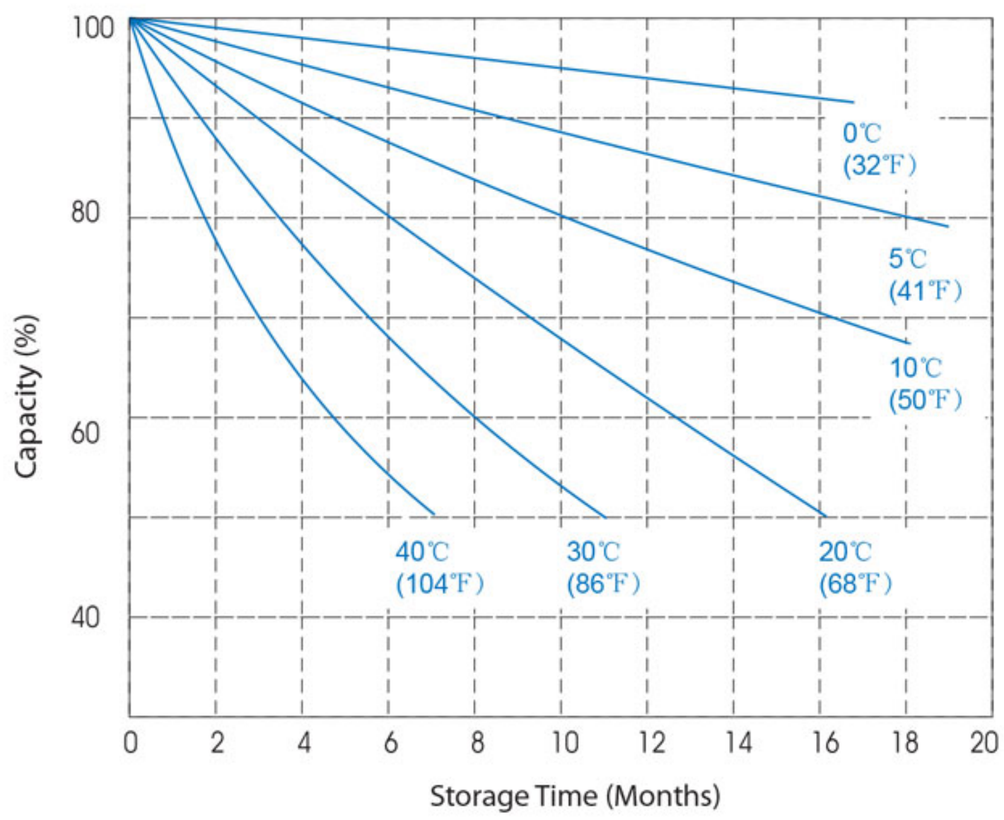
Cycle service life in relation to depth of discharge



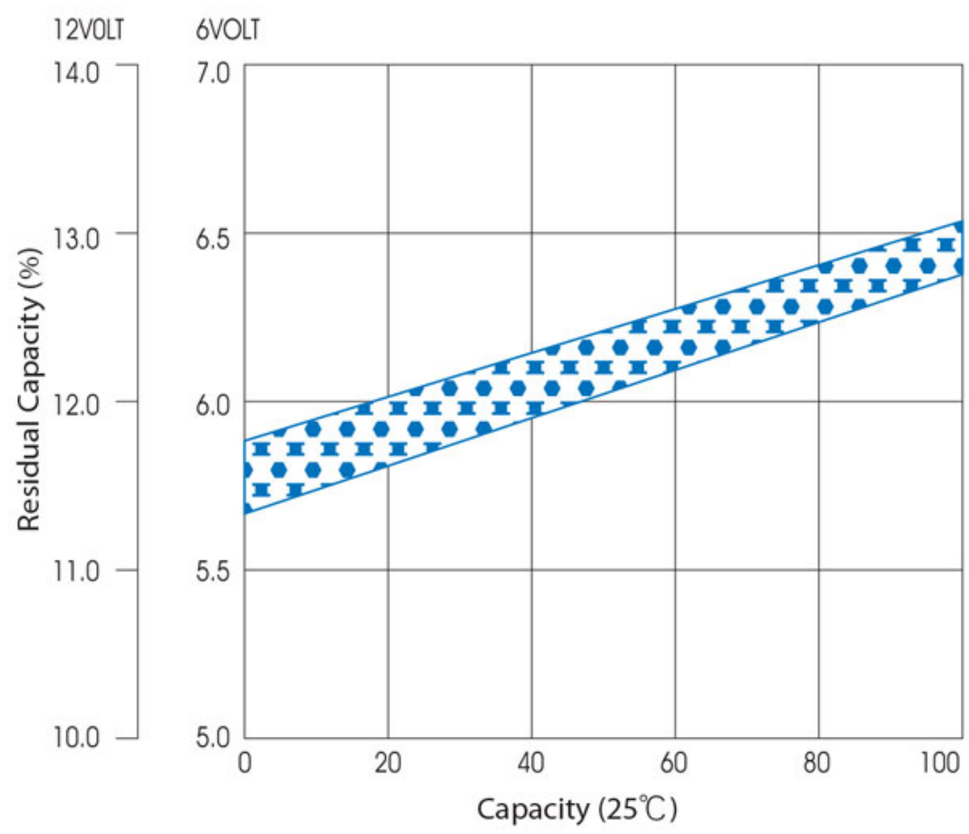
Constant voltage charge characteristic



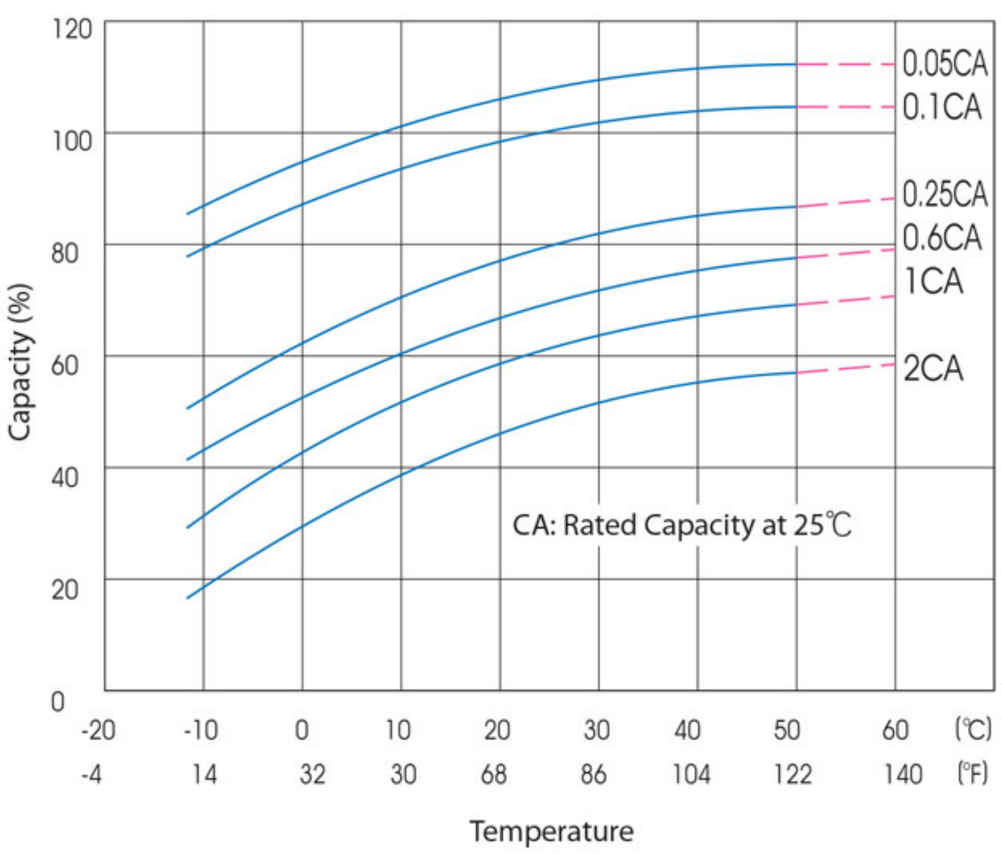
Self-Discharge Characteristics



Relationship of OCV and Residual Capacity % (25℃)



Temperature effects on capacity



Temperature effects float life