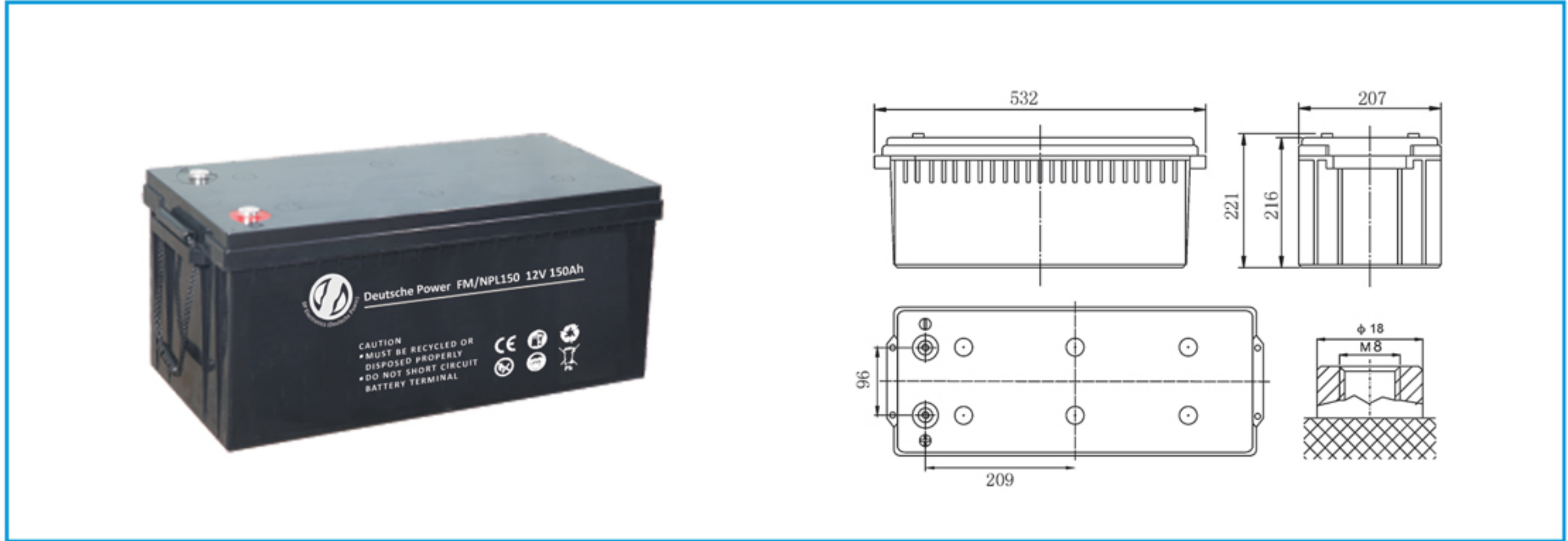


FM/NPL150

FM/NPL Battery Series
Solar Energy (Deep Cycle)



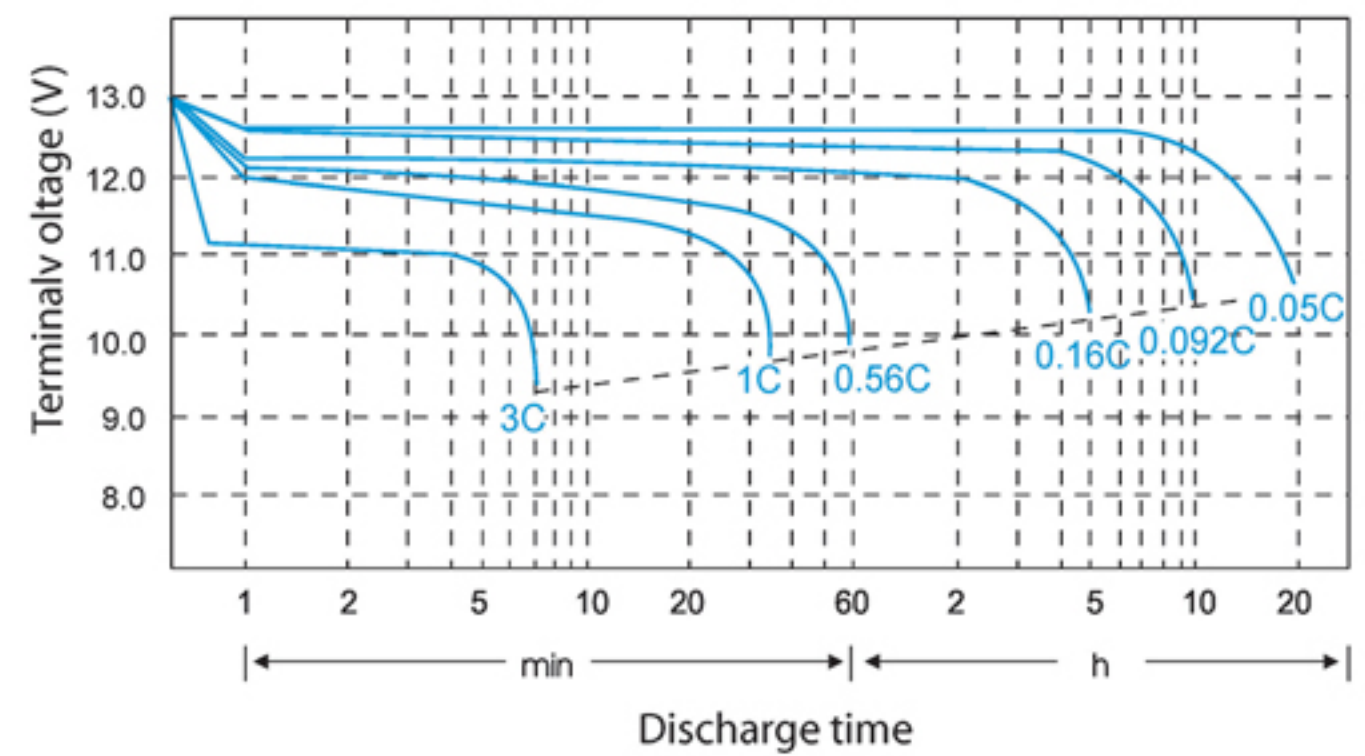
Specifications

Nominal Voltage	12V	
Rated Capacity (20 hour rate)	150Ah	
Dimensions	Total Height (with terminals)	8.70inches (221mm)
	Height	8.50inches (216mm)
	length	20.94inches (532mm)
	width	8.15inches (207mm)
Weight	Approx. 106.26 Pound (48.3kg)	

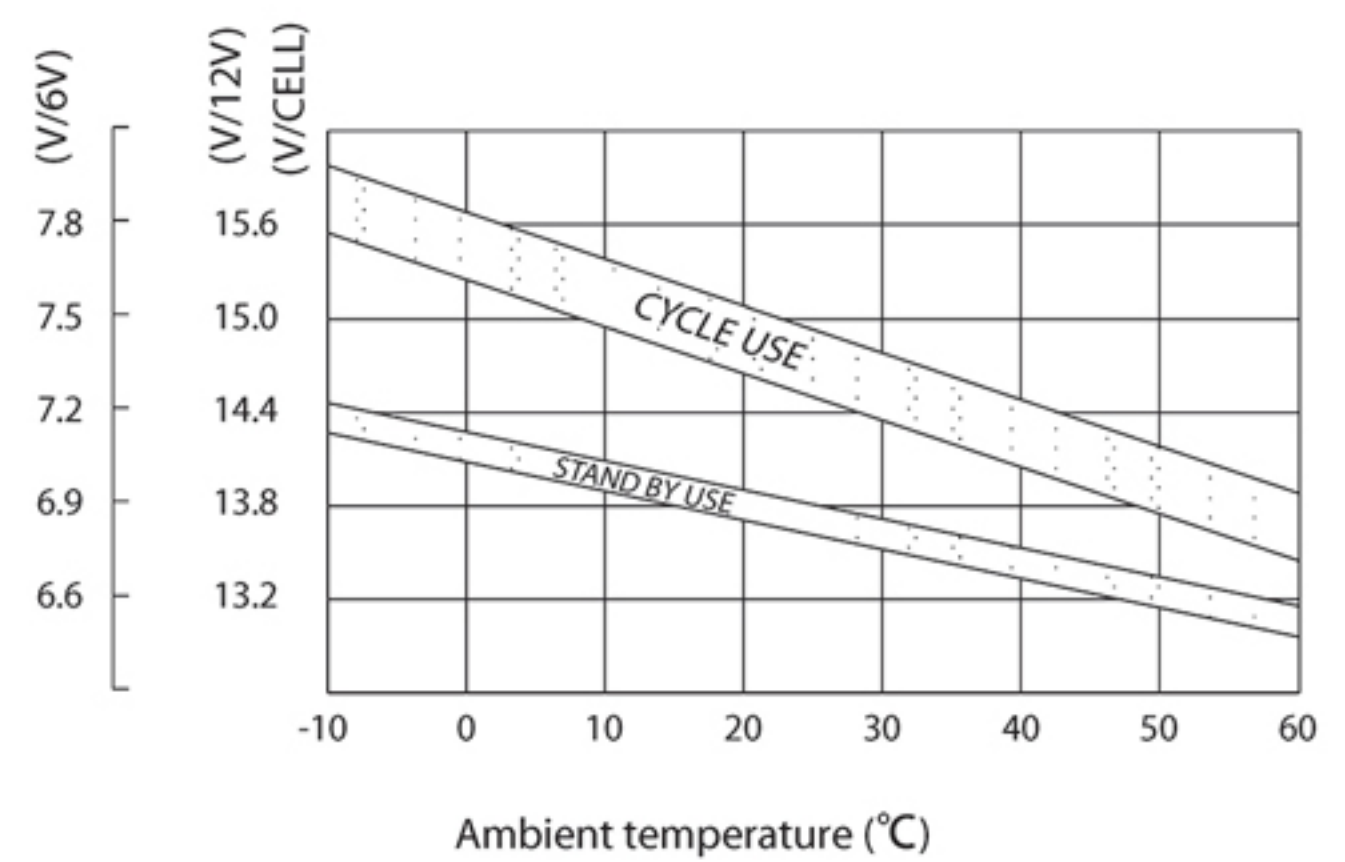
Characteristics

Capacity 77°F (25°C)	20 hour rate (7.5A)	150Ah
	10 hour rate (13.8A)	138Ah
	5 hour rate (24.0A)	120Ah
	1 hour rate (90.0A)	90Ah
	15 minute Rate (246A)	61.5Ah
Internal Resistance	Full charged Battery 77°F (25°C)	3.0mΩ
Capacity affected by Temperature (20hour 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 (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)	1000A (5S)	
Terminal	M5	
Charge (Constant Voltage)	Cycle	Initial Charging Current less than 45A 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	325.5	252.0	153.0	120.2	81.3	56.70	39.15	26.25	18.60	14.70	12.62	6.50
1.70	307.5	235.5	130.2	113.6	77.9	55.35	37.50	25.35	17.85	14.39	12.24	6.38
1.80	259.5	205.5	117.6	107.3	74.1	52.95	35.40	24.00	16.80	13.80	11.90	6.27

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

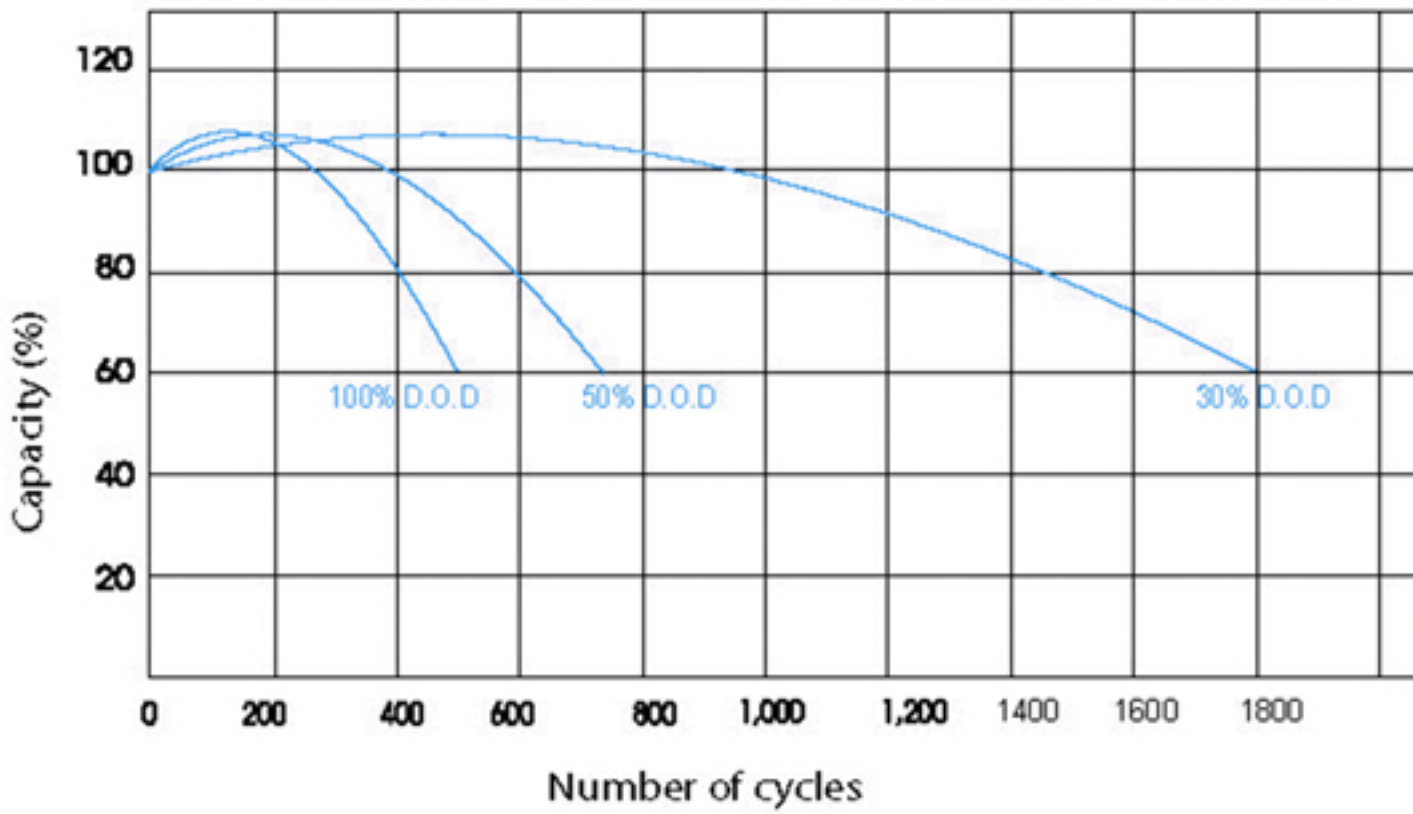
F.V/Time	10Min	15Min	30Min	45Min	1Hour	2Hour	3Hour	5Hour	8Hour	10Hour	12Hour	24Hour
1.60	583	454	286	219	178	106	73.7	48.6	33.5	27.8	23.7	12.2
1.65	576	451	282	217	175	104	72.0	48.1	33.4	27.6	23.6	12.1
1.67	571	450	276	213	172	103	71.3	47.8	33.3	27.5	23.5	12.0
1.70	560	441	247	210	168	102	70.4	47.1	33.1	27.2	23.3	11.9
1.75	519	411	234	208	162	101	69.6	46.5	32.5	27.0	23.1	11.8
1.80	487	391	214	205	159	100	68.7	45.2	32.1	26.5	22.9	11.6
1.85	404	342	208	188	148	95.5	67.8	44.0	29.9	25.2	21.4	11.4
1.90	335	299	202	172	138	91.2	66.9	42.8	27.9	24.0	20.0	11.2

FM/NPL150

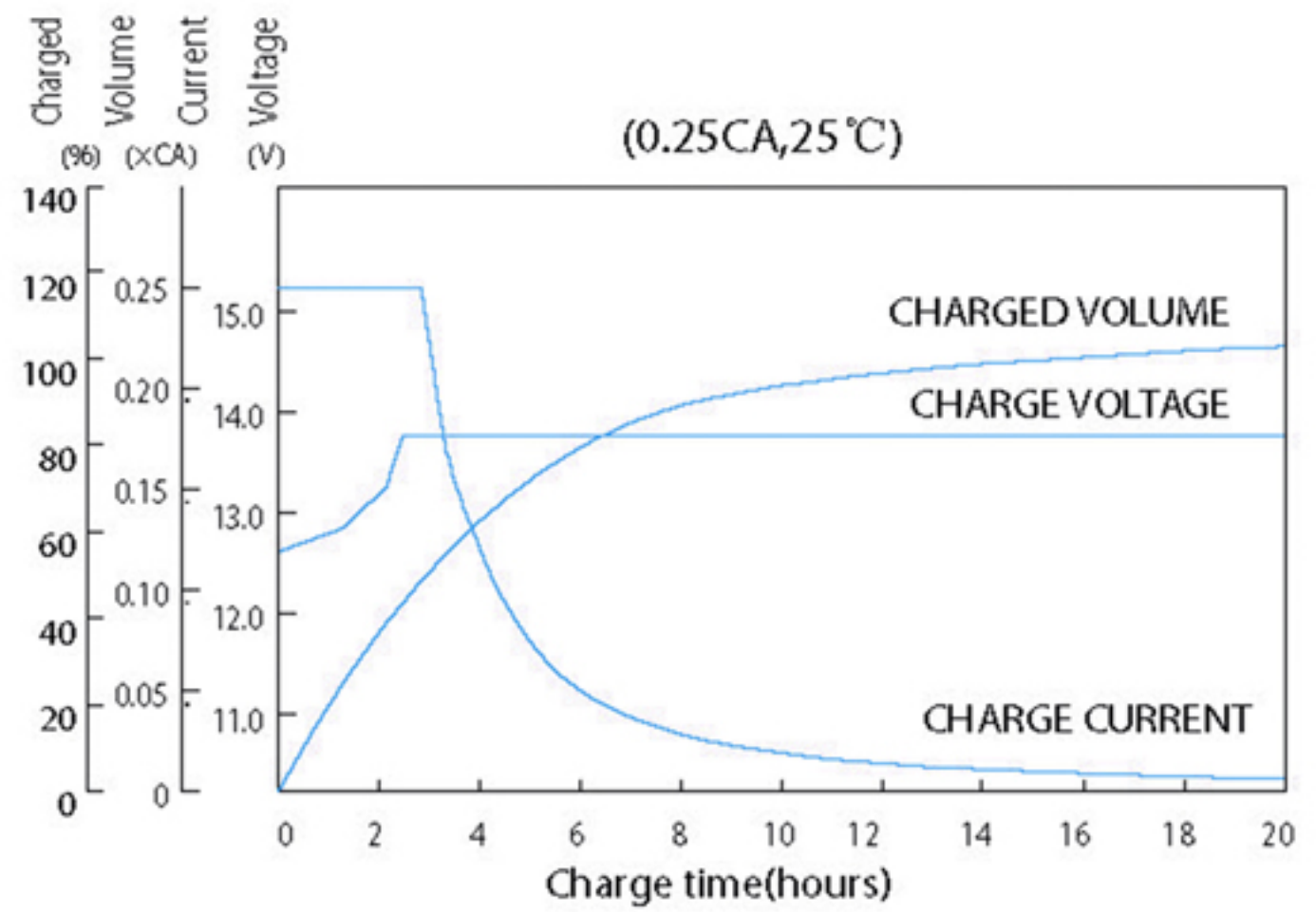
FM/NPL Battery Series
Solar Energy (Deep Cycle)

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.

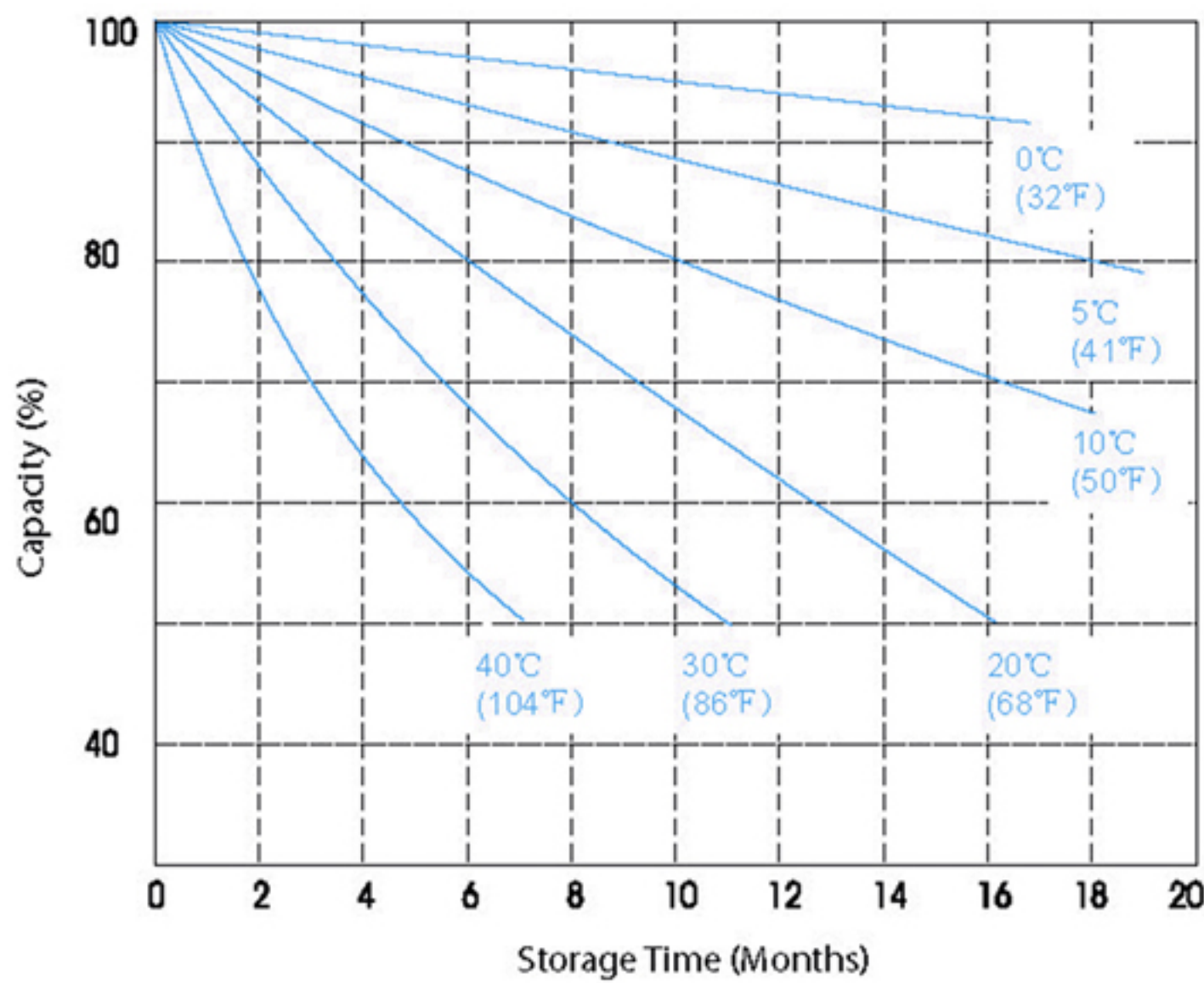
Cycle service life in relation to depth of discharge



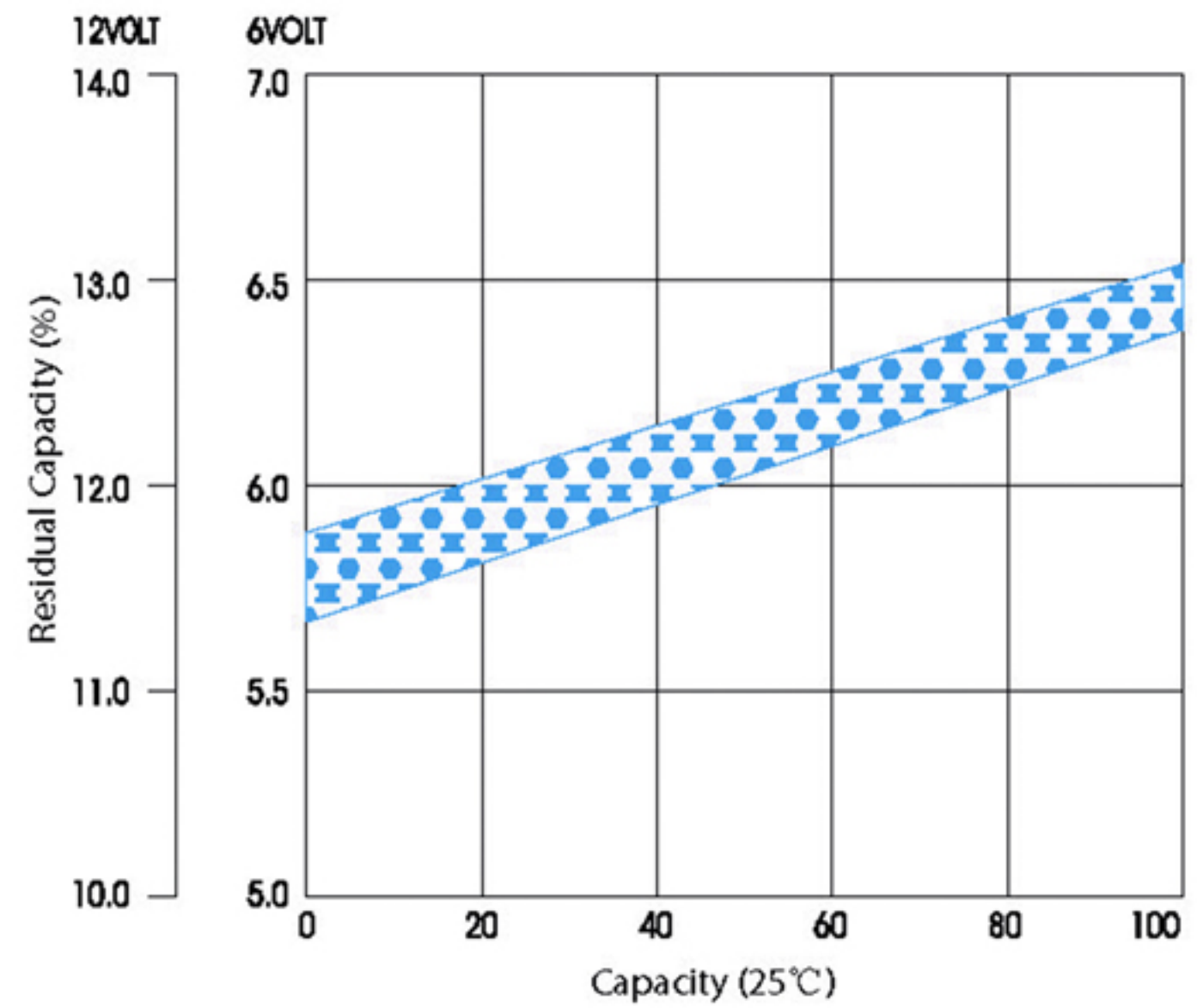
Constant voltage charge characteristic



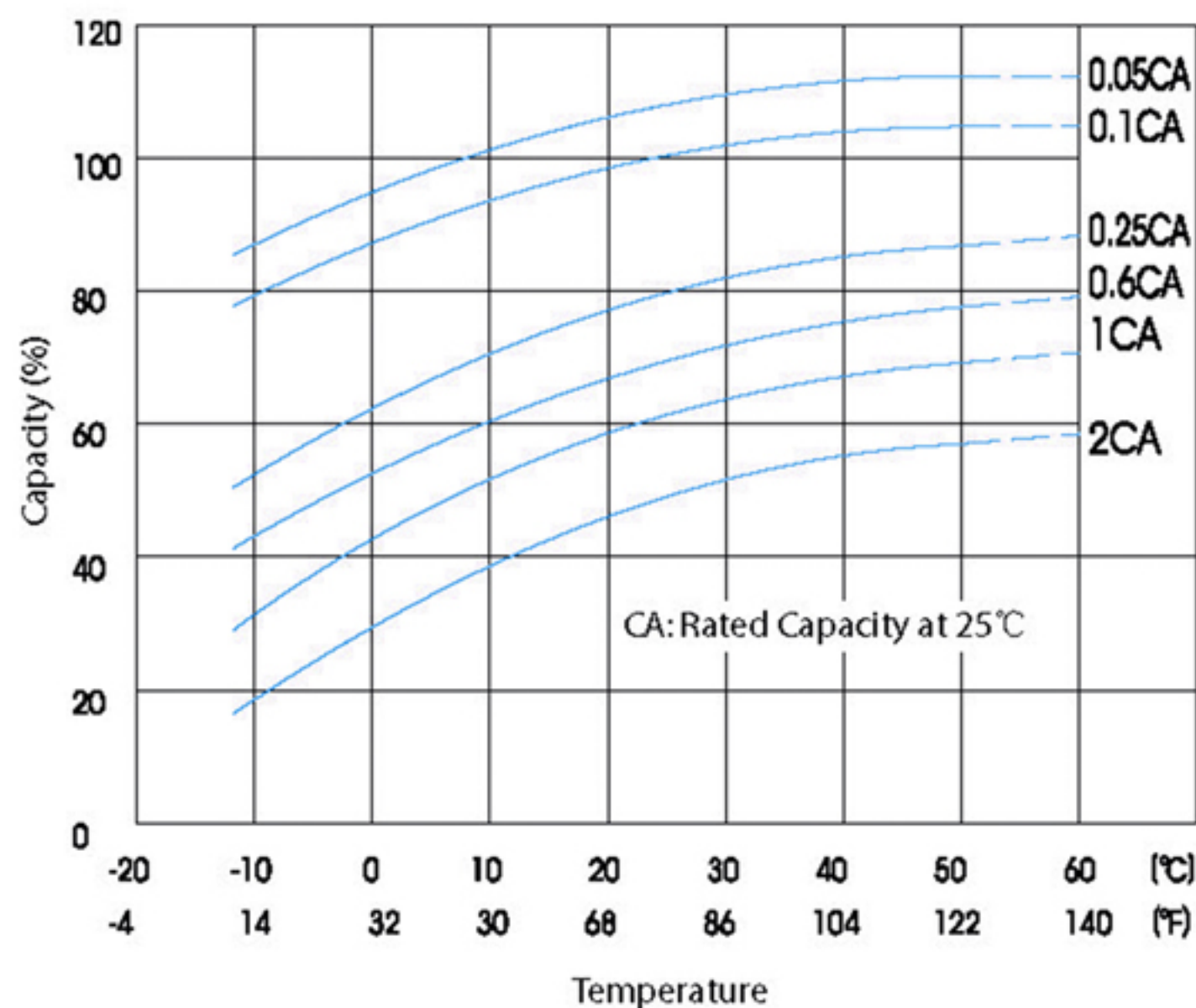
Self-Discharge Characteristics



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



Temperature effects on capacity



Temperature effects float life

