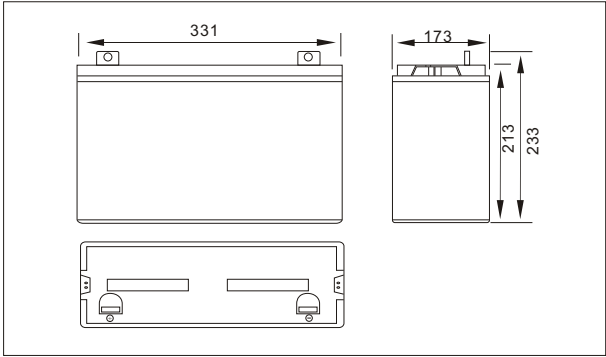


## NPL100-12 (12V100Ah)



## MCA Battery Manufacture Co., Ltd

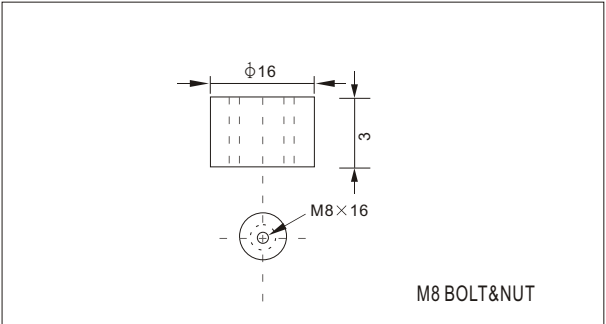
● Outer dimensions (mm)



● Specifications

Nominal Voltage		12V
Rated capacity (10hour rate)		100Ah
Dimensions	Total Height	233mm (9.17inches)
	Height	213mm (8.39inches)
	Length	331mm (13.03inches)
	Width	173mm (6.81inches)
Weight Approx		30 Kg (66.2 lbs)

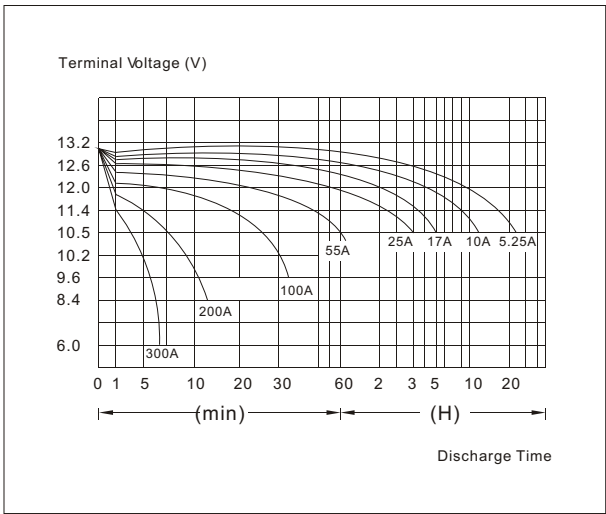
● Terminal Type (mm)



● Characteristics

Capacity 25°C(77°F)	20 hour rate(5.25A)	105.0 AH
	10 hour rate(10.0A)	100.0 AH
	5 hour rate(17.0A)	85.0AH
	3 hour rate(25.0A)	75.0AH
	1 hour rate(55.0A)	55.0AH
Internal Resistance	Full charged Battery at 25°C(77°F)	3 mΩ
Capacity affected by Temperature (10hour rate)	40°C(104°F)	102%
	25°C(77°F)	100%
	0°C(32°F)	85%
	-15°C(5°F)	65%
Self-Discharge at 25°C(77°F)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
	Capacity after 12 month storage	64%
Terminal		T10, T16
Charge (constant Voltage)	Cycle	Initial Charging Current less than 30A Voltage 14.5-14.9V
	Float	Voltage 13.6-13.8V

● Discharge Curves 25°C(77°F)

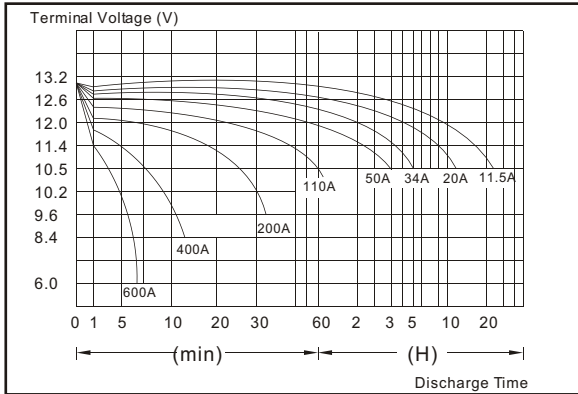


Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.6V	A	370	270	190	115	60	35	25.7	20.0	16.5	11.6	5.67
	W	3929	2867	2018	1221	695	405	298	232	191	135	65.7
10.2V	A	326	246	170	109.0	56.4	33.4	25.0	19.5	16.2	11.4	5.53
	W	3619	2731	1887	1210	653	387	290	226	150.1	132	119
10.5V	A	314	234	160	106	55	32.6	24.4	19.2	16.0	11.3	5.46
	W	3561	2654	1814	1202	632	378	283	222	185	131	117
10.8V	A	302	222	150	103	53	31.8	23.8	18.9	15.6	11.0	5.40
	W	3515	2584	1746	1199	615	370	277	218	182	128	116
11.1V	A	290	210	140	100	51	31.0	18.4	18.3	15.2	10.7	5.13
	W	3451	2499	1666	1190	607	369	274	217	181	127	113

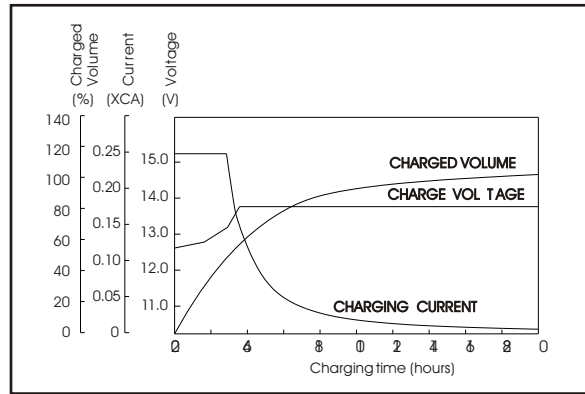
The data is generally descriptive only for reference.

# Long-life Design

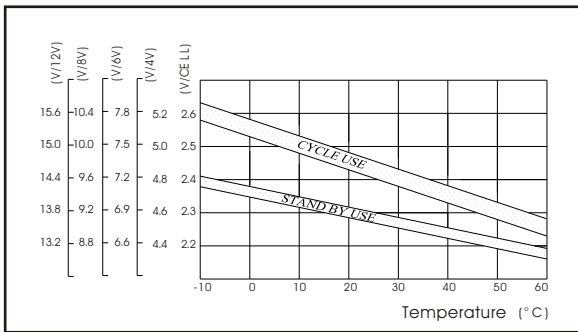
## Discharge Characteristics



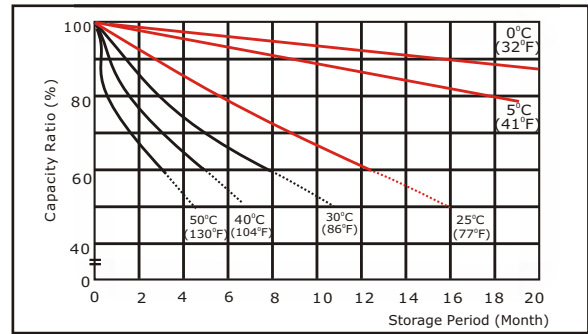
## Constant Voltage Charging Characteristics (0.25CA 25 °C)



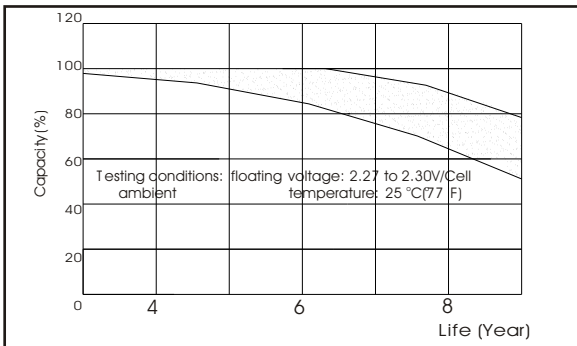
## Relationship between Charging voltage and Temperature



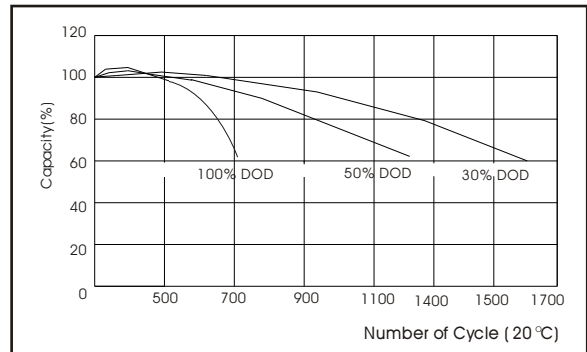
## Self-discharge Characteristics



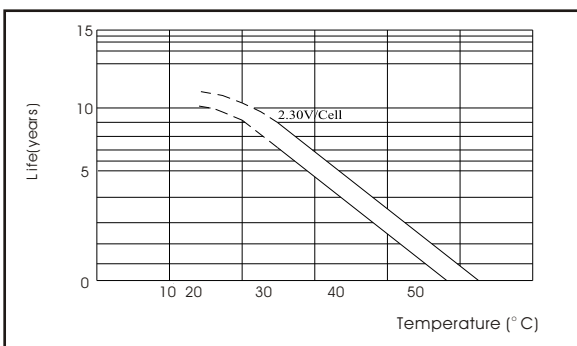
## Float service life



## Cycle service life @ different DOD



## Temperature Effects on Float Life



## Temperature Effects on Capacity

