

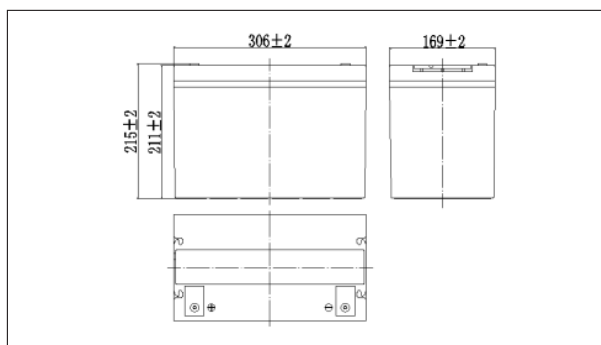
## NPG12-90Ah 12V90Ah

### Specifications

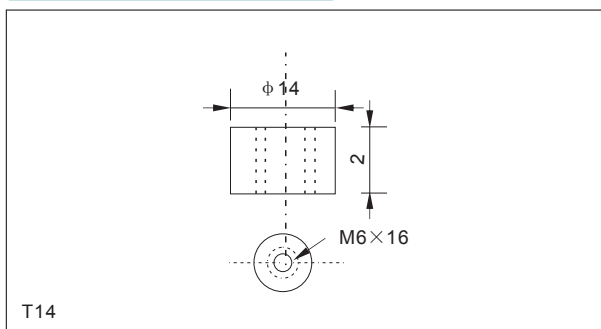
Nominal Voltage		12V
Rated capacity (10 hour rate)		90Ah
Dimensions	Length	306±2mm(12.05inch)
	Width	169±2mm(6.65inch)
	Height	211±2mm(8.31inch)
	Total Height	215±2mm(8.46inch)
Approx. Weight		28.5kg(62.8lbs)±3%



### Outer dimensions (mm)



### Terminal Type (mm)



### Characteristics

Capacity (25°C)	10HR(10.8V)	90Ah
	3HR(10.8V)	67.5Ah
	1HR(10.5V)	50Ah
Terminal type		T14
Internal resistance (Fully charged, 25°C)		Approx. 5.5m Ω
Capacity affected by temperature (10HR)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-discharge (25°C)	3 months	Remaining Capacity: 91%
	6 months	Remaining Capacity: 82%
	12 months	Remaining Capacity: 65%
Nominal operating temperature		25°C ± 3°C (77°F ± 5°F)
Operating temperature range	Discharge	-15°C ~ 50°C (5°F ~ 122°F)
	Charge	-10°C ~ 50°C (14°F ~ 122°F)
	Storage	-20°C ~ 50°C (-4°F ~ 122°F)
Float charging voltage (25°C)		13.50 to 13.80V Temperature compensation: -18mV/°C
Cyclic charging voltage (25°C)		14.40 to 14.70V Temperature compensation: -30mV/°C
Maximum charging current		18A
Maximum discharge current		800A(5 sec.)
Designed floating life (20°C)		12 years

### Construction

Component	Positive plate	Negative plate	Container	Cover	Separator	Electrolyte	Safety valve	Terminal
Raw material	Lead dioxide	Lead	ABS	ABS	AGM	Gel	Rubber	Copper

### Constant Current Discharge Characteristics Unit: A(25°C, 77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	176	144	87.3	54.0	32.9	23.4	18.4	15.6	11.0	9.16	4.86
9.90V	170	141	85.6	53.2	32.7	23.3	18.3	15.5	11.0	9.14	4.85
10.2V	163	135	82.9	51.8	32.4	23.1	18.1	15.4	10.9	9.12	4.83
10.5V	156	131	80.9	50.2	31.9	23.0	18.0	15.3	10.8	9.06	4.80
10.8V	147	124	78.0	48.6	31.1	22.5	17.5	14.8	10.5	9.00	4.77

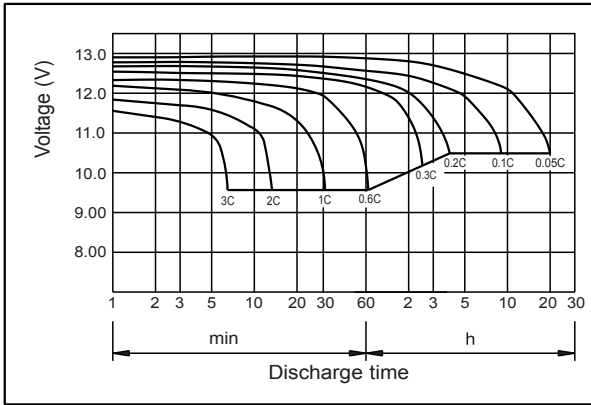
### Constant Power Discharge Characteristics Unit: W(25°C, 77°F)

F.V/Time	10min	15min	30min	60min	2h	3h	4h	5h	8h	10h	20h
9.60V	1895	1581	980	616	381	275	216	184	131	109	58.3
9.90V	1839	1543	960	606	379	274	215	183	130	109	58.2
10.2V	1763	1486	931	591	375	272	213	182	129	109	58.0
10.5V	1687	1436	908	573	370	270	212	181	128	108	57.6
10.8V	1592	1360	875	554	360	264	205	175	124	107	57.2

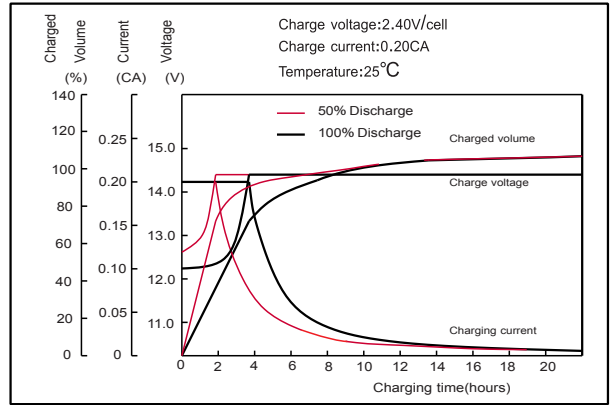
Note: The above characteristics data can be obtained within three charge or discharge cycles.

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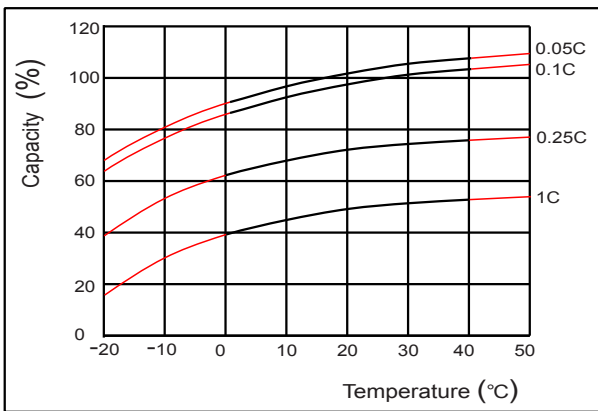
### ● Discharge characteristics(25°C)



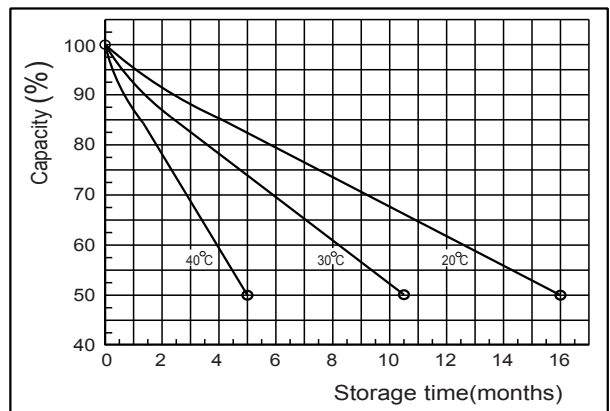
### ● Charging characteristics (25°C)



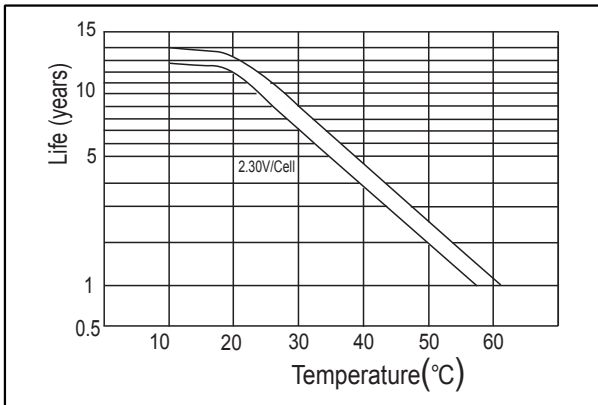
### ● Temperature effects on Capacity



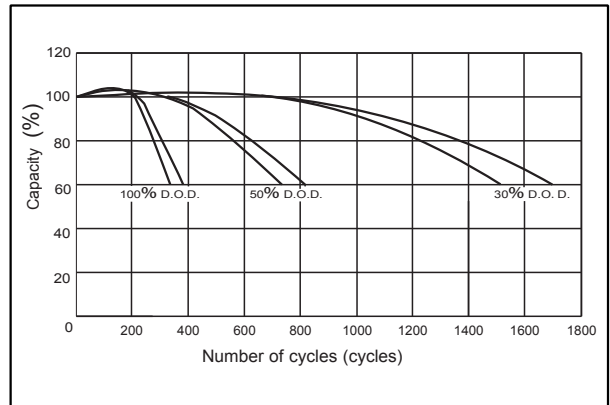
### ● Self-discharge characteristics



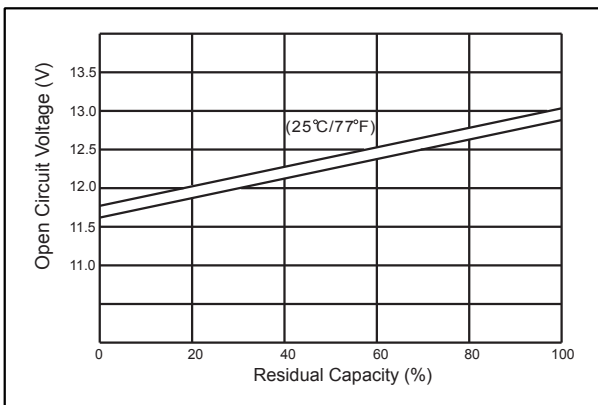
### ● Floating life on Temperature



### ● Cycle life on D.O.D (25°C)



### ● The relationship for OCV and Capacity (25°C)



### ● The relationship for Charging voltage and Temperature

