

## NPG12-7.2Ah 12V7.2Ah

### Valve Regulated Lead Acid Battery

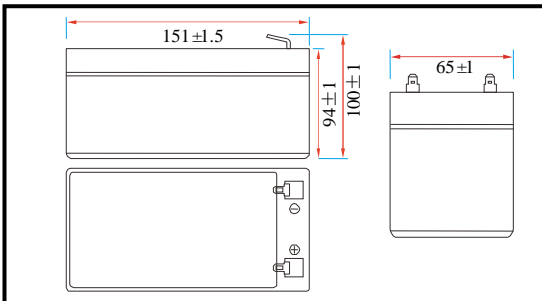
Designed for standby power applications at extreme temperatures



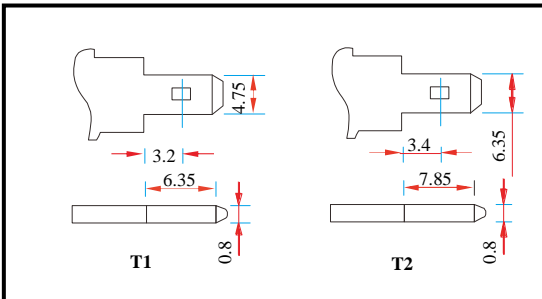
#### Specifications

Nominal voltage	12V (6 cells per unit)	
Rated capacity (20HR)	7.2Ah/10.5V	
Dimensions	Length	151±1.5mm (5.94inch)
	Width	65±1mm (2.56inch)
	Height	94±1mm (3.70inch)
	Total height	100±1mm (3.94inch)
Approx. weight	2.42kg (5.34lbs) ±4%	

#### Outer dimensions (mm)



#### Terminal type (mm)



#### 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: Ampere/Block (at 25 °C, 77 °F)

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	25.80	16.41	12.88	7.30	4.52	2.48	1.73	1.48	1.26	0.68	0.37
9.90V	25.02	15.92	12.59	7.14	4.45	2.46	1.72	1.47	1.25	0.68	0.36
10.2V	23.96	15.24	12.10	6.93	4.33	2.44	1.71	1.46	1.24	0.68	0.36
10.5V	22.99	14.57	11.71	6.77	4.25	2.41	1.70	1.45	1.23	0.67	0.36
10.8V	21.64	13.79	11.03	6.51	4.11	2.35	1.65	1.40	1.19	0.66	0.35

#### Constant power discharge characteristics unit: Watt/Block (at 25 °C, 77 °F)

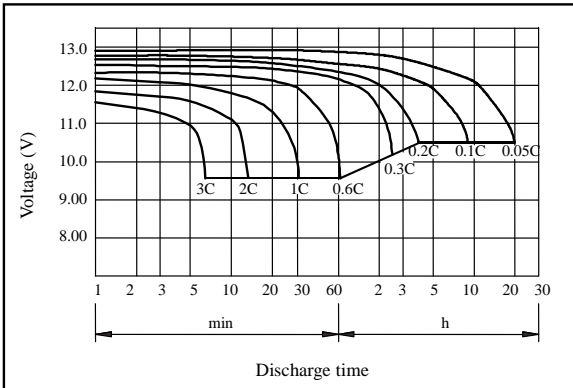
F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
9.60V	288	185	146	83.7	52.26	29.07	20.6	17.6	15.0	8.18	4.38
9.90V	279	180	142	81.9	51.47	28.87	20.5	17.5	14.9	8.15	4.37
10.2V	267	173	139	79.5	50.09	28.57	20.3	17.4	14.8	8.11	4.35
10.5V	256	165	134	77.6	49.20	28.17	20.2	17.2	14.7	8.06	4.32
10.8V	242	155	126	74.7	47.62	27.38	19.6	16.7	14.3	7.90	4.23

Above characteristics data can be obtained within three charge and discharge cycles. This battery is under development. Data in this document are subject to change without prior notification.

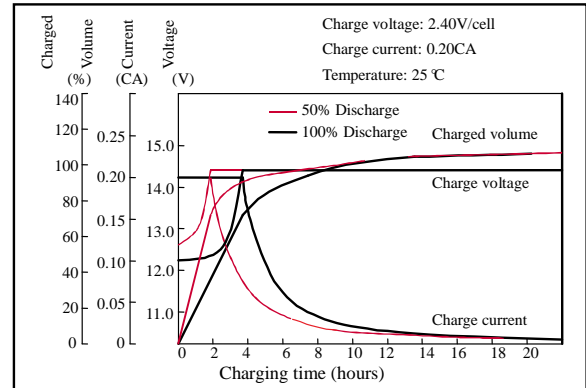
#### Characteristics

Capacity (25 °C)	20HR (10.5V)	7.2Ah
	10HR (10.5V)	6.7Ah
	1HR (9.60V)	4.5Ah
Terminal type		T1/T2
Internal resistance (Fully charged, 25 °C)		Approx. 35mΩ
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/Block
Cyclic charging voltage (25 °C)		14.40 to 14.70V Temperature compensation: -30mV/ °C/Block
Maximum charging current		1.44A
Maximum discharge current		108A (5 sec.)
Design life	10 years for floating (25 °C)	
	Eurobat (20 °C): 6-9 years, General Purpose.	

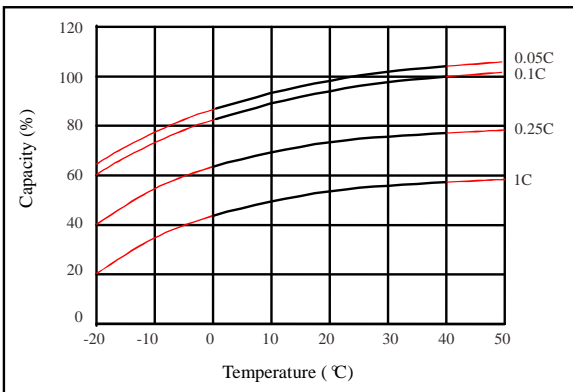
### ● Discharge characteristics (25 °C)



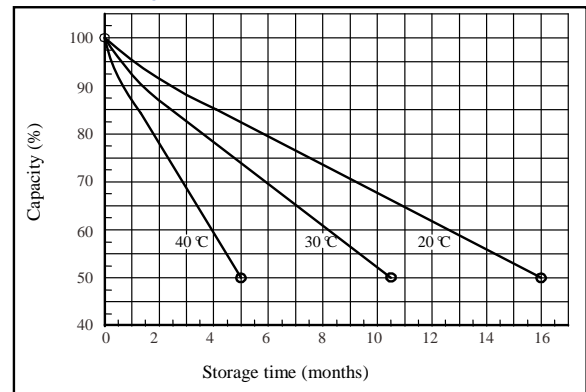
### ● Charging characteristics (25 °C)



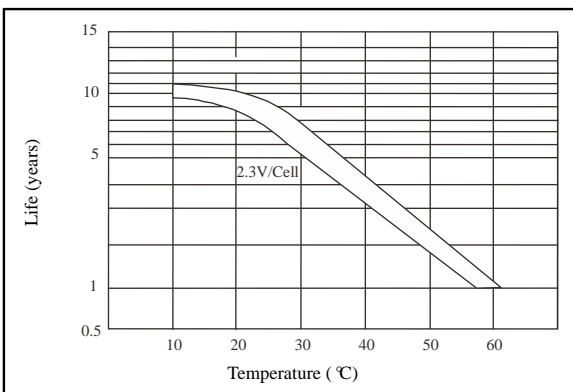
### ● Temperature effects on capacity



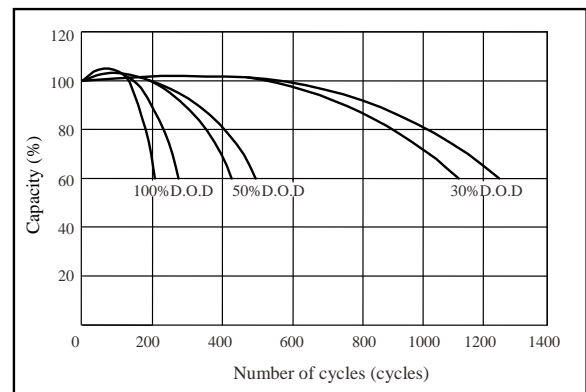
### ● Self-discharge characteristics



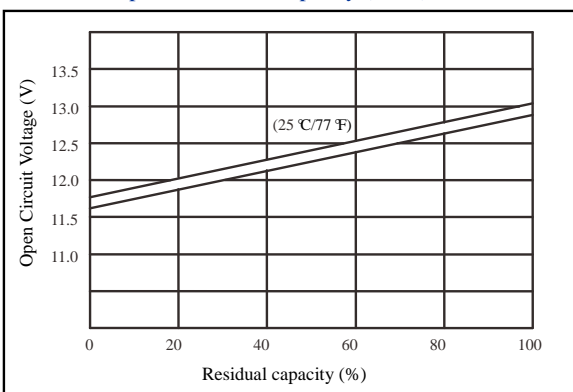
### ● Floating life on temperature



### ● Cycle life on D.O.D (25 °C)



### ● Relationship for OCV and capacity (25 °C)



### ● Relationship for charging voltage and temperature

