

# Product specification manual

## PHYSICAL SPECIFICATION

Concept	Content	Unit
Nominal Voltage	6	V
Nominal Capacity (20hr)	4.5	AH
Dimision	Lenth	70±1mm
	Width	47±1mm
	Height	101±1mm
	total Height	105±1mm
Referential weight	≈ 0.71	kg

## ELECTRICAL SPECIFICATION

### Nominal Capacity (20°C)

Hour Rate	Discharge Current	To	End Voltage	Rated Capacity	Unit
20hour rate	0.23	to	5.25	4.59	AH
10hour rate	0.45	to	5.25	4.23	AH
5hour rate	0.75	to	5.25	3.83	AH
1hour rate	2.58	to	5.25	2.57	AH
1C20	4.50	to	4.8	2.21	AH
3C20	13.50	to	4.8	1.67	AH

### Capacity affected by Temperature(20hr)

-20°C	65%
20°C	100%
50°C	105%
Internal Resistancefully charging battery (20°C)	20-28 mΩ

charging (constant Voltage)	Cycle	Initial charging Current less than <b>1.35A</b> Voltage <b>7.3~7.6V</b> (20°C)Temp Coefficient <b>-12mv/°C</b>
	Float	nitial charging Current less than <b>1.35A</b> Voltage <b>6.8-6.9V</b> (20°C)Temp Coefficient <b>-9mv/°C</b>

The use of the environment	charging 0°C to 40°C discharge -15°C to 50°C Preservation -15°C to 40°C
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Charge retention time (20°Cpreservation environment)	<table style="width: 100%; border: none;"> <tr> <td style="padding-right: 20px;">one month</td> <td>90%</td> </tr> <tr> <td>three month</td> <td>85%</td> </tr> <tr> <td>six month</td> <td>75%</td> </tr> </table>	one month	90%	three month	85%	six month	75%
one month	90%						
three month	85%						
six month	75%						

**Table of Relationship between Open Circuit Voltage and Capacity -(25°C)**

capacity	6V open circuit voltage	12V open circuit voltage
100%	$V > 6.5V$	$V > 13.0V$
90%	$6.40 < V < 6.50$	$12.80 < V < 13.00$
80%	$6.33 < V < 6.40$	$12.65 < V < 12.80$
70%	$6.25 < V < 6.33$	$12.50 < V < 12.65$
60%	$6.18 < V < 6.25$	$12.35 < V < 12.50$
50%	$6.10 < V < 6.18$	$12.20 < V < 12.35$
40%	$6.03 < V < 6.10$	$12.05 < V < 12.20$
30%	$5.95 < V < 6.03$	$11.90 < V < 12.05$
20%	$5.88 < V < 5.95$	$11.75 < V < 11.90$
10%	$5.80 < V < 5.88$	$11.60 < V < 11.75$