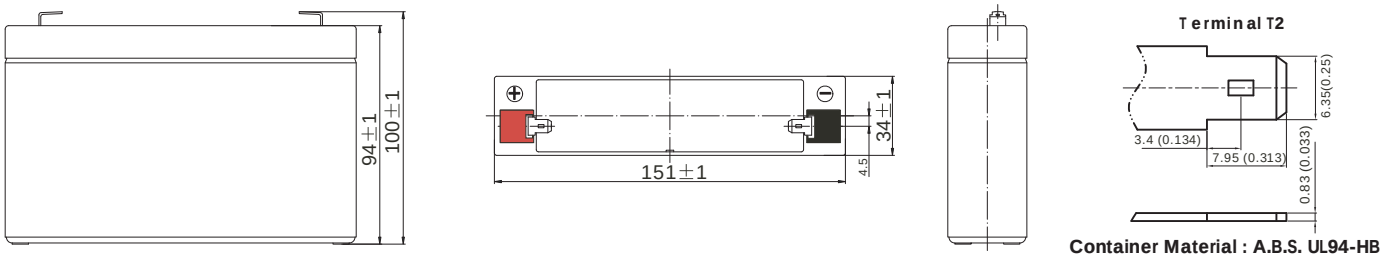
NRG POWER

NP 6-7 is a general purpose VRLA battery with 5 years floating design life that meets with IEC 6& JIS standard. With up dated AGM valve regulated technology and high purity raw materials, the battery has reliable standby service life. It is suitable for UPS, medical equipment, emergency light and security systems applications.

6V - 7Ah

Physical Charactiristics		Technical Characteristics	
Nominal Voltage	6V	**Internal Resistance**	Fully charged battery (25C) 15mΩ
Nominal Capacity (20HR)	7Ah @20hr rate to 1,75V per cell @25C	**Recommended Charging Current at 25C**	2,1A
Dimension LxWxH	151x34x100 +/-2mm	**Float charging Voltage**	6,75 to 6,90 VDC/unit Average at 25C
Weight	Approx 1,10kg	**Equalization and Cycle Service**	7,2 to 7,5 VDC/unit Average at 25C
Standard Terminal	T2	**Max discharge current**	105Ah (5sec)

Dimensions



Container Material : A.B.S. UL94-HB

Constant Current & Power Discharge Characteristics: A (25C) / W/cell (25C)

Final Voltage \ Time		5	10	15	20	30	45	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	20hr
1.85V/cell	**A**	13.3	10.2	8.48	7.33	5.67	4.18	3.52	2.08	1.63	1.32	1.08	0.94	0.756	0.631	0.347
1.80V/cell	**A**	17.9	13.1	10.2	8.67	6.69	4.86	3.94	2.27	1.75	1.41	1.16	1.01	0.802	0.651	0.350
1.75V/cell	**A**	20.2	14.4	11.2	9.32	6.94	5.04	4.13	2.36	1.79	1.45	1.19	1.03	0.816	0.669	0.354
1.70V/cell	**A**	22.2	15.7	11.9	9.80	7.23	5.24	4.26	2.42	1.83	1.48	1.22	1.05	0.827	0.682	0.360
1.65V/cell	**A**	24.5	16.9	12.7	10.4	7.63	5.37	4.35	2.45	1.91	1.54	1.25	1.08	0.840	0.696	0.365
1.60V/cell	**A**	27.0	18.4	13.6	11.1	8.05	5.60	4.40	2.56	1.97	1.58	1.30	1.10	0.848	0.704	0.367
1.85V/cell	**W**	24.4	18.9	15.8	13.8	10.8	8.03	6.79	4.04	3.18	2.59	2.12	1.84	1.492	1.250	0.686
1.80V/cell	**W**	32.4	23.9	18.9	16.1	12.6	9.26	7.57	4.38	3.40	2.75	2.26	1.97	1.578	1.286	0.692
1.75V/cell	**W**	35.7	25.8	20.3	17.2	12.9	9.52	7.88	4.53	3.45	2.80	2.31	2.02	1.602	1.319	0.698
1.70V/cell	**W**	38.2	27.5	21.4	17.9	13.4	9.86	8.10	4.63	3.54	2.87	2.37	2.05	1.622	1.345	0.710
1.65V/cell	**W**	41.6	29.4	22.6	18.9	14.0	10.0	8.23	4.67	3.67	2.96	2.43	2.09	1.644	1.370	0.719
1.60V/cell	**W**	44.8	31.2	23.8	19.9	14.7	10.4	8.26	4.85	3.76	3.04	2.50	2.13	1.656	1.383	0.722

Capacity factors with different temperature

Capacity affected by temp	-15C	0C	25C	40C
20hr	65%	85%	100%	102%

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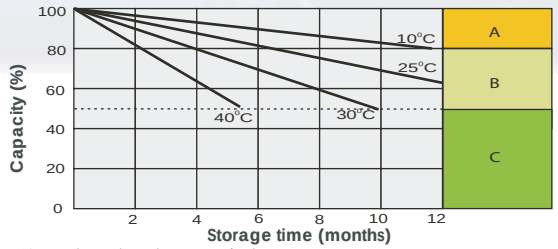
NP 6V 7Ah

Storage characteristics

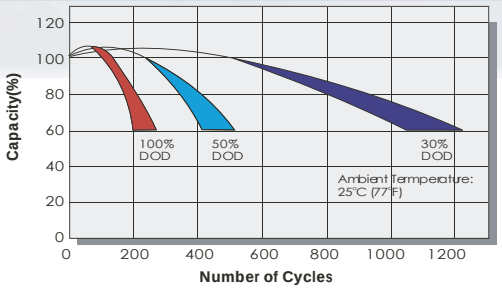


A — No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

B — Supplementary charge required before use. Optional charging way as below:
1.Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2.Charged for above 20hours at limited current 0.25CA and constant voltage 2.45V/cell.
3.Charged for 8~10 hours at limited current 0.05CA.

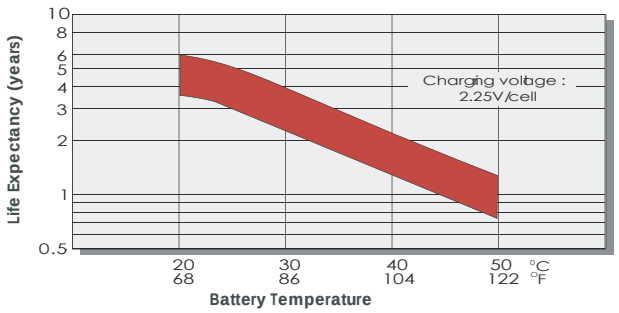
C — Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

Cycle Life in Relation to depth of discharge

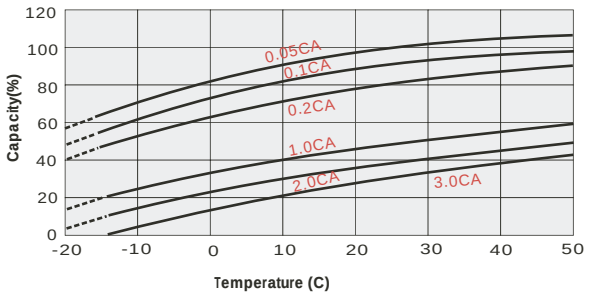


Testing condition
Discharging: Current 0.17C (FV 1,7V/cell)
Charging: Current 0.25C max, voltage 2,45V/cell
Charging volume: 125% of discharged capacity

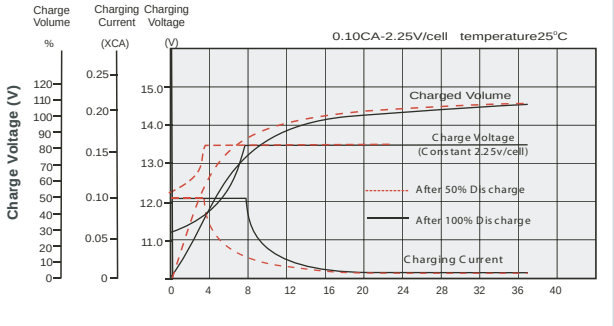
Effect of temperature on long term float life



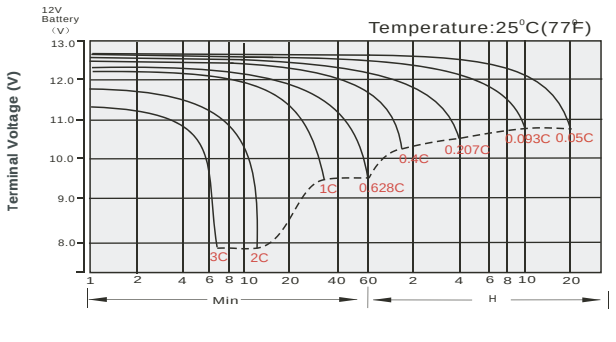
Temperature effects in relation to battery capacity



Float Charging Characteristics



Discharge characteristics curve



Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1,75V	1,70V	1,60V
Discharge Current (A)	(A) ⩽ 0.2C	0.2C<(A)<1.0C	(A) ⩾ 1.0C

Charge the batteries at least once every six months, if they are stored at 25C
Charging Method:

Constant Voltage	-0.2Cx2h=2.4~2.45V/Cellx24h, Max.Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

Maintenance & Cautions

Float Service:
* Every month, recommend inspection every battery voltage
* Every three months, recommend equalization charge for one time.

Equalization charge method:
Discharge: 100% rate capacity discharge
Charge: Max. current 0.3CA, constant voltage 2,4-2,45V/Cell charge 24h
* Effect of temperature on float charge voltage: -3mV/C/Cell
* Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.

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