

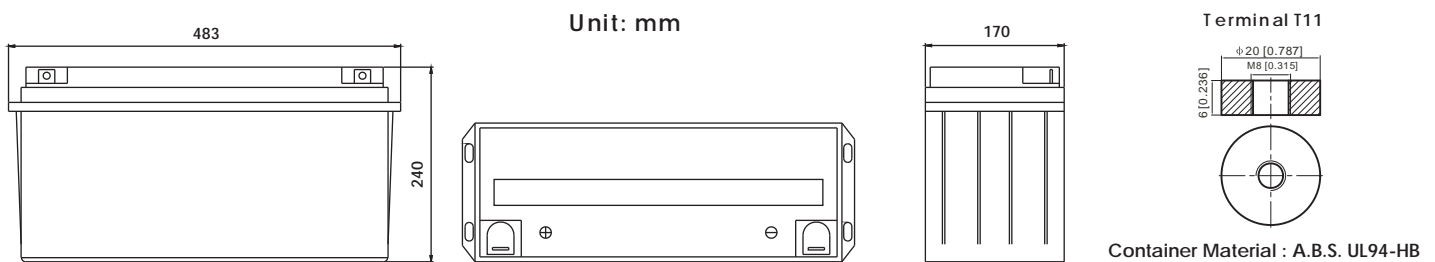
12V - 150Ah

NP 12V 150Ah is a general purpose VRLA battery with 10 years floating design life, meet with IEC 60896-21, 60896-22, JIS standard. With heavy duty grid, thickness plates, special additives, NP series have long and reliable stand by service life. The battery keeps high consistent for better performance in series usage.



Physical Characteristics		Technical Characteristics	
Nominal Voltage	12V	Internal Resistance	Fully charged battery (25C) 4 mΩ
Nominal Capacity (20HR)	150Ah @10hr rate to 1,80V per cell @25C	Recommended Charging Current at 20C	45 A
Dimension LxWxH	483x170x240 +/-1mm	Float charging Voltage	13,6 to 13,8 VDC/unit Average at 25C
Weight	Approx 44,5 kg	Equalization and Cycle Service	14,6 to 14,8 VDC/unit Average at 25C
Standard Terminal	T11	Max Discharge Current	1500A (5sec)

Dimensions



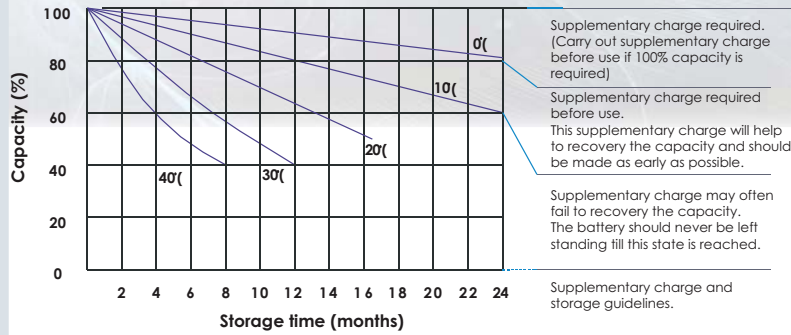
Constant Current & Power Discharge Characteristics: A (25C) / W (25C)

Final Voltage	Time	5min	10min	15min	30min	1Hr	2Hr	3Hr	4Hr	5Hr	8Hr	10Hr	20Hr
		1.60V	A	432.9	323.3	272.1	169.0	97.50	58.34	40.32	33.05	27.05	18.63
25C	W	4477	3443	2993	1927	1127	687.6	479.9	393.9	322.7	222.5	188.3	103.9
1.65V	A	420.4	307.6	266.5	166.2	97.05	57.90	40.17	32.90	26.89	18.48	15.60	8.507
25C	W	4389	3337	2945	1903	1124	684.0	480.0	393.4	321.9	221.4	187.1	102.1
1.7V	A	407.9	296.7	262.4	164.7	96.15	57.46	39.86	32.74	26.73	18.33	15.45	8.350
25C	W	4339	3249	2912	1890	1115	679.9	477.9	392.6	320.8	220.0	185.4	100.2
1.75V	A	366.3	273.8	249.8	160.6	95.25	57.03	39.71	32.44	26.41	18.18	15.30	8.192
25C	W	3950	3026	2778	1846	1105	674.9	476.1	388.9	317.0	218.1	183.6	98.31
1.8V	A	330.6	249.7	230.3	153.6	93.00	56.00	38.63	31.67	25.94	17.88	15.15	8.035
25C	W	3598	2789	2567	1769	1085	666.3	463.1	380.1	311.2	214.5	181.8	96.42
1.85V	A	282.3	223.1	206.5	143.9	88.35	53.52	36.93	30.14	24.82	17.12	14.69	7.562
25C	W	3160	2522	2311	1662	1038	641.6	443.1	361.7	297.9	205.4	176.3	90.75

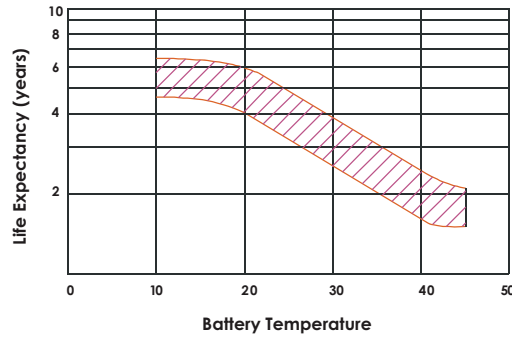
Capacity factors with different temperature

BATTERY TYPE		-20C	-10C	0C	5C	10C	20C	25C	30C	40C	45C
GEL BATTERY	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM BATTERY	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

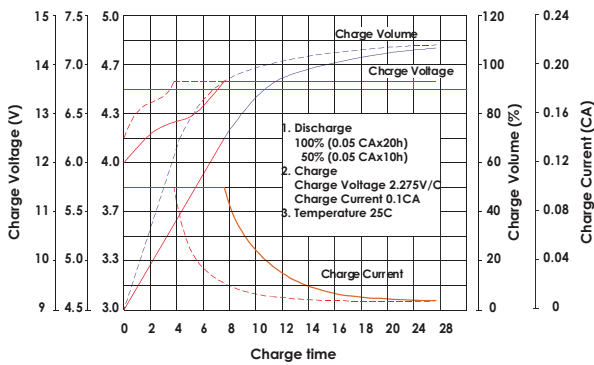
Storage characteristic



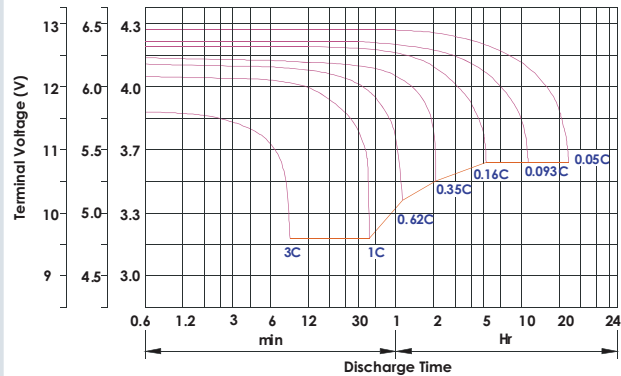
Effect of temperature on long term float life



Charge characteristic Curve for standby use



Discharge characteristic 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.