

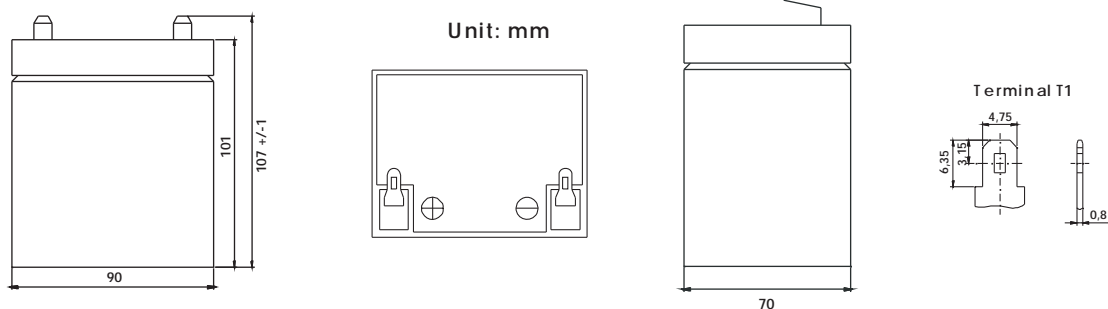
12V - 5Ah

NP 12V 5 Ah is a general purpose VRLA battery with 5 years floating design life, meet with IEC, JIS standard. With heavy duty grid, thickness plates, special additives, it has long and reliable standby service life.



Physical Characteristics		Technical Characteristics	
Nominal Voltage	12V	Internal Resistance	Fully charged battery (25C) 35mΩ
Nominal Capacity (20HR)	5Ah @20hr rate to 1,75V per cell @25C	Recommended Charging Current at 20C	1.5A
Dimension LxWxH	90x70x107 +/-1mm	Float charging Voltage	13,7 to 13,9 VDC/unit Average at 25C
Weight	Approx 1,6kg	Equalization and Cycle Service	14,6 to 14,8 VDC/unit Average at 25C
Standard Terminal	T1	Max Discharge Current	50A (5sec)

Dimensions



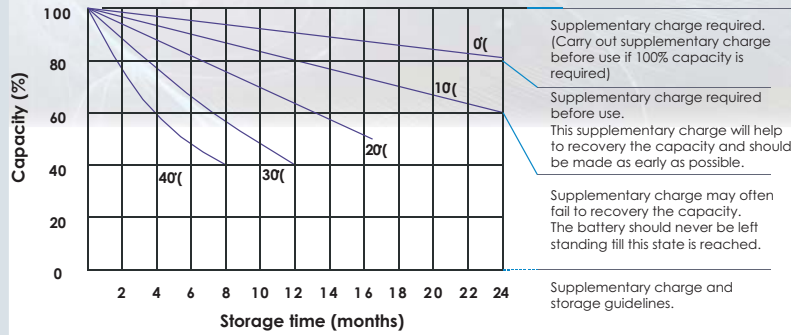
Constant Current & Power Discharge Characteristics: A (25C) / W (25C)

Final Voltage	Time	5	10	15	30	1hr	2hr	3hr	4hr	5hr	8hr	10hr	20hr
		A	A	A	A	A	A	A	A	A	A	A	A
1.60V	A	20.33	13.33	10.45	5.865	3.485	2.007	1.364	1.092	0.906	0.577	0.500	0.281
	W	213.88	141.78	111.85	67.14	40.47	23.42	15.94	12.92	10.73	6.913	5.988	3.362
1.65V	A	19.60	13.00	10.11	5.790	3.390	1.967	1.339	1.076	0.891	0.575	0.495	0.270
	W	208.31	138.83	110.25	66.44	39.87	23.22	15.91	12.89	10.68	6.886	5.931	3.242
1.7V	A	18.44	12.35	9.832	5.701	3.358	1.946	1.327	1.066	0.881	0.570	0.487	0.265
	W	198.14	133.34	108.79	65.87	39.58	23.07	15.85	12.78	10.57	6.835	5.875	3.182
1.75V	A	16.58	11.55	9.274	5.544	3.292	1.920	1.315	1.055	0.871	0.565	0.485	0.257
	W	180.85	127.84	103.13	64.52	39.04	22.88	15.79	12.66	10.45	6.777	5.814	3.093
1.8V	A	14.86	10.77	8.750	5.361	3.233	1.905	1.300	1.050	0.862	0.562	0.477	0.242
	W	163.16	119.59	97.43	62.99	38.41	22.70	15.60	12.62	10.34	6.747	5.726	2.913
1.85V	A	13.00	9.876	8.072	5.157	3.146	1.828	1.274	1.041	0.853	0.558	0.469	0.238
	W	143.88	111.34	91.77	61.26	37.69	21.91	15.30	12.49	10.24	6.700	5.640	2.866

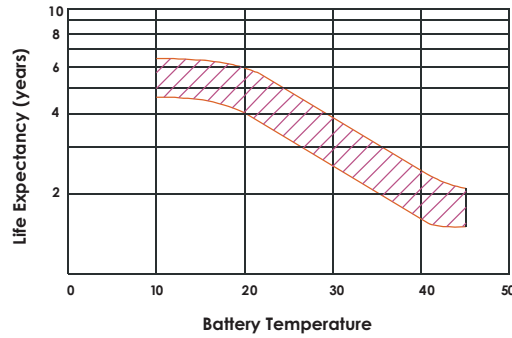
Capacity factors with different temperature

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%

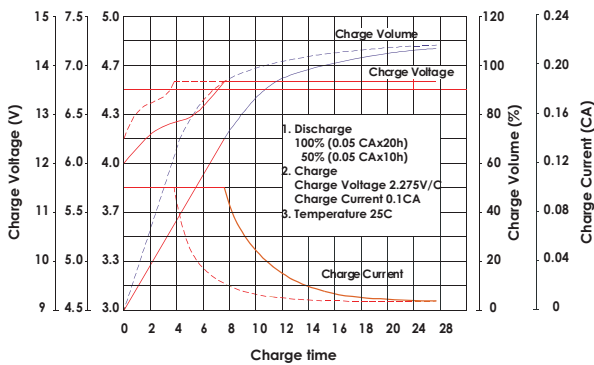
Storage characteristic



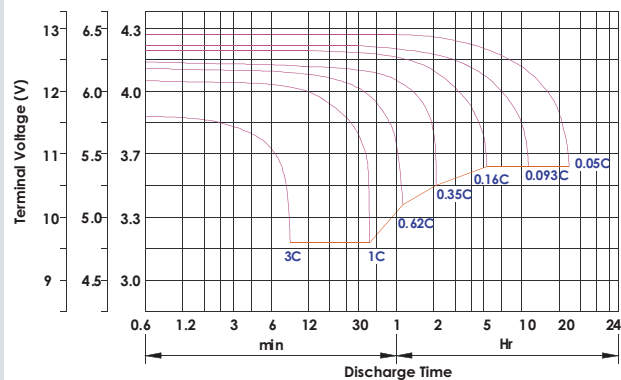
Effect of temperature on long term float life



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.