



NEP12V54AH (12V5.4Ah) AUS CELL No. 1

NEP12V54AH is a general purpose battery with 5 years floating design life, meets with IEC, JIS standard. With heavy duty grid, thickness plates and special additives, the NEP12V54AH battery has a long and reliable standby service life.

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	5.4Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 1.70 Kg
Max. Discharge Current	54 A (5 sec)
Internal Resistance	Approx. 35 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.7 to 13.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	1.65 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	Valve Regulated Lead Acid(VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Faston Tab 187(F1)/Faston tab 250(F2)
Constainer Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V2 can be available upon request.



MH28539



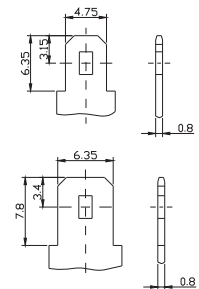
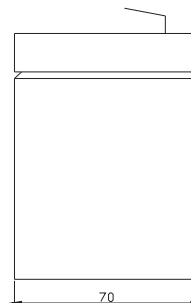
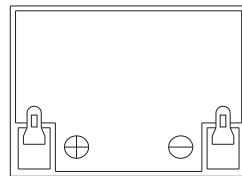
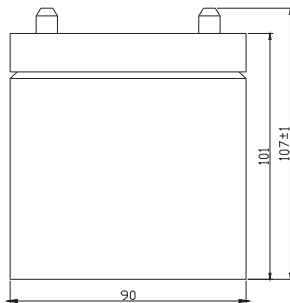
G4M20206-0910-E-16



ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 90(L)×70(W)×107(H)



Constant Current Discharge Characteristics : A(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	22.36	14.66	11.49	6.452	3.834	2.208	1.500	1.201	0.997	0.635	0.550	0.309
10.0V	21.56	14.30	11.12	6.369	3.729	2.163	1.473	1.184	0.980	0.633	0.544	0.297
10.2V	20.29	13.59	10.82	6.272	3.694	2.140	1.460	1.172	0.970	0.627	0.536	0.292
10.5V	18.24	12.71	10.20	6.099	3.621	2.112	1.447	1.161	0.958	0.621	0.533	0.283
10.8V	16.34	11.85	9.625	5.897	3.556	2.095	1.430	1.155	0.948	0.619	0.524	0.267
11.1V	14.30	10.86	8.880	5.673	3.460	2.011	1.402	1.145	0.938	0.614	0.516	0.262

Constant Power Discharge Characteristics : W(25°C)

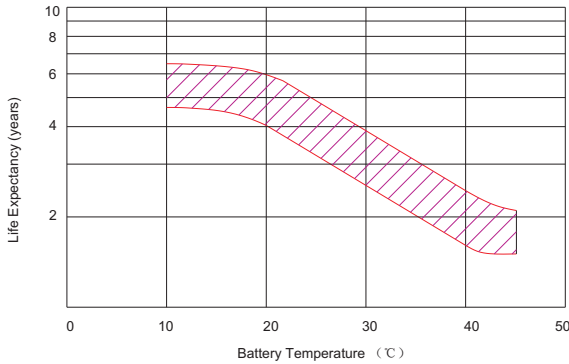
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	235.3	156.0	123.0	73.85	44.51	25.76	17.54	14.21	11.80	7.604	6.586	3.698
10.0V	229.1	152.7	121.3	73.08	43.86	25.54	17.50	14.17	11.74	7.575	6.525	3.566
10.2V	218.0	146.7	119.7	72.45	43.54	25.38	17.44	14.06	11.63	7.518	6.463	3.501
10.5V	198.9	140.6	113.4	70.97	42.95	25.17	17.37	13.93	11.49	7.454	6.395	3.402
10.8V	179.5	131.5	107.2	69.29	42.25	24.96	17.16	13.88	11.37	7.422	6.298	3.204
11.1V	158.3	122.5	100.9	67.39	41.46	24.10	16.83	13.74	11.26	7.370	6.204	3.153

All mentioned values are average values.

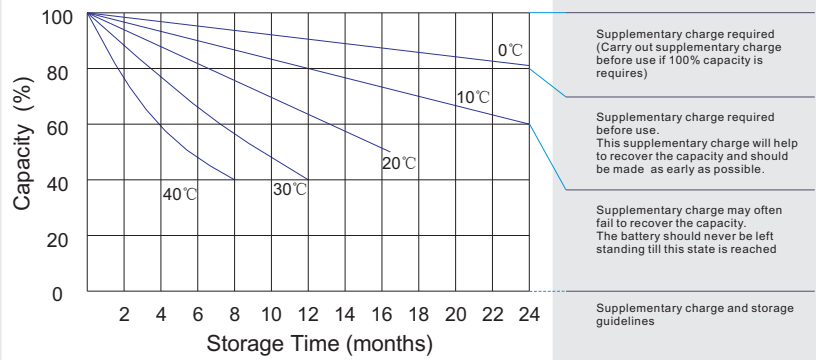
NEP12V54AH

12V5.4Ah **AUS** CELL No. 1

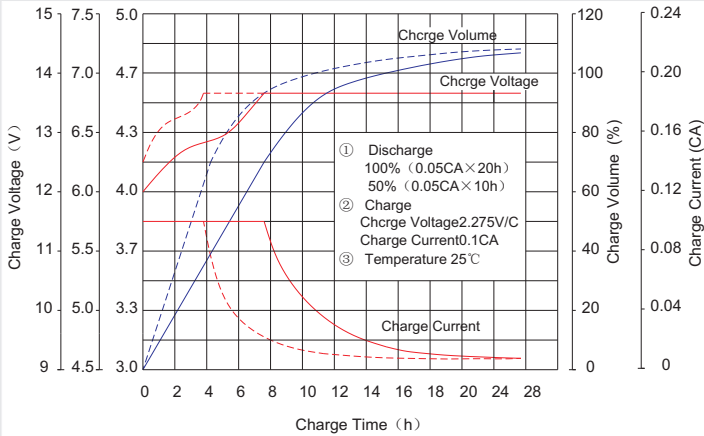
Effect of temperature on long term float life



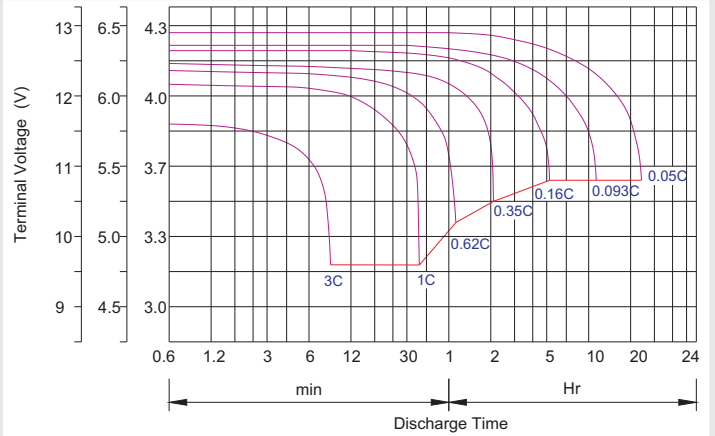
Storage characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
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%

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

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.

Charge the batteries at least once every six months, if they are stored at 25°C.

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