NRG POWER

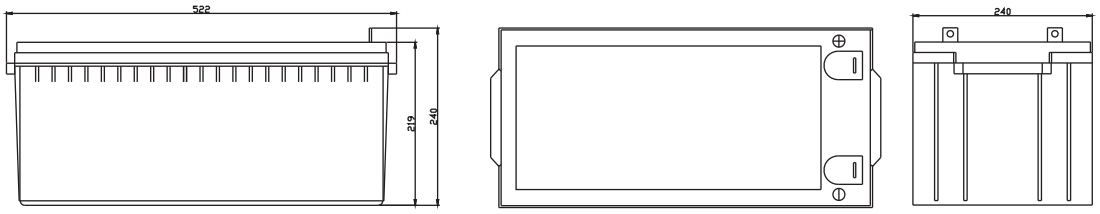
12V - 200Ah

NP 12V 200Ah is a general purpose VRLA battery with 10 years floating design life, meet with IEC 60896-21, 60896-22, JIS standard, High performance according to Eurobat Classification. 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.

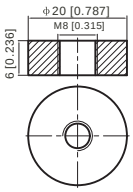
Physical Charactiristics		Technical Characteristics	
Nominal Voltage	12V	**Internal Resistance**	Fully charged battery (25C) 4 mΩ
Nominal Capacity (20HR)	200Ah @10hr rate to 1,80V per cell @25C	**Recommended Charging Current at 20C**	60 A
Dimension LxWxH	522x240x223 +/-1mm	**Float charging Voltage**	13,6 to 13,8 VDC/unit Average at 25C
Weight	Approx 60,0 kg	**Equalization and Cycle Service**	14,6 to 14,8 VDC/unit Average at 25C
Standard Terminal	T11	**Max Discharge Current**	2000A (5sec) upto 3000A max

Dimensions

Unit: mm



Terminal : T11



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

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**	545.12	408.33	344.69	225.33	130.00	77.788	53.766	44.064	36.067	24.844	21.006	11.553
25C	**W**	5638.2	4348.7	3791.6	2568.8	1502.2	916.87	639.82	525.24	430.28	296.63	251.02	138.52
1.65V	**A**	529.36	388.53	337.62	221.61	129.40	77.204	43.560	43.860	35.855	24.642	20.804	11.343
25C	**W**	5527.2	4215.5	3730.7	2537.4	1498.6	912.01	640.04	524.57	429.18	295.21	249.44	136.12
1.7V	**A**	513.67	374.81	332.31	219.65	128.20	76.619	53.148	43.656	35.643	24.440	20.602	11.133
25C	**W**	5464.0	4104.2	3688.7	2519.4	1487.0	906.51	637.24	523.44	427.71	293.28	247.22	133.60
1.75V	**A**	461.25	345.56	316.41	214.16	127.00	76.034	52.94	43.248	35.219	24.238	20.400	10.923
25C	**W**	4974.3	3821.8	3518.4	2460.7	1473.7	899.92	634.77	518.54	422.62	290.85	244.80	131.08
1.8V	**A**	416.33	315.39	291.66	204.76	124.00	74.669	51.500	42.228	34.582	23.834	20.198	10.713
25C	**W**	4530.6	3522.9	3252.0	2358.8	1446.5	888.45	617.49	506.74	414.98	286.00	242.38	128.56
1.85V	**A**	355.48	281.87	261.61	191.83	117.8	71.355	49.234	40.188	33.097	22.824	19.592	10.083
25C	**W**	3979.4	3185.1	2927.4	2215.6	1384.6	855.45	590.81	482.26	397.16	273.89	235.10	120.99

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%

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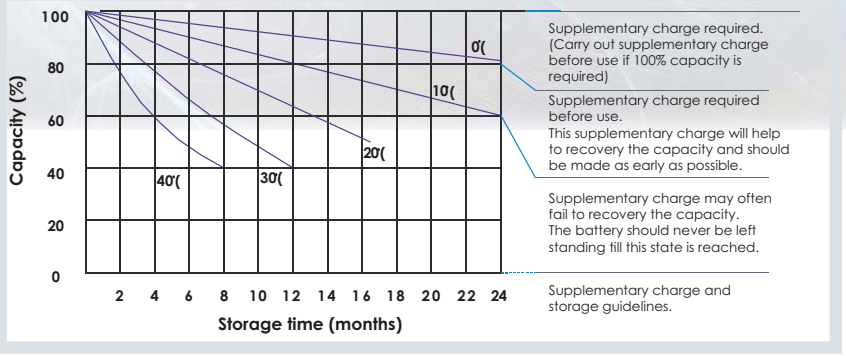
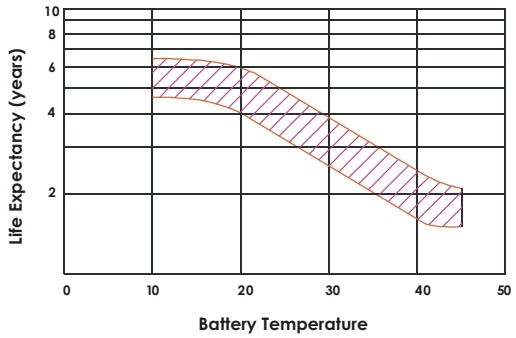
NP 12-200

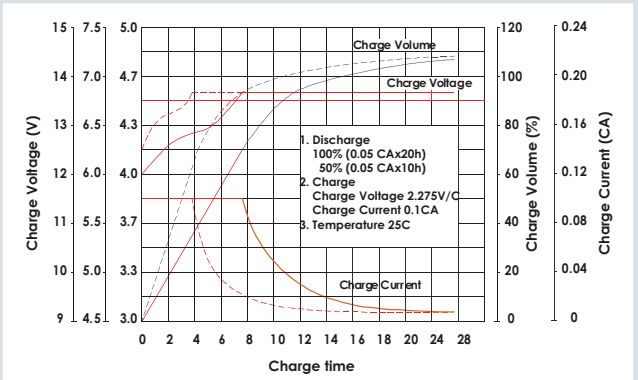
Storage characteristic



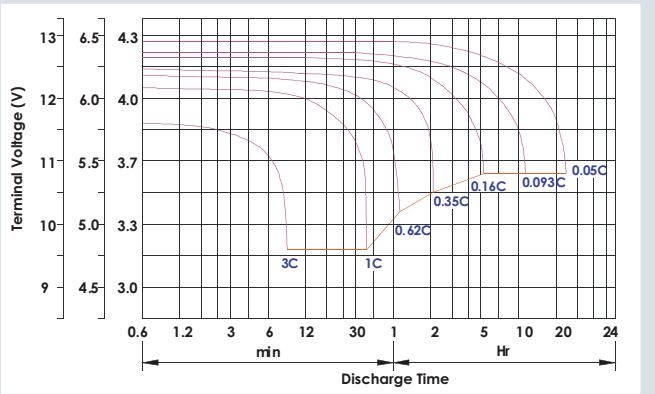
Effect of temperature on long term float life



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.

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