

NWRA 1233 (12V33Ah)

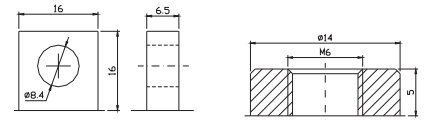
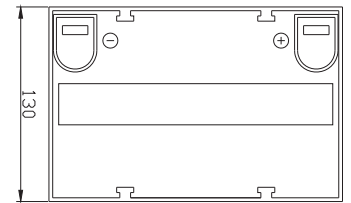
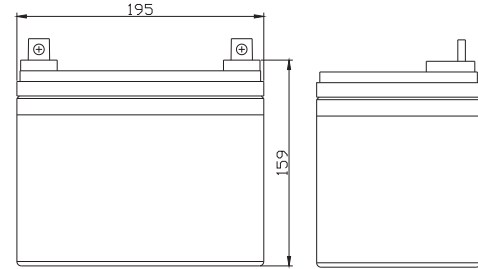


NWRA 1233 is general purpose battery with 10 years floating design life, meet with IEC, JIS .BS and Eurobat standard. With heavy duty grid, thickness plates, special additives, NWRA series battery have long and reliable standby service life. Our NWRA Series batteries keep high consistent for better performance in series usage.

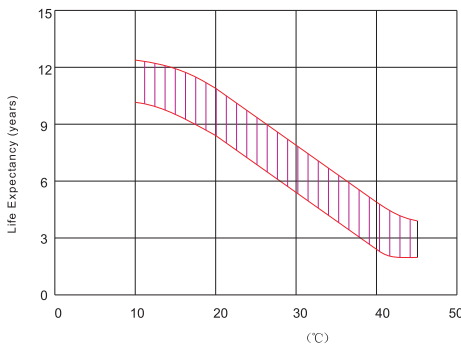
Specifications

Unit Dimension (mm): 195 (L) x 130 (W) X 159 (H)

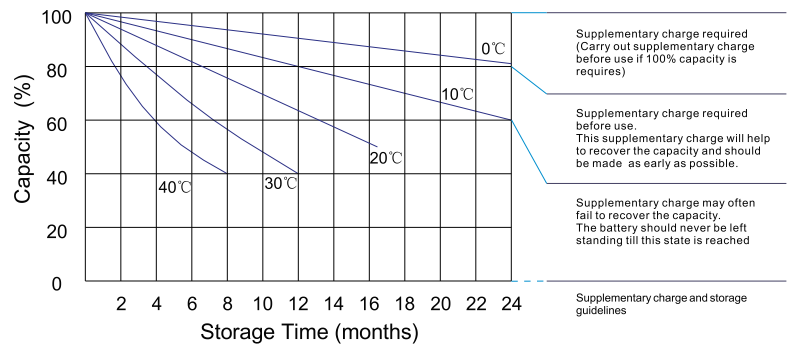
- Cells Per Unit:** 6
- Voltage Per Unit:** 12
- Capacity:** 33Ah@10hr-rate to 1.75V per cell @25°C
- Weight:** Approx. 10.2 Kg
- Max. Discharge Current:** 330 A (5 sec)
- Internal Resistance:** Approx. 9 mΩ
- Operating Temperature Range:**
 - Discharge:** -20°C ~60°C
 - Charge:** 0°C~50°C
 - Storage:** -20°C~60°C
- Normal Operating Temperature Range:** 25°C±5°C
- Float charging Voltage:** 13.6 to 13.8 VDC/unit Average at 25°C
- Recommended Maximum Charging Current Limit:** 9.9 A
- Equalization and Cycle Service:** 14.6 to 14.8 VDC/unit Average at 25°C
- Self Discharge:** Self Discharge: GreenWave 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:** Terminal F7/F11
- Container Material:** A.B.S. (UL94-HB)



Effect of Temperature on long term float life

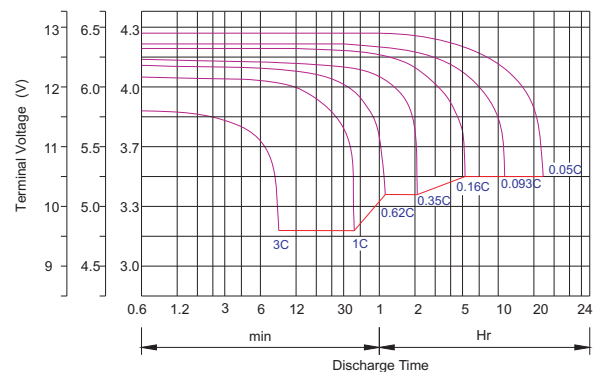
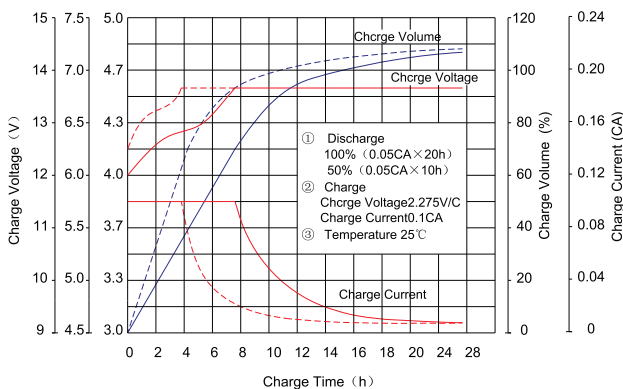


Storage Characteristic



Charge Characteristic Curve for Standby Use

Discharge Characteristic Curve



Discharge Table in Amperes

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	103.80	76.41	58.69	37.95	21.45	11.98	8.61	7.13	5.83	4.10	3.47	1.83
10.0V	100.80	72.71	57.48	37.32	21.35	11.89	8.58	7.10	5.80	4.07	3.43	1.80
10.2V	97.80	70.14	56.58	36.99	21.15	11.80	8.51	7.06	5.77	4.03	3.40	1.77
10.5V	87.82	64.72	53.87	36.07	20.96	11.71	8.48	7.00	5.70	4.00	3.37	1.73
10.8V	79.26	59.02	49.66	34.49	20.46	11.50	8.25	6.83	5.59	3.93	3.33	1.70
11.1V	69.00	52.75	44.54	32.31	19.44	10.99	7.89	6.50	5.35	3.77	3.23	1.60

Discharge Table in Watts/Block

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	1012.00	755.70	631.50	406.90	245.30	137.80	99.40	82.37	67.54	47.57	38.97	20.59
10.0V	985.00	721.80	618.40	401.80	244.10	137.30	99.20	82.17	67.13	47.37	38.57	20.39
10.2V	956.00	697.70	610.00	397.10	242.40	136.00	98.60	81.77	66.92	46.97	38.37	20.19
10.5V	860.00	644.70	581.70	388.10	240.00	134.80	98.01	81.18	66.31	46.57	37.97	19.99
10.8V	774.00	585.40	534.40	370.40	234.00	132.80	95.63	79.00	65.28	45.57	37.57	19.79
11.1V	668.10	519.90	477.20	347.00	221.80	126.70	90.88	75.24	61.98	43.97	36.37	18.99

Capacity Factors With Different Temperature

-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
46%	66%	76%	83%	90%	98%	100%	103%	107%	109%

Maintenance and Cautions

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

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.

GreenWave™ is a global professional power protection manufacturer. The company initiators are a group of experienced engineers who has been in the power protection field for long years. Greenwave carry wide range of products starting with 600VA Line-Interactive UPS to several MVA power On Line Double Conversion units, Surge suppressors, Line conditioners, Valve Regulated Lead Acid batteries and many other related products.

GreenWave™ offer the best quality products through its Research & Development team and labs testing. Our commitment is to offer products with highest possible technical specs with the best after sales support to ensure the continuity of your business.

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