



HR6-850W (850w/cell)

HR (High Rate) series is especially designed for heavy load discharge applications with 10 years design life in float service. By using strong grids and specially designed active material the HR series offers stable performance during high current discharge requirements. The HR series offers 30% more power output than the standard range. Suitable for UPS/EPS where high current loads are required.



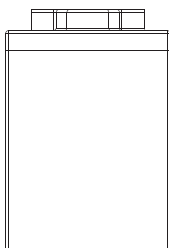
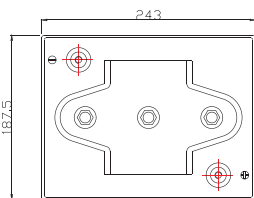
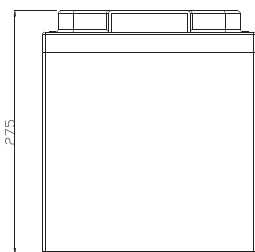
Specification

Cells Per Unit	3
Voltage Per Unit	6
Capacity	850W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 33.0 Kg(Tolerance ±2%)
Max. Discharge Current	2250A (5 sec)
Internal Resistance	Approx. 1.7 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	6.8 to 6.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current	67.5A
Equalization and Cycle Service	7.3 to 7.4 VDC/unit Average at 25°C
Self Discharge	RITAR 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	Terminal F14
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

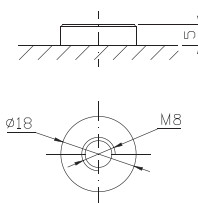


Dimensions

Unit: mm Dimension: 243(L) × 187.5(W) × 275(H)



Terminal F14



Constant Current Discharge Characteristics : A(25°C)

F.V/Tim e	5 MIN	8 MIN	10 MIN	15 MIN	20 MIN	30 MIN	60 MIN	90 MIN
4.80 V	766.6	663.7	606.4	465.9	349.5	265.8	148.9	118.7
5.00 V	713.8	622.2	579.1	455.1	343.1	261.3	146.5	117.0
5.10 V	691.7	607.1	571.4	439.7	332.6	254.3	143.4	114.9
5.25 V	633.3	557.6	522.0	403.6	311.9	242.3	137.1	110.4
5.40 V	547.1	494.4	461.3	375.8	295.2	232.3	135.3	108.5
5.55 V	453.9	422.9	411.9	338.7	270.7	215.5	125.1	101.8

Constant Power Discharge Characteristics : W(25°C)

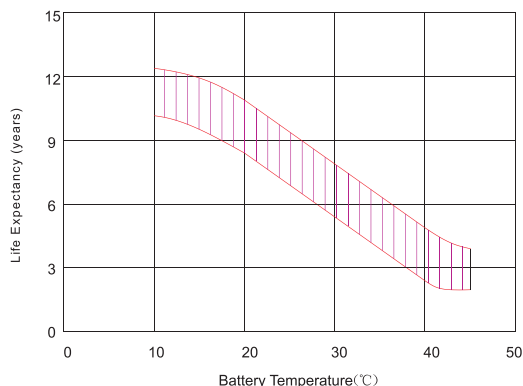
F.V/Tim e	5 MIN	8 MIN	10 MIN	15 MIN	20 MIN	30 MIN	60 MIN	90 MIN
4.80 V	4125	3595	3431	2614	1983	1552	879.8	709.3
5.00 V	3877	3427	3338	2565	1953	1529	869.6	704.7
5.10 V	3828	3381	3324	2489	1904	1498	854.3	694.7
5.25 V	3553	3137	3064	2289	1794	1438	821.6	667.9
5.40 V	3097	2812	2738	2157	1716	1392	811.4	657.0
5.55 V	2607	2433	2473	1968	1592	1299	757.2	618.0

All mentioned values are average values (Tolerance ±2%).

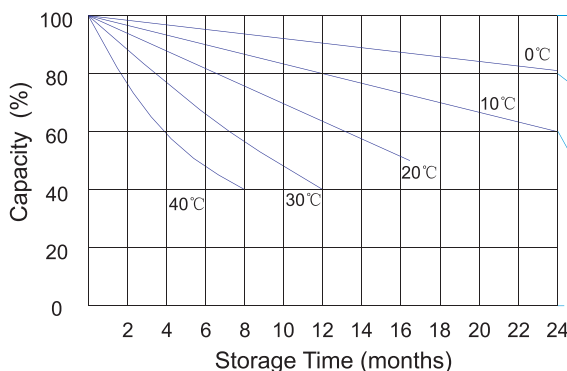
HR6-850W



Effect of temperature on long term float life



Storage characteristic



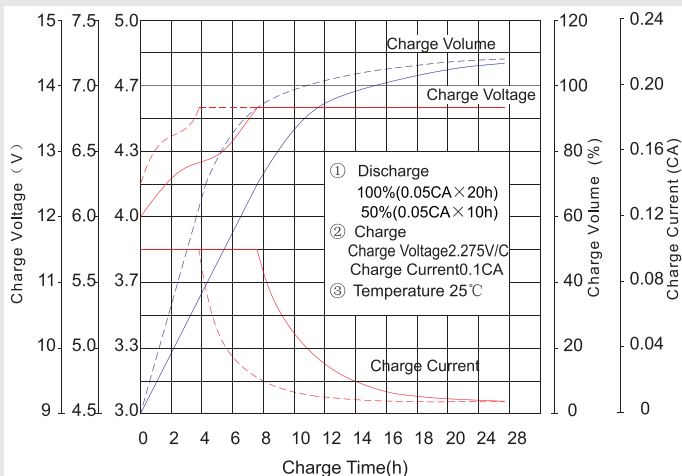
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

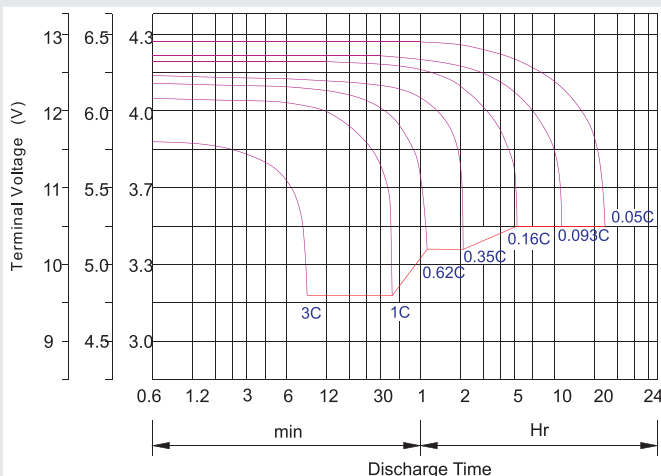
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

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

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

Charging Method:

Constant Voltage	-0.2Cx2h + 2.4~2.5V/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.