



RA12-200HL (12V200Ah) (650w/cell)

HRL is high rate series with 12 years floating design life, especially designed for high rate load discharge applications. By using strong grid and specific paste plate to insure high performance during big current discharge requirement when electricity is off. High Rate series offering extra-durable stable performance under high rate discharge.



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	650W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 62.5 Kg(Tolerance ± 1.5%)
Max. Discharge Current	2000A (5 sec)
Internal Resistance	Approx. 3.6 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	60.0 A
Equalization and Cycle Service	14.6 to 14.8 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	Faston tabF10
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



MH28539



G4M20206-0910-E-16



CERTIFICATE

Postcode: 421001
is in conformity with

ISO 14001:2004 Standard



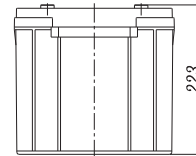
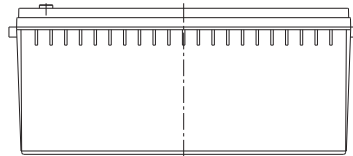
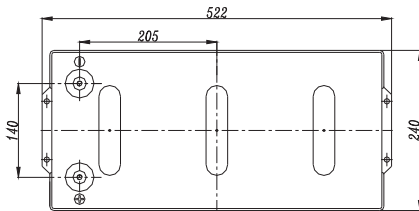
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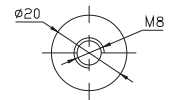
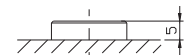
OHSAS 18001:1999 Standard

Dimensions

Unit: mm Dimension: 522(L) × 240(W) × 223(H)



Terminal F10



Constant Current Discharge Characteristics : A(25°C)

F.V /Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
9.60V	681	559	505	371	324	232	130	103.4
10.0V	662	530	503	362	305	223	127	99.8
10.2V	642	517	476	348	297	219	125	98.0
10.5V	577	498	435	330	283	211	122	96.2
10.8V	520	478	389	315	274	202	119	94.5
11.1V	444	440	358	301	264	196	115	90.7

Constant Power Discharge Characteristics : W(25°C)

F.V /Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
9.60V	7189	5932	5617	4320	3578	2583	1450	1157
10.0V	7047	5696	5574	4244	3403	2511	1419	1123
10.2V	6967	5544	5321	4119	3337	2474	1408	1111
10.5V	6342	5421	4951	3991	3217	2415	1400	1105
10.8V	5777	5204	4855	3823	3119	2335	1377	1097
11.1V	5074	4928	4759	3655	3049	2265	1351	1064

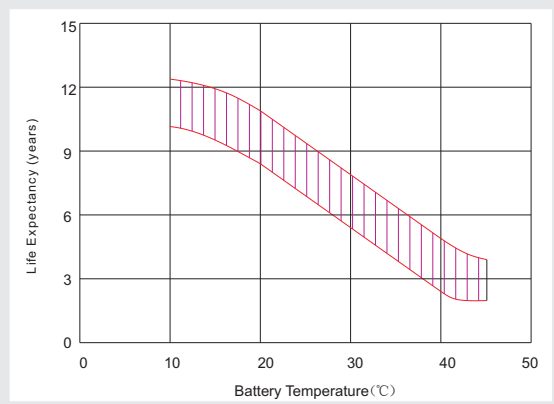
All mentioned values are average values (Tolerance ±2%).

RA12-200HL

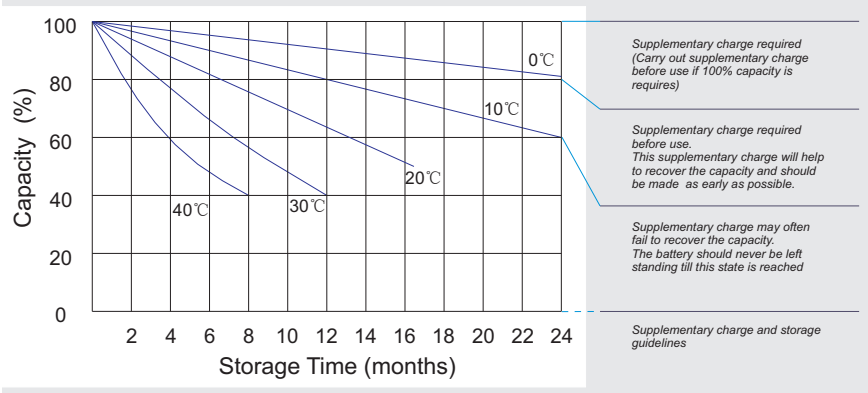
12V200Ah



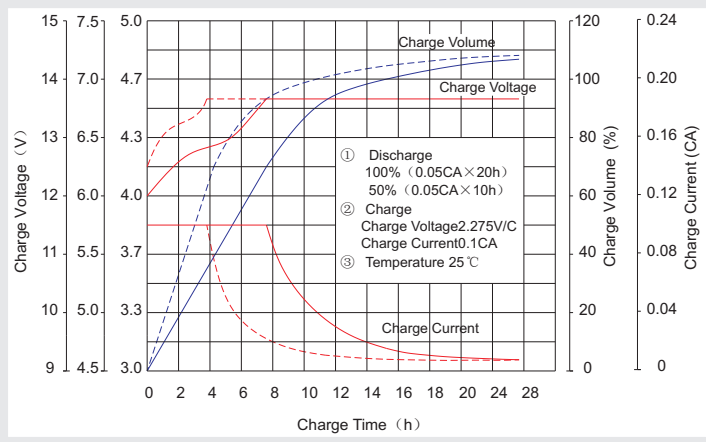
Effect of temperature on long term float life



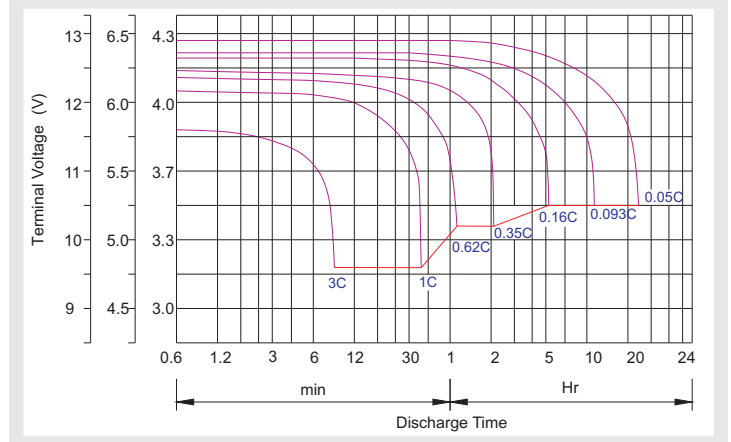
Storage characteristic



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

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 0.3C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.3Cx4h

Bolt	M5	M6	M8
Terminal	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
Torque	6~7N·m	8~10N·m	10~12N·m

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.