



RA12-150SH (12V150Ah) (540w/cell)

RA12-150SH is high rate series with 10 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	540W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 45.0 Kg
Max. Discharge Current	1500A (5 sec)
Internal Resistance	Approx. 5 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	45.0 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	RITAR 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 tabF12
Constainer Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V2 can be available upon request.



MH28539



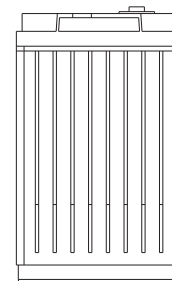
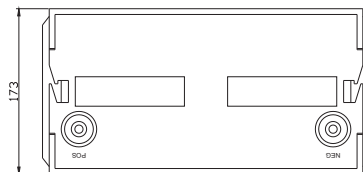
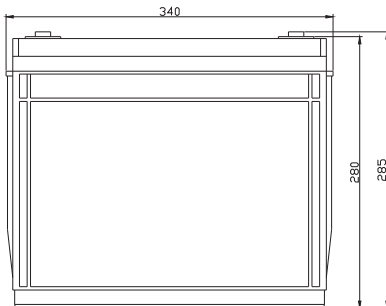
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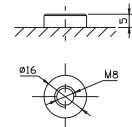
ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 340(L)×173(W)×285(H)



Terminal F12



Constant Current Discharge Characteristics : A(25 °C)

F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
9.60V	996.2	743.7	579.5	495.3	426.3	314.5	253.4	182.9	98.48	78.57
10.0V	928.5	695.2	541.0	469.3	403.2	300.9	238.7	176.1	94.82	75.86
10.2V	899.5	674.6	524.4	458.0	393.2	295.2	232.3	173.1	93.20	74.50
10.5V	852.7	639.6	507.1	440.9	374.0	285.0	228.8	170.4	92.93	73.56
10.8V	805.8	604.3	489.7	423.5	354.6	274.5	225.1	167.6	92.52	72.74
11.1V	758.9	569.2	472.5	406.2	335.5	264.3	221.7	164.9	91.98	71.79

Constant Power Discharge Characteristics : W(25 °C)

F.V/Time	2MIN	4MIN	6MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
9.60V	10719	8002	6235	5330	4579	3384	2769	1999	1077	861.5
10.0V	9991	7482	5820	5049	4338	3239	2608	1925	1036	828.2
10.2V	9680	7260	5642	4929	4231	3176	2538	1892	1018	812.8
10.5V	9175	6882	5456	4743	4023	3066	2500	1862	1014	804.6
10.8V	8671	6502	5270	4558	3815	2955	2461	1831	1009	796.5
11.1V	8165	6124	5085	4373	3608	2843	2424	1799	1005	788.4

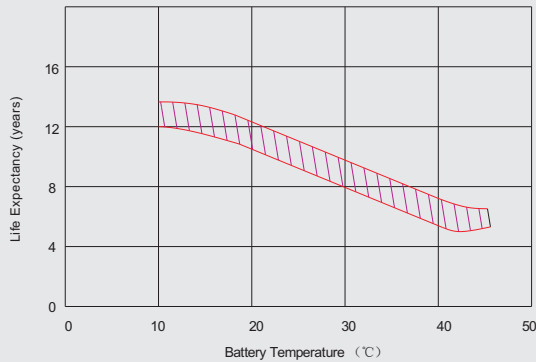
All mentioned values are average values.

RA12-150SH

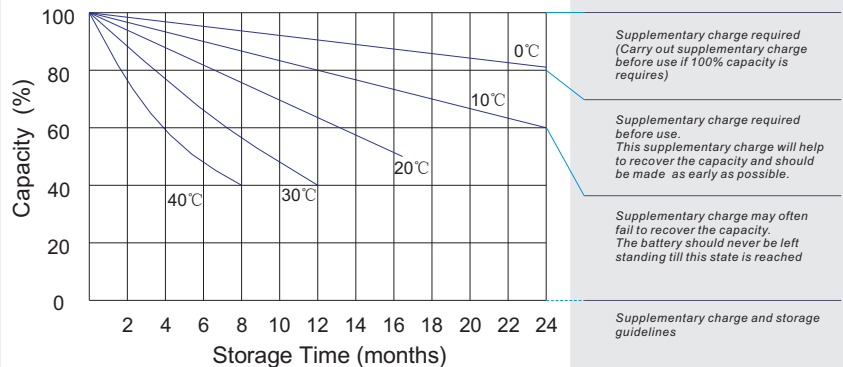
12V150Ah



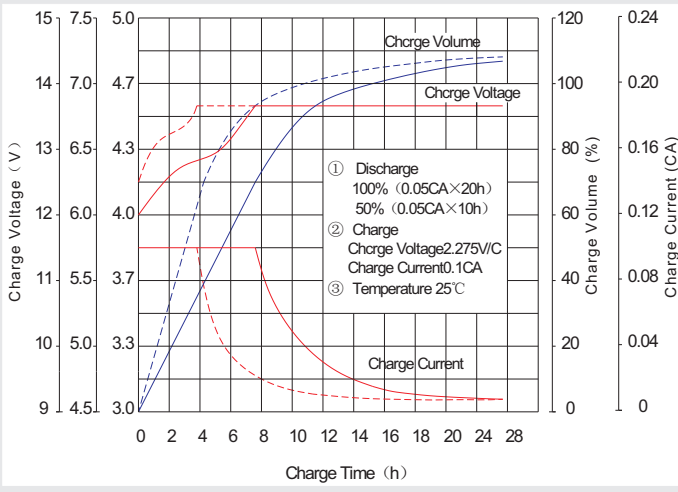
Effect of temperature on long term float life



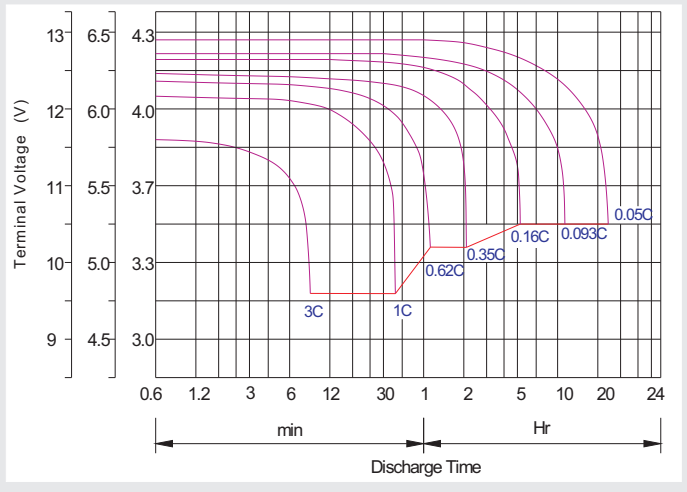
Storage characteristic



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 + 2.4~2.5V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h + 0.1CAx12h
Fast	-0.2Cx2h + 0.3CAx4.0h