



# RA12-230(12V230Ah)

## Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	230Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 67.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 3.0 mΩ
Terminal	F10(M8)
Max. Discharge Current	2300A (5 sec)
Short Circuit Current	4100A
Design Life	12 years (Float charging)
Max. Charging Current	69.0 A
Reference Capacity	C3 177.9AH C5 200.5AH C10 230.0AH C20 244.0AH
Standby Use Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
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
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



RA series is a general purpose battery with 12 years design life in float service. It meets with IEC, JIS, BS, GB/T and YD/T standards. With advanced AGM valve regulated technology and high purity raw material, the RA series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.



ISO 9001



ISO 14001



OHSAS 18001

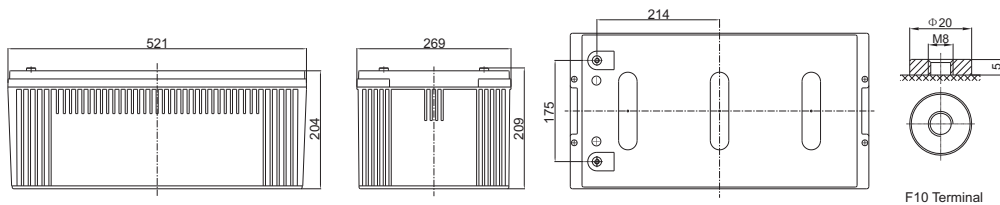


MH 28539



G4M20206-0910-E-16

## Dimensions



Length	521±2mm (20.5 inches)
Width	269±2mm (10.6 inches)
Height	204±2mm (8.03 inches)
Total Height	209±2mm (8.23 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

### Constant Current Discharge Characteristics : A (25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	405.1	249.4	140.5	83.7	64.9	51.0	43.4	29.2	24.3	12.7
1.65V	387.3	239.4	135.7	81.1	62.9	49.6	42.3	28.8	24.0	12.5
1.70V	362.8	228.8	131.3	78.4	61.2	48.3	41.2	28.4	23.6	12.3
1.75V	337.6	218.7	126.5	75.6	59.3	47.0	40.1	28.0	23.3	12.2
1.80V	311.7	209.0	121.7	72.9	57.5	45.7	39.1	27.5	23.0	12.1
1.85V	258.7	180.0	109.1	66.8	53.2	42.5	36.5	25.8	21.7	11.5

### Constant Power Discharge Characteristics : WPC (25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	708.2	452.9	264.1	158.7	123.9	97.9	83.6	57.0	47.7	25.0
1.65V	687.1	439.4	256.5	154.4	120.6	95.6	81.8	56.4	47.2	24.6
1.70V	653.2	424.2	249.7	150.1	117.8	93.3	79.9	55.7	46.5	24.4
1.75V	616.7	409.6	242.0	145.5	114.8	91.3	78.2	55.0	46.0	24.1
1.80V	577.5	395.4	234.1	141.0	111.7	89.0	76.4	54.2	45.4	23.9
1.85V	486.0	344.0	211.3	129.9	103.7	83.0	71.5	51.0	42.8	22.7

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C<sub>10</sub> should reach 95% after the first cycle and 100% after the third cycle.

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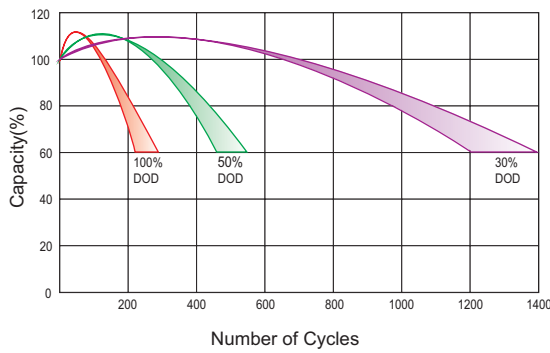
## Discharge Characteristics Curve



## Charge Characteristic Curve For Standby Use



## Cycle Life In Relation To Depth Of Discharge



## Relationship Between Charging Voltage And Temperature



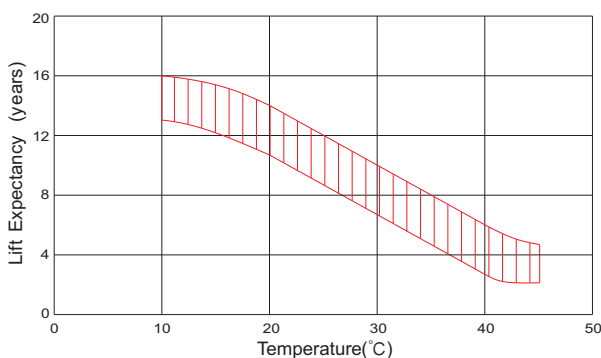
## Temperature Effects On Capacity



## Storage Characteristics



## Effect Of Temperature On Long Term Life



## Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.