



# RA12-160(12V160Ah)

## Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	160Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 50.0 Kg (Tolerance ± 1.5%)
Internal Resistance	Approx. 4.5 mΩ
Terminal	F16(M8)/F12(M8)
Max. Discharge Current	1600A (5 sec)
Short Circuit Current	2550A
Design Life	12 years (Float charging)
Recommended Maximum Charging Current	48 A
Reference Capacity	C3 124.2AH C5 143.0AH C10 160.0AH C20 169.2AH
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 and YDT 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.



## Dimensions

Length	532±2mm (20.9 inches)
Width	207±2mm (8.15 inches)
Height	214±2mm (8.43 inches)
Total Height	219±2mm (8.62 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	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	353.7	278.4	167.9	98.5	59.0	43.8	35.6	30.0	20.1	17.1	8.75
1.65V	343.2	271.1	164.2	96.7	58.2	43.2	35.1	29.7	19.9	16.9	8.68
1.70V	329.4	261.5	159.3	94.3	57.0	42.4	34.5	29.2	19.6	16.7	8.58
1.75V	311.5	249.0	152.9	91.1	55.5	41.4	33.7	28.6	19.2	16.4	8.46
1.80V	288.6	232.9	144.7	86.9	53.5	40.0	32.7	27.8	18.7	16.0	8.29
1.85V	260.0	212.7	134.1	81.6	50.9	38.3	31.4	26.7	18.1	15.5	8.07

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

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	610.3	493.9	309.5	187.0	113.5	84.9	69.3	58.7	39.8	34.0	17.5
1.65V	607.8	491.1	307.2	185.4	112.7	84.2	68.8	58.3	39.5	33.8	17.4
1.70V	589.8	477.9	299.8	181.4	110.8	82.9	67.8	57.6	39.0	33.4	17.2
1.75V	567.8	461.7	290.7	176.2	108.3	81.3	66.5	56.5	38.3	32.8	17.0
1.80V	535.3	438.0	277.8	169.0	105.0	78.9	64.7	55.1	37.5	32.1	16.7
1.85V	490.9	405.6	260.1	159.7	100.4	75.8	62.3	53.2	36.3	31.1	16.2

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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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.