



RL2-220 (2V220Ah)

Specification



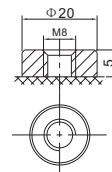
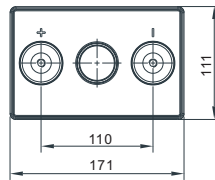
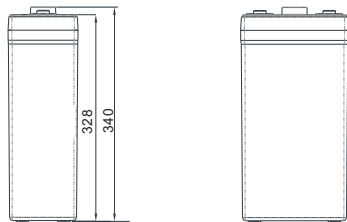
RL series is a general purpose battery with 20 years design life in float service. It meets with heavy duty grids, thicker plates, special additives and advanced AGM valve regulated technology, the RL series battery provides consistent performance and long service life. The new grid design effectively reduces the internal resistance, which provides higher specific energy density and excellent high rate discharge characteristics. It is suitable for communications back-up power and EPS/UPS applications.



ISO 9001 ISO 14001 ISO 45001

Cells Per Unit	1
Voltage Per Unit	2V
Nominal Capacity	220Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 13.2 Kg (Tolerance ± 5.0%)
Internal Resistance	≤ 0.78 mΩ (Full Charge Condition @25°C)
Terminal	Default F10(M8)
Max. Discharge Current	1100A (5 sec)
Short Circuit Current	2470A
Design Life	20 years
Max. Charging Current	44 A
Reference Capacity	C ₁ 121.0Ah C ₃ 165.0Ah C ₅ 187.0Ah C ₁₀ 220.0Ah
Float Charging Voltage	2.25 V~2.30 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	2.43 V~2.47 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.

Dimensions



F10 TERMINAL

Length	171±2mm (6.73 inches)
Width	111±2mm (4.37 inches)
Height	328±2mm (12.9 inches)
Total Height	340±2mm (13.4 inches)
Terminal	Value
M5	9~10 N*m
M6	11~12 N*m
M8	14~15 N*m

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR
1.60V	340.1	214.9	134.4	82.8	62.1	49.9	41.5	27.9	23.2
1.65V	318.7	206.4	129.8	80.1	60.1	48.6	40.4	27.6	22.9
1.70V	298.5	197.2	125.6	77.5	58.5	47.3	39.4	27.2	22.6
1.75V	277.8	188.5	121.0	74.8	56.8	46.1	38.4	26.8	22.3
1.80V	256.5	180.2	116.4	72.1	55.0	44.7	37.4	26.3	22.0
1.85V	212.8	155.2	104.4	66.1	50.8	41.6	34.9	24.7	20.7

Constant Power Discharge Characteristics : W/Cell (25°C)

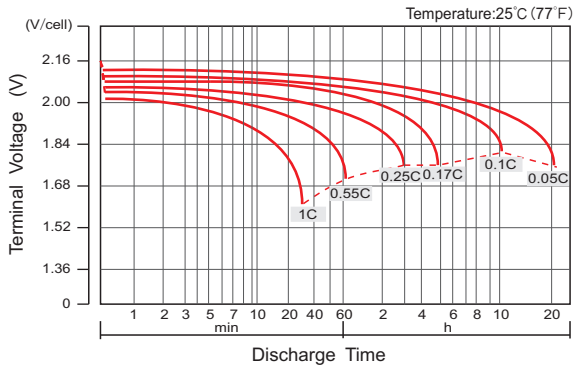
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR
1.60V	594.6	390.4	252.6	156.9	118.5	95.9	80.0	54.5	45.6
1.65V	565.4	378.7	245.3	152.6	115.3	93.6	78.2	54.0	45.1
1.70V	537.4	365.6	238.8	148.4	112.7	91.4	76.5	53.3	44.5
1.75V	507.4	353.1	231.5	143.9	109.8	89.4	74.8	52.6	44.0
1.80V	475.1	340.9	223.9	139.4	106.8	87.2	73.1	51.9	43.5
1.85V	399.9	296.5	202.1	128.5	99.2	81.3	68.4	48.8	41.0

(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 C₁₀ should reach 95% after the first cycle and 100% after the third cycle.

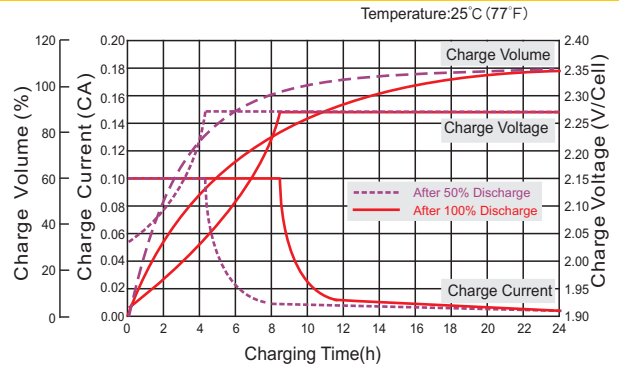
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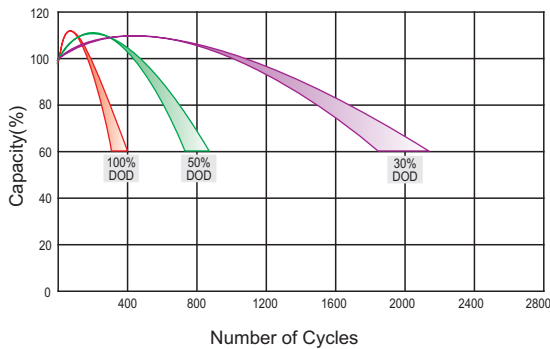
Discharge Characteristics Curve



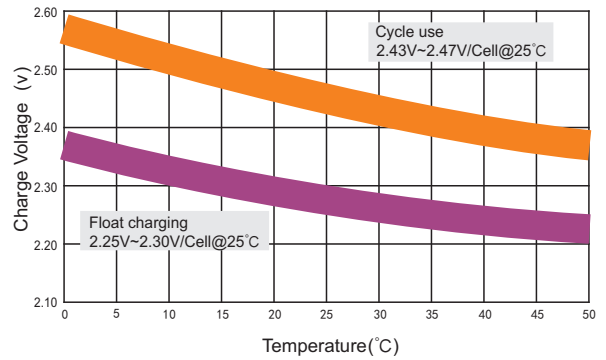
Charge Characteristic Curve For Standby Use(IU)



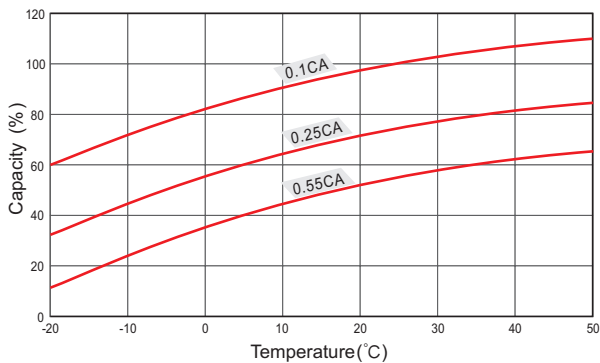
Cycle Life In Relation To Depth Of Discharge



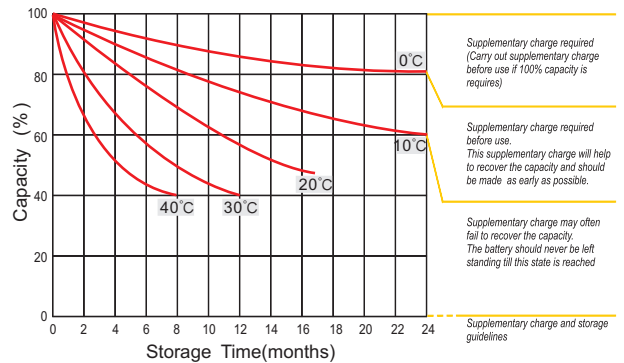
Relationship Between Charging Voltage And Temperature



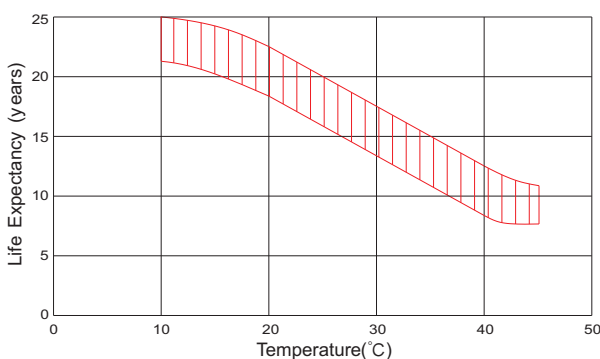
Temperature Effects On Capacity



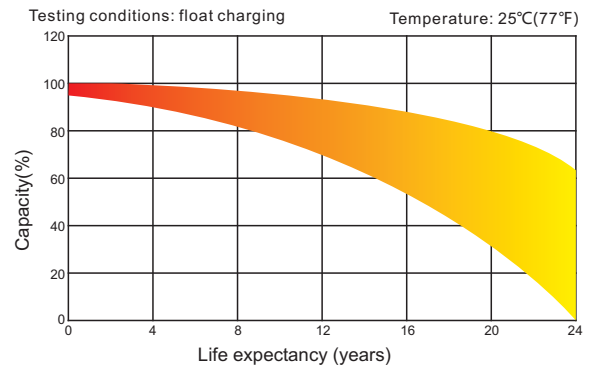
Storage Characteristics



Effect Of Temperature On Long Term Life



Charge Characteristic Curve For Standby Use



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