



RL2-400(2V400Ah)

Specification

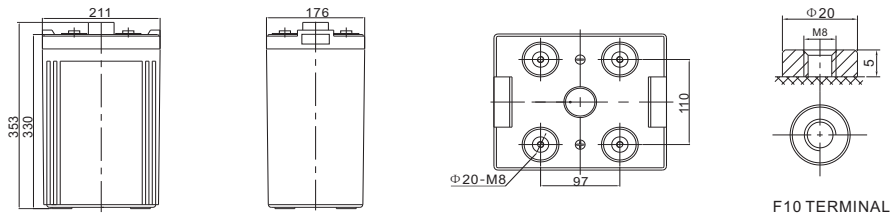


RL series is a general purpose battery with 20 years design life in float service. It meets with heavy duty grids, thicker plates, special additives and advanced AGM valve regulated technology, the RL series battery provides consistent performance and long service life. The new grid design effectively 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.



Cells Per Unit	1
Voltage Per Unit	2
Nominal Capacity	400Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 26.0 Kg (Tolerance ±2%)
Internal Resistance	Approx. 0.67 mΩ
Terminal	F10(M8)
Max. Discharge Current	2000A (5 sec)
Short Circuit Current	3400A
Design Life	20 years (Float charging)
Recommended Maximum Charging Current	80 A
Reference Capacity	C1 247.1AH C3 310.2AH C5 350.0AH C10 400.0AH
Standby Use Voltage	2.27 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



Length	211±2mm (8.31 inches)
Width	176±2mm (6.93 inches)
Height	330±2mm (13.0 inches)
Total Height	353±2mm (13.9 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
1.60V	627.9	394.7	247.1	149.4	109.3	88.1	73.5	50.7	42.6
1.65V	611.4	386.1	242.5	147.3	107.9	87.0	72.6	50.2	42.2
1.70V	589.8	374.6	236.5	144.4	106.0	85.6	71.5	49.5	41.7
1.75V	561.6	359.6	228.5	140.5	103.4	83.6	70.0	48.6	41.0
1.80V	525.4	340.2	218.1	135.4	100.0	81.1	68.0	47.4	40.0
1.85V	479.7	315.3	204.7	128.9	95.6	77.7	65.4	45.8	38.7

Constant Power Discharge Characteristics : WPC (25°C)

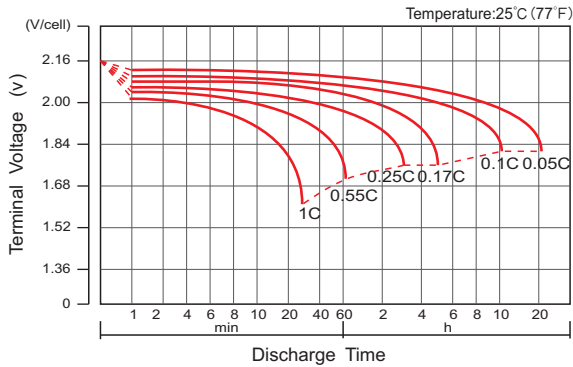
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR
1.60V	1140	738.1	468.3	285.4	209.9	169.8	143.5	99.6	83.9
1.65V	1127	729.5	463.0	283.0	208.2	168.6	142.3	98.8	83.3
1.70V	1093	710.3	452.8	278.1	204.9	166.1	140.2	97.5	82.3
1.75V	1052	685.3	439.6	271.8	200.7	162.9	137.6	95.9	81.0
1.80V	993.9	651.4	421.7	263.1	194.9	158.5	134.0	93.6	79.2
1.85V	916.4	608.1	397.9	251.4	187.0	152.5	129.1	90.6	76.8

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

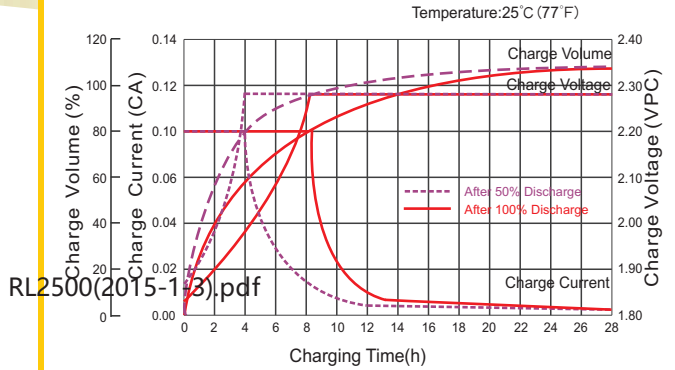
RL2-400(2V400Ah)



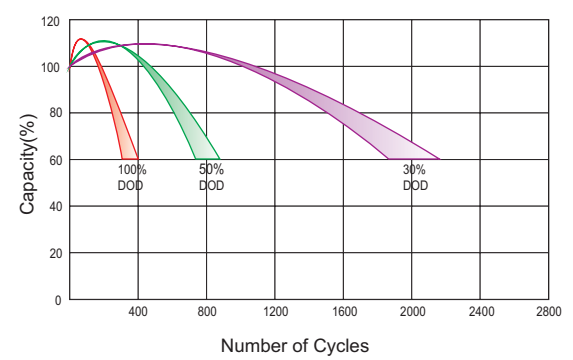
Discharge Characteristics Curve



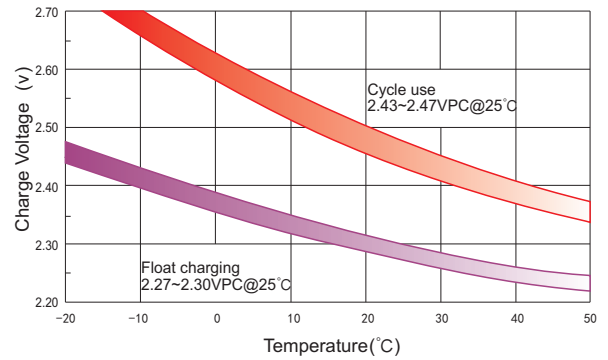
Charge Characteristic Curve For Standby Use



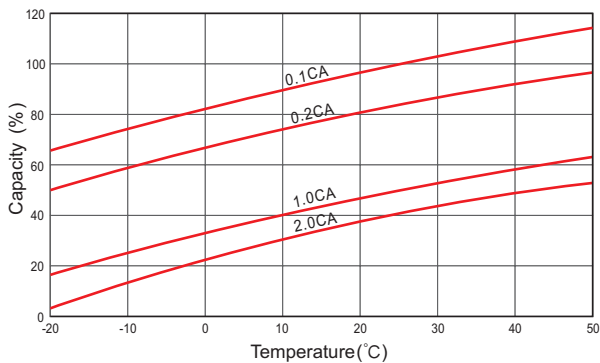
Cycle Life In Relation To Depth Of Discharge



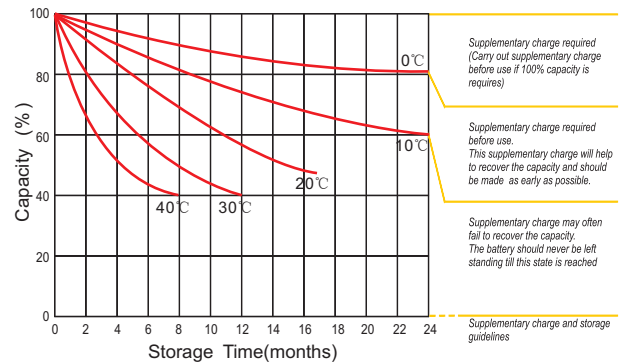
Relationship Between Charging Voltage And Temperature



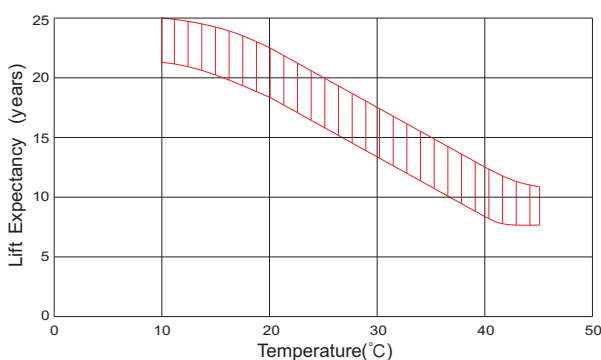
Temperature Effects On Capacity



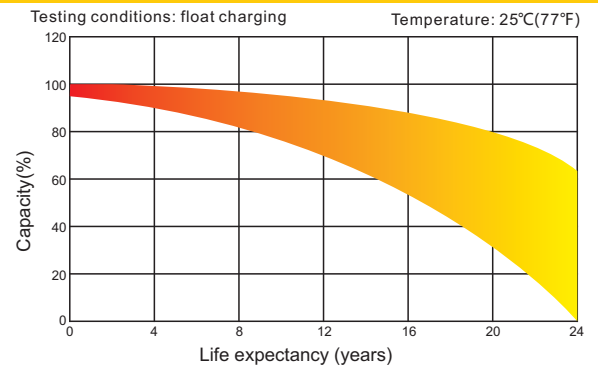
Storage Characteristics



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.