



RF12-20A (12V20Ah)

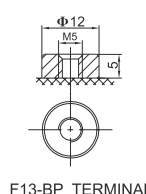
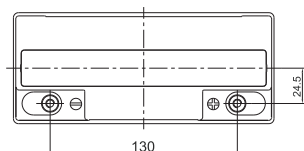
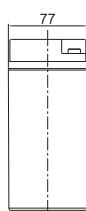
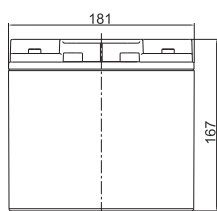


- Non-spillable sealed construction
- Long service life, float or cyclic applications
- High strength ABS battery container
- Maintenance-free operation
- Excellent charge acceptance
- Low self-discharge rate
- Gas recombination efficiency over 99%
- Wide operating temperature range
- Excellent recovery capability after deep and cyclic discharge

SPECIFICATION

Cells Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	20Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 5.40 Kg (Tolerance ±5.0%)
Internal Resistance	≤16 mΩ (Full Charge Condition @25°C)
Terminal	Default F13-BP(M5),F3(M5) Optional
Max. Discharge Current	200A (5 sec)
Short Circuit Current	820A
Design Life	6~8 years
Max. Charging Current	6.0 A
Reference Capacity	C ₃ 15.0Ah C ₅ 17.0Ah C ₁₀ 18.7Ah C ₂₀ 20.0Ah
Standby Use Voltage	13.7 V~13.9 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.

DIMENSIONS



Length	181±2mm (7.13 inches)
Width	77±2mm (3.03 inches)
Height	167±2mm (6.57 inches)
Total Height	167±2mm (6.57 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	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	75.88	53.63	38.77	22.27	12.22	7.503	5.640	4.553	3.773	2.428	1.972	1.041
1.65V	70.56	50.68	37.06	21.38	11.80	7.263	5.466	4.430	3.675	2.401	1.948	1.025
1.70V	63.67	46.65	34.71	20.43	11.42	7.024	5.317	4.310	3.579	2.364	1.919	1.012
1.75V	57.04	42.70	32.30	19.53	11.00	6.778	5.159	4.199	3.489	2.331	1.893	1.000
1.80V	50.09	38.66	29.83	18.67	10.58	6.536	4.999	4.079	3.399	2.291	1.869	0.990
1.85V	39.75	31.59	24.75	16.08	9.488	5.988	4.621	3.791	3.170	2.151	1.760	0.940

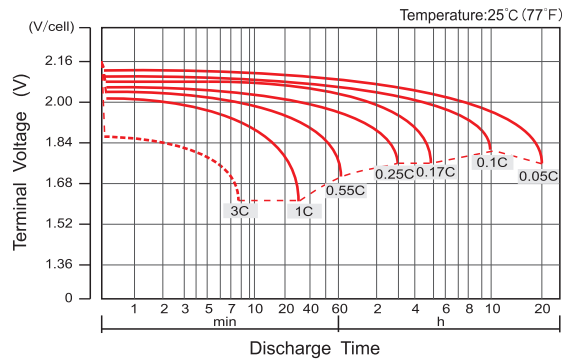
Constant Power Discharge Characteristics : W/Cell (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	125.8	91.16	67.77	40.44	22.96	14.22	10.77	8.742	7.272	4.742	3.877	2.050
1.65V	118.3	87.80	65.75	39.23	22.30	13.83	10.48	8.537	7.110	4.699	3.835	2.021
1.70V	109.2	82.32	62.51	37.88	21.71	13.45	10.24	8.336	6.949	4.637	3.782	1.999
1.75V	100.0	76.71	59.01	36.58	21.04	13.04	9.981	8.154	6.798	4.582	3.737	1.977
1.80V	89.68	70.65	55.26	35.31	20.36	12.64	9.710	7.948	6.646	4.514	3.694	1.960
1.85V	72.68	58.76	46.51	30.72	18.37	11.64	9.016	7.415	6.218	4.247	3.482	1.863

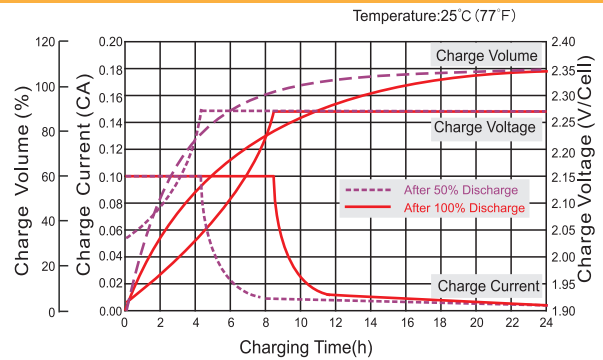
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

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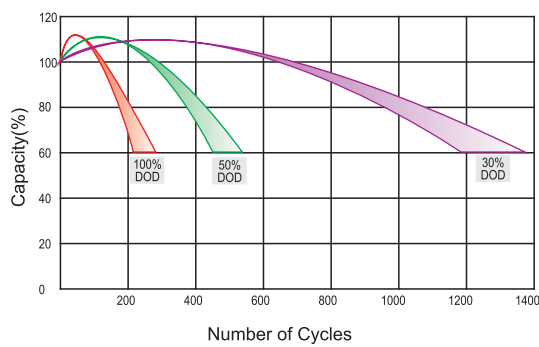
Discharge Characteristics Curve



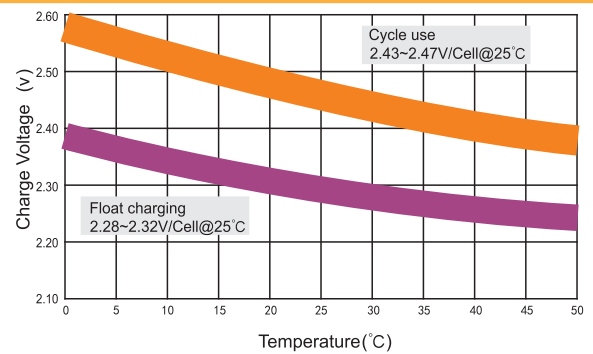
Charge Characteristic Curve For Standby Use(IU)



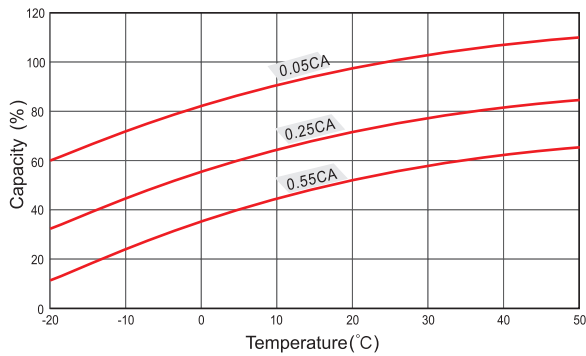
Cycle Life In Relation To Depth Of Discharge



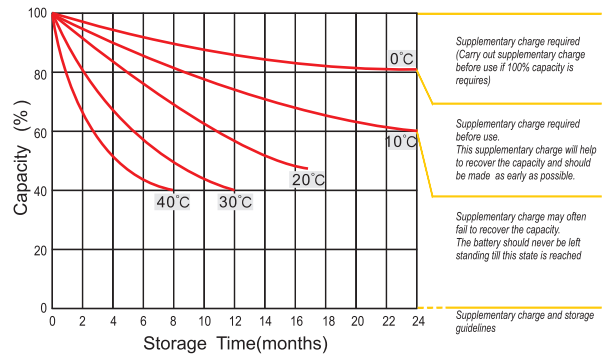
Relationship Between Charging Voltage And Temperature



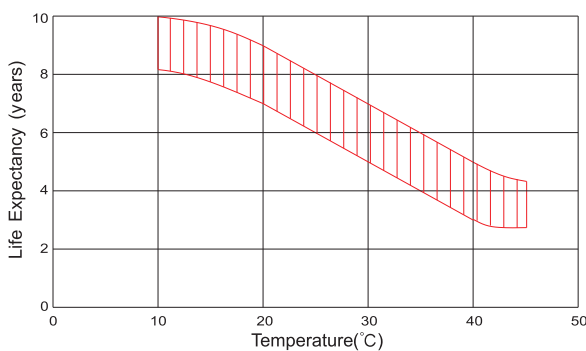
Temperature Effects On Capacity



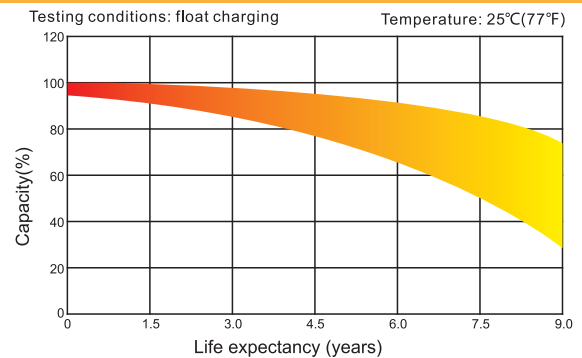
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



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

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