

HC12-18 (12V18Ah)

Specification

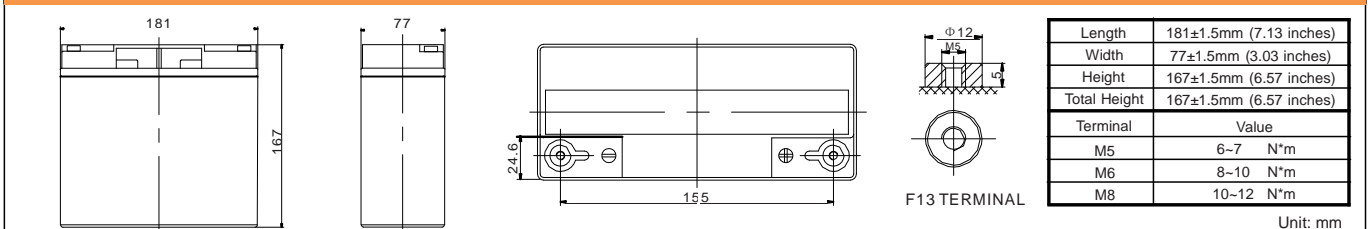


HC series is a general purpose battery with 6-8 years design life in float service. It meets with IEC, JIS, BS and YDT standards. With advanced AGM valve regulated technology and high purity raw material, the HC series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.



Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	18Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 5.0 Kg (Tolerance ±4.0%)
Internal Resistance	Approx. 14 mΩ
Terminal	F3(M5)/F13(M5)
Max. Discharge Current	180A (5 sec)
Short Circuit Current	720A
Design Life	6-8 years (Float charging)
Recommended Maximum Charging Current	5.4 A
Reference Capacity	C3 13.9AH C5 15.7AH C10 16.8AH C20 18.0AH
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	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



Constant Current Discharge Characteristics : A (25°C)

F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	69.22	45.61	33.99	19.67	11.40	6.73	4.89	3.89	3.29	2.20	1.79	0.93
1.65V	66.72	44.25	33.10	19.24	11.19	6.63	4.83	3.85	3.25	2.17	1.77	0.92
1.70V	63.47	42.47	31.93	18.67	10.91	6.50	4.74	3.78	3.20	2.14	1.75	0.91
1.75V	59.29	40.16	30.41	17.92	10.54	6.32	4.62	3.70	3.13	2.11	1.72	0.90
1.80V	54.02	37.22	28.45	16.95	10.06	6.10	4.47	3.58	3.04	2.05	1.68	0.88
1.85V	47.54	33.53	25.97	15.72	9.44	5.80	4.27	3.44	2.93	1.98	1.63	0.86

Constant Power Discharge Characteristics : WPC (25°C)

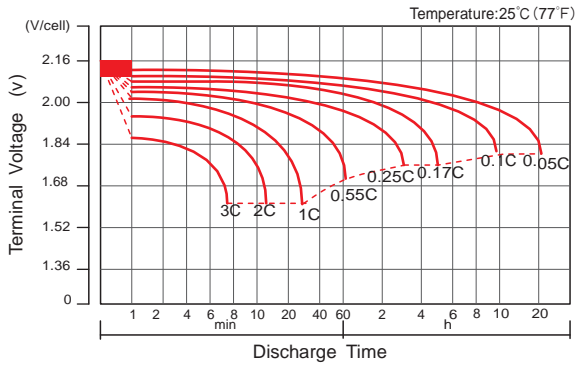
F.V./Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	119.2	78.70	60.32	36.27	21.64	12.94	9.48	7.59	6.43	4.35	3.57	1.86
1.65V	117.9	78.37	59.97	36.00	21.46	12.84	9.41	7.53	6.39	4.32	3.54	1.85
1.70V	113.4	76.06	58.36	35.13	21.00	12.63	9.27	7.42	6.30	4.27	3.50	1.83
1.75V	107.8	73.22	56.38	34.07	20.39	12.35	9.08	7.28	6.19	4.20	3.44	1.81
1.80V	99.97	69.03	53.49	32.55	19.56	11.97	8.82	7.09	6.04	4.11	3.37	1.77
1.85V	89.54	63.30	49.53	30.48	18.48	11.45	8.47	6.82	5.83	3.98	3.27	1.73

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

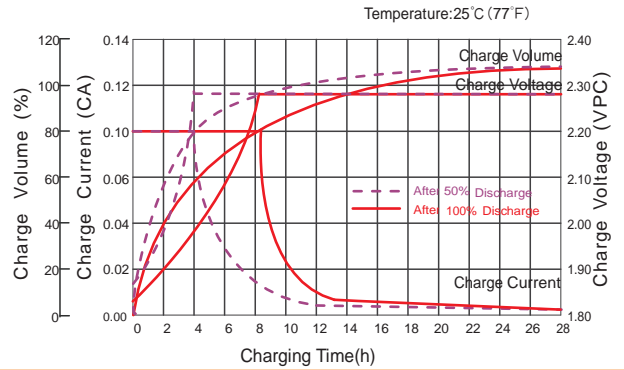
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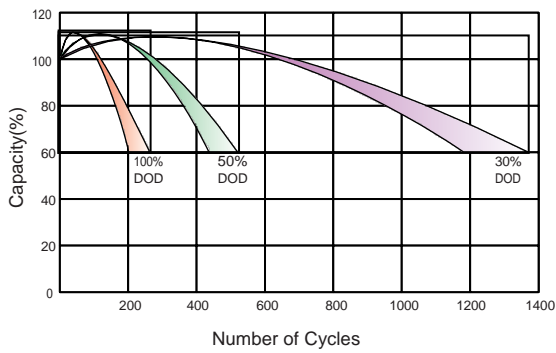
Discharge Characteristics Curve



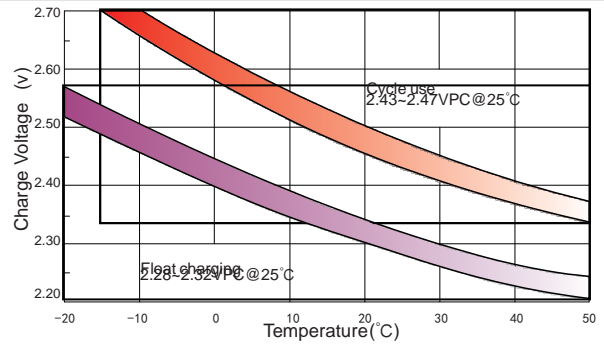
Charge Characteristic Curve For Standby Use



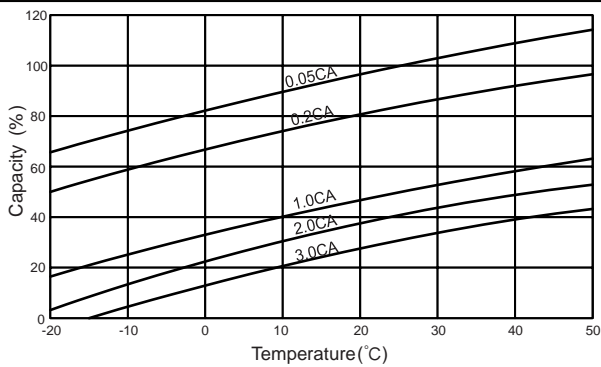
Cycle Life In Relation To Depth Of Discharge



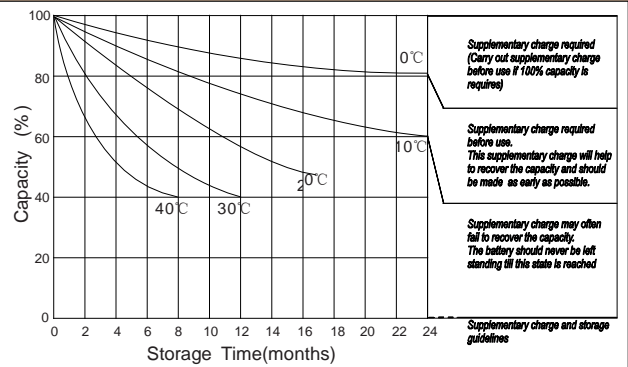
Relationship Between Charging Voltage And Temperature



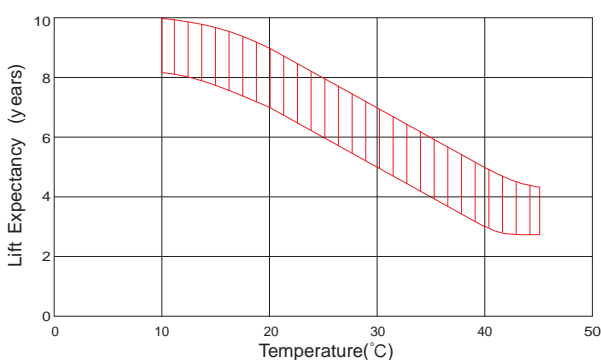
Temperature Effects On Capacity



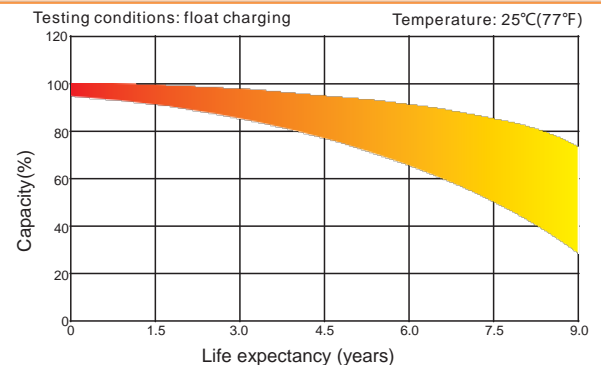
Storage Characteristics



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.