HR12-50W(12V50W)

Specification

Cells Per Unit	6
Voltage Per Unit	12V
Capacity	50W@15min-rate to 1.67V per cell @25℃
Weight	Approx. 4.20Kg (Tolerance±5%)
Internal Resistance	≤20.0 mΩ(Full Charge Condition @25℃)
Terminal	Default F13-BP(M5)
Max. Discharge Current	140A (5 sec)
Short Circuit Current	700A
Design Life	8 years
Max. Charging Current	4.2 A
Reference Capacity	C_{10} 13.4Ah C_{20} 14.0Ah
Float Charging Voltage	13.5 V~13.8 V @ 25℃ Temperature Compensation: -3mV/℃/Cell
Equalization Charging Voltage	14.1 V~14.4 V @ 25℃ Temperature Compensation: -4mV/℃/Cell
Operating Temperature Range	Discharge: -20℃~60℃ Charge: 0℃~50℃ Storage: -20℃~60℃
Normal Operating Temperature Range	25℃±5℃
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25℃ and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25℃.Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

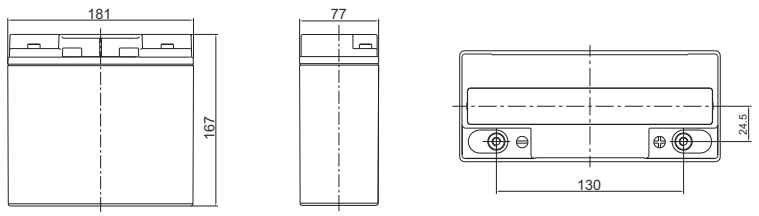


HR (High Rate) series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 8 years design life in float service. By using strong grids, thick plate and specially designed active material. It is with lower I.R, lower self discharge rate, high power, and longer service life. The HR series battery offers 30% more power output than the standard series. It is suitable for high power standby used, such as datacenter, UPS, EPS etc.

ISO 9001 ISO 14001 ISO 45001

MH 28539 BSTXD210316008507EC

Dimensions



F13-BP TERMINAL

Length	181±1.5mm (7.13 inches)
Width	77±1.5mm (3.03 inches)
Height	167±1.5mm (6.57 inches)
Total Height	167±1.5mm (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 ℃)

F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	65.20	57.31	45.79	39.25	28.96	22.76	16.22	9.095	6.447
1.67V	59.16	52.01	41.88	36.18	27.08	21.48	15.37	8.668	6.171
1.70V	56.61	49.76	40.21	34.87	26.25	20.91	14.99	8.479	6.056
1.75V	52.44	46.09	37.46	32.68	24.79	19.87	14.36	8.195	5.872
1.80V	48.03	42.22	34.63	30.48	23.54	18.93	13.73	7.887	5.664
1.85V	41.07	36.10	29.50	25.88	20.19	16.44	12.15	7.129	5.181

Constant Power Discharge Characteristics : W/Cell (25℃)

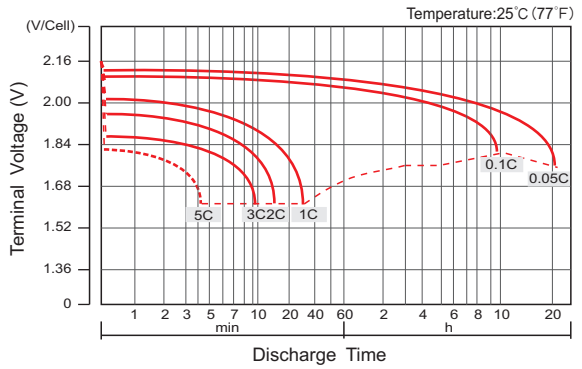
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	117.2	103.0	82.58	71.05	52.92	41.91	29.97	17.05	12.20
1.67V	107.7	94.63	76.54	66.45	50.00	39.99	28.86	16.41	11.79
1.70V	103.9	91.37	74.08	64.47	48.96	39.14	28.18	16.15	11.61
1.75V	97.22	85.45	69.79	61.18	46.67	37.65	27.29	15.70	11.31
1.80V	90.25	79.34	65.29	57.68	44.58	36.16	26.39	15.25	11.01
1.85V	78.42	68.93	56.42	49.56	38.75	31.70	23.49	13.88	10.11

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

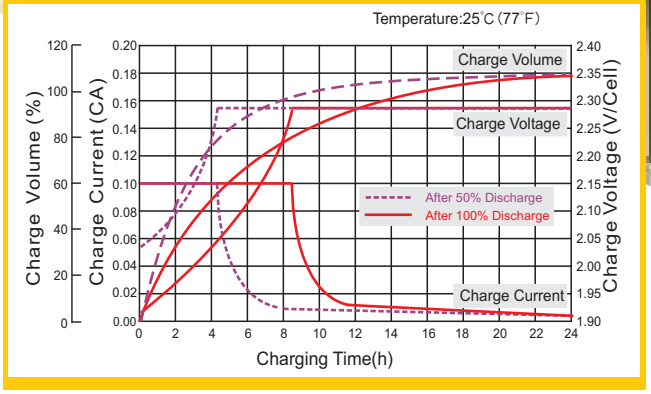
HR12-50W(12V50W)

RITAR®

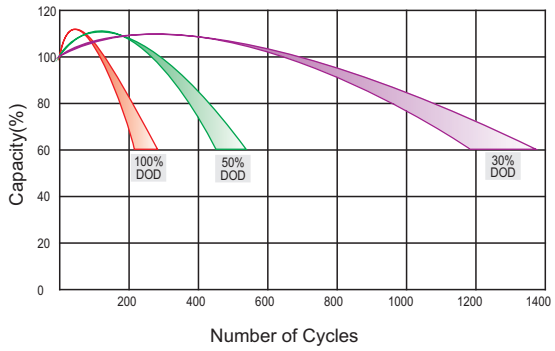
Discharge Characteristics Curve



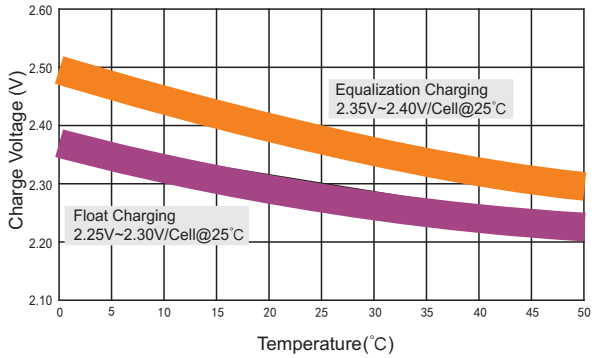
Charge Characteristic Curve For Standby Use(IU)



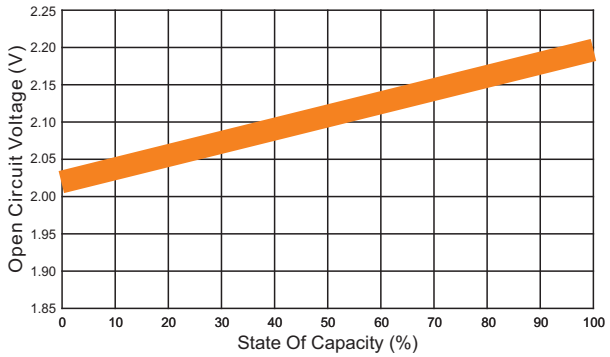
Cycle Life In Relation To Depth Of Discharge



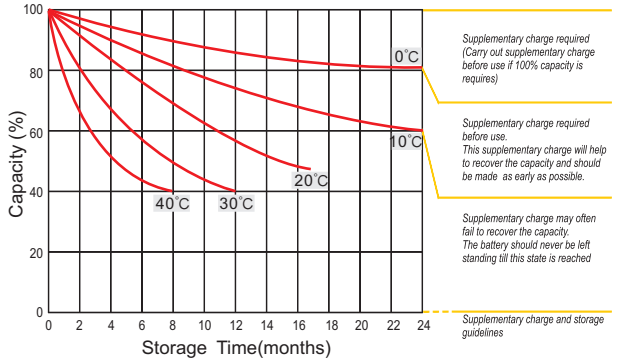
Relationship Between Charging Voltage And Temperature



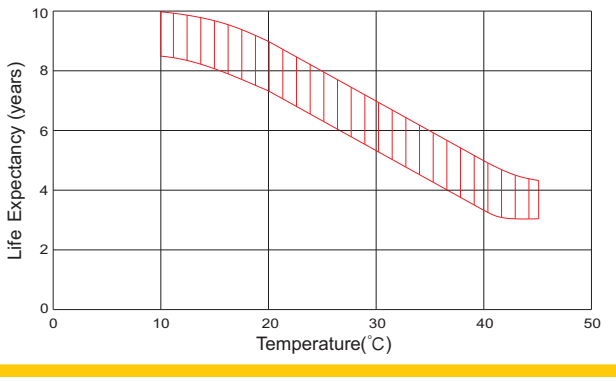
Relationship of OCV And State of Charge(20℃)



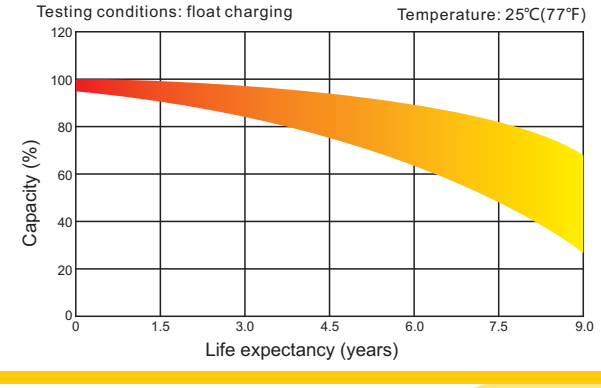
Storage Characteristics



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.

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