



HR12-48W(12V48W)

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	48W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 3.15 Kg (Tolerance ±5.0%)
Internal Resistance	Approx. 17.0 mΩ
Terminal	F2
Max. Discharge Current	120A (5 sec)
Short Circuit Current	660A
Design Life	Could Reach 8 years
Max. Charging Current	3.6 A
Reference Capacity	C10 11.4AH C20 12.0AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Equalization 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.



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



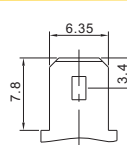
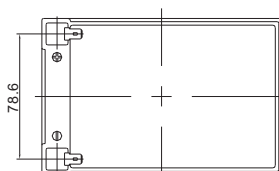
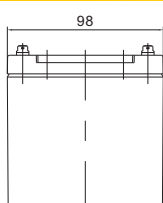
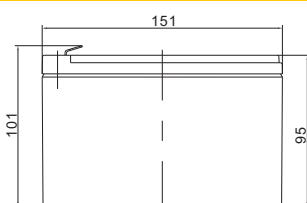
OHSAS 18001



MH 28539



Dimensions



F2 Terminal

Length	151±1.5mm (5.94 inches)
Width	98±1.5mm (3.86 inches)
Height	95±1.5mm (3.74 inches)
Total Height	101±1.5mm (3.98 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	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	62.59	55.02	43.96	37.68	27.80	21.85	15.57	8.731	6.189
1.67V	56.80	49.93	40.20	34.74	26.00	20.63	14.75	8.322	5.924
1.70V	54.35	47.77	38.60	33.47	25.20	20.07	14.39	8.140	5.814
1.75V	50.34	44.25	35.96	31.37	23.80	19.07	13.79	7.867	5.637
1.80V	46.11	40.53	33.24	29.26	22.60	18.17	13.18	7.571	5.438
1.85V	39.42	34.65	28.32	24.84	19.38	15.79	11.66	6.844	4.974

Constant Power Discharge Characteristics : WPC (25°C)

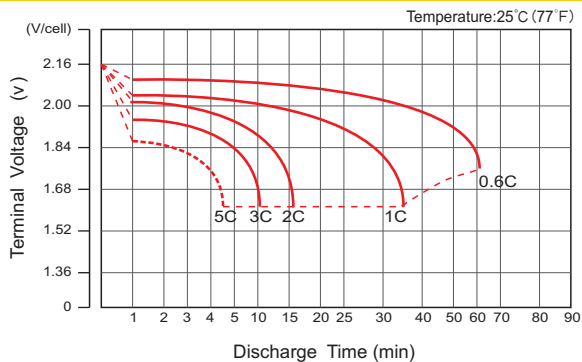
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	112.5	98.87	79.28	68.21	50.80	40.23	28.77	16.37	11.72
1.67V	103.3	90.85	73.48	63.79	48.00	38.39	27.70	15.76	11.32
1.70V	99.79	87.71	71.12	61.89	47.00	37.57	27.06	15.51	11.14
1.75V	93.33	82.04	67.00	58.74	44.80	36.15	26.20	15.07	10.85
1.80V	86.64	76.16	62.68	55.37	42.80	34.72	25.34	14.64	10.57
1.85V	75.29	66.18	54.16	47.58	37.20	30.43	22.55	13.32	9.704

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

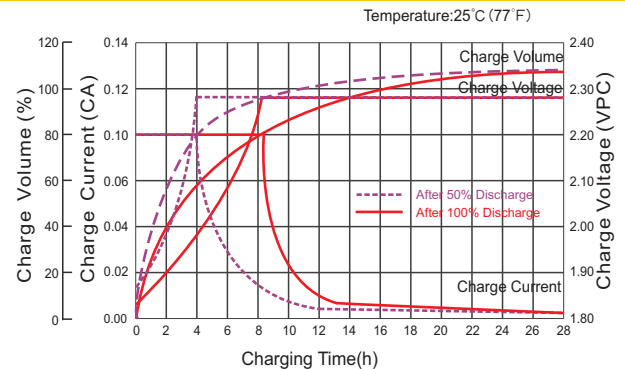
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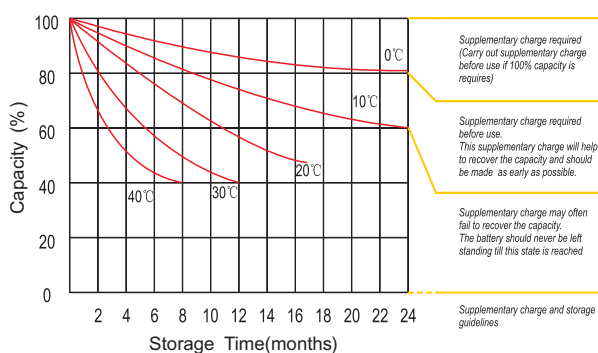
Discharge Characteristics Curve



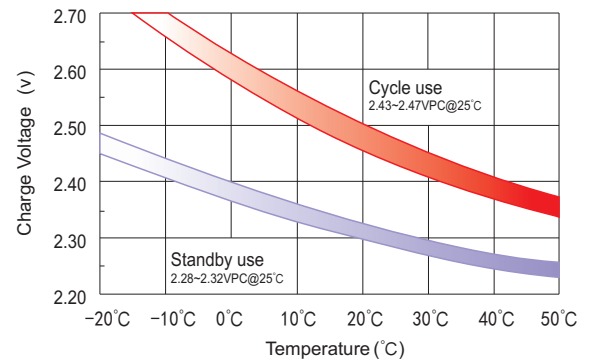
Charge Characteristic Curve For Standby Use



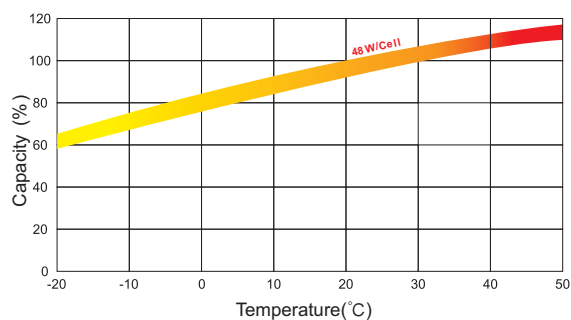
Storage Characteristics



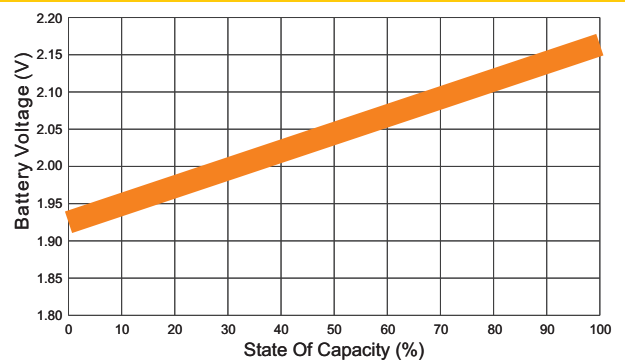
Relationship Between Charging Voltage And Temperature



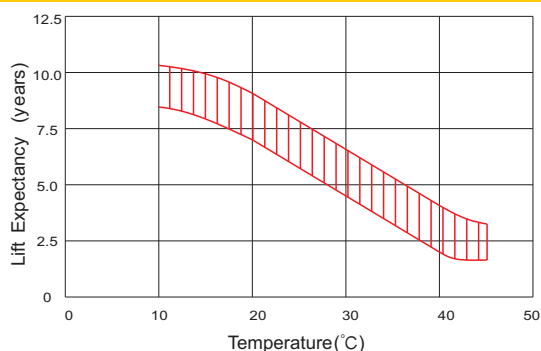
Temperature Effects On Capacity



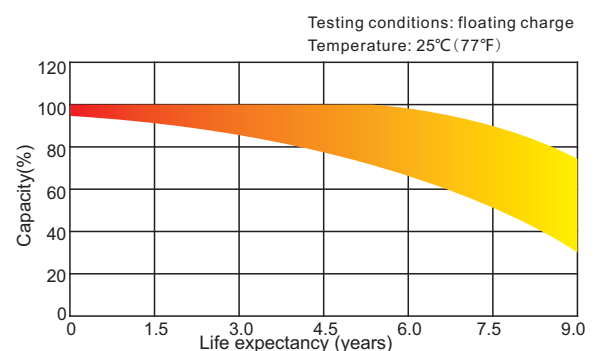
Relationship of OCV And State of Charge(20°C)



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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