



# HR6-20W(6V20W)

## Specification



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.



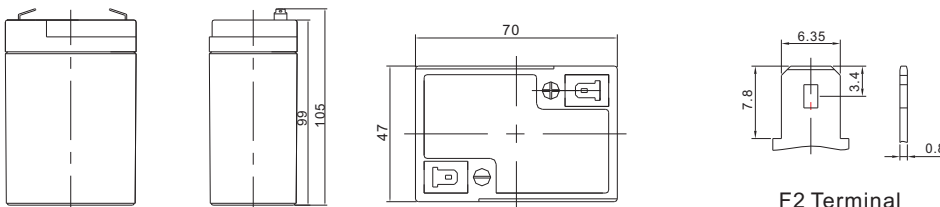
ISO 9001    ISO 14001    OHSAS 18001



MH 28539

<b>Cells Per Unit</b>	3
<b>Voltage Per Unit</b>	6
<b>Capacity</b>	20W@15min-rate to 1.67V per cell @25°C
<b>Weight</b>	Approx. 0.72 Kg (Tolerance ±5.0%)
<b>Internal Resistance</b>	Approx. 22 mΩ
<b>Terminal</b>	F2
<b>Max. Discharge Current</b>	50A (5 sec)
<b>Short Circuit Current</b>	278A
<b>Design Life</b>	Could Reach 8 years
<b>Max. Charging Current</b>	1.5 A
<b>Reference Capacity</b>	C10 4.6AH C20 5.0AH
<b>Standby Use Voltage</b>	6.85 V~6.95 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Equalization Voltage</b>	7.3 V~7.4 V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
<b>Normal Operating Temperature Range</b>	25°C ±5°C
<b>Self Discharge</b>	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.
<b>Container Material</b>	A.B.S. UL94-HB, UL94-V0 Optional.

## Dimensions



F2 Terminal

Length	70±1.5mm (2.76 inches)	
Width	47±1.5mm (1.85 inches)	
Height	99±1.5mm (3.90 inches)	
Total Height	105±1.5mm (4.13 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	26.08	22.92	18.32	15.70	11.58	9.104	6.487	3.638	2.579
1.67V	23.67	20.80	16.75	14.47	10.83	8.594	6.147	3.467	2.468
1.70V	22.64	19.91	16.08	13.95	10.50	8.364	5.995	3.392	2.422
1.75V	20.97	18.44	14.98	13.07	9.917	7.947	5.744	3.278	2.349
1.80V	19.21	16.89	13.85	12.19	9.417	7.573	5.494	3.155	2.266
1.85V	16.43	14.44	11.80	10.35	8.075	6.577	4.858	2.852	2.072

### Constant Power Discharge Characteristics : WPC (25°C)

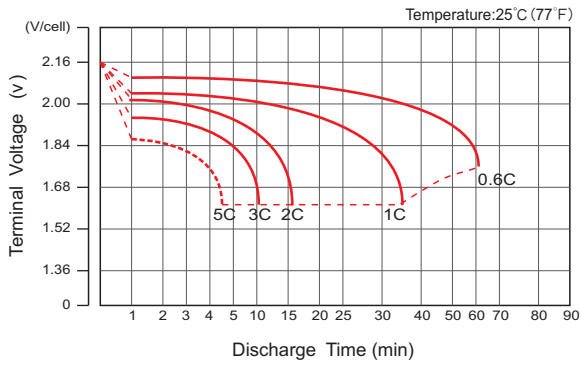
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	46.87	41.20	33.03	28.42	21.17	16.76	11.99	6.821	4.882
1.67V	43.06	37.85	30.62	26.58	20.00	16.00	11.54	6.565	4.716
1.70V	41.58	36.55	29.63	25.79	19.58	15.66	11.27	6.461	4.642
1.75V	38.89	34.18	27.92	24.47	18.67	15.06	10.916	6.281	4.522
1.80V	36.10	31.73	26.12	23.07	17.83	14.46	10.558	6.101	4.403
1.85V	31.37	27.57	22.57	19.82	15.50	12.68	9.395	5.552	4.043

(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



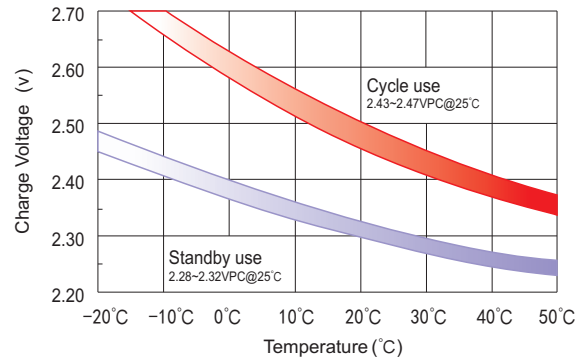
## Charge Characteristic Curve For Standby Use



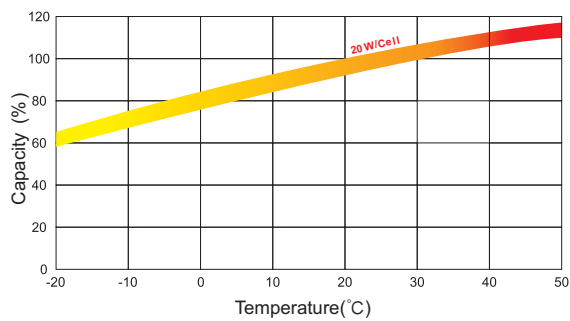
## Storage Characteristics



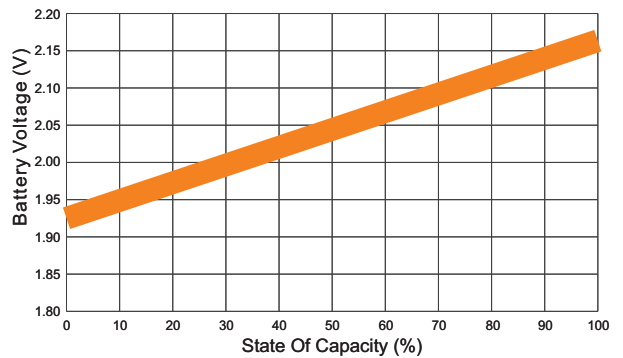
## Relationship Between Charging Voltage And Temperature



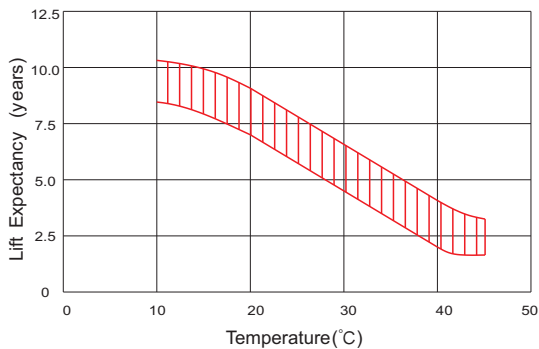
## Temperature Effects On Capacity



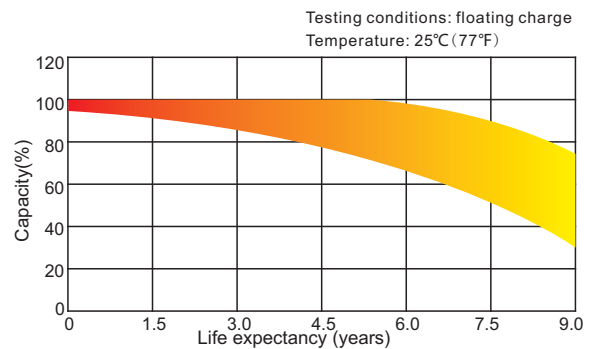
## Relationship of OCV And State of Charge(20°C)



## 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.