

HR400-2 (2V1000W)

SERIE UP-HR

HR (High Rate) series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 20 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



Specification

Cells Per Unit	1	
Voltage Per Unit	2 V	
Capacity	1000W @ 15 min-rate to 1.67V @25°C	
Weight	Approx. 19.0 Kg (Tolerance ±5%)	
Internal Resistance	≤0.68 mΩ (Full charge condition @25°C)	
Terminal	Default F10 (M8)	
Max. Discharge Current	2300A (5 sec)	
Short Circuit Current	3400A	
Design Life	20 years	
Max. Charging Current	80.0 A	
Reference Capacity	C ₁₀ 400.0Ah C ₂₀ 420.0Ah	
Floating Voltage	2.25 V~2.27 V @25°C	Temperature Compensation: -3mV/°C/Cell
Equalizing Voltage	2.35 V~2.40 V @25°C	Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Charge: 0°C ~ 50°C	Storage: -20°C ~60°C
Normal Operating Temperature Range	Charge: 0°C ~ 50°C	Storage: -20°C ~60°C

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ISO 9001

ISO 14001

ISO 45001



MH 28539

BSTXD210316008507EC



Specification

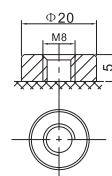
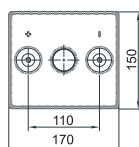
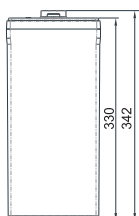
Self Discharge

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. UL 94-HB, UL94-V0 Optional. The cover is not configured by default.

Dimensions



F10 TERMINAL

Length	170±2mm (6.69 inches)
Width	150±2mm (5.91 inches)
Height	330±2mm (13.0 inches)
Total Height	342±2mm (13.5 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

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Constant Current Discharge Characteristics : A (25°C)

F.V/Time	10MIN	15MIN	20MIN	25MIN	30MIN	45MIN	60MIN	90MIN	120MIN
1.60V	748.3	634.1	527.1	450.5	398.7	303.0	246.8	187.1	152.0
1.65V	689.2	594.1	506.1	432.5	382.8	291.8	238.4	180.9	147.2
1.67V	655.8	575.3	494.9	423.0	374.3	286.2	234.5	177.9	144.7
1.70V	623.2	556.5	483.7	413.4	365.9	280.7	230.6	175.0	142.3
1.75V	569.6	517.8	462.3	395.1	349.7	269.4	222.2	168.7	137.3
1.80V	502.1	478.2	441.9	377.7	334.2	258.3	213.7	162.5	132.4

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

F.V/Time	10MIN	15MIN	20MIN	25MIN	30MIN	45MIN	60MIN	90MIN	120MIN
1.60V	1269	1078	910.0	790.0	704.5	544.9	451.2	343.5	280.3
1.65V	1186	1025	882.8	766.4	683.4	529.0	438.3	333.9	272.6
1.67V	1137	1000	867.6	753.1	671.6	520.9	432.5	329.4	268.9
1.70V	1089	974.7	852.3	739.9	659.8	512.9	426.7	324.9	265.1
1.75V	1010	920.2	823.0	714.4	637.1	496.3	413.6	314.9	257.0
1.80V	902.5	861.7	794.6	689.7	615.1	479.6	400.0	304.9	249.1

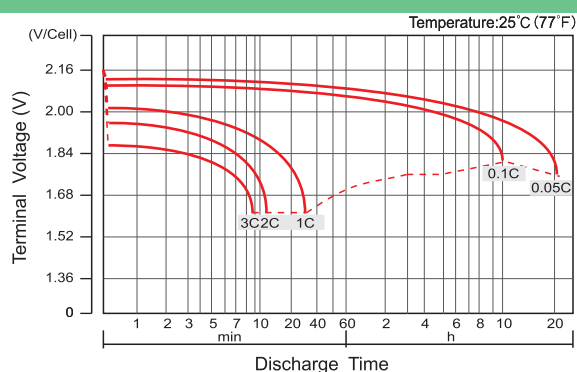
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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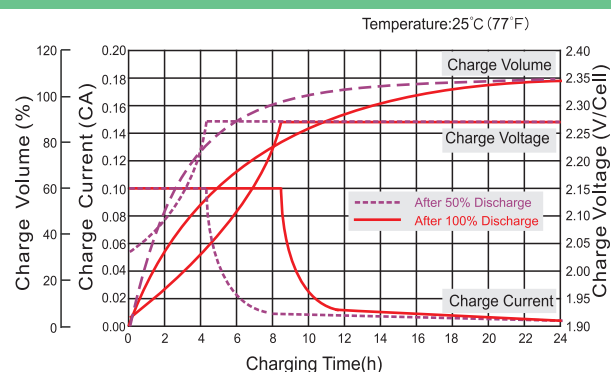
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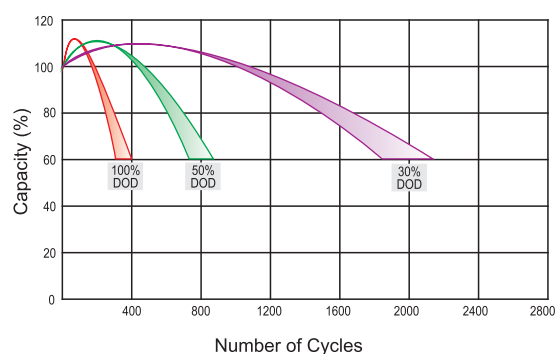
Discharge Characteristics Curve



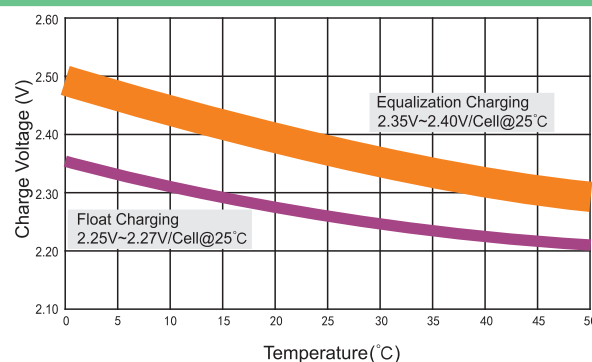
Charge Characteristic Curve For Standby Use(IU)



Cycle Life In Relation To Depth Of Discharge



Relationship Between Charging Voltage And Temperature

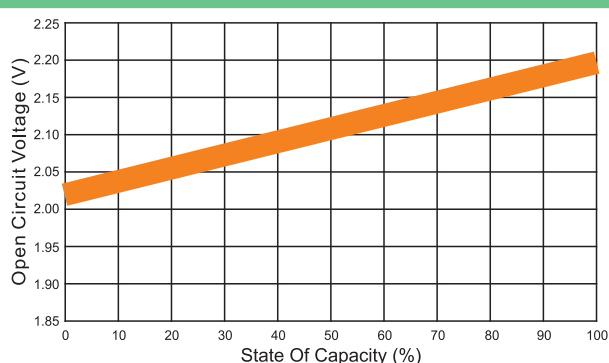


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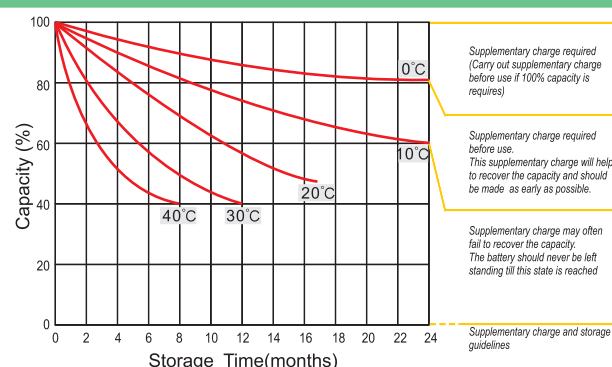
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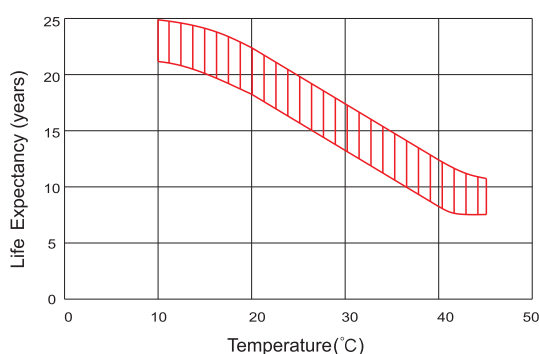
Relationship of OCV And State of Charge(20°C)



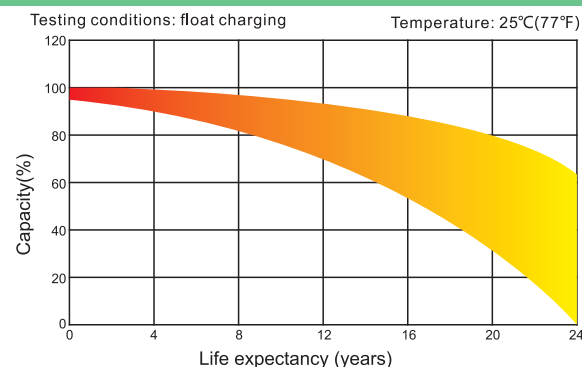
Storage Characteristics



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.