

## High Discharge Rate AGM Battery

## HR12-55W

**CSBattery 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.

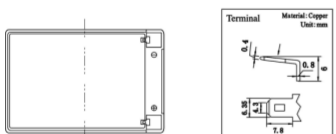
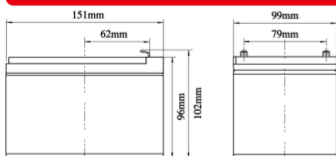
**12V  
55W**

**AGM  
Technology**

**High Rate  
Discharge**



### Dimensions & Weight



### General Features

- Thicker plate with high Tin low Calcium alloy
- High Reliability and Good Quality
- Deep Discharge Recovery
- High Power Density
- Longer Service Life, in both Float or Cyclic

### Technical Specifications

### COMPLIED STANDARDS



Battery Dimensions	Length	151mm
	Width	99mm
	Height	96mm
	Total Height	102mm
Box Dimensions	Length	325mm
	Width	218mm
	Height	141mm
Quantity Per Box	4 PC per box	
Net weight Per Cell	3.8 kg±3%	
Net weight Per Box	15.2kg	
Gross Weight	15.7kg	

Nominal Voltage		12V
Watts/cell@15min		55W
Capacity 25°C(77°F)	10 hour rate (1.2A)	12Ah
	5 hour rate (2.2A)	11Ah
	1 hour rate (8.1A)	8.1Ah
Internal Resistance	Full Charged Battery 25°C	≤16mΩ
Capacity affected by Temperature (10 hour)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Self-Discharge 25°C(77°F) Capacity	after 3 month storage	90%
	after 6 month storage	80%
	after 12 month storage	62%
Charge (Constant Voltage) 25°C (77°F)	Float	Initial Charging Current Less than 3.6A Voltage 13.6-13.8V
	Cycle	Initial Charging Current Less than 3.6A Voltage 14.4-14.9V

### Battery Discharge Table

#### Discharge Constant Power per Cell (Watts at 77° F 25° C)

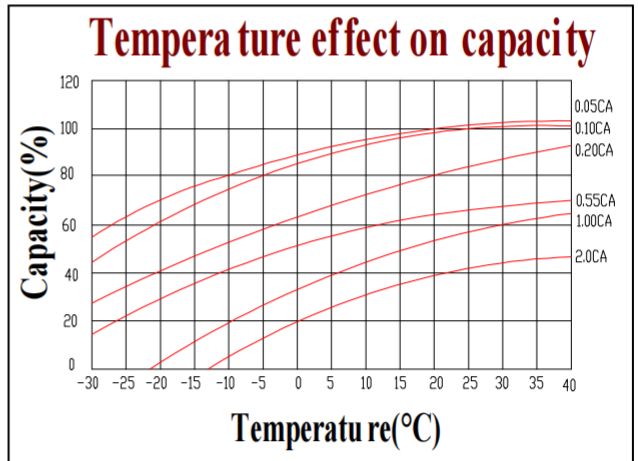
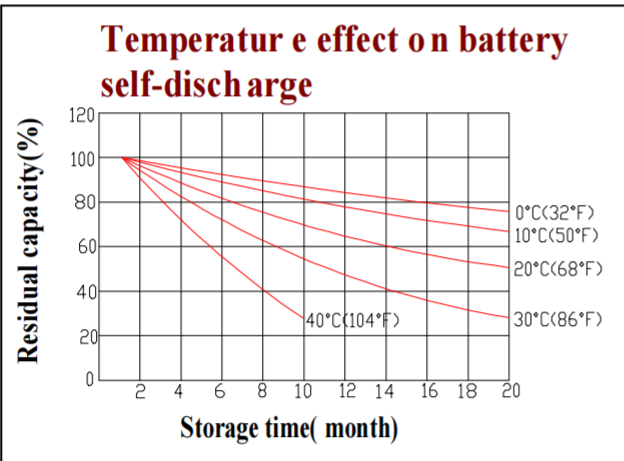
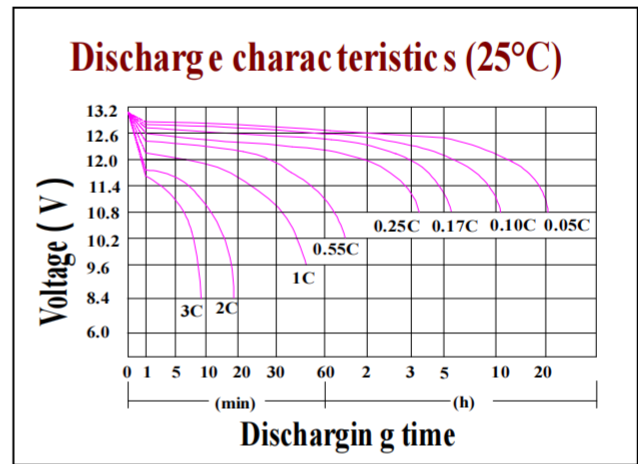
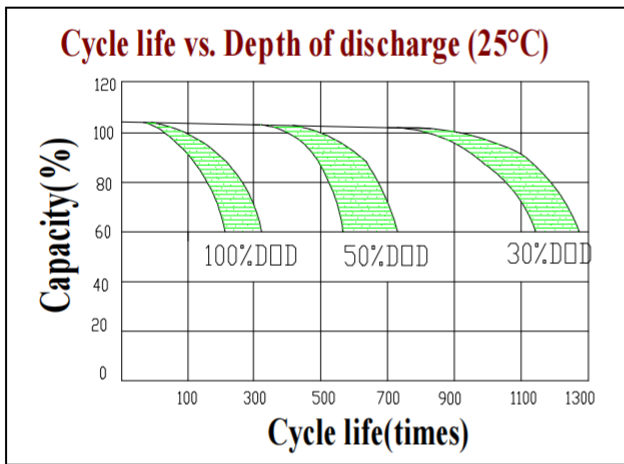
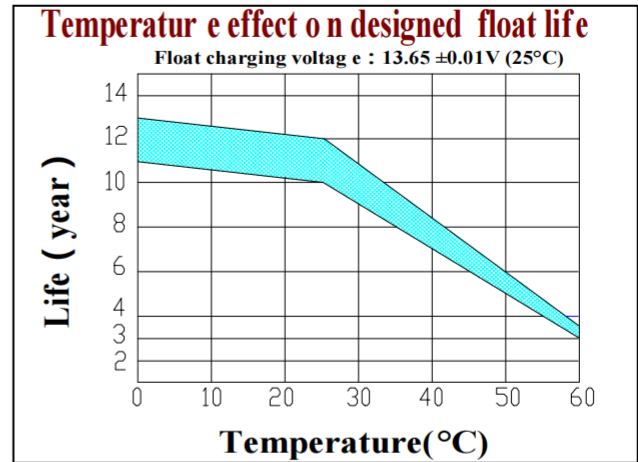
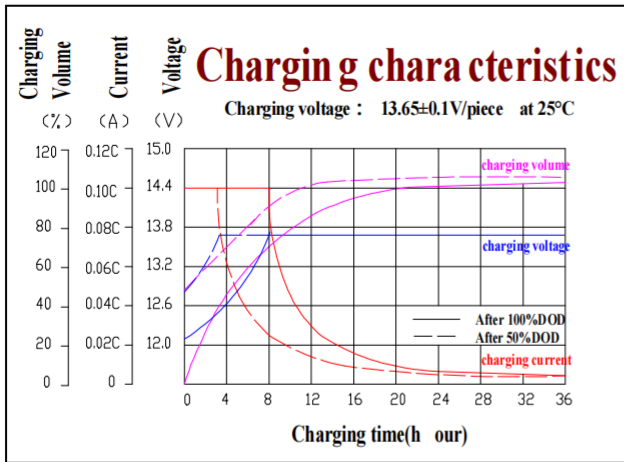
F.V/Time	5min	10min	15min	20min	25min	30min	45min	60min	90min	2h	3h	10h
1.60V	81.2	61.5	56.1	44.1	36.9	29.8	21.7	15.0	12.6	9.5	6.9	2.5
1.67V	79.7	60.4	55.0	43.5	36.2	29.2	21.3	14.7	12.3	9.3	6.8	2.4
1.70V	78.3	59.3	54.1	42.7	35.6	28.7	20.9	14.5	12.1	9.1	6.6	2.4
1.75V	76.8	58.2	53.1	41.4	34.9	28.2	20.5	14.2	11.9	9.0	6.5	2.3
1.80V	73.9	56.0	51.0	39.6	33.6	27.1	19.7	13.7	11.4	8.6	6.3	2.2

#### Discharge Constant Current per Cell (Amperes at 77° F 25° C)

F.V/Time	5min	10min	15min	20min	25min	30min	45min	60min	90min	2h	3h	10h
1.60V	43.6	33.0	30.1	23.6	19.8	16.0	11.6	8.1	6.7	5.1	3.7	1.32
1.67V	42.8	32.4	29.5	23.3	19.4	15.7	11.4	7.9	6.6	5.0	3.6	1.29
1.70V	42.0	31.8	29.0	22.9	19.1	15.4	11.2	7.8	6.5	4.9	3.6	1.28
1.75V	41.2	31.2	28.5	22.2	18.7	15.1	11.0	7.6	6.4	4.8	3.5	1.25
1.80V	39.6	30.0	27.4	21.2	18.0	14.5	10.6	7.3	6.1	4.6	3.4	1.20

**Note:** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSBattery** for the latest information.

### Performance Characteristics



### Battery Construction

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Si-Rubber	Copper	Fiberglass	Sulfuric acid