

High Discharge Rate AGM Battery

HR12-520W

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
520W**

**AGM
Technology**

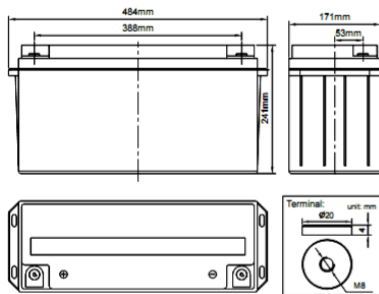
**High Rate
Discharge**



COMPLIED STANDARDS



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

Battery Dimensions	Length	484mm
	Width	171mm
	Height	241mm
	Total Height	241mm
Box Dimensions	Length	499mm
	Width	185mm
	Height	299mm
Quantity Per Box		1 PC per box
Net weight Per Cell		47 kg±3%
Net weight Per Box		47kg
Gross Weight		47.6kg

Nominal Voltage		12V
Watts/cell@15min		520W
Capacity 25°C(77°F)	10 hour rate (15.0A)	150Ah
	5 hour rate (27.3A)	136.5Ah
	1 hour rate (95.5A)	95.5Ah
Internal Resistance	Full Charged Battery 25°C	≤3.7mΩ
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 than30.0A Voltage 13.6-13.8V
	Cycle	Initial Charging Current Less than30.0A Voltage 14.4-14.9V

Battery Discharge Table

Discharge Constant Power per Cell (Watts at 77° F25° C)

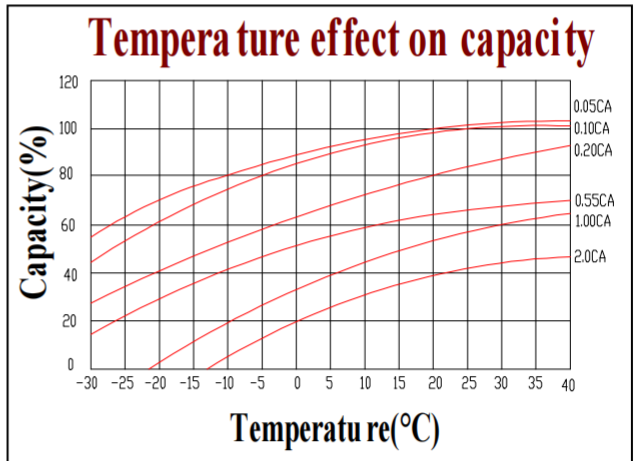
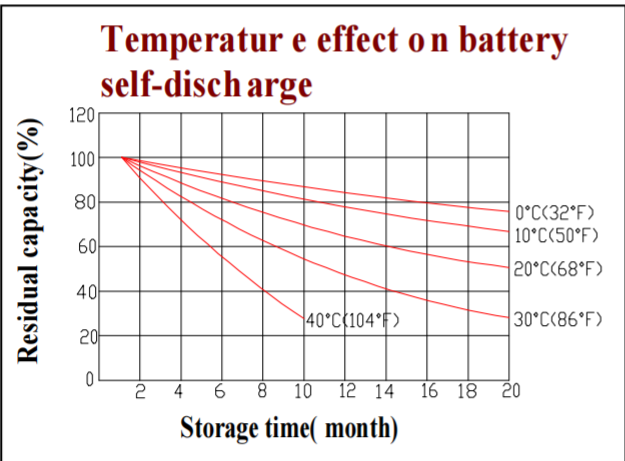
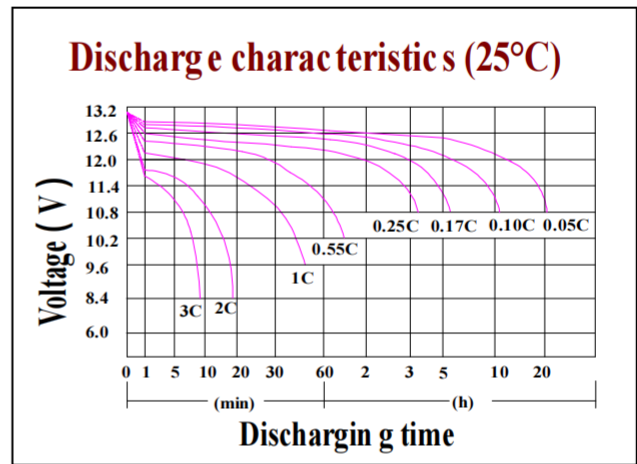
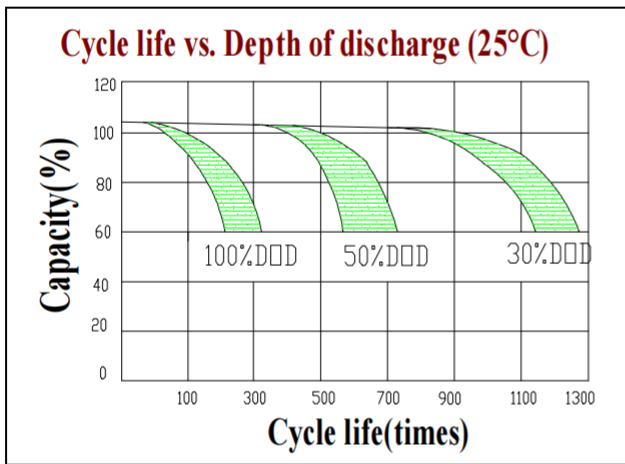
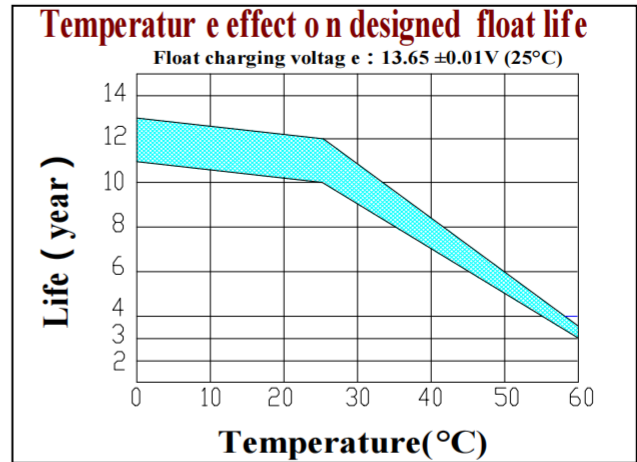
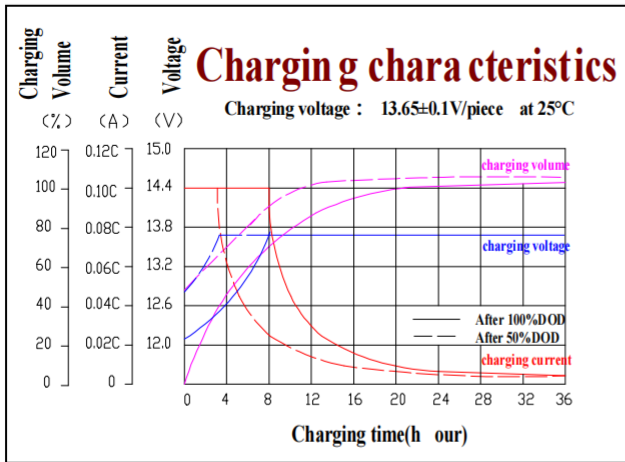
F.V/Time	5min	10min	15min	20min	25min	30min	45min	60min	90min	2h	3h	10h
1.60V	840.0	676.9	529.3	435.7	369.3	323.2	270.7	187.8	157.0	118.9	86.0	30.8
1.67V	824.6	664.6	520.0	430.3	362.4	317.1	265.8	184.3	154.2	116.8	84.6	30.1
1.70V	809.4	652.3	510.2	422.3	355.8	311.3	260.9	180.8	151.0	114.3	82.9	29.7
1.75V	794.0	640.0	500.5	409.0	349.2	305.6	256.0	177.6	148.2	112.2	81.5	29.0
1.80V	763.7	615.5	481.2	391.7	335.7	293.7	246.2	170.6	142.7	108.1	78.3	28.0

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	450.4	363.0	283.8	233.6	198.0	173.3	145.1	100.7	84.2	63.8	46.1	16.5
1.67V	442.1	356.4	278.6	230.7	194.3	170.0	142.5	98.8	82.7	62.6	45.4	16.1
1.70V	434.0	349.8	273.6	226.5	190.8	166.9	139.9	96.9	81.0	61.3	44.4	15.9
1.75V	425.7	343.2	268.4	219.3	187.3	163.8	137.3	95.3	79.5	60.2	43.7	15.6
1.80V	409.5	330.0	258.0	210.0	180.0	157.5	132.0	91.5	76.5	57.9	42.0	15.0

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