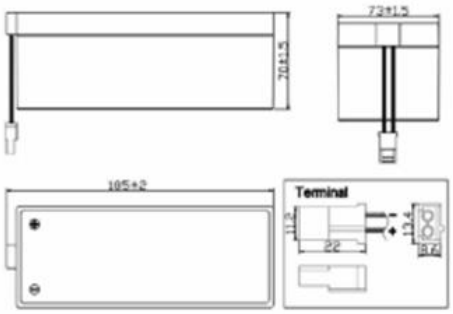
BA38-2

Sealed Lead Acid (SLA) Battery 24V 3.5Ah

Specification

Nominal Voltage (V)	24V (12 cells in series)	
Rated Capacity	3.5Ah	(C_{20},1.75V/cell)
Dimensions(mm)	Length	185±2 mm
	Width	73±1.5 mm
	Height	70±1.5 mm
	Total Height	70±1.5 mm
Nominal Capacity @25℃ (Ah)	20 Hour rate (0.177A to 21.0 volts)	3.54Ah
	10 Hour rate (0.338A to 21.0 volts)	3.38Ah
	5 Hour rate (0.604A to 21.0 volts)	3.02Ah
	1 Hour rate (2.275A to 19.2 volts)	2.27Ah
	15 min rate (6.738A to 19.2 volts)	1.68Ah
Approx. Weight	2.35 kg	
Terminal	Special	
Max.Discharge Current	52.5A @25℃ (5s)	
Internal Resistance	120mΩ @25℃ (Full Charged Battery)	
Floating Design Life	5 years @25℃	
Ambient Temperature	Charge: -15℃~50℃ Discharge: -20℃~60℃ Storage: -20℃~50℃	
Container Material	A.B.S . UL94-HB . UL94-V0 . Optional	
Self Discharge	VRLA batteries can be stored for more than 6 months at 25℃. Self-Discharge ratio less than 3% per month at 25℃. Please charge batteries before using.	



Certification

MH28792

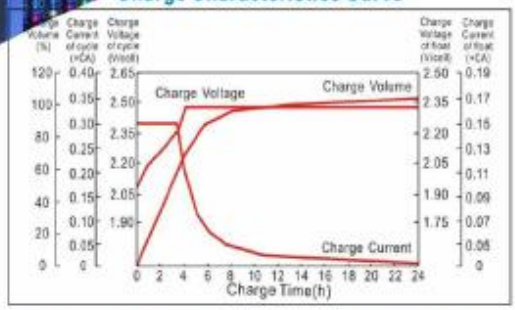
Constant Current Discharge Characteristics (A), (25°C)

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	13.81	9.048	6.738	3.588	2.275	1.282	0.915	0.617	0.409	0.350	0.187
1.70V/cell	12.53	8.383	6.353	3.483	2.224	1.262	0.893	0.608	0.403	0.341	0.181
1.75V/cell	11.25	7.858	6.003	3.378	2.196	1.251	0.884	0.604	0.399	0.338	0.177
1.80V/cell	10.10	7.350	5.653	3.273	2.165	1.241	0.873	0.597	0.394	0.333	0.170

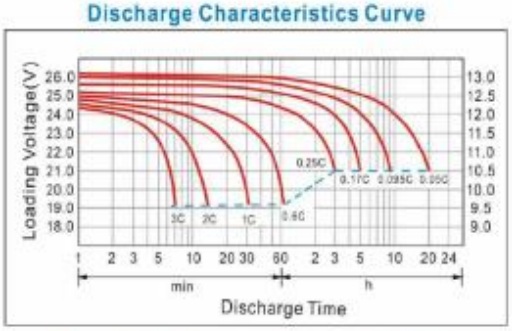
Constant Wattage Discharge Characteristics (Watt), (25°C)

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	24.97	16.51	12.41	6.846	4.512	2.542	1.824	1.232	0.816	0.699	0.375
1.70V/cell	23.08	15.58	11.91	6.704	4.430	2.513	1.782	1.215	0.804	0.683	0.362
1.75V/cell	21.00	14.86	11.35	6.558	4.378	2.494	1.766	1.206	0.797	0.676	0.355
1.80V/cell	19.02	14.03	10.79	6.409	4.319	2.475	1.747	1.194	0.788	0.666	0.341

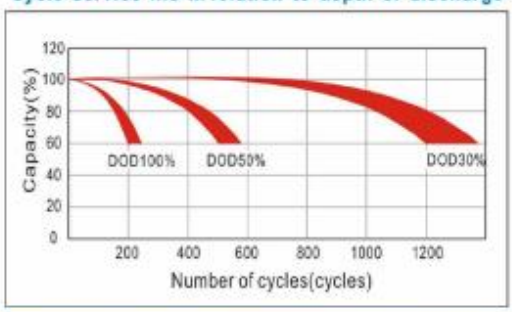
Charge Characteristics Curve



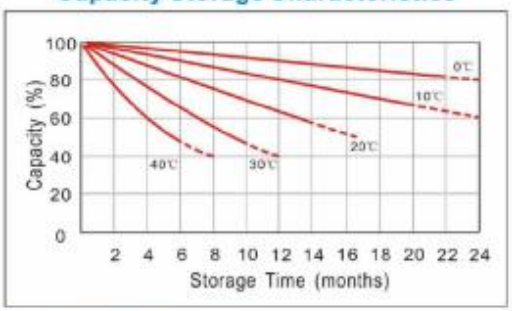
Discharge Characteristics Curve



Cycle service life in relation to depth of discharge



Capacity Storage Characteristics



Capacity Factors with Different Temperature

Battery type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Maintenance & Cautions

☑ Charging Procedure:

Application	Charging method	Charge voltage at 25℃	Temperature compensation coefficient of charging voltage	Max.charging current	Temperature
For standby power source	Constant voltage charging (With current restriction)	2.25~2.30 V/cell	-3mV/℃/cell	0.2CA	-15~50℃
For cycle service		2.45~2.50 V/cell	-4mV/℃/cell	0.3CA	

☑ Every month, recommend inspection every battery voltage.

☑ Every three months, recommend equalization charge for one time.Equalization charge method:

Step 1:Discharge: 100% rate capacity discharge.

Step 2:Charge: Max. Current 0.3CA, constant voltage 2.45~2.50V/Cell charge 24h.

☑ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, Ambient temperature and charging voltage.

☑ Charge the batteries at least once every six months, if they are stored at 25℃.Charging Method:

Constant Voltage : -0.2C × 2h+2.4~2.45V/cell × 24h , Max. Current 0.25CA

Constant Current : -0.2C × 2h+0.1C × 12h

Fast : -0.2C × 2h+0.3C × 4h

☑ Terminal of torque:

Bolt	M5	M6	M8
Terminal	T3、T10	T4、T7、T11、T12、T13	T5、T6、T8、T9、T14
Torque	6~7N.m	8~10N.m	10~12N.m