

### High Rate Series Battery

High rate Series VRLA batteries are designed with low internal resistance AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for High rate UPS and power backup system. High rate series Batteries are the special design batteries with 8 years floating design life at 25°C. Meet with IEC, BS, JIS and Eurobat standard. UL(MH62092), CE approved

### Application

- \*Emergency Power System
- \*Communication equipment
- \*Telecommunication systems
- \*Uninterruptible power supplies
- \*Power tools
- \*Alarm system
- \*Security system
- \*Fire and Security System. etc.

### General Features

- \*Safety Sealing
- \*Non-spillable construction
- \*High Reliability and Stability
- \*Sealed and Maintenance-free
- \*Safety and Quality certification
- \*Long Life and low self-discharge design
- \*30% increased power output at 15M backup time.

### Construction

- \*Positive .....Lead dioxide
- \*Electrolyte .....Sulfuric acid
- \*Separator .....Fiber glass
- \*Container .....ABS(UL94-HB), Flammability Resistance of UL94-V0 can be available upon request
- \*Negative .....Lead
- \*Safety Valve .....EPDR
- \*Terminal .....Copper

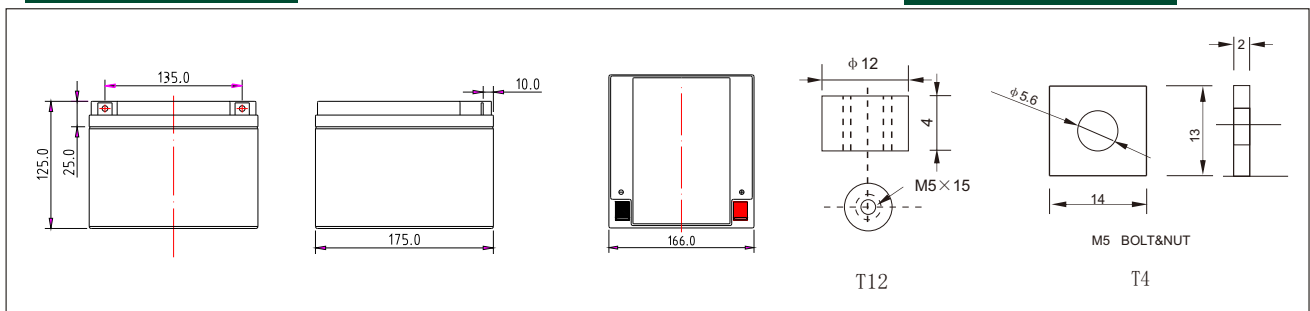


### Specification

Battery Model	Nominal Voltage		12V	
	Capacity(15 minutes rate to 1.67V/Cell)		96W	
	Rated capacity(20 Hour rate)		28Ah	
Dimensions	Length	Width	Height	Total Height
	175mm(6.89 inches)	166mm (6.54 inches)	125mm(4.92 inches)	125mm(4.92 inches)
Approx Weight	7.8kg (17.20lbs) ±3%			
Capacity 25°C (77°F)	30 Min rate(1.70V)		15 Min rate(1.67V)	5 Min rate(1.6V)
	54.08W/cell		96W/cell	178W/cell
Max discharge current	280A(5Sec.)			
Internal Resistance	Full charged at 25 °C : Approx 8.2mO			
Capacity affected by Temp. (20 HR)	40°C (104 °F)	25°C (77°F)	0°C (32°F)	-15°C (5°F)
	102%	100%	85%	65%
Self Discharge at 25°C (77°F)	After 3 months storage		After 6 months storage	After 12 months storage
	91%		82%	64%
Charge method 25°C (77°F)	Cycle Use		Float Use	
	14.60-14.80V (Initial charging current less than 8.4A)		13.70-13.90V	

### Outer dimensions (mm)

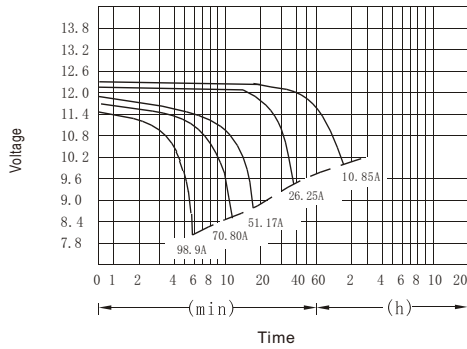
### Terminal Type (mm)



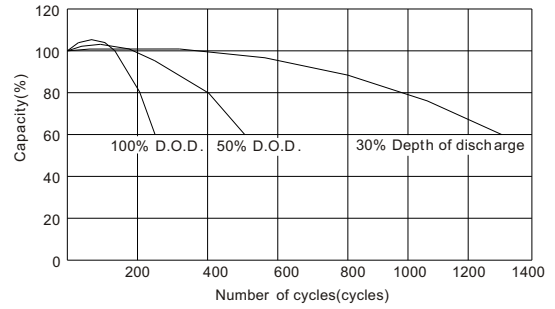
Constant Power(Watt) Discharge at 25°C (77°F)									
F.V/Time	5min	10min	15min	20min	30min	45min	60min	90min	
1.60V	177.5	128.4	102.1	80.55	57.61	40.89	32.67	23.39	
1.67V	163.8	119.6	96.3	76.81	55.51	38.85	31.53	22.58	
1.70V	158.1	116.6	94.2	75.08	54.24	38.11	31.07	22.11	
1.75V	146.9	110.7	89.8	72.31	52.33	37.68	30.11	21.59	
1.80V	137.3	104.5	85.7	69.65	50.71	35.45	29.31	21.08	
1.85V	119.2	89.6	74.6	61.07	45.11	30.87	26.72	19.44	

Constant Current(Amp) Discharge at 25°C (77°F)									
F.V/Time	5min	10min	15min	20min	30min	45min	60min	90min	
1.60V	98.89	70.69	55.58	43.67	31.09	20.61	17.35	12.27	
1.67V	89.67	65.28	51.17	41.22	29.47	20.07	16.58	11.77	
1.70V	85.38	62.75	50.27	40.07	28.64	19.64	16.11	11.58	
1.75V	79.59	58.88	47.39	37.98	27.44	19.03	15.64	11.19	
1.80V	72.84	54.76	45.08	36.31	26.33	18.15	15.08	10.74	
1.85V	62.31	46.54	38.66	31.65	23.15	16.38	13.59	9.92	

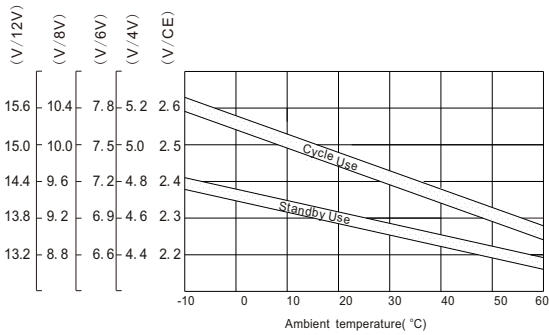
### Discharge characteristic Curve



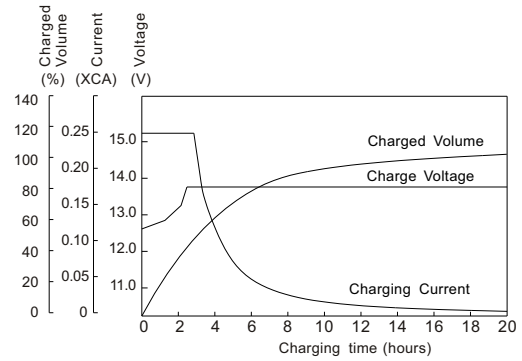
### Cycle service life in relation to depth of discharge



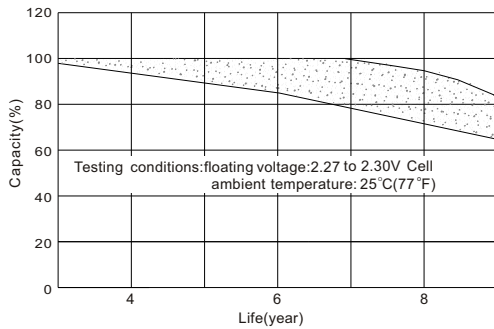
### Relationship between charging voltage and temperature



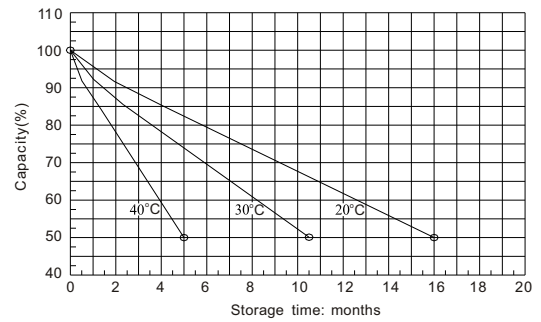
### Constant voltage charging characteristic (0.25CA, at 25°C)



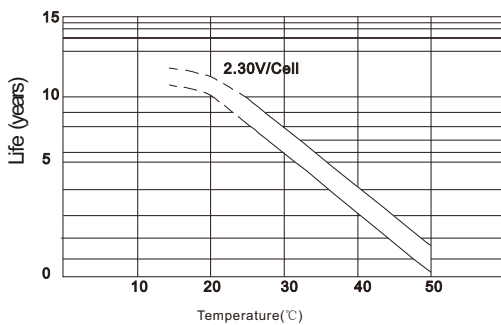
### Life characteristics of standby use



### Self-discharge characteristic



### Temperature effects on float life



### Charge characteristic Curve for standby use

