



HR Range

HR(High Rate)range Valve Regulated Lead Acid (VRLA) batteries have been developed with high efficiency active materials to stimulate inside the battery with higher power output when the battery is discharged to a extent level of discharging. Along with high-density structure design for relatively smaller inner resistance which will significantly improve the performance for high rate discharging when high power output service is needed.

Application

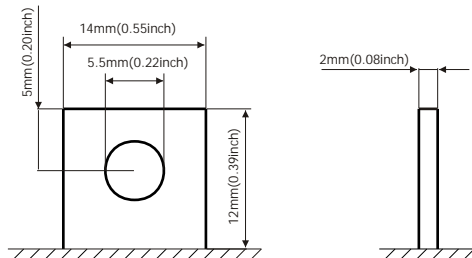
- Alarm System
- Security System
- Cable Television
- Medical Equipment
- Cable Television
- Toys
- Communication Equipment
- UPS
- Control Equipment
- Emergency Power System

General Features

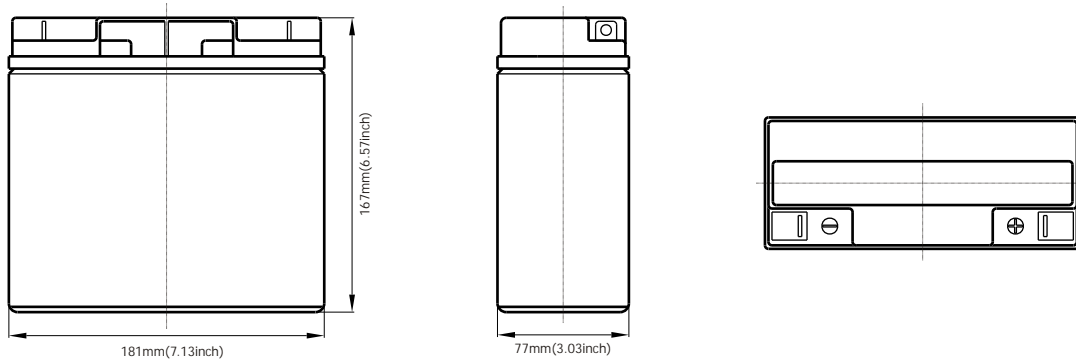
- Sealed and maintenance free operation.
- Non-Spillable construction design.
- ABS containers and covers(UL94HB, UL94V-0) optional.
- Safety valve installation for explosion proof.
- High quality and high reliability.
- Exceptional deep discharge recovery performance.
- Low self discharge characteristic.
- Flexibility design for multiple install positions.

Construction

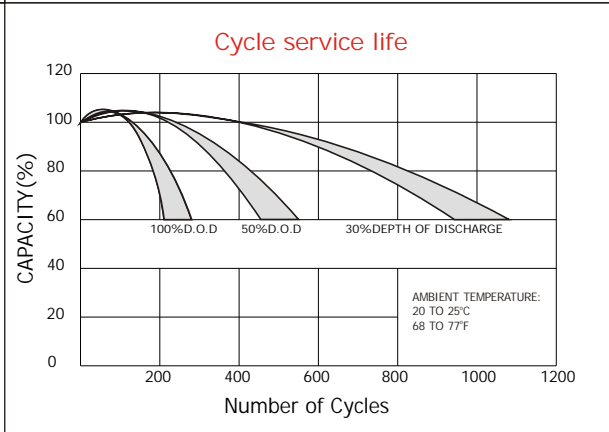
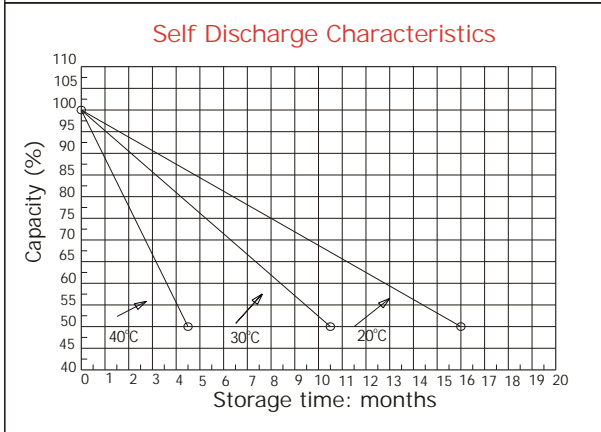
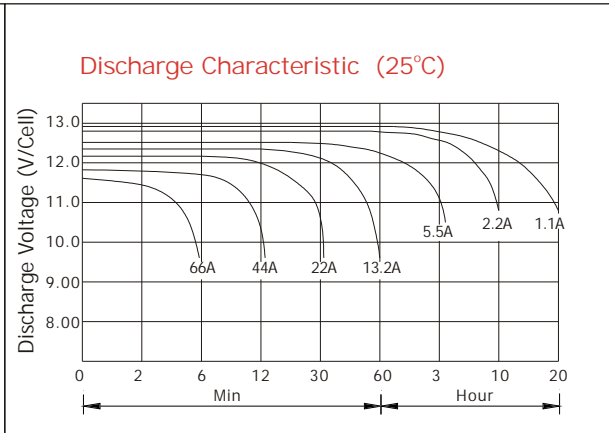
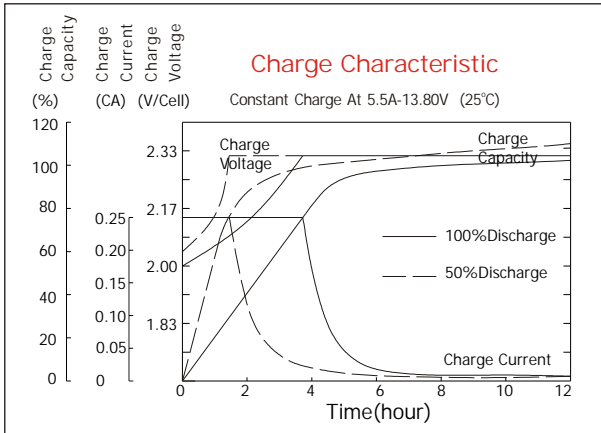
- ComponentRaw material
- SealantEpoxy Resin
- PositiveLead dioxide
- Safety valveEPDR
- NegativeLead
- TerminalCopper
- ContainerABS
- SeparatorFiber glass
- CoverABS
- ElectrolyteSulfuric acid



Standard Terminal Dimensions
(Optional terminal please check terminal information page)



Battery Model	GT12-22HR (80W to 1.67V, 15min)			
Designed Floating Life	8 Years			
Capacity(25°C)	20HR(1.1A,1.75V)	10HR(2A,1.75V)	5HR(3.75A,1.75V)	1HR(14.5A,1.75V)
	22AH	20AH	18.75AH	14.5AH
Dimensions	Length	Width	Height	Total Height
	181mm(7.13inch)	77mm(3.03inch)	167mm(6.57inch)	167mm(6.57inch)
Approx. Weight	6.2Kg (13.67 lbs)			
Internal Resistance	Full charged at 25°C: 0.014 Ohm			
Self Discharge	3% of capacity declined per month at (25°C)			
Capacity Affected by Temp.(20HR)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage(25°C)	Cycle use		Float use	
	14.4-15V(-30mV/ °C), max. Current: 5.5A		13.6-13.8V(-20mV/ °C)	



Constant current discharge ratings-amperes at 25°C

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	94.5	58.8	44.4	27.1	15.6	6.86	4.19	2.28	1.23
1.67V	88.7	55.8	42.7	25.9	15.4	6.60	4.11	2.26	1.19
1.70V	81.3	53.8	41.7	23.5	15.0	6.16	4.02	2.25	1.17
1.75V	79.7	52.1	40.3	22.4	14.3	5.95	3.93	2.25	1.14
1.80V	71.3	49.7	36.6	20.7	13.3	5.72	3.70	2.20	1.11
1.85V	62.9	47.4	32.9	19.1	12.4	5.51	3.46	2.17	1.08

Constant power discharge ratings-watts at 25°C

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	166	106	81.0	48.7	28.2	12.2	7.09	4.69	2.46
1.67V	160	104	80.0	47.7	28.0	11.8	7.06	4.66	2.38
1.70V	151	103	79.3	44.7	27.5	11.3	6.97	4.63	2.35
1.75V	152	102	78.7	43.4	27.0	11.0	6.91	4.58	2.29
1.80V	139	101	72.9	41.3	25.5	10.7	6.69	4.52	2.23
1.85V	126	95.5	66.2	38.7	24.0	10.4	6.48	4.46	2.14

