

HR Series

HR(High-Rate) Series of 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

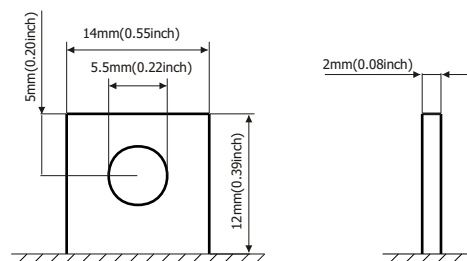
- Alarm System
- Cable Television
- Communication Equipment
- Control Equipment
- Security System
- Medical Equipment
- Toys
- UPS
- Emergency Power System

General Features

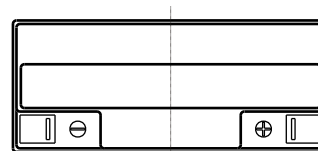
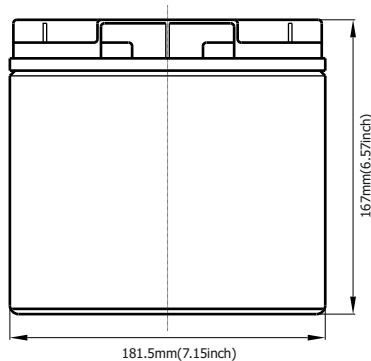
- Sealed and maintenance free operation.
- Non-Spillable construction design.
- ABS containers and covers(UL94HB, UL94V-0) optional.
- Safety valve installation for explosion proof.
- High quality and high reliability.
- Exceptional deep discharge recovery performance.
- Low self discharge characteristic.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

Construction

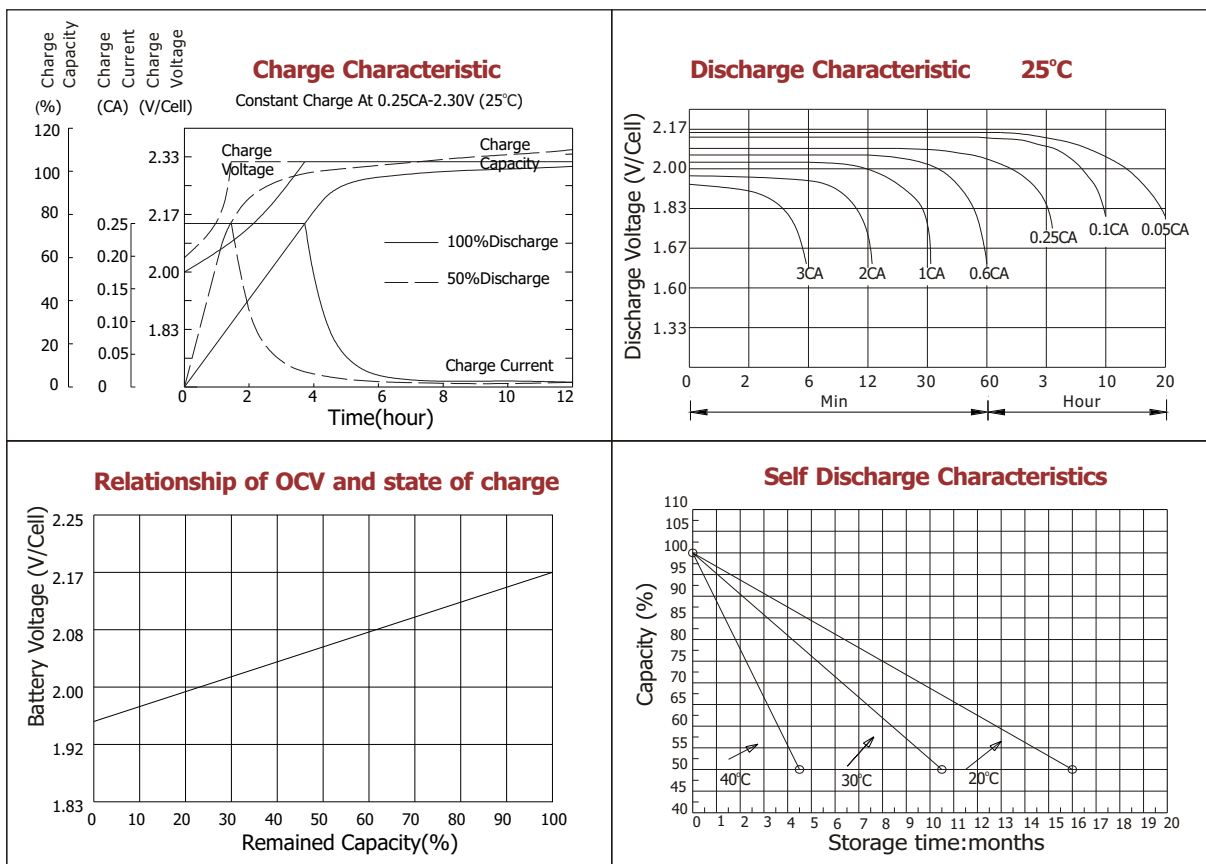
- ComponentRaw material
- PositiveLead dioxide
- NegativeLead
- ContainerABS
- CoverABS
- SealantEpoxy Resin
- Safety valveEPDR
- TerminalCopper
- SeparatorFibre glass
- ElectrolyteSulfuric acid



Terminal Dimensions



Battery Model	HR12-95W (95W to 1.67V, 15min)			
Designed Floating Life	8 Years			
Capacity(25°C)	20HR(1.2A,1.75V)	10HR(2.25A,1.75V)	5HR(4.14A,1.75V)	1HR(15.5A,1.75V)
	24AH	22.5AH	20.7AH	15.5AH
Dimensions	Length	Width	Height	Total Height
	181.5mm(7.15inch)	75.5mm(2.97inch)	167mm(6.57inch)	167mm(6.57inch)
Approx. Weight	7 Kg (15.44 lbs)			
Internal Resistance	Full charged at 25°C: 0.0088 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: 6.9A		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	112	69.9	52.7	32.1	17.1	7.49	4.58	2.49	1.35
1.67V	105.4	66.3	50.7	30.7	16.8	7.20	4.48	2.47	1.30
1.70V	96.6	63.9	49.5	27.9	16.3	6.72	4.38	2.46	1.28
1.75V	94.6	61.9	47.9	26.5	15.6	6.50	4.29	2.45	1.25
1.80V	84.7	59.1	43.5	24.6	14.6	6.24	4.03	2.40	1.21
1.85V	74.7	56.3	39.1	22.6	13.6	6.02	3.78	2.37	1.18

Constant power discharge ratings-watts at 25°C

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	3HR	5HR	10HR	20HR
1.60V	197	126	96.2	57.9	30.8	13.3	7.73	5.12	2.69
1.67V	190	123	95.0	56.7	30.6	12.9	7.70	5.09	2.59
1.70V	179	122	94.2	53.1	30.0	12.3	7.60	5.06	2.56
1.75V	180	121	93.4	51.5	29.5	12.0	7.53	4.99	2.50
1.80V	165	120	86.6	49.1	27.8	11.6	7.30	4.93	2.43
1.85V	149	113	78.6	46.0	26.1	11.3	7.07	4.86	2.34

