

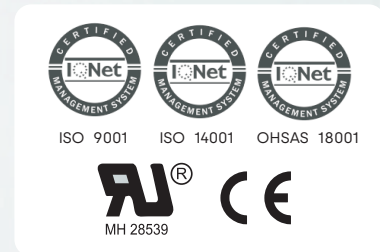
# 12V-33Ah



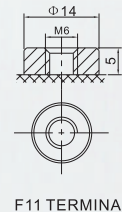
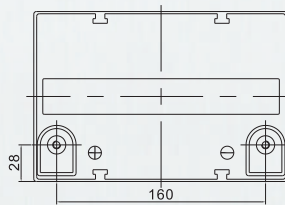
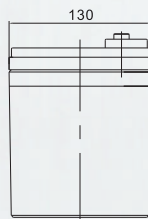
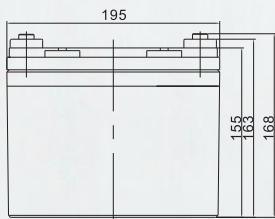
## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	125W @ 15min- rate to 1.67V per cell @25
Weight	Approx. 10.2 Kg (Tolerance ± 3.0%)
Internal Resistance	Approx. 9.0 m Ω
Terminal	F11 (M6)
Max. Discharge Current	330A (5 sec)
Short Circuit Current	930A
Design Life	Could Reach 15 years
Max. Charging Current	10.0 A
Reference Capacity	C10 31.2AH C20 33.0AH
Standby Use Voltage	13.6 V ~ 13.8 V @ 25°C Temperature Compensation: -3mV/ / Cell
Equalization Voltage	14.6 V~14.8 V @25°C Temperature Compensation: -4mV/ / Cell
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Self Discharge	RITAR Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

HR (High Rate) series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 15 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.



## Dimensions



Length	195±2mm (7.68 inches)
Width	130±2mm (5.12 inches)
Height	155±2mm (6.10 inches)
Total Height	168±2mm (6.61 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

### Constan Current Discharge Characteristics: A (25°C)

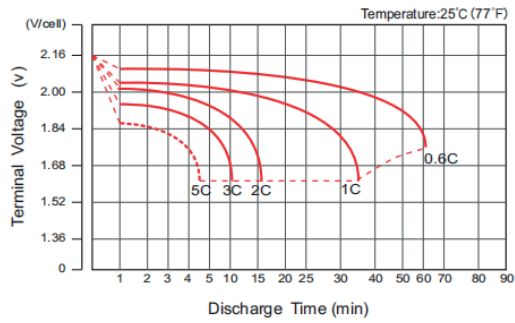
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	124.9	103.4	90.6	69.1	56.3	41.5	24.0	17.2
1.67V	113.3	94.8	83.7	64.5	52.9	39.3	22.9	16.5
1.70V	108.5	91.1	80.7	62.5	51.4	38.3	22.4	16.2
1.75V	100.2	84.9	75.7	59.1	48.9	36.7	21.7	15.7
1.80V	91.8	78.6	70.6	55.9	46.6	35.1	20.9	15.2
1.85V	78.8	67.0	59.8	48.1	40.4	31.1	18.9	13.8

### Constan Power Discharge Characteristics: WPC (25°C)

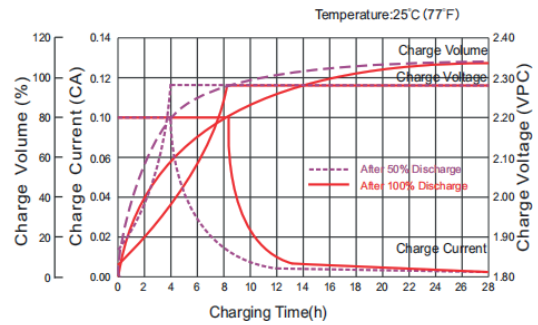
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	229.5	192.6	170.4	131.8	108.2	80.6	45.1	32.6
1.67V	213.6	180.7	160.8	125.0	103.2	77.3	43.4	31.5
1.70V	206.6	175.2	156.3	122.1	101.0	75.7	42.7	31.1
1.75V	193.9	165.6	148.5	116.8	97.0	73.2	41.5	30.2
1.80V	180.4	155.4	140.2	111.6	93.3	70.7	40.3	29.4
1.85V	157.2	134.3	120.4	97.0	81.8	63.0	36.6	27.1

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

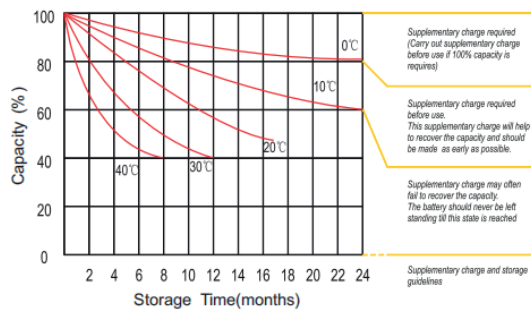
**Discharge Characteristics Curve**



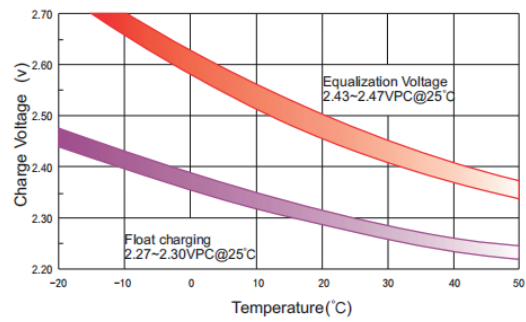
**Charge Characteristic Curve For Standby Use**



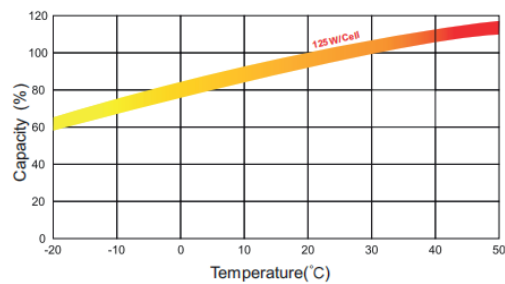
**Storage Characteristics**



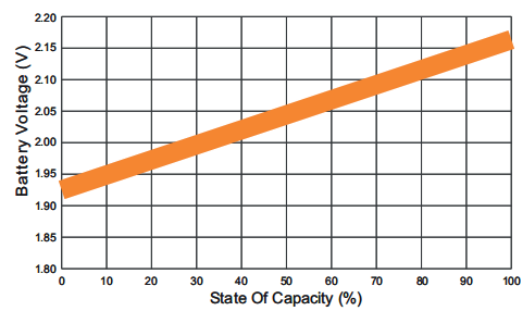
**Relationship Between Charging Voltage And Temperature**



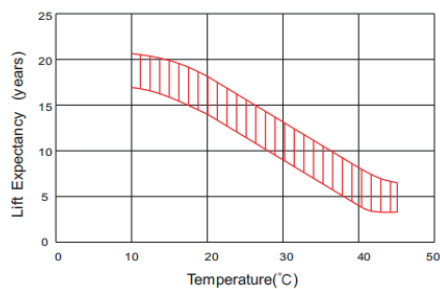
**Temperature Effects On Capacity**



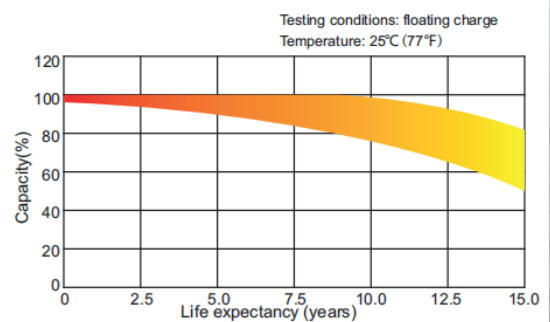
**Relationship of OCV And State Of Charge (20)**



**Effect Of Temperature On Long Term Life**



**Life Characteristics Of Standby Use**



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain the latest information