



HR12-50W



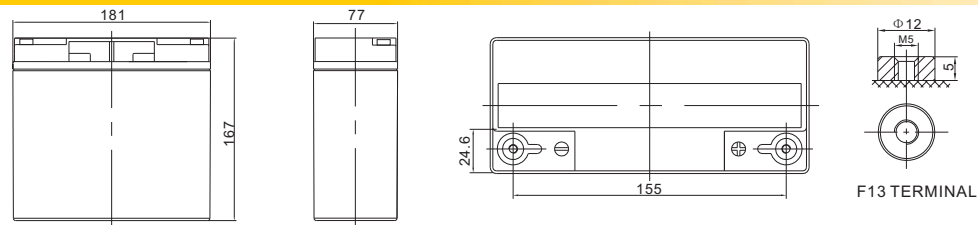
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	50W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 4.20 Kg (Tolerance 4.0%)
Internal Resistance	Approx. 14 mΩ
Terminal	F3(M5)/F13(M5)
Max. Discharge Current	140A (5 sec)
Short Circuit Current	700A
Design Life	Could Reach 8 years
Recommended Maximum Charging Current	4.2 A
Reference Capacity	C10 13.4AH C20 14.0AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C
Cycle Use Voltage	14.6 V~14.8 V @ 25°C
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.
Constainer Material	A.B.S. UL94-HB, UL94-V0 Optional.

The HR (High Rate) series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 8 years design life in float service. By using strong grids and specially designed active material the HR series is with lower I.R, lower self discharge rate, high power, and longer service life performance. Generally the HR series offers 30% more power output than the standard range. Suitable for high power standby and cycling situation, such as UPS, datacenter, electric tools et al.



Dimensions



Length	181±1mm (7.13 inches)
Width	77±1mm (3.03 inches)
Height	167±1mm (6.57 inches)
Total Height	167±1mm (6.57 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	64.35	55.96	46.52	41.04	31.73	25.68	18.80	10.97	7.991
1.67V	59.54	51.78	43.64	38.51	30.08	23.96	17.93	10.45	7.608
1.70V	57.07	49.62	42.11	37.12	29.15	23.04	17.42	10.15	7.379
1.75V	53.90	46.87	40.00	34.86	27.78	22.41	16.93	9.983	7.214
1.80V	50.70	44.08	37.89	32.58	26.39	21.75	16.41	9.785	7.039
1.85V	47.31	41.14	35.63	30.20	24.89	20.99	15.80	9.551	6.828

Constant Power Discharge Characteristics : WPC (25°C)

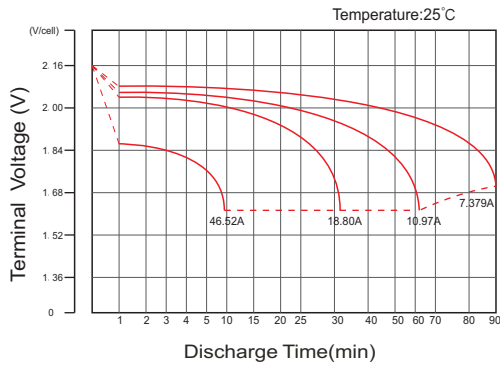
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	117	101	85.5	75.9	59.0	47.2	34.6	20.3	14.8
1.67V	109	94.7	81.0	71.9	56.5	44.5	33.3	19.5	14.3
1.70V	106	91.8	79.1	70.1	55.4	43.3	32.8	19.2	14.0
1.75V	101	87.8	76.1	66.7	53.5	42.6	32.3	19.1	13.9
1.80V	96.4	83.8	73.1	63.2	51.5	42.0	31.7	19.0	13.7
1.85V	91.8	79.8	70.1	59.8	49.6	41.3	31.2	18.9	13.6

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

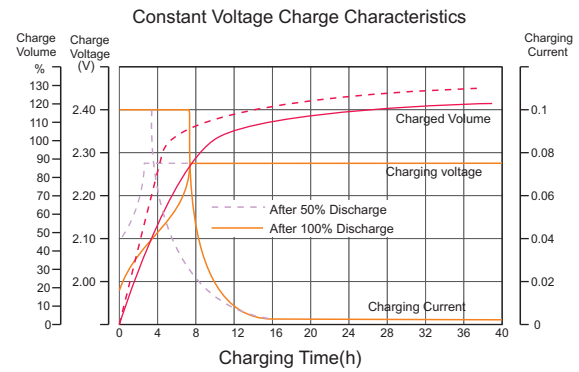
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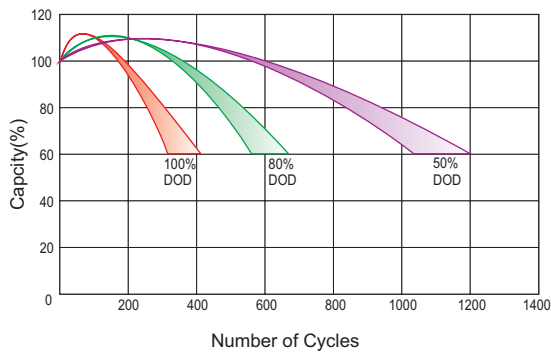
Discharge Characteristics Curve



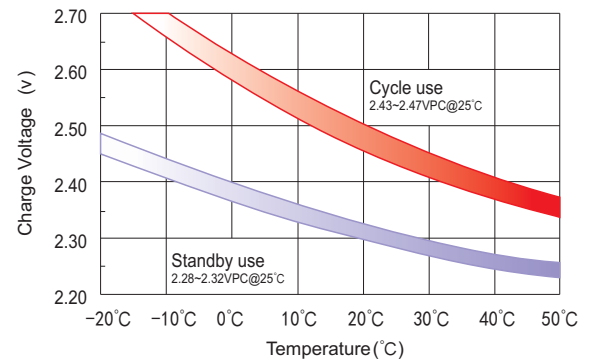
Charge Characteristic Curve For Standby Use



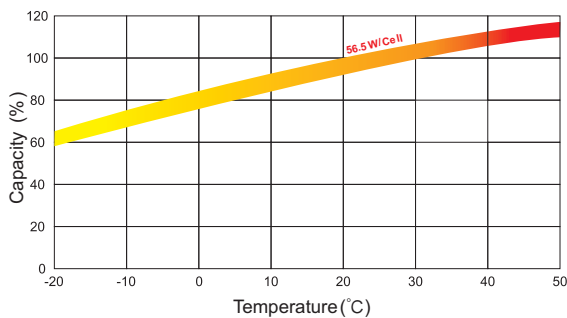
Cycle Life In Relation To Depth Of Discharge



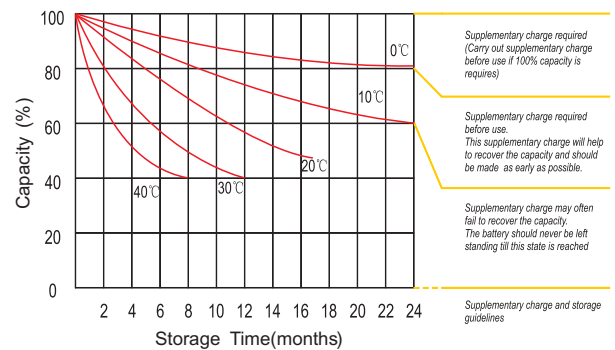
Relationship Between Charging Voltage And Temperature



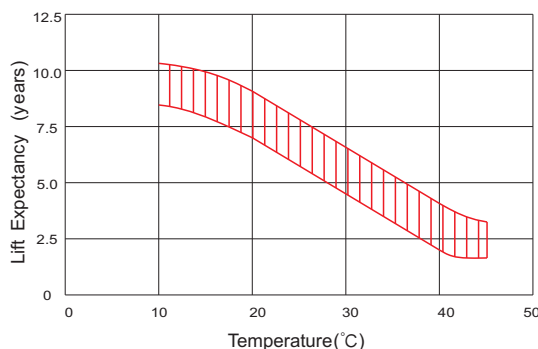
Temperature Effects On Capacity



Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use

