



# HR12-68W

## Specification

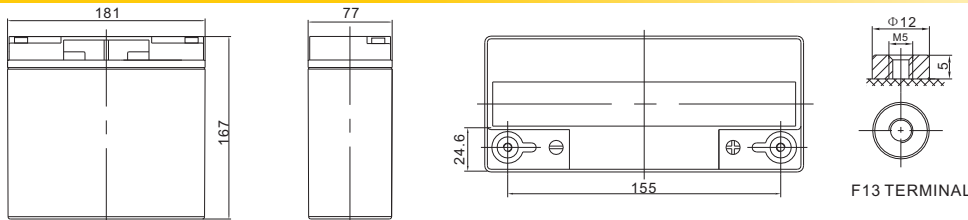
Cells Per Unit	6
Voltage Per Unit	12
Capacity	68W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 4.90 Kg (Tolerance ±4.0%)
Internal Resistance	Approx. 12 mΩ
Terminal	F3(M5)/F13(M5)
Max. Discharge Current	180A (5 sec)
Short Circuit Current	820A
Design Life	Could Reach 8 years
Recommended Maximum Charging Current	5.4 A
Reference Capacity	C10 17.0AH C20 18.0AH
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	79.18	68.85	57.24	50.50	39.04	31.60	23.14	13.49	9.833
1.67V	73.27	63.71	53.70	47.39	37.01	29.48	22.06	12.86	9.361
1.70V	70.22	61.06	51.81	45.67	35.87	28.35	21.43	12.49	9.080
1.75V	66.32	57.67	49.22	42.89	34.19	27.58	20.83	12.28	8.877
1.80V	62.38	54.24	46.63	40.08	32.48	26.76	20.19	12.04	8.662
1.85V	58.21	50.62	43.84	37.16	30.63	25.83	19.44	11.75	8.402

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

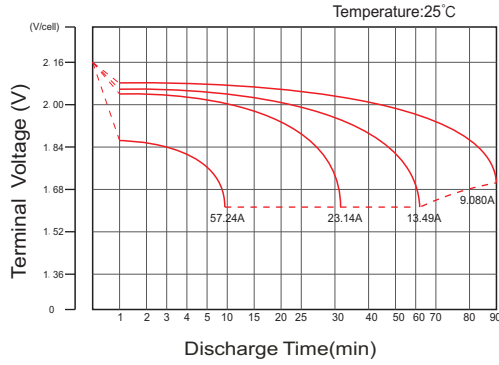
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	143	125	105	93.4	72.6	58.1	42.6	25.0	18.3
1.67V	134	117	99.6	88.5	69.5	54.7	41.0	24.0	17.5
1.70V	130	113	97.3	86.3	68.2	53.2	40.3	23.6	17.2
1.75V	124	108	93.6	82.0	65.8	52.4	39.7	23.5	17.0
1.80V	119	103	89.9	77.8	63.4	51.6	39.0	23.4	16.9
1.85V	113	98.2	86.3	73.6	61.0	50.8	38.4	23.3	16.7

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

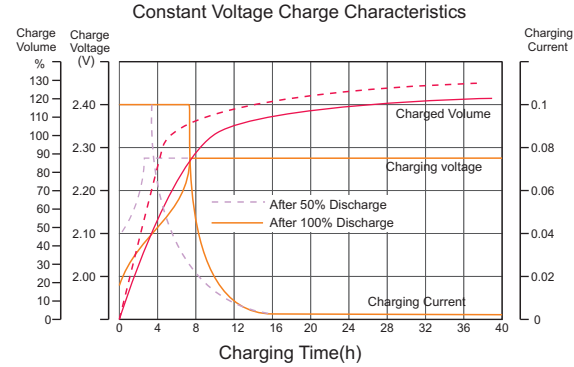
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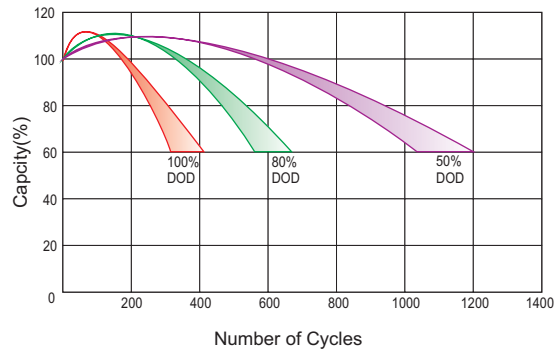
## Discharge Characteristics Curve



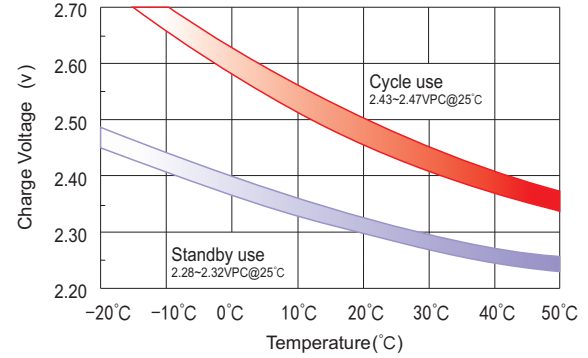
## Charge Characteristic Curve For Standby Use



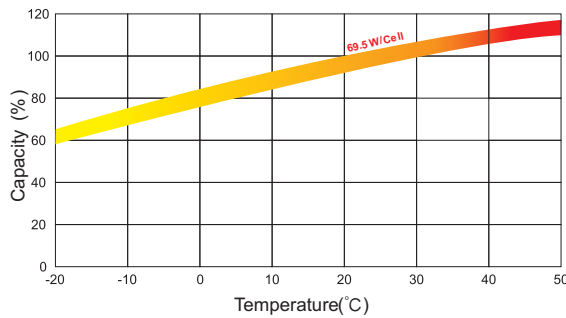
## Cycle Life In Relation To Depth Of Discharge



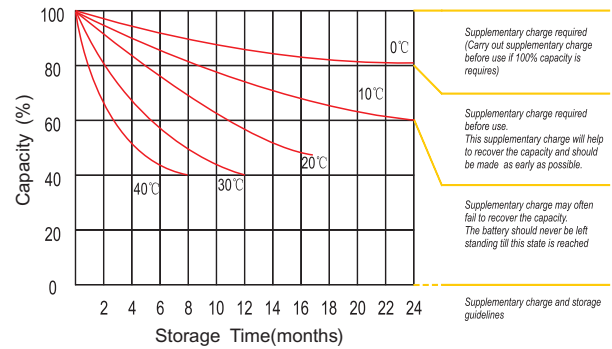
## Relationship Between Charging Voltage And Temperature



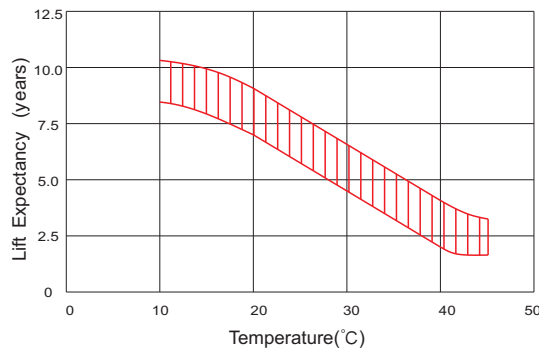
## Temperature Effects On Capacity



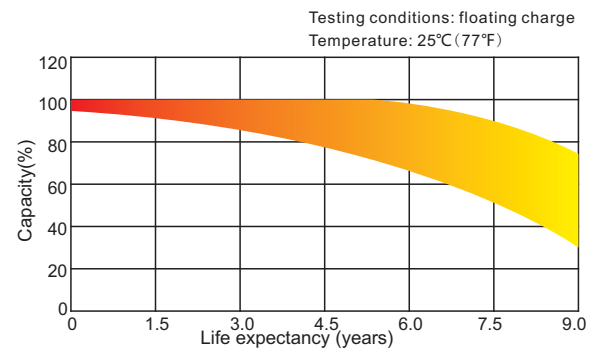
## Storage Characteristics



## Effect Of Temperature On Long Term Life



## Life Characteristics Of Standby Use



For Battery Sales + EPA Battery Recycling and AC / DC Power Services, please contact:  
**Moore & Moore Solutions, Inc.**  
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**Email: mr@mooreu.com**  
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