



# HR12-96W



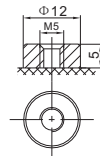
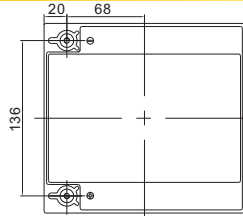
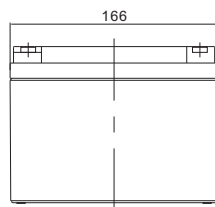
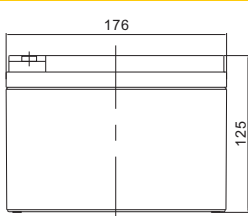
## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	96W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 8.10 Kg (Tolerance ±4.0%)
Internal Resistance	Approx. 8 mΩ
Terminal	F13(M5)
Max. Discharge Current	240A (5 sec)
Short Circuit Current	950A
Design Life	Could Reach 8 years
Recommended Maximum Charging Current	7.2 A
Reference Capacity	C10 22.6AH C20 24.0AH
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



F13 TERMINAL

Length	166±1mm (6.54 inches)
Width	176±1mm (6.93 inches)
Height	125±1mm (4.92 inches)
Total Height	125±1mm (4.92 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	110.3	95.92	79.75	70.36	54.39	44.03	32.24	18.80	13.70
1.67V	102.1	88.76	74.81	66.02	51.56	41.07	30.73	17.91	13.04
1.70V	97.83	85.07	72.18	63.63	49.97	39.50	29.86	17.40	12.65
1.75V	92.40	80.35	68.57	59.75	47.63	38.42	29.02	17.11	12.37
1.80V	86.91	75.57	64.96	55.84	45.24	37.28	28.13	16.77	12.07
1.85V	81.10	70.53	61.08	51.77	42.67	35.98	27.09	16.37	11.71

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

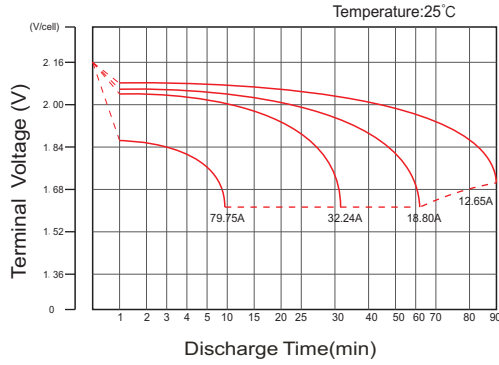
F.V/Time	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	200	174	147	130	101	80.9	59.4	34.8	25.4
1.67V	187	162	139	123	96.8	76.2	57.2	33.5	24.4
1.70V	181	157	136	120	94.9	74.2	56.2	32.9	24.0
1.75V	173	151	130	114	91.6	73.1	55.3	32.7	23.8
1.80V	165	144	125	108	88.3	71.9	54.4	32.6	23.5
1.85V	157	137	120	102	85.0	70.8	53.4	32.4	23.3

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

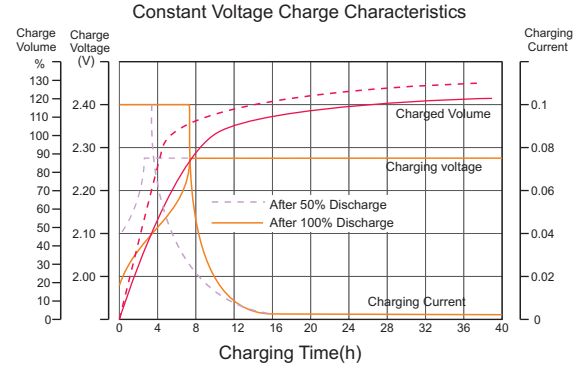
# HR12-96W



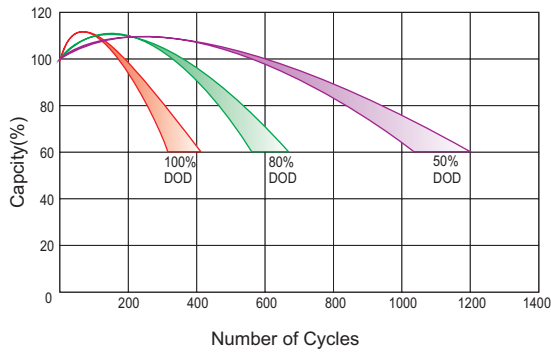
## Discharge Characteristics Curve



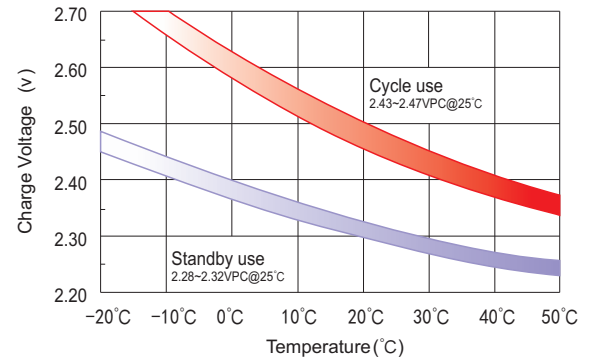
## Charge Characteristic Curve For Standby Use



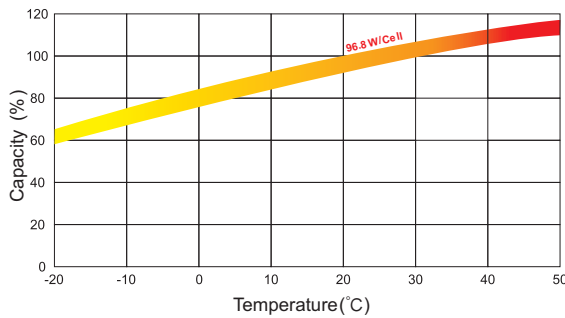
## Cycle Life In Relation To Depth Of Discharge



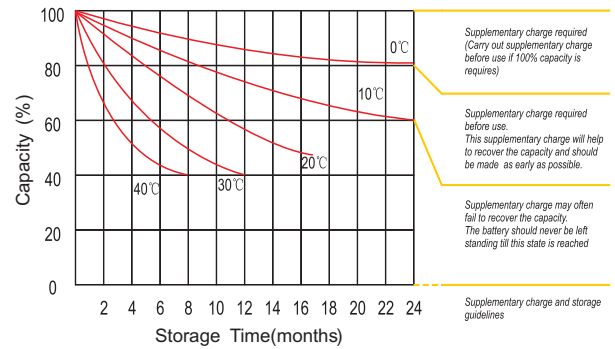
## Relationship Between Charging Voltage And Temperature



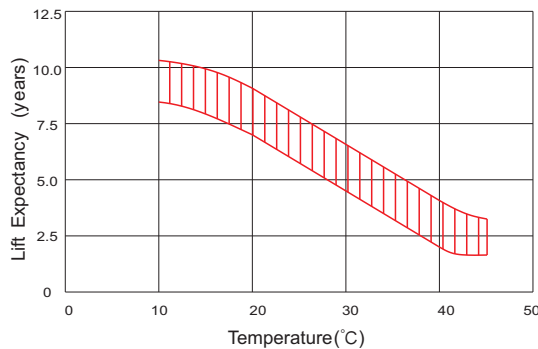
## Temperature Effects On Capacity



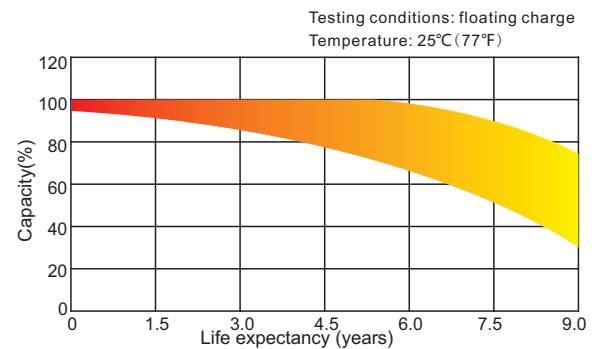
## Storage Characteristics



## 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.**  
**Phone: 484-302-7009**  
**Email: mr@mooreu.com**  
**www.MooreU.com**