



# HR12-690WL

## Specification

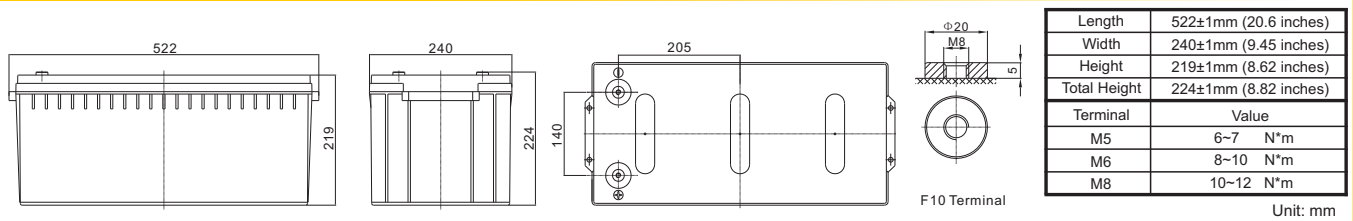
Cells Per Unit	6
Voltage Per Unit	12
Capacity	690W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 65.0 Kg (Tolerance ± 1.5%)
Internal Resistance	Approx. 3.5 mΩ
Terminal	F10(M8)
Max. Discharge Current	2250A (5 sec)
Short Circuit Current	4050A
Design Life	Could Reach 15 years
Recommended Maximum Charging Current	67.5 A
Reference Capacity	C10 210AH C20 225AH
Standby Use Voltage	13.6 V~13.8 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.
Container 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 15 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



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

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	755.6	628.2	554.3	428.5	350.4	266.9	163.0	122.0
1.67V	699.2	589.3	520.1	406.1	326.8	254.4	155.4	116.2
1.70V	670.1	568.6	501.2	393.6	314.3	247.2	150.9	112.7
1.75V	632.9	540.1	470.7	375.2	305.7	240.2	148.4	110.1
1.80V	595.3	511.7	439.9	356.4	296.7	232.9	145.5	107.5
1.85V	555.5	481.2	407.8	336.1	286.3	224.3	142.0	104.3

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

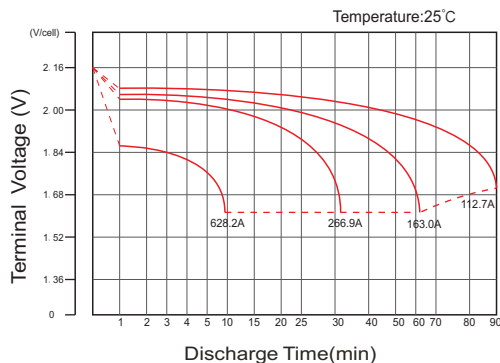
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	1348	1137	1009	785	644	492	301	227
1.67V	1259	1077	956	751	607	473	290	218
1.70V	1221	1051	932	736	590	465	285	214
1.75V	1168	1011	886	711	581	458	284	212
1.80V	1114	972	841	685	572	450	282	209
1.85V	1061	933	795	659	564	442	281	207

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

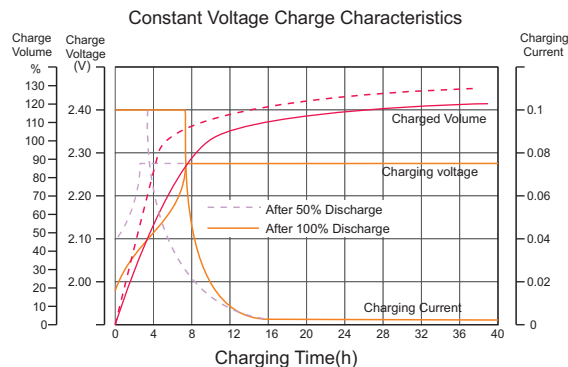
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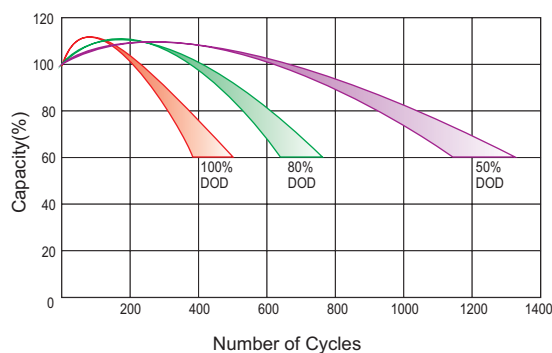
## Discharge Characteristics Curve



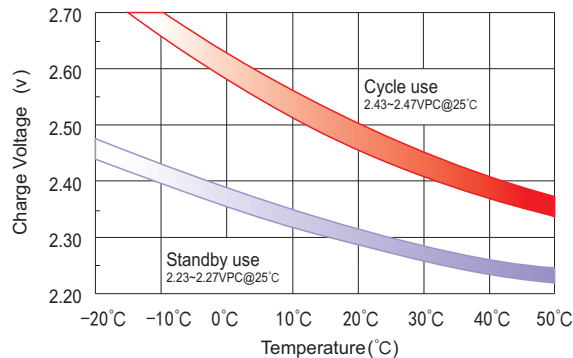
## Charge Characteristic Curve For Standby Use



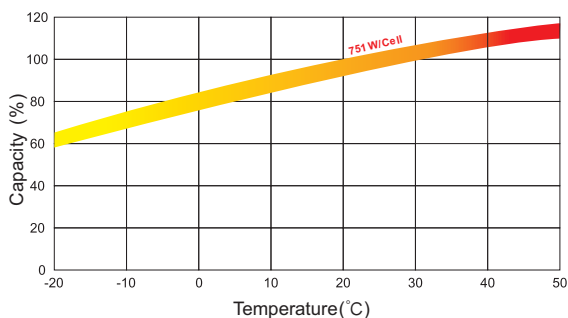
## Cycle Life In Relation To Depth Of Discharge



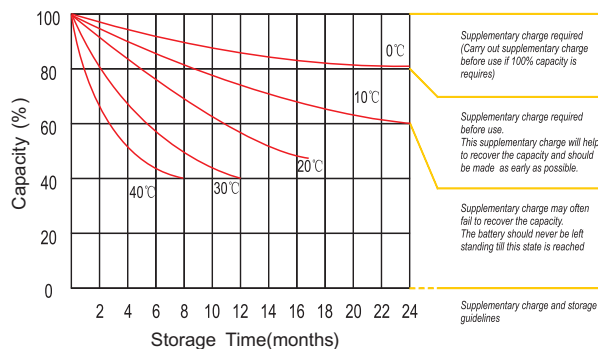
## Relationship Between Charging Voltage And Temperature



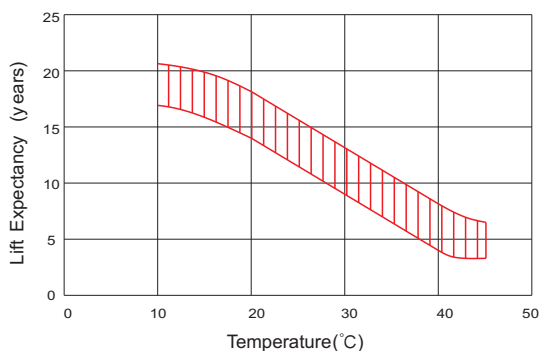
## Temperature Effects On Capacity



## Storage Characteristics



## Effect Of Temperature On Long Term Life



## Life Characteristics Of Standby Use

