



HR12-520WL

Specification

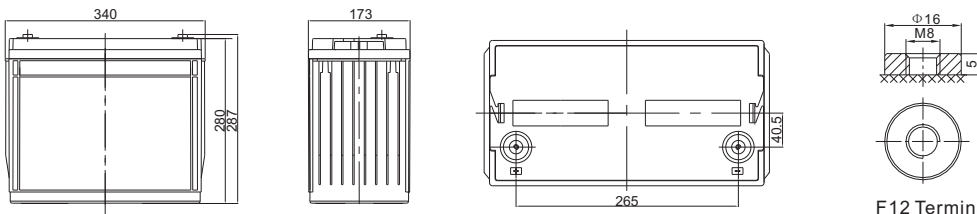
Cells Per Unit	6
Voltage Per Unit	12
Capacity	520W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 43.0 Kg (Tolerance ± 1.5%)
Internal Resistance	Approx. 4.5 mΩ
Terminal	F5(M8)/F12(M8)
Max. Discharge Current	1450A (5 sec)
Short Circuit Current	2900A
Design Life	Could Reach 15 years
Recommended Maximum Charging Current	43.5 A
Reference Capacity	C10 136.8AH C20 145.0AH
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.
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 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



Length	340±2mm (13.4 inches)
Width	173±2mm (6.81 inches)
Height	280±2mm (11.0 inches)
Total Height	287±2mm (11.3 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

F12 Terminal

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	4 92 .1	4 21 .4	3 79 .0	3 01 .1	2 41 .8	1 77 .3	1 01 .9	7 5 .5
1.67V	4 55 .3	3 95 .3	3 55 .6	2 85 .4	2 25 .6	1 69 .0	9 7 .1	7 1 .9
1.70V	4 36 .4	3 81 .4	3 42 .7	2 76 .6	2 17 .0	1 64 .2	9 4 .3	6 9 .7
1.75V	4 12 .2	3 62 .3	3 21 .8	2 63 .6	2 11 .1	1 59 .6	9 2 .8	6 8 .1
1.80V	3 87 .7	3 43 .2	3 00 .8	2 50 .4	2 04 .8	1 54 .7	9 1 .0	6 6 .5
1.85V	3 61 .8	3 22 .7	2 78 .9	2 36 .2	1 97 .7	1 49 .0	8 8 .8	6 4 .5

Constant Power Discharge Characteristics : WPC (25°C)

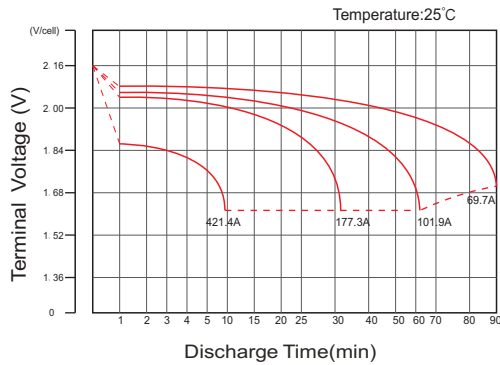
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	8 6 8	7 5 5	6 8 3	5 5 1	4 4 5	3 2 7	1 8 8	1 4 0
1.67V	8 1 1	7 1 5	6 4 7	5 2 8	4 1 9	3 1 4	1 8 1	1 3 5
1.70V	7 8 7	6 9 8	6 3 1	5 1 8	4 0 7	3 0 9	1 7 8	1 3 2
1.75V	7 5 3	6 7 1	6 0 0	4 9 9	4 0 1	3 0 4	1 7 8	1 3 1
1.80V	7 1 8	6 4 5	5 6 9	4 8 1	3 9 5	2 9 9	1 7 7	1 3 0
1.85V	6 8 4	6 1 9	5 3 8	4 6 3	3 8 9	2 9 4	1 7 6	1 2 8

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

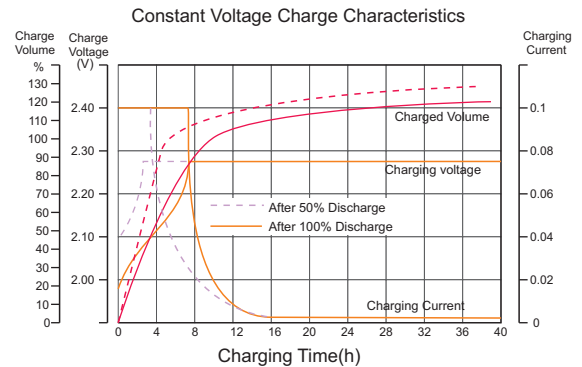
HR12-520WL



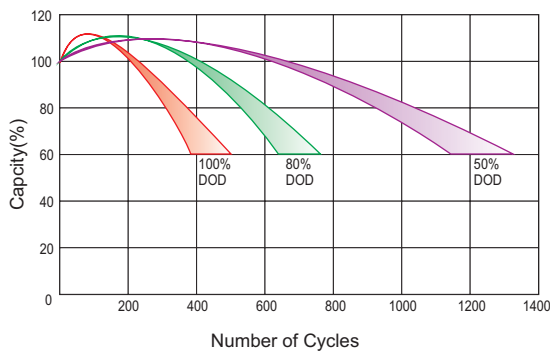
Discharge Characteristics Curve



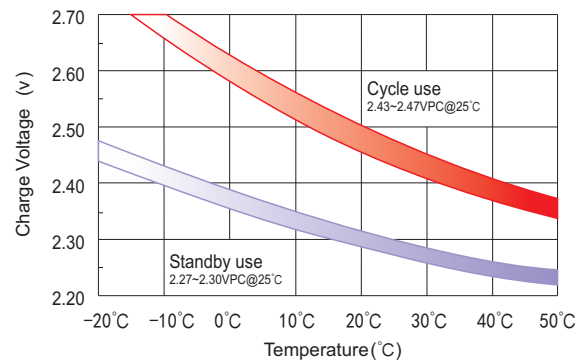
Charge Characteristic Curve For Standby Use



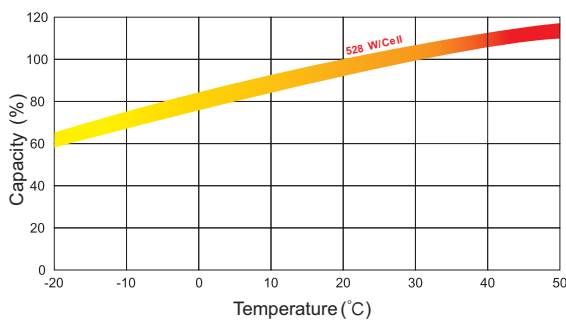
Cycle Life In Relation To Depth Of Discharge



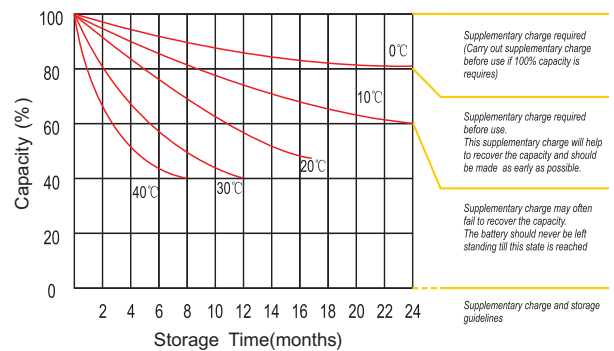
Relationship Between Charging Voltage And Temperature



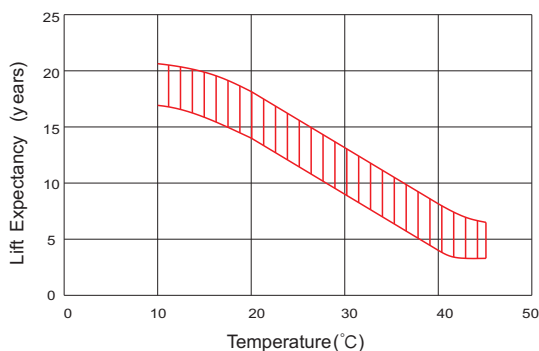
Temperature Effects On Capacity



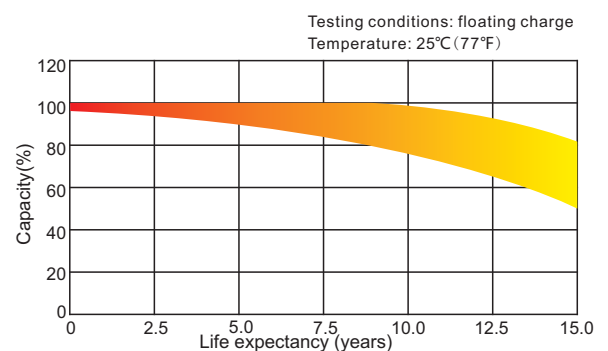
Storage Characteristics



Effect Of Temperature On Long Term Life



Life Characteristics Of Standby Use



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