



HR12-520WL(12V520W)

Specification

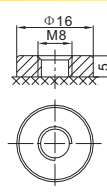
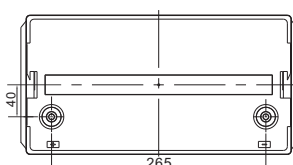
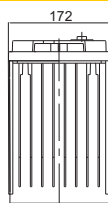
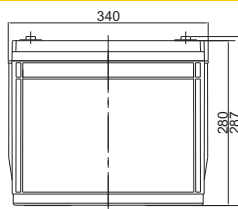


HR (High Rate) series Valve Regulated Lead Acid (VRLA) battery is designed for heavy load discharge applications with 15 years design life in float service. By using strong grids, thick plate and specially designed active material. It is with lower I.R, lower self discharge rate, high power, and longer service life. The HR series battery offers 30% more power output than the standard series. It is suitable for high power standby used, such as datacenter, UPS, EPS etc.



Cells Per Unit	6
Voltage Per Unit	12V
Capacity	520W@15min-rate to 1.67V per cell @25°C
Weight	Approx. 44.0Kg (Tolerance±5%)
Internal Resistance	≤4.5 mΩ (Full Charge Condition @25°C)
Terminal	Default F12(M8)
Max. Discharge Current	1450A (5 sec)
Short Circuit Current	2900A
Design Life	15 years
Max. Charging Current	43.5 A
Reference Capacity	C ₁₀ 136.8Ah C ₂₀ 145.0Ah
Standby Use Voltage	13.50 V~13.62 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Equalization Voltage	14.10 V~14.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell
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.

Dimensions



F 12 Terminal

Length	340±2mm (13.4 inches)
Width	172±2mm (6.77 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

Unit: mm

Constant Current Discharge Characteristics : A (25°C)

F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	426.1	378.6	350.5	287.6	234.2	172.6	99.89	71.68
1.67V	386.7	347.1	324.0	268.2	220.1	163.3	95.28	68.76
1.70V	370.2	333.7	312.3	260.0	213.9	159.4	93.39	67.43
1.75V	341.8	310.8	292.8	246.0	203.2	152.6	90.14	65.31
1.80V	313.2	287.9	273.3	232.8	193.7	146.2	86.89	63.19
1.85V	268.8	245.2	231.5	200.1	168.1	129.3	78.50	57.61

Constant Power Discharge Characteristics : W/Cell (25°C)

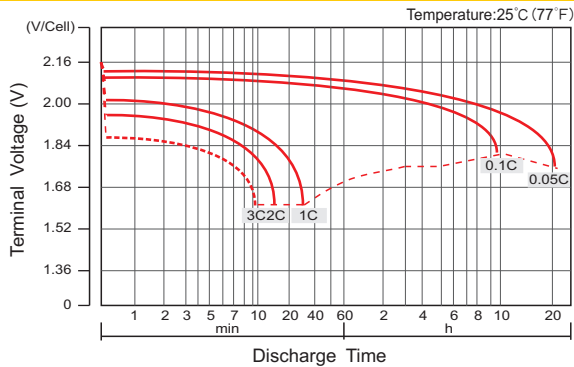
F.V/Time	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	783.0	705.0	659.3	548.2	450.0	335.4	187.6	135.7
1.67V	728.7	661.4	622.2	520.0	429.5	321.6	180.6	131.2
1.70V	704.8	641.6	604.8	508.0	420.3	315.1	177.6	129.3
1.75V	661.4	606.3	574.5	486.0	403.4	304.7	172.7	125.8
1.80V	615.6	569.1	542.5	464.4	388.2	294.0	167.6	122.4
1.85V	536.2	491.5	465.8	403.7	340.1	262.3	152.4	112.6

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

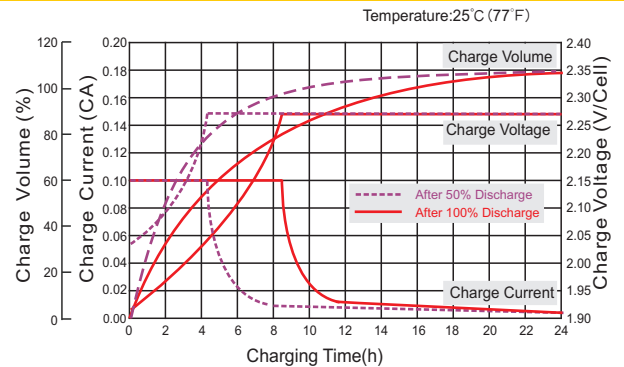
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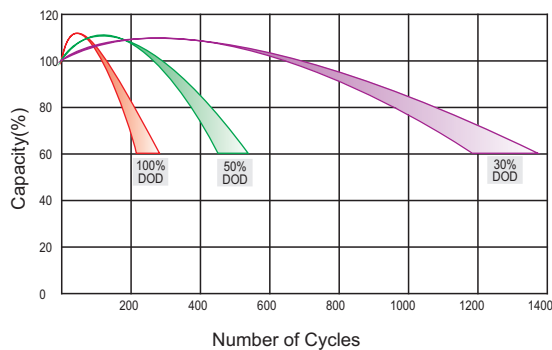
Discharge Characteristics Curve



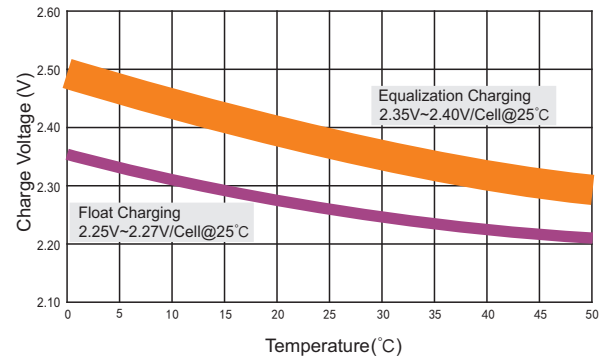
Charge Characteristic Curve For Standby Use(IU)



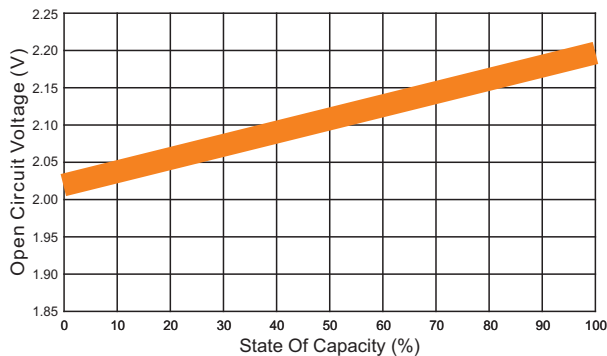
Cycle Life In Relation To Depth Of Discharge



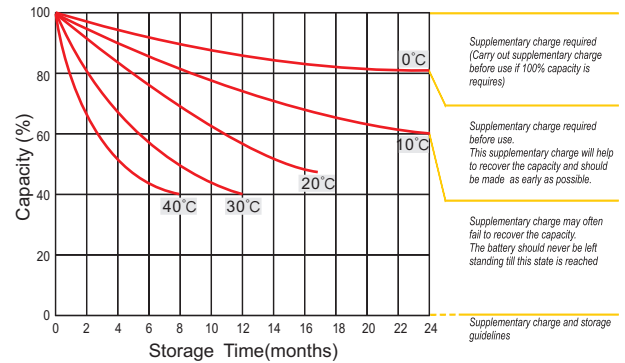
Relationship Between Charging Voltage And Temperature



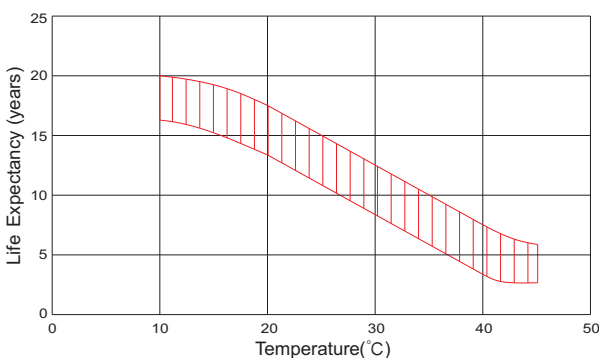
Relationship of OCV And State of Charge(20°C)



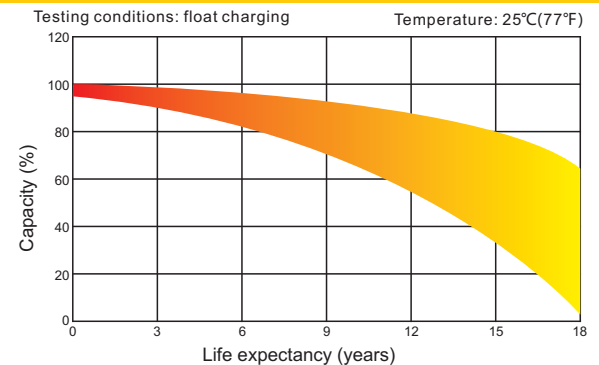
Storage Characteristics



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.