



VRLA Rechargeable Battery

WP1220P



High Temperature Battery

FEATURES

- Absorbent Glass Mat technology for efficient gas recombination
- Maintenance free(no water topping-up required)
- No free acid(Non-spillable battery)
- Can be used in any orientation(excluding used inverted)
- The battery is designed for high power & high cyclic usage
- Its design life is approx.300 cycles at 100% discharge in cycle service at 77°F/25°C
- Wide operating temperature range: -40°C ~ 85°C(-40°F ~ 185°F)
- High temperature operation, suitable for continuous operation at temperatures in excess of 35°C



APPLICATION

- Wind Turbine

SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity	20 Hour Rate (1.0A, 10.5V)	20.0 Ah
	5 Hour Rate (3.4A, 10.5V)	17.0 Ah
	30 Min Rate (25.0A, 7.80V)	12.5 Ah
Approx. Weight	6.87kg(15.15lbs.)	
Terminals	I2 (M6 Female thread)	
Max. Charge Current	6.0 A	
Operating Temperature Range	-20°C~50°C(-4°F~122°F)	
	-40°C~85°C(-40°F~185°F) with metal jacket	
Self Discharge	< 3% per month (25°C)	
Internal Resistance	≤ 9m Ω (Fully Charged)	

CONTAINER MATERIAL

- Standard: PPE(UL 94-V1)

Certificate as below:



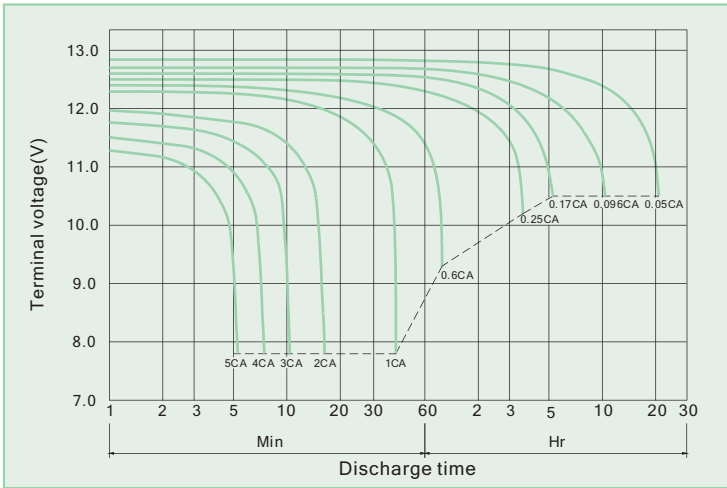
Compliance of the standards as below:

- IEC 61056-1
- JIS C 8702-1
- GB/T 19639.1

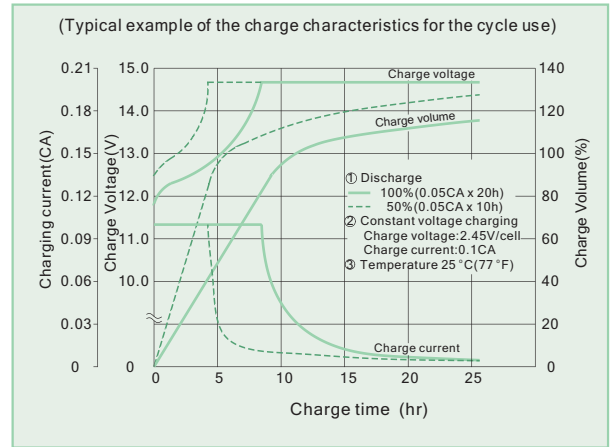


Measures Technology Values Innovation

WP1220P discharge characteristics (25°C/77°F)



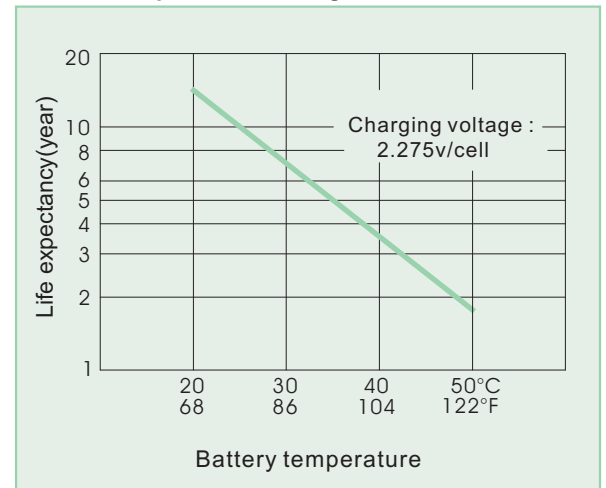
Battery charging Characteristics



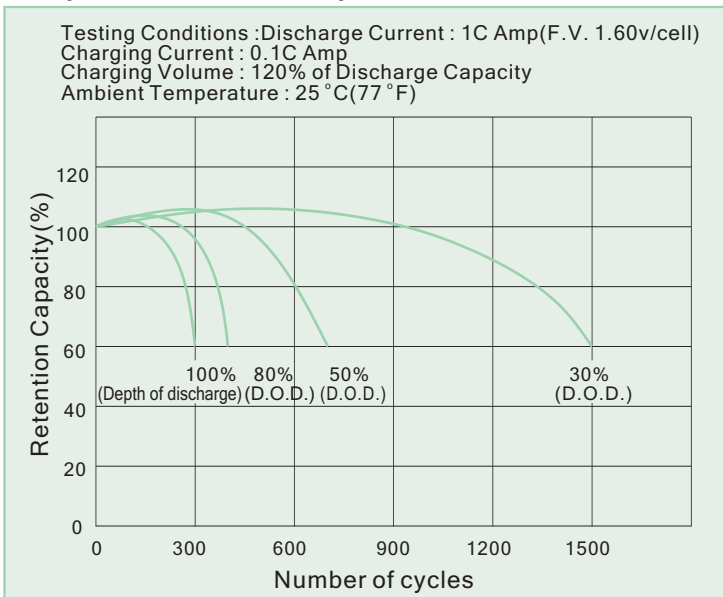
Charging Procedure

Application	Charging method	Charging Voltage at 25°C (V/cell)	Temperature compensation coefficient of charging voltage (mV/°C/cell)	Max. charging current (CA)	Charging time 0.1CA, 25°C (h)		Temp (°C)
					100% discharge	50% discharge	
For standby power Source	Constant voltage & Constant current charging (with current restriction)	2.25~2.30	-3	0.3	24	20	0~40 (32~104°F)
For cycle service		2.40~2.50	-4	0.3	16	10	

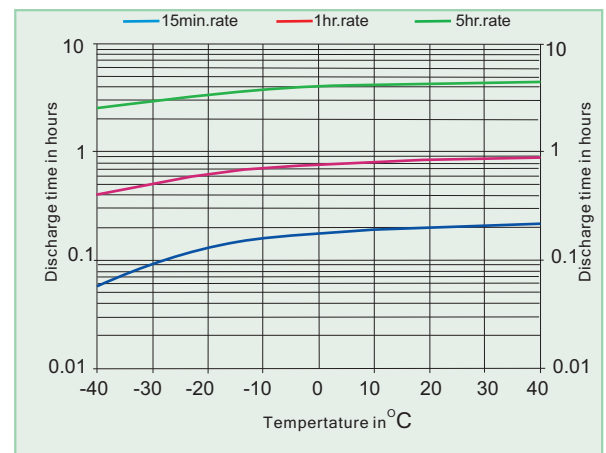
Effect Of Temperature On Long Term Float Life



Battery Life Characteristics of Cyclic Use



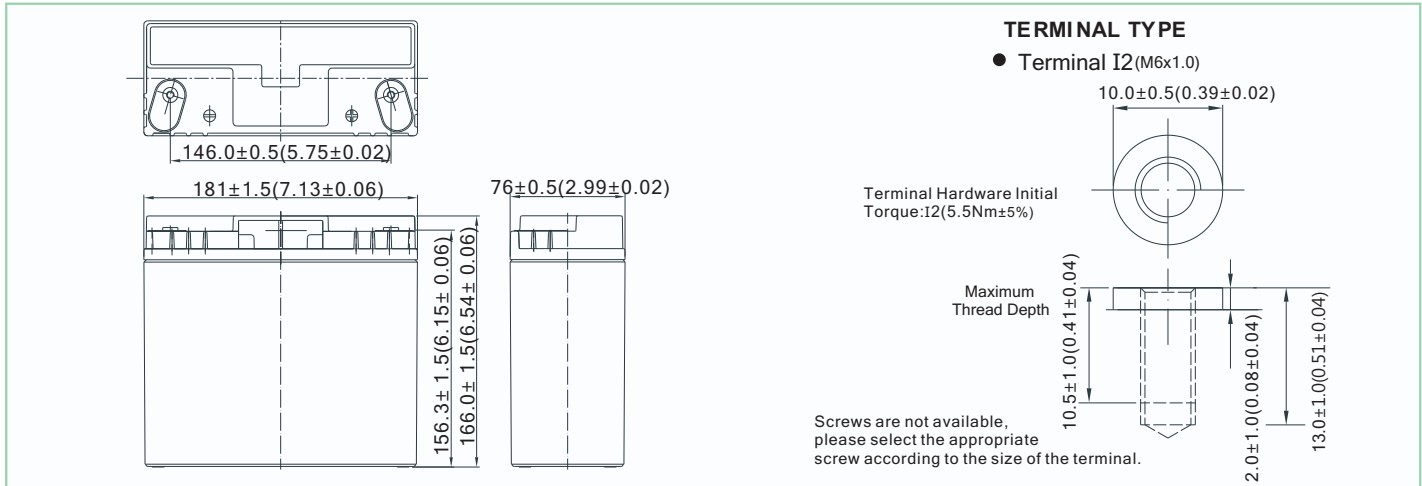
WP1220P Discharge performance under different temperature





OUTER DIMENSIONS mm(inch)

Length (L) $181 \pm 1.5 (7.13 \pm 0.06)$ Width (W) $76 \pm 0.5 (2.99 \pm 0.02)$ Container Height (H) $156.3 \pm 1.5 (6.15 \pm 0.06)$ Total Height (TH) $166 \pm 1.5 (6.54 \pm 0.06)$



Constant power discharge characteristics at 25 °C/77 °F Unit: W

F.V. (V/cell) \ Discharge Time	5 Min	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	859	609	438	275	157	63.6	40.2	22.4	11.7
1.75V	995	660	463	285	161	65.2	40.9	22.9	12.0
1.70V	1057	686	476	292	165	65.7	41.2	23.0	12.1
1.65V	1105	701	489	296	167	66.4	41.4	23.0	12.1
1.60V	1141	714	498	300	168	66.6	41.5	23.0	12.1

Constant current discharge characteristics at 25 °C/77 °F Unit: A

F.V. (V/cell) \ Discharge Time	5 Min	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	79.55	53.6	40.1	24.34	13.18	5.30	3.35	1.87	0.98
1.75V	93.83	58.0	42.0	25.26	13.56	5.44	3.41	1.91	1.00
1.70V	99.70	60.4	43.3	25.83	13.87	5.48	3.44	1.92	1.01
1.65V	104.20	61.7	44.3	26.23	14.02	5.53	3.45	1.92	1.01
1.60V	107.63	62.9	45.0	26.55	14.13	5.55	3.46	1.92	1.01

All data and artworks shall be changed without prior notice, BB reserves the right to explain and update the information contained hereinto.

For operation, please refer to the instruction from technical manual.

Trial A/0 REV. Jun. 2023

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