

Deep Cycle VRLA AGM Battery

WHTD6-460

WADKIN WHTD series deep cycle long life vrla amg battery uses a different chemistry additives in the positive plates and special AGM separators, WHTD series features 70% higher cyclic life with 12-15 years of float life when compared to the standard Duration range. This series is highly suited for very unreliable power applications requiring the batteries to provide extra cyclic life performance such as PV system applications, small RE systems and electric vehicles.

6V
Voltage

420Ah
Capacity

AGM
Technology

Deep
Cycle



COMPLIED STANDARDS

IEC 60896-21/22 JIS C8704
YD/T799 ISO9001
GB/T 19638 CE

GENERAL FEATURES

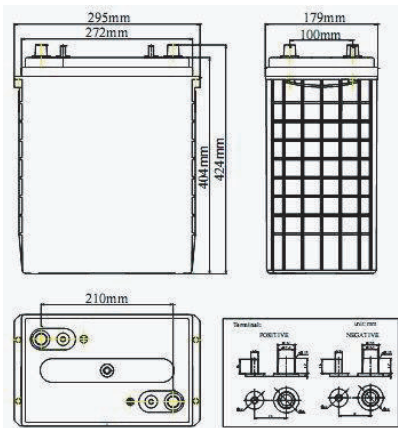
- Thicker plate with high Tin low Calcium alloy
- High Reliability and Good Quality
- Deep Discharge Recovery
- High Power Density
- Longer Service Life, in both Float or Cyclic

APPLICATIONS

- Solar Systems
- Wheel chair, Golf Cart
- Telecom systems
- Cable TV Systems
- Emergency Power System

DIMENSIONS & WEIGHT

Length(mm)	295 ± 1
Width(mm)	178 ± 1
Height(mm)	404 ± 1
Total Height(mm)	424 ± 1
Weight(kg)	56.8 ± 3%



TECHNICAL SPECIFICATIONS

Nominal Voltage		6V(3 cells per unit)
Design Floating Life @25°C		15 Years
Nominal Capacity @25°C 100 hour rate @ 4.6A, 5.4V		460Ah
Capacity @25°C	20 hour rate (20.75A, 5.4V)	415Ah
	10 hour rate (37.8A, 5.4V)	378Ah
	5 hour rate (68A, 5.1V)	340Ah
Internal Resistance	Full Charged Battery@25°C	≤1.6 mΩ
Ambient Temperature	Discharge	-15°C~45°C
	Charge	-15°C~45°C
	Storage	-15°C~45°C
Max. charge Current@25°C		125A
Capacity affected by Temperature (10 hour)	40°C	105%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge@25°C per Month		2%
Charge (Constant Voltage) @25°C	Standby Use	Initial Charging Current Less than 85A Voltage 6.8-6.9V
	Cycle Use	Initial Charging Current Less than 85A Voltage 7.2-7.45V

BATTERY DISCHARGE TABLE

Discharge Constant Current per Cell (Amperes at 25°C)

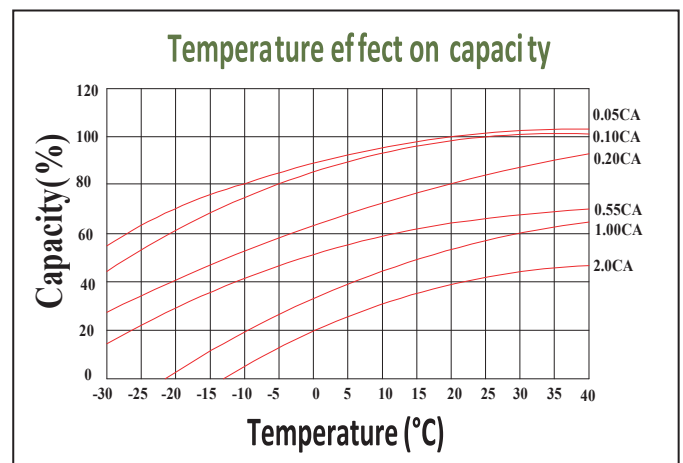
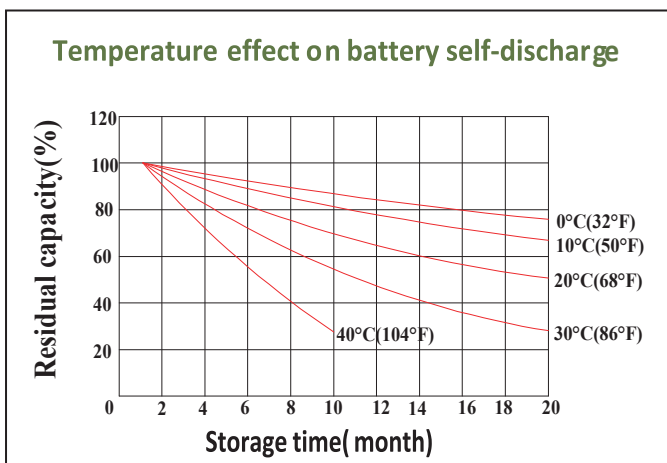
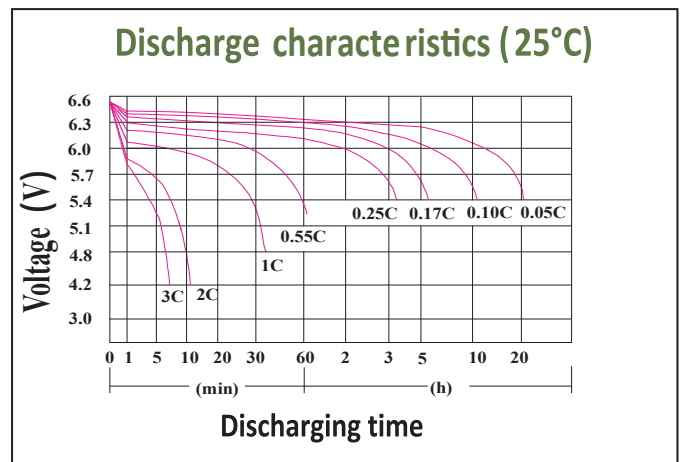
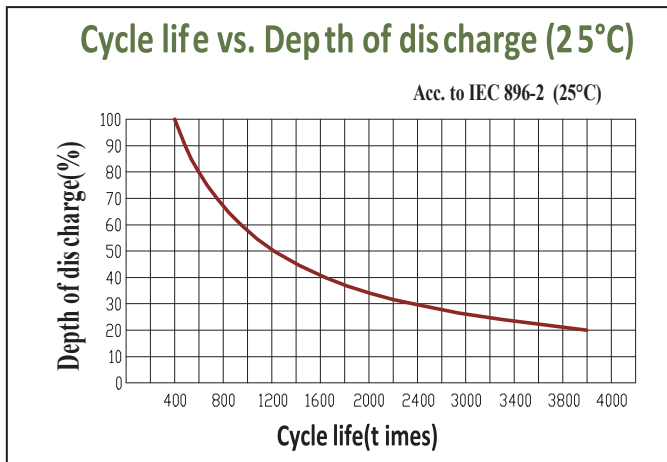
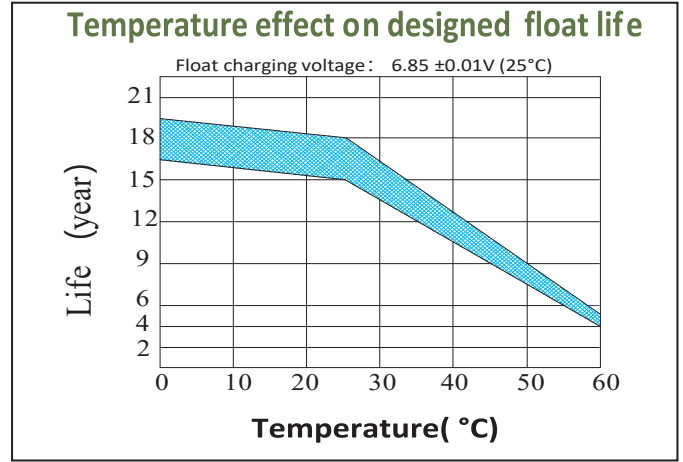
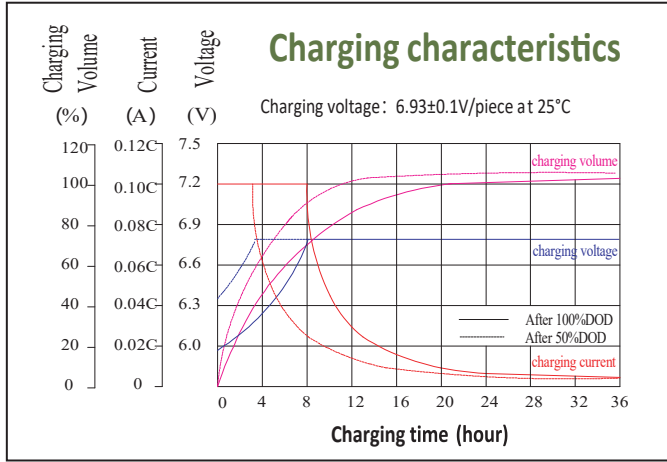
F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	540.5	344.2	254.1	233.3	148.1	104.0	70.7	46.7	41.6	22.6	5.03
1.65V	530.7	337.9	249.5	229.1	145.4	102.1	69.4	45.8	40.8	22.2	4.94
1.70V	520.9	331.7	244.9	224.8	142.7	100.2	68.1	45.0	40.1	21.8	4.85
1.75V	511.1	325.4	240.2	220.6	140.0	98.3	66.8	44.1	39.3	21.4	4.76
1.80V	491.4	312.9	231.0	212.1	134.6	94.5	64.3	42.4	37.8	21.0	4.66

Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	1040.5	662.6	489.1	449.1	285.0	200.1	136.1	89.8	80.0	43.7	9.69
1.65V	1021.6	650.5	480.2	441.0	279.9	196.5	133.6	88.2	78.6	42.9	9.51
1.70V	1002.7	638.5	471.4	432.8	274.7	192.8	131.1	86.6	77.1	42.0	9.33
1.75V	983.8	626.4	462.5	424.6	269.5	189.2	128.6	84.9	75.7	41.2	9.15
1.80V	945.9	602.3	444.7	408.3	259.1	181.9	123.7	81.7	72.8	40.4	8.97

Note: Remain Capacity @ 25A 885 MIN / Remain Capacity @ 75A 229 MIN

PERFORMANCE CHARACTERISTICS



BATTERY CONSTRUCTION

Component	Positive plate	Negative plate	Container & Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	Fire resistance ABS UL94-V0	Flame Si-Rubber and aging resister	Female Copper Insert DT (torque :10~11N.m)	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal