Batteries

Solar Tall Tubular

Technical Specifications:

Battery Model	Capacity to 10.5 V at 27°C (Ah)	Rating	Nominal Voltage (V)	Battery Weight (Kg) ±3%		Overall Dimensions (+/-3) mm			Warranty (Months)**	Application
				Without Acid	Gross Weight	L	W	H *		
VBST5000	40	C10	12	14	23	410	175	240	24+24	Solar
VBST9000	75	C10	12	24	36	500	220	255	24+24	Solar
VBST11000	100	C10	12	26	41	500	220	255	24+24	Solar
VBST15000	150	C10	12	35	60	505	190	410	36+24	Solar
VBST15600	150	C10	12	38	63	505	190	410	60+12	Solar
VBST20000	200	C10	12	41	66	505	190	410	36+12	Solar
VBST20600	200	C10	12	46	68	505	190	410	60+12	Solar
VBST26600	260	C10	12	55	78	505	190	410	60+12	Solar

*Height upto Terminal Top
**warranty applicable as plain+pro-rata

Inverter Tall Tubular

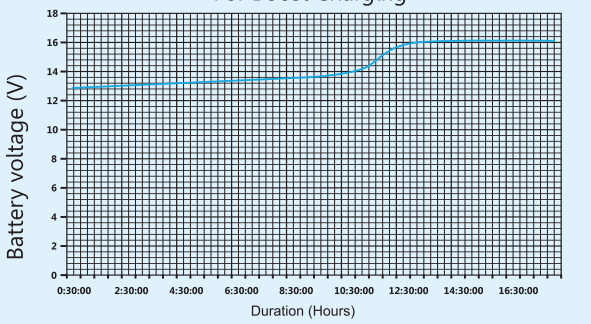
Technical Specifications:

Battery Model	Capacity to 10.5 V at 27°C (Ah)	Rating	Nominal Voltage (V)	Battery Weight (Kg) ±3%		Overall Dimensions (+/-3) mm			Warranty (Months)**	Application
				Without Acid	Gross Weight	L	W	H *		
VBJT13500	120	C20	12	28	46.5	500	220	280	24+24	Inverter & UPS
VBJT15500	130	C20	12	29	47.5	500	220	280	24+24	Inverter & UPS
VBJT16500	145	C20	12	29.5	51	500	275	285	24+24	Inverter & UPS
VBJT17500	155	C20	12	30	53	500	275	285	24+24	Inverter & UPS
VBIT17000	150	C20	12	31	55	505	190	405	36+24	Inverter & UPS
VBIT19000	170	C20	12	35	57	505	190	405	36+24	Inverter & UPS
VBIT21000	190	C20	12	38.5	61	505	190	405	36+24	Inverter & UPS
VBIT24000	220	C20	12	42	63	505	190	405	36+24	Inverter & UPS
VBIT27000	250	C20	12	42	68.3	505	190	405	36+24	Inverter & UPS
VBIT32000	300	C20	12	42	78	505	190	405	36+24	Inverter & UPS

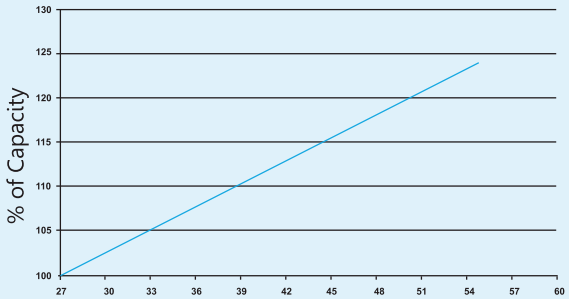
*Height upto Terminal Top
**warranty applicable as plain+pro-rata

Charge Characteristic graph

For Boost Charging

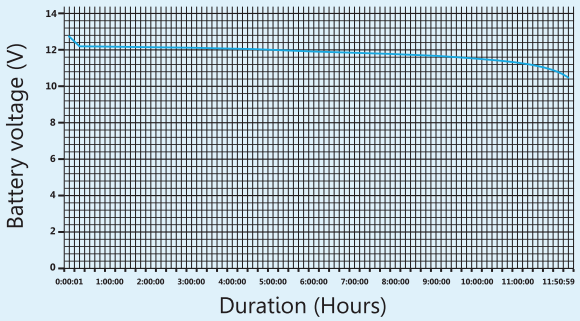


Temperature Vs Capacity



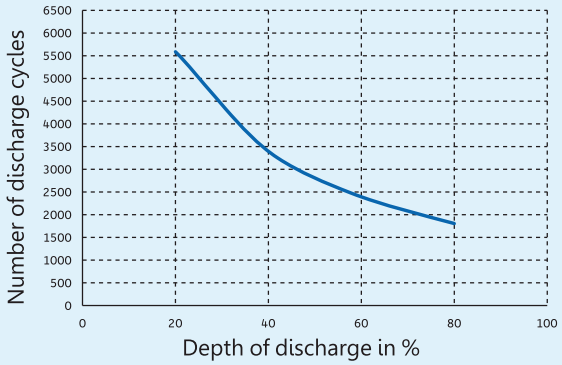
*Ambient Temp ≃ 30°C

Disharge Characteristic Graph



*Above both graphs for 150 AH, $\frac{C20}{C10}$ ± 2% (Due power losses)

Cycle life vs. DOD of Aspiro Serie



Discharge & Charge Scenario (80%DOD)

1) Cycle method: Discharge with $2I_{10}$ for 4 hours (80% DOD), charge with $2I_{10}$ for 3.5hour + I_{10} for 0.5hour + $0.25I_{10}$ for 3.5hour. This is one cycle.
2) Residue Capacity determination: The batteries are discharged at 10 hour rate after every 50 cycles to test battery capacity. When residue capacity of 10 hour rate capacity is lower than 80%, test is ended. After discharge at 10 hour rate after every 50cycles, the charge method is: charge 80% of discharged capacity with current of $2I_{10}$ + charge 20% with current of I_{10} + charge 20% with current of 0.41_{10} (i.e. charge 120% of discharged capacity)
3) Temperature: 27

   Advantage of Upper Constant Current Charge Model Battery;

   can be completely recharged within 8 hours.

   The end charge voltage will be higher than 2.6Vpc, which is good for active material exchange.

   Disadvantage of Upper Constant Current Charge Model

   It has risk of battery malfunction without voltage limited. It isn' easy to manage charging in practice.

Technical Parameters are Subject to Change due to Continuous improvements and R&D