



RENEWABLE ENERGY STORAGE
AND MANAGEMENT SYSTEMS

Tubular Lead Acid Gel Battery Data Sheet

Customer Requirement: 24 Volts – 240 Ah

HBL Configuration Offered: 24 Volts – 240 Ah @ C10 to 1.80 ECV at 25°C

S. No.	Parameter	24 V – 240 Ah Battery Details
1	Battery Type	Maintenance Free Tubular Gel VRLA Battery
2	Model Offered	2 TGI 240
3	Battery Rating	24 Volts – 240 Ah (12 Cells)
4	No. of Modules Required	2 Numbers (8 Cells per Module)
5	Module Dimensions & Weight	755±10 (L) x 386±10 (W) x 310±10 (H) mm ; 154±5% Kg
6	Overall Battery Dimensions	774±10 (L) x 430±10 (W) x 680±20 (H) mm
7	Applicable Standards	IEC 60896 – 21 & 22-2004, IEC 61427, DIN 43539 P5
8	Capacity	240 Ah @ 10 Hour to 1.8 ECV at 25°C
9	Ah Efficiency	Min 95%
10	Wh Efficiency	Min 85%
11	Self Discharge	< 2% per month at 25°C
12	Design Float Life	20 years at 25°C on float under recommended charging
13	Recommended Charging for Float Application	Constant potential with current limited to 0.4 C10 Amps (max.) Float charging: 2.250 ± 0.005V/Cell at 25°C Boost charging: 2.300 ± 0.005V/Cell at 25°C Equalizing charging: 2.35±0.005V/Cell at 25°C
	Recommended Charging for Cyclic Application	Constant potential with current limited to 0.4 C10 Amps (max.) Float charging: 2.270 ± 0.005V/Cell at 25°C Boost charging: 2.350 ± 0.005V/Cell at 25°C Equalizing charging: 2.37±0.005V/Cell at 25°C
14	Charge Controller Settings for SPV Application	On/Off Type: <ul style="list-style-type: none"> Over Voltage disconnect: 2.450±0.005 V/ Cell at 25°C Array Reconnection Voltage: 2.300±0.005 V/ Cell at 25°C Low Voltage disconnect: 1.850±0.005 V/ Cell at 25°C Load Reconnect Voltage: 2.080±0.005 V/ Cell at 25°C Pulse width modulation (CV Controller) Type: <ul style="list-style-type: none"> Regulation Voltage: 2.400±0.005 V/ Cell at 25°C Load Reconnection Voltage: 2.080±0.005 V/ Cell at 25°C Low Voltage disconnect: 1.850±0.005 V/ Cell at 25°C
15	Positive Plate	Tubular Plate with Lead Calcium Tin alloy with special additives and polyester gauntlet.
16	Negative Plate	Flat plate with Lead-Calcium alloy grid and long –life expander material
17	Separator	Micro porous synthetic separator
18	Electrolyte	Sulfuric acid, immobilized as Gel
19	Container & Lid Material	Polypropylene
20	Container to Lid Sealing Method	Heat Sealing Method
21	Safety Vent	Self resealing, Pressure Regulating Valve with Flame arrestor
22	Cell Enclosure or Housing	Steel enclosures with Acid Resistance Epoxy Powder Coating
23	Terminals & ICC's	Lead plated brass & copper with PP moulding
24	Nuts, Bolts and Washers for Inter Cell Connectors	Acid Resistant Stainless Steel
25	Module Mounting	CRCA Mounting Blocs with acid resistance powder coating
26	Termination	Bolted type
27	Ventilation	Natural ventilation is sufficient
28	Battery Shipment Condition	Filled and charged. Ready to use
29	Application	HBL TGEL Batteries are offered for voltage system with back-up duration greater than 1hr for continuous and non-continuous loads but with each individual load in a discharge profile that shall not be less than 1 hr.

Tremough Innovation Centre, Penryn, Falmouth, Cornwall TR10 9TA • Tel: 0845 524 0221 • Email: info@wattstor.com

www.wattstor.com

