

# **TUBULAR GEL**

VRLA BATTERIES
FOR
TELECOM APPLICATION



Exide Industries Limited, the largest manufacturer of Lead Acid Battery in India for over 60 years launches its latest series of Gel Tubular VRLA batteries ideally designed for On-Grid and Off-Grid Telecom BTS application. Exide Gel Tubular has the robustness & reliability of Tubular technology coupled with the comfort of VRLA. The performance of GTB batteries conforms to IEC 61427, IEC 60896 – 21/22 & TEC Spec No. TEC/GR/TX/BAT-003/02 MAR 2011.

### APPLICATIONS: TELECOMMUNICATION ● SOLAR ● HYBRID POWER STATIONS ● RAILWAY TRAFFIC SINGALING & LIGHTING ● UPS SYSTEM

UNIQUE FEATURES	USER BENEFITS
Positive Plate : Robust Torr Tubular Spine with Pb-Ca-Sn alloy	<ul> <li>Rugged and reliable for cyclic application ideal for frequent discharge- charge cycle</li> </ul>
Negative Plate : PbCa alloy grid	<ul> <li>Very low self discharge. No water topping up ever</li> </ul>
Separator : Resin based Micro-porous	<ul> <li>Low electrical resistance, high charging efficiency. Resistant to separator damage</li> </ul>
Electrolyte : Sulphuric acid immobilized in gell form made by mixing inert additives	<ul> <li>No acid stratification, low gassing due to internal gas recombination, good heat dissipation characteristics resulting longer cycle life</li> </ul>
Recharge Characteristic	Excellent energy saving feature and quick recharge
Container and Lid : Made of high grade polypropylene co-polymer material	<ul> <li>Low foot-print, cells are housed in stackable MS modules (8V)</li> </ul>
Valve : Flame arresting vent plug housing long life rubber safely valve	<ul> <li>Explosion proof, self resealing, pressure regulating and can be safely used in high ambient temperature zone</li> </ul>
Terminal : Bolt-on type with Lead-Tin coated Brass insert	<ul> <li>Specially designed to sustain high current discharge and mechanical ruggedness</li> </ul>
Connector : Insulated Lead coated solid copper connector	Good insulation, safety and reliability

## **48V SYSTEM WITH OVERALL DIMENSION**

Type of Battery	Nominal Voltage Per Cell (V)	Capacity @ 10hr / 1.75V (Ah)		Dimension op cover / D (mm) ± 10		Weight (kg) ± 5%
GTB 200	2	200	730	468	1410	620
GTB 300	2	300	730	517	1410	750
GTB 400	2	400	730	517	1410	825
GTB 500	2	500	730	517	1410	970
GTB 600	2	600	730	520	1685	1115

# **Commissioning Charge Of Battery:**

Before commissioning a new battery, follow procedure.

a) Boost Charge:

At a raised voltage of volts per bank. The charging time will be 12 to 24 hours depending on the initial charge condition. The current is required to be limited to 20% of the battery Ah capacity (0.2 C10).

Boost charging must be switched off or switched over to float charging as soon as the fully charged state is reached.

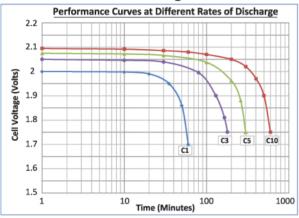
b) Float Charge:

With a voltage of 2.27 volt per cell. Full capacity will however be obtained after a long period of 4 to 6 weeks depending on state of charge.

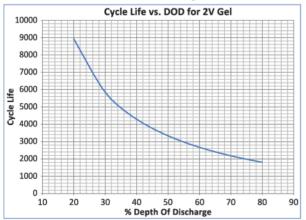
### **Recharging Characteristics During Operations:**

Parameter	Recommended Parameters at ambient temperature 25°C	Temperature Compensation Reference 25°C
Charging Current	Maximum - 20% of the battery Ah capacity	
Float Voltage	2.27 ± 0.02 V/cell	Float : (-) 3mV/°C/2V
Boost Voltage	2.40± 0.02 V/cell	Cyclic: (-) 5mV/°C/2V
Equalizing Voltage	2.30 ± 0.02 V/cell	
Low Voltage Disconnect	1.85 ± 0.02 V/cell	

# Performance Curves at Different Rates of Discharge



# DOD Vs No. of Cycle



E-mail : indlcare@exide.co.in, Visit us at www.exide4u.com Toll Free No. 1800-103-5454

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Head Office : Exide House, 59E, Chowringhee Road, Kolkata-700 020, Ph.: (033) 2283 2120/33/36/50/51/71/2238, Fax : (033) 2283 2632/37, Corporate Marketing Office: 6A Hatibagan Road, Entally, Kolkata - 700 014. Ph.: (033) 2284 3137, 2286 1860, 2286 6158/59, Fax : (033) 2289 7455, Factory : Central Service : Ph.: (033) 2580 0113, Fax : (033) 2581 3930, Ahmedabad : (079) 6510 8206, Bangalore : (080) 4081 0808, Baroda : (0265) 235 4240, Chandigarh : (0172) 5000 014, Chennai : (044) 2250 1326/2250 0726, Coimbatore : (0422) 2221646, Delhi : (011) 2362 7095/96/97/98, Guwahati : (0361) 2342 500/234, Hyderabad : (040) 5363 6833, Indore : (0731) 654 2293, Jamshedpur : (0657) 2290 784/222, Kochi : (0484) 4149351, 4149352, Kolkata : (033) 2284 3137/3169, Lucknow : (0522) 404 1896/1899, Mumbai : (022) 2646 5283/84/5041, Nagpur : (0712) 253 9972, 253 9973, Pune : (020) 3230 4043.