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**RailGEL**

PRODUCT RANGE

**AUSTRALIAN DESIGNED  
TO SURVIVE VIBRATION IN CRITICAL ROLLING STOCK  
AND TRACKSIDE APPLICATIONS**



**batteryenergy**  
power solutions for tomorrow's world

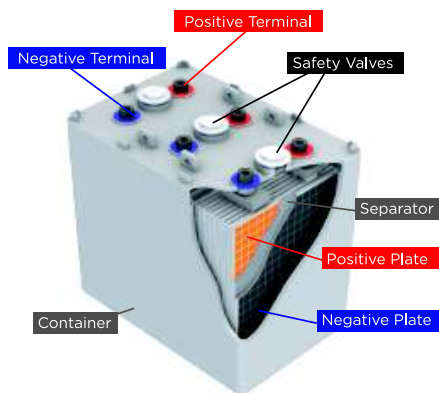
## ADVANCED ULTRAGEL | THICK PLATE ADVANCED CARBON TECHNOLOGY ROBUST | TEMPERATURE TOLERANT | LONG SERVICE LIFE

### FOR ROLLING STOCK AND TRACKSIDE APPLICATIONS

Battery Energy has been supplying proven and reliable battery storage systems on and off grid for 30 years.

Battery Energy's Thick Plate Advanced Carbon Technology is industry leading and will continue to be installed in high temperature and cycling applications with Australia's most innovative companies. When developing our technology in conjunction with the CSIRO there was a strong focus on delivering a product with superior cycling and life expectancies.

The result is a product with unique chemical and molecular characteristics which, along with advanced production methods differentiate it from other GEL batteries in the marketplace. These superior life characteristics apply to both the battery's cycling performance and its ability to combat varying extreme environmental conditions. For the highest level of reliability Battery Energy has the capability to design and customise products to meet increasing demands in the supply of Energy Storage for Solar, Communications, Rail, Oil & Gas, Power Generation & Transmission, UPS and Mining.



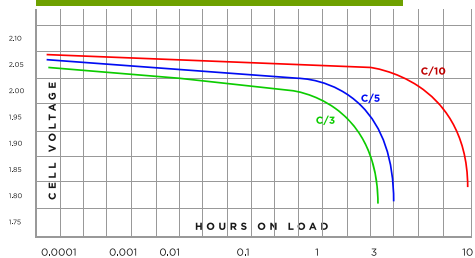
### BENEFITS

- Developed by Battery Energy with the collaboration of CSIRO
- Extensive R&D for high performance, reliability & long life
- Comply with regulations of non-toxic smoke for underground applications
- Long life and continued reliable performance
- Ideal solution for rolling stock and trackside applications

### KEY FEATURES

- Superior life under varying rigors of rolling stock & trackside application
- Lock-bonded construction to minimize the effects of vibration
- High performance, long life active material, carbons and robust thick plate technology
- Excellent high rate discharge
- Hi-tech gel formulation to prevent electrolyte 'dryout'
- Excellent recovery from deep discharge
- 100% cell testing prior to dispatch to ensure batteries are fully charged & prepared for reliable performance
- Built to last through superior design, high-quality materials and pride of workmanship

### TYPICAL DISCHARGE CURVE



### TECH SPECS

DESIGN LIFE	20 YEARS* (*for float operation at 25°C)		
PLATE SEPARATOR	MICRO POROUS PVC WITH FIBERGLASS		
SAFETY VENT	SELF-RESEALING 150 mbar		
SELF-DISCHARGE	2.5% PER MONTH		
FLOAT VOLTAGE	2.25-2.275 VOLTS per CELL		
BOOST CHARGE	2.40-2.45 VOLTS per CELL (these are optimal values, rail systems can vary from this)		
EQUALIZATION CHARGE	2.40-2.50 VOLTS per CELL (these are optimal values, rail systems can vary from this)		
SEALS	O-RING SEAL WITH LONG-LIFE ADHESIVE		
TERMINALS	M8 FEMALE INSERT		
CASING	Flame-retardant UL94V-0 & BS6334 FVO		
COMPLIANCE	AS 4029.2, AS 4086.1, IEC 60896 21&22, IEC 896.2		

Established in 1987, Battery Energy commenced as a specialist Battery Development & Manufacturing Company. From the outset the objective was to develop a maintenance free GEL and AGM battery technology which would substantially increase battery life in harsh climatic conditions.

Over the years Battery Energy's technology has been significantly enhanced through ongoing development and improved proprietary manufacturing techniques. We offer and design a complete range of industrial batteries, with the technical expertise and flexibility to adapt existing products to suit a wide range of client needs focusing on optimizing clients investments while delivering a world class solution.

Battery Energy is an award winning market leader in energy storage and is the only industrial battery manufacturer in Australia.

With an integrated manufacturing and support facility in Sydney and accompanied by increased capacity through its dual manufacturing capability in the South of China.

### BATTERY SPECIFICATION

MODEL	NOMINAL VOLTAGE	C/5 to 1.70Vpc	C/10 to 1.80Vpc	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	WEIGHT (kg)
4RG55	4	55.5	70.0	109	184	265	11.5
4RG85	4	83.0	98	109	184	265	15.5
6RG150	6	138.5	166	276	184	265	38.0
2RG180	2	166	196	109	184	265	15.0
4RG275PD	4	248.5	286	276	184	265	36.0
2RG330	2	304.5	360	197	184	265	26.5
2RG500	2	494.5	584	276	184	265	40.0

\*C/5 at 30°C fully formed