

# Railroad Battery Solutions.



**Veloris.**  
The Battery Partner.

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## Introduction

Veloris provides battery systems and solutions for a variety of railway vehicles to the modern rail industry.

These include diesel starting batteries and carriage lighting batteries that meet the safety and reliability standards required by contemporary railways.

Our lead acid batteries start, and power trains and rapid rail systems are specially designed to have a longer life than standard batteries as well as requiring reduced maintenance due to low antimony alloys.

Like cars, locomotives need a battery to start the engine as well as to provide electrical power for lighting and controls when the engine is off, and power is not being generated by the alternator. Diesel trains use our heavy-duty industrial batteries both for starting and for operating a range of equipment on board.



## Rolls Railroad & Diesel Starter Series

Designed to meet and exceed the performance requirements of the Railroad Industry, Rolls heavy-duty models deliver heavy-duty plate construction, 180+ day liquid reserves and superior cycle life in durable high-temperature retardant & moisture-tight cases. Each modular 2-volt cell is securely bolted and fully protected in the high temperature-retardant and moisture-tight outer container.

*Rolls*

### Features:

- Non-breakable dual-container construction
- Modular, bolted 2 volt cells
- Environmentally friendly; moisture-tight outer cover
- Load and capacity tested prior to shipping
- Computer-controlled formation
- 5 year warranty

SERIES	MODEL	8 HR RATE	20 HR RATE	CCA @ -17°C	CCA @ 0°C	DIMENSIONS L x W x H (mm)	WEIGHT (kg)
ROLLS BATTERY 4000 SERIES: 4 VOLT							
4000	4 CH 23P	472	605	1893	2367	365 x 210 x 464	58.0kg
ROLLS BATTERY 4000 SERIES: 6 VOLT							
4000	6 HHG 31P	296	344	1337	1671	527 x 203 x 302	56.5kg
ROLLS BATTERY 5000 SERIES: 8 VOLT							
5000	8 NS 33P	586	681	2268	2835	718 x 286 x 464	159.5kg
5000	8 CH 33P	694	890	2754	3443	718 x 286 x 464	187.5kg
ROLLS BATTERY 5000 SERIES: 32 VOLT							
5000	32 CH 33PR	788	916	2648	3310	1092 x 699 x 514	729.5kg
5000	32 CH 35PR	837	973	2814	3518	1092 x 699 x 514	758.5kg

All capacities based on specific gravities of 1.280. Reduce capacity 5% for 1.256 specific gravity and 10% for 1.250 specific gravity.



8 CH 33P



6 HHG 31P

### OPTIONAL CELL CONNECTION

If a cell replacement is necessary, Rolls Railroad & Diesel Starter models offer a quick solution. As an option, individual modular 2 volt cells can be bolted together, allowing straight-forward replacement or assembly to be done on location.





# Sonnenschein RAIL

Sonnenschein batteries are the reference when it comes to valve-regulated lead acid batteries. The Dryfit® Gel technology offers a superior reliability and durability, particularly for harsh environments (elevated temperatures, frequent discharges, vibrations), making it the perfect fit for railway rolling stock applications.



### Features:

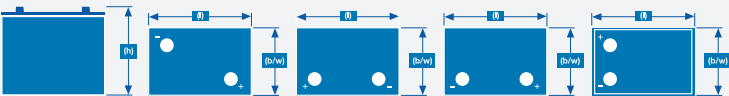
- Dryfit® Gel – VRLA technology
- Outstanding standby and cycling behaviour – Long life
- Proof against deep discharge – greater long-term energy delivery
- Excellent energy storage capacity – high reliability
- Completely recyclable – low CO<sub>2</sub> footprint
- Improved fire performance according to EN45545 HL3\*\*\*
- Shock & vibration tests according to IEC 61373 standard on complete integrated systems have been performed with Sonnenschein RAIL reference types
- Different installation positions or combinations possible
- Maintenance-free (no topping up) during the whole service life
- Very low gassing thanks to the internal gas recombination



Type*** flame retardant acc. to UL94-V0	Part number	Nominal voltage V	Nominal capacity (30°C, 170 Vpc Ah / C5)	DIMENSIONS L x W x H (mm)	Weight **** approx. kg	Terminal	Terminal position
SR 6V 240 A	NGRC060240VS0CA	6	240	312 x 182 x 359	47.0	A	1
SR 12V 61 A	NGRL120061VS0CA	12	61	353 x 175 x 190	23.0	A	3
SR 12V 105 A	NGRC120105VS0CA	12	105	345 x 172 x 283	36.0	A	3
SR 12V 105 F10	NGRC120105VS0FA	12	105	345 x 172 x 289	38.0	F-M10	3
SR 12V 175 A	NGRP120175VS0CA	12	175	518 x 274 x 238	63.5	A	4

\* add. 24 mm for connector and screw    \*\* Nominal capacity at 30 °C / C    / 175 V / cell    \*\*\* EN45545 HL3 and UL94-HB version available on request    \*\*\*\* Actual weight may differ by ±5%

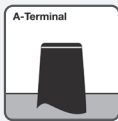
### Terminal position, terminal and torque



Not to scale!



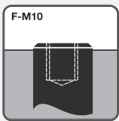
6 Nm



8 Nm



8 Nm



17 Nm

## Powering the modern railway

DMS Technologies are the UK's foremost authority on Cyclon batteries and have worked with Network Rail companies to develop and supply batteries and systems for both rail infrastructure and on-board applications, including Rail Signalling & Power systems. DMS technologies is the only UK company approved to supply Energys Cyclon Battery Packs to the rail market. Using a modular approach DMS Technologies have Network Rail approval for point end switching, level crossing and general signalling batteries and battery/charger systems.



### SMALL POINT END SWITCHING – UP TO 6 ENDS

Red Flash battery capable of operating up to 6 ends simultaneously. Comprising 57 x 5Ah Cyclon Cells mounted in a steel easy to install tray.



### LARGE POINT END SWITCHING – UP TO 11 ENDS

For up to 11 ends simultaneous operation, 25Ah Cyclon battery mounted in 5 convenient steel modules.



### LEVEL CROSSING

Level Crossing Battery or Battery & Charger Kit. 150Ah 24V battery comprises 6 x 24V modules connected in parallel to achieve the total capacity. Each module contains 12 x 2V cells in a steel case with a clear Perspex lid.



### RED FLASH™ SIGNALLING BATTERIES

12V Signalling Batteries : 8Ah, 25Ah and 50Ah Based on the low maintenance Lead Acid Cyclon battery.

## COMMERCIAL ENGINE START

Manufactured in the UK and designed specifically for the professional user, the Red Flash™ Portable Power Pack range is suitable for starting most 12V and 24V engines – automotive, marine and rail.

### Benefits:

- Designed for professional use in applications requiring reliable engine start performance
- On/Off isolator switch
- Fully insulated, heavy-duty clamps
- LED indication for charging and capacity
- Robust polyethene case
- Surge and spike protection
- Reverse polarity protection



## What we offer



### Complete Solutions

- On-Board and infrastructure applications
- Modernisation of existing battery systems
- Projects supported and undertaken
- Peace of mind durability, strength and reliability



### Why Work With Us

- UK Warehousing | Fast, reliable nationwide delivery
- Technical Support Team | Sizing, configuration & troubleshooting
- Partnering with leading battery manufacturers | Advise on correct battery technologies and brands depending on your needs
- Rapid, reliable service | Avoids downtime
- Full product approvals and compliance in place across the rail industry



### Leading Brands We Supply

- Sonnenschien – Compact Maintenance Free Battery Systems
- Rolls – Modular, bolted 2 volt cells
- Red Flash – Batteries & Chargers



### Who We Serve

- Rail networks
- Rolling stock
- Rail Infrastructure
- Auxiliary Power
- Signalling