

Only quality matters.

12V Batteries  
48V Batteries

English

RIM DRIVE TECHNOLOGY



# Unique Batteries

There are good reasons to select a lithium battery for your application, but there are many reasons to select a **Rim Drive Technology** battery over other batteries.

A rim drive battery has a **high energy density** for a longer battery running time in relation to the battery size, this in combination with high discharge capacity will provide you a long sailing time.

Each battery is produced in a way that these are **powerful** and **reliable**.

***“Simplicity is the ultimate sophistication”***

Our **lightweight** batteries use the latest technology for incredible weight savings. Due to the **minimal dimensions**, the battery can be used for many applications.

The smart design is making it easy for you to use the battery. In addition, our batteries are **maintenance-free**, so no service attention is required.

To provide the best customer experience, our products work **efficiently** with all our rim drive products.

# Datasheet

## Battery characteristics

Product name	48V 60Ah	48V 100Ah	48V 200Ah
Article code	300002631	300002632	300002633
Nominal voltage	51.2	51.2V	51.2
Nominal capacity	60 Ah	100 Ah	200 Ah

## Battery dimensions

Product name	48V 60Ah	48V 100Ah	48V 200Ah
Weight	30 kg	50 kg	75 kg
Dimensions (LxWxH)	34x33x26 cm	51x35x26 cm	60x42x24 cm
Terminals	2x plus / 2x minus	2x plus / 2x minus	2x plus / 2x minus
Terminal size	M10	M10	M10
Impedance	<300 mΩ	<300 mΩ	<300 mΩ

## Battery specifications

Product name	48V 60Ah	48V 100Ah	48V 200Ah
Max. continues charge current	30 A	50 A	100A
Max. continues discharge current	120 A	125 A	200 A
Maximum charge voltage	58.4 V	58.4 V	58.4 V
Discharge cut-off voltage	35.2 V	35.2 V	35.2 V
Handles	Yes	Yes	Yes

## Battery temperatures - general

Environment	Details	Minimum	Maximum
Operating temperature	Charge	0°C	45°C
	Discharge	-20°C	65°C
Storage temperature	1 month	-20°C	60°C
	3 months	-20°C	45°C
	12 months	-20°C	20°C

Discharge temperature	-20°C	-10°C	0°C	23°C	60°C
Discharge capacity	50%	60%	80%	100%	95%

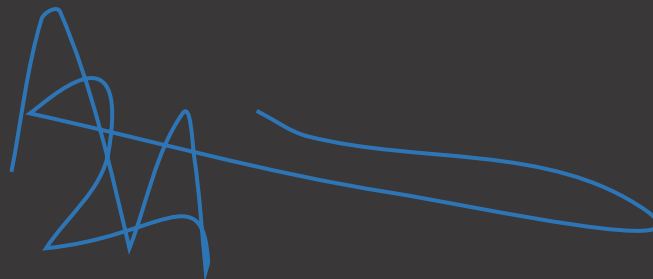
## RIM DRIVE TECHNOLOGY

Our mission is to **convince customers**. Convince them that our motors work for many hours with minimal service intervals and the highest user experience. If we succeed with this mission, we will advance on our vision of a better eco-friendly future.

*“Provide customers with **electric solutions with multiple advantages compared to combustion engines**”*

The high durability, combined with no maintenance costs and affordable pricing makes these batteries a perfect candidate for those who wish to be powered electric. There are multiple technical advantages of our batteries that make a Rim Drive Technology battery a pleasure to use.

With our new generation of LiFePO<sub>4</sub> batteries, we aim to make the use of batteries both easy and affordable.



# Specifications Battery Management System (BMS)

Each battery has an integrated Battery Management System (BMS). A BMS is the electronic system that manages a rechargeable battery such as by protecting the battery from operating outside its safe operating area, monitoring its state, calculating secondary data, reporting that data, controlling its environment, authenticating it and balancing it.

Specifications	Details	48V 60Ah	48V 100Ah	48V 200Ah
Over charge protection	Detection voltage [V]	3.7	3.7	3.7
	Detection delay time [ms]	200	200	200
	Release voltage [V]	3.5	3.5	3.5
Over discharge protection	Detection voltage [V]	2.3±0.1	2.3±0.1	2.3±0.1
	Release voltage [V]	2.7±0.1	2.7±0.1	2.7±0.1
Over current protection	Detection current [A]	300	360	600
	Detection delay time [ms]	150	150	150
	Release condition	Cut short circuit	Cut short circuit	Cut short circuit
Short protection	Protection condition	Exterior short circuit	Exterior short circuit	Exterior short circuit
	Release condition	Close short circuit	Close short circuit	Close short circuit

Specifications	Details	48V 60Ah	48V 100Ah	48V 200Ah
Over current protection (charging)	Charging current normal range [A]	10-30	20-50	20-50
	Protection condition [A]	>30	>50	>200
	Release condition	Disconnect charger	Disconnect charger	Disconnect charger
Overheat protection	Protection condition [°C]	75	75	75
	Release condition [°C]	65	65	65
Inside resistance	Main loop electrify resistor	$V_{gs} = 10V; R_{DS} \leq 60m\Omega$	$V_{gs} = 10V; R_{DS} \leq 60m\Omega$	$V_{gs} = 10V; R_{DS} \leq 60m\Omega$
Consumption	Consumption normal operation [μA]	≤80	≤80	≤80

**RIM DRIVE TECHNOLOGY**

**Uncompromised  
Electric Motors**

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