



ESP

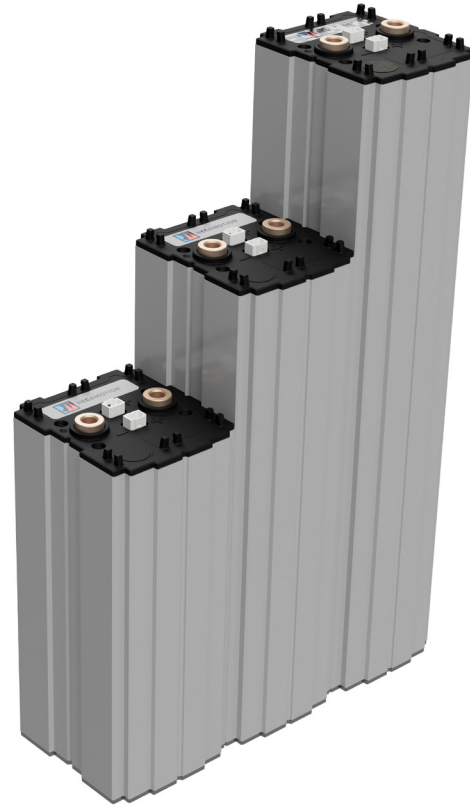
Energy Storage Platform

Our energy storage platform provides high performance in combination with low weight and compact size. The battery modules are based on proven technology with Samsung Lithium NCA cells that are modular in steps of 3.7V for application specific packaging.

The 3.7 V modules are individually packaged in shock and vibration proof IP65 housings before being assembled to full battery packs. This makes them an ideal choice for energy storage in all types of mobile machinery.

Energy management with CAN bus integration allows the battery to interact with energy consumers and producers such as motors and generators in a safe and efficient way.

A minimum of 3000 charge-discharge cycles before the batteries reach 80% of its original capacity means that the energy storage can outlive many machines, with zero maintenance.



- **Lithium NCA technology.**
- **IP65 minimum**
- **Designed for mobile machinery applications**
- **Ideal for 48V-80V systems**
- **Modular design**
- **CAN bus integration**
- **Redundant logic for safe operation (PLD)**

More than just a battery

The intelligent battery management continuously monitors a vast amount of parameters to make sure the system is always operating in an optimal way.



Data is stored onboard and can be extracted in different ways for analysis of performance of the individual machine or of entire fleets.

EXAMPLE APPLICATION

This is an example of an energy storage solution using fifteen RB105 modules in series. Due to their modular design the modules can be arranged in different ways, 1 row of 15, or two rows of 8 and 7, and so on. In this example shows the modules arranged in a 4x4 square with one open position where the contactor is placed.

Battery Solution

System Voltage	54,8 V
Stored Energy	4,6 kWh
Maximum Power	16 kW
Measurements	350 x 400 x 220 mm
Weight	38 kg

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SPECIFICATIONS

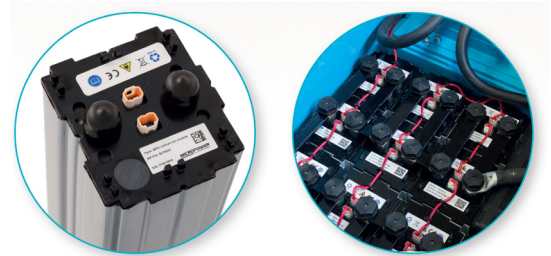
Specifications valid for individual module without additional encapsulation or protection.

Parameter	Value
Nominal Voltage	3,7 V
Footprint	87 mm x 99 mm
Operating Temperature	-25°C to 60°C
Charging Temperature	0°C to 55°C
Transport Temperature	-35°C to 65°C
Vibration	5-500 Hz, 2g RMS
Shock	30g, 6ms
Ingression protection	IP65
Relative humidity	IEC60068-2-30 Test DB 98%
Marking	IEC 62620
Transport regulation	UN38.3/AD
Life cycles (to 80% capacity)	> 3000 charge/discharge cycles

MODULES

The battery modules are available in three sizes that can be combined in series for higher power and voltage or in parallel when longer operating time is required.

	RB 105	RB 150	RB 210
Height	220 mm	298 mm	395 mm
Weight	2,53 kg	3,45 kg	4,74 kg
Capacity (Ah)	102,6 Ah	148,2 Ah	205,2 Ah
Capacity (Wh)	304 Wh	438 Wh	607 Wh
Nom. discharge current	102 A	148 A	205 A
Max. discharge (10s)	300 A	400 A	450 A
Nom. charge current	100 A	148 A	205 A



"48V" BATTERY PACK EXAMPLES (BASED ON MODULE TYPE)

