



EV-GP
RESS IQ
62 kWh
105 2P 100Ah
energy storage

EV-GP
RESS IQ 2A
123/1 kWh
165 2P 100Ah
energy storage

EV-GP
RESS IQ 2A
123/2 kWh
165 2P 100Ah
energy storage

EV-GP
RESS IQ
77 kWh
240 2P 100Ah
energy storage

EV-GP
RESS IQ 2A
154/1 kWh
110 2P 100Ah
energy storage

EV-GP
RESS IQ 2A
154/2 kWh
120 2P 100Ah
energy storage



RESS battery storage

Battery storage system for energy and industry

2023

EV-GP

Electric Vehicle - Green Power

EV-GP RESS battery storage

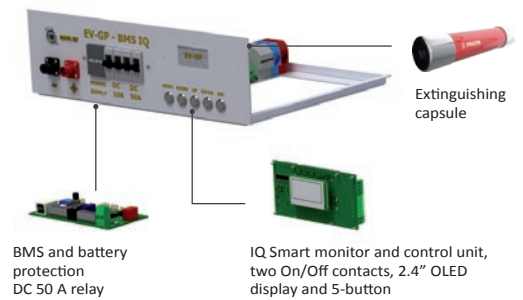
Battery storage system for energy and industry

EV-GP RESS is a modular battery storage solution with advanced LiFePo4 battery technology. Its expected operating life is more than 15 years if properly maintained and its operating parameters are followed. It provides storage for electricity and backup power, in accordance with electricity market standards and prices. The device contains a BMS with individual battery cell management, balancing and security. Communication with a converter or higher control system is performed via an RS-485 and CAN-bus.

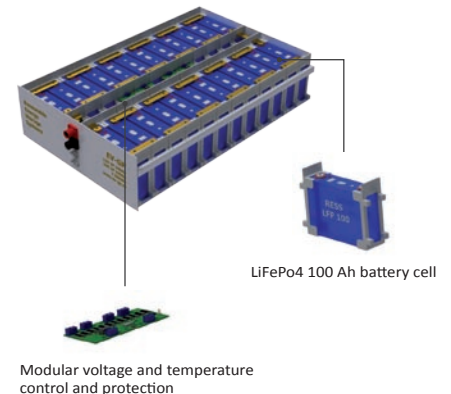


Components

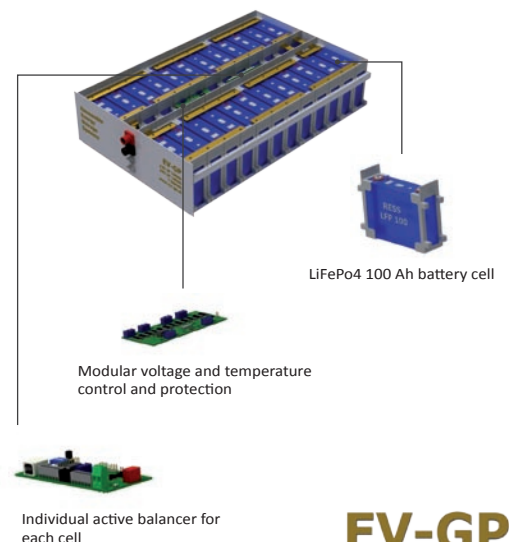
1 BMS and IQ module



2 Battery module 24S 1P – 7.58 kWh



2 Battery module 12S 2P – 7.58 kWh



Features

- Energy battery storage system with metering and individual cooling for each individual LiFePo4 battery cell
- Active 2 A cell balancing
- Communications standard RS-485/ CAN-bus
- Two On/Off contacts
- Current and battery cycle monitor in real time
- High output power and a wide range of stored energy use
- Modular concept: optimal capacity set-up, simple module expansion
- Display screen
- Long operating life of over 15 years
- High battery safety, also suitable for interior use
- Simple installation

Optional

- HVAC module with a heat pump
- IP 65 protection

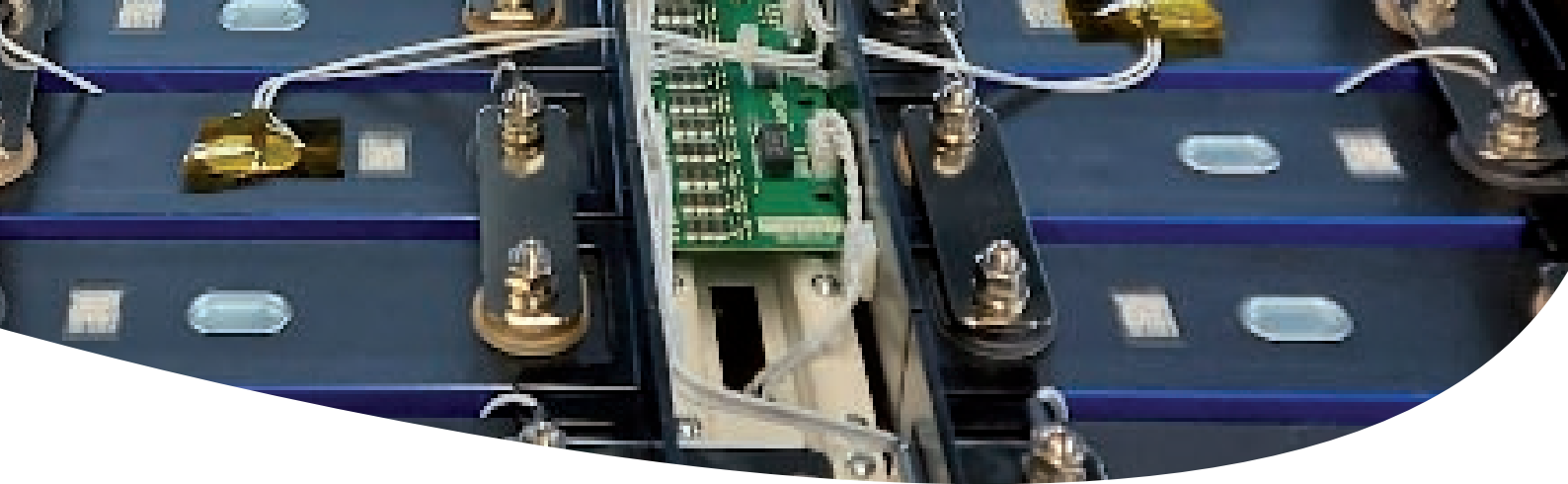
Technical parameters

EV-GP RESS – LiFePo4 battery energy storages	Basic packs			
	RESS 62	RESS 123	RESS 77	RESS 154
Battery system capacity	61.4 kWh	122.9 kWh	76.8 kWh	153.6 kWh
Battery system voltage at 3.2 V	614 V		768 V	
Battery cell capacity	100 Ah	200 Ah	100 Ah	200 Ah
Battery system connection	192S 1P	192S 2P	240S 1P	240S 2P
Maximum battery system voltage at 3.65 V	701 V		876 V	
Minimum battery system voltage at 3.0 V	576 V		720 V	
Maximum charging / discharging current	70 A (0.7C)	140 A (0.7C)	70 A (0.7C)	140 A (0.7C)
Recommended charging / discharging current	35 A (0.35C)	70 A (0.35C)	35 A (0.35C)	70 A (0.35C)
Effectiveness	96 %			
Depth of discharge – DOD	80 % (10 – 90 %)			
Number of cycles at 25 °C and DOD 80 %	6000 cycles			
Operating life 1 cycle per day	15+ years			
Number of modules	1 x 8 + BMS	2 x 8 + BMS	1 x 10 + BMS	2 x 10 + BMS
Module capacity	7.58 kWh			
Module voltage – nominal at 3.2 V	76.8 V	38.4 V	76.8 V	38.4 V
Module composition	24S 1P	12S 2P	24S 1P	12S 2P
Module voltage range	min. 72 V, max. 87.6 V	min. 36 V, max. 43.8 V	min. 72 V, max. 87.6 V	min. 36 V, max. 43.8 V
LiFePo4 battery cell	3.2 V/ 100 Ah	3.2 V/ 2 x 100 Ah	3.2 V/ 100 Ah	3.2 V/ 2 x 100 Ah
IQ BMS with protection and OLED screen	yes			
BMS IQ + connection module	yes			
Independent active balancing of battery cells	no	yes	no	yes
Balancing current of each cell	passive 60 mA	active 2 A	passive 60 mA	active 2 A
Communication	RS485 / CAN			
Recommended inverter, charger/discharger – 3 x 400 V/ 50 Hz	10 – 30 kW	20 – 70 kW	50 kW	50 – 100 kW
Safety disconnection module	2 x 100 A DC	2 x 200 A DC	2 x 100 A DC	2 x 200 A DC
Integrated individual automatic extinguishing device	yes			
HVAC connection module – cooling / heating – HP	as accessory			
Dimensions W x D x H (mm)	550 x 750 x 1500	1100 x 750 x 1500	550 x 750 x 1800	1100 x 750 x 1800
Cooling module dimensions W x D x H (mm)	two parts (top part/ intake and base/ inlet): 550 x 750 x 100			
Net weight	480 kg	960 kg	600 kg	1200 kg
Gross weight	510 kg	1020 kg	630 kg	1260 kg
Operating temperature	10°C to 40 °C			
Storage temperature	-20 °C to 60 °C			
Guarantee	5 years + 5 years for components/ number of cycles			

RESS packs can be assembled using individual battery modules up to 1000 V DC, depending on the power requirements for the AC/DC converter voltage ranges.

The RESS 62 and RESS 123 packs work together with hybrid converters SOFAR Solar, GOODWE, ThinkPower and others.

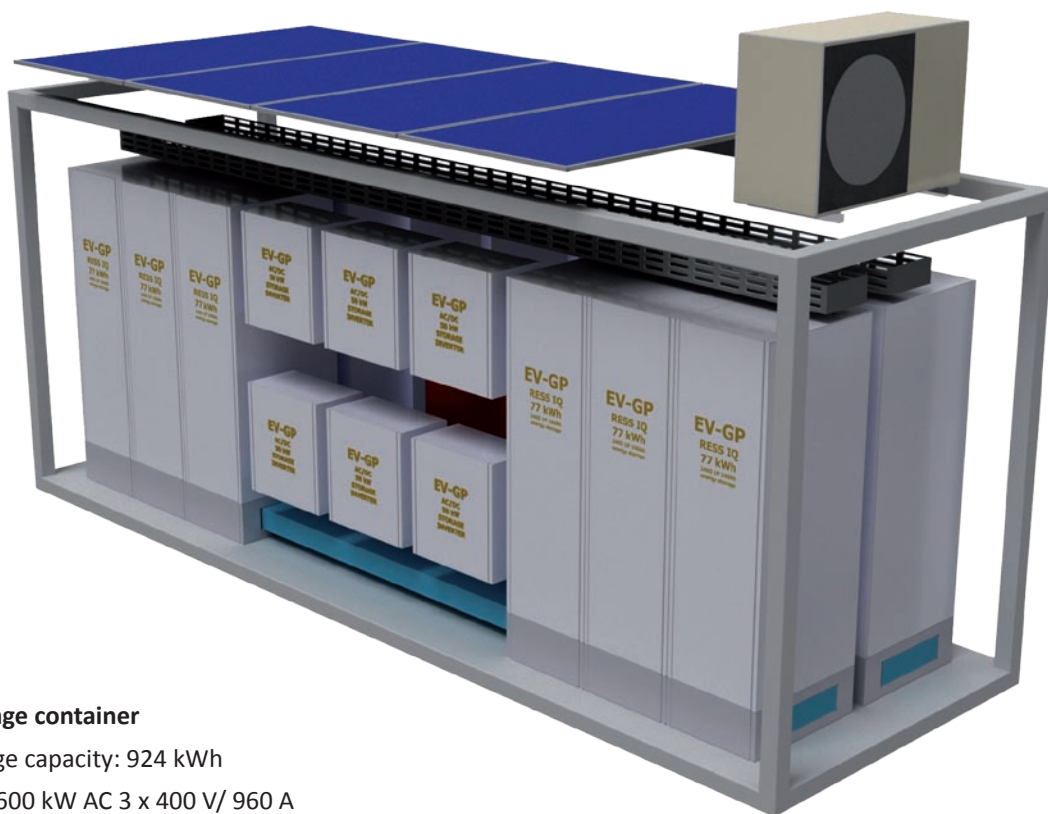
The RESS 77 and RESS 154 packs work together with converters VONSCH, KACO-NEW ENERGY, REFU and others.



EV-GP RESS battery packs

Project solutions for battery energy storage systems

Battery storage can be assembled to provide power of up to several tens of MW/ MWh in individual blocks. They are connected to the AC side of the inverters. The kW/ kWh ratio depends on the technical requirements, operating life of the batteries, number of charge and discharge cycles, interior or exterior placement, and other parameters.



20" battery storage container

- Battery storage capacity: 924 kWh
- Total power: 600 kW AC 3 x 400 V/ 960 A
- Heating and cooling of the entire system via heat pump
- Fire safety with an innovative integrated automatic fire alarm system
- Energy supplied from its own solar power source

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