

Product Information



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sun|powerpack premium

Li-Ion (LiFePO prismatic cells)

- Applications:
 - Main focus: Storage of PV energy (residential and small commercial)
 - Further: Industrial applications (standby and cycle use)
- Capacity:
5.0 or 7.5kWh per unit
- Capacity extension:
by parallel switching of up to four single units resulting in max. 30kWh (requires one “Parallel Switching Kit”)
- Nominal Voltage: 51.2V
- Dimensions: 600 x 500x 350mm (H x W x D)
- Weight: 85kg (5kWh) / 100kg (7.5kWh)



**Market Launch
begin of July 2015**

sun|powerpack premium Li-Ion (LiFePO prismatic cells)

Release Schedule:

- **Begin of July 2015:**
 - 5.0 / 48 system (without parallel switching option)
 - Integration with SMA Sunny Island inverters single-phase for on- and off-grid applications¹⁾
 - CE – conformity for European Union²⁾

- **Begin of September 2015:**
 - 7.5 / 48 variant
 - Parallel switching option
Max. 4 storage systems with one additional accessory box (“Parallel Switching Kit”)
 - Possible usage in SMA Sunny Island 3-phase systems.
 - Finalized VDE certificate



1) Note: For usage of SMA SI 8.0 in off-grid applications HOPPECKE recommends usage of min. 7.5kWh or higher storage capacity.

2) Note: Possible deviating requirements for markets beyond EU need to be investigated separately.

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Li-Ion (LiFePO prismatic cells)

Delivery times:

After ramp up phase in July 2015 ca. 3 weeks after order.

Material numbers:

System:

System Type	Material-No
5.0 / 48	6001302980
7.5 / 48	6001302981

Possible parallel switching variants: 2 x 5kWh / 2 x 7.5kWh / 3 x 5kWh / 3 x 7.5 kWh / 4 x 5 kWh / 4 x 7.5 kWh

Note: For each system with parallel switched single battery systems one additional parallel switching kit is required.

Kit for parallel switching (DC distribution box):

System Type	Material-No
Parallel Switching Kit	6611302980



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Li-Ion based energy storage system

Advantages:

- Ideal for cycling application in partial state of charge
- High safety standards (VDE certified)
- Expandable capacities
- Virtually Maintenance-free
- Compact and rugged design
- Easy installation
- Space saving through wall mounting
- Energy saving BMS ensures excellent system efficiency
- Universal usage possible by integration of CAN interface
- Integrated display unit for system status information
- Bluetooth interface on board (ready for integration of mobile devices in the future).
- **High Quality – Made in Germany**



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Li-Ion based energy storage system

Advantages:

- Flexible regarding inverter (Retrofit able)¹⁾
- Usable in one- or three-phase system
- Usable in DC- and AC-coupled systems¹⁾.
- Smart DC connector allows disconnection from inverter even under load.



1) Market launch contains integration with SMA Sunny Island, further inverters to be defined according to market needs.

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Technical Data	
Nominal voltage	3.2V / cell (resp. 51.2V)
Endurance	Max. 7000 cycles at depth of discharge up to 80%
Operating temperature	+5°C to +45°C Note: Restrictions for "Zeitwertersatzgarantie": 10°C to 30°C Average temperature p.a. <=23°C
Efficiency	98% (Wh-efficiency per cell at 0.5C charge/discharge)
Humidity	85% (non-condensing)
Protection class	IP21
Dimensions	600 x 500x 350mm (H x W x D) (one housing) Refer also to table on next page.
Weight	Refer to table on next page
Ventilation	No ventilation required
Safety Distance	No ventilation required
Standards	DIN EN 50272-2, EN 62109-2, DIN EN 62620:2011-05, IEC 61010-1, EN 61427-2, EN 61508, VDE-AR-N 4105, UN38.3

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Feature	Advantage	Benefit
Compact Housing	Prepared for wall mounting with mounting frame	Easy installation
Handling units for installation	Separate handling of cell stacks and housing (heaviest handling unit ca. 40Kg)	Easy installation
DC-plug connection	Touch protected DC connection (even if disconnected under load)	Safe installation and operation
	Cables can be run above, below or to right / left side the storage system.	More installation options.
Design	Maintenance free (no active cell cooling nor ventilation)	Easy installation and operation (Plug and store)
Expandable	Combination of max four storage cabinets possible	Flexible enhancement of storage
Universal	CAN-interface allows communication with various inverters	Flexible usage in AC- and DC-coupled systems

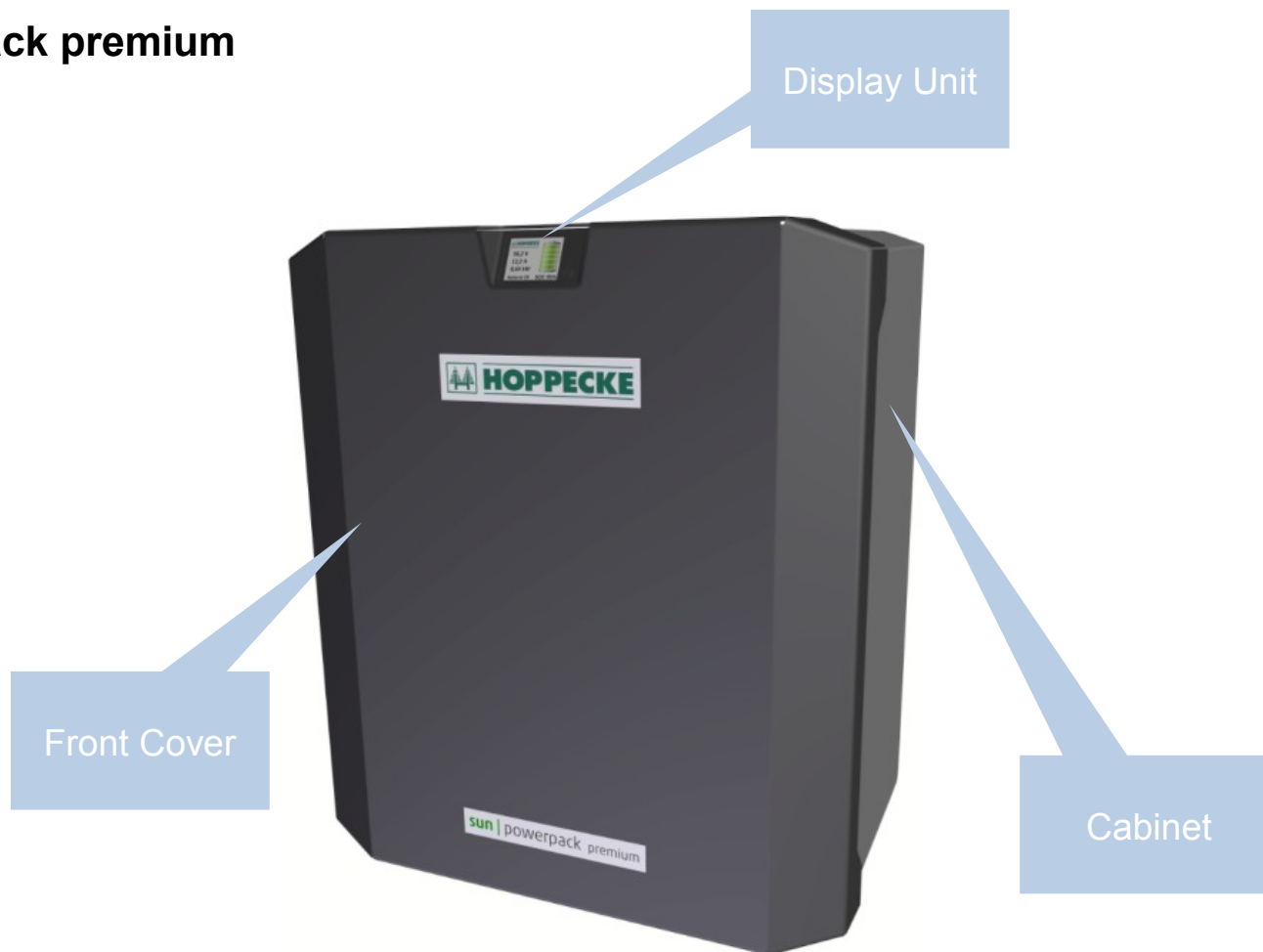
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Feature	Advantage	Benefit
Low self discharge	Improved efficiency Cell efficiency ca. 98% (charge/discharge operation with 0,5C) -> Combined efficiency incl. BMS ca. 94%. Some competitors on "lead-acid" – level with ca. 80% (!)	Energy saving Ca. 23% more charging energy for Li-Ion batteries needed.
Made in Germany	High Quality	Long service life of battery system
VDE test certificate	Highest safety due to multistage safety concept.	Safe operation throughout the entire lifetime of the battery system.
No ventilation of battery room required.	Particularly important for low energy or passive energy households.	No heat energy loss due to ventilation.
Display unit	Status of battery system can be determined independent of inverter.	Easier service.
Biggest European manufacturer for industrial batteries	Decades of experience with different battery chemistries in industrial applications.	Outstanding Know-How and excellent service with HOPPECKE service division.

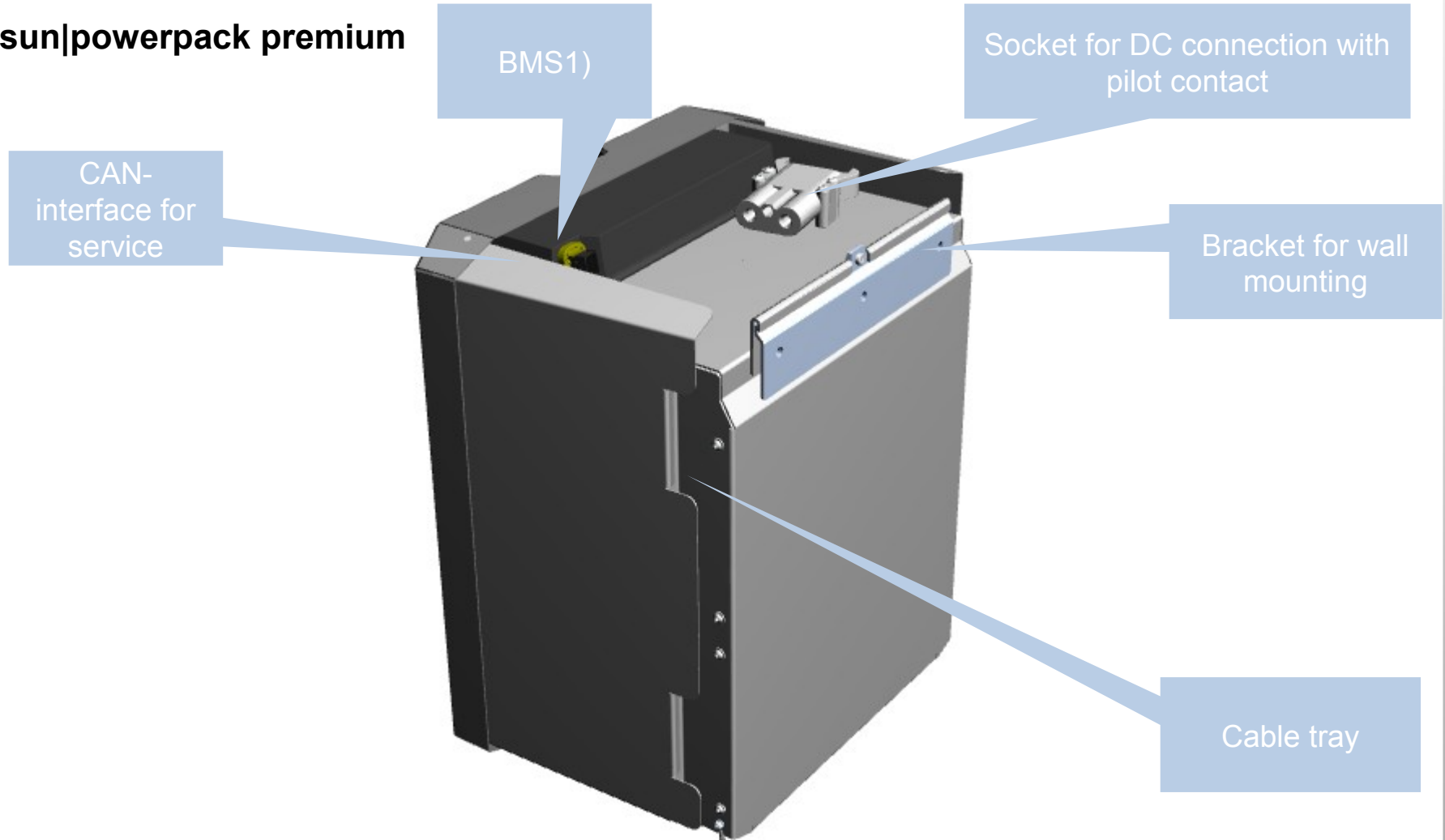
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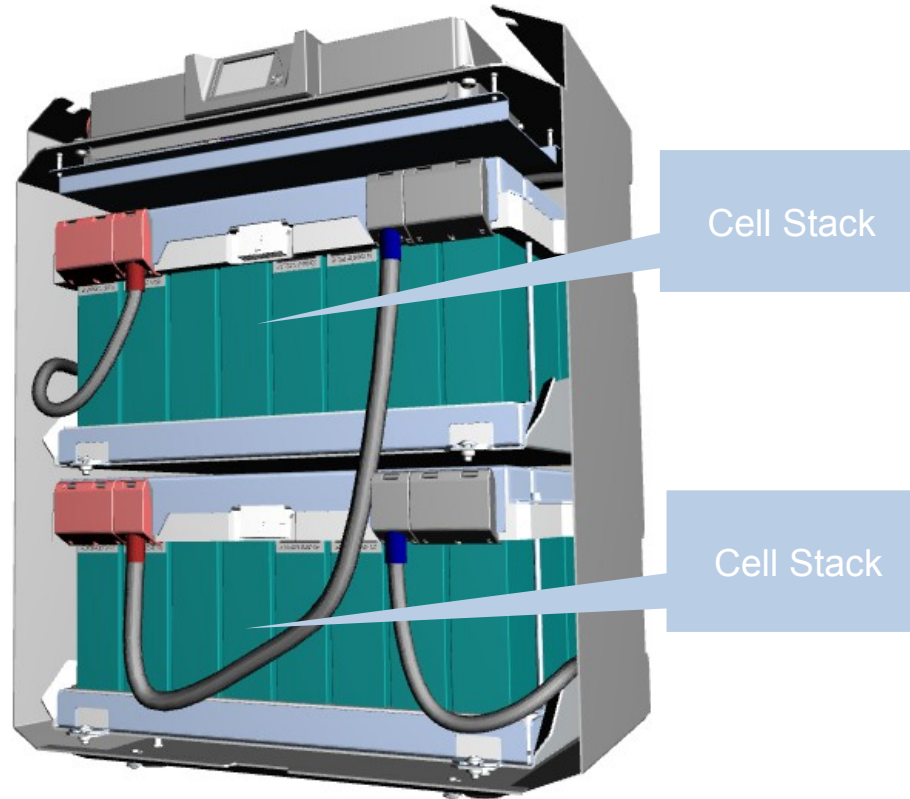
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1) Battery Management System

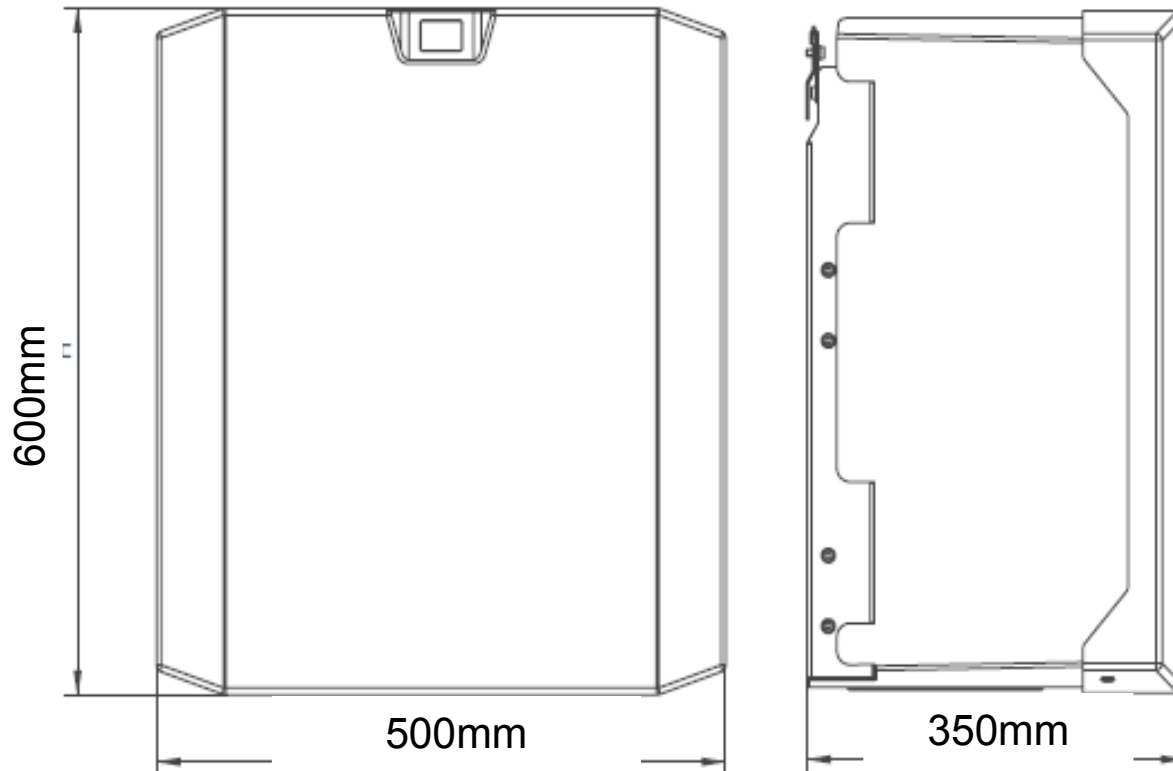
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Li-Ion based energy storage system

Transport:

- Every cabinet unit is equipped with two cell stacks. The cell stacks will be tested according to UN38.3 and can therefore be transported separately.
- Transport by installer to installation site possible.

Installation:

- Cabinet is prepared for wall mounting. Metal mounting bracket eases installation.
- Alternatively system can be placed on floor ground (on special floor bracket)¹⁾.
- Cabinet installation without cell stacks.
- Cell stacks are simply inserted into cabinet.

1) Will be available after market launch



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Li-Ion based energy storage system

Installation:

- Front cover will be connected with cabinet via screws.
- DC plug on top of battery cabinet connects battery plus and minus as well as CAN communication with corresponding interface in inverter system.

Operation:

- No ventilation required (Battery cells are gas tight under normal operation conditions).
- Safe and economic battery operation through integrated BMS with enhanced safety features.
- Display and Bluetooth interface for integration of mobile devices¹⁾.

1) Will be available later after market launch



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Li-Ion based energy storage system

Service:

- Service requires practically only regular visual checks.
- Battery cell stacks can be exchanged separately if necessary.

Recycling:

- At end of life battery cells will be thermally disposed by HOPPECKE partner company.



1) Will be available later after market launch



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