HOME ENERGY STATION

Home Battery System **HES**

AERS
ADVANCED ENERGY STORAGE

Home Battery System HES

ALL IN ONE | 3 PHASE | 10 kW | ASYMETRICAL LOAD | 2 × MPPT | OFF-GRID REGIME

SPECIFICATIONS

The New Concept is that solar electricity, thanks to the installed batteries, creates a firm energy source. HES allows smooth operation in network or island (off-grid) mode. The device is designed to allow uneven loading of individual phases in a 3-phase system.

Second-life Li-Ion batteries from automotive 13.68 kWh up to 41 kWh.

Battery Management System (BMS).

Power output is 10 kVA, 3× 230 V / 400 V / 50 Hz, balances asymmetrical load between 3 phases.

Inverter works in bi-directional (4Q) regime. Is capable of consuming and supplying power simultaneously.

Two MPPT inputs, each with up to 6 kWp, nominal voltage 300–600 V.

Capable of grid and off-grid (island) operation.

Peak management.

Intelligent monitoring and control system.

Cost competitive yet technologically superior solution owing to the New Concept and intelligent control system.

Stand-alone system with dimensions of 600×600×1920 mm.

Modular.

VYVINUTO VYROBENO V ČESKÉ REPUBLICE

TÜV SÜD

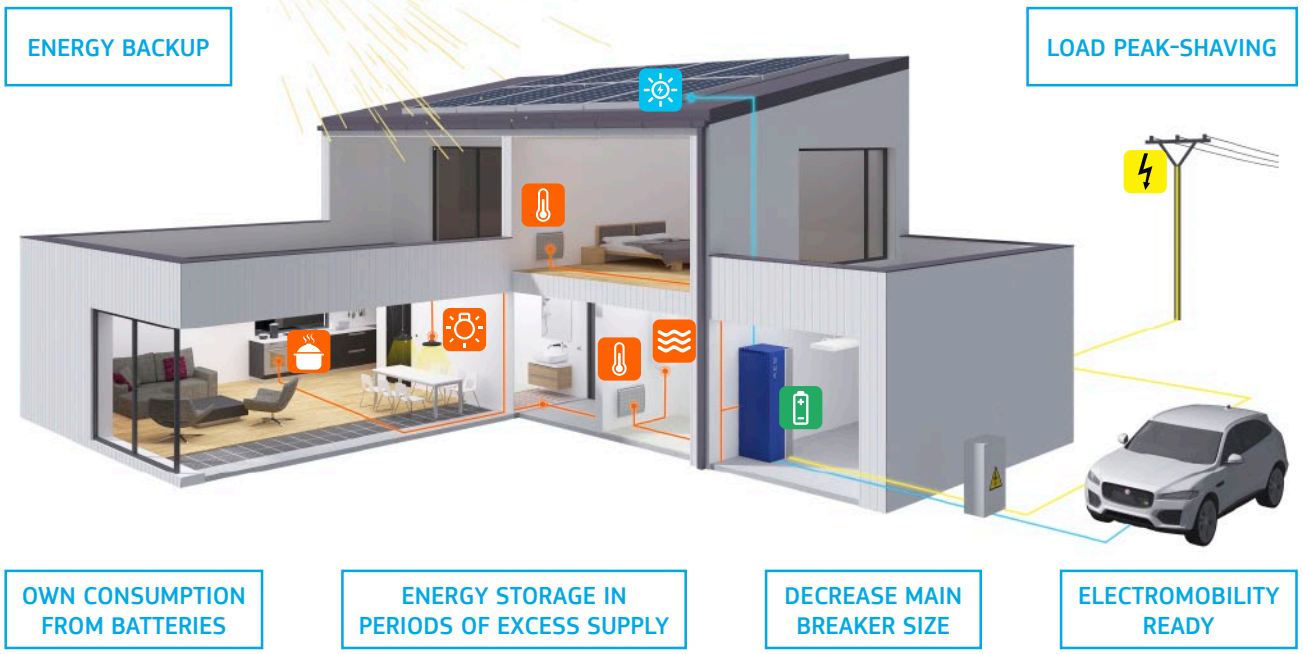
SECOND-LIFE AUTOMOTIVE LI-ION

Home Battery System is designed for targeted use and energy storage

- Balancing of asymmetrical load
- Uninterrupted Power Supply (UPS)
- Off-grid Regime
- Reduction of CO_2 emissions

Economic Benefits

- Reduce main breaker size; Optional energy storage in hot water and heating
- Take advantage of off-peak power pricing
- Maximize your energy self-sufficiency
- Power peak-shaving in your home
- Receive Demand-side Management signal from utility
- Balance asymmetrical load
- Reduce power bills
- Electric Vehicle ready
- Circular economy using batteries from electric cars



Intelligence is the key

HES storage station is a smart, grid-independent, energy storage solution for your home. Using an integrated control system with adaptive logic, energy flow can be controlled and optimized, maximizing the energy self-sufficiency of your home while storing energy produced by solar panels.

A solar plant delivers electricity right where it is needed. It can charge the batteries and at the same time cover the consumption of the home.

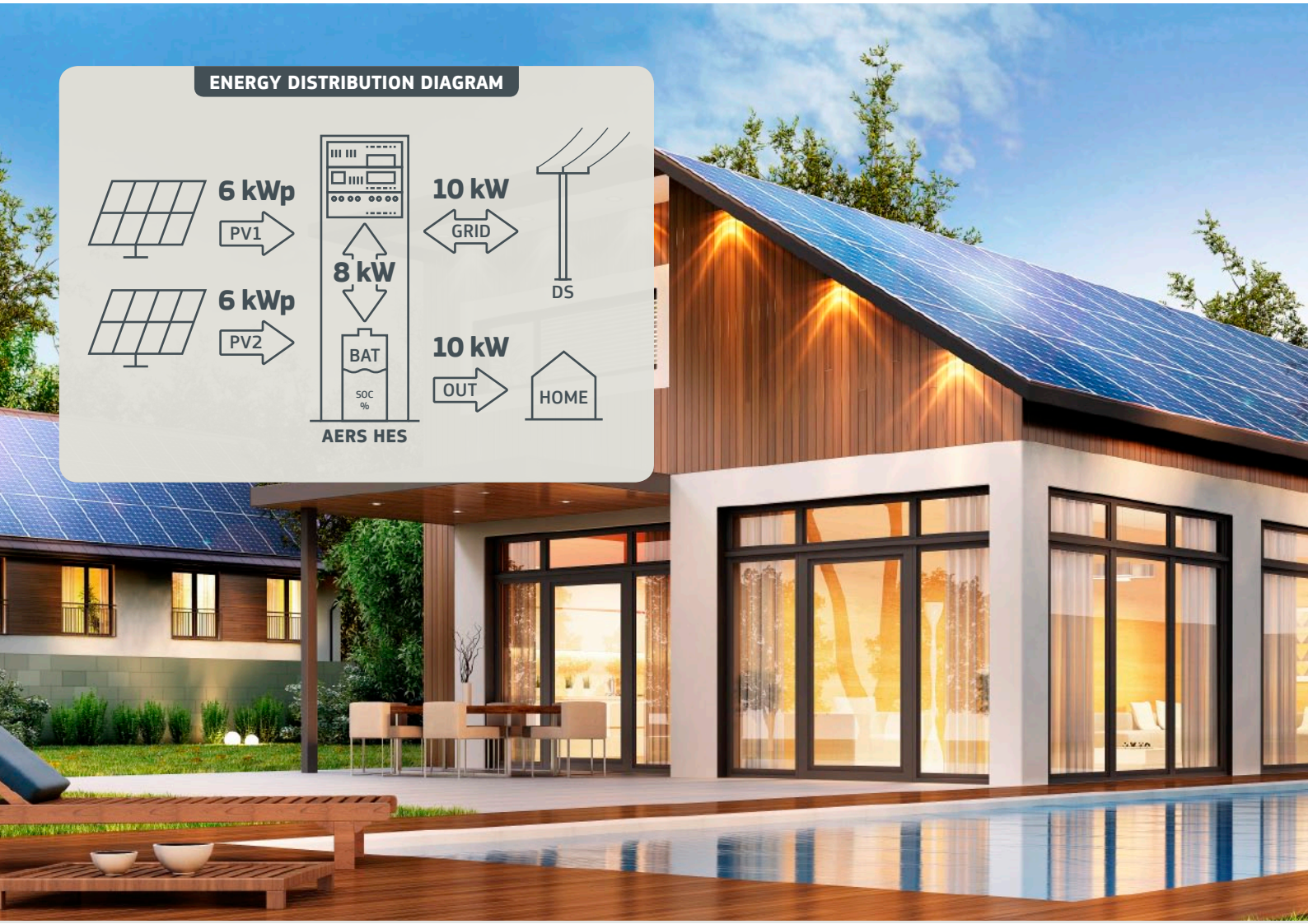
Excess generated electricity can be returned directly to the grid (if the contract with your distributor allows for it).

Conversely, the lack of energy in the battery storage system can be made up from the grid during low tariff times, in order to prevent deep discharge and consequent reduction in the battery life.

More information at www.aers.cz

BENEFITS AND SAFETY

- **Uninterrupted power supply (UPS):** The HES is connected to the distribution grid and to the home simultaneously. By continuous metering of the grid parameters, the HES guarantees uninterrupted power supply to selected circuits in the home.
- **Peak-load management:** By continuous monitoring of the load in the home HES is able to supply overloaded phases with the power needed to avoid tripping the main breaker. The energy is supplied from batteries, renewable sources or phases that are not fully loaded.
- **All-in-one:** Home Battery System HES is a stand-alone solution with dimensions of 600×600×1920 mm. It is designed to be a complete intelligent energy solution for your home. It is completely developed and manufactured in the Czech Republic and includes modules for PV collection, 3-phase inverter with asymmetric load capability, batteries, and charger.
- **Power Output:** Nominal output is 10 kVA. Nominal output of the MPPT is 6 kW each. Nominal output of charger supplied from batteries is 6 kW.
- **Monitoring:** HES provides the user with access to production data through a WEB based interface. The station communicates with a remote database where the data is processed and visualization of current and historical values is produced, providing the user with a complete picture of the energy balance of the home.
- **Modularity:** If your home needs more energy storage capacity, or you wish to become even more energy independent, additional batteries can be added to the HES.
- **Battery Management System (BMS):** The BMS, developed by AERS in-house, monitors each of the battery cells. Intelligent charging and discharging algorithm ensures high level of safety of the system and provides for a long life for the batteries.
- **Safety:** HES meets all safety standards required by the current legislation and is equipped with measures assuring safety during assembly and commissioning, and operation of the system.



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