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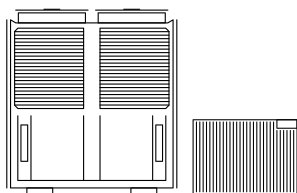
# EMS ENERGOMATE

## SMART ENERGY MANAGEMENT FOR MODERN BUSINESSES

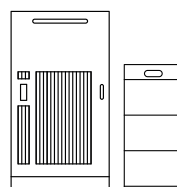
**Manage power output, energy storage, and consumption with a predictive algorithm designed to maximize efficiency and reduce operating costs.**

An intelligent Energy Management System (EMS) for companies looking to reduce costs, eliminate demand peaks, and maximize the use of their own energy production.

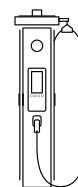
**Compatible with:**



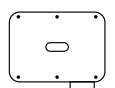
ERA HEAT PUMPS



HUAWEI BESS



AC/DC  
EV CHARGERS



PV INVERTERS

**01. No penalties for Exceeding Power limits**

EMS continuously monitors distribution grid limits, such as reserved capacity and power demand, and prevents any exceedance.

**04. Peak Shaving**

EMS intelligently controls BESS charging and discharging to prevent exceeding the 15-minute peak demand threshold.

**02. SPOT Market Arbitrage**

Automatic electricity purchasing and selling on the day-ahead market precisely when market conditions are most favorable.

**05. Smart Control of Electricity and Heat**

Energomate EMS manages ERA heat pumps and EV chargers based on real-time energy prices, weather conditions, and consumption forecasts.

**03. Negative Prices, Zero Loss**

When SPOT prices turn negative, EMS prioritizes electricity purchases from the grid and stores the energy for later use.

**06. Maximizing Energy Value**

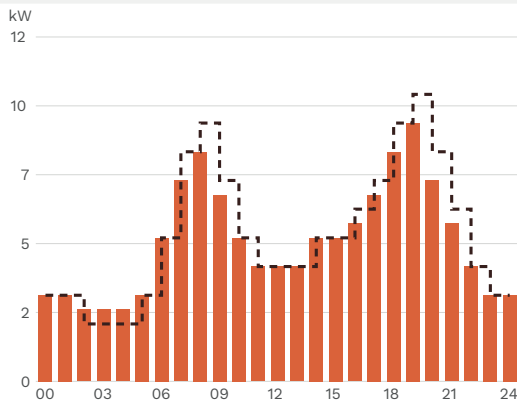
Every kWh generated is optimized to deliver maximum value, whether through self-consumption, battery storage, or profitable energy trading with the grid.



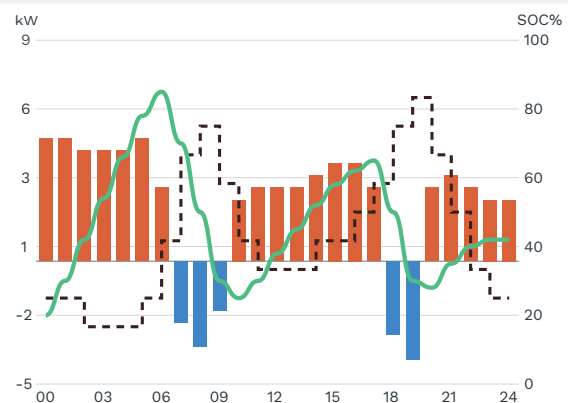
**IMPACT OF EMS ON DAILY LOAD PROFILE**

--- SPOT electricity price    ■ Grid consumption    ■ Grid export (sale)    — Battery State of Charge (SOC, right axis)

**Without EMS**



**With EMS Energomate**



**TECHNICAL SPECIFICATIONS**

**INPUTS & OUTPUTS**

<b>ETH</b>	Ethernet switch	5-port switch for connecting control devices and SmartLogger
<b>RS485</b>	Modbus RTU Interface	Serial communication bus for third-party meters and inverters
<b>PWM</b>	SSR relay output	Pulse control of domestic hot water tank heating output
<b>0-10V</b>	SSR relay output	Analog control of domestic hot water tank heating output
<b>RO</b>	Relay output	Switching of storage tanks, circulation pumps, valves, etc.
<b>SG Ready</b>	Smart Grid Interface	Heat pump and HVAC control based on real-time electricity prices
<b>AI</b>	Analog Input	PT1000 temperature sensors for monitoring tank and medium temperatures
<b>DI</b>	Digital Input	Boost buttons for manual activation of heating or charging

**CONTROL CABINET TECHNICAL SPECIFICATIONS**

<b>Dimensions (H×W×D)</b>	400 × 400 × 200 mm	<b>Enclosure Material</b>	Steel
<b>Weight</b>	15 kg	<b>Protection Rating</b>	IP66
<b>Power Supply</b>	85-264 VAC / 24 VDC, 1,5 A	<b>Communication</b>	ETH 5× port · Modbus RTU