

Polarium Home Portfolio

All-in-One Modular Home Energy Storage Systems Delivering Maximum Efficiency, Adaptability and Scalability



All-In One System to Future Proof Your Home with Unmatched Flexibility, Performance, Safety and Al

Polarium Home is engineered for seamless integration and high-performance, combining advanced hardware, digital capabilities and AI with award-winning Scandinavian design.

Polarium Home simplifies your experience without compromising on performance or design. With a modular and configurable portfolio, the system is ready to meet the diverse demands of different markets, use cases, and consumer needs.

Always On, Always Working, Always Thinking

Polarium Home is our next-generation All-in-One Home Energy Storage System, redefining resilience, simplicity, and maximum efficiency for households globally. Engineered and developed in the Nordics, Polarium Home combines premium design, cutting-edge performance, and effortless scalability, empowering homeowners, installers, and energy partners with a complete solution tailored for today—and tomorrow. Polarium Home is simple to install, easy to use, smart and safe over the entire life-time.

True European Premium Offering at an Affordable Price Point



Robust Design & Full Outdoor Capability

European high-quality product that is designed to fit any home. With full operational capability through harsh conditions & ruggedized environment spanning between -20 to +45 degrees. Every component is IP65 classified to enable installation outside in any weather condition. Built in heating and cooling.

Highest Performance & Efficiency

Outstanding efficiency avoiding huge amounts of energy losses over the battery-systems lifetime compared to alternatives. Enabled by unique battery and power conversion technology.

Physical Safety & Reliability

Fullfiling the highest standards of safety requirement, enabled by the unique cylindrical cell formfactor. Making high power use-cases safe and reliable while storing energy in your home.

Connectivity and Cost-Effective VPP-Access

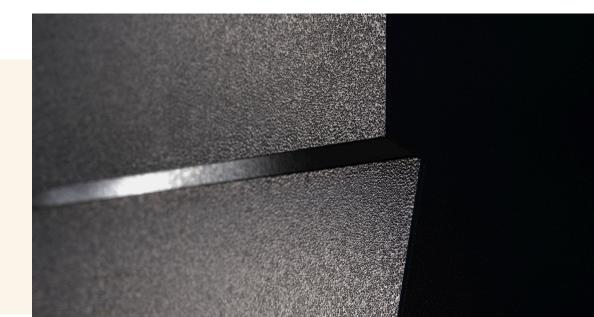
Integrated 4G & Wifi-connectivity together with wireless smart meters together with smart energy management system enables VPP-access, whitout additional investments in hardware, and/or lenghty integrations.

Cyber Security with European Software

Keeping to European software ensures highest level of cyber-security and data management for your privacy needs.

Controlling and Monitoring Simplicity

In the app you can easily control and monitor your system. The support and service team monitors the system ensuring the best possible support and corrective maintenance.



One System. Total Control.

At its core is a hybrid inverter that manages both solar and battery power in a single intelligent unit. Dual MPPTs (Maximum Power Point Trackers) boost solar efficiency, while smart software, cloud connectivity, and open APIs enable instant integration with VPPs and home energy platforms—no extra hardware required.

Powerfully Simple. Surprisingly Fast.

Polarium Home installs in an average of 2 hours including wiring and prep on site, with the fastest installation time being 45 minutes, making it the quickest all-in-one system to set up on the market. Assembly, testing and commissioning for cloud only takes a few minutes. The IP65-rated system is ready for both indoor and outdoor environments—rain, shine, or snow.

Safe. Scalable. Swedish Engineered.

The modular LFP battery is built for real-world use: Safe cylindrical cell design, ultra-fast install, and scalable between 6.7 kWh to 220 kWh by connecting 16 Polarium Home systems in parallel. Perfect for any household including single family homes, multi-family homes and commercial buildings. Designed and developed in Sweden, it brings Nordic safety, reliability, and aesthetics into every household.

Highest Standards in Safety

- Third party certificates covering the highest European safety standards to ensure the battery is proven safe by external actors.
- Five-levels of safety within the battery-module, including for example integrated temperature sensors, cell-pack design, mechanical and digital fuses, with an integrated BMS in each battery having control of all safety aspects.



Easy-to-Use, Smart, Safe and Powerful

The System Enables:

Real-time Monitoring

Complete system visibility

Remote control and over the air updates

Full device management on your phone

Installer Friendly - One app does it all



Wire-less Smart Metering Built in

Smart Meters measures consumption from grid, power from PV and inverter enabling local control of system without integration work nor cabling.

Connectivity and VPP Enablement

- 4G & Wi-fi connectivity.
- API-enabled making control of the asset easy for VPP-and HEMS actors.

Local EMS

EMS with local optimization and dynamic response enabling price arbitrage and peak shaving.

Frequency Measured Locally in System

In built frequency market capability – response-metrics for FCR & FFR markets of all safety aspects.



An All-in-One System with a Cloud Solution – Enabling Value Creation in no Time







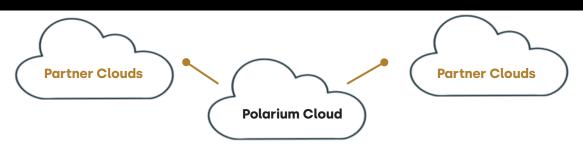
Cut Energy Cost Lower your energy bill by optimizing cost per kWh



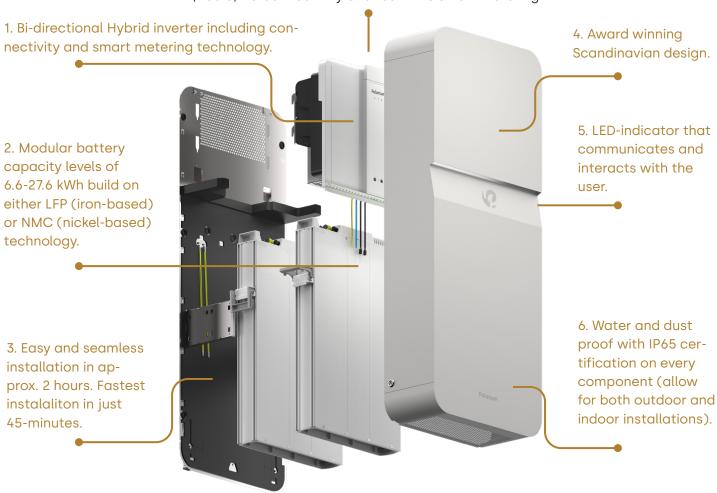
Peak Shaving
Reduce peak power to
save money on demand
charges and grid
tariffs



Instant VPP Enablement
Participate in demand response and frequency regulation market or demand response programs



Wi-fi, radio, 4G connectivity and real-time smart metering



Polarium Home is Built on a Modular Product Portfolio That can be Easily Configurable

Hybrid Inverter

- 3-Phase Inverter
- 1-Phase Inverter (in roadmap)
- High-voltage
- 6-12kW Power
- 18kWp Solar
- Integrated Island Mode (in roadmap)



Battery Modules

Iron-Based (LFP)

- Service Life 10-years, 6, 000 Cycles
- High-voltage (600-800V)
- Large: 13.8-27.6kWh Capacity per Inverter

Nickel-Based (NMC/NCM)

- Service Life 10-years, 4,000 Cycles
- High-voltage (600-800V)
- 6.65-13.3 kWh Capacity per Inverter



Value Added Product and Services

- 5G / Radio /WI-FI Connectivity
- Smart Metering included
- Fleet Management
- BTM Energy Management
- VPP and Market Access
- Installer Mobile Application
- Consumer Application

- Sales Training and Support
- Marketing Toolbox
- Service Training & Support
- Service Digital Toolbox
- Performance Monitoring
- Extended Warranty
- End-of-Life Management

Cover/Backplate Polarium offers white-labled solutions

This is Polarium

Unlock Endless Energy

Polarium is a Swedish energy storage developer, founded in 2015 on the conviction that safe, smart and sustainable energy storage solutions will be key to empower the transition to a truly sustainable energy future. We are an impact business contributing to the sustainable energy transformation by enabling renewables, electrification and intermittent power supply.

We make energy storage and optimization solutions built on lithium-ion battery technology for businesses within telecom, commercial and industrial facilities across the world. We maximize value creation for our customers through our cutting-edge technology and a three-fold product offering of battery modules, battery energy storage systems and energy optimization systems as well as associated services.

Our easily adaptable modular battery technology enables us to be in the forefront of developing state-of-the art sustainable energy storage and optimization solutions for today – and tomorrow.

TIME WORLD'S TOP GREEN TECH COMPANIES IN PARTNERSHIP WITH STATISTA 2025

Developed in Sweden – Powering the World

Polarium's headquarters and R&D center are based in Sweden, with production operations in Sweden, South Africa, and Vietnam, allowing us to serve customers worldwide—from Ghana to Svalbard. Today, Polarium's solutions are in use across all climate zones, enabling our customers to reduce energy costs and carbon footprint.

Contact us at home@polarium.com



reddot winner



