



# THUNOR

Are you tired of **power outages** controlling your life?  
Unpredictable and high **electricity bills** causing stress?  
Do you want to get **the highest price** for the electricity you generate?  
We have a solution for you - **Thunor energy storage system!**



**We offer you the opportunity to live securely in terms of energy and optimize the costs of your home or business.**



# TH SERIES BATTERY BANK

The Thunor LiFePo4 low-voltage energy storage system, manufactured in Estonia, incorporates the latest battery technologies. It is safe for household use, even in the presence of children and pets, and complies with all relevant standards in Europe.

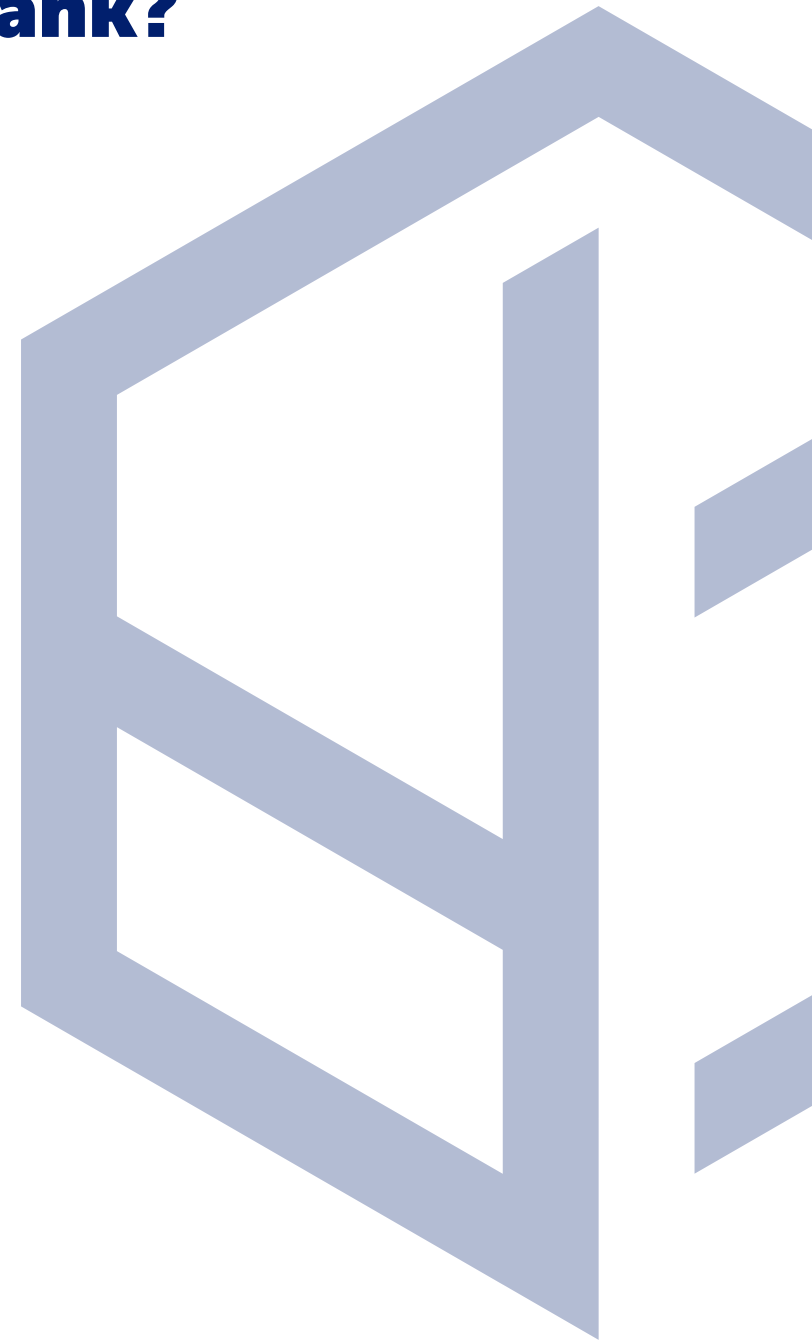
If you have **your own electricity production** or are considering it, you can enhance your energy park with the Thunor power bank, whether as an **off-grid** or **hybrid solution**. This allows you to consume the generated energy at your preferred time. Up to 16 battery units with a total capacity of **227.4 kWh** can be combined into a single system, meeting even the most demanding energy storage needs.

If **energy security** is important to you and power outages disrupt your normal routine or hinder business operations, rely on the Thunor battery to ensure a reliable energy supply. By integrating the Thunor battery into your electrical grid, you can achieve energy security.



# Why purchase the Thunor Power Bank?

1. Quality - We use only battery elements with a proven track record, ensuring maximum capacity and a lifespan of 20 years or more. Each power bank comes with a **factory test report**.
1. Cost-effective - Our batteries are among the most cost-effective on the market, guaranteeing at least 6000 charging cycles. With an **initial investment of less than 1 €** per charging cycle and a cost of **0.05€** per kWh stored, you can save significantly on your energy expenses.
1. Long-term energy storage - Charge the battery to full capacity and use it when needed. You can connect up to **16 battery units** in parallel, providing a total capacity of **227.4 kWh**.
2. **10-year warranty** - We offer a 10-year warranty, and the expected lifespan of our product is at least 20 years, providing you with long-lasting performance and peace of mind.
3. **Safety** - Our batteries comply with all relevant safety standards and operate at low voltage, making them particularly suitable for households with children and pets.



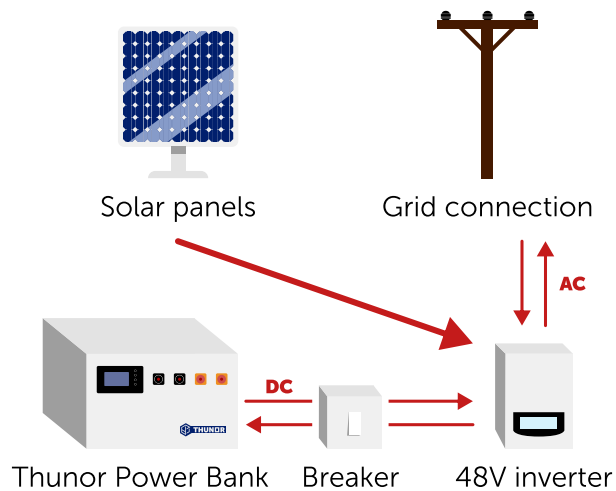
# Why purchase the Thunor Power Bank?

## OWN ELECTRICITY PRODUCTION, CONNECTION TO THE POWER GRID

**Upgrade** the **profitability** of your electricity production with Thunor energy storage. The presence of an energy storage system allows you to choose between two options:

1. Storing energy
2. Selling energy back to the grid

**Advantages:** You can use the stored energy whenever it's most suitable for you, e.g. by selling it back to the grid when the price is high while using low-priced energy yourself. Additionally, having a battery solution helps you save on grid fees.

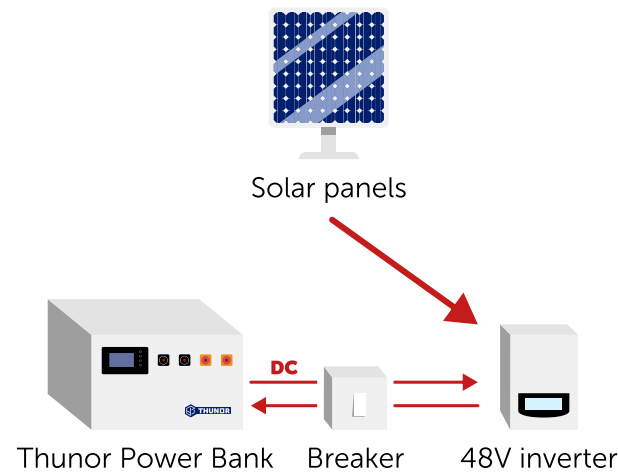


*To implement this solution, a hybrid inverter is required.*

## OWN ELECTRICITY PRODUCTION, OFF-GRID SOLUTION

**Store** the electricity **generated** by your production plant in an **energy storage system** and use it at your convenience. The produced and stored energy can be utilized for a **long period**.

**Advantages:** Energy independence and cost savings. Excess energy generated during the day is stored in the system so that it can be used when needed, for an extended period. This means you can consume electricity as needed, not only when it's sunny or windy.

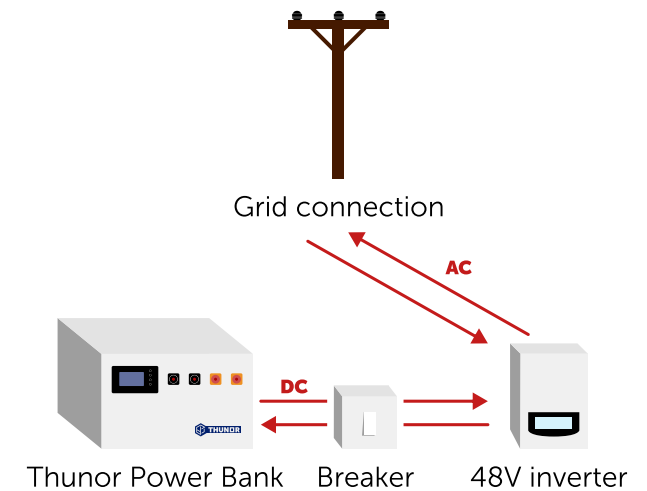


*To implement this solution, a low-voltage inverter is required.*

## NO ELECTRICITY PRODUCTION, CONNECTION TO THE POWER GRID

**Store electricity** when it's affordable and use it when the price is expensive to **reduce** your electricity bills and keep your energy **costs** under control. Depending on your consumption and price fluctuations, you can **save 20-80%** on your electricity expenses.

**Advantages:** This approach is excellent for energy storage, especially with a time-of-use electricity plan. Additionally, the system serves as a backup during power outages. If you experience fluctuations or unreliable power supply, this solution is tailored for you.



*To implement this solution, a low-voltage inverter is required.*



# TH-48-LV280-1.0

<b>Cell Balancing Technology</b>	Power Bank LiFePo4
<b>Battery Cell model</b>	EVE LF280K (with factory test report from EVE)
<b>Nominal Voltage (V)</b>	51.2V (16x3,2V)
<b>Nominal Capacity (Ah)</b>	280Ah (@0.5C discharge current 25±2°C)
<b>Nominal Power (kWh)</b>	14.2kWh
<b>Dimensions (mm)</b>	710x445x250mm
<b>Weight (kg)</b>	129 kg
<b>Discharge Cut-off Voltage (V)</b>	43.2V
<b>Charge Voltage (V)</b>	57.6V
<b>Continuous Charge/Discharge Current (A)</b>	140A @25±2 °C 0°C ~ 50 °C (charge) -10°C ~ 50 °C (discharge) -30°C ~ 60 °C (storage)
<b>Working temperature</b>	
<b>SOC Range</b>	5% - 100%
<b>Recommended SOC Range</b>	10% - 95%
<b>Communication Interface</b>	CANBus and RS485
<b>Humidity</b>	10% - 85% non-condensing
<b>Overcharge Protection</b>	Yes
<b>Undercharge Protection</b>	Yes
<b>Cell Balancing</b>	Yes (passive 150mA between 3,4-3,65V)
<b>Temperature Protection</b>	Yes
<b>Built-in heaters</b>	Yes (2 x 80W)
<b>Cooling mode</b>	Natural cooling
<b>Built-in fuse</b>	180A
<b>Certificates</b>	CE, UN38.3





## THUNOR SOLUTIONS OÜ

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