Increasing the usable energy of home battery storage: Anker’s modular design and innovative optimiser technology

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PV Tech
Anker SOLIX X1
Extreme Performance Energy Storage System
# About Anker

## A Reliable Business Partner With Sustainable Growth

Solar storage is more than a product. It’s a long-term investment with a dependable partner.

<table>
<thead>
<tr>
<th>140 Million</th>
<th>146</th>
<th>10 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users Worldwide</td>
<td>Countries and Regions</td>
<td>Of Pioneering Charging Technology</td>
</tr>
</tbody>
</table>

- Anker was registered in California in **2011**
- **2.48** billion dollar of 2023 revenue
- **3,500** employees worldwide
- **21** offices globally
- Over **50%** R&D personnel
- **2,245** intellectual properties

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<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>$270M</td>
</tr>
<tr>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
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<td>2020</td>
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<tr>
<td>2021</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
</tr>
<tr>
<td>2023</td>
<td><strong>$2.48B</strong></td>
</tr>
</tbody>
</table>

- **22.85%** YOY Growth

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AnkerWork  eufy  NEBULA  soundcore  ANKER SOLIX

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1 Data source: Anker Innovations Technology Annual Report 2023
Anker is the No. 1. mobile charging brand in the world in terms of the retail sales value in (3 consecutive years of) 2020, 2021, and 2022.

Data source: Euromonitor International (Shanghai) Co., Ltd., measured in terms of retail value sales in 2020, 2021, and 2022, based on research conducted in October 2023. Mobile charging brands are defined as brands if more than 75% of their retail sales are contributed by mobile phone charging products.

Mobile phone charging products include chargers, wireless chargers, power banks, and charging cables, and these accessories can also be used for other consumer electronics devices.

**About Anker**

Deeply Loved and Trusted by Consumers

**High Customer Satisfaction**

99%

Positive Feedback on Amazon

**The World’s NO.1 Mobile Charging Brand**

**The World’s NO.1 Balcony Power Storage System**

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Sustained Large-Scale and High-Proportion R&D Investment for Long-Term Competitiveness

About Anker

Total Percentage of R&D Employees: 50%

R&D Investment Compared to Company Revenue: 7.58%

R&D Team Personnel: 1,820

Number of Patents: 2,245
Anker's MPMS bring better battery performance with individual power optimization modules in each pack for independent charging and discharging.

**Modular Power Management System**

Anker led the industry with the first GaN chargers with 95% efficiency, smaller sizes, lighter weight, and USB-C Power Delivery.

**GaNPrime™**

Anker’s exclusive fast-charging tech dynamically identifies different devices of the fastest charge.

**PowerIQ™ 4.0**

Anker’s proprietary technology InfiniPower™ offer unprecedented lifespan, safety and reliability even with 10 years of everyday use.

**InfiniPower™**

Anker’s MPMS bring better battery performance with individual power optimization modules in each pack for independent charging and discharging.
The Rise of Power Outages in the US

01 | Aging Grid
02 | More Severe Weather
03 | Electricity Shortage

2X
Longer Outage Duration
From 2013 to 2021¹

18%
More Frequent Outages
From 2013 to 2022²

²Source: Surging Weather-related Power Outages, Climate Central
Low Level of Energy Utilization

01 | Battery With Fixed Capacity

02 | Potential Energy Loss
   More Than 2000kWh Over 10 Years

03 | Pre-Charging Required
   45-Min Longer Installation

04 | Hazardous High-Voltage
   300V-600V
Aesthetically Unpleasing

01 | Messy Component
02 | Exposed Wiring
03 | Complex Display
Anker SOLIX X1
Energy Storage System

- Minimalist Design
- Energy Booster
- Reliable Guard
eXtreme DESIGN
Inspired by the Break of Dawn

Elegant and Seamless Design

Interactive Light Strip

Starry Night Screen

Streamlined Grille

Inspired by the Break of Dawn
All-in-One Slim Style
All-in-One Slim Style
All-in-One Slim Style

- Power Module
- Battery Module
All-in-One Slim Style

- Power Module
- Battery Module
- Energy Management System
Integrate Stylish Power with an Ultra-Thin Build

Anker 5.9”  Brand T 7.6”  Brand E 7.4”  Brand F 11.4”

26.4” 5.9”

57.7”

Thinner Than Industrial Average

40%
eXtreme PERFORMANCE
Energy Booster with Innovative Energy Optimizer

2350kWh
More Power
Batteries charge and discharge independently, eliminating the Barrel Effect

No Pre-Charging Required
Battery packs auto-equalize and can be installed without pre-charging
Customize Capacity Up to 180kWh with Modular Design

Power: 6 kW
Capacity: 30 kWh
Customize Capacity Up to 180kWh with Modular Design

Total Output Power: 36 kW
Total Capacity: 180 kWh
Reliable Power in Extreme Temperatures

The system contains at least three battery modules (15kWh).

100% Power\(^\text{1}\) from -4°F to 131°F

- **Anker Battery Management System**
- **Thermal Boosting Technology**
- **Heat Dissipation Optimization**
- **Automotive-Grade Aluminum Alloy Casting**

\(^{1}\)The system contains at least three battery modules (15kWh).
Availability
Power your home with solar energy while off-grid.

Recharge storage effortlessly.

Compatibility
Seamlessly integrates with Anker SOLIX microinverters and most third-party solar inverters.¹
No extra accessories required.

Of Stability
Dual-level photovoltaic safety integrates system algorithms and relay-based active shutdown to provide safe and efficient solar energy.

PV Ratio
Supports up to 200% solar power or a maximum of 80A current input.

24/7
Solar Power Supply

Solar
Availability
Power your home with solar energy while off-grid.

200%
PV Ratio
Supports up to 200% solar power or a maximum of 80A current input.

3rd Party
Compatibility
Seamlessly integrates with Anker SOLIX microinverters and most third-party solar inverters.¹
No extra accessories required.

2 Levels
Of Stability
Dual-level photovoltaic safety integrates system algorithms and relay-based active shutdown to provide safe and efficient solar energy.

The third-party photovoltaic inverter must support at least one of the following standards: IEEE 1547-2018, Rule 21, or HECO.

Enhanced Solar Performance,
True Photovoltaic-Storage Integration

Anker SOLIX
Seamless Backup for UPS Experience

20ms
Switch to backup power seamlessly
eXtreme INTELLIGENCE
Award-Winning User App for Easy Energy Management & Operation

Manage All Your Data
Summarize by History
Customized Data Viewing
Earnings at Your Fingertips

UX DESIGN AWARDS
nominated 2024
Maximize NEM 3.0 Savings with Continuous 6kW Output

Built-In Database
Anker’s proprietary electricity price database provides real-time electricity trading prices

$5,320
Approximate savings over 10 years

20% More Earnings

20% More Output Power

Excess Solar Energy

Energy Consumption

Consumed by Appliances

Stored in Battery

20% More Output Power

Sold to Grid

The following factors may influence savings: geographic location, electricity usage habits, the price of electricity, photovoltaic power, energy storage power, capacity, actual full-power discharge duration, weather conditions, etc. The actual saving of Anker’s customers depends on real-time conditions.

All images and specifications mentioned in this document are subject to change. For the most accurate product information, check the official Anker SOLIX release.
Worry-Free Power Supply with Automatic Backup

Auto Activation
Battery starts recharging automatically before severe weather.

NWS Alerts
Power backup activates when the NWS issues alerts.

20% Faster Charging
Recharge battery to 80% in 1.6 hours¹

Charging Power from Grid vs. 5kW System

<table>
<thead>
<tr>
<th>Grid</th>
<th>2.75 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>2.75 kW</td>
</tr>
<tr>
<td>Grid</td>
<td>1.85 kW</td>
</tr>
<tr>
<td>Home Load</td>
<td>3.15 kW</td>
</tr>
<tr>
<td>Storage</td>
<td>1.45 kW · 80%</td>
</tr>
</tbody>
</table>

¹Charging time is based on tests conducted with a system containing two battery modules (10kWh capacity); test data from Anker laboratory.
Charge EVs with excess solar power. It's low-cost and clean energy.

Scheduled Charging
Charge your electric car based on your plan.

Eco Charging
Charge with low-cost power, including solar and the grid based on time of use.

Green Charging with Anker SOLIX V1

Max Self-Sufficiency

Max Convenience

Max Cost-Effectiveness

The Anker SOLIX V1 and the feature of control mode will be available in Q3 2024.
Compatible with Backup Generators

Auto
Activation

0ms
Switchover

Priority Mode
The generator starts instantly during power outages.

SoC Mode
The fuel generator operates based on the battery’s SoC.

Scheduled Mode
Users can set specific times for the generator to start and stop.

Features are scheduled to go live in Q2 2024.
eXtreme SAFETY
Safe, Long-Lasting Battery

LFP
Square Shell Battery Cells
Compared to Other NMC Cells
Auto
Abnormal Battery
Auto-Isolate
Avoids System Failures
Shock-Free Safety

DC Output 0V Shutdown
Compared to 300V+ High-Voltage Port
Maximum Peace of Mind, 10 Years of Worry-Free Use

NEMA 4
Outdoor Protection

IP67¹
MC4 Connections

10-Year² Warranty

¹Refers to the the MC4 port after the cables are installed properly.
²The warranty of each battery module lasts for 10 years or when throughput reaches 16.45 MWh, whichever comes first.
Die-Casting
Aluminum Alloy
Powder-Coated Surface
Galvanized Steel
Zinc-Nickel Plating

Thoroughly Tested, Industry-Leading Quality

1000H + C5 = 20+ Years

Saline Resistance
Other Brands: 480H

Anti-Corrosion Rating
Other Brands: C4

Of No Visible Aging in Natural Environment

Anker SOLIX X1 was exposed to 1,000 hours of a saline solution in a laboratory setting, which is an estimate of the amount of salt exposure over 20 years.

Die-Casting
Aluminum Alloy

Powder-Coated Surface

Galvanized Steel

Zinc-Nickel Plating Fasteners

Anker SOLIX X1 was exposed to 1,000 hours of a saline solution in a laboratory setting, which is an estimate of the amount of salt exposure over 20 years.
Anker SOLIX X1
Power for the Extreme

- Minimalist Design
- All-in-One
- InfiniPower
- 24/7 Power Supply
- Mix Batteries With 0 Energy Loss
- Customize Your Capacity
- Thermal Boosting Technology
- LFP Battery
- Anker BMS
- 0V DC Shutdown
- Abnormal Batteries Auto-Isolate
- 6.6kw Higher Output While Off-Grid
- 100% Power from -4°F to 131°F
- 2350kWh More Power

1Calculation based on X1's 15kWh batteries compared to a traditional home battery over 10 years. Video and images are for demonstration purposes only. Refer to the product manual for accurate information.
Easier to Sell Now and in the Future

Easier to Sell
Users have the freedom to choose the battery capacity that suits them, offering an affordable, attractive option for consumers.

Customize capacity in a Single System
3-6kW | 5-30kWh

Expandable in the Future
As power needs grow, users can effortlessly add new battery packs into their system, ensuring no energy is wasted.

Enjoy superior power with Parallel Systems
6-36kW | 10-180kWh
Ready for Multiple Scenarios

Backup Controller
- 200A
- Hassle-Free Use
- Built-In Interfaces for Easy Connection

Supported Scenarios
- Retrofit
- New Build
- PV + ESS
- ESS Only
- Whole-Home Backup
- Partial Backup

Video and images are for demonstration purposes only. Refer to the product manual for accurate information.
Flexibility and Simplicity, Modular Installation Redefined

2 Installers Without Forklift

2 Mounting Methods
Floor or Wall Mounted

44 lb Anker SOLIX X1 Power Module

112 lb Anker SOLIX X1 Battery Module

Video and images are for demonstration purposes only. Refer to the product manual for accurate information.
Achieve the Fastest Commissioning With Anker SOLIX Professional App

Main Steps

01 Effortless Device Pairing with Bluetooth Auto-Recognition

02 Auto-Assigned Grid Codes for Quick Configuration

03 Smart CT Self-Tuning and Auto Corrections

04 System Designed for Optimal Performance

EXPERIENCE | SELLING | DESIGN | INSTALLING | COMMISSIONING | MAINTENANCE

Anker SOLIX Professional

4

System Build

Search Device

Scan SN Code

Connected Device

4 devices detected

A5101
SN:1234567890123

A5101
SN:1234567890123

A5101
SN:1234567890123

A5101
SN:1234567890123

System Configure

Select Grid Code

Time zone ID: HB/TBD19

Grid standard code: 5th/GMT+12

Advanced parameter

Under Voltage: 220V

Server address and port number

Server address: Please Enter

System Testing

Wiring Inspection

Communication Detection

Ground Detection

CT/Meter Connection Detection

Grid-side CT Detection

Grid-side CT Adaptive

L1 and L2 Reverse Connection

On-Grid/Off-Grid Functional

System testing Successful

Deliver successful

Email: Anker@anker-in.com

Tips: To ensure that users can fully experience our Energy Management System (EMS), we need your cooperation and support. With your help, users will better understand the equipment and maintenance process of EMS, thereby enhancing their user experience.

Download on the
App Store

Anker SOLIX Professional

Get it on
Google Play
Remote Smart Management
100% device data upload rate achieved and localized processing established, allowing real-time monitoring of thousands of devices, reducing the need for on-site system checks.

Easy-to-Read Graphs
Gain a smart, comprehensive review of the system over daily, weekly, monthly, or yearly intervals. Check equipment status and abnormalities quickly.

False Detection
Easily identify anomalies thanks to the module layout, reducing the amount of troubleshooting time.

Remote Diagnosis
Adjust device parameters remotely to reduce operational and maintenance costs.

Anker Online Platform for Easy Maintenance

Anker SOLIX Professional
Anker Online Platform for Easy Maintenance

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Grow Your Business with Anker SOLIX

Become an Installation Partner

(800) 988 5541
support@anker.com

Website for Consumer

Product Introduction and Homeowner Purchase Channel

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