RESIDENTIAL ENERGY STORAGE SOLUTIONS

LiFePO4 | DC/AC/Hybrid Coupled | 3~30kWh

SEMOOKII BESS CO., LTD.

For Brighter, Safer And More Beautiful Life

Are You Ready For Another Energy Price Spike

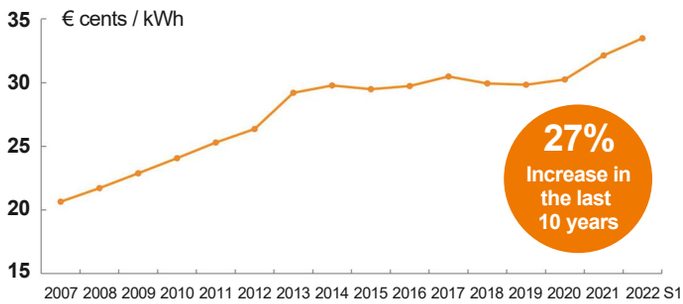
For the last decade, the power price has been surging. In Germany, the household electricity rates have increased by 27%, reaching €33.48 cents per kWh.

Meaning a household with consumption of 3,500kWh pays €1171.8 EUR in electricity expenses per year or €97.65 EUR per month. 20 years ago, it pays only around €700EUR per year.

In addition, continuously aging power generation infrastructure and extreme climate events forecast a rising impact on daily load curve and grid failure.

Growing daily load curve leads to higher electricity bills. Unplanned power outages leave you without lights, refrigeration, air-conditioning, and access to the Internet.

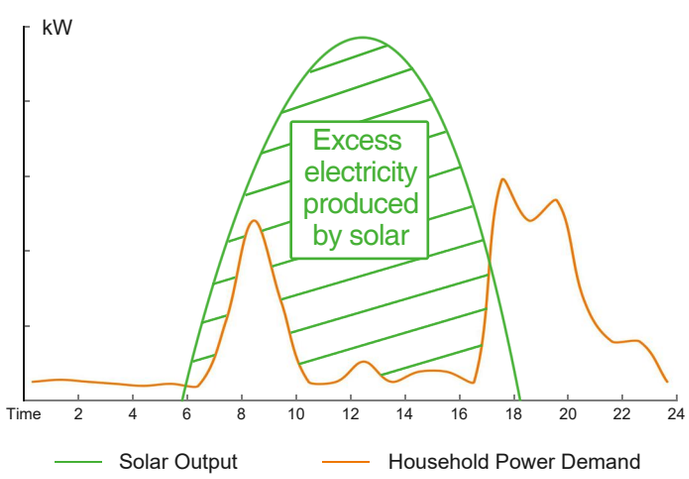
Germany Electricity Rates*



Country	Electricity Rates (€ cents / kWh)	Growth Ratio 2021 vs 2011
European Union	22.86	22.11%
Germany	32.135	27.04%
Belgium	28.48	33.86%
Ireland	27.645	38.67%
Spain	25.695	26.29%
Sweden	23.59	14.07%
Italy	23.095	13.99%
Austria	22.505	13.92%
United States	13.84	18.8%
China	8.09	3.7%

MAKE THE BEST OF ROOFTOP SOLAR SYSTEM

Rooftop Solar Panels Power Curve VS Daily Load Curve



In 2020, over 10% of residents installed rooftop solar panels to generate electricity. When solar panels produce more energy than what can be consumed, the surplus will be exported to the power grid, which means you need to purchase power from your supplier at night, even during peak hours.

With Semookii residential energy storage systems, you can optimize the energy generated by rooftop solar panels for your private consumption.

SEMOOKii

LiFePO4 BESS

3 ~ 30kWh

$SAVING 70%

SEMOOKII HBC® Residential Energy Storage Solutions

Only ONE out of ten residents who have installed rooftop solar systems has introduced energy storage systems to their homes, according to BDEW, Bundesverband der Energie- und Wasserwirtschaft.

Against the steep rise in household electricity bills, Semookii HBC RESS makes a convincing case for the complementary nature between solar power and energy storage systems.

By storing the excess electricity produced by solar panels, homeowners will increase solar self-consumption and load-shifting, lower electricity expenses by about 70%, and it's carbon-free!

It includes self-developed LiFePO4 batteries with high-density cells and an EMS-integrated inverter. External PV power is recommended and AC generator is optional.

CE Certified ISO 9001:2015 ISO 14001 ISO 45001

Max. 1100℃ Fireproof Insulation

Incorporates high-temperature insulation materials ensuring fire resistance.

DC/AC Coupled

Perfectly fits in both PV+battery installation and adding to existing rooftop solar system.

Modular Design, Easy Installation

Modular design simplifies the assembly process and reduces skilled labor and installation costs.

Hybrid Energy Sources

Compatible with Solar panels, gensets and the utility grid.

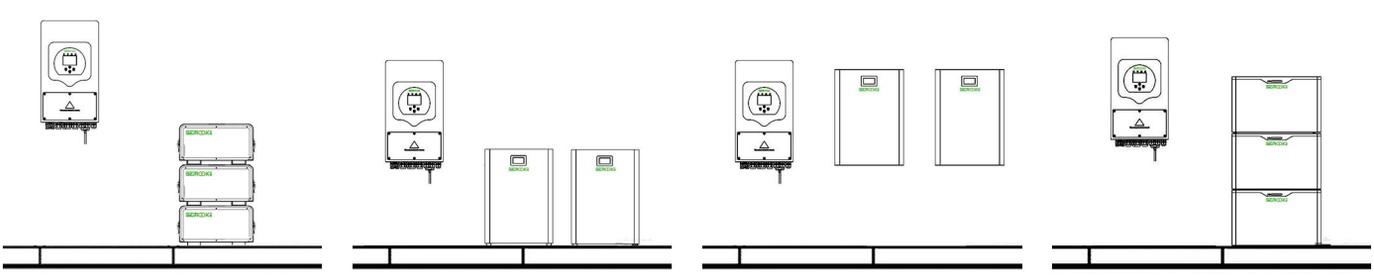
EV Charging & Battery Health Monitoring

Charge electric vehicles and check the health of EV batteries at the same time.

Backup Power

Ensure power resilience and provide uninterruptible power within 4ms during power outages.

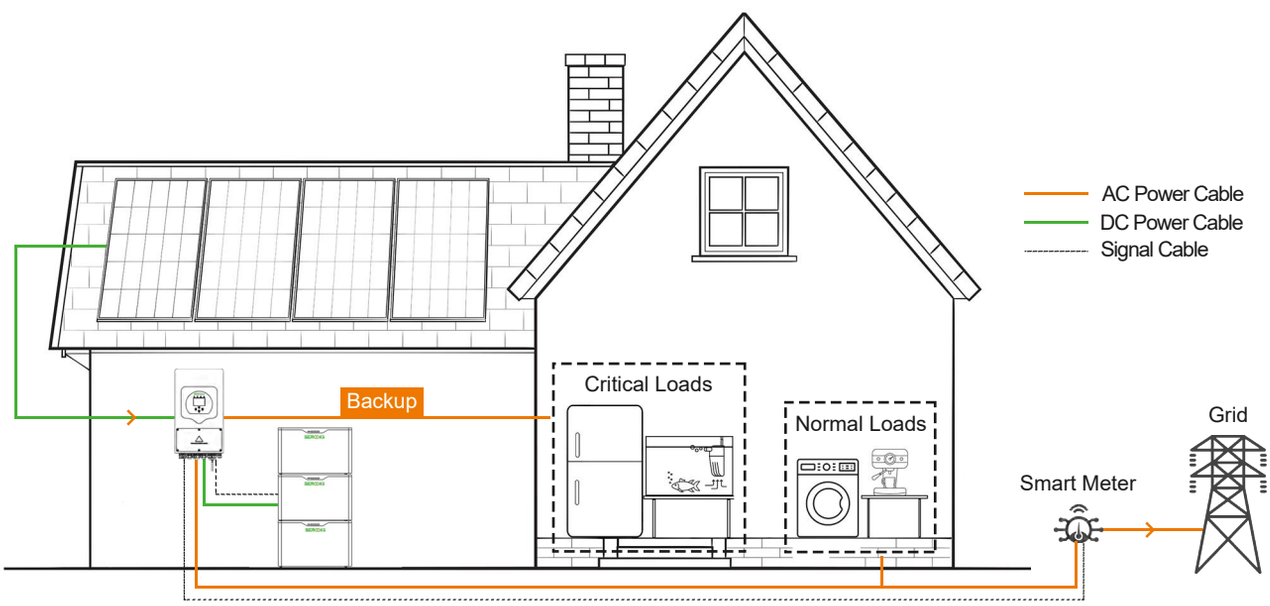
Flexible Mounting For Diverse Installation Requirements



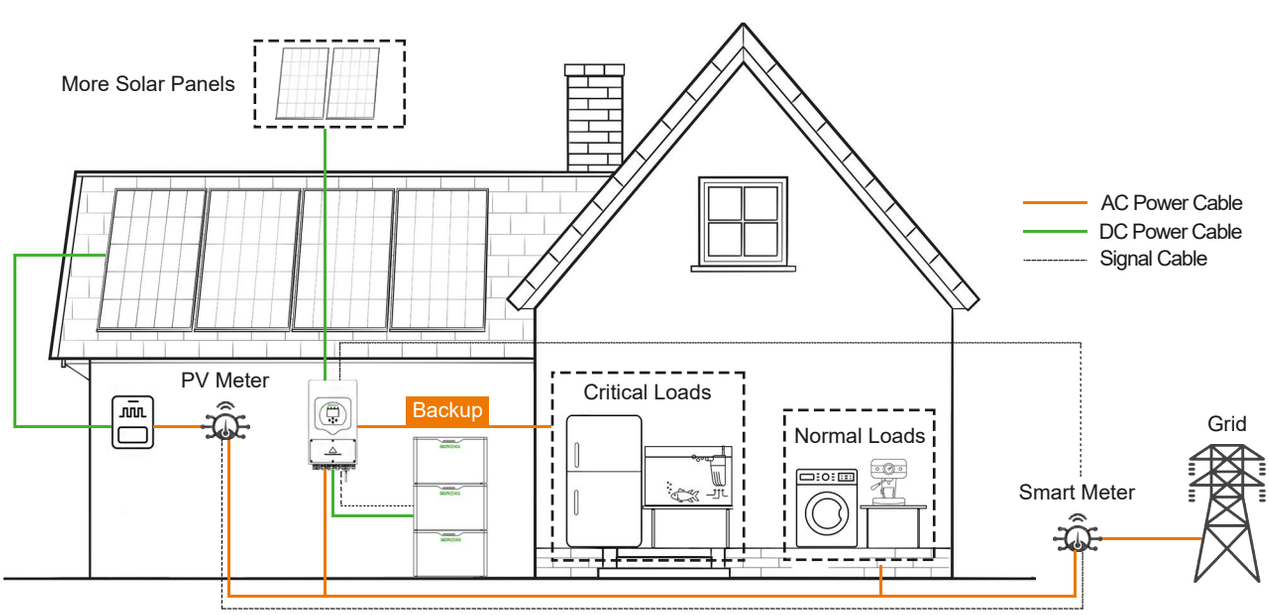
Stacked Floor-mounted Wall-mounted Stand-alone

How Does Semookii HBC® RESS Power Your Home

DC Coupled Solution



AC / Hybrid Coupled Solution




SEMOKii
Warning electric shock
SEMOKii

Explosion-proof LFP Module

In general, Lithium iron phosphate batteries do not explode or ignite. But they are not absolute and can be dangerous in certain extreme cases.

Semookii LiFePO4 battery modules are designed and manufactured in-house with built-in BMS, branded cells and high-temperature resistant materials to ensure product safety, complying with IEC 62619 and UN 38.3 certified.

IP65 **INDOOR & OUTDOOR**

Built-in BMS

1. Short-circuit protection: 400A
2. Protocol: CAN, RS485
3. Great equalization for long cyclelife
4. 3 levels of alarm
5. SOC Estimation Accuracy ≤5%
6. Real-time monitoring of ambient temperature and the temperature and voltage of each cell.

Semookii HBC RESS is the first home battery storage product incorporating heat shields. The High-Temperature materials offer a state-of-the-art solution Max. 1100°C fireproof, high-temperature stability, low thermal conductivity, low heat storage, thermal shock resistance, and good dielectric streng.

Max. 1100°C Thermal Insulation
Melting Point: 1800°C

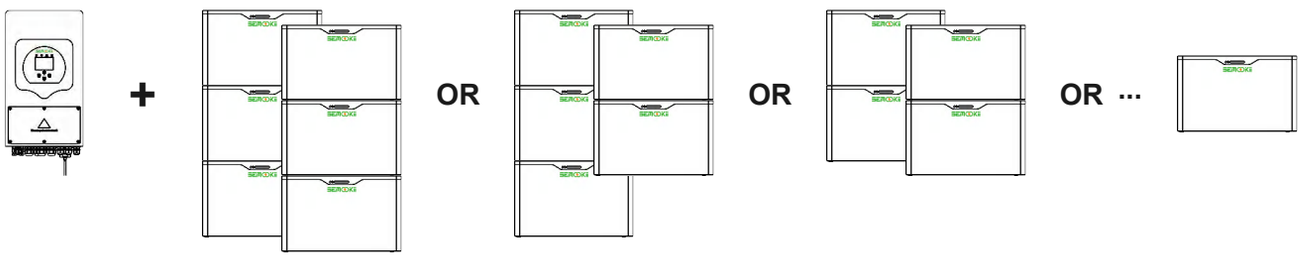
Temperature	600°C	800°C	1000°C
Thermal Conductivity (mean)	0.08W/mK	0.11W/mK	0.17W/mK

Lithium Iron Phosphate Battery Cell

1. Aluminium alloy casing guarantees strong plasticity, shock resistance and stable chemical properties.
2. High C-rate associated with low heat generation.
3. A built-in breather tube and a safety valve within the cylindrical cell provide dual safety protection.
4. The shape of cylindrical cells is more conducive to heat dissipation and temperature uniformity of the battery pack.

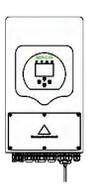
Modular Design Reduces Operating Costs

Semookii HBC RESS features a module design that allows customers to expand storage system capacity as the power needs evolve.

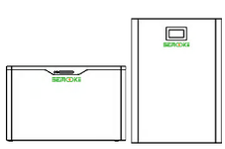


Semookii Inverter	29.52 kWh 6 x Semookii Battery	24.6 kWh 5 x Semookii Battery	19.68 kWh 4 x Semookii Battery	4.92 kWh 1 x Semookii Battery

Semookii Inverter	18.42 kWh 6 x Semookii Battery	15.35 kWh 5 x Semookii Battery	12.28 kWh 4 x Semookii Battery	3.07 kWh 1 x Semookii Battery



MAX. 16 Units In Parallel



MAX. 6 units In Parallel

Customizable Options For Bigger Markets

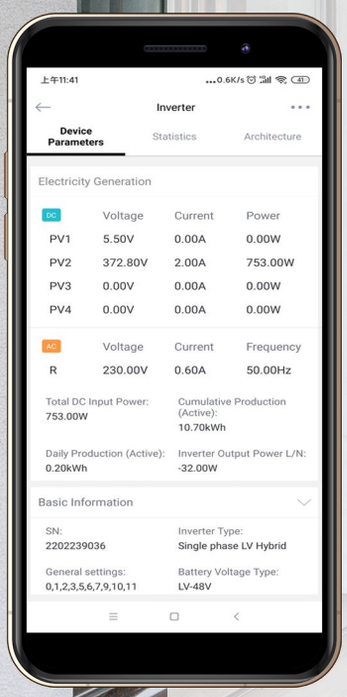
Semookii offers a variety of series of up-market residential battery energy storage systems and customized solutions for customers all around the world, helping to reduce carbon footprint and realize energy independence.

C Series

Pro Series

Home Energy Monitoring

SOLARMAN



SEMOKii

SOLARMAN smart APP is available for download on Apple® and Android™ devices.

Download on the App Store

GET IT ON Google Play

For End-user

For Business

SEMOOKII®
RESS & EV Charging

Charge At Home | All Vehicle Types | EV Battery Health Monitoring

Communication With Home Power Station | Energy Storage | Drive With Clean Energy

Technical Specification

Semookii® Inverter

Model	MIV-3S	MIV-5S	MIV-10
Rated Voltage*	230 V	230 V	400/230 V
Rated Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Phase	Single-Phase	Single-Phase	Three-Phase
Max. PV Input Power	3900 W	6500 W	13000 W
Max. PV Input Voltage	500 V	500 V	800 V
Number of MPPT / Strings per MPPT	1/1	2/1+1	2/2+1
MPPT Voltage Range	150 ~ 425 V	150 ~ 425 V	200 ~ 650 V
Start Up DC Voltage	125 V	125 V	160 V
Max. PV Input Current	13 A	13 + 13 A	26 + 13 A
Max. PV Short-circuit Current	17 A	17 + 17 A	34 + 17 A
Max. Charging/Discharging Current	70 A	120 A	210 A
Dimension (W x H x D)	330 × 433 × 248 mm	330 × 580 × 232 mm	422 × 702 × 281 mm
Weight	11.4 kg	20.5 kg	33.6 kg
Ingress Rating	IP65	IP65	IP65
Safety / EMC	IEC62109-1/-2, EN61000-6-1/-2/-3/-4		
Grid Regulation	EN50549, AS4777.2, VDE0126, IEC61727, VDEN4105, G99, NBT32004, CEI0-21, NRS097, NBR16149/16150, RD1699, TOR Erzeuger Typ A, OVE-Richtlinie R25		
Warranty	5 Years	5 Years	5 Years

Model	MIV-3AS	MIV-5AS
Rated Voltage*	230 V	230 V
Rated Frequency	50 / 60 Hz	50 / 60 Hz
Phase	Single-Phase	Single-Phase
Max. PV Input Power	4500 W	7500 W
Max. PV Input Voltage	550 V	550 V
Number of MPPT / Strings per MPPT	2/1+1	2/1+1
MPPT Voltage Range	90 ~ 500 V	150 ~ 500 V
Start Up DC Voltage	100 V	100 V
Max. PV Input Current	18.5 + 18.5 A	18.5 + 18.5 A
Max. PV Short-circuit Current	26 + 26 A	26 + 26 A
Max. Charging/Discharging Current	80 A	80 A
Dimension (W x H x D)	513 x 370 x 192 mm	513 x 370 x 192 mm
Weight	17 kg	17 kg
Ingress Rating	IP65	IP65
Safety / EMC	IEC62109-1/-2, EN61000-6-1/-2/-3/-4	
Grid Regulation	NRS97, G98/G99, EN50549-1, C10/C11, AS 4777.2, VDE-AR-N4105, VDE0126	
Warranty	5 Years	5 Years

Semookii® LFP Battery

Module Model	MF5160C	MF51100C	MF51100P
Cell Chemistry	LFP (LiFePO4)	LFP (LiFePO4)	LFP (LiFePO4)
Module Capacity	3.07 kWh	4.92 kWh	4.92 kWh
Module Nominal Voltage	51.2 V	51.2 V	51.2 V
Max. Modules in Parallel	6	6	6
Capacity Range @90% DOD	3.07 ~ 18.43 kWh	4.92 ~ 29.49 kWh	4.92 ~ 29.49 kWh
Usable Capacity Range	2.8 ~ 16.6 kWh	4.42 ~ 26.54 kWh	4.42 ~ 26.54 kWh
Max. Charging/Discharging Current	60 A (1C)	100 A (1C)	100 A (1C)
Cycle Life	6000	6000	10000
Dimension (W x H x D)	628 x 440 x 151 mm	628 x 440 x 216 mm	710 x 440 x 184 mm
Weight	40 kg	56 kg	55 kg
Operating Temperature Range	-10 °C ~ 50 °C	-10 °C ~ 50 °C	-10 °C ~ 50 °C
Ingress Rating	IP20	IP20	IP65
Transportation Certification	UN38.3	UN38.3	UN38.3
Safety	CE, IEC 62619 (Cell), IEC 62619 (Pack)	CE, IEC 62619 (Cell), IEC 62619 (Pack)	CE, IEC 62619 (Cell), IEC 62619 (Pack)
Warranty	5 Years	5 Years	5 Year Product Warranty 10 Year Performance Warranty

Semookii® EV Charging

Rated Input Voltage*	AC 220V or AC 380V
Rated Output Voltage*	AC 220V or AC 380V
Output Current	16A, 32A, 63A
Interface	GB/T 20234.1-2015, IEC 62192-2 AC Type 2
Dimension (W x H x D)	Wall-mounted 300 x 190 x 450mm Stand-alone 400 x 200 x 1325mm
Ingress Rating	IP54
Communication	Ethernet; 4G (optional)
Compliance Standards	GB/T 18487, GB/T 20234, GB/T 28569, NB/T 33002, NB/T 33008, IEC/EN 61851

* Rated voltage can be configurated according to customer requirements.

** The communication of Semookii® Inverters is Wi-Fi, 4G is optional.

SEMOOKII®, AN MPMC BRAND

Portable Power Stations

Residential Energy Storage Solutions

Lithium Battery Packs

MPMC USA MPMC UK MPMC UAE MPMC ZA MPMC CN

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