



Residential Energy Storage System

US DIVISION
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Enjoy Green Energy

With iHome Energy Storage and PV solutions, managing your home solar systems has never been easier. iHome's products have added blackout protection and flexibility to join a virtual power plant, providing customers with a futureproofed and complete residential energy solution for all situations.



Residential Energy Storage System Solutions

Easy

Easy installation

Easy O&M

Easy capacity expansion

Smart

Smart energy management

Automatic back-up switch

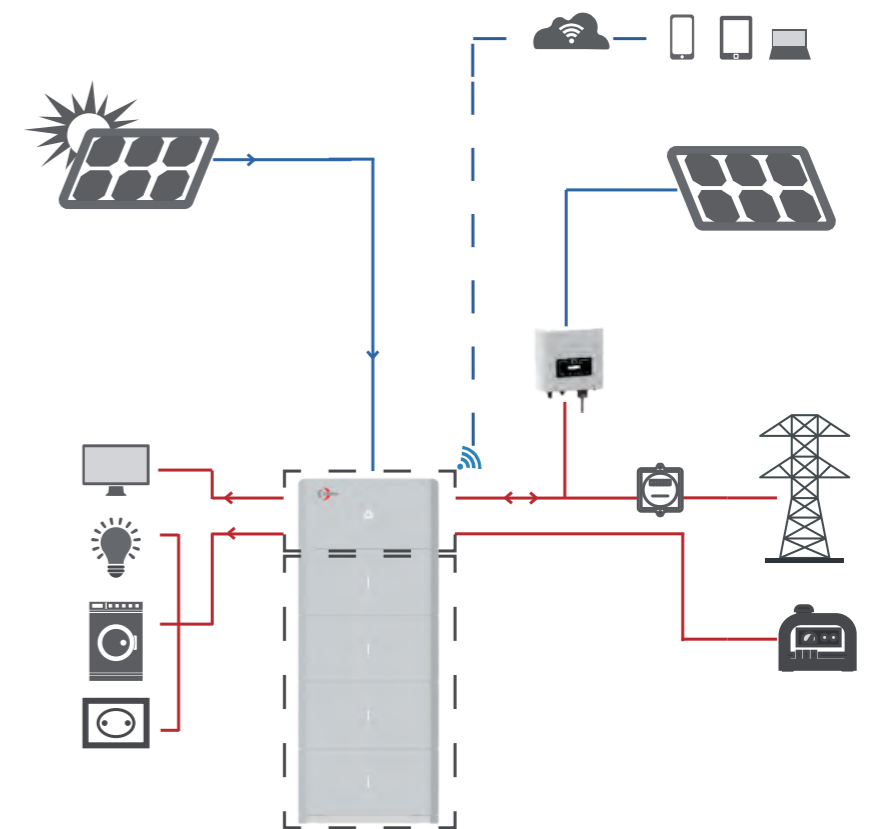
Intelligent monitoring

Investable

Reliable Power Protection

More flexible application

Long Service Life and more available capacity



iHome-S-HD1H02 Series

Single Phase HV Residential Energy Storage System

Chelion's iHome-S-HD1H02 Series is an all-in-one solar and storage solution. The system comes pre-assembled for a seamless installation experience and is complemented with a modular battery design. Each battery module has a built-in DC/DC converter and is pre-optimized to perform at the highest levels safely. In addition, it's more flexible and easily configured in new battery augmentation, allows mixed usage of both new and old batteries and completely utilizes the full battery capacity.



Easy O&M



More available capacity in the life cycle



Flexible expansion



Can operate in parallel under off-grid condition



Built-in UPS function



AFCI & RSD function integration

iHome-S12K-HD1H02	
Inverter model	iHome-INV12K-H1H02
Number of Inverter	1
Battery system model	iHome-B5-HD01
Number of battery module	4
Battery type	LFP
System capacity	20kWh
Rated system power	12kW
Peak system power	24kW, 10s
Round Trip Efficiency (AC to Battery to AC, at beginning of life)	89.40%
Round Trip Efficiency (PV to Battery to AC, at beginning of life)	90.80%
Dimension (W*H*D)	31.5*80.5*9.4inch (800*2045*240mm) (four battery modules, with bracket) 31.5*17.7*7.9inch (800*450*200mm) (inverter) 31.5*15*7.9inch (800*380*200mm) (battery module)
Weight	66.1lb (30kg) (inverter), 121.3lb (55kg) (battery module)
Ingress protection	IP65 (outdoor/indoor)
Surge protection	DC Type II & AC Type II
Noise level	<40dB@1m
Cooling type	Passive cooling
Altitude	≤6561.7 ft (2000m)
Operating temperature	-4°F~122°F (-20~50°C)
Recommended operating temperature	59°F~86°F (15~30°C)
Storage temperature	14°F~113°F (-10~45°C)
Operating humidity	0~100%RH
Display	LED+APP
Installation method	Floor or Wall-mounted (optional)
Communication interface	Portal-WiFi/4G, Meter-RS485, EMS-RS485 (sunspec)
Certification	FCC Part 15 Class B, IEE1547, IEE1547.1, California Rule 21, HECO Rule 14H, UL9540, UL 9540A, UL1699B, UL1998, UL1741 SA, UL 1973, UN 38.3
*Certifications will be available beginning in November 2022	

Inverter Specification

iHome-INV12K-H1H02	
DC Input (PV)	
Recommended Max. PV input power	18kWp
Max. PV input voltage	500Vdc
Max. PV input current	15A+15A+15A+15A
Max. short current	18.75A+18.75A+18.75A+18.75A
No. of MPPT / Strings per MPPT	4 / 1+1+1+1
MPPT voltage range	100~500Vdc
Starting voltage	125Vdc
DC (PV) switch	Yes
DC Input (BAT)	
Battery voltage range	360~500Vdc
AC Input and Output (On-grid)	
Rated AC output power	12kW
Rated AC output voltage	240Vac
Grid voltage range	211.2~264Vac
Max. output current	50A
Rated grid frequency	60Hz
Grid frequency range	55~65Hz
Power factor	>0.99 (rated power)
Adjustable power factor	0.85 (leading) ~0.85 (lagging)
THDi	<3 % (rated power)
Over current protection device	100A breaker
Max. supply fault current	5kA
AC Input (Generator)	
Rated AC output power	12kW
Over current protection device	63A breaker
Max. supply fault current	5kA
AC Output (Back-up)	
Rated AC output voltage	240Vac/120Vac 2W/N/PE, Split Phase
Rated output frequency	60Hz
Rated output power	12kW
Peak output power	24kW, 10s
Peak output current	100A, 10s
Switch time	<20ms (without parallel), <300ms (parallel)
Over current protection device	63A breaker
Max. supply fault current	5kA
Support the unbalanced load	Yes

*Specifications are subject to change without prior notice.

iHome-B5-HD Series

Battery with DC/DC Converter

Chelion's iHome-B5-HD Series is a top-class lithium battery module. There is a built-in DC/DC converter in the module that is preoptimized to perform most safely. The DC/DC converter facilitates module maintenance and battery replacement. It is flexible to add new batteries in the future without causing the "Buckets effect". And it is able to make the most of battery capacity.



Items	iHome-B5-HD01	iHome-B5-HD02	iHome-B5-HD03
Battery type		LFP	
Energy capacity		5kWh	
Scalability		8	
Scalable capacity range		5~40kWh	
DOD		100%	
Rated power	2.5kW	4kW	4kW
Rated voltage		380Vdc	650Vdc
Voltage range		360~500Vdc	630~900Vdc
Max. charge current	6.94A	11.11A	6.25A
Max. discharge current	6.94A 8.3A, 10s	11.11A 13.33A, 10s	6.25A 7.5A, 10s
Dimensions(W*H*D)		31.5*15*7.9inch (800*380*200mm)	
Weight		121.3lb (55kg) (battery module)	
Cooling type		Passive cooling	
Altitude		≤6561.7 ft (2000m)	
Operating temperature		-4°F~122°F (-20~50°C)	
Recommended operating temperature		59°F~86°F (15~30°C)	
Storage temperature		14°F~113°F (-10~45°C)	
Humidity		0~100%RH	
Display		LED	
Communication interface		RS485, CAN	
Topology		Isolated	
Connection method		Floor or Wall mounted	
Certification	UL 1973, UL 1741, UL 1998, UL 9540A,FCC, UN 38.3	UL 1973,UL 1998, IEC 62619:2022, IEC 60730, IEC 62040-1,UN 38.3	UL 1973,UL 1998, IEC 62619:2022, IEC 60730, UN 38.3

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Flexible expansion



More available capacity in the life cycle



Built-in DC/DC



Excellent safety and optimization performance

Chelion Residential EMS

Three Phase HV Residential Energy Storage System

Chelion's Residential EMS is an all-round intelligent system designed to monitor variables and meet electric or financial consumption goals. A tailored power plan will automatically optimize system performance to meet user-defined targets and distribute system resources appropriately. The EMS also continuously collects big data, such as weather and grid rates, to improve accuracy. The Residential EMS's abundance of features and use of local and big data makes it a powerful and reliable all-in-one system for energy needs in any household.



User-defined energy goals and timeline periods can be set



Will continuously adapt the energy profile to identify energy saving opportunities



Connects to a wide range of existing modules and infrastructure



Provides recommendations to enhance longevity and profitability



Optimized performance by using local and big data



Integrated management and diagnostic

