

**Haier | NAHUI**



**Smart Home  
Energy Management System**

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# About Haier Group

Established in 1984, Haier Group is a world-leading provider of solutions to better life. In the process of sustainable innovation and entrepreneurship, Haier always upholds the principle of "prioritizing people's value". Mr. Zhang Ruimin, Chairman of the Board and CEO of Haier Group, first proposed the Rendanheyi Model in September 2005. After 16 years of development and innovation, Rendanheyi has achieved trans-culture, trans-industry and trans-field fusion and replication with its contemporary features, universality characteristics.

## 39 Years' Global Growth Together

- **Global Customers: 1B Families + 50B \$/Yr**
- **Local Production: 133 Plants + 15 Countries**
- **Local Channel: 108 Centers + 230K+stores**
- **Logistics & Service: 6.5K local Service Centre**
- **Brands: Top1 from 2009+70B \$**
- **R&D: 10+N Systems+71 Centre**
- **Job Created: 100K+100K**
- **Listed: Shanghai+HK+Frankfurt**



## Global R&D Strengths

Haier has established a user-centric "10+N" open innovation eco-system globally, realising that where the user is, innovation is and where Haier's R&D is.

### 10+N Open R&D innovation system



## Haier Ecosystem Brands Globalization Network



|  |   |   |   |   |  |   |  |
|--|---|---|---|---|--|---|--|
| <b>Haier</b><br><ul style="list-style-type: none"> <li>• Strong international brand name</li> <li>• Full product offerings and full price range coverage</li> <li>• Global core brand across overseas markets</li> </ul> | <b>GE APPLIANCES</b><br><ul style="list-style-type: none"> <li>• No. 1 Kitchen appliance brand in US</li> <li>• Serve over half of American household</li> <li>• Fastest growing home appliance company and one of the most respected company in America</li> </ul> | <b>FISHER &amp; PAYKEL</b><br><ul style="list-style-type: none"> <li>• New Zealand's best selling and trusted brand</li> <li>• Ambition to be the No. 1 premium/luxury kitchen appliance brand globally</li> <li>• Brand built on the social kitchen concept</li> </ul> | <b>AQUA</b><br><ul style="list-style-type: none"> <li>• A user-preferred premium home appliance brand originated from Senyo Electric</li> <li>• Widely recognized in Japan and Southeast Asia</li> <li>• Leading in the smart community laundromat industry in Japan</li> </ul> | <b>Candy</b><br><ul style="list-style-type: none"> <li>• Smart Italian Brand</li> <li>• The first brand who launched simply-FL, a complete range of domestic appliances connected via Wi-Fi</li> <li>• No. 1 in market share of connected appliances in Europe</li> </ul> | <b>Casarte</b><br><ul style="list-style-type: none"> <li>• Own original high-end brand in China</li> <li>• Market leader in high-end white goods sector</li> <li>• Contemporary and classic design with European and American style</li> </ul> | <b>Leader</b><br><ul style="list-style-type: none"> <li>• Pioneer of fashionable, simple and modern designed appliances</li> <li>• A youthful brand specifically created for the young generation</li> <li>• Through innovative technology and fashionable design to build a fun life of endless possibilities</li> </ul> |  |
|--|---|---|---|---|--|---|--|

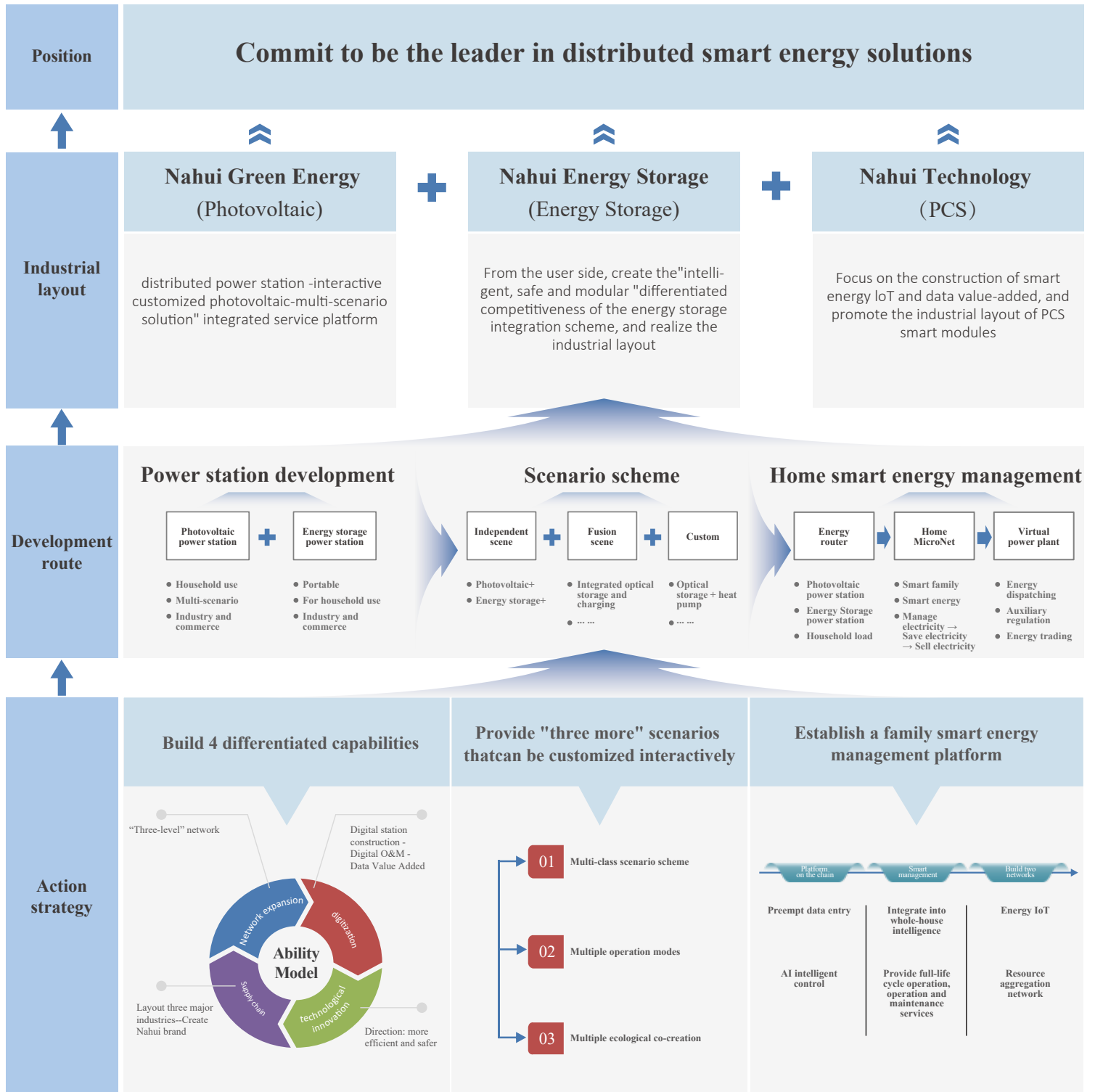
# Haier Nahui New Energy Platform

## NAHUI New Energy Technology

A new energy platform company with 100% controlled by Haier Group, it includes two major industries :Photovoltaic and Energy storage which creates a comprehensive service platform for new energy industry solutions with a market value of hundreds of billions of dollars.

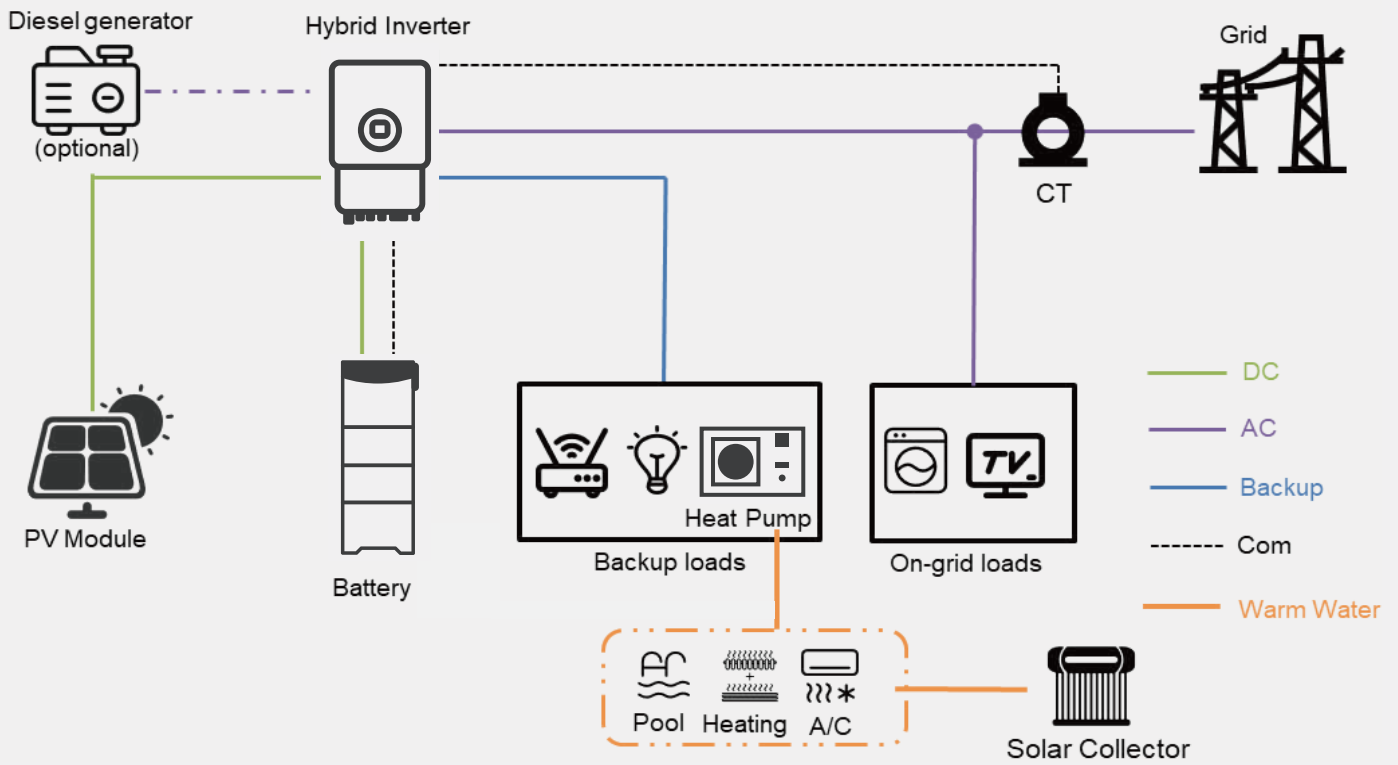
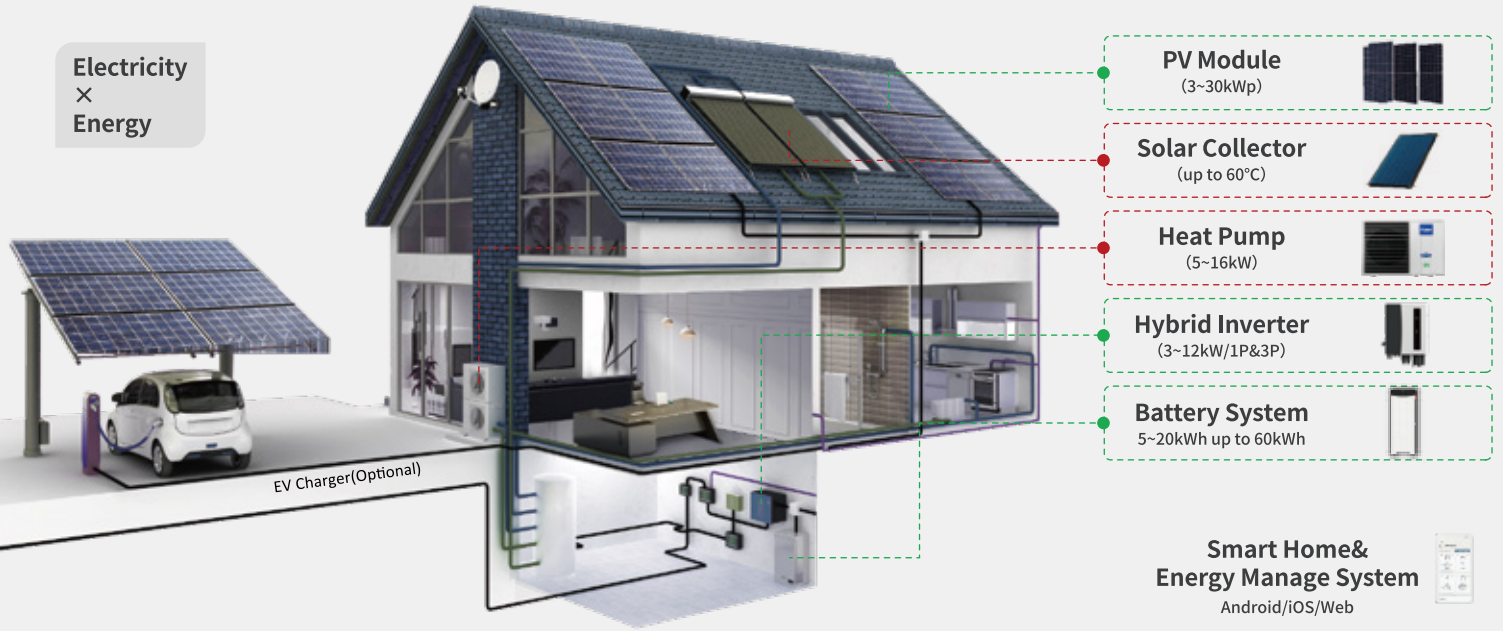
The photovoltaic industry starts from the market end to carry out investment and development, design and construction, operation and maintenance services for scenarios such as photovoltaic, industrial and commercial, public buildings, and ground power stations in the whole county, and synchronously lays out into the upstream photovoltaic industry chain.

Energy storage starts with Residential Energy Storage, focus on the scenarios of overseas household users + domestic industrial and commercial users, and becomes the leader of residential energy storage integration solutions through differentiated energy storage system with integration solutions.



# Haier E<sup>2</sup> Residential Energy Storage System Solution

Electricity  
×  
Energy



## Extreme Safety

Batteries active and passive safety design



## Lower Cost

Higher efficiency of RESS and heat pump



## Easy To Install

Modular wiring-free design, 1 person installation



## Wide Range Operation

Full power operation down to -30°C



## UPS Level Switch

Automatic on/off grid switching time 4ms



## Multi Inputs

Grid/PV/Diesel GEN Standard



## Flexible Parallel

Flexible Inverter & Batteries parallel















## One-Stop Service

All new/Retrofit one-stop Service

# HHS-1X5/10/15/20K Residential ESS (HV)

Haier








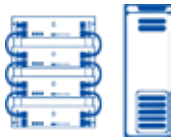






|   | Conventional   | HHS-1X   |
|---|--|--|
|  <p><b>SAFE</b><br/>LFP Cell<br/>4-layer safety protection &amp; 5 patented technologies</p>               |           |           |
|  <p><b>FLEXIBLE</b><br/>5kWh modular design, scalable from 5 to 60kWh</p>                                  |           |           |
|  <p><b>EASY INSTALLATION</b><br/>Stack and Light, wiring-less connection; 1-2 persons installation</p>     |           |           |
|  <p><b>DURABLE</b><br/>&gt;6000 life cycles<br/>5 Year Product Warranty , 10 Year Performance Warranty</p> | <br><6000 | <br>>6000 |

| Model                          | HHS-1X5K   | HHS-1X10K   | HHS-1X15K    | HHS-1X20K    |
|--------------------------------|--|-------------|--------------|--------------|
| Picture                        |  |             |              |              |
| Cell type                      | Lithium Iron Phosphate   |             |              |              |
| Battery module                 | B40012DP03-H(5.12kWh,400V,50kg)  |             |              |              |
| Number of Battery modules      | 1  | 2           | 3            | 4            |
| Nominal energy                 | 5kWh   | 10kWh       | 15kWh        | 20kWh        |
| <b>Usable energy (90% DOD)</b> | 4.5kWh   | 9kWh        | 13.5kWh      | 18kWh        |
| Nominal Charge Current         | 6A   | 12A         | 18A          | 24A          |
| Nominal Discharge Current      | 6.5A   | 13A         | 19.5A        | 25A          |
| Nominal voltage                | 400V   |             |              |              |
| Operating voltage range        | 350-450V   |             |              |              |
| Communication                  | CAN/RS485/WiFi/LAN   |             |              |              |
| Protection function            | Charge overvoltage, discharge under-voltage, overcurrent, over-temperature, short circuit protection, etc. |             |              |              |
| Cycle life                     | >6000 times (25℃,0.5C/0.5C,90%DOD,70%EOL)  |             |              |              |
| Scalability                    | max 3 systems in parallel  |             |              |              |
| Protection rating              | IP65   |             |              |              |
| Cooling Type                   | Natural convection   |             |              |              |
| Working temperature            | Charging: [-10,50]℃  |             |              |              |
|                                | Discharging: [-20,50]℃   |             |              |              |
| Working environment humidity   | 10%~95% (non condensation)   |             |              |              |
| Working altitude               | <4000m (Derating over 2000m)   |             |              |              |
| Warranty                       | 5 Year Product Warranty/10 Year Performance Warranty   |             |              |              |
| Operating Condition            | Indoor or outdoor  |             |              |              |
| Installation                   | Wall mounting/Ground Installation  |             |              |              |
| Certifications                 | IEC62619,CE, UL1973,FCC,UL9540   |             |              |              |
| Transportation                 | UN 38.3  |             |              |              |
| Size W*H*D(mm)                 | 633*597*189  | 633*912*189 | 633*1227*189 | 633*1542*189 |
| Weight                         | 67kg   | 119kg       | 171kg        | 223kg        |

# HLS-1X5/10/15/20K Residential ESS (LV)

Haier



|   | Conventional   | HLS-1X   |
|---|--|--|
|  <p><b>SAFE</b><br/>LFP Cell<br/>4-layer safety protection &amp; 5 patented technologies</p>               |           |           |
|  <p><b>FLEXIBLE</b><br/>5kWh modular design, scalable from 5 to 60kWh</p>                                  |           |           |
|  <p><b>EASY INSTALLATION</b><br/>Stack and Light, wiring-less connection; 1-2 persons installation</p>     |           |           |
|  <p><b>DURABLE</b><br/>&gt;6000 life cycles<br/>5 Year Product Warranty , 10 Year Performance Warranty</p> | <br><6000 | <br>>6000 |

| Model                            | HLS-1X5K  | HLS-1X10K   | HLS-1X15K    | HLS-1X20K    |
|----------------------------------|---|-------------|--------------|--------------|
| Picture                          |   |             |              |              |
| Cell type                        | Lithium Iron Phosphate  |             |              |              |
| Battery module                   | B051100P03-H (5.12kWh,51.2V,50kg)   |             |              |              |
| Number of Battery modules        | 1   | 2           | 3            | 4            |
| Nominal energy                   | 5kWh  | 10kWh       | 15kWh        | 20kWh        |
| <b>Usable energy (90% DOD)</b>   | 4.5kWh  | 9kWh        | 13.5kWh      | 18kWh        |
| Nominal Charge/Discharge Current | 50A/50A   | 100A/100A   | 150A/150A    | 200A/200A    |
| Max Charge/Discharge Current     | 100A/100A   | 180A/180A   | 200A/200A    | 200A/200A    |
| Nominal voltage                  | 51.2V   |             |              |              |
| Operating voltage range          | 44.8V~55.2V   |             |              |              |
| Communication                    | CAN/RS485/WiFi  |             |              |              |
| Protection function              | Charge overvoltage, discharge under-voltage, overcurrent, over-temperature, short circuit protection, etc |             |              |              |
| Cycle life                       | >6000 times (25℃,0.5C/0.5C,90%DOD,70%EOL)   |             |              |              |
| Scalability                      | max 3 systems in parallel   |             |              |              |
| Protection rating                | IP55  |             |              |              |
| Cooling Type                     | Natural convection  |             |              |              |
| Working temperature              | Charging: [-10,50]℃   |             |              |              |
|                                  | Discharging: [-20,50]℃  |             |              |              |
| Working environment humidity     | 10%~95% (non condensation)  |             |              |              |
| Working altitude                 | <4000m (Derating over 2000m)  |             |              |              |
| Warranty                         | 5 Year Product Warranty/10 Year Performance Warranty  |             |              |              |
| Operating Condition              | Indoor or outdoor   |             |              |              |
| Installation                     | Wall mounting/Ground Installation   |             |              |              |
| Certifications                   | IEC62619,CE, UL1973,FCC,UL9540  |             |              |              |
| Transportation                   | UN 38.3   |             |              |              |
| Size W*H*D(mm)                   | 573*597*189   | 573*912*189 | 573*1227*189 | 573*1542*189 |
| Weight                           | 65kg  | 115kg       | 165kg        | 215kg        |



















# HLR-1X5/10/15/20K

## Residential ESS (LV)

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|   | Conventional   | HLR-1X   |
|---|--|--|
|  <p><b>SAFE</b><br/>LFP Cell<br/>4-layer safety protection &amp; 5 patented technologies</p>               |           |           |
|  <p><b>FLEXIBLE</b><br/>5kWh modular design, scalable from 5 to 40kWh</p>                                  |           |           |
|  <p><b>EASY INSTALLATION</b><br/>Compact and Light, plug and play; 1-2 persons installation</p>            |           |           |
|  <p><b>DURABLE</b><br/>&gt;6000 life cycles<br/>5 Year Product Warranty , 10 Year Performance Warranty</p> | <br><6000 | <br>>6000 |










| Model                            | HLR-1X5K   | HLR-1X10K   | HLR-1X15K   | HLR-1X20K   |
|----------------------------------|--|---|---|---|
| Picture                          |                           |  |  |  |
| Cell type                        | Lithium Iron Phosphate   |   |   |   |
| Battery module                   | B051100P03-H (5.12kWh,51.2V,45kg)  |   |   |   |
| Number of modules in parallel    | 1  | 2   | 3   | 4   |
| Nominal energy                   | 5kWh   | 10kWh   | 15kWh   | 20kWh   |
| <b>Usable energy (90% DOD)</b>   | 4.5kWh   | 9kWh  | 13.5kWh   | 18kWh   |
| Nominal Charge/Discharge Current | 50A/50A  | 100A/100A   | 150A/150A   | 200A/200A   |
| Max Charge/Discharge Current     | 100A/100A  | 180A/180A   | 200A/200A   | 200A/200A   |
| Nominal voltage                  | 51.2V  |   |   |   |
| Operating voltage range          | 44.8V~55.2V  |   |   |   |
| Communication                    | CAN/RS485/WiFi/LAN   |   |   |   |
| Protection function              | Charge overvoltage, discharge under-voltage, overcurrent, over-temperature, short circuit protection, etc. |   |   |   |
| Cycle life                       | >6000 times (25℃,0.5C/0.5C,90%DOD,70%EOL)  |   |   |   |
| Scalability                      | Max 4 battery packs in Parallel for each rack; Max 2 racks in Parallel, Combiner box needed for expansion  |   |   |   |
| Protection rating                | IP20 (moudle)  |   |   |   |
| Cooling Type                     | Natural convection   |   |   |   |
| Working temperature              | Charging: [-10,50]℃  |   |   |   |
|                                  | Discharging: [-20,50]℃   |   |   |   |
| Working environment humidity     | 10%~95% (non condensation)   |   |   |   |
| Working altitude                 | <4000m (Derating over 2000m)   |   |   |   |
| Warranty                         | 5 Year Product Warranty/10 Year Performance Warranty   |   |   |   |
| Operating Condition              | Indoor   |   |   |   |
| Installation                     | Wall mounting/Ground Installation  |   |   |   |
| Certifications                   | IEC62619,CE, UL1973,FCC,UL9540   |   |   |   |
| Transportation                   | UN 38.3  |   |   |   |
| Size W*H*D(mm)                   | 482*135*433 (moudle)   |   |   |   |
| Weight                           | 45kg   | 90kg  | 140kg   | 185kg   |


# H1PL-2J3.6/5/6K-EU

Haier

## Single-phase Hybrid Inverter (LV)



|   | Conventional  | H1PL-2J   |
|---|---|---|
|  <p><b>SAFE</b><br/>Integrated AFCI function, actively detects arc faults in PV Array<br/>AC/DC Surge Protection</p>  |  |  |
|  <p><b>HIGH YIELDS</b><br/>Integrated 2 MPPTs, higher tracking accuracy for each string<br/>Wide voltage range, start earlier and stop later, more electricity generation</p> |  |  |
|  <p><b>HIGH PERFORMANCE</b><br/>Up to 15A of MPPT current input<br/>Multiple working modes to meet different using scenarios</p>  |  |  |










| Model   | H1PL-2J3.6K-EU   | H1PL-2J5K-EU    | H1PL-2J6K-EU    |
|---|--|-----------------|-----------------|
| Picture   |    |                 |                 |
| <b>Input DC (PV side)</b>                         |  |                 |                 |
| Recommended max. PV power                         | 5.7 kW   | 8 kW            | 8 kW            |
| Max. input voltage                                | 600 V  |                 |                 |
| Rated voltage                                     | 330 V  |                 |                 |
| Start-up voltage                                  | 120 V  |                 |                 |
| MPPT voltage range                                | 90-520 V   |                 |                 |
| Max. input current                                | 15 A / 15 A  |                 |                 |
| Max. short circuit current                        | 22.5 A / 22.5 A  |                 |                 |
| MPPT number                                       | 2  |                 |                 |
| Max. input strings number per MPPT                | 1  |                 |                 |
| <b>Battery</b>                                    |  |                 |                 |
| Battery type                                      | Li-ion / Lead-acid   |                 |                 |
| Battery voltage range                             | 42 - 58 V  |                 |                 |
| Max. charge / discharge power                     | 3 kW   | 5 kW            |                 |
| Max. charge / discharge current                   | 62.5 A   | 100 A           |                 |
| Communication                                     | CAN  |                 |                 |
| <b>Output AC (Grid side)</b>                      |  |                 |                 |
| Rated output power                                | 3.6 kW   | 5 kW            | 6 kW            |
| Max. apparent output power                        | 4 kVA  | 5.5 kVA         | 6.6 kVA         |
| Operation phase                                   | 1/N/PE   |                 |                 |
| Rated grid voltage                                | 220 V / 230 V  |                 |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz  |                 |                 |
| Rated grid output current                         | 16.4 A / 15.7 A  | 22.8 A / 21.7 A | 27.3 A / 26.1 A |
| Max. output current                               | 18.5 A   | 25 A            | 30 A            |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                 |                 |
| THDi  | <2%  |                 |                 |
| <b>Input AC (Grid side)</b>                       |  |                 |                 |
| Input voltage range                               | 187-265 V  |                 |                 |
| Max. input current                                | 25 A / 23.5 A  | 34.5 A / 33 A   | 34.5 A / 33 A   |
| Frequency range                                   | 45-55 Hz / 55-65 Hz  |                 |                 |
| <b>Output AC (Back-up)</b>                        |  |                 |                 |
| Rated output power                                | 3 kW   | 5 kW            |                 |
| Max. apparent output power                        | 4.5 kVA, 10 sec  | 7 kVA, 10 sec   |                 |
| Back-up switch time                               | <20 ms   |                 |                 |
| Rated grid voltage                                | 1/N/PE, 220 V / 230 V  |                 |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz  |                 |                 |
| Max. output current                               | 14 A / 13.5 A  | 23 A / 22 A     |                 |
| THDv (@linear load)                               | <2%  |                 |                 |
| <b>Efficiency</b>                                 |  |                 |                 |
| Max. efficiency                                   | >97.1%   |                 |                 |
| EU efficiency                                     | >96.5%   |                 |                 |
| <b>Protection</b>                                 |  |                 |                 |
| DC reverse-polarity protection                    | Yes  |                 |                 |
| Short circuit protection                          | Yes  |                 |                 |
| Output over current protection                    | Yes  |                 |                 |
| Surge protection                                  | DC Type II / AC Type II  |                 |                 |
| Ground fault monitoring                           | Yes  |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes (1)  |                 |                 |
| Protection class/Over voltage category            | I/II   |                 |                 |
| <b>General Data</b>                               |  |                 |                 |
| Dimensions (W*H*D)                                | 333*505*249 mm   |                 |                 |
| Weight  | 18.3 kg  |                 |                 |
| Topology  | High frequency isolation (for battery)   |                 |                 |
| Protection rating                                 | IP65   |                 |                 |
| Cooling concept                                   | Natural convection   |                 |                 |
| Max. operation altitude                           | 3000 m   |                 |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105/VDE V 0124, EN 50549-1, VDE 0126/UTE C 15/VFR:2019, RD 1699/RD 244/UNE 206006/UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, EN 61000-6-2/-3   |                 |                 |
| <b>Features</b>                                   |  |                 |                 |
| DC connection                                     | MC4 connector  |                 |                 |
| AC connection                                     | Quick connection plug  |                 |                 |
| Display   | 7.0"LCD color screen display   |                 |                 |
| Communication                                     | RS485, Optional: Wi-Fi, GPRS   |                 |                 |


# H1PL-1J3.6 /5/6K-EU

Haier | NAHUI

## Single-phase Hybrid Inverter (LV)



|   | Conventional  | H1PL-1J   |
|---|---|---|
|  <p><b>SAFE</b><br/>Integrated AFCI function, actively detects arc faults in PV Array<br/>IP66 protection</p>   |  |  |
|  <p><b>HIGH YIELDS</b><br/>Integrated 2 MPPTs, higher tracking accuracy for each string<br/>MPPT start-up voltage only 90V and wide voltage range, more electricity generation</p>        |  |  |
|  <p><b>HIGH PERFORMANCE</b><br/>Up to 16A of MPPT current input<br/>Supports 1.6 DC:AC ratio to connect more PV capacity<br/>Multiple working modes to meet different using scenarios</p> |  |  |










| Model   | H1PL-1J3.6K-EU   | H1PL-1J5K-EU    | H1PL-1J6K-EU    |
|---|--|-----------------|-----------------|
| Picture   |    |                 |                 |
| <b>Input DC (PV side)</b>                         |  |                 |                 |
| Recommended max. PV power                         | 5.7 kW   | 8 kW            | 9.6 kW          |
| Max. input voltage                                | 600 V  |                 |                 |
| Rated voltage                                     | 330 V  |                 |                 |
| Start-up voltage                                  | 90 V   |                 |                 |
| MPPT voltage range                                | 90-520 V   |                 |                 |
| Max. input current                                | 16 A / 16 A  |                 |                 |
| Max. short circuit current                        | 24 A / 24 A  |                 |                 |
| MPPT number                                       | 2  |                 |                 |
| Max. input strings number per MPPT                | 1  |                 |                 |
| <b>Battery</b>                                    |  |                 |                 |
| Battery type                                      | Li-ion / Lead-acid   |                 |                 |
| Battery voltage range                             | 42 - 58 V  |                 |                 |
| Max. charge / discharge power                     | 3.6kW  | 5kW             | 6kW             |
| Max. charge / discharge current                   | 75 A   | 105A            | 125A            |
| Communication                                     | CAN/RS485  |                 |                 |
| <b>Output AC (Grid side)</b>                      |  |                 |                 |
| Rated output power                                | 3.6 kW   | 5kW             | 6kW             |
| Max. apparent output power                        | 4 kVA  | 5.5 kVA         | 6.6 kVA         |
| Operation phase                                   | 1/N/PE   |                 |                 |
| Rated grid voltage                                | 220 V / 230 V  |                 |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz  |                 |                 |
| Rated grid output current                         | 16.4 A / 15.7 A  | 22.7 A / 21.7 A | 27.3 A / 26.1 A |
| Max. output current                               | 18.2 A   | 25 A            | 30A             |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)  |                 |                 |
| THDi  | <2%  |                 |                 |
| <b>Input AC (Grid side)</b>                       |  |                 |                 |
| Input voltage range                               | 187-253 V  |                 |                 |
| Max. input current                                | 24.6 A   | 34.1 A          | 40 A            |
| Frequency range                                   | 45-55 Hz / 55-65 Hz  |                 |                 |
| <b>Output AC (Back-up)</b>                        |  |                 |                 |
| Rated output power                                | 3.6 kW   | 5kW             | 6kW             |
| Max. apparent output power                        | 5 kVA, 60 sec  | 7 kVA, 60 sec   | 8 kVA, 60 sec   |
| Back-up switch time                               | <10 ms   |                 |                 |
| Rated grid voltage                                | 1/N/PE, 220 V / 230 V  |                 |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz  |                 |                 |
| Max. output current                               | 26.2 A   | 36.5 A          | 40 A            |
| THDv (@linear load)                               | <2%  |                 |                 |
| <b>Efficiency</b>                                 |  |                 |                 |
| Max. efficiency                                   | > 97.5%  |                 |                 |
| EU efficiency                                     | > 96.2%  |                 |                 |
| <b>Protection</b>                                 |  |                 |                 |
| DC reverse-polarity protection                    | Yes  |                 |                 |
| Ground fault monitoring                           | Yes  |                 |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes (Activation required)  |                 |                 |
| Protection class/Over voltage category            | I/II   |                 |                 |
| <b>General Data</b>                               |  |                 |                 |
| Dimensions (W*H*D)                                | 405*480*205 mm   |                 |                 |
| Weight  | 24.2 kg  |                 |                 |
| Topology  | High frequency isolation (for battery)   |                 |                 |
| Operating ambient temperature range               | -25~60°C   |                 |                 |
| Protection rating                                 | IP66   |                 |                 |
| Cooling concept                                   | Natural convection   |                 |                 |
| Max. operation altitude                           | 4000 m   |                 |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15 / VFR:2019, RD 1699 / RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                 |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, EN 61000-6-1/-2/-3/-4   |                 |                 |
| <b>Features</b>                                   |  |                 |                 |
| DC connection                                     | MC4 connector  |                 |                 |
| AC connection                                     | Quick connection plug  |                 |                 |
| Display   | LED + APP  |                 |                 |
| Communication                                     | RS485, CAN, Optional: Wi-Fi, GPRS, LAN   |                 |                 |


# H3PH-1J6/8/10K-EU

Haier

## Three-phase Hybrid Inverter (HV)



|  | Conventional  | H3PH-1J   |
|--|---|---|
|  <b>SAFE</b><br>Integrated AFCI function, actively detects arc faults in PV Array<br>IP66 protection  |  |  |
|  <b>HIGH YIELDS</b><br>Integrated 3-4 MPPTs, higher tracking accuracy for each string<br>MPPT start-up voltage only 160V and wide voltage range, more electricity generation    |  |  |
|  <b>HIGH PERFORMANCE</b><br>Up to 16A of MPPT current input<br>Supports 1.6 DC:AC ratio to connect more PV capacity<br>Multiple working modes to meet different using scenarios |  |  |













| Model   | H3PH-1J6K-EU  | H3PH-1J8K-EU     | H3PH-1J10K-EU   |
|---|---|------------------|-----------------|
| Picture   |   |                  |                 |
| <b>Input DC (PV side)</b>                         |   |                  |                 |
| Recommended max. PV power                         | 9.6 kW  | 12.8 kW          | 16 kW           |
| Max. input voltage                                | 1000 V  |                  |                 |
| Rated voltage                                     | 600 V   |                  |                 |
| Start-up voltage                                  | 160 V   |                  |                 |
| MPPT voltage range                                | 200-850 V   |                  |                 |
| Max. input current                                | 16 A / 16 A   |                  |                 |
| Max. short circuit current                        | 24 A / 24 A   |                  |                 |
| MPPT number                                       | 3   | 4                | 4               |
| Max. input strings number per MPPT                | 1   | 1                | 1               |
| <b>Battery</b>                                    |   |                  |                 |
| Battery type                                      | Li-ion  |                  |                 |
| Battery voltage range                             | 120-600 V   |                  |                 |
| Max. charge / discharge power                     | 6 kW  | 8 kW             | 10kW            |
| Max. charge / discharge current 25 A              | 25A   | 50A              | 50A             |
| Communication                                     | CAN/RS485   |                  |                 |
| <b>Output AC (Grid side)</b>                      |   |                  |                 |
| Rated output power                                | 6 kW  | 8 kW             | 10kW            |
| Max. apparent output power                        | 6.6 Kva   | 8.8 kVA          | 11 kVA          |
| Rated grid voltage                                | 3/N/PE, 380 V / 400 V   |                  |                 |
| Rated grid frequency                              | 50 Hz / 60 Hz   |                  |                 |
| Rated grid output current                         | 9.1 A / 8.7 A   | 12.2 A / 11.5 A  | 15.2 A / 14.4 A |
| Max. output current                               | 10 A / 9.6 A  | 13.4 A / 12.7 A  | 16.7 A / 15.8 A |
| Power factor                                      | >0.99 (0.8 leading - 0.8 lagging)   |                  |                 |
| THDi  | <3%   |                  |                 |
| <b>Input AC (Grid side)</b>                       |   |                  |                 |
| Max. input power                                  | 9 kW  | 12 kW            | 15 kW           |
| Rated input current                               | 13.8 A  | 18.2 A           | 22.8 A          |
| Rated input voltage                               | 3/N/PE, 380 V / 400 V   |                  |                 |
| Rated input frequency                             | 50 Hz / 60 Hz   |                  |                 |
| <b>Output AC (Back-up)</b>                        |   |                  |                 |
| Rated output power                                | 6 kW  | 8 kW             | 10kW            |
| Max. apparent output power                        | 9.6 kVA, 60 sec   | 12.8 kVA, 60 sec | 16 kVA, 60 sec  |
| Back-up switch time                               | <10 ms  |                  |                 |
| Rated output voltage                              | 3/N/PE, 380 V / 400 V   |                  |                 |
| Rated frequency                                   | 50 Hz / 60 Hz   |                  |                 |
| Rated output current                              | 9.1 A / 8.7 A   | 12.2 A / 11.5 A  | 15.2 A / 14.4 A |
| THDv (@linear load)                               | <2%   |                  |                 |
| <b>Efficiency</b>                                 |   |                  |                 |
| Max. efficiency                                   | 97.91%  | 98.03%           | 98.04%          |
| EU efficiency                                     | 97.10%  | 97.41%           | 97.51%          |
| <b>Protection</b>                                 |   |                  |                 |
| Anti-islanding protection                         | Yes   |                  |                 |
| Output over current protection                    | Yes   |                  |                 |
| Short circuit protection                          | Yes   |                  |                 |
| Integrated AFCI (DC arc-fault circuit protection) | Yes (Activation required)   |                  |                 |
| Integrated DC switch                              | Yes   |                  |                 |
| DC reverse-polarity protection                    | Yes   |                  |                 |
| PV over voltage protection                        | Yes   |                  |                 |
| Battery reverse protection                        | Yes   |                  |                 |
| <b>General Data</b>                               |   |                  |                 |
| Dimensions (W*H*D)                                | 600*500*230 mm  |                  |                 |
| Weight  | 32.6 kg   |                  |                 |
| Topology  | Transformerless   |                  |                 |
| Self-consumption (night)                          | <25 W   |                  |                 |
| Operating ambient temperature range               | -25-60°C  |                  |                 |
| Protection rating                                 | IP66  |                  |                 |
| Cooling concept                                   | Natural convection  |                  |                 |
| Max. operation altitude                           | 4000 m  |                  |                 |
| Grid connection standard                          | G98 or G99, VDE-AR-N 4105 / VDE V 0124, EN 50549-1, VDE 0126 / UTE C 15/VFR:2019, RD 1699/RD 244 / UNE 206006 / UNE 206007-1, CEI 0-21, C10/11, NRS 097-2-1, TOR, EIFS 2018.2, IEC 62116, IEC 61727, IEC 60068, IEC 61683, EN 50530, MEA, PEA |                  |                 |
| Safety/EMC standard                               | IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3  |                  |                 |
| <b>Features</b>                                   |   |                  |                 |
| PV connection                                     | MC4 connector   |                  |                 |
| Battery connection                                | Quick connection plug   |                  |                 |
| AC connection                                     | Quick connection plug   |                  |                 |
| Display   | LED + Bluetooth + APP   |                  |                 |
| Communication                                     | CAN, RS485, Ethernet, Optional: Wi-Fi, Cellular, LAN  |                  |                 |





# HLP-1X1000-US/JP/EU Portable Power Station

Haier | NAHUI



|  | Conventional  | HLP-1X  |
|--|---|---|
|  <p><b>SAFE</b><br/>LFP Cell<br/>4 common scenarios safety guarantee &amp; 6 stages protection design</p> |                  |                  |
|  <p><b>CONVENIENT</b><br/>Up to 12 output interfaces, supporting simultaneous use of multiple devices</p> |                  |                  |
|  <p><b>RELIABLE</b><br/>Pure sine wave output, no damage to electrical appliances</p>                     |                  |                  |
|  <p><b>DURABLE</b><br/>&gt;2000 life cycles</p>   |  <p>&lt;2000</p> |  <p>&gt;2000</p> |

| Model                    | HLP-1X1000-US   | HLP-1X1000-JP             | HLP-1X1000-EU   |
|--------------------------|---|---------------------------|---|
| Picture                  |  |                           |  |
| Cell type                | Lithium Iron Phosphate  |                           |   |
| Nominal energy           | 1182Wh  |                           |   |
| <b>AC output</b>         |   |                           |   |
| AC output                | 1000W (1500W peak)  |                           |   |
| Continuous output power  | 100-120V (pure sine wave)   | 100-120V (pure sine wave) | 200-240V (pure sine wave)   |
| <b>DC output</b>         |   |                           |   |
| DC output                | 12±1V/10A   |                           |   |
| USB A output             | 5V/2.4A   |                           |   |
| USB A 18W output         | 5-12V/18W max   |                           |   |
| PD 60W output            | 5-20V/60W max   |                           |   |
| Cigarette lighter socket | 13±1V/10A max   |                           |   |
| <b>AC/CIG/PV input</b>   |   |                           |   |
| PV input                 | MPPT 15-40V/150W Max  |                           |   |
| Cigarette lighter socket | 12-24V/120W max   |                           |   |
| AC input                 | 100-120V ;50/60Hz   |                           |   |
| <b>General data</b>      |   |                           |   |
| Protection rating        | IP21  |                           |   |
| Life cycle               | >2000 times   |                           |   |
| DOD                      | >90%  |                           |   |
| Total output ports       | 12  |                           |   |
| UPS                      | <20ms   |                           |   |
| Net weight               | 23kg  |                           |   |
| Dimension                | 350*345*315mm   |                           |   |

## Haier Total Advantages for Customers



# Haier | NAHUI

Haier Group | NAHUI New Energy Industry Internet Platform

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