

Haier



The Haier Smart Cube

About Haier Group

Founded in 1984, Haier Group is a leading global provider of better life and digital transformation solutions. Based on the purpose of "More Creation, More Possibilities", we are committed to co-create infinite possibilities for a better life with users, and to co-create infinite possibilities for industrial development with the ecosystem partners.

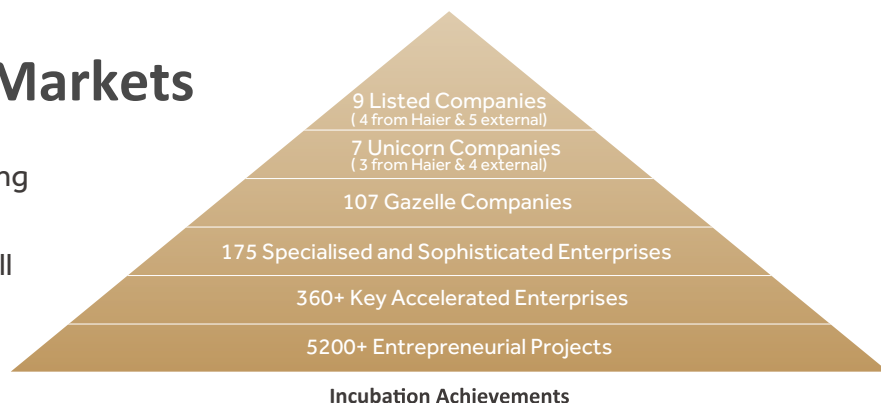
We've always been user centered, adhered to original technology and built a landscape of two pillars, Smart Living and Industrial Internet. We have built 10 R&D centers, 71 research institutes, 35 industrial parks, 143 manufacturing centers and a sales network of 230,000 nodes around the world.

We are the world's only IoT Ecosystem Brand that has been ranked in the Kantar BrandZ Top 100 Most Valuable Global Brands for 5 consecutive years. We also retain the top position in Euromonitor's Global Major Appliances Brand for 15 consecutive years.

Recognition in Capital Markets

Haier has transformed from a manufacturing enterprise to an incubator platform.

Haier Incubator is open to entrepreneurs all over the world.



#1

Company Globally in Major Appliances



48.1 B €

Operating Revenue



200

Countries and Regions



143

Manufacturing Centers



126

Marketing Centers



35

Industrial Parks



5

Key Regions



120,000

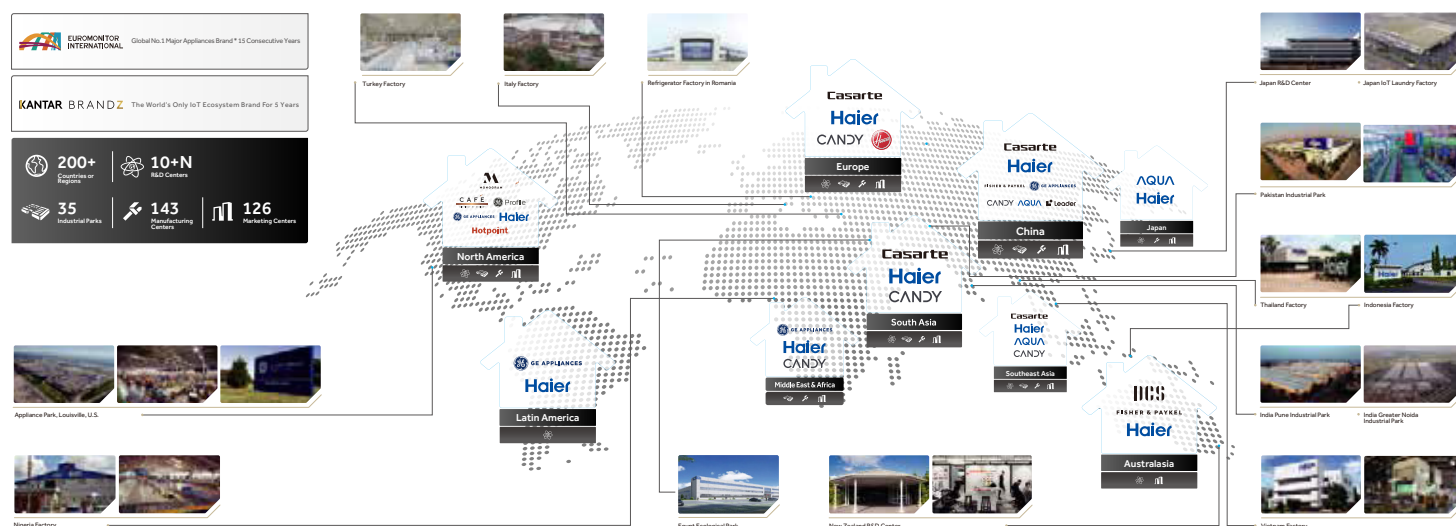
Employees Worldwide



1 BILLION

User Families around the World

Haier Ecosystem Brand Globalization Network



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Smart Cube

the fully integrated solution

► Energy Controller

► DC EV Charging Module

► Battery

All-in-One design

Combining Hybrid Solar Inverter, DC EV Charger, Battery Pack,

Energy Controller and integrating Heat Pump into one powerful energy system.

5 layers

Battery safety protection

5 mins

Fast commissioning

0 ms

Backup switching time

280 Ah

Large capacity battery cell

up to 20 systems

In parallel

4 layers

Comprehensive system protection

15 mins

Stackable Installation

100 %

Off-grid power output

1-click

Full system diagnosis

960kWh

Max. ES capacity



Simple



Versatile



Robust



Smart

Energy Controller 3.0-6.0 kW Single Phase

	HH1P-3K	HH1P-3.6K	HH1P-4K	HH1P-4.6K	HH1P-5K	HH1P-6K	Units
DC Input (from PV)							
Max. PV power	6000	7360	8000	9200	10000	12000	W
Max. DC input voltage			600				V
Nominal DC input voltage			350				V
Start-up voltage			100				V
MPPT voltage range			50 ~ 550				V
Number of MPP. trackers			2				
Number of PV strings per MPPT			1				
Max. input current per MPPT			16				A
Max. short-circuit current per MPPT			20				A
AC Output (on-grid)							
Nominal output power	3000	3680	4000	4600	5000	6000	W
Max. output apparent power	3300	3680	4400	5000	5500	6600	VA
Nominal output current	13.6	16.0	18.2	20.9	22.7	27.3	A
Max. output current	15.0	16.0	20.0	22.7	25.0	30.0	A
Nominal output voltage			220 / 230 / 240				V
Nominal grid frequency			50 / 60				Hz
Power factor			0.8 leading ~ 0.8 lagging				
Total current harmonic distortion			THDi < 2%				
Efficiency							
Max. efficiency			98.0%				
European efficiency	97.0%	97.1%	97.2%	97.3%	97.4%	97.4%	
AC Output (backup)							
Peak output power (10 seconds)	4500	5520	6000	6900	7500	9000	W
Nominal output voltage			220 / 230 / 240				V
Nominal output frequency			50 / 60				Hz
Power factor			0.8 leading ~ 0.8 lagging				
Total voltage harmonic distortion			THDv < 2%				
Disruption time of backup switch ¹			0				ms
Battery Connection							
Battery module models			HBP-5.0/8.0				
Number of modules per controller			1 ~ 6				pcs
Battery module voltage range			300 ~ 600				V
Protection							
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter ² , AC overcurrent/overvoltage/short-circuit protection. Type II DC/AC surge protection, Anti-islanding protection						
General Data							
Dimensions (W / H / D)	700 / 300 / 245						mm
Weight	18						kg
Storage temperature range	-40 ~ 70						°C
Operating temperature range	-30 ~ 60						°C
Relative humidity range	0% ~ 95%						
Max. operating altitude	4000						m
Cooling	Natural convection						
System ingress protection rating	IP66						
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)						
Standard Compliance							
Standard	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 62477, IEC/EN 61000-6-1, IEC/EN 61000-6-2						

- This refers to the load-side disruption time, to achieve this functionality Energy Gateway needs to be used together with Energy Controller and Battery. Test conditions: In the open-circuit state of the power grid, the nominal power of the Energy Controller is higher than the total power of the home loads.
- This is an optional feature only supported in certain models, please contact for more information.

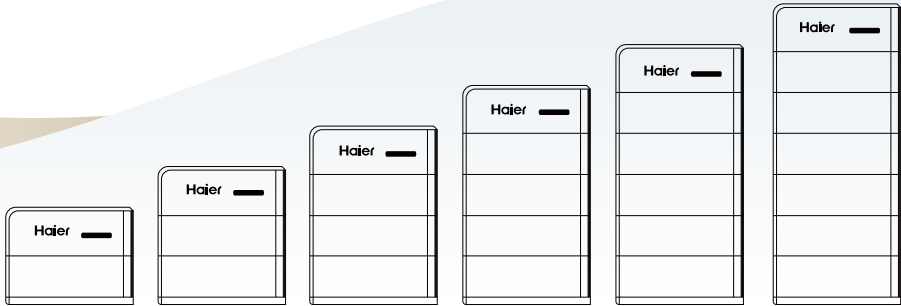
Energy Controller 5.0-25.0 kW Three Phase

	HH3P-5K	HH3P-6K	HH3P-8K	HH3P-10K	HH3P-12K	HH3P-15K	HH3P-17K	HH3P-20K	HH3P-25K	Units
DC Input (from PV)										
Max. PV power	8000	9600	12800	16000	19200	24000	27200	32000	40000	W
Max. DC input voltage	1100									V
Nominal DC input voltage	600									V
Start-up voltage	180									V
MPPT voltage range	160 ~ 1000									V
Number of MPP. trackers	2			3			4			
Number of PV strings per MPPT	1									
Max. input current per MPPT	16									A
Max. short-circuit current per MPPT	20									A
AC Output (on-grid)										
Nominal output power	5000	6000	8000	10000	12000	15000	17000	20000	25000	W
Max. output apparent power	5500	6600	8800	11000	13200	16500	18700	22000	27500	VA
Nominal output current	7.6	9.1	12.2	15.2	18.2	22.8	25.8	30.4	38.0	A
Max. output current	8.4	10.0	13.4	16.7	20.1	25.1	28.4	33.4	41.8	A
Nominal output voltage	380 / 400									V
Nominal grid frequency	50 / 60									Hz
Power factor	0.8 leading ~ 0.8 lagging									
Total current harmonic distortion	THDi < 2%									
Efficiency										
Max. efficiency	98.1%	98.2%	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%	98.3%	
European efficiency	96.1%	96.6%	97.1%	97.5%	97.7%	97.9%	97.9%	97.9%	98.0%	
AC Output (backup)										
Peak output power (10 seconds)	7500	9000	12000	15000	18000	22500	25500	30000	30000	W
Nominal output voltage	380 / 400									V
Nominal output frequency	50 / 60									Hz
Power factor	0.8 leading ~ 0.8 lagging									
Total voltage harmonic distortion	THDv < 2%									
Disruption time of backup switch ¹	0									ms
Battery Connection										
Battery module models	HBP-5.0/8.0									
Number of modules per controller	1 ~ 6									pcs
Battery module voltage range	600 ~ 900									V
Protection										
Safety protection feature	DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter ² , AC overcurrent/overvoltage/short-circuit protection. Type II DC/AC surge protection, Anti-islanding protection									
General Data										
Dimensions (W / H / D)	700 / 300 / 260									mm
Weight	36									kg
Storage temperature range	-40 ~ 70									°C
Operating temperature range	-30 ~ 60									°C
Relative humidity range	0% ~ 95%									
Max. operating altitude	4000									m
Cooling	Smart air cooling									
System ingress protection rating	IP66									
Communication	WLAN / Fast Ethernet / RS485 / Sigen CommMod (4G/3G/2G)									
Standard Compliance										
Standard	IEC/EN 62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-2									

1. This refers to the load-side disruption time, to achieve this functionality Energy Gateway needs to be used together with Energy Controller and Battery. Test conditions: In the open-circuit state of the power grid, the nominal power of the Energy Controller is higher than the total power of the home loads.
2. This is an optional feature only supported in certain models, please contact for more information.

Battery 5.0 / 8.0 kWh

	HBP-5.0	HBP-8.0	Units
Performance Specification			
Battery type	LiFePO4		
Total energy capacity	5.38	8.06	kWh
Usable energy capacity ¹	5.2	7.8	kWh
Battery modules voltage range (single phase system)	300 ~ 600		V
Battery modules voltage range (three phase system)	600 ~ 900		V
Max. charge / discharge power	2500	4000	W
Peak charge / discharge power (10 seconds)	3750	6000	W
General Data			
Weight	55	70	kg
Dimensions (W / H / D)	767 / 270 / 260		mm
Storage temperature range	-25 ~ 60		°C
Operating temperature range	-20 ~ 55		°C
Relative humidity range	5% ~ 95%		
Max. operating altitude	4000		m
Cooling	Natural convection		
System ingress protection rating	IP66		
Installation method	Floor standing / Wall-mounted		
Standard Compliance			
Standard	IEC/EN 60730-1, UN 38.3, IEC/EN 62619, IEC/EN 63056, IEC/EN 62040		



Number of battery modules ²	1	2	3	4	5	6	pcs
Total energy capacity	8.06	16.12	24.18	32.24	40.3	48.36	kWh
Max. charge / discharge power	4	8	12	16	20	24	kW
Total weight	112	183	254	325	396	467	kg
Total height (with base)	640	910	1180	1450	1720	1990	mm
Total width (with decorative covers)	850						mm
Total depth (with decorative covers)	260						mm

1. Test conditions: 100% depth of discharge, 0.2C rate charge & discharge averagely at 25°C, at the beginning of life.
2. The data in the table is based on the combination of BAT 8.0 and EC three-phase as an example, with a ground-mounted installation.

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EV DC Charger

-  Charge EV with 100% solar power
-  Track & schedule charging on Haier Smart Cube APP
-  Max. 25 kW stable bi-directional charging
-  150 V – 1000 V charging, wide EV compatibility
-  V2X ready technology, future proof
-  IP66 protection, maintenance free

EV DC Charger 12/25 kW

	HEVDC-12S2C5	HEVDC-25S2C5	Units
DC Charging			
Max. charging power of charging port	12.5	25	kW
Max. discharging power of charging port	12.5	25	kW
Operation voltage range	150 ~ 1000		V
Max. operation current	40	80	A
Charging interface	CCS2		
Protection			
Short-circuit protection	Supported		
Over / Under voltage protection	Supported		
Overload protection	Supported		
Over temperature protection	Supported		
Reverse polarity protection	Supported		
Welded contactor check	Supported		
General Data			
Dimensions (W / H / D)	700 / 270 / 260		mm
Weight ²	37 (5m cable) / 39 (7.5m cable) / 41 (10m cable)		kg
Storage temperature range	-40 ~ 70		°C
Operating temperature range	-30 ~ 60		°C
Relative humidity range	5% ~ 95%		
Max. operating altitude	4000		m
Cooling	Smart air cooling		
System ingress protection rating	IP66		
Integrated charging cable length ³	5 / 7.5 / 10		m
Function			
Authentication	RFID card / App / No authentication		
Application	Bi-directional V2X operation ⁴ , Smart load management		
User interfaces	LED indicator, App, RFID		
Remote function	OTA, Remote diagnostics		
Standard Compliance			
Standard	EN IEC 61851-1, EN 61851-23, EN IEC 61851-21-2, ETSI EN 303 645		

1. EV DC Charging Module needs to be used together with Energy Controller.
2. The net weight includes the CCS2 cable-assembly also, but excludes the exteriors, wall-mounting fixtures and the related attachments.
3. Integrated charging cable length refers to the length of the cable that extends from the EV DC Charging Module, not the length of the exposed cable.
4. V2X functionality is limited by the EV's capabilities. Once the relevant standards are published and tested, V2X feature can be upgraded through the OTA. For the official support of vehicle models and support timelines, please refer to future announcement made on the official website.

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EV AC Charger



-  Green power charging with Smart Cube home energy solution
-  Data tracking & scheduled charging on Haier Smart Cube App
-  Dynamic load management to prevent overload, user-friendly charging*
-  Easy installation with less steps and top/bottom entry option
-  Integrated residual current failure protection reduces installation costs
-  IP65 and wall-mounted installation provide high adaptability

* Only works with Smart Cube home energy solution and Smart Cube Power Sensor

EV AC Charger 7 / 11/22 kW

	HEVAC-7T2	HEVAC-7T2C5	HEVAC-11T2	HEVAC-11T2C5	HEVAC-22T2	HEVAC-22T2C5	Units
AC Input & Output							
Nominal charging power	7		11		22		kW
Nominal output voltage	1P/N/PE, 220 ~ 240		3P/N/PE, 220 ~ 240 / 380 ~ 415		3P/N/PE, 220 ~ 240 / 380 ~ 415		V
Output current range	6 ~ 32		6 ~ 16		6 ~ 32		A
Nominal AC frequency			50 / 60				Hz
Vehicle connection			Type 2 connector / Type 2 socket with shutter				
AC input cable width range			2.5 ~ 6.0				mm ²
Protection							
Integrated DC fault detection ¹			6				mA
Integrated AC fault detection ¹			30				mA
Flame retardant rating			UL94-5VB				
Over / Under voltage protection			Supported				
Overload protection			Supported				
Over temperature protection			Supported				
PEN protection			Supported				
Randomized charging delay			Supported				
Ground fault protection			Supported				
Surge protection			Supported				
Grounding system			TT, TN, IT				
User Interface & Communication							
Protocol			RS485, Modbus RTU				
Communication			4G / WLAN / Fast Ethernet				
Authentication			RFID card / App / Auto-charge (no authentication)				
Display			LED indicator / App				
Charging mode ²			100% PV charging / Solar boost charging / Fast charging				
Metering			External meter with RS485 / Integrated metering IC				
Dynamic load management ³			Supported				
Phase switching			Supported				
OCPP protocol			OCPP 1.6J ED 2				
General Data							
Dimensions (W / H / D)			234 / 384 / 126				mm
Weight (case B / case C)			4.5 / 6.4				kg
Storage temperature range			-40 ~ 70				°C
Operating temperature range			-30 ~ 55				°C
Relative humidity range			5% ~ 95%				
Max. operating altitude			4000				m
Cooling			Natural convection				
Ingress protection rating			IP65				
Installation method			Wall-mounted				
Application environment			Outdoor / Indoor				
Standby self-consumption			< 3.6				W
Standard charging cable length			5				m
Standard Compliance							
Standard	EN IEC 61851-1, IEC 62995, EN IEC 61851-21-2, ETSI EN 300 330 V2.1.1, ETSI EN 301 511 V2.5.1, EN IEC 62311, EN50665, ETSI EN 300 328 V2.2.2						

1. Residual direct current protective device (RDC-PD) with integrated AC pulsating DC and 6mA DC detection, evaluation and mechanical switching in the EV AC Charger is tested according to IEC 62955.
2. This function needs to be used with Smart Cube BAT.
3. This function needs to be used with Power Sensor.

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Energy Gateway

- ⚡ Multiple breaker positions reserved for Smart Cube or other loads
- ⚡ Seamless switch to backup mode, worry-free energy usage
- 🔌 Ready for generator, heat pump or other controllable loads
- 🏠 Support both whole home backup & partial home backup
- ⚡ 350 ms reverse power flow protection of grid & generator
- ⌚ Uninterrupted power supply through PV+ESS/grid/generator

Energy Gateway

	HG-SS	HG-TS	Units
Grid Connection			
Grid connection type	Single phase	Three phase	
Nominal AC voltage	220 / 230 / 240	380 / 400	V
Nominal AC current	100	76	A
Nominal AC power	22 / 23 / 24	50 / 52.6	kW
Nominal AC frequency	50 / 60		Hz
Disruption time of backup switch ¹	0		ms
AC Output to Backup Port			
Nominal AC voltage	220 / 230 / 240	380 / 400	V
Nominal AC current	100	76	A
Nominal AC power	22 / 23 / 24	50 / 52.6	kW
Nominal AC frequency	50 / 60		Hz
Overvoltage category	III		
Inverter Connection / EV Charger Port (optional)			
Max. number of connection	3	2	
Nominal AC voltage	220 / 230 / 240	380 / 400	V
Nominal AC current	32	38	A
Compatible EV charger power	7	11 / 22	kW
Smart Port Connection			
Generator output voltage	220 / 230 / 240	380 / 400	
Nominal current	63	76	A
Nominal AC power	13.8 / 14.5 / 15.1	50 / 52.6	kW
Generator 2-wire start	Supported		
General Data			
Dimensions (W / H / D)	455 / 660 / 179	510 / 750 / 179	mm
Weight	19	23	kg
Storage temperature range	-40 ~ 70		°C
Operating temperature range	-30 ~ 55		°C
Relative humidity range	0% ~ 95%		
Max. operation altitude	4000		m
Cooling	Natural convection		
Ingress protection rating	IP54		
Communication	Fast Ethernet, RS485, dry contact		
Installation method	Wall mounted		

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CommMod

- ⊕ IP66 protection rating, more reliable
- 😊 Plug & play, easy to use
- 📶 Support 4G communication

Communication Module

	HC-U4G	Units
Connection interface	USB	
Installation type	Plug-and-play	
Display	LED indicators	
Dimensions (W / H / D)	52 / 112 / 33	mm
Weight	90	g
Ingress protection rating	IP66	
Power consumption (typical)	< 4	W
Supported standards	4G: FDD-LTE / TDD-LTE 3G: WCDMA / HSDPA / HSUPA / HSPA+ 2G: GSM / GPRS / EDGE3	
Storage temperature range	-40 ~ 70	°C
Operating temperature range	-30 ~ 60	°C
Relative humidity range	0% ~ 95%	
Max. operating altitude	4000	m
Controller / Inverter compatibility	Energy Controller series	



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Power Sensor



- ① 1% high-accuracy power detection for precise control
- ② LCD real-time info display, easy to operate and check
- ③ Integrates smoothly with Smart Cube devices, no need for setup
- ④ Support export/import limitations and ready for AI evolving
- ⑤ 100 ms data refresh rate, instantaneous data feed

Power Sensor

	HMS-CT120A	HMT-CT120A	HMT-CT300A	HMT-CT600A	Units
Power Supply					
Grid connection type	1P2W		3P3W/3P4W		
AC input voltage range	176 ~ 276		173 ~ 480		Vac
Nominal AC frequency			50 / 60		Hz
Max. operating current	-	-	-	-	A
Measurement Accuracy					
Voltage accuracy			0.5%		
Current accuracy			0.5%		
Power accuracy			1%		
Frequency accuracy			0.2%		
Communication					
Interface			RS485		
Baud rate			9600		bps
Protocol			Modbus RTU		
General Data					
Dimensions (W / H / D)	18 / 118 / 64		72 / 94.5 / 65		mm
Weight	0.07	0.20	0.20	0.23	kg
Storage temperature range			-40 ~ 85		°C
Operating temperature range			-30 ~ 60		°C
Relative humidity range			0% ~ 90%		
Ingress protection rating			IP51		
Installation method			DIN Rail 35 mm		
CT Accessory					
Number of CT	1	3	3	3	pcs
Cable length of CT	1	1	1	1	m
Inner diameter of CT	16	16	24	36	mm
Weight of CT	0.09	0.09	0.2	0.4	kg
Max. operating current of CT	120	120	300	600	A
Standard Compliance					
Standard	EN 61010-1:2010, EN 61010-2-030:2010				

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C&I Solution



- **Simple Installation**

Modular design, simple commissioning

- **Lower cost**

Lower CAPEX and lower OPEX

- **Higher efficiency**

Higher Energy Density and higher System Yield

- **Superior safety**

5-layer Battery protection and 5-layer System protection

- **Intelligent control**

One screen to track all power plants, AI mode to provide better financial returns



AC-Coupling



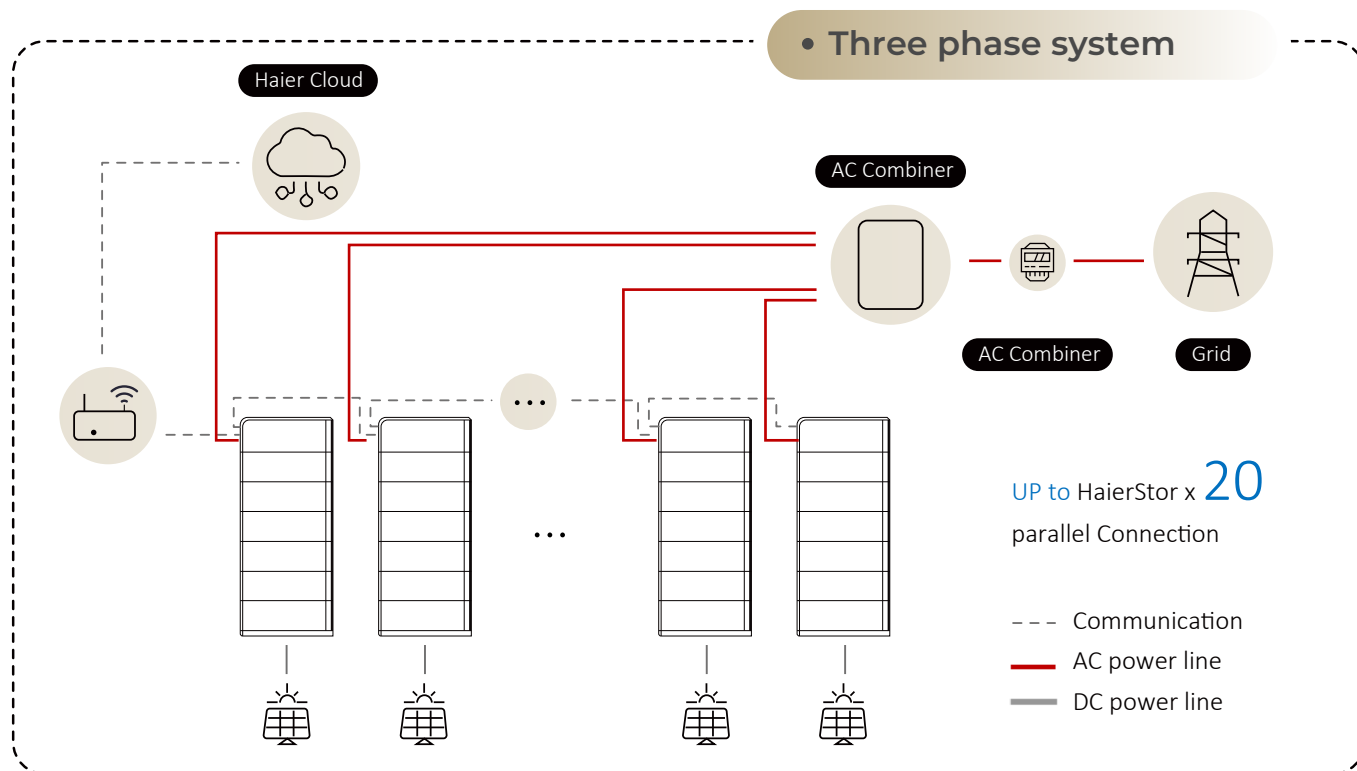
DC-Coupling



On-grid



Off-grid



5/8 kWh

Battery capacity per module

1–6 Packs

Max n° of modules per stock

48 kWh

Max. energy capacity per stack

960 kWh

Max. energy capacity in parallel connection

• Flexible modular design, meet different scenarios

Farms Shed	about 300m²	×2	Max. DC input power 80 kW_{dc}	Max. ESS capacity 96 kWh
Communities	about 1000m²	×4	Max. DC input power 160 kW_{dc}	Max. ESS capacity 192 kWh
Charging carports	about 2000m²	×7	Max. DC input power 280 kW_{dc}	Max. ESS capacity 336 kWh
Industrial	about 3000m²	×10	Max. DC input power 400 kW_{dc}	Max. ESS capacity 480 kWh

Haier



Website



LinkedIn

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