

# iGarden



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# iGarden

## 100% FREE POWER



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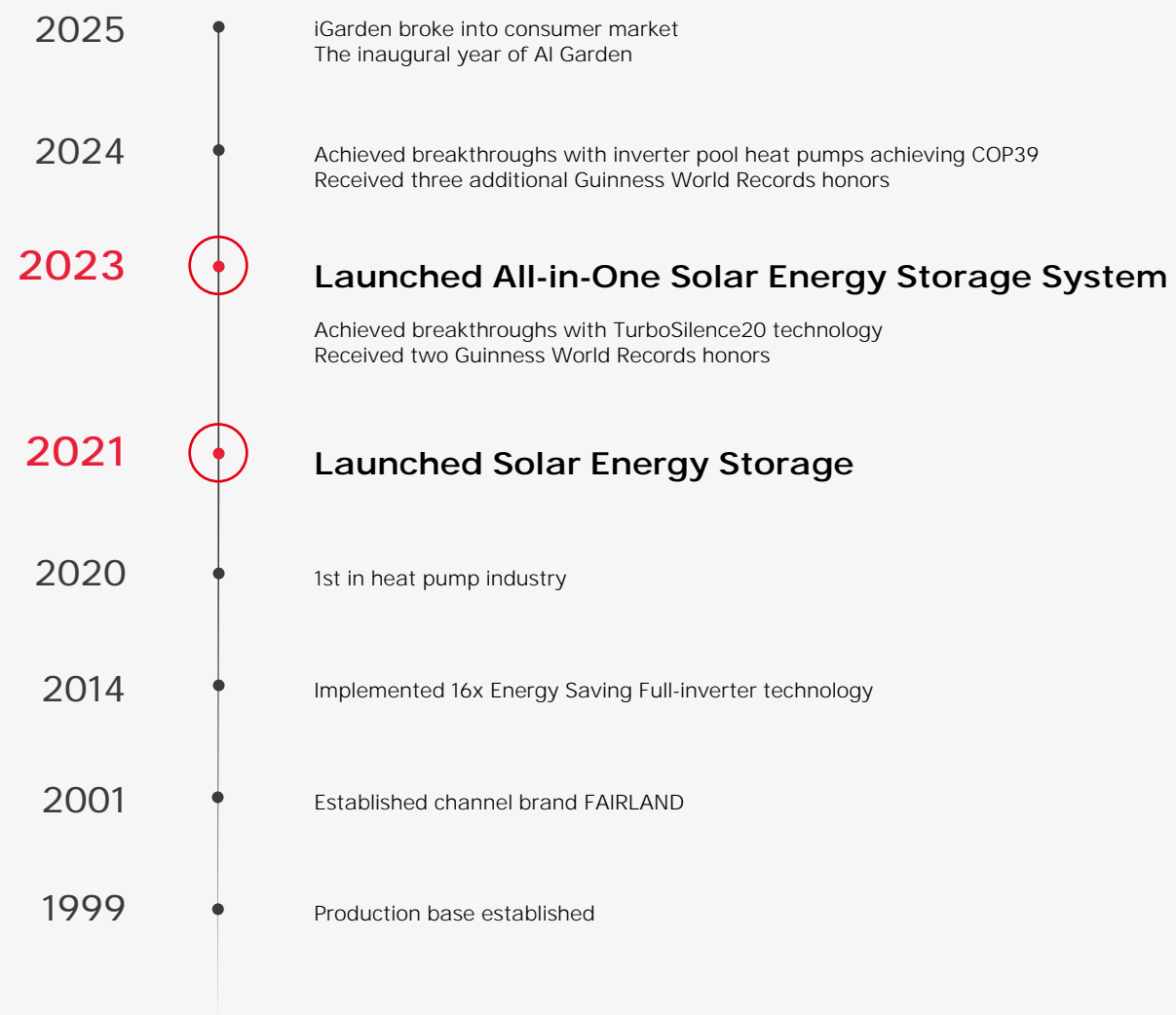


## FAIRLAND GROUP

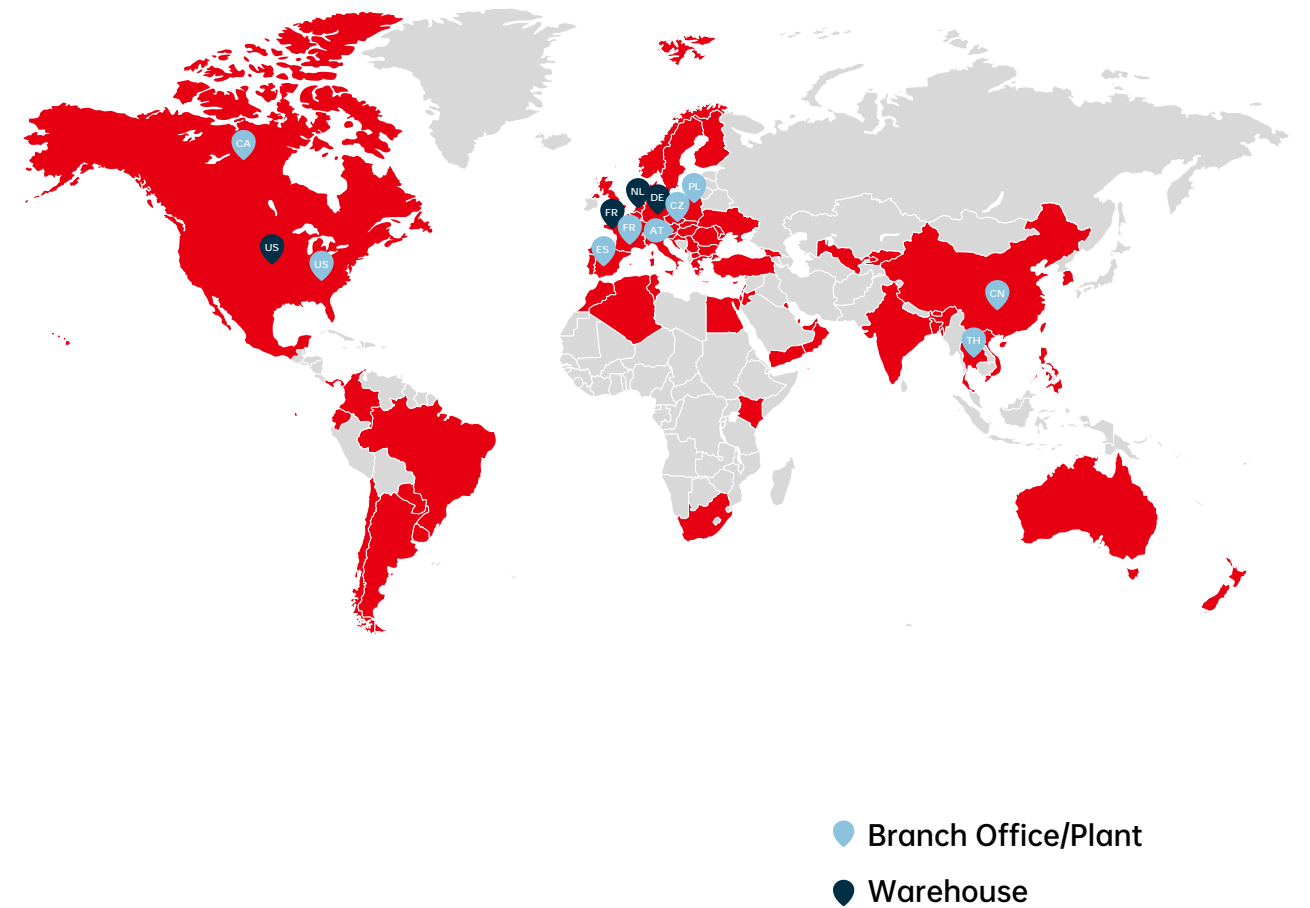
Founded in 1999, Fairland Group is a world-class technology company in intelligent outdoor ecosystem. Firmly committed to our vision to make backyard ecosystem more dynamic, inclusive and sustainable. Since the inception, we have maintained a huge investment in R&D and we now own a range of core technologies with intellectual property. Fairland Group aims to provide a mutual elevating platform for turning 'Innovation Utopia' into reality.

In the past 26 years, Fairland Group successively founded our channel brands FAIRLAND®, AQUARK® and AQUAGEM®, and announced consumer technology sub-brand iGarden as a big step to achieve intelligent backyard ecosystem. With our intelligent ecosystem, we are working for artful living of half a billion backyards.

# HISTORY-BEYOND LIMIT

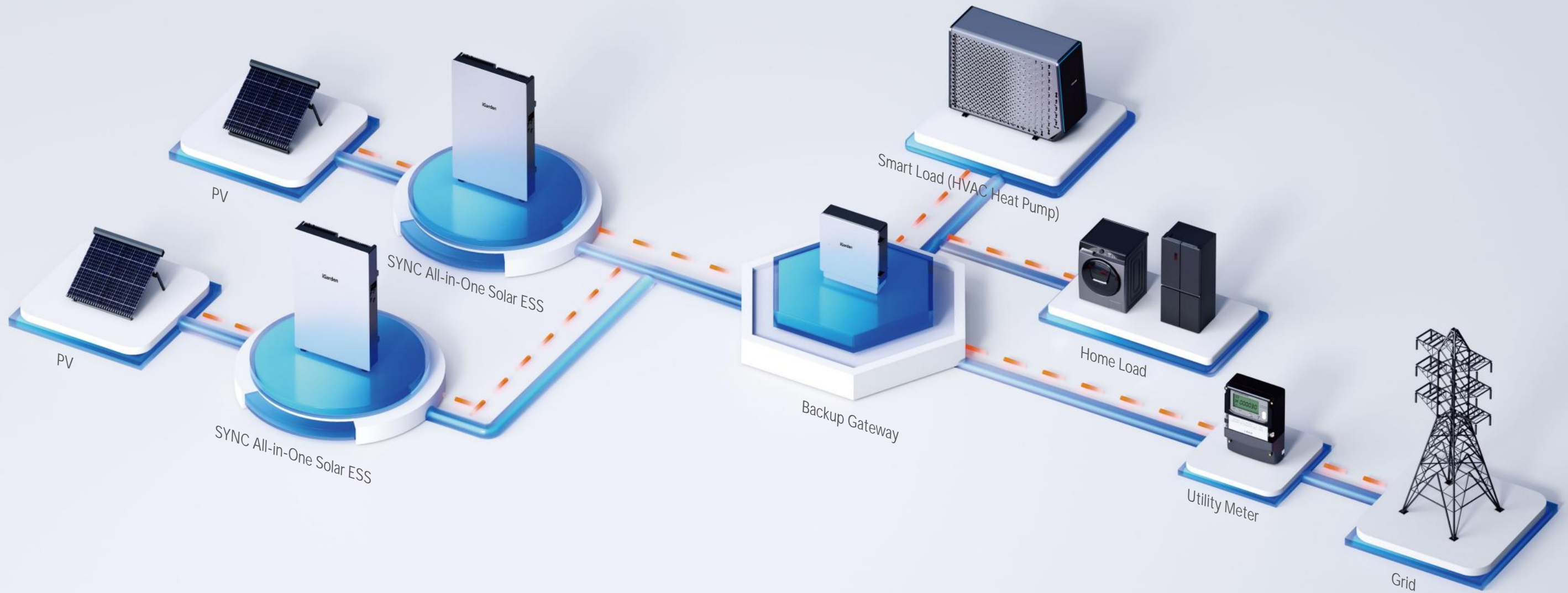


26+ YEARS OF INNOVATION  
120+ COUNTRIES NETWORK



# SYNC All-in-One Solar Energy Storage System






## 100% Free Power

Smartly link Fairland's HVAC heat pump, pool heat pump, or even the whole iGarden robotics, maximize the use of free energy.

# Thinnest Panel Design

Thinnest panel design with customized front panel, define your own energy manager.



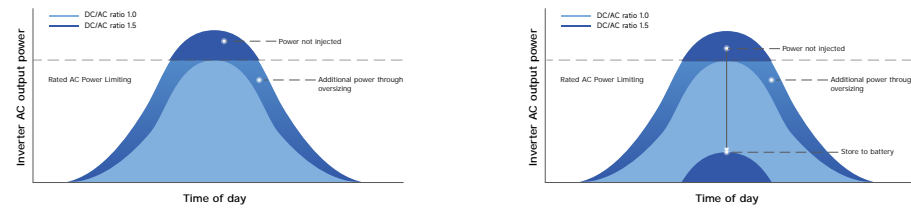


iGarden

## -20~50°C Operation

The intelligent temperature regulation system allows the device to operate reliably in temperature ranges from -20 °C to +50 °C without concern for extreme weather conditions.

## 200% DC Oversizing



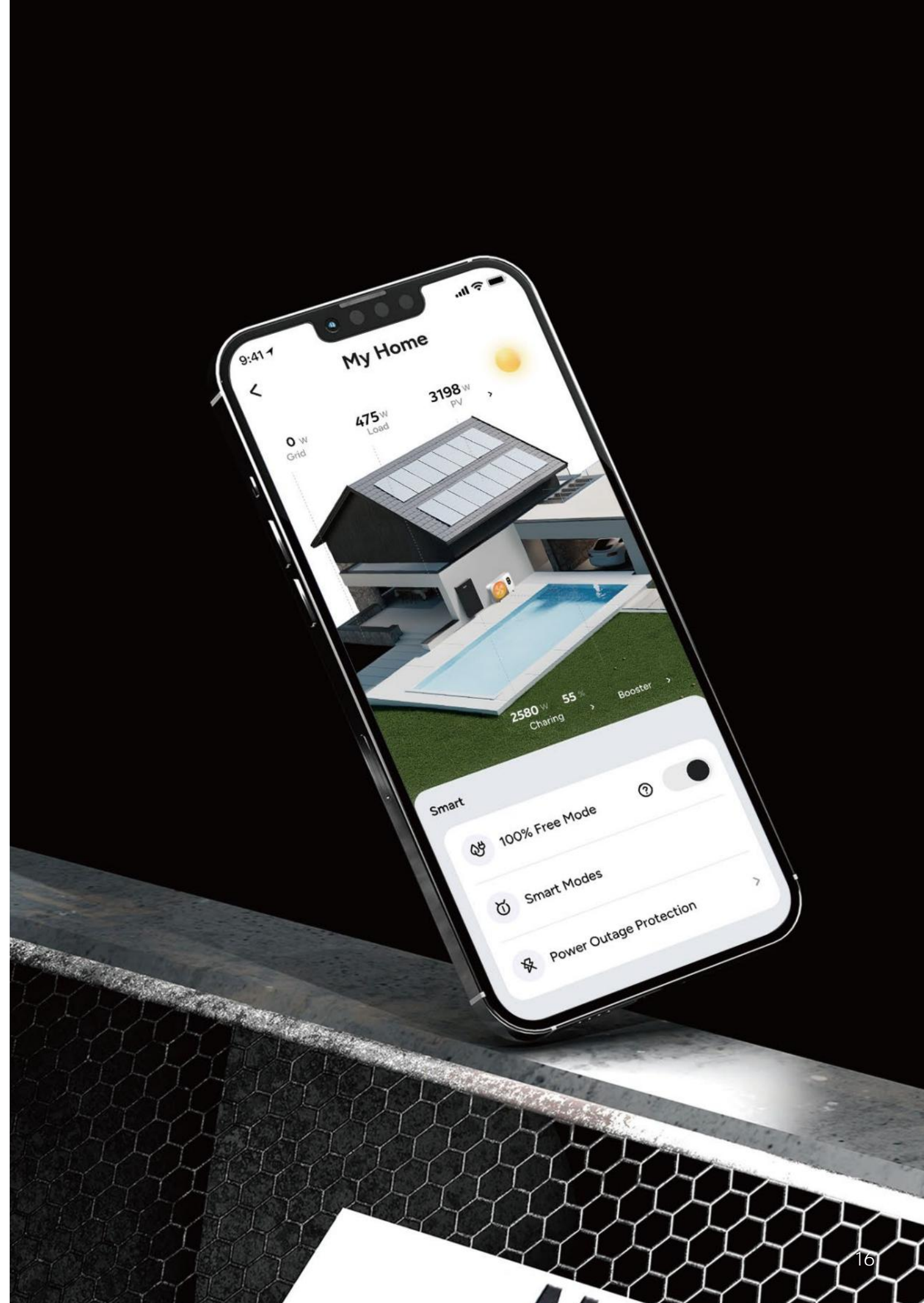
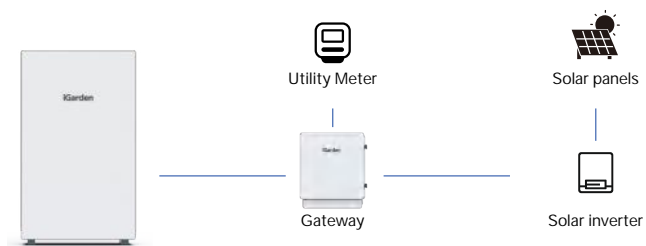
## Easy & Fast installation

The average installation time < 30 minutes.



## AC-Coupled Compatibility

Compatible with existing PV systems via AC coupling, and enables easy upgrade.



## SYNC All-in-One Solar ESS

Model	SYNC 3.6K S1	SYNC 4.6K S1	SYNC 5K S1	SYNC 6K S1	SYNC 7.5K S1
<b>PV Input Data</b>					
Suggested Max. PV Input Power (Wp)	11180	12100	12500	13500	15000
Max. DC Voltage (V)			550		
Start-up Voltage (V)			120		
MPPT Voltage Range (V)			90-500		
Independent MPPT Inputs / Inputs per MPPT			3/1		
Max. Current per MPPT (A)			16		
Max. Short-circuit Current per MPPT (A)			20		
<b>Grid Data</b>					
Max. Apparent AC Power (VA)	3680	4600	5000	6000	7500
Peak Apparent AC Power (10 s, Backup, VA)			11250		
Nominal AC Power (W)	3680	4600	5000	6000	7500
Nominal AC Voltage (V)			230/240		
Grid Type			Single Phase		
AC Grid Frequency (Hz)			50/60		
Max. Continuous Current (A)	16	20	21.7	26.1	32.6
Power Factor			0.8 leading to 0.8 lagging		
Max. Inverter Efficiency (%)			98.00		
Total Harmonic Distortion (THDi, rated power) (%)			<3		
<b>Battery Data</b>					
Battery Type			LFP (LiFePO <sub>4</sub> )		
Total Energy (kWh)			14.7		
Operated Temperature (°C)			Charge : -5-50/Discharge : -20-50*		
Max. Continuous Charging/Discharging Current (A)			40		
Max. Continuous Charging Power (W)			7500		
Max. Continuous Discharging Power (W) (off-grid)			7500		
Max. Continuous Discharging Power (W) (on-grid)	3680	4600	5000	6000	7500
<b>Protection</b>					
DC Reverse Polarity Protection	YES		AFCI Protection		Optional
DC Switch	YES		AC Short-Circuit Protection		YES
PV Rapid Shutdown (RSD)	Optional		Grid Monitoring		YES
Isolation Monitor Interrupter (IMI)	YES		Anti-Islanding Protection		YES
<b>General Data</b>					
Operating Temperature Range (°C)			-20-50 (Derating above 45)		
Operating Humidity (RH)			Up to 100%, condensing		
Storage Temperature (°C)			-20-45, up to 95% RH, non-condensing		
Max. Elevation (m)			3000		
Inverter Topology			Non-isolated		
Cooling			Natural convection		
Protection Degree			IP66		
Customer Interface			App		
Communication Interfaces			RS485, CAN, WiFi & LAN		
<b>Mechanical</b>					
Dimensions (W*H*D, mm)			760*1253*150 (No fixed feet)		
Weight (kg)			180		
Mounting			Wall mount or floor mount		

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Note:

\* Inverter Operating Temperature: -20°C to 50°C (>45°C derating), Battery Charging Temperature: -5°C to 50°C (>35°C derating), Battery Discharging Temperature: -20°C to 50°C (>45°C derating).

## Backup Gateway

Model	Gateway80 S1	Gateway100 S1
<b>Grid Port</b>		
Grid Type	Single Phase	Single Phase
Nominal AC Voltage (V)	230/240	230/240
Nominal AC Frequency (Hz)	50/60	50/60
Max. Continuous Current (A)	65.3	80
Max. Overcurrent Protection (A)	80	100
<b>Backup Port</b>		
Nominal AC Voltage (V)	230/240	230/240
Nominal AC Frequency (Hz)	50/60	50/60
Max. Continuous Current (A)	65.3	80
<b>Inverter Port</b>		
Nominal AC Voltage (V)	230/240	230/240
Nominal AC Frequency (Hz)	50/60	50/60
Nominal AC Current (A)	65.3*	80**
Nominal AC Power (kW)	15*	18**
<b>General Data</b>		
Operating Temperature (°C)	-20 - 50	-20 - 60
Operating Humidity (RH)	Up to 100%, condensing	Up to 100%, condensing
Max. Elevation (m)	3000	3000
Protection Degree	IP65	IP65
Communication Interfaces	RS485 / Dry Contact	RS485 / Dry Contact
Energy Meter	1% Accuracy	1% Accuracy
Dimensions (W*H*D, mm)	420*480*120	440*500*120
Weight (kg)	12	13
Mounting	Wall Mount	Wall Mount

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Note:

\*Inverter ports can support 2 parallel operation of all-in-one ESS, with a maximum combined power not exceeding 15 kW.

\*\*Inverter ports can support 3 parallel operation of all-in-one ESS, with a maximum combined power not exceeding 18 kW.

# LYNC All-in-One Solar Energy Storage System



## Space-Smart Design

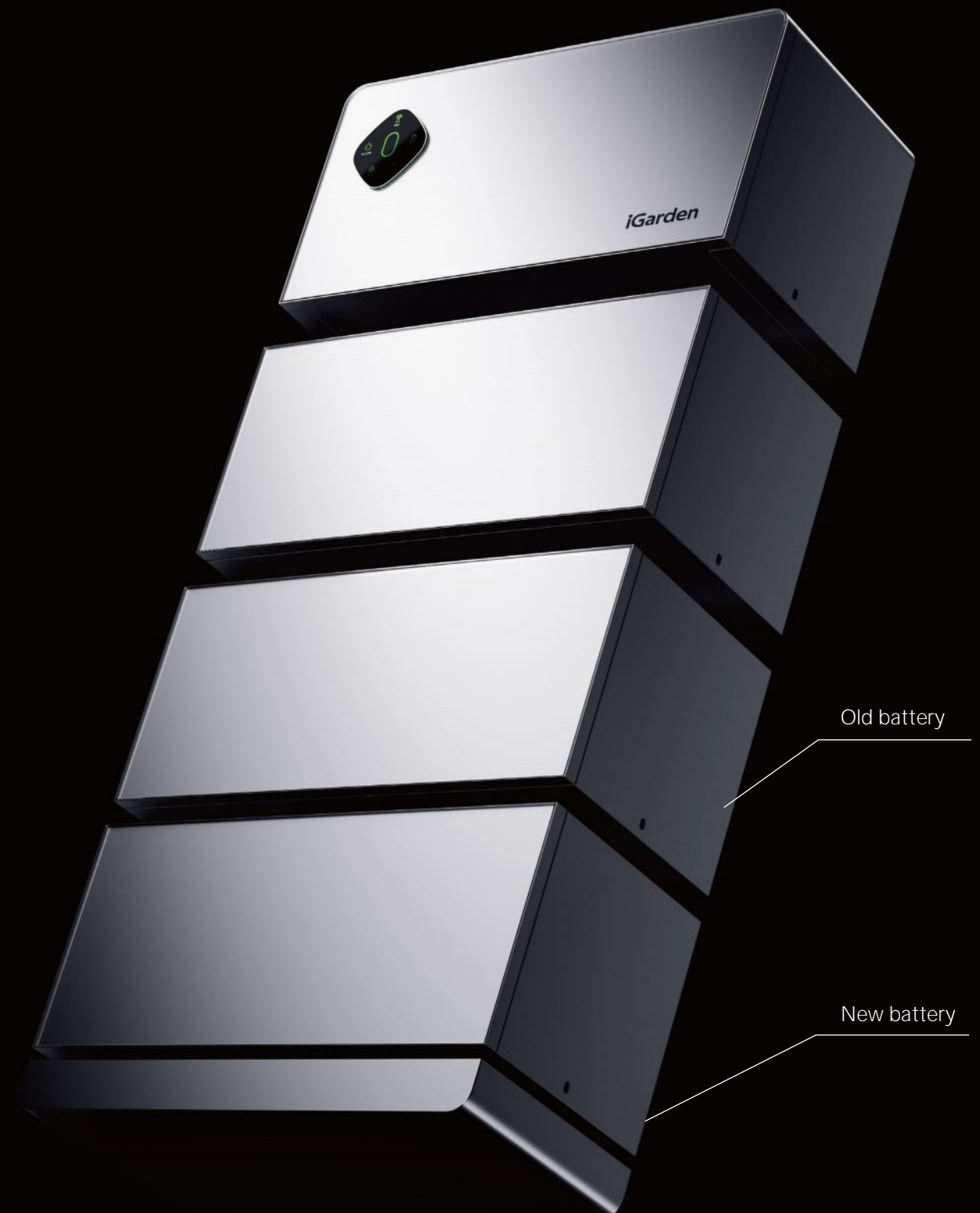
Whether for home or business, its unique Module-level optimization ensures plug-and-play capacity expansion.

For commercial applications, you can connect multiple LYNC units in parallel to meet your capacity needs.

## Future-Ready Flexibility

Individual optimization of each module allows for scalable mixed use of old and new battery packs.

Each new battery is always ready to go without the need of precharge or SOC calibration.



# 100% Free Power

Smartly link Fairland's HVAC heat pump, pool heat pump, or even the whole  
Garden robotics, maximize the use of free energy.



## LYNC All-in-One Solar ESS

Model	LYNC 5K T1	LYNC 6K T1	LYNC 8K T1	LYNC 10K T1	LYNC 12K T1	LYNC 15K T1
<b>PV Input</b>						
Max. PV power (W)	10000	12000	16000	20000	24000	30000
Max. DC input voltage (V)				1100		
Nominal DC input voltage (V)				600		
Start-up voltage (V)				180		
MPPT voltage range (V)				160 - 1000		
Number of MPPT trackers	2		3		4	
Number of PV strings per MPPT				1		
Max. input current per MPPT (A)				20		
Max. short-circuit current per MPPT (A)				25		
<b>AC Output (on-grid)</b>						
Rated output power (W)	5000	6000	8000	10000	12000	15000
Max. output apparent power (VA)	5000	6000	8000	10000	12000	15000
Rated output current (A)	7.3	8.7	11.6	14.5	17.4	21.8
Max. output current (A)	7.6	9.1	12.2	15.2	18.2	22.8
Max passthrough current to load port (A)				63		
Nominal output voltage (V)				380 / 400, 3L/N/PE		
Nominal grid frequency (Hz)				50 / 60		
Power factor				0.8 leading ~ 0.8 lagging		
Total current harmonic distortion				THDi < 2%		
<b>Efficiency</b>						
Max. efficiency (%)	98.1	98.2	98.3	98.3	98.3	98.3
European efficiency (%)	96.1	96.6	97.1	97.5	97.7	97.9
<b>AC Output (backup)</b>						
Rated output power (W)	5000	6000	8000	10000	12000	15000
Peak output power (10 seconds) (VA)	10000	12000	16000	20000	24000	30000
Nominal output voltage (V)				380 / 400, 3L/N/PE		
Nominal output frequency (Hz)				50 / 60		
Total voltage harmonic distortion				THDv < 2%		
Backup switch time (ms)				<4		
<b>Battery Connection</b>						
Battery module models				LYNC Battery		
Number of modules per controller (pcs)				1 ~ 4		
Battery module voltage range (V)				600 ~ 900		
<b>Protection</b>						
Safety protection feature				DC reverse polarity protection, Insulation monitoring, Residual current monitoring, Arc fault circuit interrupter(optional), AC overcurrent/overvoltage/short-circuit protection, Type II DC/AC surge protection, Anti-islanding protection		
<b>General Data</b>						
Dimensions (W / H / D) (mm)				770 / 375 / 288		
Weight (kg)				35		
Storage temperature range (°C)				-40 ~ 70		
Operating temperature range (°C)				-30 ~ 60		
Relative humidity range (non-condensing) (%)				0 ~ 100		
Max. operating altitude (m)				4000		
Cooling				Smart air cooling		
System ingress protection rating				IP66		
Communication				WiLan(WIFI/Lan/Bluetooth)/modbus RTU		
<b>Standard Compliance</b>						
Standard				62109-1, IEC/EN 62109-2, IEC/EN 61000-6-1, IEC/EN 61000-6-3, EN 50549-1, EN 50549-10, VDE-4105		

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## LYNC Battery

Model	LYNC BAT 9
<b>Performance Specification</b>	
Battery type	LiFePO <sub>4</sub>
Cell capacity (Ah)	314
Cycle life	10000
Total energy capacity (kWh)	9.04
Usable energy capacity (kWh)	8.80
Depth of discharge (%)	100
Max. charge / discharge power (W)	4000
<b>General Data</b>	
Storage temperature range (°C)	-25 ~ 60
Operating temperature range (°C)	-20 ~ 55
Relative humidity range (non-condensing) (%)	5 ~ 95
Max. operating altitude (m)	4000
Cooling	Natural convection
Weight (kg)	80
Dimensions (W / H / D) (mm)	770 / 288 / 288
System ingress protection rating	IP66
Installation method	Floor standing / Wall-mounted
Number of modules per controller (pcs)	1 ~ 4
Compatible inverters	LYNC Hybrid Inverter
<b>Standard Compliance</b>	
Standard	UN 38.3, IEC/EN 62619, IEC/EN 63056, IEC/EN 61000-6-1, IEC/EN 61000-6-3

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# Elite Stackable Solar Energy Storage System

Single & Three Phase



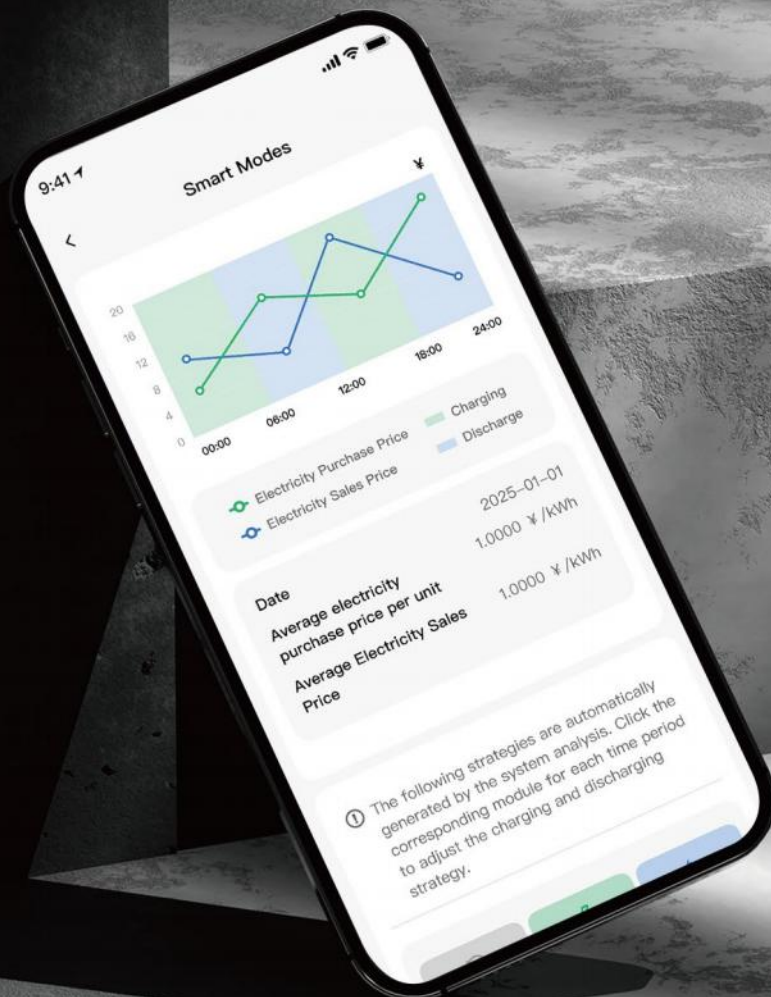
# 10 ms UPS Level Switching

Providing uninterrupted power for critical loads.



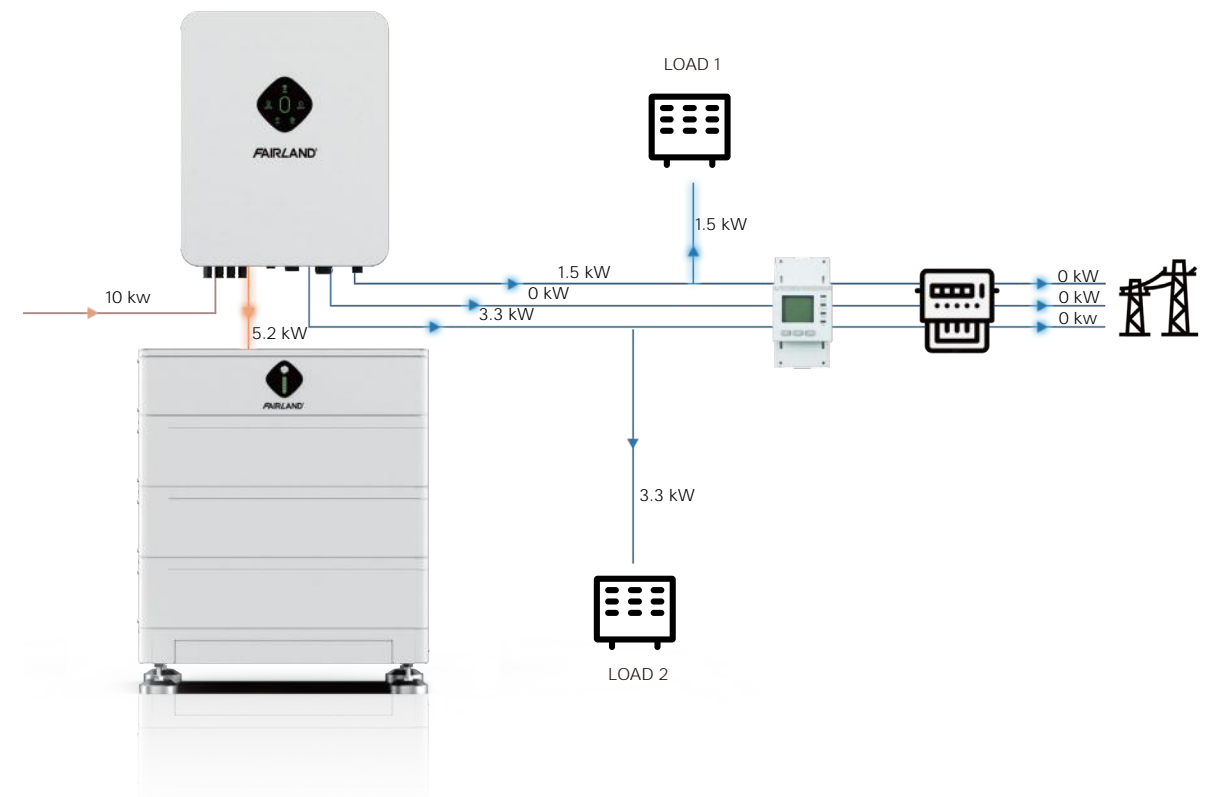
# Dynamic Energy Management

Integrated with smart EMS, adaptable to diverse market requirements.



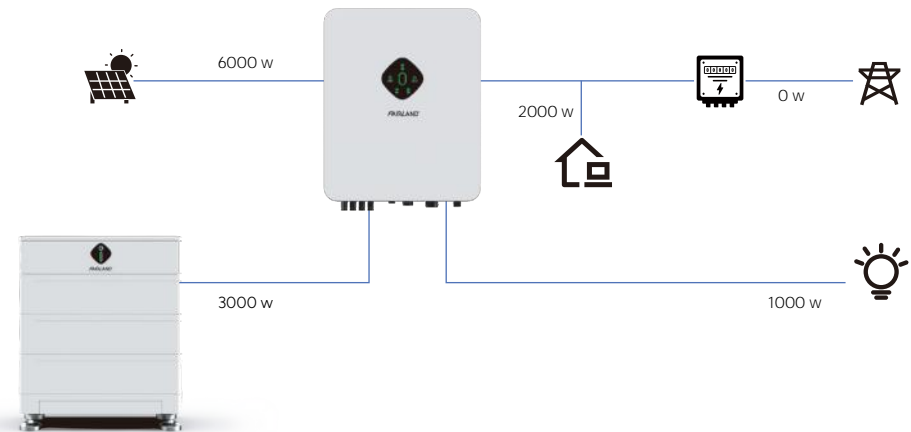
# 100% unbalanced load

Draw 100% rated power through one phase alone;  
no forced load balancing required.



## Zero Power Feeder

Grid-friendly with no reverse power flow.



## Ultra-Quiet Design

Fanless design with max noise  $\leq 35$  dB.



## VPP Ready

Compatible with virtual power plant integration.



## Highly Scalable System Design

Flexible expansion of both inverter power and battery capacity.





## Stackable Battery (HV)

Model	HVB9.6	HVB12.8	HVB16.0	HVB19.2	HVB22.4	HVB25.6
Usable energy* (kWh)	9.60	12.80	16.00	19.20	22.40	25.60
Depth of discharge	Max.100% DOD (settable)					
Module type	HVB3.2					
Module parameter (V) (Ah) (mm) (kg)	64, 50, 615*360*165, 33.3±0.5					
Cell type	LFP (LiFePO <sub>4</sub> )					
Max. module configuration	3	4	5	6	7	8
Cell configuration	1P60S	1P80S	1P100S	1P120S	1P140S	1P160S
Nominal voltage (V)	192	256	320	384	448	512
Operating voltage range (V)	171-216	228-288	285-360	342-432	399-504	456-576
Max. continuous current** (A)	30					
Max. continuous power** (kW)	5.76	7.68	9.60	11.52	13.44	15.36
Communication	CAN / RS485					
Weight (kg)	120	155	190	225	260	295
Dimensions (W*D*H) (mm)	615*360*730	615*360*880	615*360*1030	615*360*1180	615*360*1330	615*360*1480
Operating temperature (°C)	Charge: 0-50 / Discharge: -20-50					
Storage temperature (°C)	-20-45 (≤1Month) / -20-25 (≤6 Months)					
Humidity (%)	1995/5/1					
Altitude (m)	≤2000					
Degree of protection	IP65 (Indoor / Outdoor)					
Cooling	Natural convection					
Installation location	Floor-standing					
Display	SOC indicator, Status indicator					
Warranty***	10 Years					

\* Test conditions: 3.0 V-3.5 V, 0.2 C Charge (CC-CV) and discharge at 25±3 °C, 100% depth of discharge (DOD);

\*\* Max. Continuous Current/Power derating will occur related to temperature / SOC / Humidity;

\*\*\* Refer to Limited Warranty Letter.

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## Single Phase Hybrid Inverter

Model	XLIS3	XLIS3.6	XLIS4	XLIS5	XLIS6
<b>PV Input</b>					
Max. recommended PV array power (Wp)	10000	10700	11000	12000	13000
Max. PV input voltage (V)			600		
Min. operating PV voltage (V)			40		
Start-up input voltage (V)			50		
Rated PV input voltage (V)			360		
MPPT voltage range (V)			40-560		
No. of MPPT/Strings per MPPT			2 (1/1)		
Max. PV input current (A)			32 (16/16)		
Max. DC short-circuit current (A)			40 (20/20)		
Max. current for each input connector (A)			20		
<b>Battery (input/output)</b>					
Battery type			Li-ion battery		
Battery voltage range (V)			80-460		
Max. charge/discharge current (A)			30/30		
Max. charge/discharge power (W)			6600/6600		
<b>Backup Output (on-Grid mode)</b>					
Rated output power (W)			6000		
Rated output current (A)			27		
<b>Backup Output (off-Grid mode)</b>					
Rated output power (W) (VA)	3000 /3000	3680 /3680	4000 /4000	5000 /5000	6000 /6000
Peak output power (VA) (s)			8400, 10		
Backup switching time (ms)			<10		
Rated voltage (V)			220/230/240 (±2 %)		
Frequency range (Hz)			50/60 (±0.5 %)		
Total harmonic distortion (THDv, rated power, linear load) (%)			≤2		
<b>Grid (input/output)</b>					
Max. AC input power from grid (VA)	10000	10700	11000	12000	13000
Rated AC output power (W)	3000	3680	4000	5000	6000
Max. AC output power (VA)	3000	3680	4000	5000	6000
Rated AC output current (at 230 V) (A)	13.1	16	17.4	21.8	26.1
Max. AC output current (A)	13.7	16	18.2	22.8	27.3
Rated AC voltage (V)			220/230/240		
AC voltage range (V)			154-276		
Rated grid frequency (Hz)			50/60		
Grid frequency range (Hz)			45-55/55-65		
Total harmonic distortion (THDI, rated power) (%)			<3		
Power factor at rated power			>0.99		
Adjustable power factor			adj.0.8.leading to 0.8 lagging		
<b>Efficiency</b>					
Max. efficiency/European efficiency (%)	97.30/97.00	97.50/97.00		97.70/97.30	
<b>Protection &amp; Function</b>					
Surge protection			DC type II /AC type II		
Grid monitoring			Yes		
DC reverse polarity protection			Yes		
Battery input reverse polarity protection			Yes		
AC short-circuit protection			Yes		
Leakage current protection			Yes		
DC switch (PV)			Yes		
DC fuse (Battery)			Yes		
<b>General Data</b>					
Topology (PV/Battery)			Transformerless		
Degree of protection			IP65		
Dimensions (W*H*D) (mm)			495*345*180		
Weight (kg)			≤20		
Mounting method			Wall-mounting bracket		
Operating ambient temperature range (°C)			-25-60		
Allowable relative humidity range (%)			0-100		
Cooling method			Natural convection		
Max. operating altitude (m)			4000		
Display			LED		
Communication			RS485/CAN/WLAN		
DI/DO			1*DI/1*DO/DRM		
DC connection type			MC4		
Battery connection type			MC4		
AC connection type			Screws & Fasteners		

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## Three Phase Hybrid Inverter

Model	XLIT5	XLIT6	XLIT8	XLIT10
<b>PV Input</b>				
Max. recommended PV array power (Wp)	7000	9000	12000	15000
Max. PV input voltage (V)			1000	
Rated PV input voltage (V)			600	
Start-up input voltage (V)			180	
MPPT voltage range (V)			150-950	
No. of MPPT/Strings per MPPT		2 (1/1)		2 (1/2)
Max. PV input current (A)		32 (16/16)		48 (16/32)
Max. DC short-circuit current (A)		40 (20/20)		60 (20/40)
<b>Battery (input/output)</b>				
Battery type			Li-ion battery	
Battery voltage range (V)			150-600	
Max. charge/discharge current* (A)			30/30	
Max. charge/discharge power (W)	7500/6000	9000/7200	10600/10600	10600/10600
<b>Backup (output)</b>				
Rated output power (off-Grid Mode) (w) (VA)	5000/5000	6000/6000	8000/8000	10000/10000
Peak output power (off-Grid Mode) (VA) (min) (s)	6000, 5/10000, 10	7200, 5/10000, 10	12000, 5	12000, 5
Max. output power (on-grid mode) (VA)	5500	6600	8800	11000
Max. output current (on-grid mode) (A)	8.4	10	13.3	16.7
Backup switching time (ms)			<10	
Rated voltage (V)		3/N/PE: 220/380: 230/400: 240/415 (±2%)		
Frequency range (Hz)			50/60 (±0.5%)	
Total harmonic distortion (THDv, rated power, linear load) (%)			≤2	
<b>Grid (input/output)</b>				
Max. AC power from grid (VA)	12500	15000	18600	20600
Rated AC output power (W)	5000	6000	8000	10000
Max. AC output power (VA)	5500	6600	8800	11000
Max. AC output current (A)	8.4	10	13.3	16.7
Rated AC voltage (V)		3/N/PE: 220/380: 230/400: 240/415		
AC voltage range (V)			270-480	
Rated grid frequency (Hz)			50/60	
Grid frequency range (Hz)			45-55/55-65	
Total harmonic distortion (THDI, rated power) (%)			<3	
Power factor at rated power/Adjustable power factor			>0.99/0.8.leading to 0.8 lagging	
<b>Efficiency</b>				
Max. efficiency/European efficiency (%)	98.00/97.20	98.20/97.50		98.40/97.90
<b>Protection &amp; Function</b>				
Surge protection			Type II, DC and AC	
Overvoltage category			II DC and III AC	
Protective class			Class I	
Grid monitoring			Yes	
DC reverse polarity protection			Yes	
Battery input reverse polarity protection			Yes	
Insulation monitoring (LV)			Yes	
AC short-circuit protection			Yes	
Residual current protection			Yes	
DC switch (PV)			Yes	
Over-heat protection			Yes	
AFCI			OPT	
<b>General Data</b>				
Topology (PV/battery)			Transformerless	
Degree of protection			IP65	
Dimensions (W*H*D) (mm)			450*550*185	
Weight (kg)			31	
Mounting method			Wall-mounting bracket	
Operating ambient temperature range (°C)			-25-60 (Derating above 45)	
Allowable relative humidity range (Non-condensing) (%)			0-100	
Cooling method			Natural convection	
Max. operating altitude			4000	
Display			LED	
Communication			RS485/CAN/WLAN	
DI/DO			1*DI/1*DO/DRM	
DC connection type			MC4	
Battery connection type			MC4	
AC connection type			Plug and play connector	

\* Depending on the connected battery

\*\* Can be reached only if PV and battery power is sufficient

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# Micro Solar Energy Storage System



## Plug-and-Play Setup

Easy for DIY installation



## Support AC-Coupled and Backup Power Capability

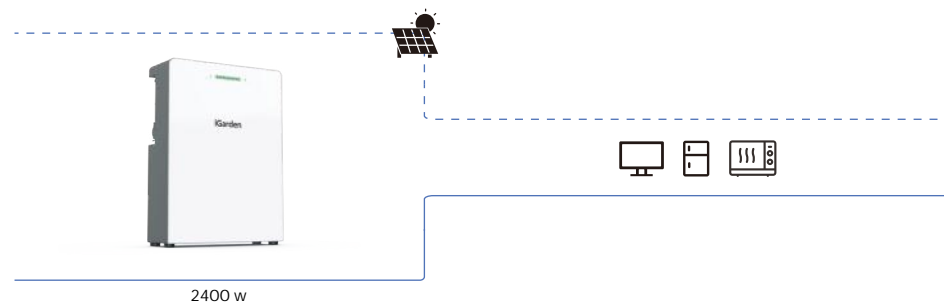
AC-coupled design enables seamless integration with existing PV systems and provides reliable backup power during grid outages, keeping essential devices running.



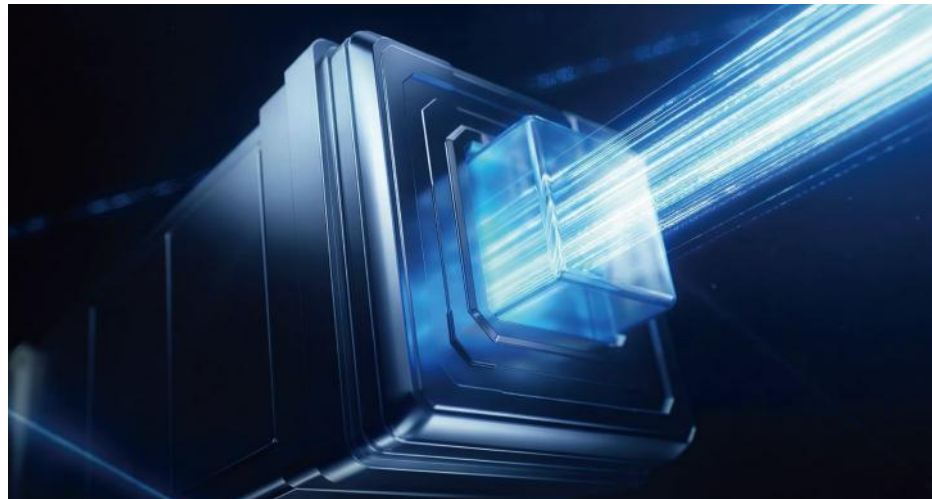
## Smart AI-Optimized Self-Consumption

AI intelligently analyzes solar generation, household load and battery status in real time to maximize self-consumption and reduce grid dependence automatically.

## 2400 W Max On-Grid Input & Output



## 6000 Cycles Ultra-Long Lifespan



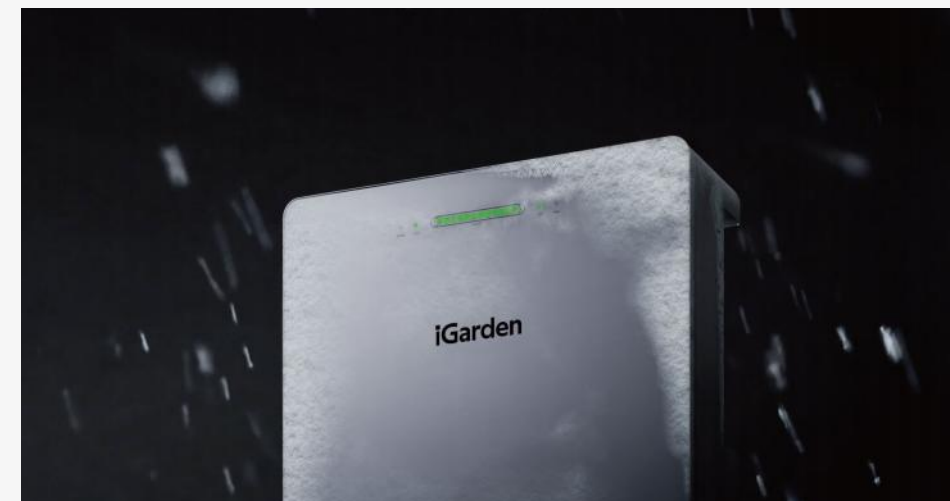
## Expandable to 20.48 kWh with up to 4 units in parallel



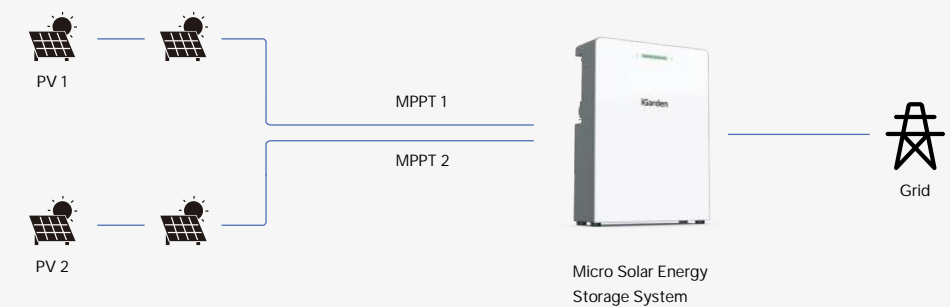
## Up to 2400 W of reliable backup power



## IP65 protection and -20°C performance



## Dual MPPT, up to 2000 W PV input





## Micro Solar ESS

Model	PLUG 5120
<b>Battery Info</b>	
Rated capacity (Ah)	100
Rated voltage (V)	51.2
Rated capacity (Wh)	5120
Battery type	LiFePO <sub>4</sub>
Battery voltage range (V)	44.8-58.4
Maximum charging current (A)	60
Maximum discharging current (A)	60
Heating film	Support
Cycle times	≥6000
<b>PV Input</b>	
Operating voltage range (Vdc)	10-100
Maximum input voltage (Vdc)	100
Independent MPPT inputs / Inputs per MPPT	2/1
Maximum input current (A)	16*2
Maximum input power (W)	1000*2
<b>AC Input/Output (On Grid)</b>	
Grid type	Single phase
Rated voltage (Vdc)	230
Rated AC frequency (Hz)	50
Maximum continuous output power (W)	800 (Default) / 2400 (*Premium)
Maximum continuous output current (A)	3.48 (Default) / 10.9 (*Premium)
Maximum continuous input power (W)	2400
Maximum continuous input current (A)	10.9
<b>AC Output (Off Grid)</b>	
Rated AC voltage (Vac)	230
Rated AC frequency (Hz)	50
Maximum continuous output power (W)	2400
Maximum continuous output current (A)	10.9
<b>General</b>	
Dimensions (mm)	520*181*715
Weight (kg)	59±2
Protection level	IP65
Allowed operating ambient temperature (°C)	-20~60
Relative humidity	5%-95%@No condensation
Altitude (m)	≤2000
Communication interface	WiFi, Bluetooth, RS485

\*Premium: Enabling this function must comply with local regulations and should only be performed by authorized personnel!  
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# After-Sales Service Technical Support

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