

The CHINT logo is displayed in white, bold, sans-serif font on a blue rectangular background. The letter 'H' features a small red square above its top bar.

CHINT

The text 'CHINT POWER' is written in white, bold, sans-serif font on a light blue rectangular background.

CHINT POWER

A wide-angle, high-angle photograph of a city skyline at dusk or dawn. The sky is a mix of orange, pink, and blue. The city lights are visible, and a large, glowing blue and white energy grid overlay is superimposed on the scene, connecting various points across the city. In the foreground, there are power lines and towers. In the background, there are mountains. A building in the skyline has the CHINT logo on its side.

Lighting the World with Green Energy - Chint Power

The text 'Professional PV & ESS Product Manufacturer' is written in white, sans-serif font on a blue rectangular background.

Professional PV & ESS Product Manufacturer

CHINT's Key Figures

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\$18.34_B

Annual sales revenue

\$20.84_B

Total annual assets

\$ 1.5_B+

Annual profit and tax

45000₊

Employees

500,000

Created jobs in the industrial chain

140₊

Business in more than 140 countries and regions

Top500

Listed in the Top 500 Chinese Enterprises for 21 consecutive years

Top50

CHINT Electrics, one of the Top 50 Listed Companies in Asia

Up to December 31, 2022



No.1

in the Top 100 Private Enterprises of China with Social Responsibility in 2021



No. 1

in the world for residential PV users



Unique

private enterprise that has been awarded "Six-star Enterprise on LV Electrical Appliances"



No.1

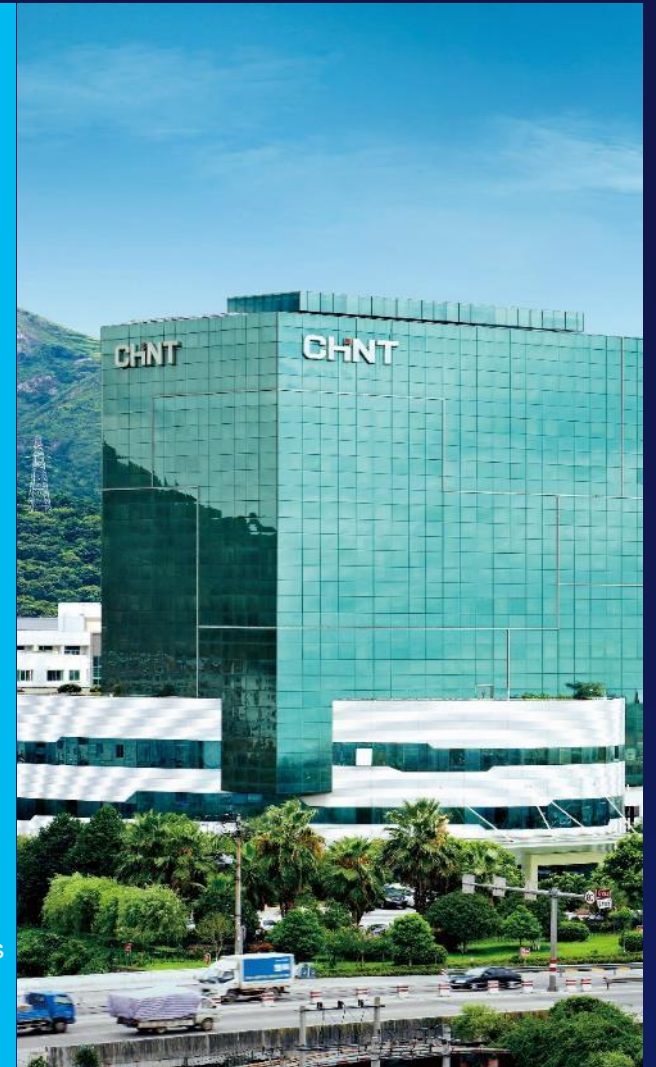
in China in terms of production sales volume and market share of LV electrical appliances for 10 years



First batch of demonstration projects with our digital workshop rated as an Intelligent Manufacturing Pilot by MIIT



First batch of demonstration enterprises selected as an Intelligent PV Pilot by MIIT



CHINT Building New Momentum for "3+2" Industrial Development

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In recent years, we have continuously implemented the strategy of "industrialization, technology, internationalization, digitalization and platformization", and formed three major segments of **"Green Energy, Intelligent Electricity and Smart Low-carbon"**



Green Energy Segment



Intelligent Electric Segment



Smart Low-carbon Segment



PV Module
Manufacturing



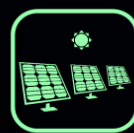
Residential
PV



PV Inverter
& ESS



Intelligent
O&M



Projects
Development



T&D



Wires
&
Cables



Integrated Power
Distribution



LV
Electrical
Appliances



Instruments
&
Apparatus



Building
Appliances

Build a new ecology for the integrated development of the full industrial chain of "power generation, power storage, power transmission, power transformation, power distribution, power sales and power consumption"

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01

CHINT POWER

Lighting the World with Green Energy

scope of business: PV inverters and Energy storage system products and solutions

Total shipment: PV 25+GW Energy storage: 1+GWh

2009-2013

- **2009**: Chint Power established
- 2012: China market share 13%

2014-2018

- 2015: **USA #1** market share for 3P Inverters
- 2016: Established **ESS** Sector of Chint
- Obtained Tesla qualified supplier review

2019-2020

- 2019: **Korea #1** market share for inverters
- World's largest output string inverter **275kW** released

2022-2023

- 7 consecutive years **USA #1** market share for 3P Inverters
- Ranked **#5** stock market listed China PV inverter enterprises
- ranked **4th** by **Bloomberg** Global Inverter Financing
- Ranked **5th** inverter shipment among Chinese enterprises
- Largest capacity **5.1MWh** 20 ft liquid cooled ESS released

2021

- Thailand production base is operational
- Wenzhou Taihan **550MW** largest floating PV plant in the world

Production Capabilities

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Photovoltaic inverter production capacity: **19GW**

Production capacity of North American products at Thailand Factory : **4.6GW/year**

Energy storage production capacity: **2GWh**



Jiaxing Factory:

PV & ESS Whole series product manufacturing and testing



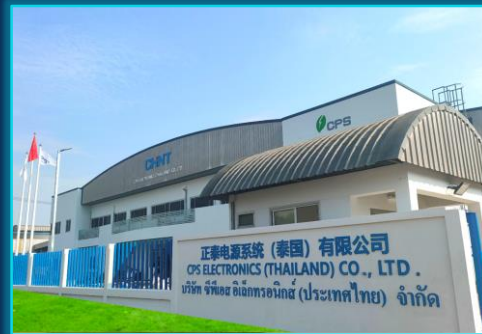
Wenzhou Taishun Factory:

residential product manufacturing base



Gansu Zhangye Factory:

Energy storage product manufacturing base



Thailand Factory:

US product manufacturing base



Shanghai Factory

Whole series product manufacturing and testing

Automated production line

Intelligent manufacturing:

Chint Power's 5 major continents marketing networks are equipped with intelligent equipment



Automatic feeding machine



Automatic screw locking



Automatic application of silicone grease



Fully automatic airtightness test

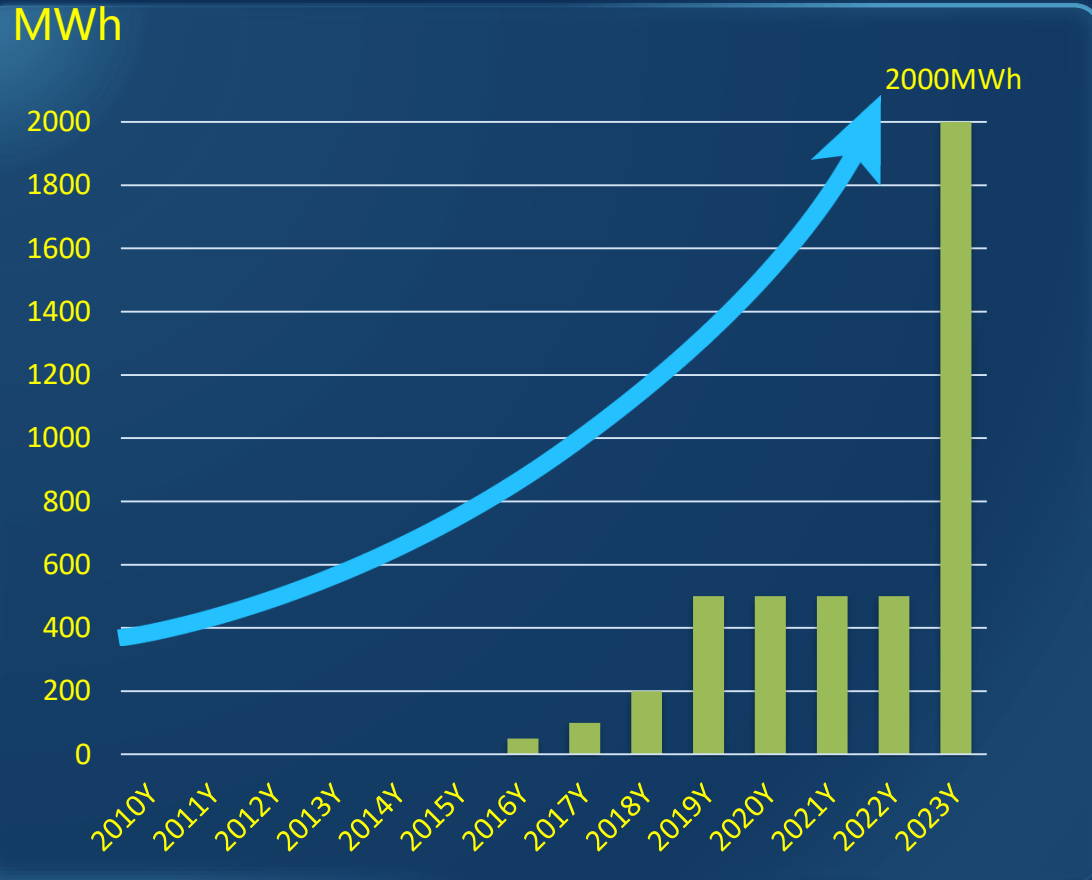
2023 New production line:

5 additional advanced manufacturing lines for string inverters. The production capacity of **each** residential distributed production line in the Shanghai and Taishun factories can reach **7000-7500 units/month**; The production capacity of **each** medium to large series inverter production line can reach **4000-4500 units/month**

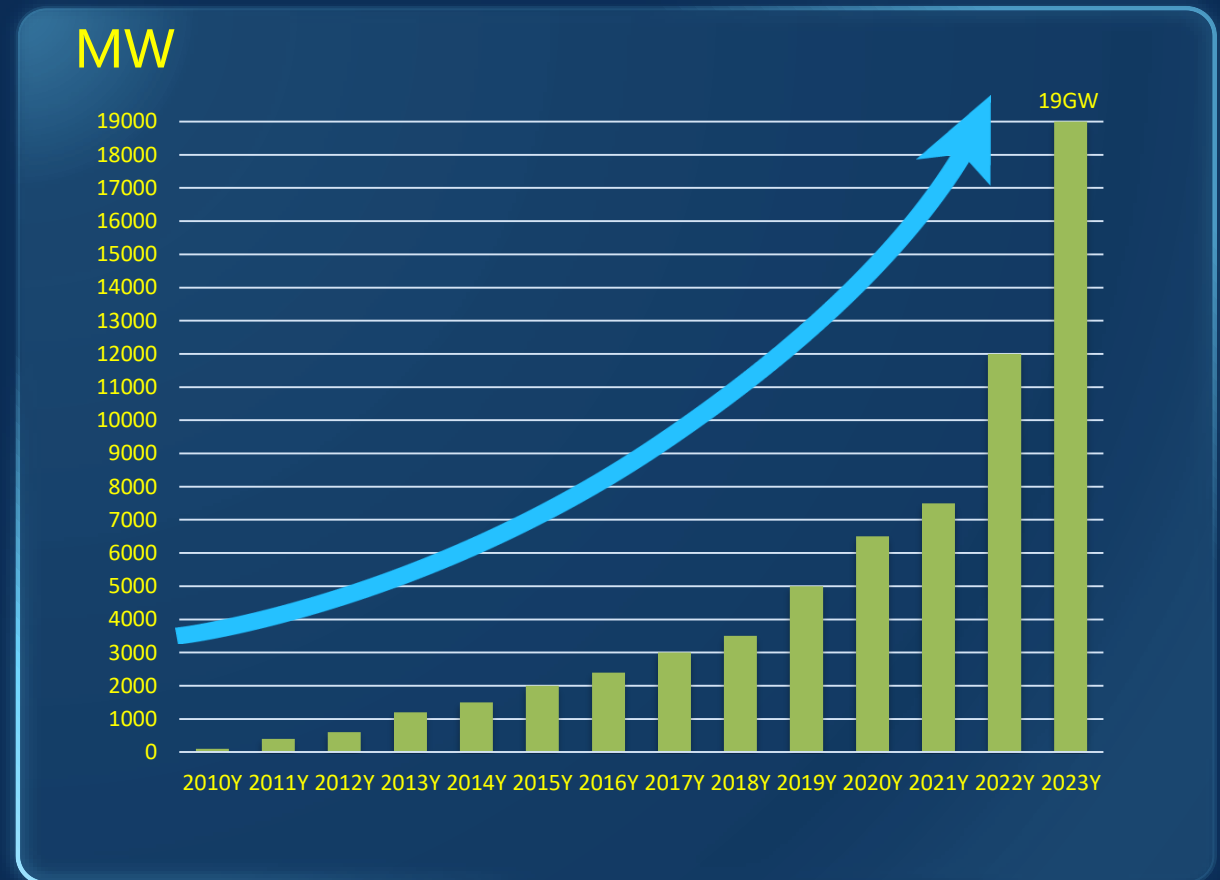


CPS – Shanghai CHINT Power System CO., Ltd.

Chint Power- storage product capabilities

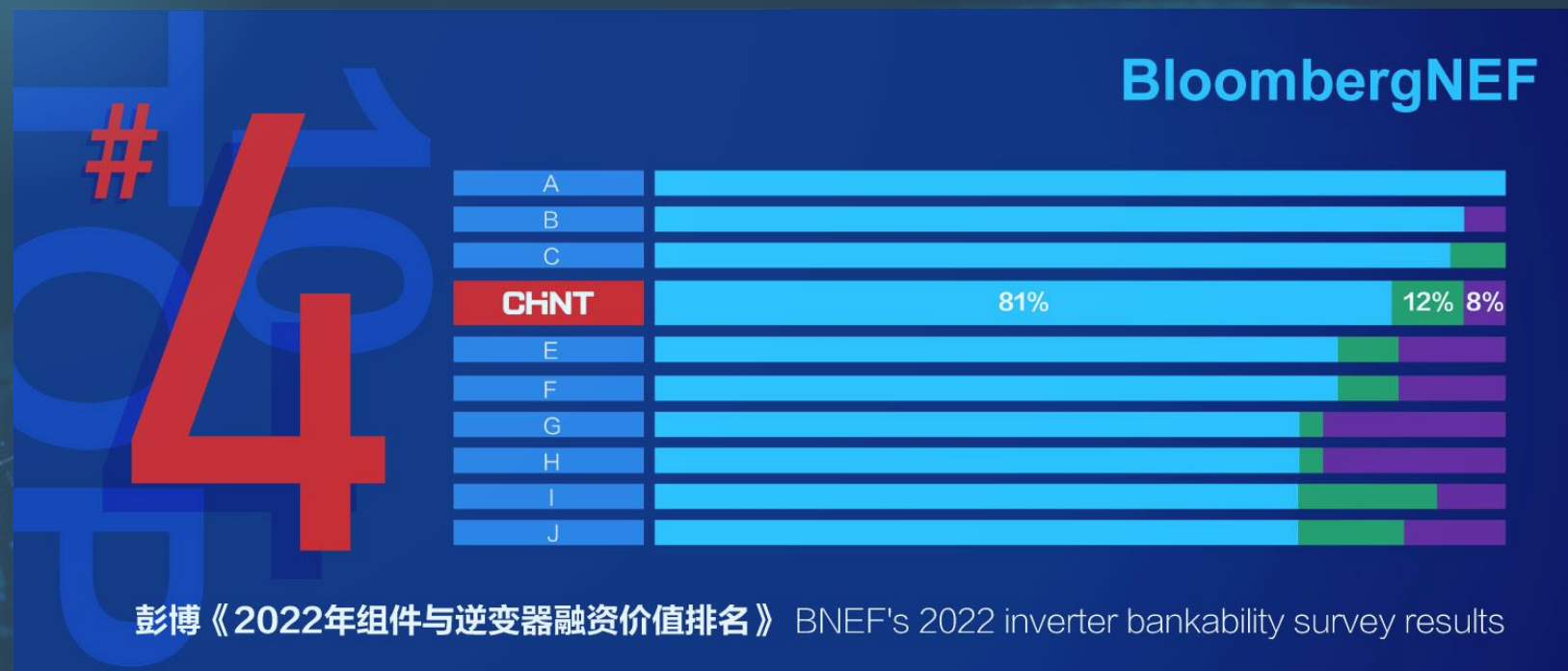


Chint Power- PV Inverter capabilities



2022 Inverter performance in the global market

2022 Inverter Bankability Ranking - Chint Power Ranked 4th in the world



彭博《2022年组件与逆变器融资价值排名》 BNEF's 2022 inverter bankability survey results

Data source : Bloomberg

In BloombergNEF's 2022 Inverter Bankability Survey, the CPS inverter once again gained trusts from users, the brand ranked **No.4** among the global competitors, 4 ranks higher than last year.

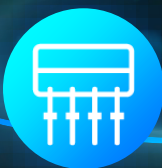
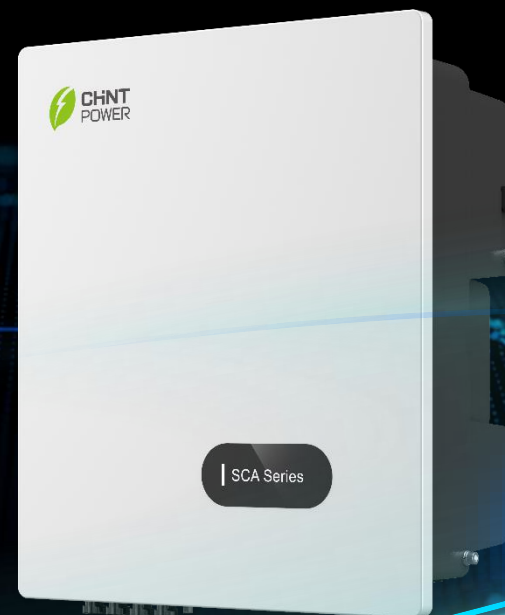
02

**CHINT Residential &
Commercial PV product**

2-25kW PV inverter

CPS SCA 2KTL-PS1
 CPS SCA 3KTL-PS1
 CPS SCA 3.6KTL-PS1
 CPS SCA 4.6KTL-PSM1
 CPS SCA 5KTL-PSM1
 CPS SCA 6KTL-PSM1

CPS SCA5KTL-T1
 CPS SCA6KTL-T1
 CPS SCA8KTL-T1
 CPS SCA10KTL-T1
 CPS SCA15KTL-T1
 CPS SCA20KTL-T1
 CPS SCA25KTL-T1



Strong

- 15A per string
- DC&AC class 2 SPD
- 150% DC/AC ratio



Easy

- Remote configuration and upgrade
- Smaller dimension size
- APP Quick commissioning



Smart

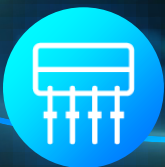
- Support smart meter &CT (2-6kW)
- Zero-export
- Load monitor at night

30-60kW PV inverter

CPS SCA30KTL-T1/EU

CPS SCA50KTL-T/EU

CPS SCA60KTL-T/EU



Strong

- 13A per string
- DC&AC class 2 SPD
- 150% DC/AC ratio



Easy

- Remote configuration and upgrade
- Smaller dimension size
- APP Quick commissioning



Smart

- Support smart meter
- Zero-export

100-125kW inverter

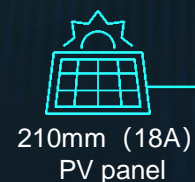


CPS SCA100K-T/EU
CPS SCA125K-T/EU

DC 1100V, AC 380/400V
DC&AC class 2 SPD
String current monitor

-  DC/AC ratio over 150%
-  Full power output at 50°C
-  Supports the AFCI function
-  Zero-export solution
-  Intelligent operation & maintenance system

12MPPT, 24 DC inputs
30A current per MPPT



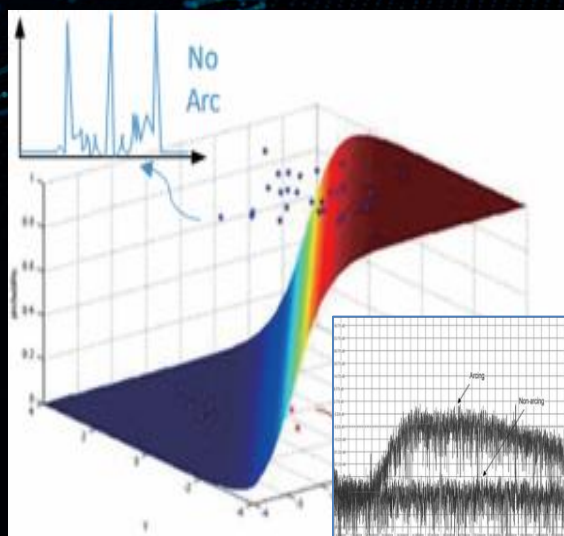
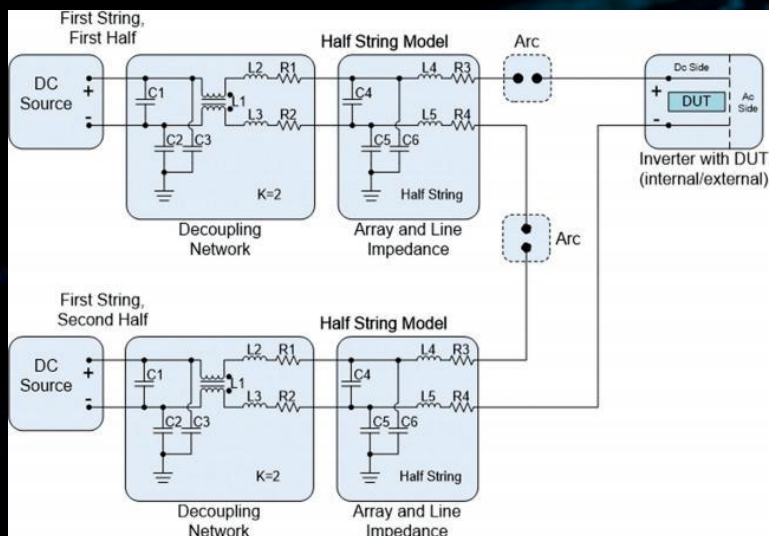
1 MPPT with 1 DC input -18A/string

100kW 12S*680Wp*20pcs=163kW 1.6 DC/AC ratio

125kW 12S*680Wp*20pcs=163kW 1.3 DC/AC ratio

DC Arc protect with 100/125kW inverter

Most of the fire accidents in photovoltaic power stations are caused by DC arc pulling. Especially some industrial and commercial , there are many connect point



Test items	Test results
Detectable Arc Types	Series Arc
Detectable cable length	200m
Adaptable maximum arc current	MPPT max current
Arc detection accuracy	99%
cut-off time	0.5s

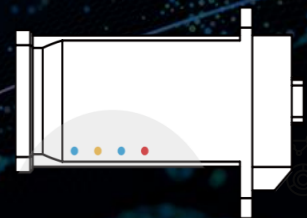
Solution: When Arcing occurs in the PV system, it will generate random **high-frequency current noise** signals in the circuit, and the **DSP** integrates intelligent control algorithms internally to effectively filter the noise and accurately identify the Arcing signals.



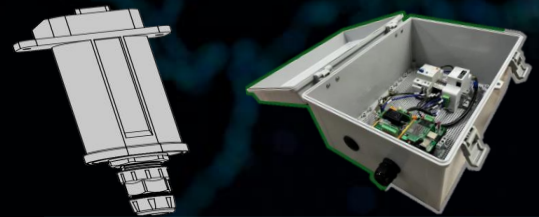
Residential&commercial- Monitor solution



Wi-Fi standard



4G Optional



Ethernet Optional

CHINT Monitor platform



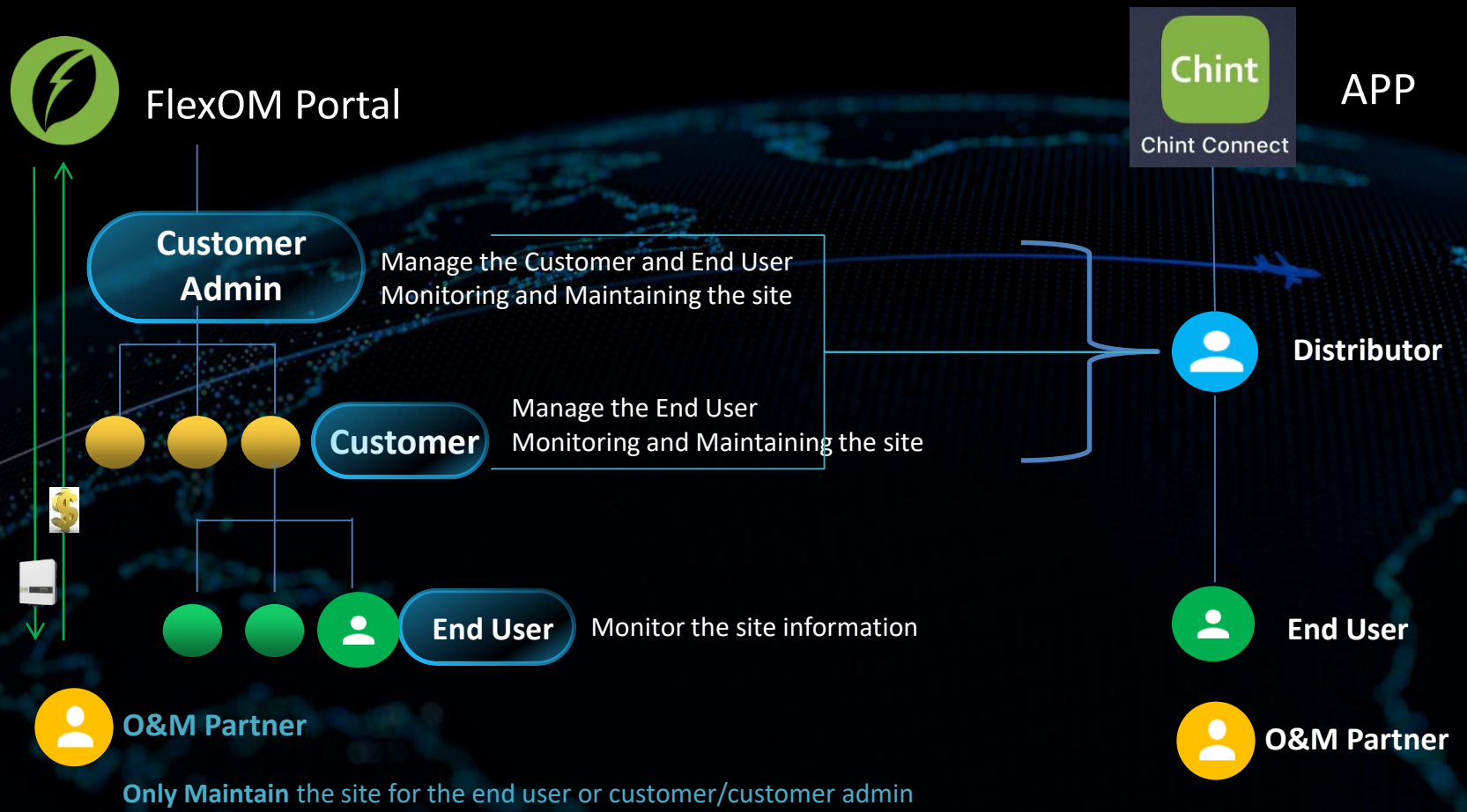
✓ Whole life Free cloud server

✓ Off line data storage

✓ Remote monitor and maintain

✓ Server forward data

Monitor Portal and APP



CPS Connect Portal:
<https://solar.chintpower.com/#/passport/login>

Chint Connect APP



03

CHINT PV plant product

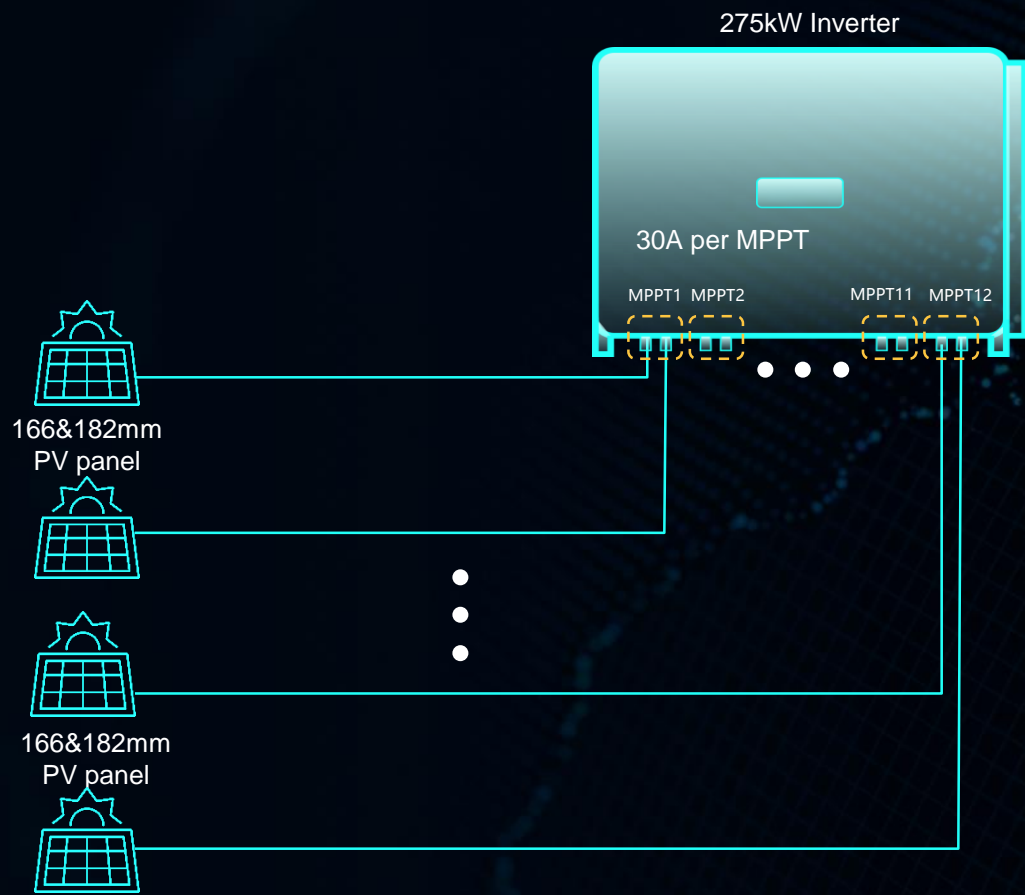
PV plant inverter

- ✓ **275kW** at 40 °C
- ✓ 99% Max efficiency
- ✓ SPD DC&AC Class 2
- ✓ String monitor
- ✓ 12MPPT with 30A, 6MPPT with 60A

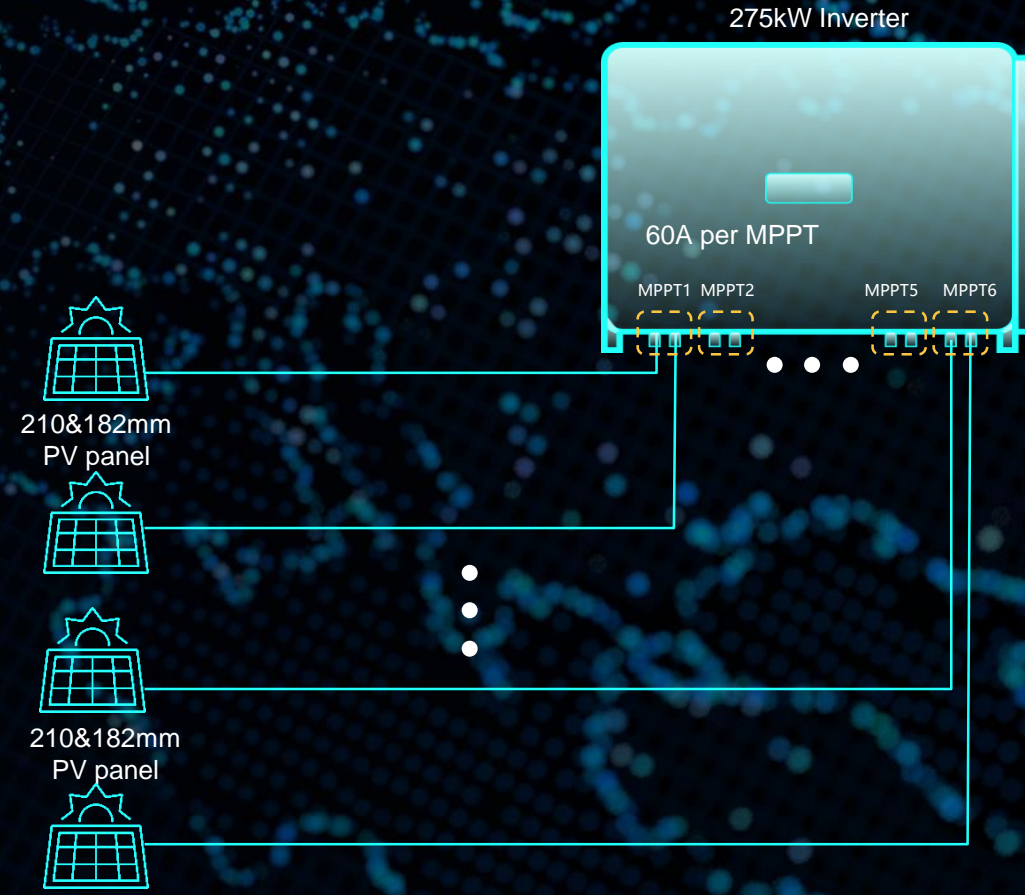


- ✓ **350kW** at 45 °C, 320kW at 50 °C
- ✓ 15MPPT with 40A, all PV module adaptable
- ✓ Smart fans system
- ✓ Smart DC switch

275kW-12 and 6 MPPT optional

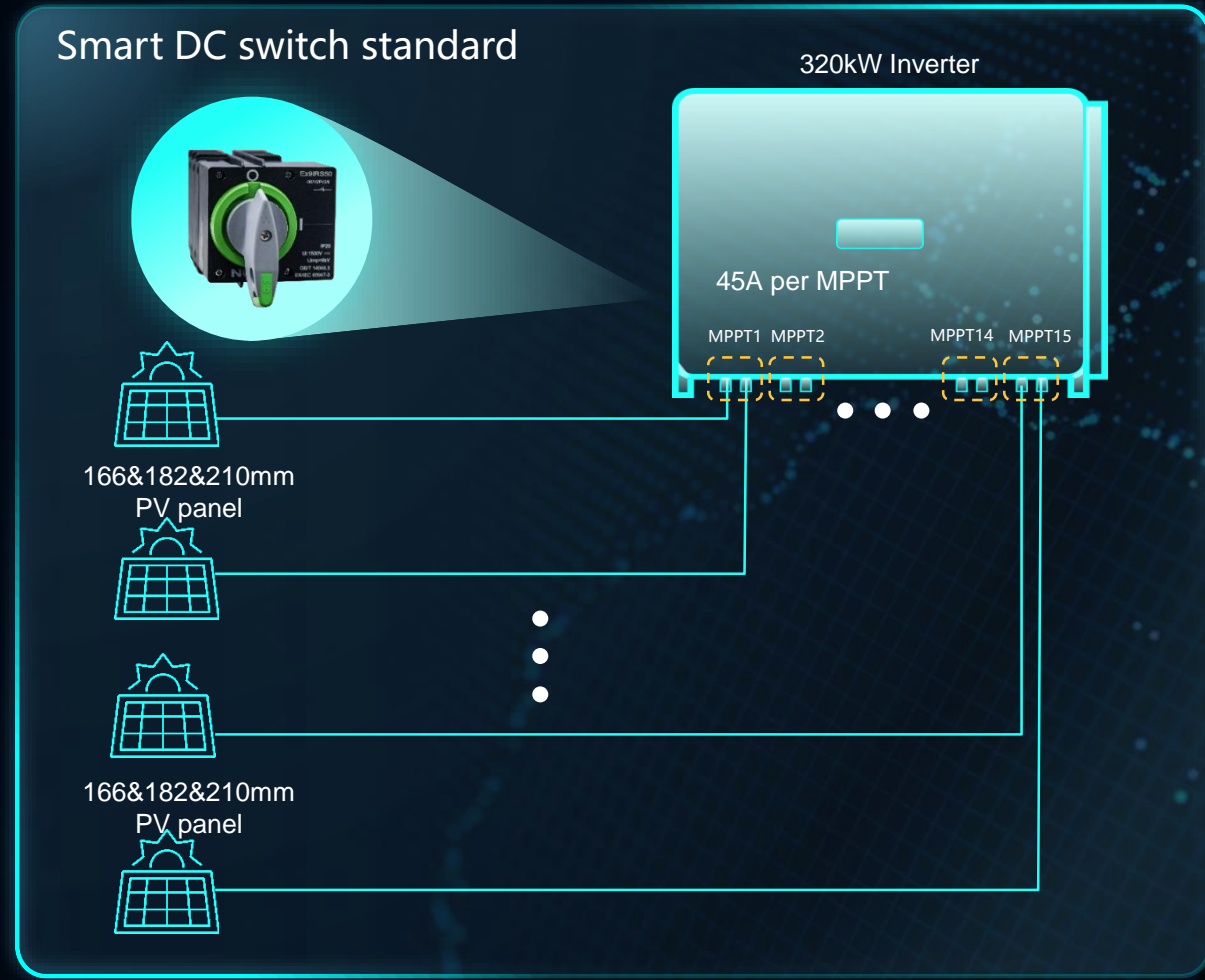


12 MPPT - 24 DC inputs - 15A/string



6 MPPT - 18 DC inputs - 20A/string

350kW inverter



All PV module adaptable

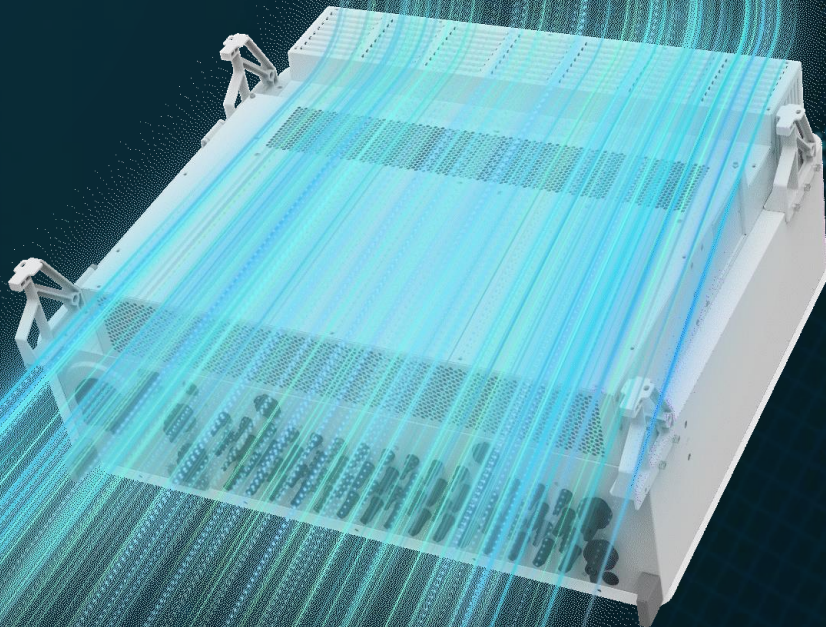
Support 2.0 DC/AC Ratio

Multi-channel MPPT without fuse design,
Higher efficiency and safety

Intelligent controllable DC switch

15 MPPT – 30 DC inputs – 20A/string

Smart fans

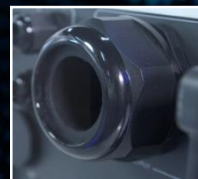


Intelligent fans speed control

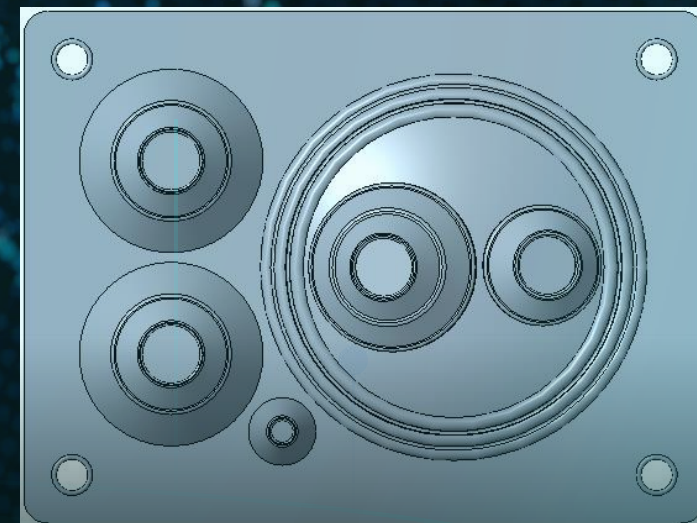
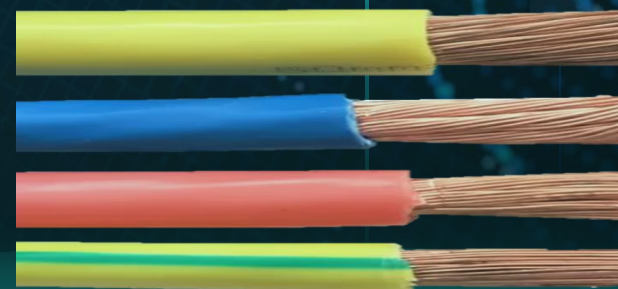
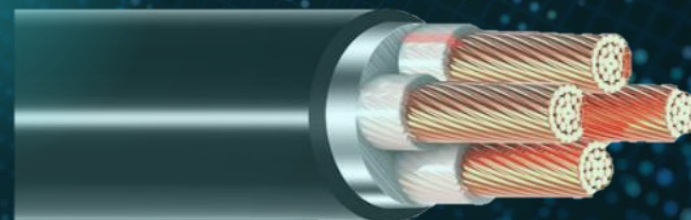
Fans reverses to clear dust at start

Flexible cable connect

Max 400mm² AC cable (275kW from 2023/12)
Multiple-core and Single core optional



275kW for now
300mm²

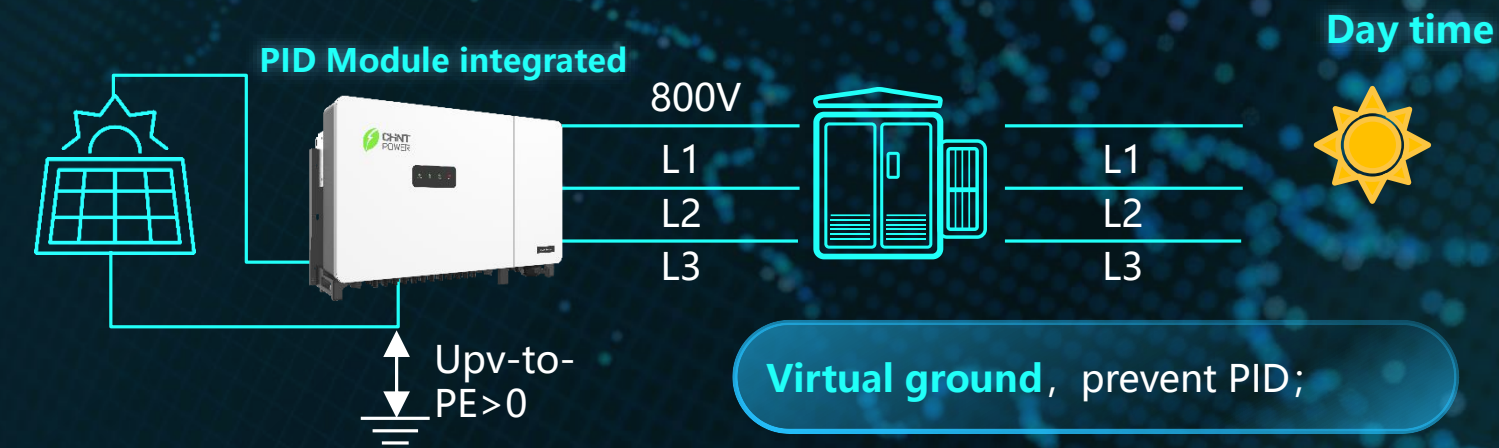


PID prevent + repair

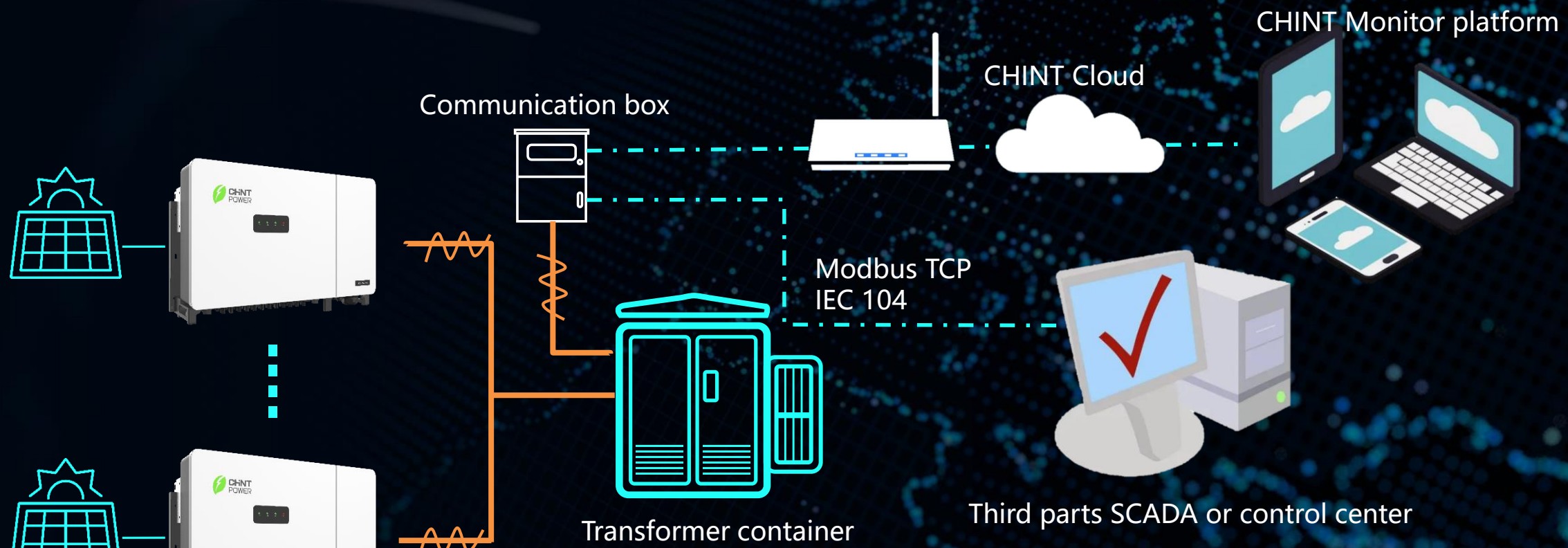
PID Repair



PID Prevent



Monitoring system



PLC communication, smart logger solution

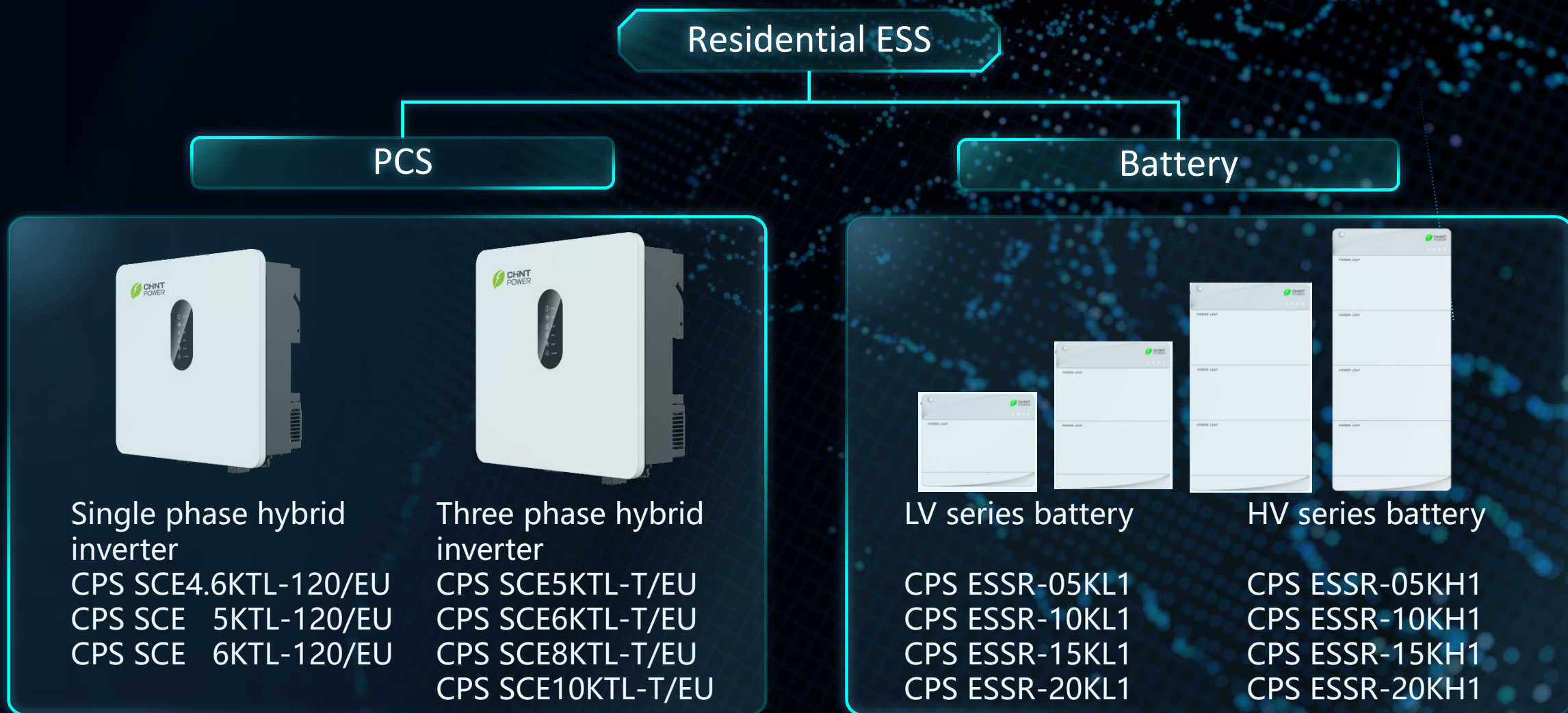
Support weather station connect

CHINT monitoring platform, remote maintenance

04

CPS ESS Residential Solution

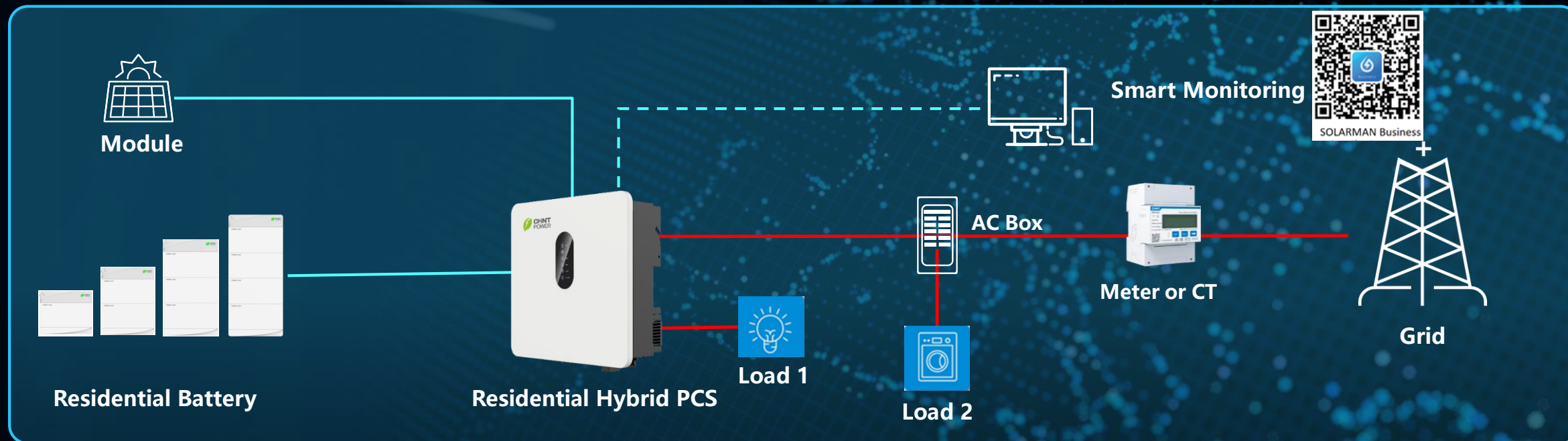
CPS ESS Residential Solution



Residential ESS Solution

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4-6kW 1-phase hybrid



5-20kWh LV Battery



Chint CT Standard



5-10kW 3-phase hybrid



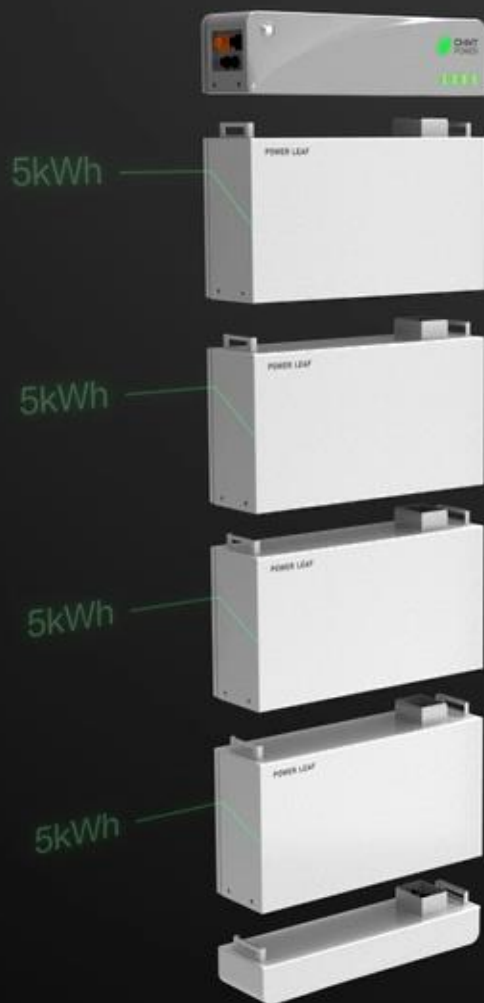
5-20kWh HV Battery



Chint CT + Chint Smart Meter Standard

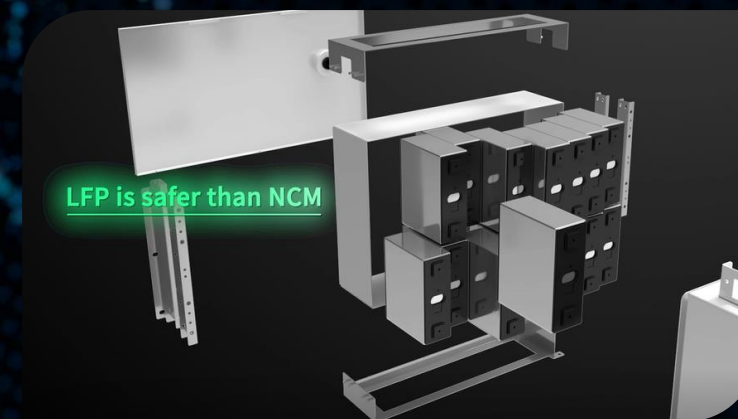
Residential ESS Solution Highlights

Power Leaf Battery



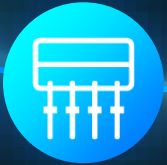
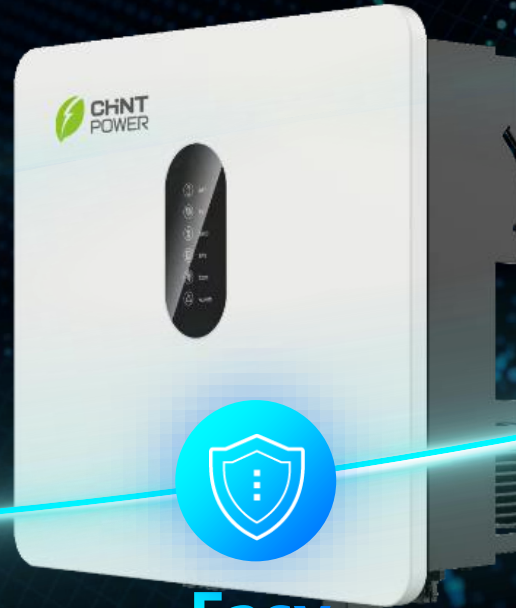
Modular design, high energy density;

- Plug and go design
- Floor & wall mounted
- Flexible combination from 5kwh up to 20kwh
- Support Mobile APP, easy management.
- Automatically assign of BMS address
- C-rate up to 0.75, 3.7kW for each battery pack. Get 10kW power from 15kWh



Long life, 70% EOL with **10** years warranty

Residential Hybrid Inverter



Strong

- Compatible with all type solar modules



Easy

- Remote configuration and upgrade
- APP Quick commissioning

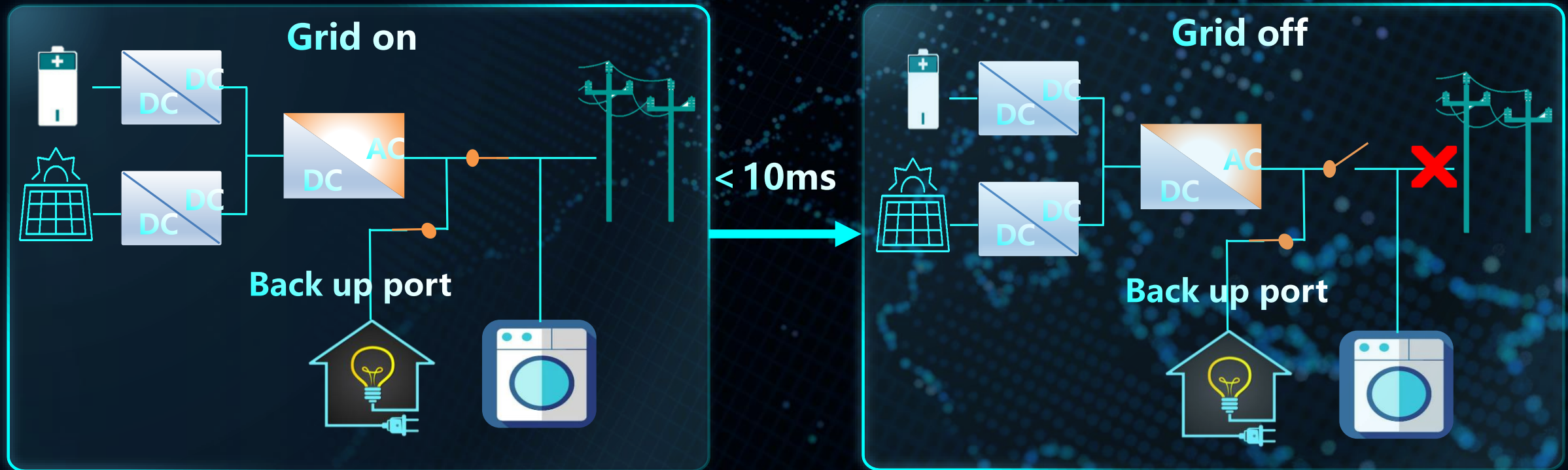


Smart

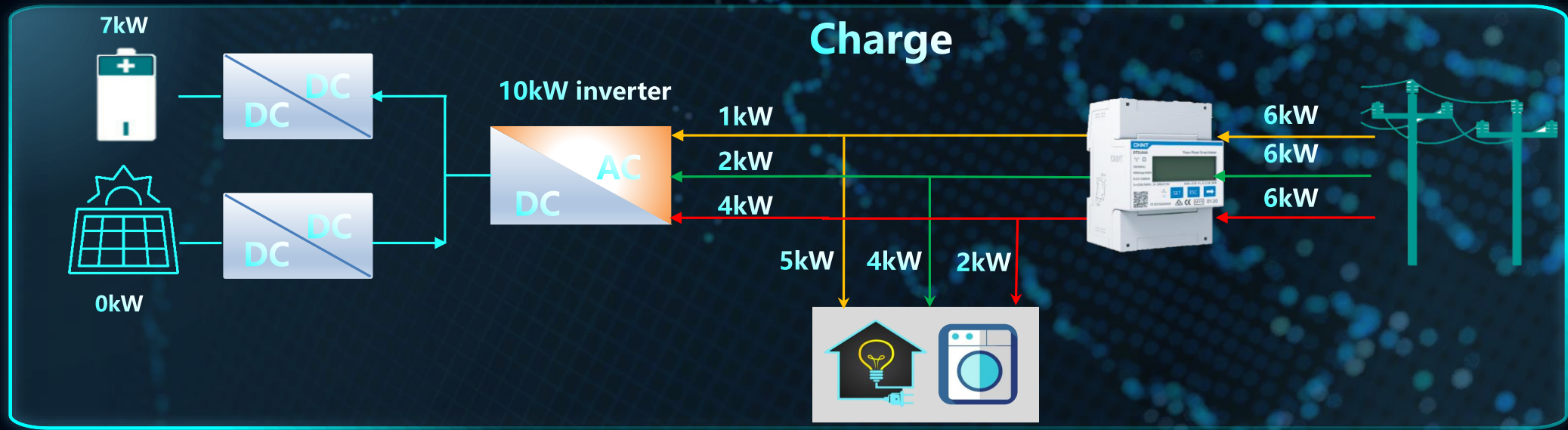
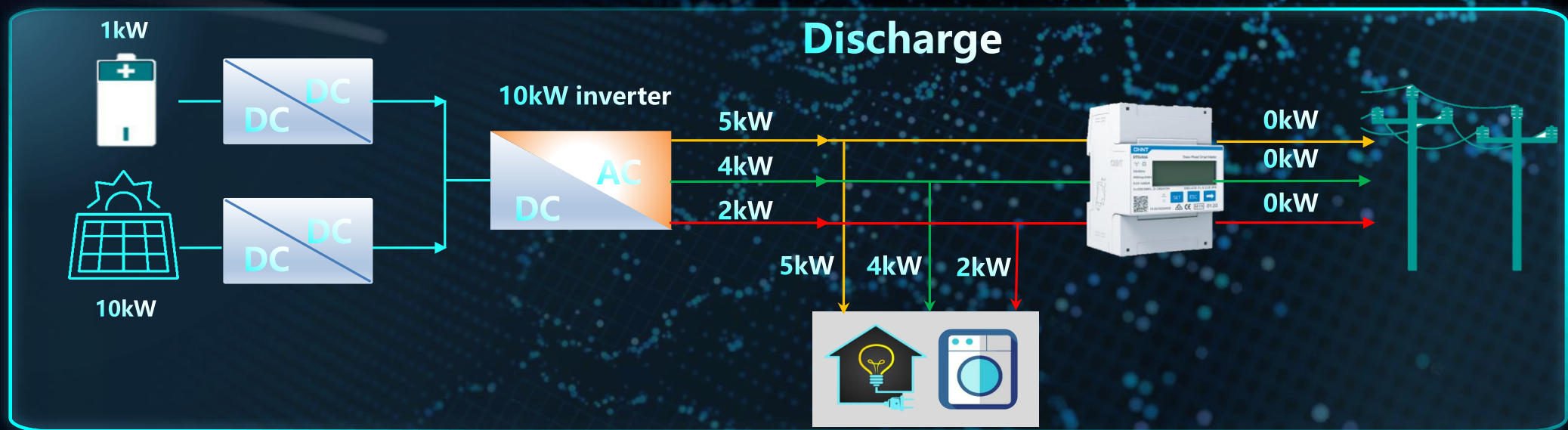
- Self Used Mode
- Time of Use Mode,
- Feed-in Priority Mode
- Back-up Mode

UPS level off grid switch

Real hybrid inverter, integrated off grid function
No external device required



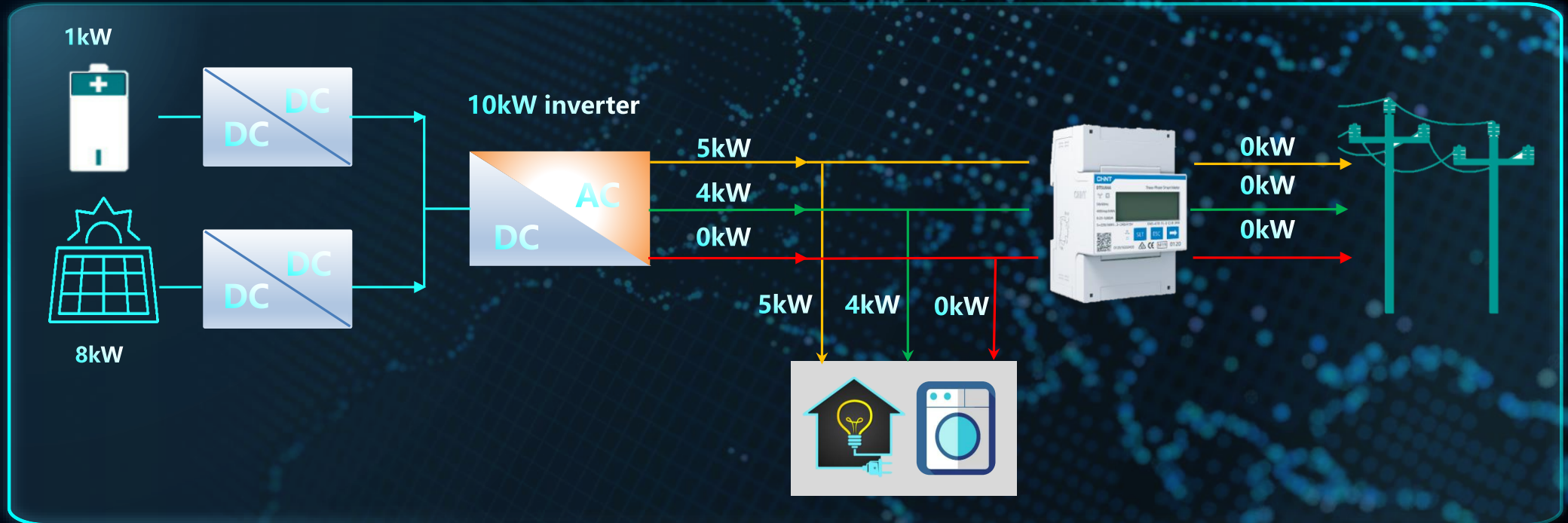
Strong ability of unbalanced 3-Phase Output



50% power for one phase support

Strong ability of unbalanced 3-Phase Output

Off-grid mode



100% unbalance ability

50% max power for one phase supported

RESS Application--Solarman remote monitor



ChintHome

Local commissioning the inverter by bluetooth



SOLARMAN Smart

Can be used for online remote monitoring by end use



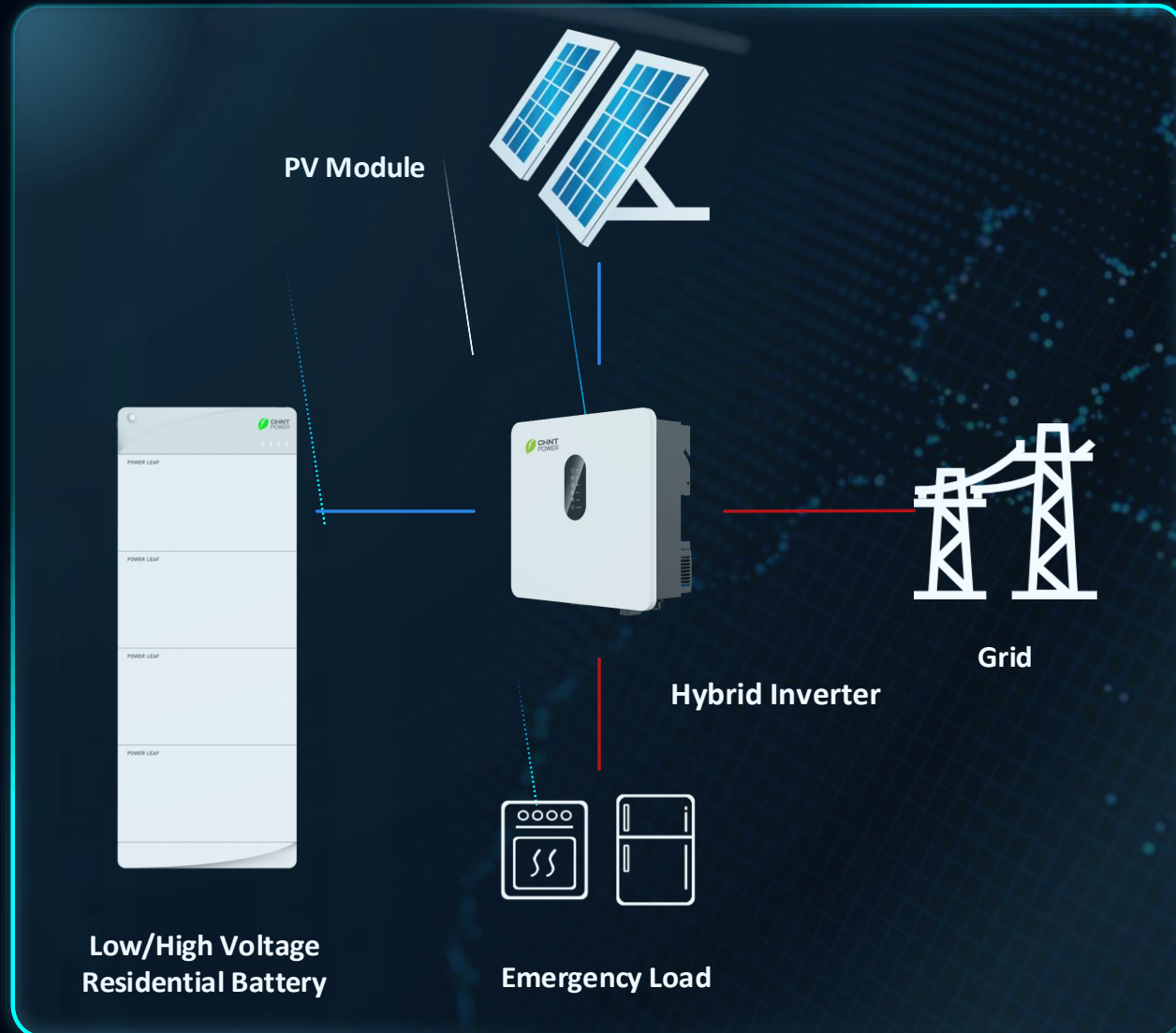
SOLARMAN Business

Can be used for online remote monitoring by distributors and dealers.

05

RESS EMS Working Mode

Intelligent work mode integrated in inverter



Self use mode

- Energy priority : Load > Battery > Grid

Force time use mode

- Charging energy priority: Battery > Load > Grid
- Discharging energy priority: Load > Battery > Grid

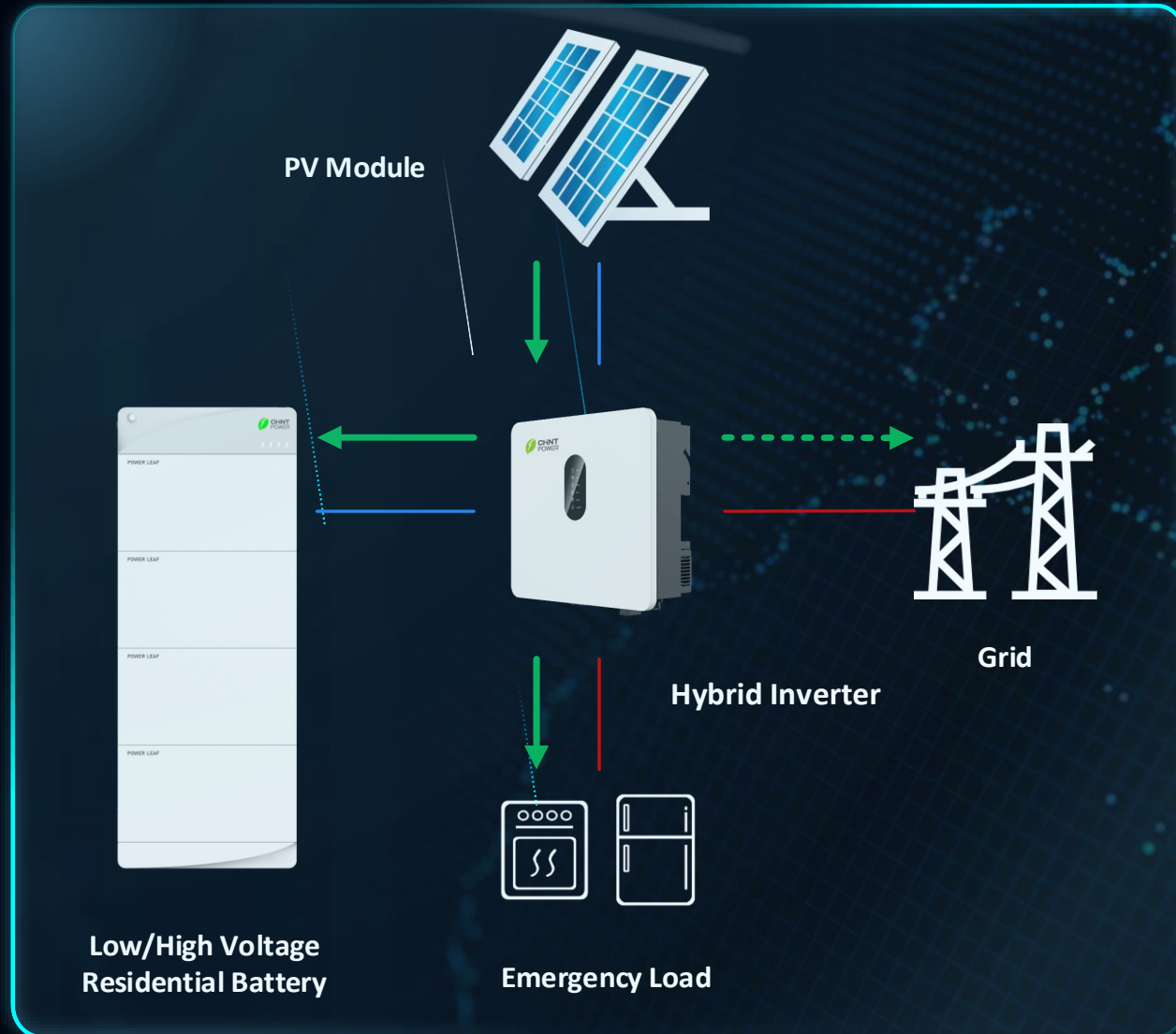
Back up mode(off grid)

- Energy priority: Battery > Load > Grid

Feed in priority mode

- Energy priority : Load > Grid > Battery

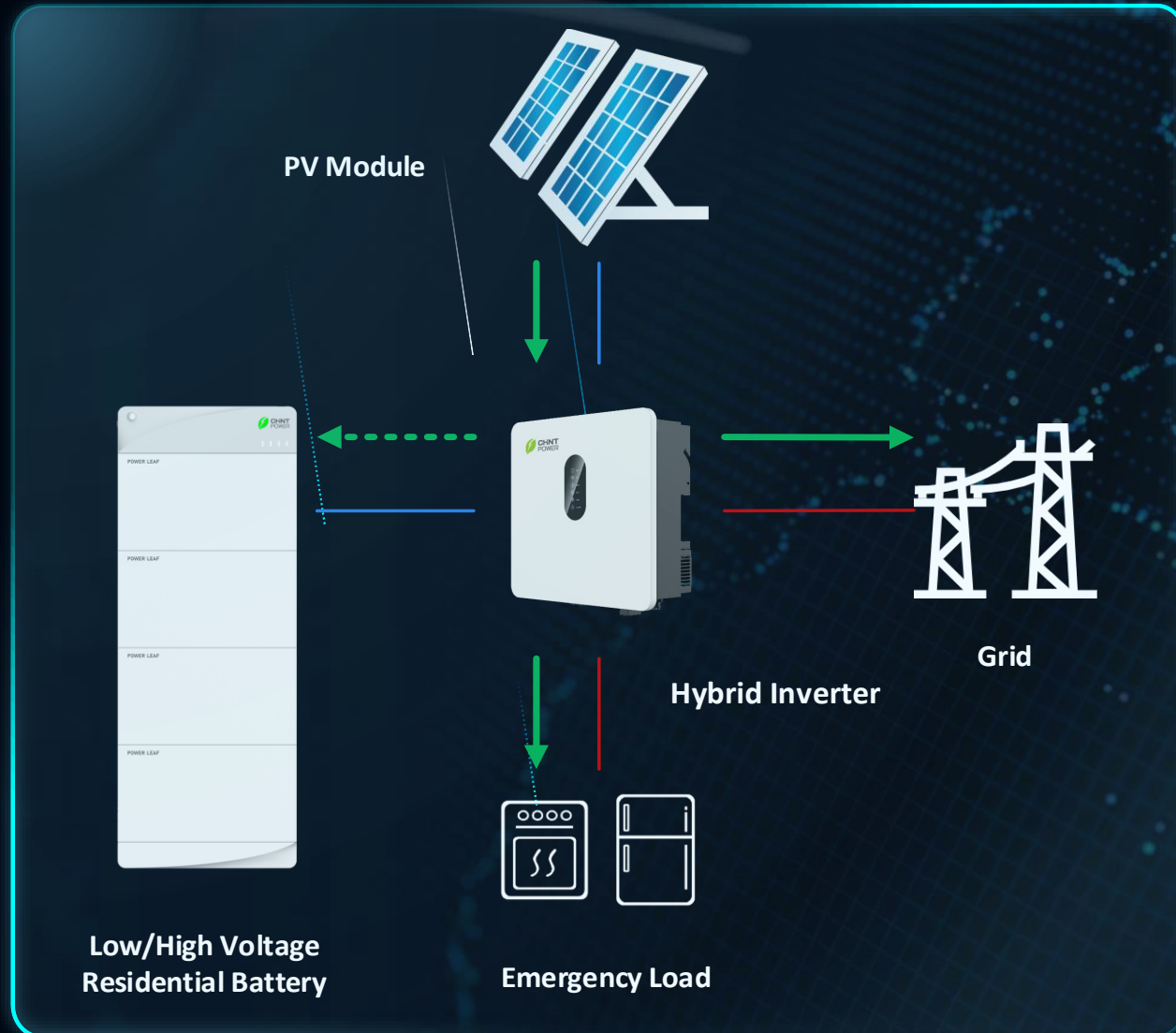
Self use mode



Self use mode

- Energy priority : Load > Battery > Grid
- This mode used in the area that low feed in tariff and high energy price.
- Switch on Power Limit function(need a smart meter) to limit power export to the grid.

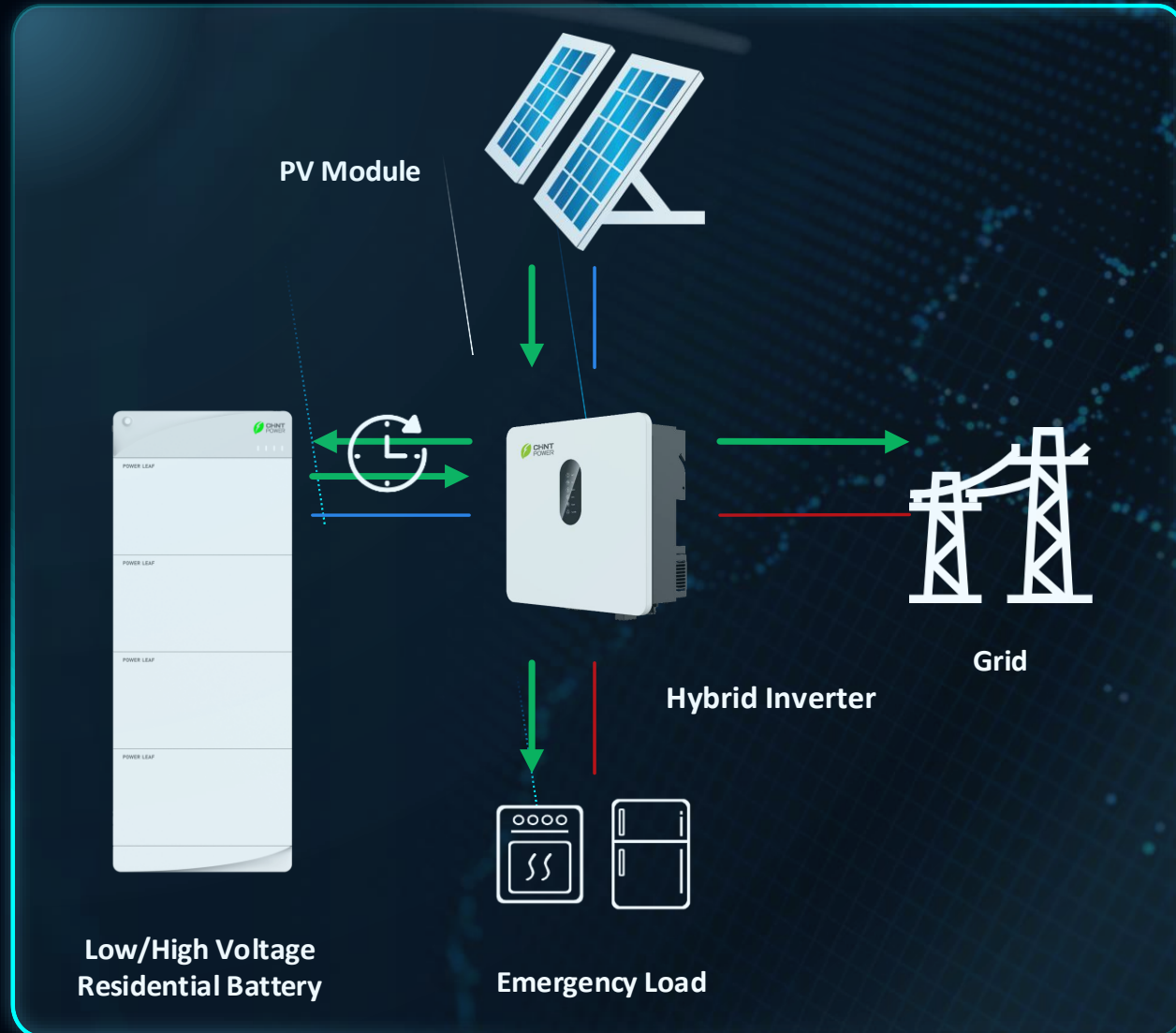
Feed in priority mode



Feed in priority mode

- Energy priority : Load > Grid > Battery
- This mode used in the area that energy can feed in grid.

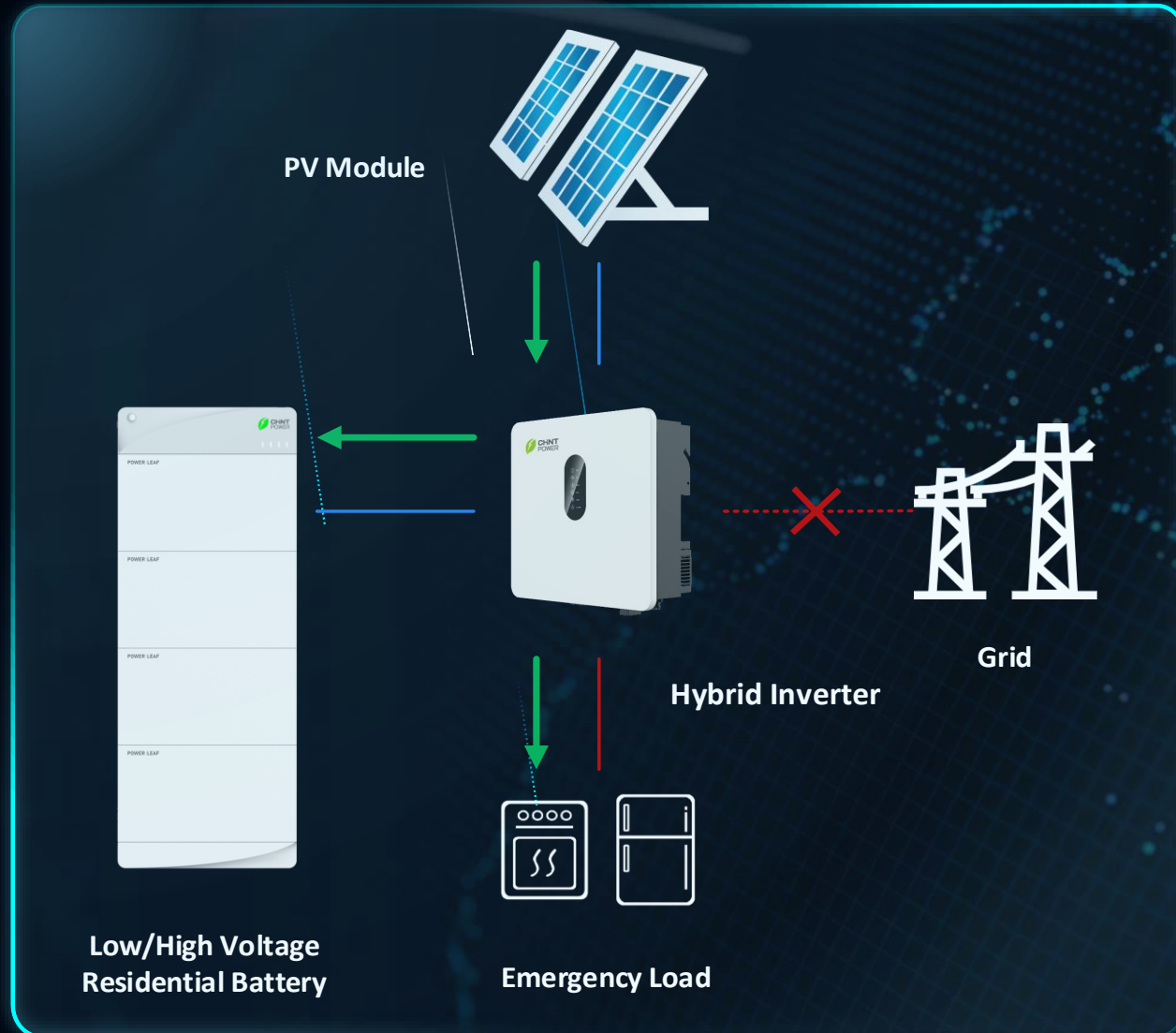
Force time use mode



Force time use mode

- Charging energy priority: Battery > Load > Grid
- Discharging energy priority: Load > Battery > Grid
- This mode used in the area that energy price between peak and valley.
- Charge and discharge time can be set flexible, also allows to choose whether charge battery from grid or not.
- Charge Current rate programmed

Back up mode



Back up mode

- Energy priority: Battery > Load > Grid
- This mode used in the area that grid system unstable.
- Choose whether charge battery from grid or not.
- In this mode, battery will not discharge until grid is lost.
- When the grid lost, the hybrid inverter will switch to off-grid mode and power the emergency load in less than 10ms

Utility ESS solution: Power Block Series



	POWER BLOCK 1.0A	POWER BLOCK 1.5L	POWER BLOCK 2.0L	POWER BLOCK 2.0L-AIO-U	POWER BLOCK Skid U
Specification	3.4MWh (Lithium 280Ah)	3.72MWh (REPT 280Ah)	5.0MWh (CATL 314Ah)	1.2MW/2.5MWh/10KV (CATL 314Ah)	2.4MW/35KV (200kW PCS)
Rack qty.	10 racks	10 racks	12 racks	6 battery racks + 6 PCS	10/12 PCS
Certification	GB/UL/IEC	-	GB/UL/IEC	UL/IEC	UL
Features	Air cooling	Liquid Cooling	Liquid Cooling, High Energy	All in one, Liquid Cooling, Individual rack control	MVPS Skid with String Inverter
Launch time	Jun. 2022	Jan. 2023	Jun. 2023	Q4 2023	Q3 2023

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Thank you