

# CPS SCE5~10K-TH-EU

## Three Phase Residential Hybrid PCS



### Strong Ability

- 100% unbalance ability
- 50% max power for one phase supported

### High Protection

- With BMS system to ensure high battery life
- Natural cooling design

### High Flexibility

- Compatible with lead-acid batteries and lithium battery
- Compatible with 500W+ modules

Model	SCE5K-TH-EU	SCE6K-TH-EU	SCE8K-TH-EU	SCE10K-TH-EU
<b>Efficiency</b>				
Max. Efficiency (PV to Grid)	98.2%		98.4%	
Max. Efficiency (Battery to Load)	98.0%			
<b>PV</b>				
Rated Input Voltage	650V			
Max. Input Voltage	1000V			
Max. Input Power	9.0kW	9.0kW	15.0kW	15.0kW
Max. Input Current per MPPT	15A/15A		20A/30A	
Max.Short Circuit Current per MPPT	20A/20A		30A/40A	
No. of MPPTs	2			
No. of Strings per MPPT	1/1		1/2	
Start Input Voltage	150V			
PV Operating Voltage Range	160-950V			
<b>Battery</b>				
Battery Type	Lithium-ion/Lead-Acid			
Battery Voltage Range	150-600V			
Max. Charge/Discharge Current	25A/25A		50A/50A	
Max. Charge/Discharge Power	9.0kW/5.0kW	9.0kW/6.0kW	15kW/8.0kW	15kW/10kW
<b>Grid</b>				
Max. Input Current	25.0A	25.0A	25.0A	25.0A
Rated Output Apparent Power	5.0kVA	6.0kVA	8.0kVA	10.0kVA
Max. Output Apparent Power	5.5kVA	6.6kVA	8.8kVA	11.0kVA
Rated Output Voltage	380V/400V/415V, 3W+N+PE			
Rated Grid Frequency	50Hz/60Hz			
THDI	<3%(Rated Power)			
Power Factor	> 0.99 Rated power (Adjustable 0.8 Leading - 0.8Lagging)			
<b>Backup Port</b>				
Max. Output Current (On Grid)	25.0A	25.0A	25.0A	25.0A
Rated Output Apparent Power (On Grid)	15.8kVA	15.8kVA	15.8kVA	15.8kVA
Max. Output Apparent Power (Off Grid)	5.0kVA	6.0kVA	8.0kVA	10.0kVA
Peak Output Apparent Power	6kVA@5min/7.5kVA@10s	7.2kVA@5min/9kVA@10s	9.6kVA@5min/12kVA@10s	12kVA@5min/15kVA@10s
Rated Output Voltage	380V/400V/415V, 3W+N+PE			
Rated Output Frequency	50Hz/60Hz			
Max. Output Single Phase Apparent Power	2.5kVA	3.0kVA	4.0kVA	5.0kVA
THDV	<3%(Rated Power)			
Switching Time	10ms			
<b>Protection</b>				
DC Switch	Support			
Anti-islanding Protection	Support			
AC Overcurrent Protection	Support			
AC Short Circuit Protection	Support			
PV String Reverse Protection	Support			
Surge Arrester	AC Type II, DC Type II			
AFCI	Option			
RSD Function	Option			
<b>General</b>				
Topology	Transformerless			
IP Rating	IP65			
Cooling	Natural cooling			
Operating Temperature Range	-25°C~60°C(>45°C derating)			
Relative Humidity Range	0-100%			
Max. Operating Altitude	4000m(>2000m derating)			
Noise (Typical)	<30dB			
Dimensions (W*H*D)	530*550*213mm			
Weight (kg)	30kg		32kg	
Display	LED&APP			
Communication	RS485,CAN, WIFI/4G(optional)			
<b>Certification</b>				
Safety	IEC 62109-1/2, IEC/EN 61000-6-1/2/3/4			
Grid Code	EN 50549-1, VDE4105, NC RfG, NTS 2.1, UNE 217001, UNE 217002			

\* The certificates are for reference only. Please consult the local sales staff for detailed certification.

# Wi-Fi Communication Module



WiFi Module is an internal data logger in the Chint Power Systems PV monitoring series.

By connecting with inverter through RS232/RS485 interface (DB9 port), the WiFi Module can collect information of PV systems from inverter. With the integrated WiFi function, the WiFi Module can connect to router and transmit data to the web server, realizing remote monitoring for users.

Users can check the runtime status of the device by checking the 3 LEDs on the module, Users can also upgrade the inverter firmware and setting parameters through web portal which connected by WiFi module.

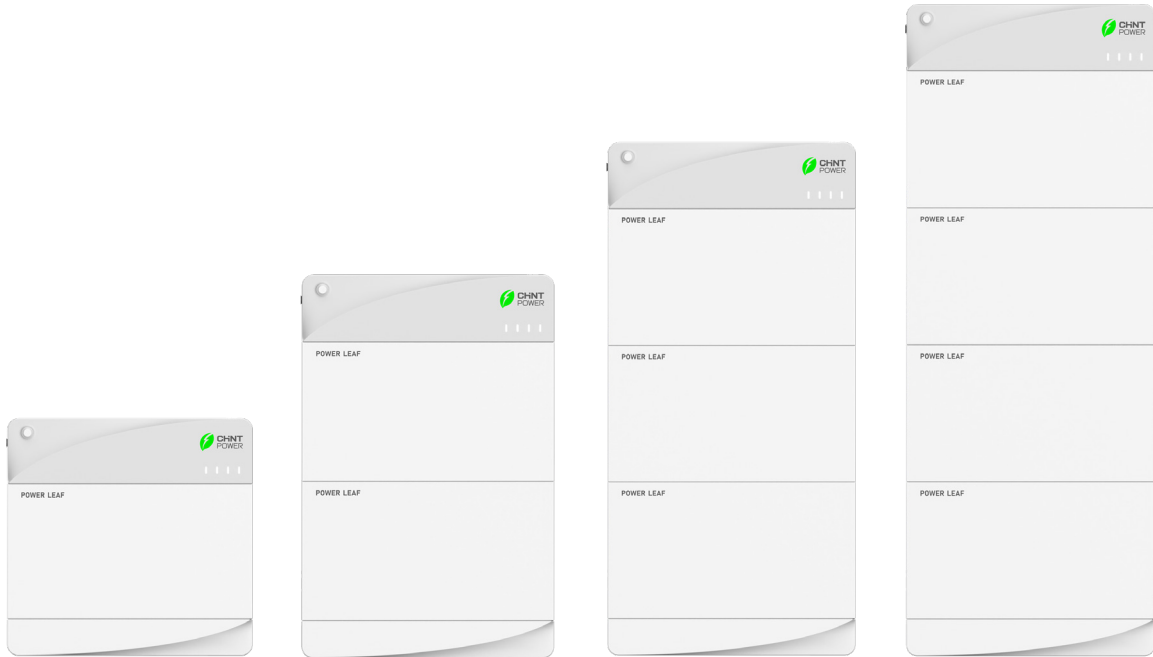
- Supporting remote operation and maintenance functions including remote upgrading, parameter setting.
- Supporting direct connection configuration with APP, quickly and easily.
- Plug and play, quick installation.

Model Name	WiFi Module
<b>General</b>	
Supported device number	1
Display	LED*3
Configuration	APP
<b>Communication</b>	
RS485/RS232	1
WiFi	2.4GHz 802.11 b / g / n
<b>Power</b>	
Input Voltage	5Vdc
Power Consumption	2W
<b>Environmental</b>	
Operating Temperature	-20°C to +65°C
Working Humidity	≤95%
Protection class	IP65
<b>Mechanical Parameters</b>	
Dimensions ( W * H * D )	45mm * 80mm * 25mm
Installation	Plug-in type

# CPS ESSR-05/10/15/20KH1

## High Voltage Residential Battery

Hybrid PCS



### Flexible

- Standard packs and control modules reduce inventory and design difficulties
- Working below  $-10^{\circ}\text{C}$  with self heating

### Strong

- C-rate up to 0.8
- 4kW for each pack. Get 10kW power from only 15kWh

### Easy

- Reduce wiring work during pack install
- Automatically assign of BMS address

## Technical parameters



Model	CPS ESSR-05KH1	CPS ESSR-10KH1	CPS ESSR-15KH1	CPS ESSR-20KH1
<b>System Parameters</b>				
Power Control Module	CPS ECD500	CPS ECD500	CPS ECD500	CPS ECD500
Battery Extension Module	CPS EBM032050LF-H	CPS EBM032050LF-H	CPS EBM032050LF-H	CPS EBM032050LF-H
Rated Voltage(V)	102.4	204.8	307.2	409.6
Operating Voltage Range(V)	89.6~115.2V	179.2~230.4V	268.8~345.6V	358.4~460.8V
Max Charge/Discharge Current(A)	40	40	40	40
Max Power(kW)	4.0	8.1	12.2	16.3
Rated Charge/Discharge Energy(kWh)	5.12	10.24	15.36	20.48
Useable Battery Energy(kWh)	5.12	10.24	15.36	20.48
DOD	100%	100%	100%	100%
Weight(kg)	75	131	188	244
Dimension (W*D*H,mm)	770*178*680	≈770*178*1040	≈770*178*1400	≈770*178*1760
Product Parallel Extension(kWh)	Up to 61.44kWh	Up to 61.44kWh	Up to 61.44kWh	Up to 61.44kWh
Operating Temperature(°C)	Charge&Discharge: -10~50			
Working Humidity	5~95%	5~95%	5~95%	5~95%
Protection	IP65	IP65	IP65	IP65
EOL	70%	70%	70%	70%
Communication	CAN	CAN	CAN	CAN
Certificates	IEC 62619, IEC 63056, IEC 62040-1, IEC 62477-1, CE EMC, VDE 2510-50, UKCA, UN38.3			
Installation	Floor Mount & Wall Mount	Floor Mount & Wall Mount	Floor Mount & Wall Mount	Floor Mount & Wall Mount
Cooling	Natural	Natural	Natural	Natural
Altitude	≤3000	≤3000	≤3000	≤3000
<b>Battery Extension Module</b>				
Module	CPS EBM032050LF-H			
Rated Charge/Discharge Energy(kWh)	5.12			
Dimension (W*D*H,mm)	770*178*410			
Weight(kg)	56			
EOL(%)	70			
<b>Power Control Module</b>				
Model	CPS ECD500			
Operating Voltage Range(V)	80~500V			
Max Charge/Discharge Current(A)	40			
Dimension (W*D*H,mm)	770*178*220			
Weight(kg)	13			

\* The certificates are for reference only. Please consult the local sales staff for detailed certification.

# World Class Performance - GTM Award



The CPS performance is increasing year by year. 2013, Chint Power System Selected to be Top 10 of the Most Competitive PV Inverter Companies by GTM, the international well-known power and renewable energy research institute. GTM released the ranking list based on key qualitative metrics that measure each company's product quality, reliability, bankability, growth prospect alignment and integrated competitiveness. The ranking list shows a key assessment factor of the potential competitiveness in the future.

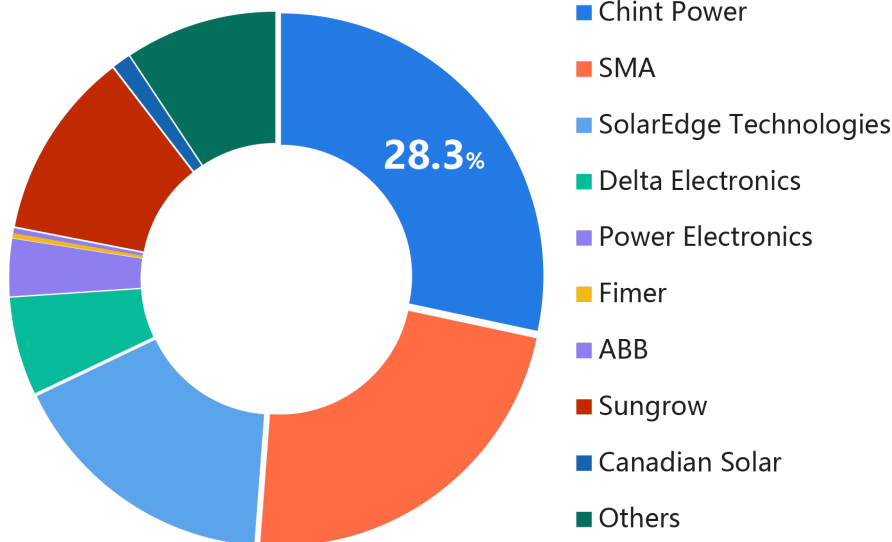
2014, According to the Total Shipment, Chint Power rank 13 of global PV Inverter market announced by GTM. Since 2015 to now, CPS three phase string inverter started dominate commercial segment of US market.

This year, Wood Mackenzie (GTM Research) released "Global solar PV and module-level power electronics inverter market share 2022". According to the report, CPS ranked 1st again in three phase string inverter shipments in the U.S.A with 28.3% of the market share 2022.

**GTM/ Wood Mackenzie:  
In 2022, CPS ranked 1st in three phase string inverter shipments in the U.S.A with 28.3% of the market share.**



## North America 2022 Inverter Shipment Rankings (MWac)



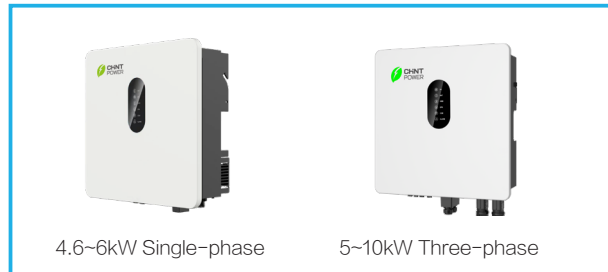
**North America Three Phase Inverter #1 Market Share 7 Consecutive Years**

Data source: Wood Mackenzie (GTM)

# Products Overview

## Hybrid PCS

Residential hybrid PCS



## Battery

Low/High voltage residential battery



## PV Inverters

Single-phase string inverters



Three-phase string inverters

