• Inverter-Asia/Europe • System & Monitoring Product

PV Inverter

2014-2015

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CHINT POWER

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Chint Power Quality, PHOTON Lab Identify!

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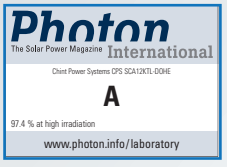
12kW



Medium irradiation efficiency: 97.2%
High irradiation efficiency: 97.4%
Maximum conversion efficiency: 98.6%

CPS SCA12KTL-DOHE

CPS SCA12KTL-DOHE PV inverter awarded Double A by PHOTON

Chint Power Systems' SCA12kTL-DOHE PV inverter was awarded Double A ratings by the prestigious PHOTON laboratory. The medium irradiation efficiency of the inverter reaches 97.2% and its high irradiation efficiency even achieves 97.4%. This is the second time that Chint Power's product receives the Double A ratings following the 20kW model.

CPS SCA12KTL-DOHE is a transformerless designed three phase grid-tied PV inverter. The MPP range spans 430 to 800V, where upon the maximum MPP voltage of 800V is at a pleasant distance from the maximum input voltage of 1,000V. As a dual MPPT inverter, it can be operated with its two trackers under parallel, symmetric or asymmetric load distribution and its Max. Efficiency can achieve up to 98.6% under the parallel mode. The overall efficiency curve is almost identical to the conversion efficiency curve due to the very good MPPT adjustment efficiency.

In the power element, the manufacturer only uses film capacitors, which, in contrast to electrolytic capacitors, have no danger of drying out. This increases the lifetime of the device. Since the housing was designed for protection type IP65 and the permissible outside temperature extends from -25 to +60°C, installation outdoors is possible. Among the tested three phase PV inverters under 15kW in the PHOTON Laboratory, CPS SCA12KTL-DOHE has the best performance and highest efficiency.

G59 CEI 0-21 C10/11 VDE-AR-N 4105 VDE0126-1-1/A1

Chint Power Quality, PHOTON Lab Identify!

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20kW

CPS SC20KTL-O

CPS SC20kW Received AA Rating by PHOTON Laboratory

The CPS SC20kW inverter of Chint Power Systems received AA rating in the latest test conducted by the authoritative magazine PHOTON in the global PV industry. The conversion efficiency has reached 97.4% at high radiation condition and 97.1% at medium radiation condition, both have met Level A ranking standard. The performance has ranked among the best in the global products tested by PHOTON.

CPS SC20kW inverter has introduced its proprietary 3-level technology and IGBT/MOSFET shunt technology that greatly elevates the full range of its conversion efficiency. In addition, fully reliable digital control technology, 2-way dual MPPT tracking, advanced thermal design and smart fan speed regulation etc. are also advantageously applied. This product is certified by German VDE, Spanish RD1663, British G59, Belgium C10/11 and Chinese Golden Sun to meet the application requirements in most countries worldwide.

RD1663 G59 C10/11 VDE-AR-N 4105 VDE0126-1-1/A1

Chint Power Quality, reddot Recognition!

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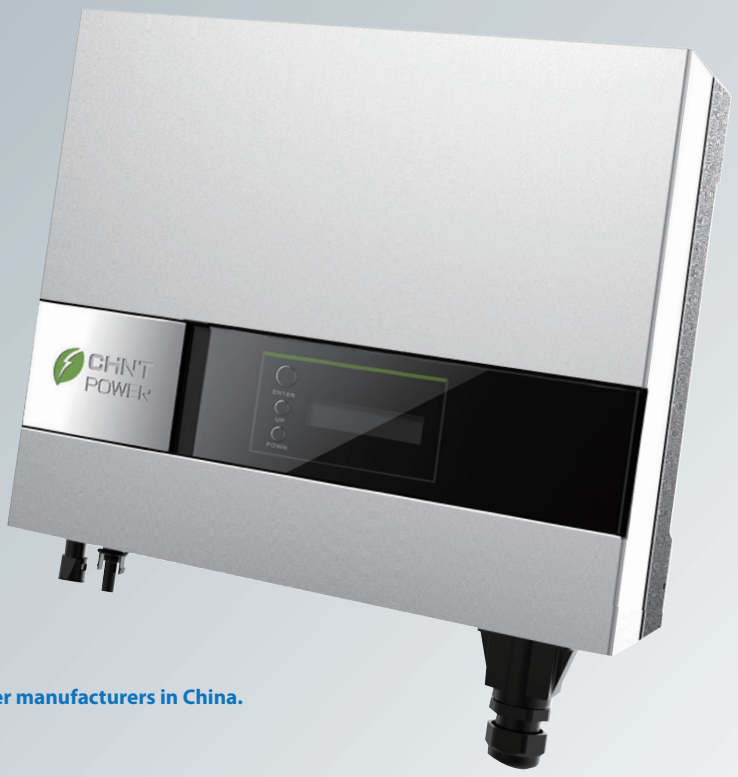
reddot design award
honourable mention



The first red dot award winner of inverter manufacturers in China.

Chint Power Systems Won the reddot Design Award

Chint Power SC Series inverters won the German top industrial design award "reddot design award". Approximately 1,700 companies from 60 countries have taken part with 4,433 entries in total; only the very best products managed to convince the expert jury.

The industrial design of the award-winning products of Chint Power combine concise straight lines and high-quality aluminum plate, which conveys to the client meaning of "technology, reliability, user friendliness", fully embodying Chint Power's brand culture of Chint Power.

red dot Design Award- the "Oscar" Awards in the Design Field

redd ot design award was founded by the famous German Association of Design “Zentrum Nordrhein Westfalen”. With more than 50 years of history, it is the world's largest and most renowned design award, joining the "iF Award" German, "IDEA Award" the United States to be called the world's three major design awards, which is known as the design world's "Oscar”.

GTM's TOP 10 Competitively Positioned PV Inverter Companies

A new 225-page report was released by Green Tech Media Research (GTM), the renowned North American PV industry research and consultancy institution on April 18, 2013. Besides the thorough analysis of competition pattern in PV inverter market, the report also presents a ranking list of Top 10 Competitively Positioned PV Inverter Companies, among which Chint Power comes at the first 9. It is the first time that Chint Power cuts a figure in the market ranking released by the international research and consultancy institution, revealing that CPS products and competitiveness are well recognized by the international PV market. (The CPS 20kW inverter ranks the first 6 in efficiency test in the Photon laboratory at the end of 2011.) As the independent research and consultancy institution, 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.

GTM Research's report finds that leading PV inverter suppliers will be pinched by shifts in global demand and the continued swing toward low-price market segments and geographies over the next three years. This swing will push PV inverter prices down. The incumbent PV inverter manufacturers remain at the front of the market today, with low-cost players from Asia and diversified giants gaining ground as PV demand expands globally.

GTM RESEARCH

The following ranking list is released by GTM on April 18, 2013.

GTM Research Top 10
Competitively Positioned PV Inverter Companies

1. SMA
2. Power-One
3. Schneider Electric
4. SunGrow
5. Advanced Energy (REFUsol)
6. ABB
7. TMEIC
8. KACO New Energy
9. **Chint Power**
10. Fronius

PV Inverter Overview

PV Inverters

Single phase string inverters

1kW | 1.5kW | 2kW | 3kW | 4kW | 5kW

Three phase string inverters

5kW | 6kW | 7kW | 8kW | 10kW | 12kW | 20/25kW | 30/36kW

Central inverters

100kW-T | 250kW-T | 250kW | 500kW/630kW

1MW / 1.26MW

Inverters for North America

3kW/ US | 4kW/ US | 5kW/ US | 6kW/ US | 14kW/ US-208 | 20kW/ US-480 | 23/28kW /US-480 | 36/50kW /US-480 | 100kW-T/US-480

1~2kW Grid-tied PV Inverters

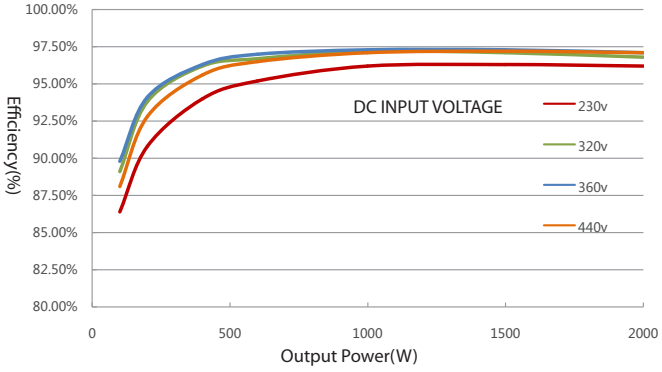
Shanghai Chint Power Systems Co., Ltd. has been dedicating to the development of PV inverters which are widely welcomed by customers from domestic and abroad. With our consistent research and development, Chint Power launches SCJ series as a new generation of Grid-tied PV inverters.

CPS SCJ 1-2kW series PV inverters are applicable to various kinds of residential and commercial rooftops. Compact size, fanless design and comprehensive protection raise the reliability of the PV system and ensure the generation yield is stable for customers in the long run. The Max. conversion efficiency of the product reaches up to 97.4%; Euro efficiency is 96.7% and MPPT efficiency is 99.5%. Integrated DC switch is optional for CPS SCJ 1-2kW series PV inverters. Multiple communication methods are also available to enhance the safety and communication capabilities of CPS SCJ 1-2kW series inverters.

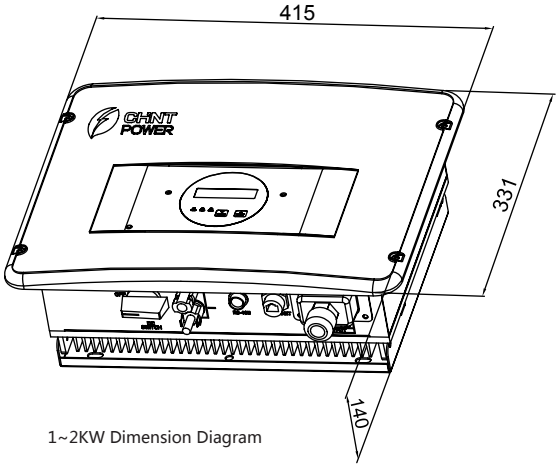
CPS SCJ 2KTL

Efficiency Curve

CPS SCJ 1~2KTL



Dimensions (mm)



1~2KW Dimension Diagram

Flexibility

- Safety&EMC and grid connection standards available for multiple countries
- RS485/Ethernet/Wi-Fi
- Wide DC input voltage range
- IP65 protection degree, outdoor application available

Reliability

- Comprehensive protection functions
- Fanless compact design, maintenance free

High Efficiency

- Max. efficiency up to 97.4%
- Euro efficiency is 96.7%
- MPPT efficiency is 99.5%

Model Name	CPS SCJ1KTL	CPS SCJ1.5KTL	CPS SCJ2KTL
DC Input			
Max. DC Power [W]	1200	1800	2300
Max. DC Voltage [V]		480	
MPPT Voltage Range [V]	90-425	100-425	
Nominal DC Voltage[V]		360	
Start Voltage [V]	100	150	
Min. DC Voltage [V]	80	100	
Max. DC Input Current [A]	10	11	12
Number of MPPT		1	
Sting(s) per MPPT		1	
DC Switch		Optional	
AC Output			
Rated AC Power [W]	1000	1500	2000
Max. AC Power [W]	1100	1650	2200
Rated AC Current [A]	4.3	6.5	8.7
Max. AC Current [A]	5.7	8.5	11.0
Norminal AC Voltage/Range		220V, 230V, 240V/180V-280V	
Grid Frequency/Range		50Hz, 60Hz/ ±5Hz	
Power Factor(cos φ)		>0.99(full load)	
Total Harmonic Distortion(THDi)		< 2%	
Grid Connection Type		Single Phase	
Efficiency			
Max. Efficiency	97.2%	97.3%	97.4%
Euro Efficiency (at 360V_{dc})	96.4%	96.5%	96.7%
MPPT Accuracy		>99.5%	
Protection			
Internal Over-voltage Protection		Integrated	
DC Insulation Monitoring		Integrated	
DCI Monitoring		Integrated	
GFCI Monitoring		Integrated	
Grid Monitoring		Integrated	
AC Short Circuit Protection		Integrated	
Thermal Protection		Integrated	
Anti-islanding Protection		AFD (Active Frequency Drift)	
Interface			
DC Connection		MC4/H4	
LCD Display		LCD(16x2 Characters, Backlight) & LED(3 Lights)	
Display Language		Multi Language	
Datalogger & Communication		RS485 (Standard), Ethernet(Standard), Wi-Fi(Optional)	
General Data			
Topology		Transformerless	
Consumption at Night[W]		<0.2	
Consumption at Standby[W]		6	
Operating Temperature Range		-25°C to +60°C (45°C to 60°C with derating)	
Cooling Method		Natural Convection	
Ambient Humidity		0% to 98% Non-condensing	
Altitude		Up to 2000m(without power derating)	
Noise [dBA]		<30	
Ingress Protection		IP65 (Indoor & Outdoor Installation)	
Mounting		Wall Bracket	
Dimensions (W*H*D) [mm]		415*331*140	
Weight [kg]		11	
Standard Warranty [Year]		5(Standard)	
Certificates		AS4777, AS3100, VDE0126-1-1/A1, G83-2, C10/11,UTE C15-712-1, TF3.2.1, EN50438, IEC62116, IEC61727,IEC61000-6-2/3，IEC62109-1/2,ABNT NBR 16149,CE,TUV	

3~5kW Grid-tied PV Inverters

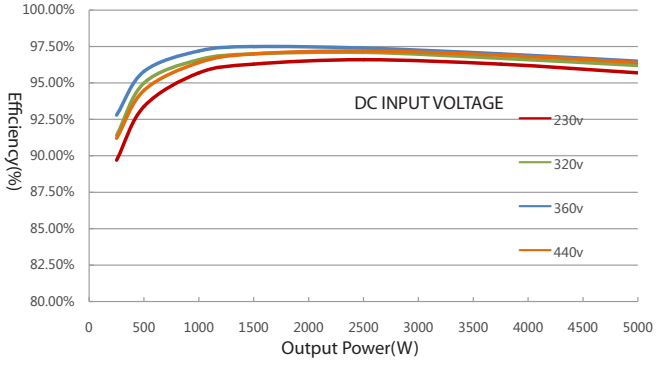
Shanghai Chint Power Systems Co., Ltd. has been dedicating to the development of PV inverters which are widely welcomed by customers from domestic and abroad. With our consistent research and development, Chint Power launches SCJ series as a new generation of Grid-tied PV inverters.

CPS SCJ series 3-5kW PV inverters are applicable to various kinds of residential and commercial rooftops. Compact size, fanless design and comprehensive protection raise the reliability of the PV system and ensure the generation yield is stable for customers in the long run. The Max. conversion efficiency of the product reaches up to 97.7%; Euro efficiency is 97.1% and MPPT efficiency is 99.5%. Integrated DC switch is optional for CPS SCJ 3-5kW series PV inverters. Multiple communication methods are also available to enhance the safety and communication capabilities of CPS SCJ 3-5kW series inverters.

CPS SCJ 3~5KTL

Efficiency Curve

CPS SCJ 3~5KTL



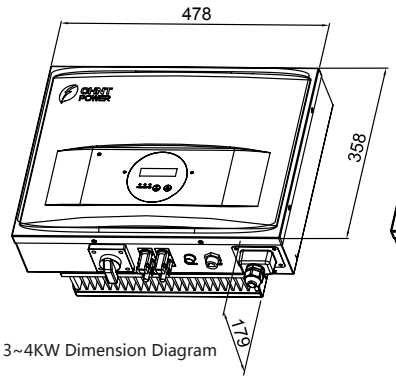
Flexibility

- Safety&EMC and grid connection standards available for multiple countries
- RS485/Ethernet/Wi-Fi
- Wide DC input voltage range
- IP65 protection degree, outdoor application available

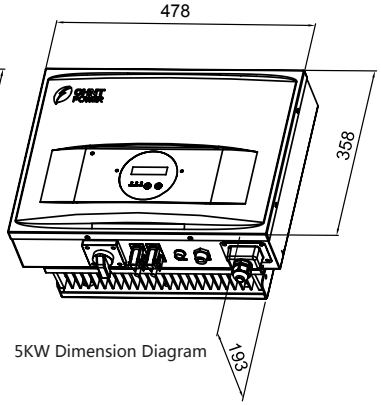
Reliability

- Comprehensive protection functions
- Fanless compact design, maintenance free

Dimensions (mm)



3~4KW Dimension Diagram



5KW Dimension Diagram

High Efficiency

- Max. efficiency up to 97.7%
- Euro efficiency is 97.1%
- MPPT efficiency is 99.5%

Model Name	CPS SCJ3KTL	CPS SCJ4KTL	CPS SCJ5KTL
DC Input			
Max. DC Power [W]	3400	4500	5200
Max. DC Voltage [V]		580	
MPPT Voltage Range [V]		120-500	
Nominal DC Voltage[V]		360	
Start Voltage [V]		150	
Min. DC Voltage [V]		100	
Max. DC Input Current [A]		30A	32A
Number of MPPT		2	
Sting(s) per MPPT		1	
DC Switch		Optional	
AC Output			
Rated AC Power [W]	3000	4000	5000
Max. AC Power [W]	3300	4400	5000
Rated AC Current [A]	13.0	17.4/16[1]	21.7
Max. AC Current [A]	15.0	20 /16[1]	25
Norminal AC Voltage/Range		220V, 230V, 240V/180V-280V	
Grid Frequency/Range		50Hz, 60Hz/ ±5Hz	
Power Factor(cos φ)		>0.99(full load)	
Total Harmonic Distortion(THDi)		< 2%	
Grid Connection Type		Single Phase	
Efficiency			
Max. Efficiency	97.6%	97.6%	97.7%
Euro Efficiency (at 360V_{dc})	96.8%	96.8%	97.1%
MPPT Accuracy		>99.5%	
Protection			
Internal Over-voltage Protection		Integrated	
DC Insulation Monitoring		Integrated	
DCI Monitoring		Integrated	
GFCI Monitoring		Integrated	
Grid Monitoring		Integrated	
AC Short Circuit Protection		Integrated	
Thermal Protection		Integrated	
Anti-islanding Protection		AFD (Active Frequency Drift)	
Interface			
DC Connection		MC4/H4	
LCD Display		LCD(16x2 Characters, Backlight) & LED(3 Lights)	
Display Language		Multi Language	
Datalogger & Communication		RS485 (Standard), Ethernet(Standard), Wi-Fi(Optional)	
General Data			
Topology		Transformerless	
Consumption at Night[W]		<0.2	
Consumption at Standby[W]		6	
Operating Temperature Range		-25°C to +60°C (45°C to 60°C with derating)	
Cooling Method		Natural Convection	
Ambient Humidity		0% to 98% Non-condensing	
Altitude		Up to 2000m(without power derating)	
Noise [dBA]		<30	
Ingress Protection		IP65 (Indoor & Outdoor Installation)	
Mounting		Wall Bracket	
Dimensions (W*H*D) [mm]		478*358*179	478*358*193
Weight [kg]		23	26
Standard Warranty [Year]		5 (Standard)	
Certificates	AS4777, AS3100, VDE0126-1-1/A1, G59-2, G83-2, C10/11,UTE C15-712-1, TF3.2.1, EN50438,		
Remarks:			
Meet the grid standard that AC current per phase not exceeding 16A.			

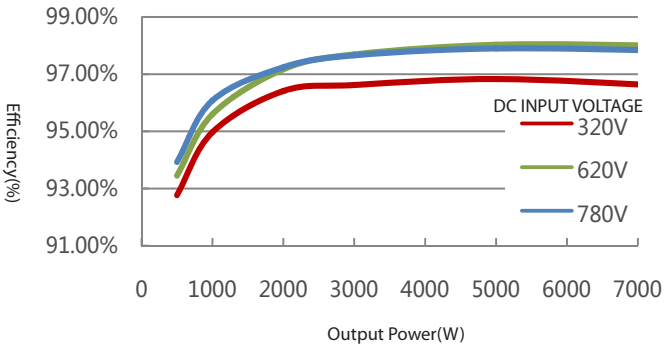
5/6/7kW Three Phase Grid-tied PV Inverters

Chint Power introduces a new range of three-phase 5/6/7kW inverters with unparalleled performances designed for residential and small commercial applications. These inverters feature dual MPP trackers with efficiency ≥99.9% and a multitude of communication options including RS485, USB, Ethernet and Zigbee. The integrated DC switch further improves the safety and reliability of this range of products.

CPS SCA5KTL-DO
CPS SCA6KTL-DO
CPS SCA7KTL-DO

Efficiency Curve

CPS SCA7KTL-DO



High Efficiency

- Max. efficiency of 98.0%
- Euro efficiency of 97.4%
- ≥99.9% MPPT efficiency

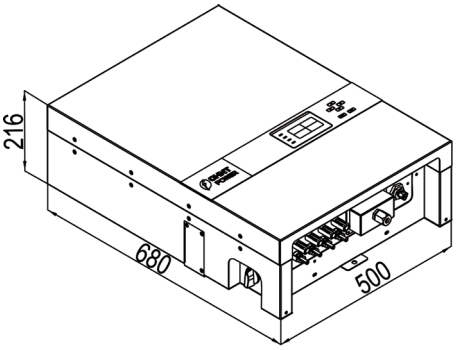
Broad Adaptability

- 2 MPP Trackers for wider application range
- Higher power for each MPP tracker for flexible configuration
- Wide input voltage and MPPT range
- IP65 protection degree for outdoor applications
- EMC class B
- Active power derating, over frequency derating and reactive power regulation
- Low voltage ride through (CEI 0-21)
- Standard RS485, USB, optional Ethernet, Zigbee
- Standard USB for firmware upgrade
- 3rd Party Monitoring Solar-Log

High Reliability

- "Electrolyte-free design" for improved long-term reliability
- Fan-less design for further reduced noise levels
- Integrated DC switch
- GFCI embedded
- Comprehensive protection functions
- 5 years standard warranty, optional extension up to 20 years

Dimensions



G59 CEI 0-21 C10/11 VDE-AR-N 4105 VDE0126-1-1/A1 (In progress)

Model Name	CPS SCA5KTL-DO	CPS SCA6KTL-DO	CPS SCA7KTL-DO
DC Input			
Nominal DC Input Power	5.1kW	6.2kW	7.3kW
Max. DC Input Power for each MPPT	3kW	3.5kW	4kW
Max. DC Input Voltage		1000Vdc	
Operating DC Input Voltage Range		250-950Vdc	
Start-up DC Input Voltage / Power		320V/150W	
Nominal DC Input Voltage		600V	
MPPT Voltage Range		300-800Vdc	
Number of MPP Tracker		2	
Number of DC Inputs (strings)		2x2	
Max. Input Current	2x10A	2x12A	2x14A
Max. Input Current per string	10A	12A	14A
DC Disconnection Type		Integrated DC switch	
PV Array Configuration		Floating	
AC Output			
Rated AC Output Power	5kW	6kW	7kW
Max. AC Output Power	5kW	6kW	7kW
Rated Output Voltage		400Vac	
Output Voltage Range*		320-460Vac	
Grid Connection Type		3Φ/N/PE	
Max AC Output Current	7.3A	8.7A	10.2A
Rated Output Frequency		50/60Hz	
Output frequency range*		45-65Hz (programmable)	
Power Factor		>0.99 (±0.9 adjustable)	
Current THD		<3%	
AC Disconnection Type		-	
System			
Topology		Transformerless	
Max. Efficiency		98.0%	
Euro Efficiency		97.4%	
Stand-by / Night Consumption		<7W/<0.3W	
Environment			
Protection Degree		IP65	
Cooling		Natural Convection	
Operating Temperature Range		-25°C to +60°C (derating from 50°C)	
Operating Humidity		0-95%, non-condensing	
Operating Altitude		4000m (derating from 2000m)	
Display and Communication			
Display		LCD+LED	
Communication		Standard: RS485, USB; Option: Ethernet, Zigbee	
Mechanical Data			
Dimensions (WxHxD) (mm)		500x680x216	
Weight (kg)	38	38	38
Compliance			
Safety and EMC Standard (In progress)		LVD: 2006/95/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011. EMC: 2004/108/EC, Class B, IEC/EN61000-6-2: 2005, IEC/EN61000-6-3: 2007.	
Grid Standard (In progress)		VDE-AR-N 4105, VDE V 0126-1-1/A1, C10/11, CEI 0-21, G83/1-1, G59/2	

* "Output Voltage Range" and "Output frequency range" value may differ according to specific grid codes.

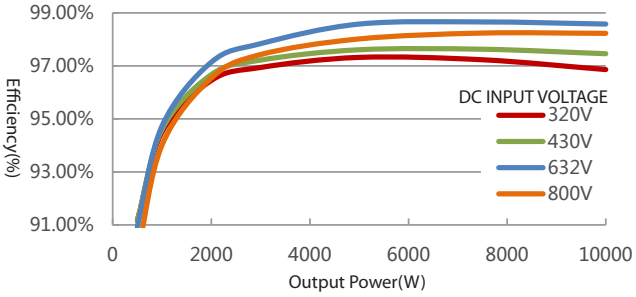
8/10/12kW Three Phase Grid-tied PV Inverters

Chint Power introduces a new range of three-phase 8/10/12kW inverters with unparalleled performances. The series is available in two versions, high efficiency (HE) and standard: the HE version features improved performance providing staggering efficiency of 98.6%, Euro efficiency of 98.2%. The internal DC switch further improves the safety and reliability of the products designed for a variety of applications: from large residential installations to commercial rooftops and utility scale PV systems.

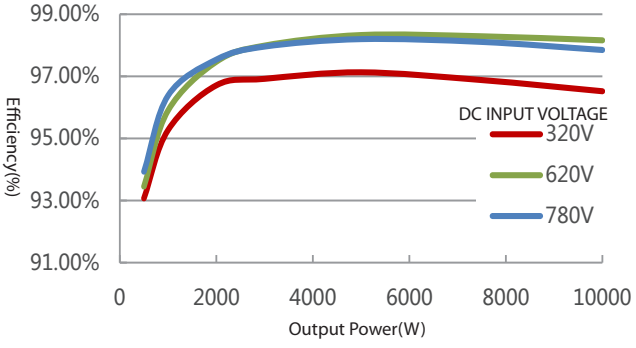
CPS SCA8KTL-DOHE
CPS SCA10KTL-DOHE
CPS SCA12KTL-DOHE
CPS SCA8KTL-DO
CPS SCA10KTL-DO
CPS SCA12KTL-DO

Efficiency Curve

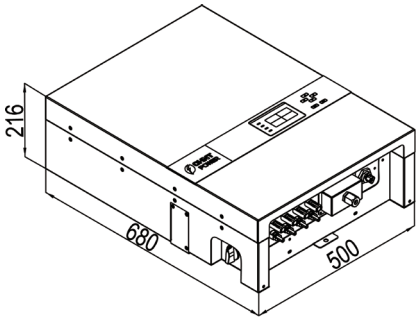
CPS SCA10KTL-DOHE



CPS SCA10KTL-DO



Dimensions



High Efficiency

- Max. efficiency of 98.6%, Euro efficiency of 98.2%
- ≥99.9% MPPT efficiency

High Reliability

- "Electrolyte-free design" for improved long-term reliability
- Fan-less design (SCA8KTL-DO/DOHE) for further reduced noise levels
- Integrated DC switch
- GFCI embedded
- Comprehensive protection functions
- 5 years standard warranty, optional extension up to 20 years

Broad Adaptability

- 2 MPP Trackers for wider application range
- Higher power for each MPP tracker for flexible configuration
- Wide input voltage and MPPT range
- IP65 protection degree for outdoor applications
- EMC class B
- Active power derating, over frequency derating and reactive power regulation
- Low voltage ride through (CEI 0-21)
- Standard RS485, USB, optional Ethernet, Zigbee
- Standard USB for firmware upgrade
- 3rd Party Monitoring Solar-Log

G59 CEI 0-21 C10/11 VDE-AR-N 4105 VDE0126-1-1/A1

Model Name	CPS SCA8KTL-DOHE CPS SCA8KTL-DO	CPS SCA10KTL-DOHE CPS SCA10KTL-DO	CPS SCA12KTL-DOHE CPS SCA12KTL-DO
DC Input			
Nominal DC Input Power	8.2kW	10.3kW	12.3kW
Max. DC Input Power for each MPPT	5kW	6kW	7.2kW
Max. DC Input Voltage		1000Vdc	
Operating DC Input Voltage Range		250-950Vdc	
Start-up DC Input Voltage / Power		320V/150W	
Nominal DC Input Voltage		600V	
MPPT Voltage Range	430-800Vdc*/320-800Vdc	430-800Vdc*/320-800Vdc	430-800Vdc*/380-800Vdc
Number of MPP Trackers		2	
Number of DC Inputs (strings)		2x2	
Max. Input Current		17A/MPPT	
Max. Input Current per string		17A	
DC Disconnection Type		Integrated DC switch	
PV Array Configuration		Floating	
AC Output			
Rated AC Output Power	8kW	10kW	12kW
Max. AC Output Power	8kW	10kW	12kW
Rated Output Voltage		400Vac	
Output Voltage Range#		320-460Vac	
Grid Connection Type		3Φ/N/PE	
Max AC Output Current	12.5A	15.2A	18.2A
Rated Output Frequency		50Hz/60Hz	
Output Frequency Range#		47-53Hz/57-63Hz	
Power Factor		>0.99 (±0.9 adjustable)	
Current THD		<3%	
AC Disconnection Type		-	
System			
Topology		Transformerless	
Max. Efficiency		98.6%*/98.3%	
Euro Efficiency		98.2%*/97.9%	
Stand-by / Night Consumption		<20W/<0.3W	
Environment			
Protection Degree		IP65	
Cooling	Natural Convection	Variable speed cooling fans	Variable speed cooling fans
Operating Temperature Range		-25°C to +60°C	
Operating Humidity		0-95%, non-condensing	
Operating Altitude		4000m	
Display and Communication			
Display		LCD+LED	
Communication		Standard: RS485, USB; Option: Ethernet, Zigbee	
Mechanical Data			
Dimensions (WxHxD) (mm)		500x680x216	
Weight (kg)	41	43	43
Compliance			
Safety and EMC Standards		LVD: 2006/95/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011. EMC: 2004/108/EC, Class B, IEC/EN61000-6-2: 2005, IEC/EN61000-6-3: 2007.	
Grid Standards		VDE-AR-N 4105, VDE V 0126-1-1/A1; C10/11, CEI 0-21, G83/1-1, G59/2	

The "Output Voltage Range" and "Output Frequency Range" may differ according to specific grid co

* HE: High efficiency model

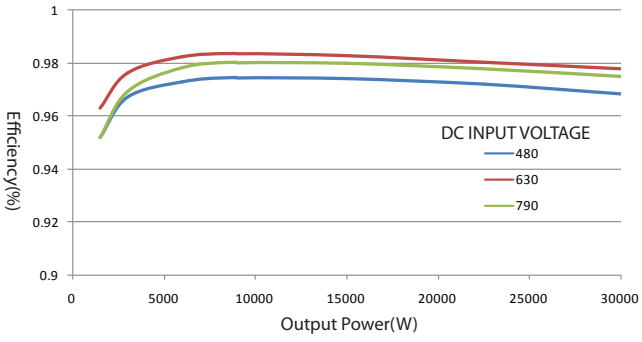
20/25/30/36kW Three Phase Grid-tied PV Inverters

CPS SCA20/25KTL-DO and SCA30/36KTL-DO grid-tied PV inverters are tranformerless, three phase products. The maximum input voltage is 1000V which makes the configuration more flexible. Patented 3-level control algorithm and thermal design provide 98.6% maximum efficiency and 98.1% Euro efficiency. This type three phase string inverters are designed with the DC switch integrated. And provide an option for fuse which designed in the wiring box. Integrated PV input string fault detection circuit and PV input arcing fault detection circuit to ensure the safty.

CPS SCA20KTL-DO CPS SCA30KTL-DO
CPS SCA25KTL-DO CPS SCA36KTL-DO

Efficiency Curve

CPS SCA30KTL-DO @400Vac



High Efficiency

- Maximum efficiency of 98.6%, Euro efficiency of 98.1%
- 3-level technology and enhanced control mechanism to achieve high efficiency over wide load range
- 2 MPP trackers to achieve higher system efficiency
- Transformerless design

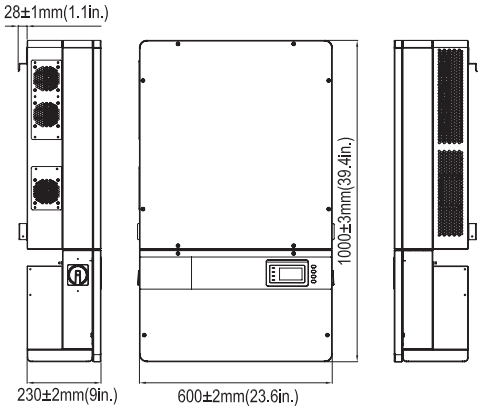
Broad Adaptability

- Low voltage ride through, and provide reactive power to support the grid
- IP65, outdoor application
- Active power derating and Reactive power adjustable
- Separate wiring box design
- BDEW compatible
- 1000V maximum input voltage enable flexible configuration
- Broad MPPT range enable flexible PV string configuration Suitable for multi-inverter parallel application

High Reliability

- Comprehensive protection functions
- Enhanced DSP system
- Integrated PV input string fault detection
- Integrated PV input arcing fault detection and interruption circuit
- Advanced thermal design, with variable speed fans
- Anti-Islanding protection
- Ground-fault detection and interruption circuit
- Optional DC SPD
- Electrolyte-free design" for improved long-term reliability
- 5 years standard warranty, optional extension up to 20 years

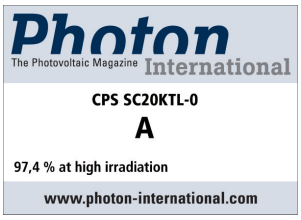
Dimensions

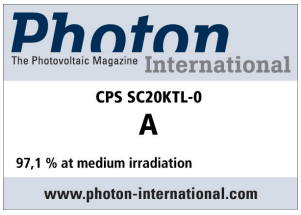


Model Name	CPS SCA20KTL-DO	CPS SCA25KTL-DO	CPS SCA30KTL-DO	CPS SCA36KTL-DO-480
DC Input				
Nominal DC Input Power	21kW	26kW	31kW	37kW
Max. DC Input Power for each	12kW	14kW	16kW	19kW
Max. DC Input Voltage	1000Vdc	1000Vdc	1000Vdc	1000Vdc
Operating DC Input Voltage Range	300-900Vdc			
Start-up DC Input Voltage / Power	330V/300W			
Nominal DC Input Voltage	635Vdc			710Vdc
Number of MPP Trackers	2			
MPPT Voltage Range	400-800Vdc		480-800Vdc	540-800Vdc
Max. Input Current	2x27A	2x32A	2x32A	2x34A
Number of DC Inputs	4 strings x 2			
DC Disconnection Type	Integrated DC switch			
AC Output				
Rated AC Output Power	20kW	25kW	30kW	36kW
Max. AC Output Power	20kW	25kW	30kW	36kW
Rated Output Voltage	230/400Vac			277/480Vac
Output Voltage Range*	320-460Vac			422-528Vac
Grid Connection Type	3Φ/N/PE	3Φ/N/PE	3Φ/PE	3Φ/PE
Max AC Output Current	32A	40A	43.3A	43.3A
Rated Output Frequency	50Hz/60Hz			
Output Frequency Range*	47-53Hz/57-63Hz			
Power Factor	>0.99 (±0.8 adjustable)			
Current THD	<3%			
AC Inrush Current	99A Peak/203us		149A Peak/211us	
Maximum Output Fault Current	L-N/PE:100A Peak@320ms;56.6A RMS@20ms;			
System				
Topology	Transformerless			
Max. Efficiency	98.4%			98.6%
Euro Efficiency	98.0%			98.1%
Stand-by / Night Consumption	<20W/<2W			
Protective Class	I			
Overvoltage Category	PV(II), Mains(III)			
Environment				
Protection Degree	IP65			
Cooling	Variable speed cooling fans			
Operating Temperature Range	- 25°C to +60°C (derating from +45°C)			
Operating Humidity	0-100%, non-condensing			
Operating Altitude	4000m (derating from 2000m)			
Display and Communication				
Display	LCD+LED			
Communication	Standard: RS485, USB, Mulit-function Relay Option: Ethernet, Zigbee			
Mechanical Data				
Dimensions (WxHxD) (mm)	600x1000x230			
Weight (kg)	50 (Inverter)+5 (Wiring Box)			
Safety				
Safety and EMC Standard	LVD: 2006/95/EC EMC: 2004/108/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011; IEC/EN61000-6-2: 2005, IEC/EN61000-6-3: 2007			
Grid Standard	BDEW; VDE AR-N-4105/VDE 0126-1-1/A1;CEI 0-21; G83/1/1; G59/2; C10/11; NB/T32004;			

* The "Output Voltage Range" and "Output Frequency Range" may differ according to specific grid codes.

20kW G1 Three Phase Grid-tied PV Inverter



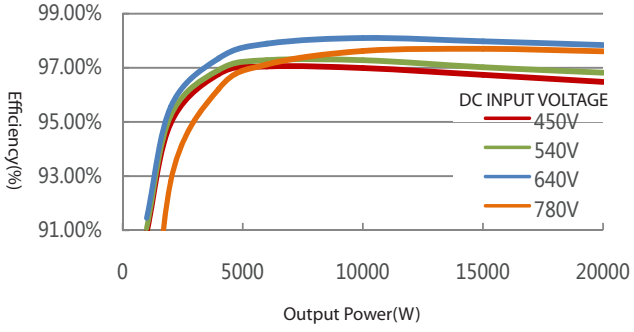


CPS SC20KTL-DO

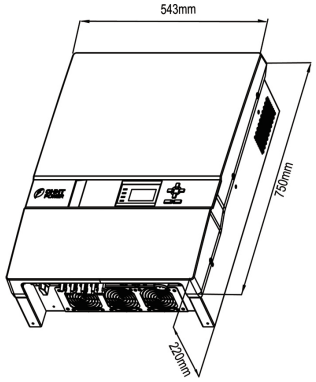
The CPS SC20KTL-DO grid-tied PV inverter is designed for flexible use in different types of commercial rooftops and utility applications. 3-level technology, parallel switched MOSFET with IGBT and bypass strategy minimize power loss to achieve high efficiency at all load levels.

CPS SC20KTL-DO features small size, light weight and high power density. Flexible mounting modes make installation and maintenance easy and quick. IP65 protection degree allows versatile outdoor applications to save indoor installation space and cables. Enhanced DSP control, comprehensive protection functions and advanced thermal design enable the whole system with high reliability.

Efficiency Curve



Dimensions



High Efficiency

- Max. efficiency of 98.1%, Euro efficiency of 97.5%
- ≥99.9% MPPT efficiency
- 3-level technology and enhanced control mechanism to achieve overall load efficiency

High Reliability

- Designed for reliability and derating guide lines
- Comprehensive protection functions
- Enhanced DSP system
- Advanced thermal design, fan speed control
- Anti-islanding protection
- Embedded ground-fault circuit & interrupters
- Double MCU ensures multiple protection
- 5 years standard warranty; optional additional 15 years

Broad Adaptability

- IP65 protection degree, outdoor application
- Multiple mounting modes, easy and quick installation
- High altitude application
- Reactive power adjusting, active power derating (Optional)
- 3rd Party Monitoring Solar-Log

RD1663 G59 C10/11 VDE-AR-N 4105 VDE0126-1-1/A1

Model Name	CPS SC20KTL-O/CN	CPS SC20KTL-DO
DC Input		
Nominal DC Input Power	20.5kW	20.5kW
Max. DC Input Power	22kW	22kW
Max. DC Input Voltage	850Vdc	850Vdc
Operating DC Input Voltage Range	430-800Vdc	430-800Vdc
Start-up DC Input Voltage / Power	485V/200W	485V/200W
Nominal DC Input Voltage	650V	650V
MPPT Voltage Range	500-800Vdc	500-800Vdc
Number of MPP Trackers	1	2
Number of DC Inputs (strings)	5	2x3
Max. Input Current	42A	2x21A
Max. Input Current per String	14A	14A
DC Disconnection Type	NA	Embedded switch
PV Array Configuration	Floating	
AC Output		
Rated AC Output Power	20kW	20kW
Max. AC Output Power	20kW	20kW
Rated Output Voltage	400Vac	
Output Frequency Range	-	
Output Voltage Range*	320-460Vac	
Grid Connection Type	3Φ/N/PE	
Max AC Output Current	30A	
Rated Output Frequency	50Hz	50Hz/60Hz
Power Factor	>0.99 (±0.9 adjustable)	
Current THD	<2%	
AC Disconnection Type	-	
System		
Topology	Transformerless	
Max. Efficiency	98.1%	
Euro Efficiency	97.5%	
Stand-by / Night Consumption	<20W	
Environment		
Protection Degree	IP65	
Cooling	Variable speed cooling fans	
Operating Temperature Range	-20°C to +60°C	
Operating Humidity	0-95%, non-condensing	
Operating Altitude	4000m	4000m(derating from 2000m)
Display and Communication		
Display	LCD+LED	
Communication	RS485	
Mechanical Data		
Dimensions (WxHxD) (mm)	543x750x220	
Weight (kg)	50	
Safety		
Safety and EMC Standards	CNCA/CTS 0004-2009A, CNCA/CTS 0006-2010	LVD: 2006/95/EC , IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011. EMC: 2004/108/EC, Class B; IEC/EN61000-6-2: 2005, IEC/EN61000-6-3/4: 2007.
Grid Standards	CNCA/CTS 0004-2009A	VDE V 0126-1-1/A1,VDE-AR-N 4105, G59/2, RD1699 C10/11, EN50438

* The Output Voltage Range value may change according to different grid codes.

100kW Grid-tied PV Inverter

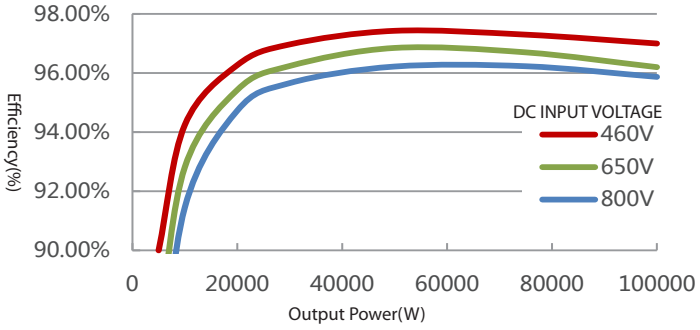
The CPS SC100KT grid-tied PV inverter is designed for flexible use in different types of commercial rooftops and unility. It features isolation output transformer, low loss magnetic materials, advanced MPPT control and variable structure SVPWM control to minimize power loss and achieve high efficiency at all load levels.

Enhanced DSP control, comprehensive protection functions and advanced thermal design enable the whole system with high reliability.

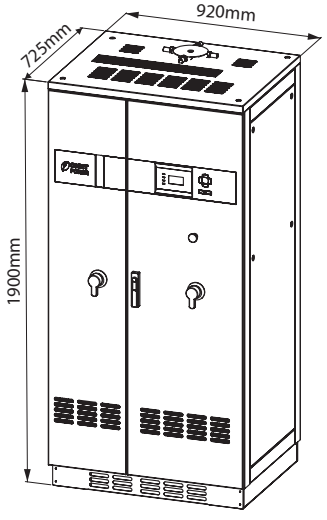
CPS SC100KT

Efficiency Curve

CPS SC100KT



Dimensions



High Efficiency

- Max. efficiency of 97.6%, Euro efficiency of 97.0%
- ≥99.9% MPPT efficiency
- Sliding mode SVPWM control to achieve full load efficiency

High Reliability

- Designed for reliability
- Comprehensive protection functions
- Enhanced DSP control system
- Advanced thermal design, fan speed control
- Anti-islanding protection
- Embedded ground-fault circuit & interrupter
- Low frequency transformer
- Double MCU ensures multiple protection
- 5 years standard warranty, optional additional 15 years

Broad Adaptability

- Multi-language display
- High altitude application
- Negative grounded mode (Optional)
- Reactive power adjusting,active power derating (Optional)
- 3rd Party Monitoring Solar-Log

CE RD1663

Model Name	CPS SC100KT
DC Input	
Nominal DC Input Power	103kW
Max. DC Input Power	110kW
Max. DC Input Voltage	880Vdc
Operating DC Input Voltage Range	430-820Vdc
Start-up DC Input Voltage / Power	470V/700W
Nominal DC Input Voltage	600V
Number of MPP Trackers	1
MPPT Voltage Range	450-820Vdc
Number of DC Inputs (strings)	4
Max. Input Current	250A
DC Disconnection Type	Integrated Breaker
PV Array Configuration	Standard: Floating; Optional: Negative grounded
AC Output	
Rated AC Output Power	100kW
Max. AC Output Power	100kW
Rated Output Voltage	400Vac
Output Frequency Range	-
Output Voltage Range[#]	320-460Vac
Grid Connection Type	3Φ/PE
Max AC Output Current	152A
Rated Output Frequency	50Hz/60Hz
Power Factor	>0.99 (±0.9 adjustable)
Current THD	<3%
AC Disconnection Type	Integrated Breaker
System	
Topology	Transformer
Max. Efficiency	97.6%*
Euro Efficiency	97.0%
Stand-by / Night Consumption	<50W
Environment	
Protection Degree	IP20
Cooling	Variable speed cooling fans
Operating Temperature Range	-20°C to +60°C
Operating Humidity	0-95%, non-condensing
Operating Altitude	4000m
Display and Communication	
Display	LCD+LED
Communication	RS485
Mechanical Data	
Dimensions (WxHxD) (mm)	920x1900x725
Weight (kg)	880
Safety	
Safety and EMC Standards	LVD: 2006/95/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011. EMC: 2004/108/EC; IEC/EN61000-6-2: 2005, IEC/EN61000-6-4: 2007.
Grid Standards	CNCA/CTS 0004-2009A, VDE-AR-N 4105, VDE V 0126-1-1/A1

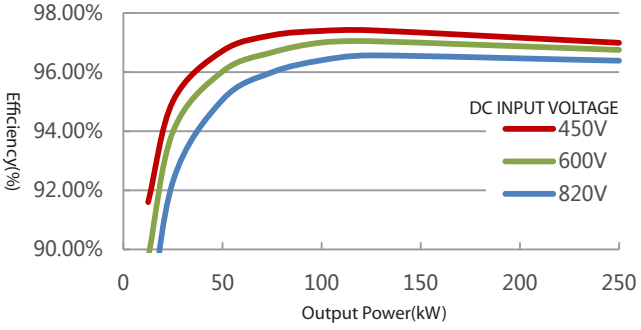
[#] The "Output Voltage Range" value may change according to different grid codes.
* The efficiency is measured at U_{DC}=450V without an internal power supply.

250kW Grid-tied PV Inverter

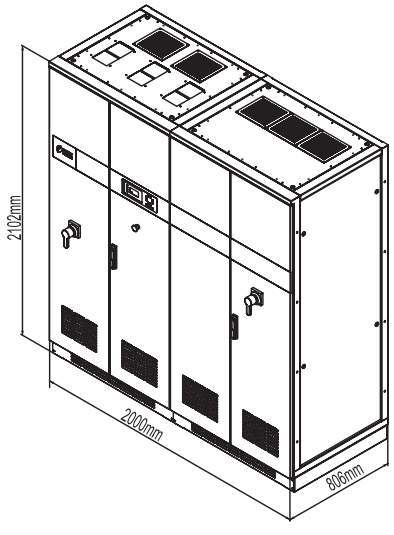
CPS SC250KT-H Grid-tied PV inverter is specially designed for large scale commercial rooftop PV systems. The inverter, certified by CGC and TUV, can provide LVRT and anti-islanding protections for wider applications. The built-in isolation transformer adopts innovative technologies to raise the peak efficiency of the inverter to increase power generation. The inverter can be directly connected with the public grid to save the cost of grid connection. The featured SVPWM technique of inverter provides smoother output waveform, which reduces harmonic contents and enhances the system reliability and stability.

CPS SC250KT-H

Efficiency Curve



Dimensions



High Efficiency

- Max. efficiency of 97.7%, Euro efficiency of 97.0%
- MPPT efficiency≥99.9%
- Innovative SVPWM control algorithm

High Reliability

- Strict derating design
- Advanced thermal design, auto speed adjustable fan
- Embedded ground-fault circuit & Interrupter
- Comprehensive protection functions

Broad Adaptability

- Multi-language display; RS485 & Ethernet communication interfaces
- High altitude application up to 4000 meters
- Reactive power adjusting & Active power derating functions
- Built-in low frequency transformer

Model Name	CPS SC250KT-H
DC Input	
Nominal DC Input Power	255kW
Max. DC Input Power	275kW
Max. DC Input Voltage	1000Vdc
Operating DC Input Voltage Range	450-940Vdc
Start-up DC Input Voltage / Power	470V/3.5kW
Nominal DC Input Voltage	600V
MPPT Voltage Range	450-820Vdc
Number of MPP Tracker	1
Number of DC Inputs	8
Max. Input Current	600A
DC Disconnection Type	Integrated Breaker
PV Array Configuration	Floating
AC Output	
Rated AC Output Power	250kW
Max. AC Output Power	275kW
Rated Output Voltage	400Vac
Output Voltage Range*	310-450Vac
Grid Connection Type	3Φ/N/PE
Max AC Output Current	397A
Rated Output Frequency	50Hz/60Hz
Output Frequency Range*	47-51.5Hz/59.3-60.5Hz
Power Factor	>0.99 (±0.9 adjustable)
Current THD	<3%
AC Disconnection Type	Integrated Breaker
System	
Topology	Built-in transformer
Max. Efficiency	97.7%
Euro Efficiency	97.0%
Stand-by / Night Consumption	<100W
Environment	
Protection Degree	IP20
Cooling	Variable speed cooling fans
Operating Temperature Range	-25°C to +60°C
Operating Humidity	0-95%, non-condensing
Operating Altitude	4000m
Display and Communication	
Display	LCD+LED
Communication	RS485, Ethernet
Mechanical Data	
Dimensions (WxHxD) (mm)	2000x2102x806
Weight (kg)	1800
Safety	
Safety and EMC Standard	LVD: 2006/95/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011. EMC: 2004/108/EC, IEC/EN61000-6-2: 2005, IEC/EN61000-6-4: 2007.
Grid Standard	CNCA/CTS 0004-2009A, IEC61727: 2004

* The “Output Voltage Range” and “Output Frequency Range” may differ according to specific grid standards.

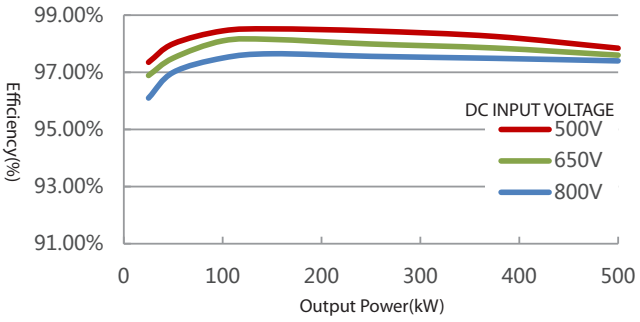
500/630kW Grid-tied PV Inverters

CPS SCA500/630KTL-H grid-tied PV inverter is designed to be used in different types of big commercial rooftop and utility scale PV systems. The DC input voltage range can reach up to 1000V allowing for more flexible the system configuration. Built using low loss magnetic material and advanced control algorithm, the inverter can reach a maximum efficiency of 98.5%, Euro efficiency of 98.3%.

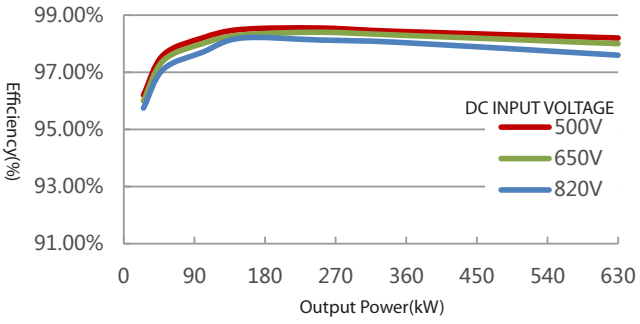
CPS SCA500/630KTL-H

Efficiency Curve

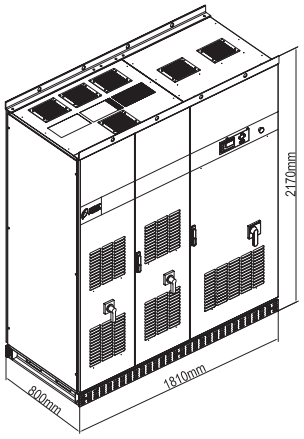
CPS SCA500KTL-H



CPS SCA630KTL-H



Dimensions



High Efficiency

- Max. efficiency of 98.5%, Euro efficiency of 98.3%
- ≥99.9% MPPT efficiency
- Space vector PWM, decrease the switch loss

High Reliability

- Designed for reliability
- Advanced thermal design, fan speed control
- Embedded ground-fault circuit & Interrupter
- 5 years standard warranty; optional up to 20 years

Broad Adaptability

- BDEW compatible
- CGC ZVRT certifiated
- Compact size with front-side service access, save installation spaceOptional DC input fuses
- Multi-language display; RS485 & Ethernet communication interfaces
- High altitude application in long-term and reliable operation
- Optional heater, minimum operating temperature at -40°C
- Active power continuously adjustable
- Reactive power adjustable and the power factor range from -0.8 to +0.8
- Reactive power compensation at night

Model Name	CPS SCA500KTL-H	CPS SCA630KTL-H
DC Input		
Nominal DC Input Power	512kW	650kW
Max. DC Input Power	565kW	650kW
Max. DC Input Voltage	1000Vdc	
Operating DC Input Voltage Range	450-940Vdc	500-940Vdc
Start-up DC Input Voltage / Power	470V/3.5kW	520V/3.5kW
Nominal DC Input Voltage	600V	
Number of MPP Tracker	1	
MPPT Voltage Range	450-820Vdc@270Vac 500-820Vdc@315Vac	500-820Vdc
Max. Input Current	1200A	1300A
Number of DC Inputs	8 (with fuses) 12 (without fuses)	
DC Disconnection Type	Breaker/Disconnect switch	
PV Array Configuration	Floating	
AC Output		
Rated AC Output Power	500kW	630kW
Max. AC Output Power	550kW	630kW
Rated Output Voltage	270Vac / 315Vac	320Vac
Output Voltage Range*	230-310Vac@270Vac 267-363Vac@315Vac	272-368Vac
Grid Connection Type	3Φ/PE	
Max AC Output Current	1176A@270Vac 1008A@315Vac	1137A
Rated Output Frequency	50Hz/60Hz	
Output Frequency Range*	47-51.5Hz/57-62Hz	
Power Factor	>0.99 (±0.8 adjustable)	
Current THD	<3%	
AC Disconnection Type	Breaker/Disconnect switch	
System		
Topology	Transformerless	
Max. Efficiency	98.5%	
Euro Efficiency	98.3%	
Stand-by / Night Consumption	<100W	
Environment		
Protection Degree	IP20	
Cooling	Variable speed cooling fans	
Operating Temperature Range	-25°C to +60°C (derating from 50°C) -40°C - +60°C (optional heater)	
Operating Humidity	0-95%, non-condensing	
Operating Altitude	4000m (315V output, derating from 3000m)	4000m (derating from 3000m)
Display and Communication		
Display	LCD+LED	
Communication	Standard: RS485, Ethernet	
Mechanical Data		
Dimensions (WxHxD) (mm)	1810x2170x800	
Weight (kg)	1500	
Safety		
Safety and EMC Standard	LVD: 2006/95/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011. EMC: 2004/108/EC; IEC/EN61000-6-2: 2005, IEC/EN61000-6-4: 2007.	
Grid Standard	IEC61727: 2004, CNCA/CTS 0004-2009A, GB/T19964-2012,BDEW	

* The “Output Voltage Range” and “Output Frequency Range” may differ according to specific grid standards.

1MW/1.26MW PV Power Container

Product Introduction

- **Superior integration and turn-key design**
  1MW/1.26MW integrated PV turn-key design system with all equipments in one container, including PV inverter, DC Distribution cabinet (option), communication cabinet (option), and auxiliary power supply unit
- **Professional Integration**
  Container solution for outdoor use with professional factory integration and differentiated design to meet special customers' needs
- **High environmental adaptability and applicability**
  Standard 20"HQ container design. IP54 protection degree for outdoor use in extreme operational environments. Suitable for locations subject to strong winds, blown sand and/or high altitude
- **Remote operation through smart monitoring system(option)**
  Highly automated and remote controlled integrated SCADA monitoring system compatible with smart grids
- **Simple engineering for fast-track station installation**
  Only DC, AC and communication connections are required after container allocation; No need to build a dedicated shelter or house
- **High level safety and reliability**
  Integrated intelligent access control system and smoke alarm as well as various kinds of protection measures against fire, rain, dust and small animals ensure the safety of system

Utility Interactive

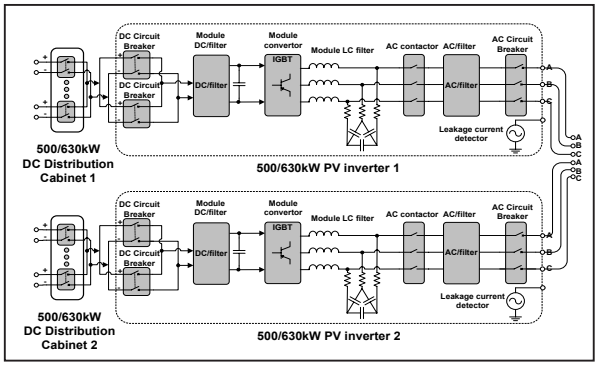
- LVRT (Zero-voltage Ride-through)
- Active power continuously adjustable
- Reactive power control with power factor from 0.8 lagging to 0.8 leading
- Give reactive power compensation to the grid at night according to directive
- Comprehensive grid management functions including complete dynamic grid support (BDEW compliant)

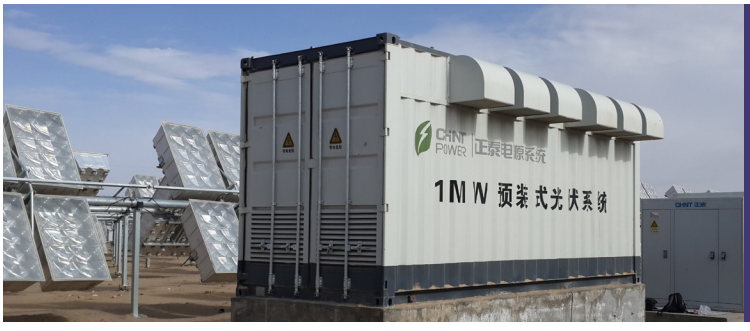
Adaptable

- Thanks to their steel monoblocks structure they can be easily transported by sea or road to any place, guaranteeing the maximum air-tightness and durability
- Diverse installation methods, including mounting on steel bracketor concrete slab
- The AC output of the power container can match different types ofdual secondary winding transformers with various primary windingmedium voltage rating
- Convenient access for repair and maintenance to minimize operational cost

High Reliability

- Turn-key solution, Integrated design for ventilation, anti-corrosion, anti-low temperature and other application requirement
- Smoke detector, intelligent access control system
- Automatic control of temperature and humidity ventilation system





Jinchang PV Power Station
Inverter: PSW1M
Scale: 50MW
Commissioned: Dec, 2013

Wuwei PV Power Station
Inverter: PSW1M
Scale: 50MW
Commissioned: Dec, 2013

Datong PV Power Station
Inverter: PSW1.26M
Scale: 30MW
Commissioned: Dec, 2013

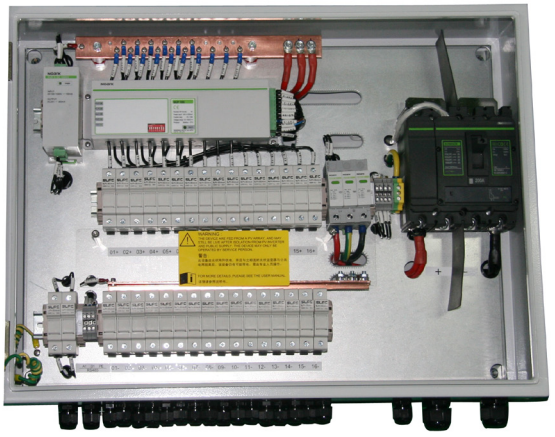
Jinchang PV Power Station
Inverter: PSW1M
Scale: 51MW
Commissioned: Dec, 2013

Model Name	CPS PSW1M	CPS PSW1.26M
DC Input		
Nominal DC Input Power	1024KW	1300kW
Max. DC Input Power	1130kW	1300kW
Max. DC Input Voltage	1000Vdc	1000Vdc
Operating DC Input Voltage Range	450-940Vdc	500-940Vdc
Start-up DC Input Voltage / Power	470V/7kW	520V/7kW
Nominal DC Input Voltage	600V	600V
MPPT Voltage Range	450-820Vdc@270Vac 500-820Vdc@315Vac	500-820Vdc
Number of MPP Tracker	2×1	2x1
Number of DC Inputs	2×8(Customizable)	2x8 (Customizable)
Max. Input Current	2×1200A	2x1300A
DC Disconnection Type	Integrated Breaker	Integrated Breaker
PV Array Configuration	Floating	Floating
AC Output		
Rated AC Output Power	1000kW	1260kW
Max. AC Output Power	1100kW	1260kW
Rated Output Voltage	270Vac/315Vac	320Vac
Output Voltage Range*	230-310Vac@270Vac 267-363Vac@315Vac	272-368Vac
Grid Connection Type	3Φ/PE	3Φ/PE
Max AC Output Current	2352A@270Vac 2016A@315Vac	2274A
Rated Output Frequency	50Hz/60Hz	50Hz/60Hz
Output Frequency Range*	47-51.5Hz/57-62Hz	47-51.5Hz/57-62Hz
Power Factor	>0.99 (±0.8 adjustable)	>0.99 (±0.8 adjustable)
Current THD	<3%	<3%
AC Disconnection Type	Integrated Breaker	Integrated Breaker
System		
Topology	Transformerless	Transformerless
Max. Efficiency	98.5%	98.5%
Euro Efficiency	98.3%	98.3%
Stand-by / Night Consumption	<200W	<200W
Environment		
Protection Degree	IP54	IP54
Cooling	Forced air cooling	Forced air cooling
Operating Temperature Range	-25°C to +60°C (derating from 50°C) -40°C to +60°C (optional heater)	-25°C to +60°C (derating from 50°C) -40°C to +60°C (optional heater)
Operating Humidity	0-95%, non-condensing	0-95%, non-condensing
Operating Altitude	4000m (315V output, derating from 3000m)	4000m (315V output, derating from 3000m)
Display and Communication		
Display	LCD+LED	LCD+LED
Communication	Standard: RS485, Ethernet	Standard: RS485, Ethernet
Mechanical Data		
Dimensions (WxHxD) (mm)	6058x2896x2438	6058x2896x2438
Weight (t)	9	9
Safety		
Safety and EMC Standard	LVD: 2006/95/EC, IEC/EN 62109-1: 2010, IEC/EN 62109-2: 2011. EMC: 2004/108/EC; IEC/EN61000-6-2: 2005, IEC/EN61000-6-4: 2007.	
Grid Standard	IEC61727: 2004, CNCA/CTS 0004-2009A, GB/T19964-2012,BDEW	

* The “Output Voltage Range” and “Output Frequency Range” may differ according to specific grid standards.

PV Combiner Box

External Appearance



Internal View

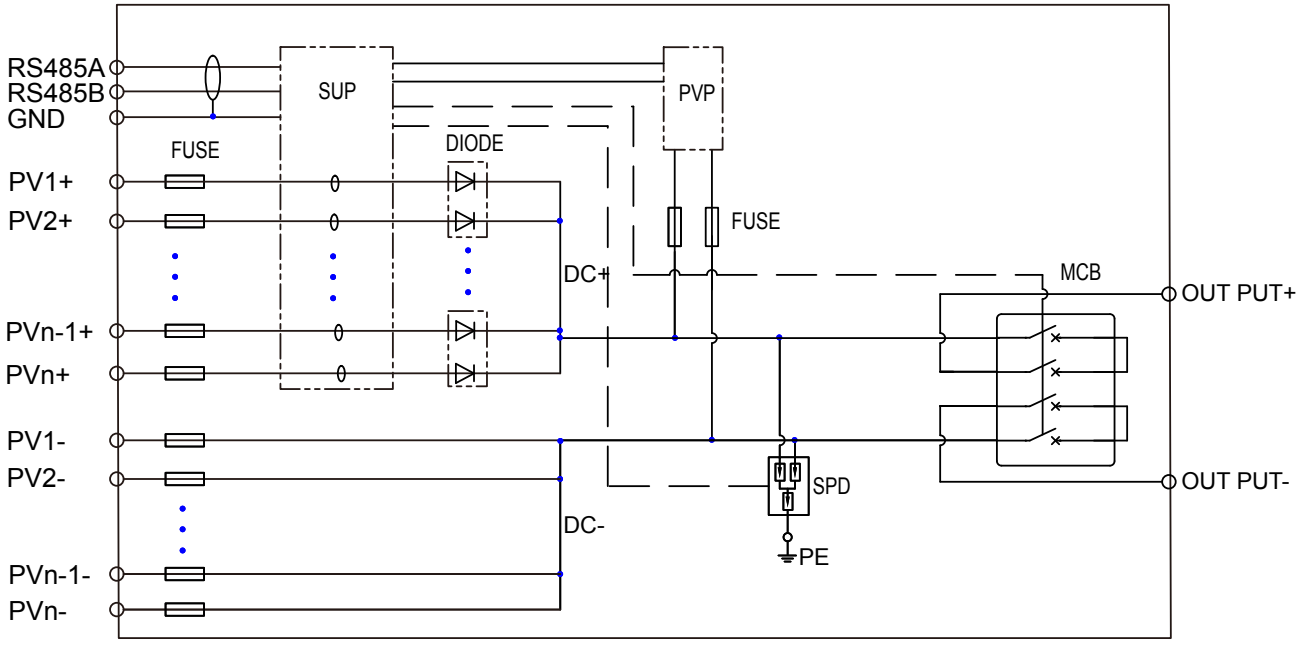
For a large-scale grid-tied PV system , it is general to install a DC combining device between the PV arrays and inverters to minimize the cable distance, facilitate maintenance and improve reliability. Chint Power PV combiner box is a highly reliable and practical product to meet CHINA PV industry standard and power electric regulations. A number of PV modules with same features connected in series to the fuse in combiner box, then total amount of 16/12/8 strings connected in parallel which protected by SPD through positive and negative bus to the circuit breaker to upgrade safety of the system.
Chint Power PV combiner box configure with DC SPD, fuse, anti-reverse diode and circuit breaker.The smart detection module in the PV combiner box can monitor PV string current, BUS voltage, device status and failure, etc. The fault alarm and communication functions help users to accurately monitor the PV arrays on time, maximize PV system efficiency and troubleshoot failures.

- 8, 16 basic input strings (customizable)
- Min.1000V DC high voltage circuit breaker, safe and reliable
- Specified high voltage DC fuse protection
- SPD protection on both positive and negative poles
- Optional detection module for string current and bus voltage with remote monitoring and status display functions. Fault alarm will be given through communication system when a failure is detected
- The high-precision CPU of detection module features with high performance, wide measuring range, sensitive and accurate current measurement components
- LED user interface for real-time operation status and parameters display, precise and concise, convenient for operation and debugging
- Wall mounting available, water and rust proof, IP65 protection class for outdoor use
- Optional embedded diode for reverse polarity protection
- Convenient for installation and maintenance

Dimensions (mm)

Model Name	CPS CB08	CPS CB16
Electric Property		
Max. Input Strings	8	16
Max. DC Voltage	1000V	1000V
Rated Current for Each String (Replaceable	12A	12A
SPD	Yes	Yes
DC Circuit Breaker	Yes	Yes
Environmental Property		
Protection Degree	IP65	IP65
Operating Temperature Range	-25°C to +55°C	-25°C to +55°C
Operating Humidity	0-95%, non-condensing	0-95%, non-condensing
Operating Altitude	4000m	4000m
Cooling	Natural	Natural
Installation	Wall mounting	Wall mounting
Optional Function		
Anti-reverse diode	Yes	Yes
String Current Measurement	Yes	Yes
SPD Failure Detection	Yes	Yes
Switch Status Detection	Yes	Yes
Communication	Standard: RS485/Optional: Zigbee	Standard: RS485/Optional: Zigbee
Working Power Supply	PV	PV
Mechanical Data		
Dimensions(WxHxD) (mm)	550*450*180/600*700*180(with diode)	680*500*180/600*700*180(with diode)
Weight (kg)	22/36	32/38

Schematic Diagram



DC Switch

DC Switch-3: 3 strings, 1000Vdc, 25A

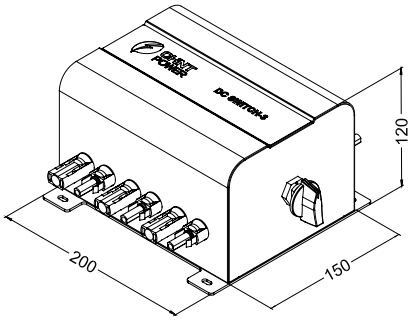
DC Switch-1: 1 string, 600Vdc, 16A

DC Switch is designed to work with SC series grid-tied inverters from 1.5kW to 4.6kW. There are two DC Switches with maximum input current 16A and 25A respectively that can be selected for inverters with different power levels. The input side of DC Switch is equipped with MC4 connectors for connecting up to three input lines, depending on the power level. The DC Switch is rated IP65 ingress protection for both outdoor and indoor applications.

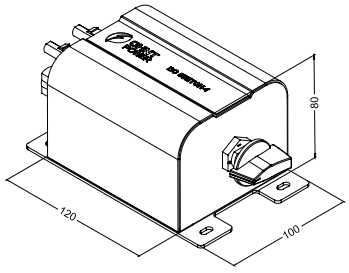
The IEC standard requires the use of DC Switches between photovoltaic modules and inverters. A PV system with DC Switch allows easy and convenient disconnection from the PV Array allowing safe installation and maintenance of inverters. Featuring small size, contemporary design and easy installation, the DC Switch is used with a variety of SC series inverters, and provides a high level of safety for users.

- Specially designed for PV inverters
- High reliability, adequate protection for your PV systems
- 1000Vdc/25A, 3*2 poles, 600Vdc/16A, 1*2 poles
- IP65 rated for outdoor application
- Comply with RoHS & CE
- Compact design
- Easy installation, easy operation

Dimensions (mm)



DC Switch-3



DC Switch-1

CE

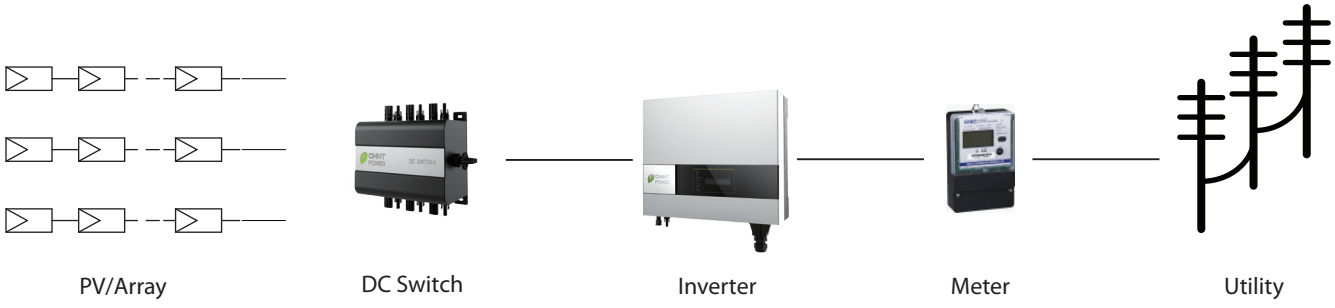
Model Name	DC Switch-3	DC Switch-1
Max. Input Voltage	1000Vdc	600Vdc
Max. Input Current	25A	16A
Input Type	MC4	MC4
Number of Inputs	3 DC strings	1 DC strings
Output Type	MC4	MC4
Number of Outputs	3 positive, 3 negative	1 positive, 1 negative
Ingress Protection	IP65	IP65
Ambient Condition	-20°C to +50°C	-20°C to +50°C
Mechanical Data		
W x H x D (mm)	200x150x120	120x100x80
Weight (kg)	2.3	1.0

Configuration

DC Switch-3	Inverter Types
	CPS SC4KTL
	CPS SC4KTL-O
	CPS SC4.6KTL-O

DC Switch-1	Inverter Types
	CPS SC1.5KTL
	CPS SC2KTL
	CPS SC2.8KTL

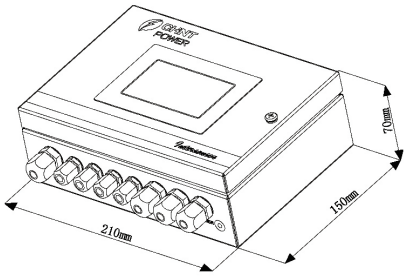
Application Schematic Diagram



Intersensor

Intersensor

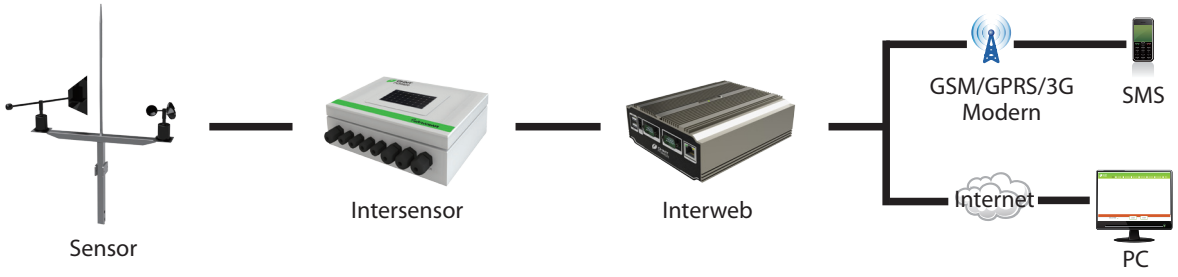
Dimensions (mm)



CPS Intersensor can perform real-time monitoring on the environmental data, including irradiance, environmental temperature, PV module temperature, wind speed and direction through various pre-installed sensors. Besides, Intersensor provides with friendly user interface and sends the data to the CPS datalogger via specific protocol.

CPS Intersensor can work together with the CPS datalogger, providing targeted analysis and comparison for the actual operation performance of the inverter. In addition, the ambient temperature sensor, wind speed sensor, and wind direction sensor included in the Intersensor can provide customers with more accurate environmental detection and data analysis.

System Schematic



Intersensor

- IP65, outdoor application
- Comply with RoHS & CE
- Acquisition of precise sensor values
- Data analysis on any PC
- Scientific interface design, easy to install
- Easy to communication via Modbus-RTU
- Professional industrial design, well-shaped

XuanSi Project

Scale: 8.88kW

Location: Shanghai

Commissioned: Feb, 2012

Model Name	Intersensor
Communication	
Standard	Modbus-RTU
Power Supply	
Rated Voltage	85-264V/AC, 50/60Hz
Environment	
Operating Temperature Range	-20°C to +50°C
Protection Degree	IP65
Mechanical Data	
WxDxH(mm)	210X150X70
Weight(kg)	1.65
Accessories（inculding sensors）	
Irradiation Sensor	●
PV module Temperature Sensor	●
Environmental Temperature Sensor	●
Wind Speed Sensor	●
Wind Direction Sensor	●
Sensor Frame	●
High-precision Irradiation Sensor	○

● Standard features ○ Optional features

Sensor Type and Data

Sensor Type	Irradiation Sensor	PV Module Temp. Sensor	Environmental Temp. Sensor	Wind Speed Sensor	Wind Direction Sensor	High-precision Irradiation Sensor
						
Technical Data						
Material	Polysilicon	PT100		Plastic	Plastic	Steel
Working Temp.	-40 to +85°C	-20 to +110°C		-40 to +80°C	-40 to +80°C	-40 to +60°C
Measuring Range	0-1500W/m²	-20 to +100°C	-20 to +85°C	0-70m/s	0-360°	0-2000W/m²
Measuring Accuracy	±5%	±0.1°C		±0.1m/s	0.1%	±5%

External Data Logger

S-G01

S-WE01S

By collecting information from inverters including status and performance, CPS external data loggers make the long-term monitoring of PV systems feasible and efficient.

By connecting with single or multiple inverters through RS485/422/232 interface, the data logger can collect information of PV systems from inverters. In addition, Portal can provide powerful data support for users.
Data collected by the data logger can be transmitted to the monitoring portal via Ethernet, WiFi and GPRS, etc. Both real-time and historical data can be displayed with transparent graphs. Customized alerts can notify users of any malfunction or defect immediately via SMS and emails.

CPS WiFi Kit is suitable for homes and office buildings where WiFi network is available. A WiFi module is integrated in the data logger, enabling data transmission via WiFi network. No additional wiring or software is required, far simplifying installation and reducing costs for users.Furthermore, an independent web server is integrated in the data logger, which enables users to directly connect to the WiFi Access Point of the data logger and to check the performance and yield of the inverter even without any outer network.
CPS GPRS Kit is suitable for standalone plants or buildings where no network connection is available. A GPRS module is integrated in the data logger, and with a valid SIM card, the data logger can transmit data via mobile network. CPS can provide users of GPRS data logger with the most cost-effective global roaming SIM cards which support GPRS data roaming in almost all countries around the world. We will provide the most favorable tariff and the best package for users to ensure the long-term and stable data acquisition from data loggers, therefore ensuring continuous monitoring of PV systems.

S-G01

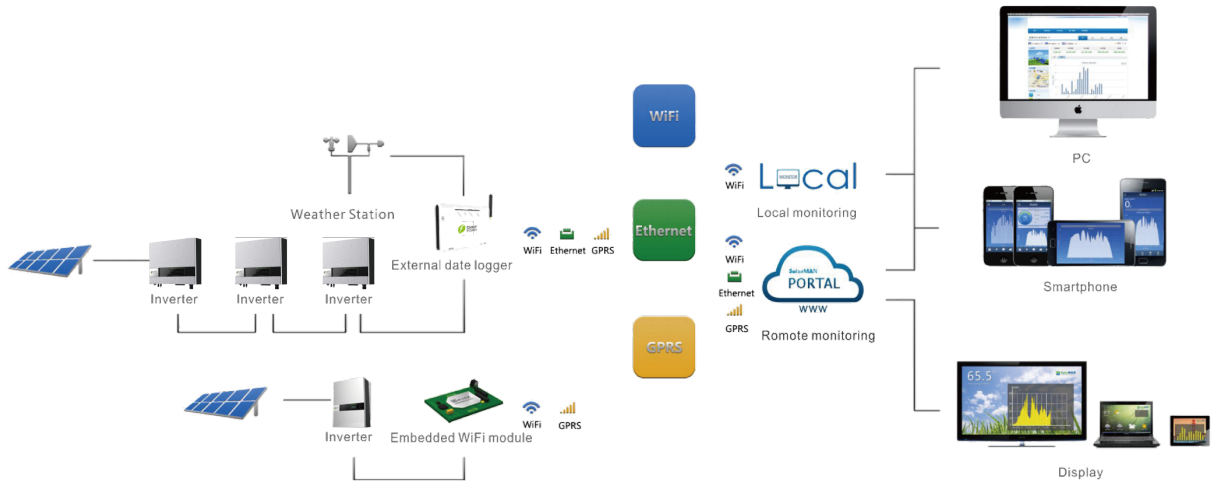
- Devices such as combiner box, electric meter and weather station, etc. can be connected
- Quick installation and easy operation with "Plug & Play" function
- Data storage of over 25 years
- Global roaming enables perfect operation for plant sites all over the world

S-WE01S

- Devices such as combiner box, electric meter and weather station, etc. can be connected
- Two communication methods available, including Ethernet and WiFi
- Data storage of over 25 years
- Check real-time data of data logger and inverter via embedded Web Server
- Dual mode of local monitoring and remote monitoring

Model Name	S-WE01	S-G01
General		
Max. Number of Inverters	1-10	1-10
Inverter Communication	RS485/422	RS485/422
Remote Communication	WiFi(802.11 b/g/n)/Ethernet	GPRS
Max. Communication Range	<1km	<1km
Communication Rate	1200-19200bps(Adjustable)	1200-19200bps(Adjustable)
WiFi Frequency	2.4GHz	800/900/1800/1900MHz
WiFi Communication Range	400m in outdoor open area without	-
WiFi Transmitting Power	802.11b/g/n: +20dBm/+18dBm/15dBm(Max)	Class 4(2W)/Class 1(1W)
Data Collection Intervals	5minutes(Default)/1-15minutes(Optional)	5minutes default/1-15minutes optional
Memory	SD Card/EEPROM(Optional)	SD Card/EEPROM(Optional)
Preferences Setting	Web Server/Serial port AT instruction	Serial port AT instruction
Firmware Updates	Serial port/Wireless	Serial port/Wireless
Data Access	Serial port/WiFi point-to-point/Remote server	Serial port/Remote server
Status Display	4 LEDs	4 LEDs
Electrical		
Input Voltage	DC 5V	DC 5V
Static Power Consumption	<1.6W	<2W
Max. Instantaneous Power Consumption	<2.5W	<3W
Environmental		
Operating Temperature	-10 to +65°C	-10 to +65°C
Operating Humidity	10%-90% Relative humidity, no condensation	10%-90% Relative humidity, no condensation
Storage Temperature	-40 to +85°C	-40 to +85°C
Storage Humidity	<40%	<40%
Protection Class	IP21	IP21
Physical		
Dimension(L×W×H)	110mm×80mm×26mm	110mm×80mm×26mm
Weight	108g	102g
Other		
Installation Method	Wall mounting, desktop device	Wall mounting, desktop device
Certificates	FCC, CE, RoHS	FCC, CE, RoHS

Monitoring System



Interview2.0

CPS Interview2.0 is a professional monitoring software for residential and commercial solar systems with its user-friendly interface, abundant data display and comprehensive analysis function. Users can choose RS485 or Zigbee connection according to specific circumstances. CPS Interview can send real-time event alert via SMS messages to minimize system risks while increasing system energy harvest. It can also send daily report to inform users of the whole system status via E-mail. Free of data-logger or any other device, Users can easily monitor the whole solar system by a personal computer.

Interview2.0

Easy

- Whole guiding installation, user-friendly interface
- Abundant data display, everything under control
- Intuitive curve, graph and chart to present

Flexiblility

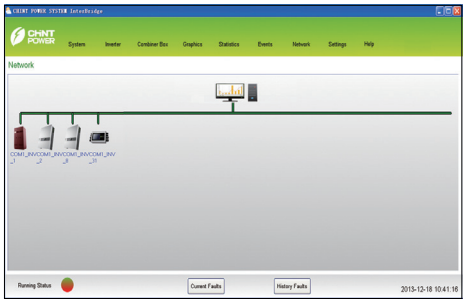
- Support multiple lines of RS485
- Optional communication protocols
- Support on-site Zigbee networking with no trouble of cable paving

Efficiency

- Automatic device searching and identification
- Data-logger free, direct access to on-site equipment
- SMS fault alert and Email report

Device real time monitoring---CPS inverter

Detailed information to show the status of devices: PV module information(PV voltage, PV current, input power), grid information(grid voltage, grid current, grid frequency, output power), work mode, yield information(daily yield, runtime, total yield) and real-time curve.

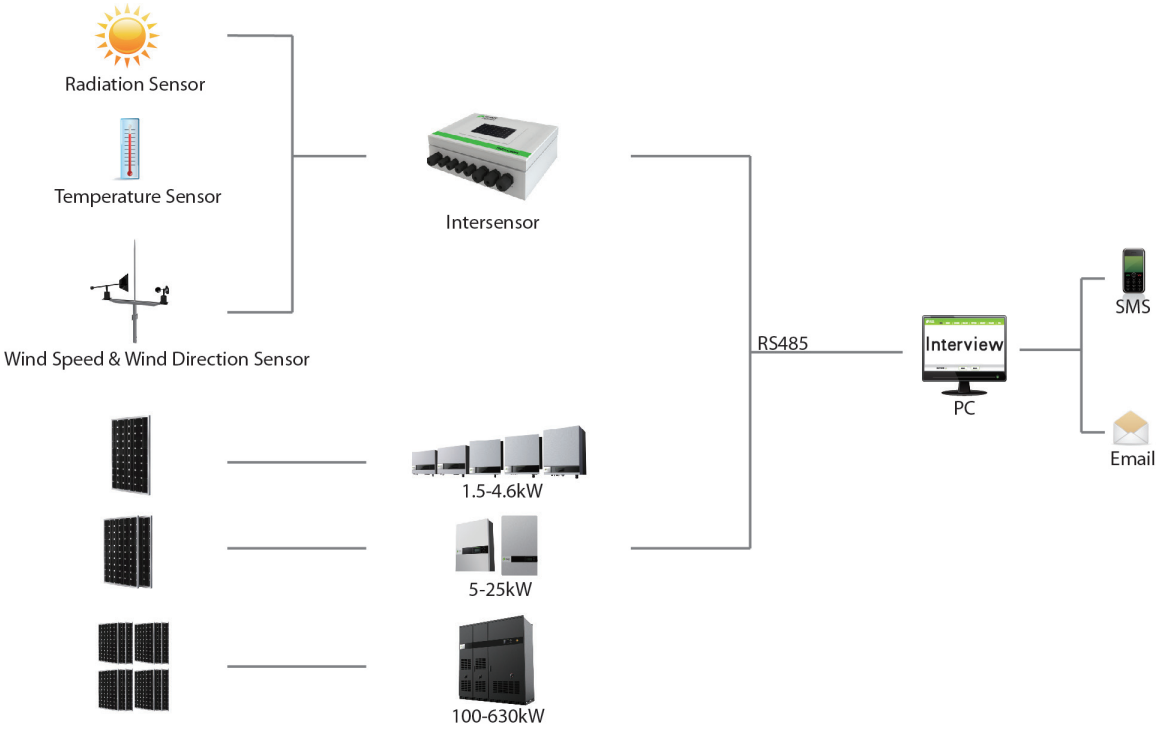


PV system real time topology

Quick overview of the whole PV system via the color of device pictures (normal, fault, offline), click specific device to see its detail information.

Model Name	Interview2.0
Supported Operating Systems	Windows XP/Windows 7
Minimum Hardware Requirements	PIII 800MHz, 512MB, 20G
Resolution	1024x768
Internet Connection	GSM
Monitor Devices	Inverter, Combiner box, Intersensor, DC meters, AC meters, 3rd party devices
Maximum Communication Channel	6
Maximum Devices Each Channel	32
Maximum Refresh Time Each Channel	3S
Communication Protocols	Standard Modbus-RTU, CPS RS485, Eaton RS485 protocol, Customized protocol of 3-party devices
System Data Display	chart, real-time curve, histogram
Out-put Files Records	Excel, CSV files availalble
Out-put Pictures Records	bmp files available
Operating Report	Fault notification via SMS; operation status report via Email
Language Available	Chinese, English
Usermanual Language	Chinese, English
On-site Connection	
Cable Connect	RS485
Communication Distance	1200m
Wireless Connection	Zigbee
Wireless Distance	800m

Monitoring System



CPS Remote Monitoring Platform

CPS Portal is a web-based platform for PV monitoring, enabling analysis and presentation of PV systems. Data collected from PV systems are transmitted to and analyzed by CPS portal, and then displayed in various formats that are easy to understand. Automatic alarms are available so that any malfunctions or abnormal conditions can be identified and reported immediately. Users can easily access CPS portal to monitor PV systems at anytime and from anywhere. This easy-to-use platform makes monitoring of PV systems simple and convenient, far reducing time and costs as well.

The portal can deal with data collected from CPS external data logger, embedded monitoring module, and weather station, etc. In addition, data from other devices can be analyzed and recorded as well if required by customers.

All data collected from devices are saved in multiple servers located all over the world, ensuring high-quality and stable service for our global users, and ensuring security of database as well to prevent loss of data.

- User-friendly and multilingual interface
- Web-based remote management
- Easy access via Internet by computer and smartphone
- Visualized real-time data and historical data for analysis and easy understanding
- A variety of formats for better presentation
- Automatic alarms as customized by users
- Data and event reports sent via email regularly as specified
- Demonstration power stations for reference, system information available to share through the portal

Data Display

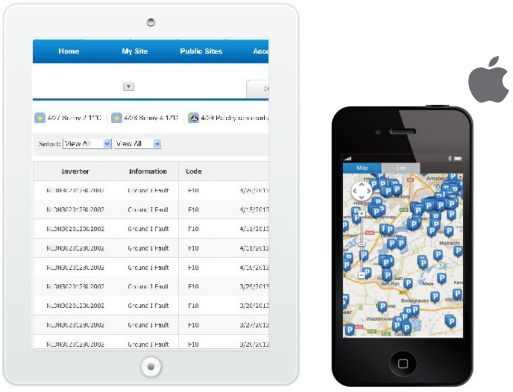
- Daily, monthly, annual and total yield
- Historical data records
- Log records
- Malfunction records
- Daily, monthly and annual reports
- Display of weather information

Data Ananlysis

- Analysis on generating efficiency
- Analysis on performance of systems and devides
- Total earnings of systems
- Total reduction of CO2 emission
- Comparison of system performance

Model Name	CPS Portal
Language	
Available Languages	English, Spanish, Thai, Czech, Portuguese, Chinese
System Requirements	
Supported Operating Systems	All/optimized access for mobile devices
Software	
Recommended Browsers	FireFox, Internet Explorer 7 or later, Safari, Chrome
Other	JavaScript and Cookies enabled
Access	
Website	www.chintpower.com
Smartphone	CPS App for iPhone and Android
Plant Management	
CPS Portal Account	One password for all your plants in CPS Portal

CPS App---Mobile Monitoring at Anytime and Anywhere



CPS App is available on iPhones and smartphones with Android OS, enabling mobile monitoring of your PV systems easier and quicker. Both real-time and historical data can be displayed with transparent graphs and in daily, monthly, annual and overall format. Besides power and yield, data such as CO2 savings, weather condition and sensor information can be displayed as well.

CPS App can support both remote and local mode. With remote mode, you can view all data as same as CPS portal; and with local mode, you can get direct access to the web server of CPS monitoring device via WiFi and check the performance of your PV system.

- Real-time and historical data displayed via internet at any time
- Visualized data with transparent graphs
- Daily/monthly/annual/overall data
- CO_2 savings, weather and sensor data displayed
- Local mode enables direct access to system data via WiFi

CPS Energy Balancer

To mitigate concerns over PV panel PID, CPS provides the Energy Balancer. For 600V or 1000Vdc arrays and in conjunction with non-isolated PV inverters, the EB-2 devices may be used to reduced the effects of PID. Users must follow requirements of PV panel providers.

Economical

- Low power loss
- Deceleration of the PID effect
- Recovery of the performance of PV modules

Smart

- Fully automatic control

Adaptable

- Night operation
- Applicable with transformerless inverters
- Two independent output channels, adaptable to multi-MPPT inverter

Intertek 4004522 Conforms to UL Std. 1741

This device complies with part 15 of the FCC Rules

Model Name	CPS EB-2
Input	
Nominal Input Power	10W
Max. Input Power	<15W
Max. Input Current	< 82mA
Norminal Grid Voltage	208-277Vac Single phase
Allowable Grid Voltage	166-318Vac
Rated Grid Frequency	50/60Hz
Output	
Max. Output Voltage	1000Vdc
Output Voltage Range	400-950Vdc
Max. Output Current*	2×3mA
Max. Output Number	2
System	
Protection Degree	NEMA 4 (IP65)
Operating Temperature Range	-22°F to +140°F/- 30°C to +60°C
Cooling	Natural cooling
Operating Altitude	13123ft/4000m
Operating Humidity	0-95%, non-condensing
Stand-by / Night Consumption	<3.5W
Display	
Display	LED
Mechanical Data	
Dimensions (WxHxD)	12.6×9.9×3.2 in/320×250×80 mm
Weight	4lbs/1.8kg

*CPS ENERGY BALANCER has two channels of PV output. The Max. Output Current is 6mA in total. The two channels may not share the same current because of the difference of PV strings.