

# Photovoltaic String Inverter Series

Efficient Power Generation

Intelligent O&M

Ensured Safety and Reliability



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Official CSI  
WeChat Account



Official CSI Inverters  
WeChat Account



## CSI Solar Co., Ltd.

CSI Solar is a leading solar module manufacturer, system solution provider, and developer of utility-grade solar power stations, with the most power station projects reserved worldwide.

It has amassed more than 20 years of experience in the research, development, and production of photovoltaic module sector. It has always placed priority on effective long-term matching of inverters and modules. It is actively involved in the development of high-quality photovoltaic inverters, photovoltaic energy storage integrated systems, and digital intelligent energy management platforms. Adhering to the high standards and strict requirements of production and quality management for component production, CSI Solar inverters have been successfully sold in more than 50 countries and regions around the world and have received high praise from customers at home and abroad.

In the future, CSI Solar will concentrate on offering digital energy solutions with integrated photovoltaic systems, services, and intelligent maintenance, helping to fuel the market's vigorous growth in the distributed photovoltaic power generation market.

**A Leading Brand with Global Operations in the Solar Industry**



Having 22 years' Experience of R&D, Manufacturing and Global Operation in the PV Industry



Ranking among Global Top Three for Construction of PV Power Plants and Manufacturing of Products



Serving Customers in More Than 160 Countries and Regions Worldwide



## Why do industrial and commercial power stations opt for CSI Solar inverters?

### Best in Class Matching btw Module & Inverter to Increase the Power Output of PV System

- Time to Market- Large current 40A MPPT DC input, no power loss caused by DC current limit when match with 182& 210mm modules
- Best in class Solar Module /Inverter matching on temperature effects
- Intelligent algorithm software to match module characteristics- MPPT tracking, IV scan with AI, LVRT control Algorithm, PID recovery, Arc fault detection etc.
- DC/AC ratio up to 1.5 or above, compatible with all kinds of grids requirements

### High Cost Performance

- Tie 1 quality
- Affordable price

### One-stop Service

- One-stop service to facilitate customers to choose desirable modules and inverters
- One-stop storage and logistics, bringing more convenience and achieving on-time delivery
- One-stop technical support, freeing you from all after-sales concerns

# High Quality Inverters

Unique patented air duct and structure designs, together with selected and branded electronic parts, ensure the low operating temperature and the longer service life of Canadian Solar's inverters.



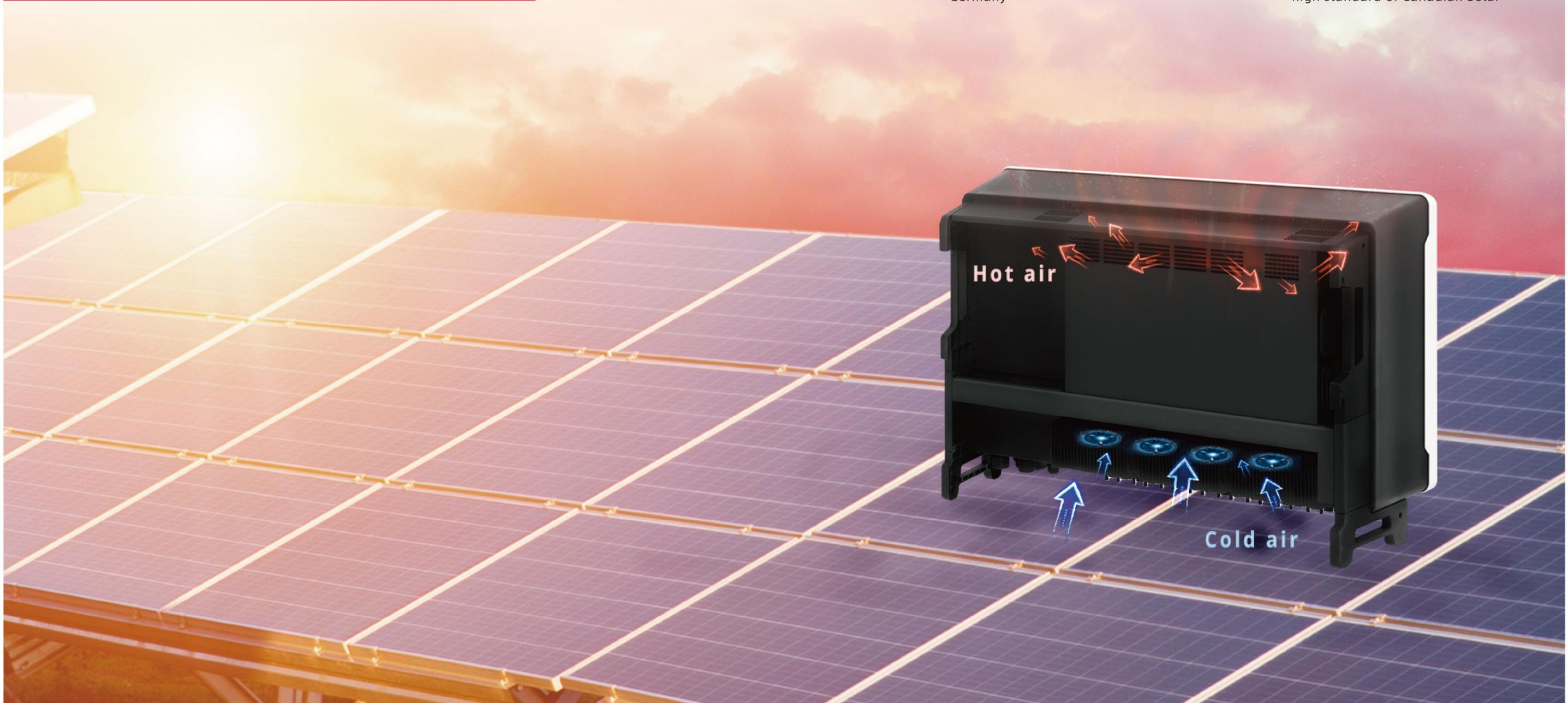
High-power inverters with IGBT only from Germany



All series with NMB fans of Japanese style



Specially designed inductors, capacitors, resistors and other electronic components in line with high standard of Canadian Solar



## Rigorous Reliability Test

20 years + Life Cycle Standard

- Low-temperature stepping: -10 °C to -70 °C
- High-temperature stepping: 40 °C to 100 °C
- Temperature Cycle: -60 °C to 90 °C



Vibration and Drop Test (ISTA 1H-2014)  
Vibration Stepping: 10 Grms to 50 Grms



Environmental Test  
(-40 - 85 degree, IEC 60068-2)



HALT (Highly Accelerated Life Test)  
GB/T 29309-2012



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Actual product may vary from illustration.



## Single-Phase String Inverter

**CSI-5kW**

### Key Features

- Enhance Solar System Output**  
 Support high current PV modules with 15A operation current
- Max. Efficiency 98%**  
 H6 Plus high efficient topology with Max. efficiency 98%, Europe 97.5%
- User Friendly**  
 Light weight allows one person installation  
 Real-time monitoring with Cloud platform  
 Support one-click inverter configuration  
 Support remote parameter configuration & firmware update
- Higher Reliability**  
 Integrated power module design  
 Integrated DC switch  
 Natural convection

### SYSTEM TECHNICAL DATA

MODEL NAME	CSI-5K-S22003-E
<b>DC INPUT</b>	
Max. DC Input Voltage (V)	600
Start-up DC Input Voltage (V)	110
MPPT Operating Voltage Range (V)	100-500
Rated Input Voltage (V)	360
Max. Input Current (A)	15 / 15
Max. Short-Circuit Current (A)	18.8 / 18.8
Number of MPP Trackers	2
Number of DC Inputs	2
<b>AC OUTPUT</b>	
Rated Output Power (W)	5000
Max. Output Power (W)	5500
AC Grid Connection Type	L / N / PE
AC Nominal Voltage And Range (V)	220 / 230 / 240 (180 - 280)
AC Nominal Frequency And Range (Hz)	50 / 60 (± 5)
Max. Output Current (A)	25
Power Factor (@Rated Output Power)	> 0.99
Displacement Power Factor	0.8 leading to 0.8 lagging
Total Harmonic Distortion (THDi)	< 3 %
<b>EFFICIENCY</b>	
Max. Efficiency	98.0 %
European Efficiency	97.5 %
<b>SAFETY &amp; PROTECTION</b>	
DC Switch	Integrated
Anti-Islanding Protection	Integrated
DC Reverse-Polarity Protection	Integrated
Insulation Monitoring	Integrated
AC Over Voltage Protection	Integrated
AC Over Current Protection	Integrated
AC Short-Circuit Protection	Integrated
Residual Current Protection	Integrated
Overvoltage Class	II(DC), III(AC)
<b>GENERAL PARAMETERS</b>	
Dimensions (W x H x D, mm)	355 x 435 x 158
Net Weight (kg)	13.5
Installation Method	Wall-mounted
DC Connection Type	MC4, T6
AC Connection Type	Connector
Communication Interfaces	WIFI / RS485
Display	LED+APP
Cooling	Natural Convection
Protection Degree	IP65
Operating Ambient Temperature Range (°C)	-25 ~ 60 (> 45, derating operation)
Relative Humidity (Non-Condensing)	0 % ~ 100 %
Max. Operating Altitude (m)	4000 (> 3000, derating operation)
Acoustic Noise Emission Level (dBA)	< 25
Topology	Transformerless
Night Power Consumption (W)	< 1
Safety and EMC	IEC 62109-1/2, IEC 61000-6-1, IEC 61000-6-3
Grid Connection Standard	ABNT NBR 16149/16150:2013

\*Any system with a DC/AC ratio being less than 1.5 is within our warranty scope. Please contact local Canadian Solar technical support for further confirmation if otherwise.



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## Single-Phase String Inverter

CSI-7kW | CSI-9kW

### Key Features

- Enhance Solar System Output**  
 Support high current PV modules with 15A operating current
- Max. Efficiency 98.1%**  
 H6 Plus high efficient topology with Max. efficiency 98.1%, Europe 97.5%
- User Friendly**  
 Low weight allows one person installation  
 Real-time monitoring with Cloud platform  
 Supports one-click inverter configuration  
 Supports remote parameter configuration & firmware update.
- Higher Reliability**  
 Integrated DC switch  
 Natural convection  
 IP65

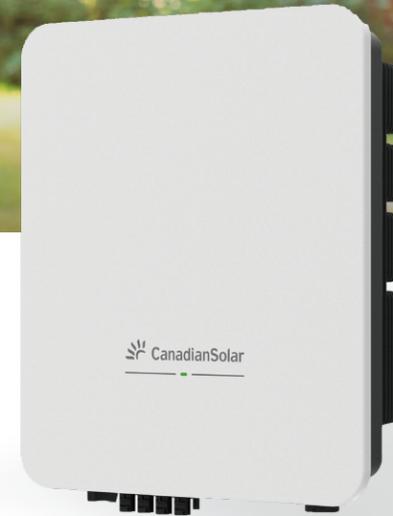
### SYSTEM TECHNICAL DATA

MODEL NAME	CSI-7K-S22003-E	CSI-9K-S22003-E
<b>DC INPUT</b>		
Max. DC Input Voltage (V)	600	
Start-up DC Input Voltage (V)	110	
MPPT Operating Voltage Range (V)	100 - 500	
Rated Input Voltage (V)	360	
Max. Input Current (A)	15 / 30	
Max. Short-Circuit Current (A)	18.8 / 37.6	
Number of MPP Trackers	2	
Number of DC Inputs	1 / 2	
<b>AC OUTPUT</b>		
Rated Output Power (W)	7000	9000
Max. Output Power (W)	7000	9000
AC Grid Connection Type	L / N / PE	
AC Nominal Voltage And Range (V)	220 / 230 / 240 (180 ~ 280)	
AC Nominal Frequency And Range (Hz)	50 / 60 (±5)	
Max. Output Current (A)	31.8	40.9
Displacement Power Factor	0.8 leading to 0.8 lagging	
Total Harmonic Distortion (THDi)	< 3%	
<b>EFFICIENCY</b>		
Max. Efficiency	98.1 %	
European Efficiency	97.5 %	
<b>SAFETY &amp; PROTECTION</b>		
DC Switch	Integrated	
Anti-Islanding Protection	Integrated	
DC Reverse-Polarity Protection	Integrated	
Insulation Monitoring	Integrated	
AC Over Voltage Protection	Integrated	
AC Over Current Protection	Integrated	
AC Short-Circuit Protection	Integrated	
Residual Current Protection	Integrated	
Overvoltage Class	II (DC), III (AC)	
<b>GENERAL PARAMETERS</b>		
Dimensions (W x H x D, mm)	399 x 446 x 192	
Net Weight (kg)	19.5	
Installation Method	Wall - mounted	
DC Connection Type	MC4, T6	
AC Connection Type	Connector	
Communication	RS485 / WiFi	
Display	LED & APP	
Cooling	Natural Convection	
Protection Degree	IP65	
Operating Ambient Temperature Range (°C)	- 25 ~ 60 °C (> 45 °C, derating operation)	
Relative Humidity (Non-Condensing)	0% ~ 100%	
Max. Operating Altitude (m)	4000 m (> 3000 m, derating operation)	
Topology	Transformerless	
Night Power Consumption (W)	< 1	
Safety and EMC	IEC 62109-1/2, IEC 61000-6-1, IEC 61000-6-3	
Grid Connection Standard	ABNT NBR 16149/16150:2013, IEC61727 & IEC62116, AS4777	

\*Any system with a DC/AC ratio being less than 1.5 is within our warranty scope. Please contact local CSI Solar technical support for further confirmation if otherwise.



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## Three-Phase String Inverter

CSI-15kW | CSI-17kW | CSI-20kW | CSI-23kW | CSI-25kW

### Key Features

- Max. efficiency up to 98.6%, Max. CEC efficiency up to 98.0%
- 2 MPPTs for complex application scenarios to achieve higher system efficiency
- 16A input for each string to support the access of a variety of high-power modules
- Lightweight design and easy installation
- Zero export limitation function

### High Reliability

- Intelligent convection cooling
- SPD Type II for DC and AC
- Residual current detection and protection
- No-fuse design
- Input reverse protection
- IP66 protection level, strong environmental adaptability
- Built-in DC switch

### TECHNICAL DATA

Model Name	CSI-15K-T4001A-E	CSI-17K-T4001A-E	CSI-20K-T4001A-E	CSI-23K-T4001A-E	CSI-25K-T4001A-E
<b>INPUT (DC)</b>					
Max. Input Voltage	1100 V <sub>DC</sub>				
Start-up DC Input Voltage	180 V <sub>DC</sub>				
Rated Input Voltage	630 V <sub>DC</sub>				
MPPT Voltage Range	160 - 1000 V <sub>DC</sub>				
Max. String Input No.	4				
MPPT No.	2				
Max. Input Current	32 A / 32 A				
Max. DC short-circuit current	40 A / 40 A				
<b>OUTPUT (AC)</b>					
Rated AC Output Power	15 kW	17 kW	20 kW	23 kW	25 kW
Max. AC Output Power (Apparent)	15 kVA	17 kVA	20 kVA	23 kVA	25 kVA
Rated Output Voltage	380 V <sub>AC</sub> / 400 V <sub>AC</sub>				
Grid Connection Type	3 L / N / PE				
Max Output Current	22.8 A	25.8 A	30.4 A	34.9 A	38.0 A
Rated Output Frequency	50 / 60 Hz				
THDi	< 3 %				
Power Factor	0.8 leading ... 0.8 lagging				
Zero Export Solution	Supported				
<b>EFFICIENCY</b>					
Max. Efficiency	98.5 %	98.5 %	98.6 %	98.6 %	98.6 %
EU Efficiency	98.0 %	98.0 %	98.0 %	98.0 %	98.0 %
<b>ENVIRONMENT</b>					
Protection Degree	IP66				
Cooling	Intelligent Air Cooling				
Operating Temperature Range	-30 °C to +60 °C				
Operating Humidity	0 - 100 % Non-condensing				
Operating Altitude	4000 m (> 3000 m derating)				
<b>PROTECTION</b>					
DC Switch	Yes				
Anti-Islanding Protection	Yes				
DC Reverse-Polarity Protection	Yes				
DC Insulation Resistance Detection	Yes				
Residual Current Monitoring	Yes				
AC Output Over Current Protection	Yes				
AC Short Circuit Protection	Yes				
Grid Monitoring	Yes				
DC / AC SPD	DC SPD Type II / AC SPD Type II				
<b>DISPLAY AND COMMUNICATION</b>					
Display	LED Indicators & APP				
Communication	WiFi (Optional)				
<b>MECHANICAL DATA</b>					
Dimensions (W / H / D)	435 x 520 x 194 mm				
Weight	17kg	17kg	19kg	19kg	19kg
DC Inputs Type	MC4				
AC Outputs Type	Quick Connection Plug				
<b>CERTIFICATION</b>					
Safety / EMC	IEC62109, IEC 61000-6-2/3				
Grid Code	IEC61727 & IEC62116				



**NEW**

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## Three-Phase String Inverter

CSI-40kW | CSI-50kW | CSI-60kW

### Key Features

- Max. efficiency up to 98.7%, Max. CEC efficiency up to 98.3%
- Multi-MPPTs design for complex application scenarios to achieve higher system efficiency
- 16A input for each string to support the access of a variety of high-power modules
- String-level monitoring for real-time operation monitoring
- Night time PID recovery to improve system output\*
- Aluminum wire connection to lower cost of AC cables

### High Reliability

- Intelligent convection cooling
- SPD Type II for DC and AC
- Residual current detection and protection
- No-fuse design
- Input reverse protection
- IP66 protection level, strong environmental adaptability
- Built-in DC switch

\* Night time PID recovery function is optional

### SYSTEM/TECHNICAL DATA

MODEL NAME	CSI-40K-T4001A-E	CSI-50K-T4001A-E	CSI-60K-T4001A-E
<b>INPUT (DC)</b>			
Max. Input Voltage		1100 V <sub>DC</sub>	
Start-up DC Input Voltage		195 V <sub>DC</sub>	
Rated Input Voltage		600 V <sub>DC</sub>	
MPPT Voltage Range		200 - 1000 V <sub>DC</sub>	
MPPT No.	3	4	5
Max. String Input No.	6	8	10
Max. Input Current	3 x 32 A	4 x 32 A	5 x 32 A
Max. DC short-circuit current	3 x 40 A	4 x 40 A	5 x 40 A
<b>OUTPUT (AC)</b>			
Rated AC Output Power	40 kW	50 kW	60 kW
Max. AC Output Power (Apparent)	40 kVA	50 kVA	60 kVA
Rated Output Voltage		380 / 400 V <sub>AC</sub>	
Grid Connection Type		3 L / N / PE	
Max Output Current	60.8 A	76 A	91.2 A
Rated Output Frequency		50 / 60 Hz	
THDi		< 3 %	
Power Factor		0.8 leading ... 0.8 lagging	
Zero Export Solution		Supported	
<b>EFFICIENCY</b>			
Max. Efficiency		98.7 %	
EU Efficiency		98.3 %	
<b>ENVIRONMENT</b>			
Protection Degree		IP66	
Cooling		Intelligent Air Cooling	
Operating Temperature Range		-30 °C to +60 °C	
Operating Humidity		0 - 100 % Non-condensing	
Operating Altitude		4000 m (> 3000 m derating)	
<b>PROTECTION</b>			
DC Switch		Yes	
Anti-Islanding Protection		Yes	
DC Reverse-Polarity Protection		Yes	
DC Insulation Resistance Detection		Yes	
Residual Current Monitoring		Yes	
String Monitoring		Yes	
AC Output Over Current Protection		Yes	
AC Short Circuit Protection		Yes	
Grid Monitoring		Yes	
Anti-PID Module		Optional	
Overvoltage Class		II (DC), III (AC)	
DC / AC SPD		DC SPD Type II / AC SPD Type II	
<b>DISPLAY AND COMMUNICATION</b>			
Display		LED Indicators & APP	
Communication		RS485 / WiFi (optional)	
<b>MECHANICAL DATA</b>			
Dimensions (W / H / D)		720 x 555 x 288 mm	
Weight	48 kg	50 kg	51 kg
DC Connection Type		MC4	
AC Connection Type		OT Terminals	
<b>CERTIFICATION</b>			
Safety / EMC		IEC62109, IEC 61000-6-2/3	
Grid Code		IEC61727 & IEC62116, EN50549-1	



**NEW**

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## Three-Phase String Inverter

CSI-75kW | CSI-100kW | CSI-110kW | CSI-120kW

### Key Features

- Max. efficiency up to 98.5%, Max. CEC efficiency up to 98.1%
- 6/9 MPPTs design for complex application scenarios to achieve higher system efficiency
- Max. 20A input current per MPPT to perfectly match Hiku7 modules\*
- String-level monitoring
- Night time PID recovery to improve system output\*\*
- Aluminum wire connection to lower cost of AC cables

### High Reliability

- Intelligent convection cooling
- SPD Type II for DC and AC
- Residual current detection and protection
- No-fuse design
- Input reverse Pprotection
- IP66 protection level, strong environmental adaptability
- Built-in DC switch

\* "Max. 20A input current per MPPT to perfectly match Hiku7 modules" is only for 6-MPPT models.

\*\* Night time PID recovery function is optional.

### SYSTEM/TECHNICAL DATA

MODEL NAME	CSI-75K-T40001-E	CSI-100K-T4001A-E	CSI-100K-T4001B-E	CSI-110K-T4001A-E	CSI-110K-T4001B-E	CSI-120K-T4001A-E	CSI-120K-T4001B-E
<b>INPUT (DC)</b>							
Max. Input Voltage	1100 V <sub>DC</sub>						
Start-up DC Input Voltage	195 V <sub>DC</sub>						
Rated Input Voltage	600 V <sub>DC</sub>						
MPPT Voltage Range	200 - 1000 V <sub>DC</sub>						
Max. String Input No.	12	12	18	12	18	12	18
MPPT No.	6	6	9	6	9	6	9
Max. Input Current	6 x 40 A	6 x 40 A	9 x 32 A	6 x 40 A	9 x 32 A	6 x 40 A	9 x 32 A
Max. DC short-circuit current	6 x 50 A	6 x 50 A	9 x 40 A	6 x 50 A	9 x 40 A	6 x 50 A	9 x 40 A
<b>OUTPUT (AC)</b>							
Rated AC Output Power	75 kW	100 kW	100 kW	110 kW	110 kW	120 kW	120 kW
Max. AC Output Power (Apparent)	75 kVA	100 kVA	100 kVA	110 kVA	110 kVA	120 kVA	120 kVA
Rated Output Voltage	380 / 400 V <sub>AC</sub>						
Grid Connection Type	3 L / N / PE						
Max Output Current	114A	152 A	152 A	167.1 A	167.1 A	182.3 A	182.3 A
Rated Output Frequency	50 / 60 Hz						
THDi	< 3 %						
Power Factor	0.8 leading ... 0.8 lagging						
Zero Export Solution	Supported						
<b>EFFICIENCY</b>							
Max. Efficiency	98.5 %						
EU Efficiency	98.1 %						
<b>ENVIRONMENT</b>							
Protection Degree	IP66						
Cooling	Intelligent Fan Cooling						
Operating Temperature Range	-30 °C to +60 °C						
Operating Humidity	0 - 100 % Non-condensing						
Operating Altitude	4000 m (> 3000 m derating)						
<b>PROTECTION</b>							
DC Switch	Yes						
Anti-Islanding Protection	Yes						
DC Reverse-Polarity Protection	Yes						
DC Insulation Resistance Detection	Yes						
Residual Current Monitoring	Yes						
String Monitoring	Yes						
AC Output Over Current Protection	Yes						
AC Short Circuit Protection	Yes						
Grid Monitoring	Yes						
Anti-PID Module	Optional						
Overvoltage Class	II (DC), III (AC)						
DC / AC SPD	DC SPD Type II / AC SPD Type II (Type I Optional)						
<b>DISPLAY AND COMMUNICATION</b>							
Display	LED & APP						
Communication	RS485 / WiFi (Optional)						
<b>MECHANICAL DATA</b>							
Dimensions (W / H / D)	1050 x 687 x 355 mm						
Weight	88 kg	90 kg	95 kg	90 kg	95 kg	90 kg	95 kg
DC Inputs Type	MC4						
AC Outputs Type	OT Terminals (Support the AC cables Max. 240mm <sup>2</sup> )						
<b>CERTIFICATION</b>							
Safety / EMC	IEC62109-1/2, IEC 61000-6-2/3						
Grid Code	IEC61727 & IEC62116, EN50549-1/2						



**NEW**

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## Three-Phase String Inverter

**CSI-350kW**

### Key Features

- Max. efficiency up to 99%
- The maximum 16 MPPTs design is suitable for complex application scenarios and improves the system power generation
- Supports 20A current input per string and perfectly matches the 182 and 210 series components
- String detection and I-V scanning, accurately locate abnormal strings
- PID restoration at night to improve system power generation
- Supports aluminum cable access, saving AC cable costs
- Support PLC communication, save communication cable and construction cost
- Ac/DC dual power supply redundancy design, 24-hour status monitoring
- Supports night SVG function

### High Reliability

- Intelligent forced air cooling
- AC/DC SPD II protection
- Residual current detection protection
- No fuse design
- Input reverse protection
- IP66 protection level, strong environmental adaptability
- Built-in DC controllable switch

### SYSTEM TECHNICAL DATA

MODEL NAME	CSI-350K-T8001A-E	CSI-350K-T8001B-E
<b>DC INPUT</b>		
Max. DC Input Voltage (V)	1500V	
Start-up DC Input Voltage (V)	550V	
MPPT Operating Voltage Range (V)	500-1500V	
Rated Input Voltage (V)	1090V	
Max. Input Current (A)	40A	32A
Max. Short-Circuit Current (A)	60A	60A
Number of MPP Trackers	12	16
Number of DC Inputs	24	32
<b>AC OUTPUT</b>		
Max. AC Output Power (Apparent)	352 kVA @ 35 °C / 320 kVA @45 °C / 295 kVA @50 °C	
Rated Output Voltage	800V	
Grid Connection Type	3Φ / PE	
Max Output Current	254A	
Rated Output Frequency	50Hz/60Hz	
THDi	<2%(rated power)	
Power Factor	> 0.99 / 0.8 leading – 0.8 lagging	
<b>EFFICIENCY</b>		
Max. Efficiency	99.01%	
EU Efficiency	98.8%	
<b>SAFETY &amp; PROTECTION</b>		
DC Switch	Yes	
Anti-Islanding Protection	Yes	
DC Insulation Resistance Detection	Yes	
Residual Current Monitoring	Yes	
String Monitoring	Yes	
AC Output Over Current Protection	Yes	
AC Short Circuit Protection	Yes	
Grid Monitoring	Yes	
Anti-PID Module	optional	
SVG	Yes	
Ground fault monitoring	Yes	
Overvoltage Class	II (DC),III(AC)	
Smart IV Curve diagnosis	Yes	
DC / AC SPD	DC SPD Type II / AC SPD Type II	
LVRT, HVRT	Yes	
<b>GENERAL PARAMETERS</b>		
Display	LED+ APP	
Communication	RS485 / PLC	
Operating ambient temperature range	-30 to 60 °C	
Dimensions (W / H / D)	1150 X 860 X 380 mm	
Degree of protection	IP66	
Weight	120kg	
DC Inputs Type	MC4-EVO2	
AC Outputs Type	OT/DT Terminals support 400mm <sup>2</sup>	
<b>Certification</b>		
Safety	IEC62109	
EMC Standard	IEC 61000-6-2/4	
Grid Code	IEC61727 & IEC62116, LVRT,HVRT	
Other	Reliability test(PVEL)	