



# THREE-PHASE STRING INVERTER 125 KW CSI-125KTL-GS-E

Canadian Solar's grid-tied, transformer-less string inverters help accelerate the use of three-phase string architecture for commercial rooftop and small ground-mount applications. An NRTL approved, cost-effective alternative to central inverters, these inverters are modular design building blocks that provide high yield and enable significant BoS cost savings. They provide up to 99.1% conversion efficiency, and a wide operating range for maximum energy harvest.



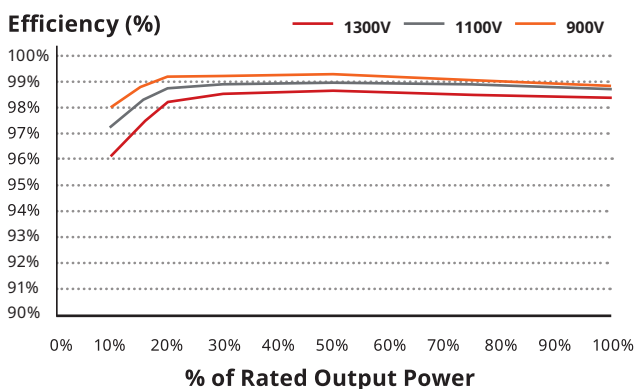
**Standard warranty, extension up to 20 years**

## KEY FEATURES

- Maximum efficiency of 99.1%, CEC efficiency of 98.6%
- Single MPPT for higher conversion efficiency
- Transformerless design
- PID mitigation capability

## EFFICIENCY CURVE

CSI-125KTL-GS-E @ 900 V



\*For detailed information, please refer to the Installation Manual.

## HIGH RELIABILITY

- Advanced thermal design with variable speed fans
- Ground-fault detection and interruption circuit

## BROAD ADAPTIBILITY

- NEMA 4X (IP65), outdoor application
- Utility interactive controls: active power derating, reactive power control and over frequency derating
- Integrated wiring box design
- Integrated DC and AC load rated disconnects
- Wide MPPT range for flexible string sizing
- AC terminals compatible with copper and aluminum conductors
- Supports up to 20 DC string inputs

**CANADIAN SOLAR (USA), INC.** is committed to providing high quality solar products, solar system solutions and services to customers around the world. As a leading PV project developer and manufacturer of solar modules with over 38 GW deployed around the world since 2001, Canadian Solar Inc. (NASDAQ: CSIQ) is one of the most bankable solar companies worldwide.

**CANADIAN SOLAR (USA), INC.**

3000 Oak Road, Suite 400, Walnut Creek, CA 94597, USA | [www.canadiansolar.com/na](http://www.canadiansolar.com/na) | [sales.us@canadiansolar.com](mailto:sales.us@canadiansolar.com)

SYSTEM/TECHNICAL DATA	
MODEL NAME	CSI-125KTL-GS-E
DC INPUT	
Max. PV Power	187.5 kW
Max. DC Input Voltage	1500 V <sub>DC</sub>
Operating DC Input Voltage Range	860-1450 V <sub>DC</sub>
Start-up DC Input Voltage/Power	900 V <sub>DC</sub>
Number of MPP Trackers	1
Full Power MPPT Voltage Range	860-1300 V <sub>DC</sub>
Operating Current (Imp)	150 A
Max. Input Current (Isc)	300 A
Number of DC Inputs	20
DC Disconnection Type	Load rated DC switch
AC OUTPUT	
Rated AC Output Power	125 kW
Max. AC Output Power	125 kW
Rated Output Voltage	600 V <sub>AC</sub>
Operating Voltage Range*	528 - 660 V <sub>AC</sub>
Grid Connection Type	3 Φ/PE
Nominal AC Output Current @600 Vac	120 A
Rated Output Frequency	60 Hz
Output Frequency Range*	55 - 65 Hz
Power Factor	1 default (±0.8 adjustable)
Current THD	< 3 %
AC Disconnection Type	Load rated AC switch
SYSTEM	
Topology	Transformerless
Max. Efficiency	99.1 %
CEC Efficiency	98.6 %
Night Consumption	< 2 W
ENVIRONMENT	
Protection Degree	NEMA 4X (IP65)
Cooling	Intelligent Redundant Cooling
Operating Temperature Range	-13 ° F to + 140 ° F / -25 ° C to +60 ° C
Storage Temperature Range	-40 ° F to + 158 ° F / -40 ° C to +70 ° C
Operating Humidity	0 - 100 %
Operating Altitude	13,123.4 ft / 4000 m
Audible Noise	<55 dBA @ 1 m
DISPLAY AND COMMUNICATION	
Display	LED
Communication	Standard: RS485 (Modbus RTU), AND either MODBUS over ETHERNET
MECHANICAL DATA	
Dimensions (W / H / D)	46.3 x 28.1 x 12.4in / 1176 x 713.5 x 315mm
Weight	185lbs (84kg)
Installation Angle	Back tilt up to 15 degrees
DC Fuse Rating	20 A standard
SAFETY	
Safety and EMC Standard	UL1741 SA, UL1998, CSA-C22.2 No. 107.1-01, IEEE1547, FCC PART 15
Grid Standard	IEEE1547, Rule 21, ISO-NE
Smart-Grid Features	Voltage-Ride Thru, Frequency-Ride Thru, Soft-Start, Volt-Var, Frequency-Watt, Volt-Watt

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

The specification and key features described in this datasheet may deviate slightly and are not guaranteed. Due to on-going innovation, research and product enhancement, Canadian Solar Inc. reserves the right to make any adjustment to the information described herein at any time without notice. Please always obtain the most recent version of the datasheet which shall be duly incorporated into the binding contract made by the parties governing all transactions related to the purchase and sale of the products described herein.

Caution: For professional use only. The installation and handling of PV equipment requires professional skills and should only be performed by qualified professionals. Please read the safety and installation instructions before using the product.