

THREE PHASE STRING INVERTER 40-50 KW

CSI-40K-T500 | CSI-50K-T500

Canadian Solar's grid-tied, transformer-less string inverters help to accelerate the use of three-phase string architecture for commercial rooftop and small ground-mount applications. An NRTL approved, cost-effective alternative to MLPE, these inverters are modular design building blocks that provide high yield and enable significant BoS cost savings. They provide up to 98.8% conversion efficiency, a wide operating range of 180-1000 V_{DC}, and four MPPTs for maximum energy harvest.



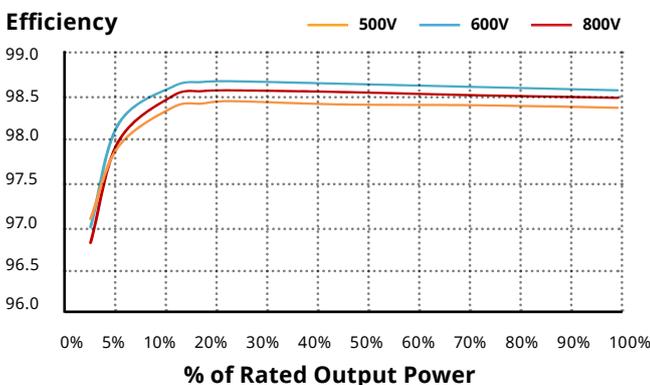
Standard warranty, extension up to 20 years

KEY FEATURES

- Maximum efficiency of 98.8%, Maximum EU efficiency of 98.3%
- Four MPPTs to achieve higher system efficiency
- Strings intelligent monitoring, Smart I-V Curve Diagnosis supported
- Up to 30% DC input oversize, 13A input for each PV string

EFFICIENCY CURVE

CSI-50K-T500GL02-E



For detailed information, please refer to the Installation Manual.

HIGH RELIABILITY

- Advanced thermal design and convection cooling
- Built in over-voltage and over-current protection
- DC reverse polarity and AC short circuit protection
- Fuse free design

BROAD ADAPTIBILITY

- IP65 rated for outdoor application
- Utility interactive controls: Active power derating, reactive power control and over frequency derating
- Integrated DC load rated disconnects
- Wide MPPT range for flexible string sizing
- High switching frequency and ultra fast MPPT for maximum efficiency over a wide load range

CANADIAN SOLAR INC. is committed to providing high quality solar products, solar system solutions and services to customers around the world. No. 1 module supplier for quality and performance/price ratio in IHS Module Customer Insight Survey. As a leading PV project developer and manufacturer of solar modules with over 40 GW deployed around the world since 2001.

CANADIAN SOLAR INC.

545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com

SYSTEM/TECHNICAL DATA

MODEL NAME	CSI-40K-T500GL02-E	CSI-50K-T500GL02-E
DC INPUT		
Max. PV Power	52kW	65kW
Max. DC Input Voltage		1100 V _{DC}
Start-up DC Input Voltage/Power		180 V _{DC}
Number of MPP Trackers		4
MPPT Voltage Range		200 - 1000 V _{DC}
Max. Input Current (Imp)		104A (26A per MPPT)
Max. Short Circuit Current (Isc)		160A (40A per MPPT)
Number of DC Inputs		8 (2 per MPPT)
DC Disconnection Type		Load rated DC switch
AC OUTPUT		
Rated AC Output Power	40 kW	50 kW
Max. AC Output Power	44 kW	55 kW
Rated Output Voltage*		480 V _{AC}
Grid Connection Type		3W / N / PE
Rated Grid Output Current	48.1 A	60.1 A
Max Output Current	53 A	66.2 A
Rated Output Frequency		50 / 60 Hz
Output Frequency Range*		47 - 52 / 57 - 62 Hz
Power Factor		>0.99 (0.8 leading ... 0.8 lagging)
Current THD		< 3%
DC Injection Current		< 0.5 % of Rated Grid Output Current
SYSTEM		
Max. Efficiency		98.8 %
EU Efficiency		98.3 %
Night Consumption		< 1 W
Anti-PID Module		Optional
ENVIRONMENT		
Protection Degree		IP65
Cooling		Natural Convection Cooling
Operating Temperature Range		-25 ° C to +60 ° C
Storage Temperature Range		-40 ° C to +70 ° C
Operating Humidity		0 - 100 % condensing
Operating Altitude		4000 m
Audible Noise		<30 dBA @ 1 m
DISPLAY AND COMMUNICATION		
Display		LCD, 2×20 Z
Communication		WIFI/RS485 Optional
MECHANICAL DATA		
Dimensions (W / H / D)		647 x 629 x 252 mm
Weight		45 kg
Installation Angle		0~15 Degrees from Vertical
DC Inputs		MC4
SAFETY		
Safety and EMC Standard		IEC 62109-1/2, IEC 61000-6-1/2/3/4
Grid Standard		IEC 62116, IEC 61727

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

The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. Canadian Solar Inc. reserves the right to make necessary adjustment to the information described herein at any time without notice.

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.

CANADIAN SOLAR INC.

545 Speedvale Avenue West, Guelph, Ontario N1K 1E6, Canada, www.canadiansolar.com

May 2020, All rights reserved. PV Inverter Product Datasheet V1.1_EN