



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 200-1000 V_{DC}, and four MPPTs for maximum energy harvest.



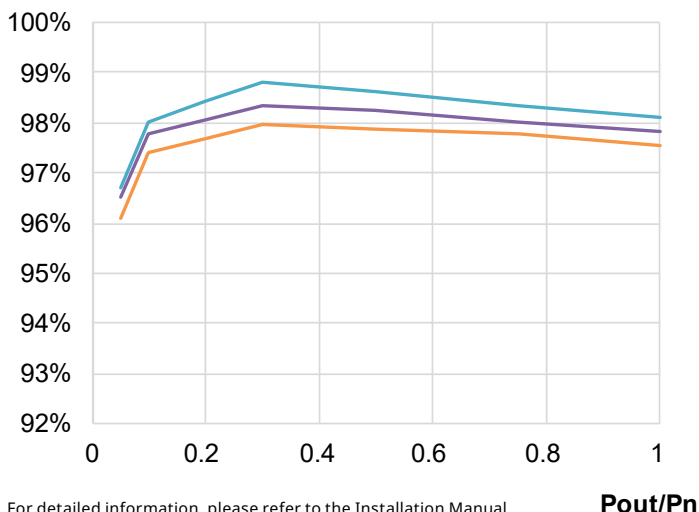
standard warranty, extension up to 20 years

KEY FEATURES

- Maximum efficiency of 98.8%, Maximum EU efficiency of 98.4%
- Four MPPTs to achieve higher system efficiency
- Strings intelligent monitoring, Smart I-V Curve Diagnosis supported
- Up to 30% DC input oversize, 16A input for each PV string

EFFICIENCY CURVE

CSI-50K-T500GL03-E



For detailed information, please refer to the Installation Manual.

Pout/Pn

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

- IP66 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

CSI SOLAR CO., LTD. is committed to providing high quality solar products, solar system solutions and services to customers around the world. Canadian Solar was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey, and is a leading PV project developer and manufacturer of solar modules, with over 55 GW deployed around the world since 2001.

CSI SOLAR CO., LTD.

199 Lushan Road, SND, Suzhou, Jiangsu, China www.csisolar.com

SYSTEM/TECHNICAL DATA

MODEL NAME	CSI-40K-T500GL03-E	CSI-50K-T500GL03-E
Input DC		
Recommended max. PV power	60 kW	75 kW
Max. input voltage	1100 V	
Rated voltage	600 V	
Start-up voltage	180 V	
MPPT voltage range	200-1000 V	
Max. input current	4*32 A	
Max. short circuit current	4*40 A	
MPPT number/Max. input strings number	4/8	
Output AC		
Rated output power	40 kW	50 kW
Max. apparent output power	44 kVA	55 kVA
Max. output power	44 kW	55 kW
Rated grid voltage	3/PE, 480 V	
Rated grid frequency	50 Hz / 60 Hz	
Rated grid output current	48.1 A	60.1 A
Max. output current	53.0 A	66.2 A
Power factor	>0.99 (0.8 leading - 0.8 lagging)	
THDi	<3%	
Efficiency		
Max. efficiency	98.8%	
EU efficiency	98.4%	
Protection		
DC reverse-polarity protection	Yes	
Short circuit protection	Yes	
Output over current protection	Yes	
Surge protection	DC Type II / AC Type II	
Grid monitoring	Yes	
Anti-islanding protection	Yes	
Temperature protection	Yes	
Strings monitoring	Yes	
I/V Curve scanning	Yes	
Integrated AFCI (DC arc-fault circuit protection)	Yes ⁽¹⁾	
Integrated PID recovery	Optional	
Integrated DC switch	Yes	
General Data		
Dimensions (W*H*D)	647*629*252 mm	
Weight	37 kg	
Topology	Transformerless	
Self-consumption (night)	<1 W	
Operating ambient temperature range	-25 ~ +60°C	
Relative humidity	0-100%	
Ingress protection	IP66	
Cooling concept	Intelligent redundant fan-cooling	
Max. operation altitude	4000 m	
Compliance	UL 1741, IEEE 1547, UL 1699B, UL 1998, FCC, UL 1741SA	
Features		
DC connection	MC4 connector	
AC connection	OT terminal	
Display	LCD	
Communication	RS485, Optional: Wi-Fi, GPRS	

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. CSI Solar Co., Ltd. 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.

CSI SOLAR CO., LTD.

199 Lushan Road, SND, Suzhou, Jiangsu, China www.csisolar.com

May 2021, All rights reserved. PV Inverter Product Datasheet V1.2_MEX