



THREE PHASE STRING INVERTER 50 KW

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

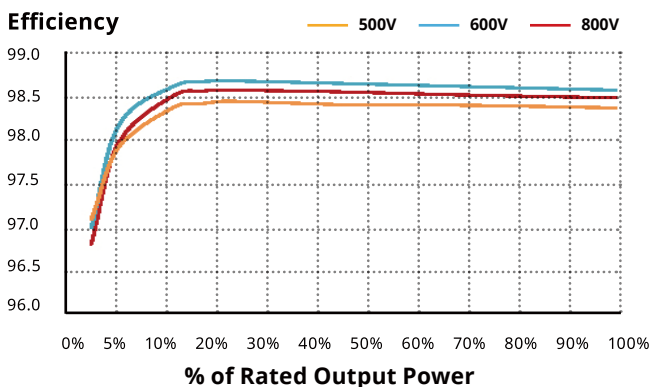
- Maximum efficiency of 98.8%, Maximum EU efficiency of 98.4%
- Four MPPTs to achieve higher system efficiency
- Strings intelligent monitoring, Smart I-V Curve Diagnosis supported
- Up to 50% DC input oversize, 16A input for each PV string

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

EFFICIENCY CURVE

CSI-50K-T500GL03-E



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

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 63 GW deployed around the world since 2001.

For detailed information, please refer to the Installation Manual.

CANADIAN SOLAR INC.

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SYSTEM/TECHNICAL DATA

MODEL NAME	CSI-50K-T500GL03-E
DC INPUT	
Max. PV Power	75 kW
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)	128 A (32 A per MPPT)
Max. Short Circuit Current (Isc)	160 A (40 A per MPPT)
Number of DC Inputs	8 (2 per MPPT)
DC Disconnection Type	Load rated DC switch
AC OUTPUT	
Rated AC Output Power	50 kW
Max. AC Output Power	55 kW
Rated Output Voltage*	480 V _{AC}
Grid Connection Type	3W / N / PE
Rated Grid Output Current	60.1 A
Max Output Current	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	98.4 %
Night Consumption	< 1 W
Anti-PID Module	Optional
Integrated AFCI	YES
ENVIRONMENT	
DC / AC SPD	DC SPD Type II / AC SPD Type II
Protection Degree	IP66
Cooling	Intelligent redundant fan-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
DISPLAY AND COMMUNICATION	
Display	LCD, 2 × 20 Z
Communication	WIFI / RS485
MECHANICAL DATA	
Dimensions (W / H / D)	647 x 629 x 252 mm
Weight	37 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.

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