

THREE PHASE STRING INVERTER 15-30 KW

CSI-15KTL-GI-LFL | CSI-20KTL-GI-LFL CSI-30KTL-GI-L

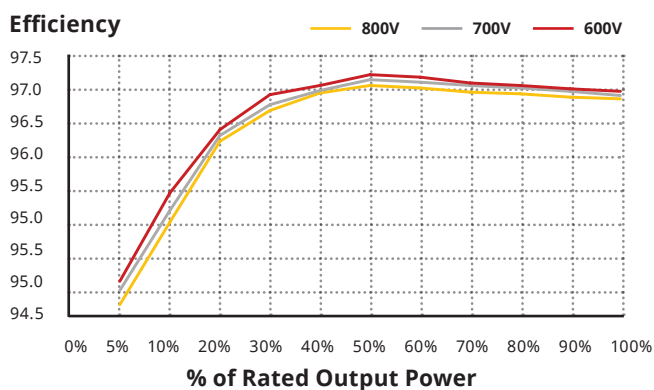
Canadian Solar's grid-tied, transformer-less string inverters help to accelerate the use of three-phase string architecture for commercial rooftop and small ground-mount applications. An NRTL approved, cost-effective alternative to central inverters, these inverters are modular design building blocks that provide high yield and enable significant BoS cost savings. They provide up to 97% conversion efficiency, a wide operating range of 200-850 V_{DC}, and two MPPTs for maximum energy harvest.

KEY FEATURES

- Maximum efficiency of 97%,
Maximum EU efficiency of 96.5%
- 2 MPPTs to achieve higher system efficiency
- Transformerless design
- High switching frequency and ultra fast MPPT for maximum efficiency over a wide load range

EFFICIENCY CURVE

CSI-20KTL-GI-LFL@220 V_{AC}



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

CANADIAN SOLAR (USA), INC.

3000 Oak Road, Suite 400, Walnut Creek, CA 94597, USA | www.canadiansolar.com/na | sales.us@canadiansolar.com



CSI-15KTL-GI-LFL |
CSI-20KTL-GI-LFL



CSI-30KTL-GI-L



Standard warranty, extension up to 20 years

HIGH RELIABILITY

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

BROAD ADAPTIBILITY

- IP65 rated for outdoor application
- Utility interactive controls: Active power derating, reactive power control and over frequency derating
- Integrated DC load rated disconnect
- Wide MPPT range for flexible string sizing

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 27 GW deployed around the world since 2001, Canadian Solar Inc. (NASDAQ: CSIQ) is one of the most bankable solar companies worldwide.

SYSTEM/TECHNICAL DATA			
MODEL NAME	CSI-15KTL-GI-LFL	CSI-20KTL-GI-LFL	CSI-30KTL-GI-L
DC INPUT			
Max. PV Power	18 kW	24 kW	36 kW
Max. DC Input Voltage	1000 V _{DC}		1100 V _{DC}
Start-up DC Input Voltage/Power	350 V _{DC}		200 V _{DC}
Number of MPP Trackers	2		
MPPT Voltage Range	200 - 800 V _{DC}		200 - 850 V _{DC}
Max. Input Current (Imp)	40 A (20 A per MPPT)		57 A (28.5 A per MPPT)
Max. Short Circuit Current (Isc)	56.2 A (28.1 A per MPPT)		89 A (44.5 A per MPPT)
Number of DC Inputs	4 (2 per MPPT)		6 (3 per MPPT)
DC Disconnection Type	Load rated DC switch		
AC OUTPUT			
Rated AC Output Power	15 kW	20 kW	30 kW
Max. AC Output Power	16.5 kW	20 kW	30 kW
Rated Output Voltage	220 V _{AC}		
Output Voltage Range*	180 - 270 V _{AC}		
Grid Connection Type	3 Φ / PE		
Rated Grid Output Current	39.4 A	52.5 A	78.8 A
Max Output Current	43.3 A	52.5 A	78.8 A
Rated Output Frequency	50 / 60 Hz		
Output Frequency Range*	47 - 52 / 57 - 62 Hz		
Power Factor	1 default (±0.8 adjustable)		
Current THD	< 3 %		
DC Injection Current	< 50 mA		
AC Disconnect Type	Not Available		Load rated AC switch
SYSTEM			
Topology	Transformerless		
Max. Efficiency	97.0 %		
EU Efficiency	96.5 %		
Night Consumption	< 1 W		
ENVIRONMENT			
Protection Degree	IP65		
Cooling	Natural Convection Cooling		Intelligent Redundant 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 + LED		
Communication	Standard: RS485 (Modbus)		
MECHANICAL DATA			
Dimensions (W / H / D)	530 x 700 x 356.5 mm		630 x 700 x 357 mm
Weight	58.2 kg		63 kg
Installation Angle	90 degrees from horizontal		
DC Inputs	MC4 compatible		
SAFETY			
Safety and EMC Standard	IEC62109-1/-2, AS3100, EN61000-6-1, EN61000-6-3		
Grid Standard	EN50438, G59/3, AS4777, VDE0126-1-1, IEC61727		
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.