



THREE PHASE STRING INVERTER 20-30 KW

CSI-20KTL-GI-FL | CSI-25KTL-GI-FL
CSI-30KTL-GI-FL

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 98.8% conversion efficiency, a wide operating range of 200-800 Vdc, and four MPPTs for maximum energy harvest.



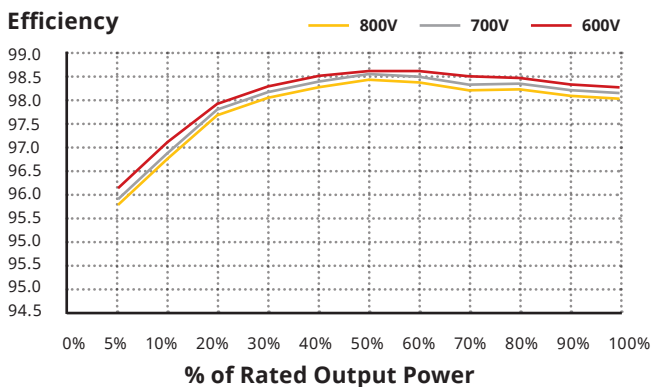
Standard warranty, extension up to 20 years

KEY FEATURES

- Maximum efficiency of 98.6%, Maximum IEC efficiency of 98.3%
- 4 MPPTs to achieve higher system efficiency
- Transformerless design
- High switching frequency and ultra fast MPPT (<5 sec.) for maximum efficiency over a wide load range

EFFICIENCY CURVE

CSI-30KTL-GI-FL@380 Vac



*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

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
- 90 degree installation angle
- Supports up to 8 DC string inputs (2 per MPPT)

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 25 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 | sales.us@canadiansolar.com

SYSTEM/TECHNICAL DATA			
MODEL NAME	CSI-20KTL-GI-FL	CSI-25KTL-GI-FL	CSI-30KTL-GI-FL
DC INPUT			
Max. PV Power	23 kW (13.5 kW/MPPT)	28 kW (13.5 kW/MPPT)	34 kW (13.5 kW/MPPT)
Max. DC Input Voltage		1000 V _{DC}	
Operating DC Input Voltage Range		200-800 V _{DC}	
Start-up DC Input Voltage/Power		350 V	
Number of MPP Trackers		4	
MPPT Voltage Range	278-800 V _{DC}	347-800 V _{DC}	417-800 V _{DC}
Operating Current (Imp)		72 A (18 A per MPPT)	
Max. Input Current (Isc)		112.4 A (28.1 A per MPPT)	
Number of DC Inputs		8 (2 per MPPT)	
DC Disconnection Type		Load rated DC switch	
AC OUTPUT			
Rated AC Output Power	20 kW	25 kW	30 kW
Max. AC Output Power	22 kW	27.5 kW	33 kW
Rated Output Voltage		380/400 V _{AC}	
Output Voltage Range*		304-460 V _{AC}	
Grid Connection Type		3 Φ /PE	
Nominal AC Output Current @480 Vac	30.3/28.7 A	37.9/36.1 A	45.5/43.3 A
Rated Output Frequency		50/60 Hz	
Output Frequency Range*		47-52/57-62 Hz	
Power Factor		1 default (\pm 0.8 adjustable)	
Current THD		< 3 %	
SYSTEM			
Topology		Transformerless	
Max. Efficiency		98.6 %	
CEC Efficiency		98.3 %	
Night Consumption		< 1 W	
ENVIRONMENT			
Protection Degree		IP65	
Cooling		Natural Convection Cooling	
Operating Temperature Range		-25 ° C to +60 ° C	
Storage Temperature Range		-40 F to + 158 ° F / -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	
Weight		58.2 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.