

# 100kW Grid-tied PV Inverter for North America

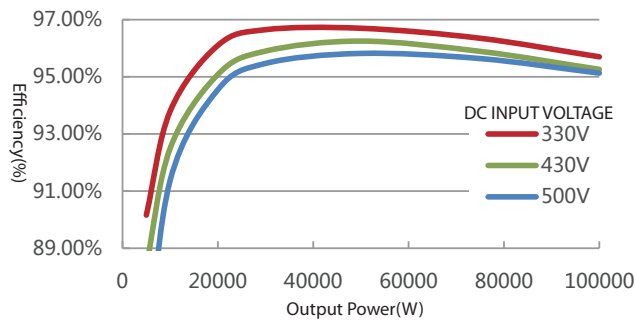
The CPS SC100KT-O/US-480 grid-tied PV inverter is designed for the North America market. The output is designed with a built-in transformer to allow direct connection to low voltage grid. The inverter achieves a 96.8% max efficiency with low loss magnetic materials, advanced MPPT control and variable structure SVPWM controls to minimize the power loss.

The inverter enclosure is rated NEMA 3R for outdoor applications and its compact design minimizes the space required for installation. It also features film-type capacitors, enhanced DSP control, comprehensive protection functions and advance thermal design to make the whole system highly reliable.



CPS SC100KT-O/US-480

## Efficiency Curve



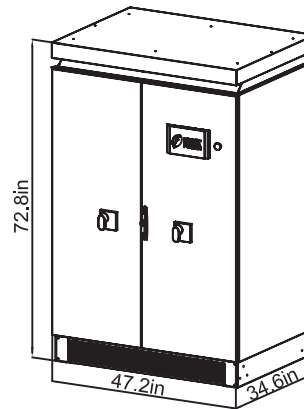
## High Efficiency

- Max. efficiency of 96.8%, CEC efficiency of 96%
- High speed and precise MPPT algorithm
- Patented SVPWM control technique with precise thermal design to achieve high efficiency over wide load range

## High Reliability

- Standard warranty: 5 years, warranty up to 20 years
- Design for reliability
- Comprehensive protection functions
- Enhanced DSP control system
- Advanced thermal design, with variable speed fans
- Anti-Islanding protection
- Innovative integrated inductors & transformer
- Redundant controller for system protection
- Ground-fault detection and interruption circuit

## Dimensions



## Broad Adaptability

- NEMA 3R (IP44) Rain proof & Ice/Sleet proof enables indoor/outdoor application
- High altitude application
- Communication interface: RS485 (Modbus)
- Reactive power adjusting and active power derating
- Integrated ground fault detector interrupt
- Integrated AC/DC surge protection
- Negative grounded (positive grounded as an option)
- Wide MPPT range enables flexible stringing



Model Name	CPS SC100KT-O/US-480	CPS SC100KT-OPG/US-480
<b>DC Input</b>		
Max. PV Power	135kW	
Nominal DC Input Power	105kW	
Max. DC Input Voltage	600Vdc	
Operating DC Input Voltage Range	300-600Vdc	
Start-up DC Input Voltage / Power	330Vdc/700W	
Nominal DC Input Voltage	430Vdc	
Number of MPP Trackers	1	
MPPT Voltage Range	330-500Vdc	
Max. Input Current (Imp)	350A	
Max. Short Circuit Current (Isc)	410A	
Number of DC Inputs and Fuses	4 fused conductors	
Grounding	Negative	Positive
DC Disconnection Type	Breaker	
<b>AC Output</b>		
Rated AC Output Power	100kW	
Max. AC Output Power	100kW	
Rated Output Voltage	480Vac	
Output Voltage Range	422-528Vac	
Grid Connection Type	3Φ/PE	
Nominal AC Output Current @480Vac	120A	
Max AC Output Current @ 422Vac	120A	
Rated Output Frequency	60Hz	
Output Frequency Range	59.3-60.5Hz	
Power Factor	>0.99 (Adjustable +/- 0.9)	
Current THD	<3%	
AC Disconnection Type	Breaker	
<b>System</b>		
Topology	Transformer	
Max. Efficiency	96.8%	
CEC Efficiency	96.0%	
Stand-by / Night Consumption	<50W/<40W	
<b>Environment</b>		
Protection Degree	NEMA 3R	
Cooling	Variable speed cooling fans	
Operating Temperature Range	-4°F to +140°F/- 20°C to +60°C (derating from +50°C/+122°F)	
Operating Humidity	0-95%, non-condensing	
Operating Altitude	6562ft/2000m (derating from 4921.3ft/1500m)	
<b>Display and Communication</b>		
Display	LCD+LED	
Communication	RS485 (Modbus)	
<b>Mechanical Data</b>		
Dimensions (WxHxD)	47.2x72.8x34.6in/1200x1850x880mm	
Weight	1984lbs/900kg	
<b>Safety</b>		
Safety and EMC Standard	UL1741:2010, CSA-C22.2 NO.107.1-01, IEEE1547; FCC PART15	
Grid Standard	IEEE1547:2003, IEEE1547.1:2005	