

# 20kW Grid-tied PV Inverter for North America

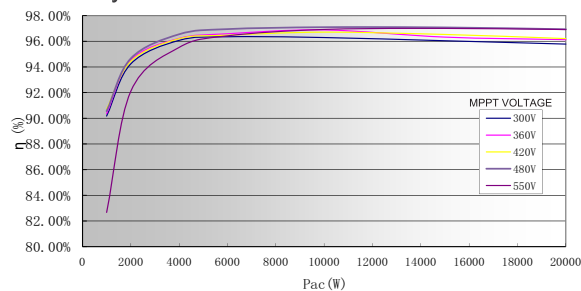
The CPS SC20KTL-DO/US-480 grid-tied PV inverter is a transformerless, three phase product designed for the North America market in compliance with UL and CSA standards. Patented 3-level control algorithm and thermal design provide 97.3% maximum efficiency.

CPS SC20KTL-DO/US-480 features small size, light weight and high power density. Multi flexible mounting modes make installation and maintenance easy and quick. The enclosure of the inverter is rated NEMA 3R (IP65) for general purpose outdoor applications. Enhanced DSP control, comprehensive protection functions and advanced thermal design enable a high reliability product with optional warranties up to 20 years.



CPS SC20KTL-DO/US-480

## Efficiency Curve



## High Efficiency

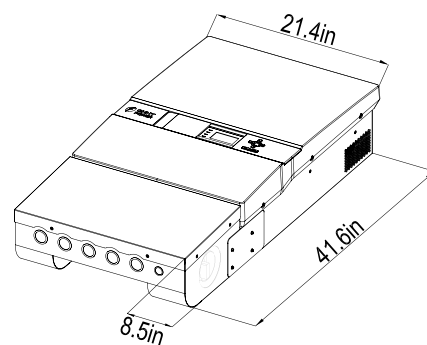
- Maximum efficiency of 97.3%, CEC efficiency of 96.5%
- 3-level technology and enhanced control mechanism to achieve high efficiency over wide load range
- High speed and precise MPPT algorithm
- 2 MPP trackers to achieve higher system efficiency
- Transformerless design

## High Reliability

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

## Broad Adaptability

- NEMA 3R (IP65), outdoor application
- Multi mounting modes, quick installation and easy maintenance
- High altitude application
- Integrated DC (+, -) and AC disconnect
- Wide MPPT range enables flexible stringing
- Light weight, compact design for commercial rooftops



Dimensions



Model Name	CPS SC20KTL-DO/US-480
<b>DC Input</b>	
Max. PV Power	27kW
Nominal DC Input Power	21kW
Max. DC Input Voltage	600Vdc
Operating DC Input Voltage Range	260-580Vdc
Start-up DC Input Voltage / Power	300V / 200W
Nominal DC Input Voltage	500Vdc
Number of MPP Trackers	2
MPPT Voltage Range	300-550Vdc
Max. Input Current	35Ax2
Number of DC Inputs and Fuses	4 conductors with fuse per each of two MPPT inputs
DC Disconnection Type	Switch
<b>AC Output</b>	
Rated AC Output Power	20kW
Max. AC Output Power	20kW
Rated Output Voltage	480Vac
Output Voltage Range	422-528Vac
Grid Connection Type	3Φ/ N / PE
Max AC Output Current	27.3A
Rated Output Frequency	60Hz
Output Frequency Range	59.3-60.5Hz
Power Factor	>0.99
Current THD	<3%
AC Disconnection Type	Switch
<b>System</b>	
Topology	Transformerless
Max. Efficiency	97.3%
CEC Efficiency	96.5%
Stand-by / Night Consumption	<20W / <2W
<b>Environment</b>	
Protection Degree	NEMA 3R
Cooling	Variable speed cooling fans
Operating Temperature Range	-13°F to +140°F / - 25°C to +60°C (derating from +55°C / +131°F)
Operating Humidity	0-95%, non-condensing
Operating Altitude	6562ft / 2000m (derating from 4921ft / 1500m)
<b>Display and Communication</b>	
Display	LCD + LED
Communication	RS485
<b>Mechanical Data</b>	
Dimensions (WxHxD)	21.4x41.6x8.5in / 544x1058x215mm
Weight	132lbs / 63kg
<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

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