

# 14/20kW Grid-tied PV Inverter for North America

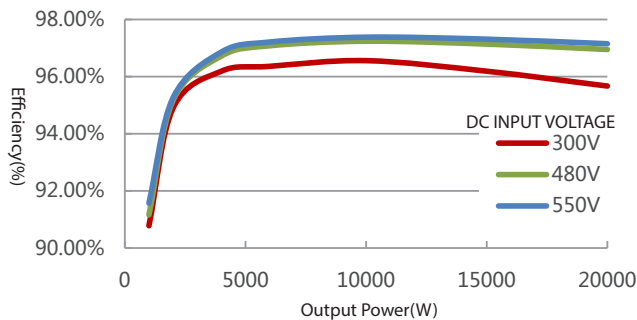
CPS is a fast growing global inverter manufacturer with over 500MW's of product operating in 18 countries. CPS is focused on delivering the best lifecycle value in the industry with performance leadership that will surprise you, cost leadership delivered with a world class supply chain and bankability from a diversified and global company that is here to support you and your investment.

The CPS SC14/20KTL-DO grid-tied transformer-less PV inverter is an ideal building block for 600VDC commercial three phase applications. The integrated and flexible wiring box eliminates the need for DC combiner boxes in the field. Dual, and independent, MPPT's enable granular power conversion and design flexibility. The unit is easily serviceable with a replacement unit in the field, significantly improving uptime over the life of the system.



CPS SC14KTL-DO/US-208  
CPS SC20KTL-DO/US-480

## Efficiency Curve



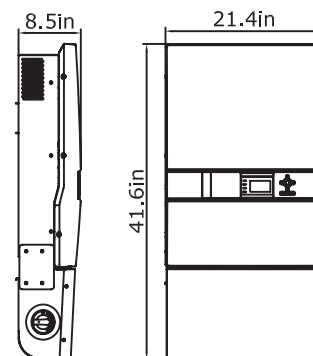
## Efficient and Flexible

- Maximum efficiency: 96.7% (14kW), 97.4% (20kW)
- Flat, award winning, efficiency curve
- Wide full load MPPT window
- Dual, independent MPPT channels increase energy harvest
- Broad operating temperature: -13°F to +140°F
- Supports 1.35 DC/AC ratio

## Robust and Reliable

- NEMA 4 (IP65) for outdoor application
- Approved for direct sunlight installation
- Warranty up to 20 years
- Enhanced DSP and redundant system protection
- Advanced thermal design
- System HALT Tested (-94 to +211°F)

## Dimensions



## Intelligent Features and Integration

- Flexible input stringing between 1-8 inputs
- Integrated AC/DC switch
- Light weight for rooftop installation
- Integrated GFCI
- Arc Fault Detection and Interruption (Factory option - contact CPS to enable)
- Power factor ( $\pm 0.9$ ) and curtailment controls
- Integrated standard modbus communication



Model Name	CPS SC14KTL-DO/US-208	CPS SC20KTL-DO/US-480
<b>DC Input</b>		
Max. PV Power	19kW (9.5kW/MPPT)	27kW (13.5kW/MPPT)
Nominal DC Input Power	14.6kW	21kW
Max. DC Input Voltage	600Vdc	
Operating DC Input Voltage Range	180-580Vdc	260-580Vdc
Start-up DC Input Voltage / Power	300V/100W	
Nominal DC Input Voltage	400Vdc	500Vdc
Number of MPP Trackers	2	
MPPT Voltage Range	300-540Vdc	300-550Vdc
Operator Current (Imp)	50A (25A per MPPT)	70A (35A per MPPT)
Max. Input Current (Isc)	90A (45A per MPPT)	91A (45.5A per MPPT)
Number of DC Inputs and Fuses	8 fused conductors (4 per MPPT)	
DC Disconnection Type		
<b>AC Output</b>		
Rated AC Output Power	14kW	20kW
Max. AC Output Power	14kW	20kW
Rated Output Voltage	208Vac	480Vac
Output Voltage Range	183-228Vac	422-528Vac
Grid Connection Type	3Φ/N/PE	3Φ/N/PE (Optional Neutral Connection)
Max AC Output Current	39A	24A
Rated Output Frequency	60Hz	
Output Frequency Range	57-63Hz	
Power Factor	>0.99 (±0.8 adjustable)	
Current THD	<3%	
AC Disconnection Type	Load rated AC switch	
<b>System</b>		
Topology	Transformerless	
Max. Efficiency	96.7%	97.4%
CEC Efficiency	96.0%	97.0%
Stand-by / Night Consumption	<20W/<2W	
<b>Environment</b>		
Protection Degree	NEMA 4 (IP65)	
Cooling	Variable speed cooling fans	
Operating Temperature Range	-13°F to +140°F/- 25°C to +60°C (derating from +122°F/+50°C)	
Operating Humidity	0-95%, non-condensing	
Operating Altitude	13123ft/4000m (derating from 6562ft/2000m)	
<b>Display and Communication</b>		
Display	LCD+LED	
Communication	RS485	
<b>Mechanical Data</b>		
Dimensions (WxHxD)	21.4x41.6x8.5in/544x1058x215mm	
Weight	141lbs/64kg	
<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	