

# 36kW, 1000Vdc String Inverters for North America

The medium power series of grid-tied, transformerless inverters help to accelerate the use of 1000Vdc and three phase string architecture for commercial and small ground mount utility applications. A NRTL approved, cost effective alternative to central inverters enabling BoS cost savings, high harvest performance and modular design building blocks. These models provide up to 98.6% conversion efficiency and wide operating window of 300-950Vdc and dual MPPT's for maximum cash-flow generation.

### **Efficiency Curve**

CPS SCA36KTL-DO/US-480



## **High Efficiency**

- Maximum efficiency of 98.6%, CEC efficiency of 98%
- 3-level technology and enhanced control mechanism to achieve high efficiency over wide load range
- 2 MPPTs to achieve higher system efficiency
- Transformerless design

## **High Reliability**

- "Electrolyte-free design" for improved long-term reliability
- Standard warranty: 5 years, extension up to 20 years
- Advanced thermal design, with variable speed fans
- Ground-fault detection and interruption circuit
- AFCI Integrated (per UL1699B, Factory Enabled Option)





CPS SCA36KTL-DO/US-480

#### Dimensions



#### **Broad Adaptability**

- NEMA 4 (IP65), outdoor application
- Utility interactive controls : Active power derating, reactive power control
- Separate wiring box design
- Integrated DC, AC disconnects
- Wide MPPT range for flexible string sizing
- 1000V Max. DC input voltage for flexible configuration
- 15 90 degree installation angle



Model Name	CPS SCA36KTL-DO/US-480
DC Input	
Max. PV Power	48.6kW (24.3kW/MPPT)
Nominal DC Input Power	37kW
Max. DC Input Voltage	1000Vdc
Operating DC Input Voltage Range	300-950Vdc
Start-up DC Input Voltage / Power	330V/300W
Number of MPP Trackers	2
MPPT Voltage Range	540-800Vdc
Max Input Power	24.5kW (per MPPT)
Max. Input Current (Imp)	70A (35A per MPPT)
Number of DC Inputs	8 inputs, 4 per MPPT
DC Disconnection Type	Load rated DC switch
AC Output	
Rated AC Output Power	36kW
Max. AC Output Power	36kW
Rated Output Voltage	480Vac
Output Voltage Range*	422-528Vac
Grid Connection Type	3 <b>Φ</b> /PE
Nominal AC Output Current @480Vac	43.5A
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
System	
Topology	Transformerless
Max. Efficiency	98.6%
CEC Efficiency	98.0%
Stand-by / Night Consumption	<20W/<2W
Environment	
Protection Degree	NEMA 4
Cooling	Variable speed cooling fans
Operating Temperature Range	-13°F to +140°F/- 25°C to +60°C (derating from +113°F/+45°C)
Operating Humidity	0-95%, non-condensing
Operating Altitude	13123.4ft/4000m (derating from 6561.7ft/2000m)
Display and Communication	
Display	LCD+LED
Communication	Standard: RS485 (Modbus)
Mechanical	
Dimensions (WxHxD)	600×1000×230mm
Weight	122lbs/55kg
Installation Angle	15 - 90 degrees from horizontal
Safety	
Safety and EMC Standard	UL1741:2010, CSA-C22.2 NO.107.1-01, IEEE1547; FCC PART16
Grid Standard	IEEE1547: 2003, IEEE1547.1: 2006

\*The "Output Voltage Range" and "Output Frequency Range" may differ according to specific grid standard.