

# 25kW, 1000Vdc String Inverters for North America

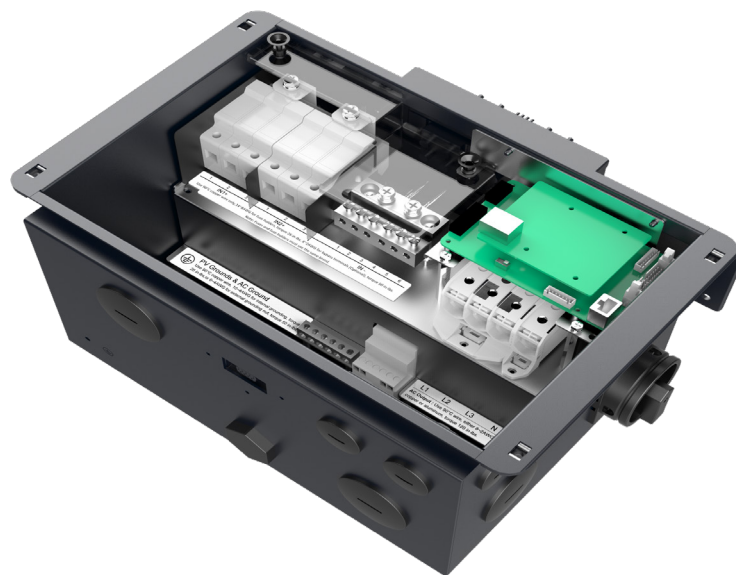
The 25kW CPS three phase string inverter is designed for rooftop and carport applications. These units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 98.5% peak and 98.0% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 25KTL product ships with a Rapid Shutdown wire-box, fully integrated and separable with touch safe fusing, monitoring, and AC and DC disconnect switches. The integrated PLC transmitter in the Rapid Shutdown wire-box enables PVRSS certified module-level rapid shutdown when used with the Tigo TS4-F/TS4-A-F products, APS RSD-S-PLC-A products, and NEP PVG-4 products. The CPS Flex Gateway enables monitoring, controls and remote product upgrades.



CPS SCA25KTL-DO-R/US-480

## Key Features

- NEC 2017 PVRSS Certified Rapid Shutdown
- NEC 2017 compliant & UL listed Arc-Fault circuit protection
- 15-90° Mounting orientation for low profile roof installs
- 15° tilt Inverter Rack assembly available from CPS
- Optional Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 2 MPPT's with 3 inputs each for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- UL1741 SA Certified to CA Rule 21, including SA14 FW and SA15 VW
- Separable wire-box design for fast service
- Standard 10 year warranty with extensions to 20 years
- Generous 1.5 DC/AC Inverter Load Ratio



SCA25KTL Wire-box



Model Name	CPS SCA25KTL-DO-R/US-480
<b>DC Input</b>	
Max. PV Power	37.5kW (22kW per MPPT)
Max. DC Input Voltage	1000Vdc
Operating DC Input Voltage Range	200-950Vdc
Start-up DC Input Voltage / Power	330V / 80W
Number of MPP Trackers	2
MPPT Voltage Range @ PF>0.99 <sup>1</sup>	560-850Vdc
Max. PV Short-Circuit Current (Isc x 1.25)	90A (45A/MPPT)
Number of DC Inputs	6 inputs, 3 per MPPT
DC Disconnection Type	Load-rated DC switch
DC Surge Protection	Type II MOV, 1240V <sub>C</sub> , 15kA I <sub>TM</sub> (8/20 $\mu$ S)
<b>AC Output</b>	
Rated AC Output Power @ PF=1	25KW
Max. AC Apparent Power	25KVA
Rated Output Voltage	480Vac
Output Voltage Range <sup>2</sup>	422 - 528Vac
Grid Connection Type	3 $\Phi$ / PE / N (Neutral optional)
Max. AC Output Current @480Vac	30.5A
Rated Output Frequency	60Hz
Output Frequency Range <sup>2</sup>	57 - 63Hz
Power Factor	>0.99 ( $\pm$ 0.8 adjustable)
Current THD @ Rated Load	<3%
Max. OCPD Rating	50A
AC Disconnection Type	Load-break rated AC switch
AC Surge Protection	Type II MOV, 1025V <sub>C</sub> , 15kA I <sub>TM</sub> (8/20 $\mu$ S)
<b>System and Performance</b>	
Topology	Transformerless
Max. Efficiency	98.5%
CEC Efficiency	98.0%
Stand-by / Night Consumption	<1W
<b>Environment</b>	
Enclosure Protection Degree	NEMA Type 4X
Cooling Method	Variable speed cooling fans
Operating Temperature Range	-22°F to +140°F / - 30°C to +60°C
Non-Operating Temperature Range <sup>3</sup>	No low temp minimum to +158°F / +70°C maximum
Operating Humidity	0 to 100%
Operating Altitude	13,123.4ft / 4000m (derating from 9842.5ft / 3000m)
Audible Noise	<50dBA @ 1m
<b>Display and Communication</b>	
User Interface and Display	LED+Wifi
Inverter Monitoring	SunSpec, Modbus RS485
Site Level Monitoring	CPS Flex Gateway (1 per 32 inverters)
Modbus Data Mapping	CPS
Remote Diagnostics / FW Upgrade Functions	Standard / (with Flex Gateway)
<b>Mechanical</b>	
Dimensions (HxWxD)	Inverter: 15.95 x 15.75 x 7.87in (405 x 400 x 200mm) Wirebox: 10.24 x 15.75 x 7.87in (260 x 400 x 200mm)
Weight	Inverter: 48.5lbs/22kg; Wire-box: 13.23lbs/6kg
Mounting / Installation Angle	15 to 90 degrees from horizontal (vertical or angled)
AC Termination	Screw Clamp (Wire range: #8 - #2 AWG CU/AL)
DC Termination <sup>4</sup>	Screw Clamp, Wire range: #14 - #8AWG CU
Fused String Inputs (3 per MPPT)	15A fuses provided (Fuse values up to 20A acceptable)
<b>Safety</b>	
Certifications and Standards	UL1741SA-2016, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547a-2014; FCC PART15
Selectable Grid Standard and SRD	IEEE1547a-2014, CA Rule 21, ISO-NE
Smart-Grid Features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Volt-Watt
<b>Warranty</b>	
Standard	10 years
Extended Terms	15 and 20 years

1) See user manual for further information regarding MPPT Voltage Range when operating at non-unity PF.

2) The "Output Voltage Range" and "Output Frequency Range" may differ according to the specific grid standard.

3) See user manual for further requirements regarding non-operating conditions.

4) Wire-box only includes fuses/fuseholders on the positive polarity, compliant with NEC 2017, 690.9 (C).