

# 100/125kW, 1500Vdc String Inverters for North America



**CPS SCH100/125KTL-DO/US-600**

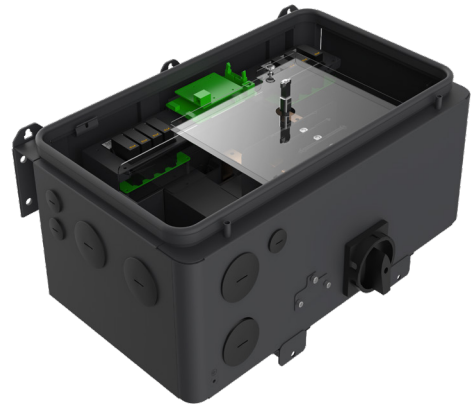
The 100 & 125kW medium power CPS three phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.0% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125kW products ship with the standard wire-box, each fully integrated and separable with touch safe fusing, monitoring, and AC and DC disconnect switches. The CPS Flex Gateway enables communication, controls and remote product upgrades.

## Key Features

- NEC 2014/17 compliant & UL listed Arc-Fault circuit protection
- Touch safe DC Fuse holders adds convenience and safety
- CPS Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 16 and 20 inputs for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Advanced Smart-Grid features (CA Rule 21 compatible)
- kVA Headroom yields 100kW @ 0.9PF and 125kW @ 0.95PF
- Generous 1.5 DC/AC Inverter Load Ratio
- Separable wire-box design for fast service
- Standard 10 year warranty with extensions to 20 years



100/125kW Standard Wire-box



100/125kW Centralized Wire-box



Model Name	CPS SCA100KTL-DO/US-600	CPS SCA125KTL-DO/US-600
<b>DC Input</b>		
Max. PV Power	150kW	187.5kW
Max. DC Input Voltage	1500V	
Operating DC Input Voltage Range	860-1450Vdc	
Start-up DC Input Voltage / Power	900V / 250W	
Number of MPP Trackers	1	
MPPT Voltage Range	870-1300Vdc	
Max. PV Input Current (Isc x1.25)	220A	275A
Number of DC Inputs	16 fused inputs (Standard) / 2 (Centralized)	20 fused inputs (Standard) / 2 (Centralized)
DC Disconnection Type	Load rated DC switch	
DC Surge Protection	Type II MOV, Up=2.5kV , In=20kA(8/20us)	
<b>AC Output</b>		
Rated AC Output Power	100kW	125kW
Max. AC Output Power <sup>1</sup>	100kVA (111KVA @ PF>0.9)	125kVA (132KVA @ PF>0.95)
Rated Output Voltage	600Vac	
Output Voltage Range <sup>2</sup>	528-660Vac	
Grid Connection Type <sup>3</sup>	3Φ / PE / N (Neutral optional)	
Nominal AC Output Current @600Vac	106.9A	127.2A
Rated Output Frequency	60Hz	
Output Frequency Range <sup>2</sup>	57-63Hz	
Power Factor	>0.99 (±0.8 adjustable)	>0.99 (±0.8 adjustable)
Current THD	<3%	
AC Disconnection Type	Load rated AC switch (Standard Wire-box only)	
AC Surge Protection	Type II MOV, Up=2.5kV , In=20kA(8/20us)	
<b>System</b>		
Topology	Transformerless	
Max. Efficiency	99.0%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	<2W	
<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 (derating from +113°F / +45°C)	
Non-Operating Temperature Range <sup>4</sup>	-40°F to +158°F / -40°C to +70°C maximum <sup>4</sup>	
Operating Humidity	0-100%	
Operating Altitude	8202ft / 2500m (no derating)	
Audible Noise	<65dBA@1m and 25°C	
<b>Display and Communication</b>		
User Interface and Display	LED Indicators, WiFi + APP	
Inverter Monitoring	Modbus RS485, PLC Option (Standard Wire-box only)	
Site Level Monitoring	CPS Flex Gateway (1 per 70 inverters)	
Modbus Data Mapping	SunSpec/CPS	
Remote Diagnostics/FW Upgrade Functions	Standard	
<b>Mechanical</b>		
Dimensions (WxHxD)	45.28x24.25x9.84in (1150x616x250mm) with Standard Wire-box 39.37x24.25x9.84in (1000x616x250mm) with Centralized Wire-box	
Weight	Inverter: 121lbs / 55kg; Wire-box: 55lbs / 25kg (standard); 33lbs / 15kg (centralized)	
Mounting/Installation Angle	15 - 90 degrees from horizontal (vertical, angled)	
AC Termination <sup>5</sup>	M8 Stud Type Terminal Block (Wire range: #6 - 3/0AWG CU/AL <sup>5</sup> , Lugs not supplied) Screw Clamp Fuse Holder (Wire range: #12 - #6AWG CU) - Standard Wire-box	
DC Termination	Busbar, M8 PEMserts (Wire range: #1AWG - 250kcmil CU/AL, Lugs not supplied) - Centralized Wire-box	
Fused String Inputs	20A fuses provided (Fuse values of 15 or 20A allowed)	
<b>Safety</b>		
Safety and EMC Standard	UL1741-SA-2016, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547a-2014; FCC PART15	
Grid Standard	IEEE 1547a-2014, CA Rule 21	
Smart-Grid Features	Voltage-RideThru, Frequency-RideThru, Soft-Start, Volt-Var, Frequency-Watt	
<b>Warranty</b>		
Standard	10 years	
Extended Terms	15 and 20 years	

1) "Max. AC Apparent Power" rating valid within MPPT voltage range and temperature range of -30°C to +40°C (-22°F to +104°F) for 100KW PF ≥ 0.9 and 125KW PF ≥ 0.95

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

3) Wye neutral-grounded, Delta may not be corner-grounded.

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

5) AL requires bi-metallic compression lug or bi-metallic adapter.