

50/60kW, 1000Vdc String Inverters for North America

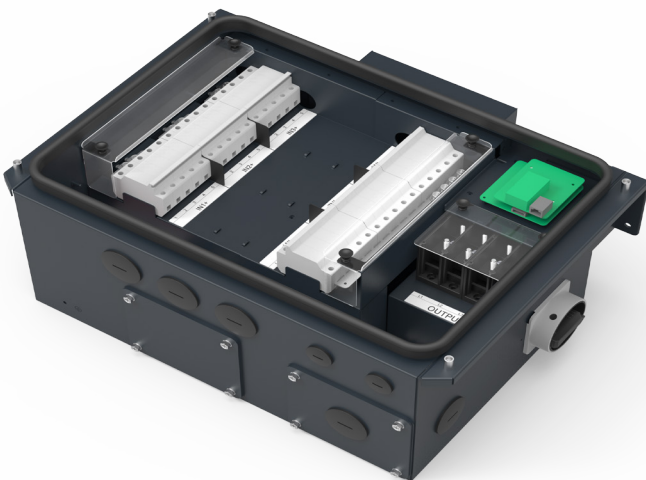
The 50 & 60kW medium power CPS three phase string inverters are designed for ground mount, large rooftop and carport applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 98.8% peak and 98.5% 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 50/60kW products ship with either the standard wire-box or the H4 style wire-box, each fully integrated and separable with touch safe fusing, monitoring, and AC and DC disconnect switches. The CPS Flex Gateway enables monitoring, controls and remote product upgrades.

Key Features

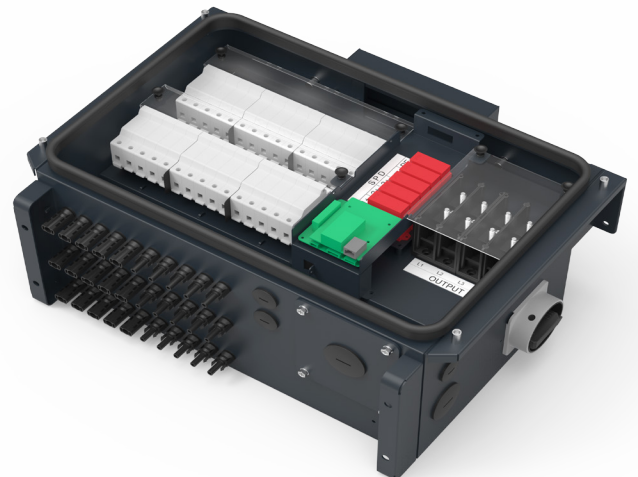
- NEC 2014 compliant & UL listed Arc-Fault circuit protection
- 0-90° Mounting orientation for lay flat roof installs
- Touch safe DC Fuse holders adds convenience and safety
- CPS Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- Optional factory installed H4 connectors
- 3 MPPT's with 5 inputs each 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)
- Separable wire-box design for fast service
- Standard 10 year warranty with extensions to 20 years
- Generous 1.5 DC/AC Inverter Load Ratio



CPS SCA50KTL-DO/US-480
CPS SCA60KTL-DO/US-480



50/60kW Standard Wire-box



50/60kW H4 Wire-box



Model Name	CPS SCA50KTL-DO/US-480	CPS SCA60KTL-DO/US-480
DC Input		
Max. PV Power	75kW (25kW per MPPT)	90kW (30kW 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	3	
MPPT Voltage Range	480-850Vdc	540-850Vdc
Max. DC Operating Current	108A (36A per MPPT)	114A (38A per MPPT)
Max. PV Input Current (Isc x 1.25)	180A (60A per MPPT)	
Number of DC Inputs	15 inputs, 5 per MPPT	
DC Disconnection Type	Load rated DC switch	
AC Output		
Rated AC Output Power	50kW	60kW
Max. AC Apparent Power	50kVA	60kVA
Rated Output Voltage	480Vac	
Output Voltage Range ¹	422 - 528Vac	
Grid Connection Type	3Φ / PE / N (Neutral optional)	
Max. AC Output Current @480Vac	60.2A	72.2A
Rated Output Frequency	60Hz	
Output Frequency Range ¹	57 - 63Hz	
Power Factor	>0.99 (±0.8 adjustable)	
Current THD @ Rated Load	<3%	
AC Disconnection Type	Load rated AC switch	
System and Performance		
Topology	Transformerless	
Max. Efficiency	98.8%	
CEC Efficiency	98.5%	
Stand-by / Night Consumption	<1W	
Environment		
Enclosure Protection Degree	NEMA Type 4X	
Cooling Method	Variable speed cooling fans	
Operating Temperature Range ²	-22°F to +140°F / - 30°C to +60°C (derating begins above +122°F / +50°C)	
Non-Operating Temperature Range ³	No low temp minimum to +158°F / +70°C maximum	
Operating Humidity	0 to 95%, non-condensing	
Operating Altitude	13123.4ft / 4000m (derating from 9842.5ft / 3000m)	
Audible Noise	<60dB @ 1m and 25°C	
Display and Communication		
User Interface and Display	LCD+LED	
Inverter Monitoring	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)	
Mechanical		
Dimensions (HxWxD)	39.4 x 23.6 x 10.24in. (1000 x 600 x 260mm)	
Weight	Inverter: 123.5lbs/56kg; Wire-box: 33lbs/15kg	
Mounting / Installation Angle ⁴	0 to 90 degrees from horizontal (vertical, angled, or lay flat)	
AC Termination ⁵	M8 Stud Type Terminal Block (Wire range: #6 - 2/0AWG CU/AL ⁵)	
DC Termination	Screw Clamp Fuse Holder (Wire range: #14 - #6AWG CU), Optional H4 (Amphenol)	
Fused String Inputs (5 per MPPT)	15A fuses provided (Fuse values up to 30A acceptable)	
Safety		
Safety and EMC Standard	UL1741-2010, UL1741SA-2016 ⁶ , UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547; FCC PART15	
Grid Standard and SRD	IEEE 1547-2003, CA Rule 21 ⁶	
Smart-Grid Features ⁶	Voltage-RideThru, Frequency-RideThru, Soft-Start, Volt-Var, Frequency-Watt, Volt-Watt	
Warranty		
Standard	10 years	
Extended Terms	15 and 20 years	

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

2) Derating above 50°C occurs when MPPT Voltage is 700-850Vdc

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

4) Shade Cover accessory required for installation angles of 75 degrees or less.

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

6) Certification Pending.