

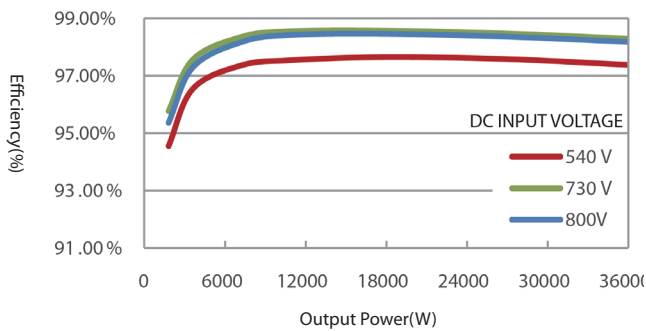
36kW, 1000Vdc String Inverters for North America

The 36kW medium-power CPS three-phase inverter has been designed for small commercial rooftop, ground mount, and carport applications. Featuring dual MPPTs, 98.5% peak efficiency, and a wide operating window, the CPS 36kW performs well across a variety of applications. This inverter includes a separable wire-box with generous wiring space to reduce installation time; flexible mounting options ranging from 15-90 degrees from horizontal; and integrated AC and DC disconnects as standard features. The CPS FlexOM Gateway enables monitoring and controls necessary in today's PV systems.



CPS SCA36KTL-DO/US-480

Efficiency Curve



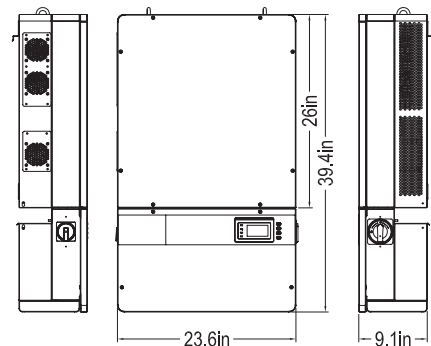
High Efficiency

- Maximum efficiency of 98.5%, CEC efficiency of 98%
- Three-level technology and enhanced control mechanism to achieve high efficiency over a wide load range
- 2 MPPTs to achieve higher system efficiency
- Transformerless design

High Reliability

- Standard warranty: 10 years, extension up to 20 years
- Advanced thermal design with variable speed fans
- Ground-fault detection and interruption circuit
- AFCI Integrated (per UL1699B)
- UL 1741-SA certified to CA Rule 21

Dimensions



Broad Adaptability

- NEMA 4X (IP65) rated for outdoor applications
- Utility interactive controls: active power derating, reactive power control
- Separable wire-box design for fast service
- Integrated DC & AC disconnect switches
- Wide MPPT range for flexible string sizing
- 1000V max. DC input voltage for flexible configuration
- 15 - 90 degree from horizontal installation angle
- AC output terminal compatible with AL/CU wire



| | |
|--|---|
| Model Name | CPS SCA36KTL-DO/US-480 |
| DC Input | |
| Max. PV power | 54kW (27kW per MPPT) |
| Max. DC input voltage | 1000Vdc |
| Operating DC input voltage range | 240-950Vdc |
| Start-up DC input voltage / power | 320V / 80W |
| Number of MPP trackers | 2 |
| MPPT voltage range | 540-800Vdc |
| Max. PV short-circuit current (I _{sc} x 1.25) | 125A (62.5A per MPPT) |
| Number of DC inputs | 10 inputs, 5 per MPPT |
| DC disconnection type | Load rated DC switch |
| DC surge protection | Type II MOV, 2000V _C 10kA I _{TM} (8/20μS) |
| AC Output | |
| Rated AC output power | 36kW |
| Max. AC apparent power | 36kVA |
| Rated output voltage | 480Vac |
| Output voltage range ¹ | 422 - 528Vac |
| Grid connection type | 3Φ / PE / N (neutral optional) |
| Max. AC output current @ 480Vac | 43.5A |
| Rated output frequency | 60Hz |
| Output frequency range ¹ | 57 - 63Hz |
| Power factor | >0.99 (±0.8 adjustable) |
| Current THD @ rated load | <3% |
| Max. fault current contribution (1 cycle RMS) | 73.2A (1.68 PU) |
| AC disconnection type | Load rated AC switch |
| AC surge protection | Type II MOV, 1500V _C 10kA I _{TM} (8/20μS) |
| System and Performance | |
| Topology | Transformerless |
| Max. efficiency | 98.5% |
| CEC efficiency | 98.0% |
| Stand-by / night consumption | <1W |
| Environment | |
| 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 ² | No low temp minimum to +158°F / +70°C maximum |
| Operating humidity | 0 to 100% |
| Operating altitude | 13,123.4ft / 4000m (derating from 6561.7ft / 2000m) |
| Audible noise | <50dBA @ 1m and 25°C |
| Display and Communication | |
| User interface and display | LCD+LED |
| Inverter monitoring | Modbus RS485 |
| Site-level monitoring | CPS FlexOM Gateway (1 per 32 inverters) |
| Modbus data mapping | CPS |
| Remote diagnostics / firmware upgrade functions | Standard / (with FlexOM Gateway) |
| Mechanical | |
| Dimensions (H x W x D) | Inverter: 26 x 23.6 x 9.1in. (660 x 600 x 230mm); wire-box 13.4 x 23.6 x 9.1in. (340 x 600 x 230mm) |
| Weight | Inverter: 121lbs/55kg; wire-box: 24lbs/11kg |
| Mounting / installation angle ³ | 15 to 90 degrees from horizontal (vertical or angled) ³ |
| AC termination | Screw clamp terminal block (wire range: #14 - 1/0AWG CU/AL) |
| DC termination | Screw clamp fuse holder (wire range: #14 - #6AWG CU) |
| Fused string inputs (5 per MPPT) ⁴ | 20A fuses provided (fuse values up to 30A acceptable) ⁴ |
| Safety | |
| Certifications and standards | UL1741SA-2016, UL1699B, CSA-C22.2 NO.107.1-01, IEEE1547; FCC PART15 |
| Selectable grid standard | IEEE 1547-2003, CA Rule 21, ISO-NE |
| Smart-grid features | 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) See user manual for further requirements regarding non-operating conditions.

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

4) Fuse values above 20A have additional spacing requirements. See user manual for further details.