We believe in green energy—in the ability to meet and contribute to growing power demand while supporting a smart grid that serves a smart society.

Solution at a glance

Far more than an inverter, the Conext SmartGen™ is the new paradigm for large-scale renewable power installations. It combines the best in power conversion technology with the Industrial Internet of Things to provide a better Levelized Cost of Energy.

- **More power generation and longer service life**: 30 year service life and conversion efficiency of 98.8% peak, 98.5% EU
- **Lower OPEX**: True Design for Service™ and cloud-connectivity for faster resolution of service events
- **Higher system availability**: reduce downtime with digital service support tools and advanced remote troubleshooting
- **Deploy everywhere**: designed and tested for any environment, NA and IEC codes and standards, and supported by a worldwide field service network
- **Secure**: backed by a bankable company with 180 years of history and two decades of experience in solar inverters

True Bankability with Schneider Electric

- **142,000 total workforce in 100+ countries**
- **180 years of history**
- **5% of Group revenues devoted to annual R&D spend**
- **€24.7 billion in consolidated revenue**
- **€3.7 billion adjusted EBITDA**

More than **10 GW** of Schneider Electric utility-scale inverters installed worldwide
Reliable and cloud-connected
Conext SmartGen™

**Lifetime reliability**
Through the most stringent selection and qualification of components, the Conext SmartGen™ is designed to have a 30-year service life. With ten years more power generation from the same power plant infrastructure compared to industry norms, Conext SmartGen inverters help reduce the cost of electricity.

The most demanding reliability and environmental testing methodology, developed through 20 years experience in the PV industry, has been applied to ensure that the Conext SmartGen™ maintains adequate operating margins over its entire lifetime, in even the most severe environments.

**True Design for Service™**
Ease of service was the driving force behind big and small decisions that shaped the Conext SmartGen™.

From a comprehensive suite of diagnostics, troubleshooting and maintenance tools to quickly replaceable sub-assemblies, every step of servicing has been meticulously optimized to minimize operating expenses.

- Designed for one hour mean time to repair and first time fix rate >97%
- Advanced configuration and service tool with local and remote functionality
- Easy access to all field replaceable systems and components

**Optimized maintenance services**
Reduce downtime with condition-based maintenance services and remote diagnostics.

- Cloud-based analytics and service support
- Advanced remote troubleshooting for increased service efficiency

**Local and remote interface – the Conext Viewer™**
The most advanced inverter interface yet, providing local Wi-Fi and Ethernet connectivity as well as remote data access to inverter operational data.

Advanced troubleshooting, lifetime service logging, online service documentation and help files—all the power and capabilities of the digital world supporting your Conext SmartGen™ inverter.

- Reduced learning curve that increases user satisfaction and minimizes risks
- Incorporates help tools that enable service personnel to do fast and accurate troubleshooting
Product options
Conext SmartGen™

IEC and NA versions
• NA version includes optional NEC compliant DC disconnect switches

∫ Reduced footprint
∫ Easier fuse servicing

Multiple grounding options
• Floating with permanent insulation monitoring
• Negative grounding with pre-connection insulation check, and RCD

∫ Enhanced personnel and equipment safety

Integrated communications and control panel
• Modbus RTU and Modbus TCP
• Optional communications hub for all skid mounted and field equipment
• Copper or fiber optic switch options available for the communications hub

∫ Allows for integrated monitoring and control hardware

Class I surge arrestors
• Selectable on DC and AC mains

∫ Enhanced protection against lightning strikes

Auxiliary power distribution panel
• Selection of auxiliary AC voltage (100/110/120/200/220/230/240V)
• Input circuit breaker with under voltage release
• Auxiliary consumption metering

∫ Elimination of external low voltage panel

Varied DC input configurations
• 10 to 14 inputs with 160 to 400A fusing
• Input channel current monitoring

∫ Wide range of overpaneling ratio
# Conext SmartGen™ NA Model

## Device short name

<table>
<thead>
<tr>
<th>CS1800</th>
<th>CS2000</th>
<th>CS2200</th>
<th>CS2400</th>
</tr>
</thead>
</table>

## Electrical specifications

### AC
- **Nominal output power at 40°C**
  - CS1800: 1800 kW / 2000 kVA
  - CS2200: 2200 kW / 2200 kVA
  - CS2400: 2200 kW / 2060 kW

- **Nominal output power at 50°C**
  - CS1800: 1800 kW / 2000 kVA
  - CS2000: 2000 kW / 2060 kVA
  - CS2200: 2060 kW

- **Nominal voltage**
  - CS1800: 575 V
  - CS2000: 575 V
  - CS2200: 600 V

- **Max. output current**
  - CS1800: 2008 A
  - CS2000: 2008 A
  - CS2200: 2117 A

- **Continuous operation output voltage range**
  - CS1800: +/- 20% (460 - 690 V)
  - CS2000: +/- 20% (460 - 690 V)
  - CS2200: +/- 15% (480 - 690 V)

- **Continuous operation frequency range**
  - CS1800: 50 / 60 Hz +/- 10%
  - CS2000: 50 / 60 Hz +/- 10%
  - CS2200: 50 / 60 Hz +/- 10%

- **Power factor**
  - CS1800: 1
  - CS2000: 1
  - CS2200: 1

- **Harmonic distortion (THDI)**
  - CS1800: < 3% at rated power
  - CS2000: < 3% at rated power
  - CS2200: < 3% at rated power

- **Weighted efficiency (EU weightings)**
  - CS1800: 98.5%
  - CS2000: 98.5%
  - CS2200: 98.5%

- **Weighted efficiency (CEC)**
  - CS1800: 98.5%
  - CS2000: 98.5%
  - CS2200: 98.5%

### DC
- **Max. input voltage range, MPPT**
  - CS1800: 865 - 1500 V
  - CS2000: 865 - 1500 V
  - CS2200: 905 - 1500 V

- **Max. input voltage, open circuit**
  - CS1800: 1500 V
  - CS2000: 1500 V
  - CS2200: 1500 V

- **Max. input operating current**
  - CS1800: 2123 A
  - CS2000: 2359 A
  - CS2200: 2481 A

- **DC breaker short-circuit current rating**
  - CS1800: 6000 A
  - CS2000: 6000 A
  - CS2200: 6000 A

- **Max. rated short circuit current**
  - With max. 14 DC inputs x 400 A fuse rating: 3584 A STC, 4480 A absolute max.

- **DC combiner**
  - Integrated

- **Number of DC inputs**
  - 10 to 14

- **DC fuse rating**
  - 160 A - 400 A

## General specifications

### Service life
- 30 years

### Power consumption, night time
- < 295 W

### Degree of protection
- Outdoor (Type 4X / IP65)

### Enclosure
- Aluminum

### Seismic rating
- IEEE 693-2005 qualification to high seismic performance levels (ZPA = 1.0g 2% damping)
- IBC ICC-ES AC156-2012 certification to a SDS equal to 1.78g and with a z/h equal to 0 and IP=1.5 UBC Zone 4

### Product weight (approx.)
- 2800 kg (6160 lb)

### Product dimensions (H x W x D)
- 220 x 300 x 130 cm (86.6 x 118.1 x 51.2 in)

### Ambient air temperature for operation
- -25°C to 60°C (-13°F to 140°F). Optional -30°C rating (-22°F)

### Operating altitude
- 2,000 m without derating, up to 4,000 m with derating

### Relative humidity
- 5% to 100% condensing

### Features

#### Type of cooling
- Temperature-dependent low pressure closed-loop liquid cooling

#### Graphic user interface
- Conext™ Viewer application for tablet and PC

#### External communication interface
- Modbus/RS485 standard, Modbus/TCP

#### AC/DC disconnect
- Load-break-rated DC and AC circuit breaker standard

#### Ground fault detection/interruption
- PV insulation monitoring and RCD (on grounded PV configurations)

### Options
- PV generation (negative / floating), string current monitoring, class I surge arresters

### Standards

#### Safety standards
- IEC version: IEC62109-1, and -2 / NA version: UL 1741, UL 1741-SA, CSA 107.1

#### EMC standards
- IEC/EN 61000-6-2 and -6-4, EN 55011:2016, CISPR 11 Ed. 6, FCC Class A

#### Grid interconnection
- IEEE1547 and 1547a, BDEW, CEI 0-16, French Decree 23-Apr-2008, IEC61727, PEA and more

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1. Contact Schneider Electric for derating information.
2. Auxiliary self consumption not included, measured at minimum Vdc.
3. Auxiliary self consumption included.
4. Contact Schneider Electric for derating information. MPPT for Power Factor 1.
5. With preventative maintenance.
6. 295 W maximum is with all communication hub options.
7. Heat exchanger is IP20 with IP65 components.
# Conext SmartGen™ NA Model

## Electrical specifications

<table>
<thead>
<tr>
<th>Device short name</th>
<th>CS1666-1-NA</th>
<th>CS1666-2-NA</th>
<th>CS1666-3-NA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal output power at 50°C</td>
<td>1666 kW / 1666 kVA</td>
<td>1666 kW / 1831 kVA</td>
<td>1666 kW / 1851 kVA</td>
</tr>
<tr>
<td>Nominal output voltage</td>
<td>575 V</td>
<td>575 V</td>
<td>575 V</td>
</tr>
<tr>
<td>Nominal frequency</td>
<td>50 / 60 Hz</td>
<td>50 / 60 Hz</td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td>Max. output current</td>
<td>1673 A</td>
<td>1838 A</td>
<td>1859 A</td>
</tr>
<tr>
<td>Continuous operation output voltage range</td>
<td>+/- 20% (460 - 690 V)</td>
<td>+/- 20% (460 - 690 V)</td>
<td>+/- 20% (460 - 690 V)</td>
</tr>
<tr>
<td>Continuous operation frequency range</td>
<td>50 / 60 Hz +/- 10%</td>
<td>50 / 60 Hz +/- 10%</td>
<td>50 / 60 Hz +/- 10%</td>
</tr>
<tr>
<td>Power factor</td>
<td>0 to 1 lead / lag</td>
<td>0 to 1 lead / lag</td>
<td>0 to 1 lead / lag</td>
</tr>
<tr>
<td>Harmonic distortion (THDI)</td>
<td>&lt;3% at rated power</td>
<td>&lt;3% at rated power</td>
<td>&lt;3% at rated power</td>
</tr>
<tr>
<td>Peak efficiency</td>
<td>98.8%</td>
<td>98.8%</td>
<td>98.8%</td>
</tr>
<tr>
<td>Weighted efficiency (CEC)</td>
<td>98.5%</td>
<td>98.5%</td>
<td>98.5%</td>
</tr>
<tr>
<td><strong>DC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. input voltage range, MPPT*</td>
<td>865 V - 1500 V</td>
<td>865 V - 1500 V</td>
<td>865 V - 1500 V</td>
</tr>
<tr>
<td>Max. input voltage, open circuit</td>
<td>1500 V</td>
<td>1500 V</td>
<td>1500 V</td>
</tr>
<tr>
<td>Max. input operating current</td>
<td>1965 A</td>
<td>1965 A</td>
<td>1965 A</td>
</tr>
<tr>
<td>DC breaker short-circuit current rating</td>
<td>6000 A</td>
<td>6000 A</td>
<td>6000 A</td>
</tr>
<tr>
<td>Max. rated short circuit current</td>
<td>With max. 14 DC inputs x 400 A fuse rating: 3584 A STC, 4480 A absolute max.</td>
<td>Integrated</td>
<td>Integrated</td>
</tr>
<tr>
<td>DC combiner</td>
<td>Integrated</td>
<td>Integrated</td>
<td>Integrated</td>
</tr>
<tr>
<td>Number of DC inputs</td>
<td>10 to 14</td>
<td>10 to 14</td>
<td>10 to 14</td>
</tr>
<tr>
<td>DC fuse rating</td>
<td>160 A - 400 A</td>
<td>160 A - 400 A</td>
<td>160 A - 400 A</td>
</tr>
</tbody>
</table>

## General specifications

| Service life | 30 years |
| Power consumption, night time* | 295 W |
| Degree of protection | Outdoor (Type 4X) |
| Enclosure | Aluminium |
| Seismic rating | Zone 4 per UBC |
| Product weight (approx.) | 2800 kg (6160 lb) |
| Product dimensions (H x W x D) | 220 x 300 x 130 cm (86.6 x 118.1 x 51.2 in) |
| Ambient air temperature for operation | -25°C to 60°C (-13°F to 140°F). Optional -30°C rating (-22°F) |
| Operating altitude | 2,000 m without derating, up to 4,000 m with derating |
| Relative humidity | 5% to 100% condensing |

## Features

- **Type of cooling**: Temperature-dependent low pressure closed-loop liquid cooling
- **Graphic user interface**: Conext™ Viewer application for tablet and PC
- **External communication interface**: Modbus/RS485 standard, Modbus/TCP
- **AC/DC disconnect**: Load-break-rated DC and AC circuit breaker standard
- **Ground fault detection/interruption**: PV insulation monitoring and RCD (on grounded PV configurations)

## Options

- Grounding (negative / floating), string current monitoring, class 1 surge arrestors

## Standards

- **Safety standards**: UL 1741, UL 1741SA, CSA 107.1
- **EMC standards**: FCC Class A
- **Grid interconnection**: IEEE 1547 and 1547a

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Contact Schneider Electric for derating information.

*Auxiliary self consumption not included, measured at minimum Vdc.

*Auxiliary self consumption included.

Contact Schneider Electric for derating information. MPPT for Power Factor 1.

*With preventative maintenance.

295 W maximum is with all communication hub options.