Cloud-connected solution for utility-scale renewable power

Conext SmartGen™ Power System

Global power conversion system for the next generation of PV and Energy Storage power plants connected to smart grids.

Solution at a glance

Introducing the Conext SmartGen™ Power System. A cloud-connected solution for utility scale renewable power with unmatched reliability, lower total cost of ownership and faster return on investment.

Key benefits:

- **Intelligent**: Advanced remote diagnostics to minimize downtime and lower service costs
- **Adaptable**: Ready for worldwide deployment; complies with local grid code requirements and your project needs
- **Longer service life**: Designed to withstand harsh environments with a 30 year service life, and created under the True Design for Service™ principles
- **Configurable**: Customized to order, delivered as an easy to assemble kit for simplified logistics or as a factory integrated skid to limit on-site labor
- **Proven and trusted worldwide**: Quality control and commissioning checks leveraging extensive experience in utility scale power conversion stations.

Solar power has entered a new era

As power and communication technologies evolved, we saw the potential for power equipment and control systems to communicate, and for intelligent systems enable remote diagnostics and data analytics.

The Conext SmartGen Power System is a medium voltage power conversion substation delivering up to 4.8 MVA of solar power. It features two Conext SmartGen inverters, medium voltage transformer(s) and protection equipment. Cloud-connection and data collection enable remote diagnostics and servicing, as well as predictive maintenance.
## Product specifications

**Conext SmartGen Power System**

### General specifications
- **Length**: 37 feet (11.28 meters)
- **Weight (metric tons)**: < 17 (Kit), < 33 (Skid)

### Electrical specifications

<table>
<thead>
<tr>
<th>Device short name</th>
<th>North American Power System</th>
<th>IEC Power System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AC Output</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nominal output power</td>
<td>Up to 4400kVA</td>
<td>Up to 4400kVA</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>Up to 38 kV (consult us for higher voltage)</td>
<td>Up to 36 kV (consult us for higher voltage)</td>
</tr>
<tr>
<td>Nominal frequency</td>
<td>60 Hz</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td><strong>DC Input</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. input voltage, open circuit</td>
<td>1500 V</td>
<td>1500 V</td>
</tr>
<tr>
<td>Number of inputs PV</td>
<td>Up to 2 x 14 x 400A</td>
<td>Up to 2 x 14 x 400A</td>
</tr>
</tbody>
</table>

### External operating conditions
- **Temperature**
  - Standard temperature range: -25°C to +60°C (consult us for lower temperature limits)
- **Max. relative humidity**: 5% to 100% condensing
- **Max. altitude above sea level**: 2000 meters without derating, up to 4000 meters with derating
- **Max. wind speed**: 150mph
- **Max. snow load**: 0.35 lb/in² (250kg/m²)

### Inverter
- **Type**: CS1666, CS1800, CS2000, CS2200, CS2400, CS1800, CS2000, CS2200, CS2400
- **Type**: CS1800, CS2000, CS2200, CS2400

### Transformer
- **Type**: 1 LV/MV Schneider Electric transformer
- **Type**: 1 or 2 LV/MV Schneider Electric transformer(s)

### Main electrical components
- **Cooling**: ONAN
- **MV protection**: Fuses and disconnect switch integrated in the transformer
- **Main standards**: IEEE C57.12 series
- **Oil containment tank**: Optional
- **Main options**: Lighting, Auxiliary power supply
- **Regulatory approval**: NEC 2014
- **Internal arc classification (acc. to IEC62271-1-202)**: IEC/A (20kA 1s)
- **Seism**: Up to UBC Seismic Zone 4 / IEEE 693-2005 (high level optional)

---

1 Typical, may vary depending on configuration