Generation V: power for generations

The new SG 10.0-193 DD
The SG 10.0-193 DD: Quality for generations

Building the future of clean energy for generations to come means learning from the past: using a strong foundation and growing from it. The new SG 10.0-193 DD is the culmination of five generations of proven direct drive technology in one 10 MW turbine platform. A showcase of strong performance, swift time to market, and low risk in the offshore wind energy market.

Offering the best possible offshore solutions to customers while maintaining low risk is what drives us. Since the first offshore direct drive turbine was made commercially available several years ago, our direct drive turbines have seen upgrades in performance and benefit to our customers – all building on many generations of proven technology.

Now, by taking this even further, the newest generation of Siemens Gamesa Direct Drive wind turbines offers the same reliability with a 10 MW capacity: Introducing the SG 10.0-193 DD.

Small change, huge difference
The 10 MW rating is made possible through a larger generator diameter, reusing the proven DD generator technology. By increasing the rotor diameter to an impressive 193 meters with 94-meter-long blades, the SG 10.0-193 DD offers up to 30% more AEP than the SG 8.0-167 DD in similar conditions.

Proven technology
The rest of the components are tried and tested over generations of turbines – our direct drive technology, IntegralBlade® technology, tower concepts, as well as maintenance and safety systems. Features such as High Wind Ride Through and the power boost function enable the turbine to maintain an industry-leading availability. Utilizing known and proven components and concepts from trusted suppliers also provides Siemens Gamesa with a strong, established value chain, with clear processes and skilled, experienced employees ready to go.

By building the new SG 10.0-193 DD on the experience of its previous generations, we improve profitability and reduce risk for our customers.

Secure benefits
As trusted partners on the world’s first offshore wind power plant at Vindeby, Siemens Gamesa has been applying our knowledge and experience directly into offshore wind turbines for decades. As partners at London Array, suppliers to Hywind Scotland, and a great number of other landmark offshore projects, customers can always rest assured knowing that Siemens Gamesa offers the ideal solutions to realize the potential of their offshore wind power project.

We can offer these solutions because we invest heavily in ensuring unmatched reliability through extensive testing in one of the world’s largest dedicated wind turbine test centers. With every new generation of our direct drive turbine technology – with fewer moving parts than geared wind turbines – component improvements have enabled greater performance while maintaining the proven dependability of the technology. By introducing a new product on the Offshore Direct Drive platform, we are able to reduce time to market – thanks to standardized processes and a fully developed and industrialized supply chain. For the customer, this also means reduced product risk, and minimal balance of plant supply chain impact. So risk isn’t only reduced on a turbine level, but by building on our proven Offshore Direct Drive platform, we also provide valuable synergies to project development.


**SG 10.0-193 DD**

<table>
<thead>
<tr>
<th>IEC class</th>
<th>5 (IEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal power</td>
<td>10,000 kW</td>
</tr>
<tr>
<td>Rotor diameter</td>
<td>193 m</td>
</tr>
<tr>
<td>Blade length</td>
<td>94 m</td>
</tr>
<tr>
<td>Swept area</td>
<td>29,300 m²</td>
</tr>
<tr>
<td>Hub height</td>
<td>Site specific</td>
</tr>
<tr>
<td>Power regulation</td>
<td>Pitch-regulated, variable speed</td>
</tr>
</tbody>
</table>
Siemens Gamesa Renewable Energy, S.A.
Parque Tecnológico de Bizkaia, edificio 222
48170, Zamudio, Vizcaya, Spain

Registered in the Mercantile Registry of Vizcaya,
Book 5139, Volume 60, Sheet BI-56858,
with Tax Identification Number (NIF) A-01011253.

All rights reserved.

Trademarks mentioned in this document are the property of Siemens Gamesa Renewable Energy, S.A., its affiliates, or their respective owners.

Subject to changes and errors.

The information given in this document only contains general descriptions and/or performance features, which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.