



# SG 5.0-145 (2.0) Efficiency and Reliability



# Advanced solution in its segment for efficiency and reduced LCoE

Continuous improvement with enhanced control system and  
blade aerodynamics

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Siemens  
Gamesa, your  
technology  
partner

At Siemens Gamesa, we anticipate opportunities in an increasingly demanding market.

With over 40 years of expertise in wind technology, 148 GW installed and over 92 GW under maintenance worldwide, Siemens Gamesa has the experience and tools to deliver tailored technological solutions that support long-term profitability throughout the entire lifecycle of your project. Our team is passionate about what we do and committed to delivering products and services that precisely meet your project needs.

Beyond performance and reliability, Siemens Gamesa places sustainability at the heart of every solution. With up to 85% recyclability, a low carbon footprint of approximately 6.2 g CO<sub>2</sub>e/kWh, and rapid energy payback, our company provides responsible, transparent, and future-oriented renewable technologies that contribute to a cleaner global energy system.

Flexible power rating to configure a uniquely tailored solution that meets site requirements

### Unique tailored solution

The SG 5.0-145 (2.0) turbine, equipped with an advanced control system, optimized blade aerodynamics, and a modular structure, offers greater adaptability to sites with diverse wind conditions and logistical constraints.

Designed for medium winds, its versatility and improved efficiency position it as a benchmark solution in its segment.

### Siemens Gamesa technology

SG 5.0-145 (2.0) integrates geared technology concepts with extensive track record in the market, such as the combination of a three-stage gearbox (two planetary and one parallel) and a doubly-fed induction generator. In addition to this, the inclusion of an optional premium converter allows us to comply with the demanding grid connection requirements.

The new 71-meter blades, made of fiberglass reinforced with epoxy resin and pultruded carbon technology, integrate innovative aerodynamics and the DinoTails® technology, which guarantee the best balance between high energy production and reduced noise emission levels.

### Enhanced efficiency

With respect to the previous generation solutions, SG 5.0-145 (2.0) introduces a control system, which optimizes the efficiency of the wind turbine and its applicability in a wide range of sites.

It also offers flexible power rating, depending on the noise requirements, temperature and electrical properties of the project. With over 24% increase in AEP over previous turbine SG 3.4-145.

### Operation and Maintenance

In close partnership with our customers, Siemens Gamesa delivers tailored maintenance plans, long-term service agreements, remote diagnostics, energy optimization, and expert troubleshooting.

Our comprehensive approach ensures maximum reliability, sustained value, and optimal performance throughout the entire lifecycle of each wind farm.

## Technical specifications

### SG 5.0-145 (2.0)



General details	
Rated power	5.0 MW
IEC class	IIB
Flexible power rating	4.0-5.2 MW
Control	Pitch and variable speed
Standard operating temperature	Range from -20°C to 45°C (with de-rating) <sup>(1)</sup>
Technology	Geared + DFIG
Rotor	
Diameter	145 m
Swept area	16,513 m <sup>2</sup>
Blades	
Length	71 m
Airfoils	Siemens Gamesa
Material	Fiberglass reinforced with epoxy resin
Tower	
Type	Multiple technologies available
Height	90, 102.5, 127.5 m and site-specific
Gearbox	
Type	3 stages
Generator	
Type	Doubly-fed induction machine
Voltage	690 V AC
Frequency	50 Hz/60 Hz
Protection class	IP 54
Power factor	0.9 CAP-0.9 IND throughout the power range <sup>(2)</sup>

<sup>(1)</sup> Different versions and optional kits are available to adapt machinery to cold climate, saline or dusty environments.

<sup>(2)</sup> Power factor at generator output terminals, on low voltage side before transformer input terminals.

**Spain**

P. Tecnológico de Bizkaia, edif. 222  
48170 Zamudio, Vizcaya

Calle Ramírez de Arellano, 37  
28043 Madrid

Avda. Ciudad de la Innovación, 9-11  
31621 Sarriguren, Navarra

**Australia**

Level 3, Botanicca 3  
570 Swan Street, Burnley  
Melbourne, 3121

**Egypt**

90th North St - New Cairo  
Section no. 1 - 5th Settlement  
Building 47, Floor 1, Office 103  
11835 New Cairo

**Italy**

Centro Direzionale Argonauta  
Via Ostiense 131/L  
Corpo C1 9° piano  
00154 Rome

**Singapore**

60 MacPherson Road  
Singapore, 348615

**Austria**

Siemensstrasse 90  
Vienna 1210

**Finland**

Tarvonsalmenkatu 19  
FI-02600, Espoo

Via Vipiteno 4  
20128 Milan

**South Africa**

Maxwell Office Park  
Office 1, Ground Floor, Building 3  
37 Magwa Crescent  
Waterfall City  
2090

**Brazil**

Avenida Engenheiro João  
Fernandes Gimenes Molina nº 1745  
Edifício 9, 1º andar  
Bairro Distrito Industrial CEP  
13213-080  
Jundiaí - SP

**France**

Immeuble le Colisée  
Bâtiment A - 2ème étage  
10 avenue de l'Arche  
92419 Courbevoie

**Japan**

14F Tokyo Shiodome Building  
1-9-1, Higashi Shimbashi  
Minato-ku  
Tokyo

**South Korea**

Seoul Square 5th Floor 416  
Hangang-daero  
Jung-gu, Seoul 04637

**Canada**

1577 North Service Road East  
Oakville, Ontario L6H 0H6

97 allée Alexandre Borodine  
Cedre 3  
69800 Saint Priest

**Mexico**

Paseo de la Reforma 505  
Torre Mayor, 37th Floor  
Col. Cuauhtémoc  
Del. Cuauhtémoc  
06500 Mexico City

**Sweden**

Evenemangsgatan 21  
169 79 Solna

**Chile**

Edificio Territoria El Bosque  
Avenida Apoquindo 2827, Piso 19  
Las Condes, Santiago de Chile

**Germany**

Beim Strohhaus 17-31  
20097 Hamburg

**Morocco**

Anfa Place Blvd. de la Corniche  
Centre d'Affaires "Est", RDC  
20200 Casablanca

**Thailand**

Charn Issara Tower II, 35th Floor  
2922/320-323  
New Petchburi Road,  
Bangkapi Huaykwang,  
Bangkok 10310

**China**

Siemens Center Beijing, 2nd Floor  
No.7 South Wangjing Zhonghuan  
Road, Chaoyang District  
Beijing 100102

Mary-Sommerville-Straße 14  
28359 Bremen

**Netherlands**

Prinses Beatrixlaan 800  
2595 BN Den Haag

**United Kingdom**

Arena Business Centre  
Watchmoor Park  
Riverside Way  
Camberley  
GU15 3YL

8-10F, (Building N3), No. 2, Lane 131  
Qiantan Avenue, Pudong New Area  
200126 Shanghai

**Greece**

75 Katechaki Avenue  
115 25  
Athens

**Norway**

Østre Aker vei 88  
NO-0596 Oslo

**United States**

4400 N. Alafaya Trail  
Orlando  
FL 32826

**Croatia**

Slavonska avenija 1a  
(zgrada/building C, 1st floor)  
HR-10000 Zagreb

**India**

No. 489, GNT Road  
Thandalkazhani Village  
Vadagarai PO  
Redhills  
Chennai 600052

**Poland**

Aleja Armii Ludowej street 26  
00-609 Warsaw

**Denmark**

Borupvej 16  
7330 Brande

**Ireland**

Innovation House  
DCU Alpha  
Old Finglas Road 11  
Glasnevin Dublin 11

**Serbia**

Tadije Sondermajera 11  
(zgrada/building AFI, 8th floor)  
11070 Novi Beograd  
Beograd

**Vietnam**

14th Floor, Saigon Centre  
65 Le Loi street  
Ben Nghe ward District 1  
Ho Chi Minh City

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comercial\_consultas@siemensgamesa.com  
www.siemensgamesa.com