

S&G Engineering

The Wind Turbine Technology Provider



We herewith present our newest wind turbine designs for technology transfer

- S-Class: 50 -100 kW (Direct Drive – PM Generator)
- M-Class: 500-750 kW (Gearbox and PM Generator)
- L-Class: 1700 kW (Gearbox and PM Generator)
- XL-Class : 2500-3000 kW (Direct Drive – PM Generator)

All turbines are designed according to the valid international standards (IEC, GL), long term tested and proven in the field

S&G is the technology provider with the broadest range of wind turbine technologies from 50 kW to 3 MW

ALL DESIGNS ARE AVAILABLE FOR LICENSING

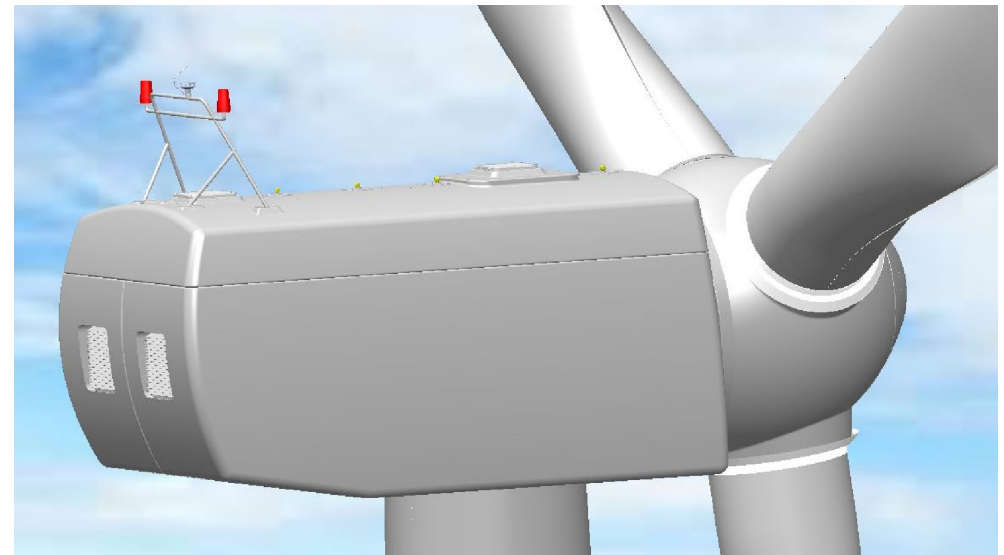
Contact us

S&G Engineering GmbH
Am Röthenbühl 34
92348 Berg

Phone +49 9189 414667
Email info@sg-engineering.com

www.sg-engineering.com

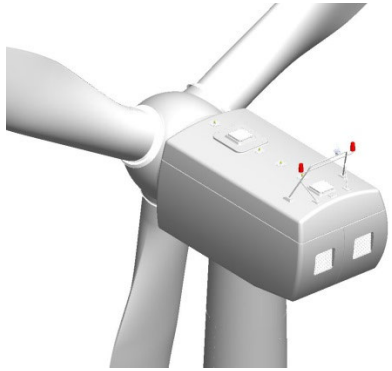
Product Family: 1700kW



L-Class

SG1700.80
SG1700.84
SG1700.100

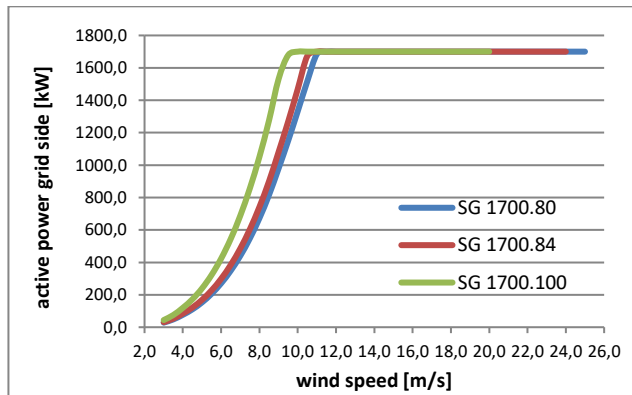
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The advantages

- permanent magnet synchronous generator
- intelligent power converter
- excellent grid connection
- well-proven drive train concept (integrated gearbox)
- easy assembling and erection
- high availability
- wind class IEC IIA, IEC IIIA and SA 6.5

The well-proven drive train concept (integrated gearbox) allows an economic design, an easy installation and high reliability throughout the lifecycle. The turbines of the 1.7MW platform are available for three different wind speeds: IEC IIA, IEC IIIA and SA 6.5. The turbine is designed for an operational temperature range of -10°C to 45°C. The three available rotor diameters in combination with the varying hub heights and the large temperature range enable a best-fit solution for every site.



Power curves of all variants



Power

1.7MW

General data

	SG1700.80	SG1700.84	SG1700.100
Turbine	SG1700.80	SG1700.84	SG1700.100
Wind class	IEC IIA	IEC IIIA	SA 6.5
Grid frequency	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
Rotor diameter	80m	84m	100m
Hub height (HH)	82m	82m	100m

Operating data

	SG1700.80	SG1700.84	SG1700.100
Average wind speed	8.5m/s	7.5m/s	6.5m/s
Cut-in wind speed	4m/s	4m/s	3m/s
Rated wind speed	11m/s	10.8m/s	10m/s
Cut-out wind speed	25m/s	24m/s	20m/s
Temp. range (operation)	-10°C to +45°C	-10°C to +45°C	-10°C to +45°C
Temp. range (survival)	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C

Tower

Type	tubular steel tower	tubular steel tower	tubular steel tower
	tubular steel tower	tubular steel tower	tubular steel tower

Machinery

Drive train	3-stage gear box with coupling	3-stage gear box with coupling	3-stage gear box with coupling
Pitch system	planetary gearbox with AC servo motors	planetary gearbox with AC servo motors	planetary gearbox with AC servo motors
Yaw system	friction bearing with motor brake	friction bearing with motor brake	friction bearing with motor brake

Electric

Generator	fast speed synchronous, air-cooled	fast speed synchronous, air-cooled	fast speed synchronous, air-cooled
Converter	full 4-quadrant, water-cooled	full 4-quadrant, water-cooled	full 4-quadrant, water-cooled

Variants of 1.7MW platform