

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: 2500-2700kW



XL-Class

SG2500.131 DD
SG2700.100 DD
SG2700.116 DD

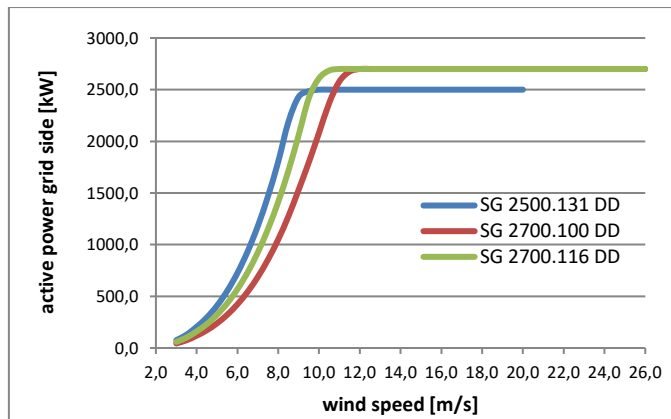
www.sg-engineering.com



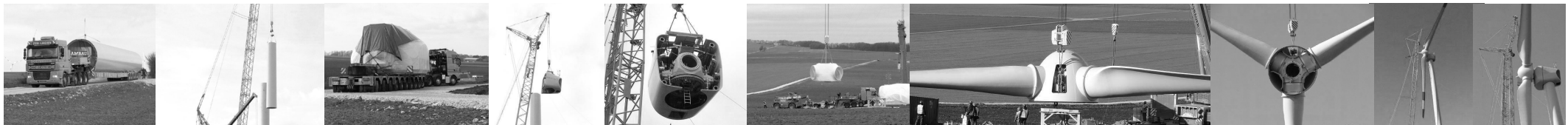
The advantages

- permanent magnet synchronous generator
- intelligent power converter
- excellent grid connection
- low maintenance and lifecycle costs
- noise-optimized design
- high availability
- wind class IEC IIA, IEC IIIA and SA 6.5
- varying tower heights: 100m, 120m

The innovative gearless drive train concept (direct drive) enables excellent efficiency, especially in partial load range and ease of service throughout the lifecycle. The turbines of the Multi-MW platform are available for three different wind speeds: IEC IIA, IEC IIIA and SA 6.5. In addition the available tower heights allow a customized design and thus lead to an optimal cost-benefit ratio for every site.



Power curves of all variants



Power

2.5 MW

2.7 MW

General data

Turbine	SG2500.131 DD	SG2700.100 DD	SG2700.116 DD
Wind class	SA 6.5	IEC IIA	IEC IIIA
Grid frequency	50Hz / 60Hz	50Hz / 60Hz	50Hz / 60Hz
Rotor diameter	131m	100m	116m
Hub height (HH)	120m	100m	100m

Operating data

Average wind speed	6.5m/s	8.5m/s	7.5m/s
Cut-in wind speed	3m/s	3m/s	3m/s
Rated wind speed	10m/s	11.3m/s	10.5m/s
Cut-out wind speed	20m/s	25m/s	24m/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	tubular steel
------	---------------------	---------------	---------------

Machinery

Drive train	direct drive	direct drive	direct drive
Pitch system	planetary gearbox with AC servo motors	planetary gearbox with AC servo motors	planetary gearbox with AC servo motors
Yaw system	ball bearing with hydraulic brake	ball bearing with hydraulic brake	ball bearing with hydraulic brake

Electric

Generator	low speed synchronous, air-cooled (closed circulation)	low speed synchronous, air-cooled (closed circulation)	low speed synchronous, air-cooled (closed circulation)
Converter	full 4-quadrant, water-cooled	full 4-quadrant, water-cooled	full 4-quadrant, water-cooled

Variants of Multi-MW platform