

# Wind power generators

## One platform for all high speed solutions



ABB's high speed generator platform has the flexibility to use doubly-fed (DF), permanent magnet (PM) or squirrel cage rotors. It enables turbine OEMs to easily upgrade from the DF concept to full converter (FC) operation. Reliable and cost-effective, the platform covers all MW class turbine sizes and delivers a proven route to the offshore turbine markets.

### Flexible platform

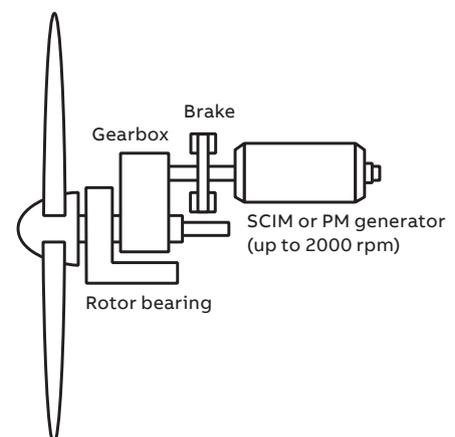
The ABB platform design covers all high speed solutions by using squirrel cage, DF or permanent magnet rotors. Upgrading from the common DF to FC is easy, utilizing the same familiar drivetrain construction. The standard base construction for different powers enables high quality large-scale manufacturing for fast deliveries. The modular turbine interface connections can be modified to suit individual customer specifications. Generators built on the platform are also an excellent choice as replacement units at existing wind parks.

### Key advantages:

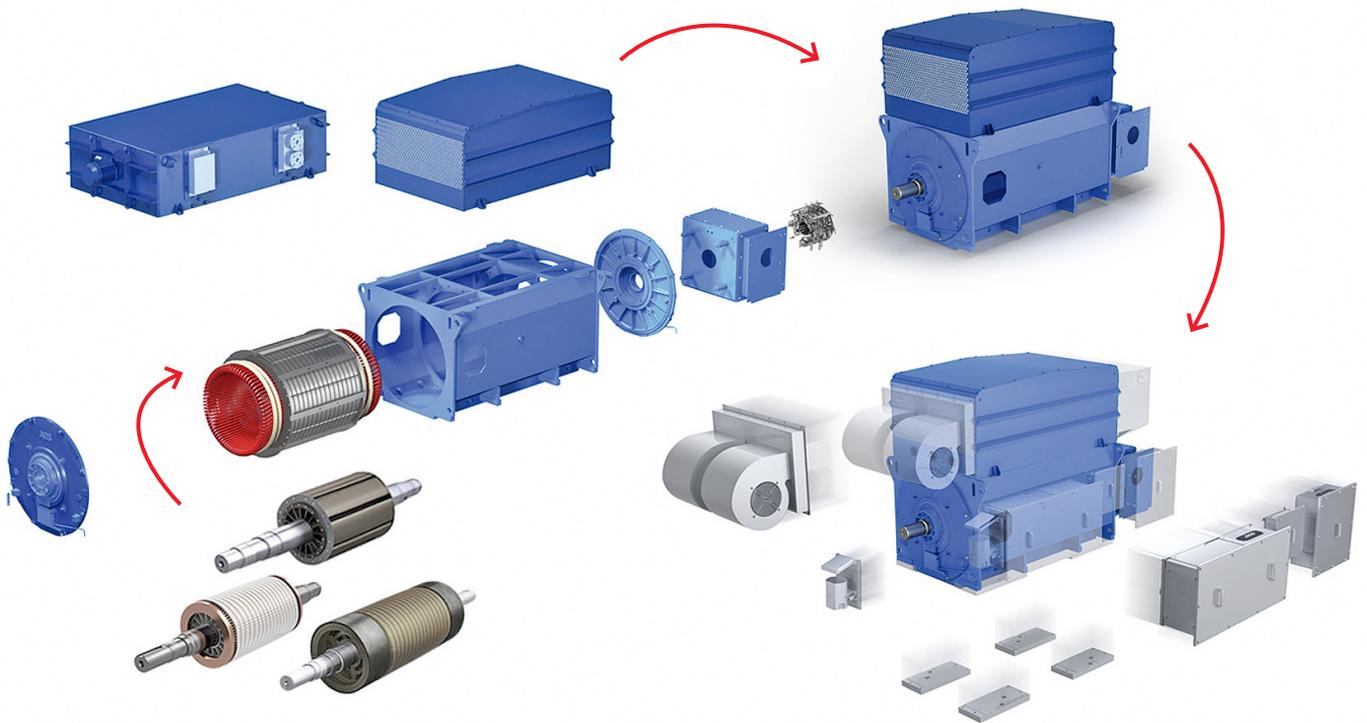
- Flexibility in concept selection
- Same drivetrain for different markets
- Easy upgrade from DF to FC concept
- High power density, small size, low weight
- Easy component availability, logistics, assembly
- Accelerated market introduction of new turbines
- Easier to establish local manufacturing worldwide

### Standard drivetrain

Choosing the common high speed drivetrain enables small turbine size and offers easy adaptation of both DF and FC concepts without the need for extensive re-engineering. It provides a fast track to upgrade the turbine concept and enter the multi-MW class offshore market. One drivetrain for all sizes also enables a global market approach with identical production lines and simplified supply chain management in all main markets.



# ABB's flexible modular concept fits most turbine designs and both DF and FC concepts



Typical data for high speed generators up to 7 MW	
Frame size	500–710
Frame / power (depending on speed)	<b>500</b> up to 3.0 MW <b>560</b> up to 4.0 MW <b>630</b> up to 5.5 MW <b>710</b> up to 7.0 MW
Speed range	Up to 2000 rpm
Rotor options	Doubly-fed (DF) Permanent magnet (PM) Squirrel cage
Cooling	Air or water cooled
Voltage	690 V to 15000 V
Frequency	50 and 60 Hz
Ambient	Standard: -20 °C ... +50 °C Low temp: -30 °C ... +50 °C
Typical dimensions (PM type, LxWxH, weight)	<b>500:</b> 2500 x 1700 x 1800 ; 5–7 tn <b>560:</b> 3000 x 2100 x 1900 ; 7–10 tn <b>630:</b> 3200 x 2300 x 2000 ; > 11 tn <b>710:</b> 3700 x 2400 x 2300 ; > 15 tn

ABB has delivered over 35,000 generators for wind turbines during the past 30 years, corresponding to about 30 GW of power.

We make generators for all drivetrain concepts, gearless or geared, both doubly-fed and full converter type and for all power and voltage levels up to 20 MW and 15 kV. The majority of offshore turbines now operating rely on ABB generators.

Proven ABB solutions provide continuous operation for maximum energy production with lowest lifetime cost.

For more information please visit:  
[abb.com/motors-generators/segments/wind-power](http://abb.com/motors-generators/segments/wind-power)

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