



# PMG 1650 – 6300 kW

## 11 – 17 rpm



### 100% purpose-built for wind

The Switch is fully committed to wind power generation. With our purpose-built permanent magnet generators (PMG), we cover all wind power applications. Each PMG is designed with special magnet shapes and arrangements to match specific wind conditions for smooth operation and maximum efficiency.

The Switch PMGs provide excellent availability and productivity. By eliminating cogging, we have reduced the overall mechanical stress. This improves reliability and extends the turbine's lifetime.

The Switch low-speed, direct-drive PMGs operate without any gearbox to create superior all-round drive train efficiency. Torque variations are effectively filtered to eliminate undesirable vibration. Direct-drive PMG versions are available with either inner or outer rotors.

Features	Advantages
Integrated structure	Robust cast-iron modules endure tough conditions and better suit series production
Bearings	Part of integrated structure; designed to last more than 20 years, well beyond turbine lifetime
Shaft, brake and rotor locks	All integrated within solid generator structure for outstanding robustness
Neodymium magnets	Strongest commercially available magnets, in a corrosion-resistant metal seal
Windings	Strong form-wound construction offers greater precision and excellent insulation

### Technical specifications

These specifications are based on one nominal operational point example. Our generators can easily be adapted to other operational points.

All generators are also available for medium voltage.

Please contact us to get precise values for your turbine rated parameters.

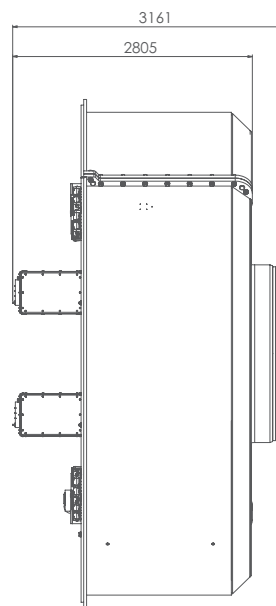
	PMG1650-17	PMG3200-12	PMG4250-16	PMG6300-11 <sup>1</sup>
Power [MW]	1.65	3.2	4.25	6.3
Speed [rpm]	17	12	16	11.4
Shaft-height [mm]	2250	2970	3150	4250
Weight [t]	50	~ 80	~ 89	115 <sup>2</sup>
Voltage [V]	690	690	690	To be decided (LV/MV)
Current [A]	1450	2900	3950	Depending on voltage
Power factor	0.94	0.92	0.9	~ 0.9
Efficiency [100% load]	94.5	94.0	94.6	~ 94.6
Efficiency [75% load]	94.7	94.3	95.0	~ 95.0
Efficiency [50% load]	94.4	94.4	95.0	~ 95.0
Efficiency [25% load]	93.1	93.6	93.5	~ 93.5
Protection class	IP54	IP54	IP54	To be decided (IP54)
Insulation class	F	F	F	F
Thermal class	B	F	B	B
Cooling	Air-to-liquid	Forced-air	Air-to-liquid	Air-to-liquid

<sup>1</sup> Preliminary specification data

<sup>2</sup> Exact weight depends on the final construction of the unit

### Technical drawings

Careful material selection for each component and accurate dimensioning of the generators guarantees flawless functionality at all operating points.



The Switch PMG3200-12

