



# PMG 550 – 5850 kW

## 1000 – 1500 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 high-speed PMGs feature either a two- or three-stage gearbox. Magnets are embedded inside the rotor for increased mechanical strength. The hermetic seal provides perfect protection from the environment.

Features	Advantages
Shaft height	Standard IEC height, enables easy upgrades from double-fed models to PMG technology
Bearings	Insulated against bearing currents, designed to last more than 20 years, lightweight construction for high speeds
Neodymium magnets	Corrosion-resistant magnets, strongest commercially available, embedded in rotor
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.

	PMG550-1500	PMG800-1500	PMG1100-1000	PMG1100-1500	PMG1600-1000	PMG1600-1500
Power [MW]	0.55	0.8	1.1	1.1	1.6	1.6
Speed [rpm]	1500	1500	1000	1500	1000	1500
Shaft-height [mm]	450	450	500	450	560	500
Weight, generator [t]	2.4	2.9	5.6	3.2	6.8	5.6
Weight, air-to-liquid heat exchanger <sup>1</sup> [kg]	100	100	150	100	150	150
Weight, air-to-air heat exchanger <sup>1</sup> [kg]	250	250	500	250	800	500
Voltage [V]	690	690	690	690	690	690
Current [A]	510	690	940	940	1440	1410
Power factor	0.91	0.97	0.98	0.98	0.93	0.95
Efficiency [100% load]	96.8	97.2	97.6	97.4	97.8	97.3
Efficiency [75% load]	96.6	97.0	97.4	97.1	97.7	96.7
Efficiency [50% load]	96.2	96.6	96.6	96.1	97.3	95.5
Efficiency [25% load]	94.8	95.6	94.1	96.0	95.4	91.8
Protection class	IP54	IP54	IP54	IP54	IP54	IP54
Insulation class	F	F	F	F	F	F
Thermal class	B	B	B	B	B	B

## Technical drawings

The exact dimensions depend on the final construction of the unit.

	Shaft height (H2) [mm]	Length (L) [mm]	Width (W) [mm]	Height (H1) [mm]
PMG550-1500 PMG800-1500 PMG1100-1500	450	2114	1230	1477
PMG1100-1000 PMG1600-1500 PMG2200-1500	500	2305	1580	1560
PMG1600-1000 PMG2200-1000 PMG2700-1500 PMG3300-1500	560	2430	1759	1821
PMG2700-1000 PMG3300-1000	630	2467	1778	1853
PMG5600-1200 PMG5850-1100	710	3311	2292	2318

PMG2200-1000	PMG2200-1500	PMG2700-1000	PMG2700-1500	PMG3300-1000	PMG3300-1500	PMG5600-1200	PMG5850-1100
2.2	2.2	2.7	2.7	3.3	3.3	5.6	5.85
1000	1500	1000	1500	1000	1500	1200	1100
560	500	630	560	630	560	710	710
7.9	5.6	8.2	6.8	8.3	7.9	13.1	14.6
150	150	500	150	500	150	600	700
800	500	- <sup>2</sup>	800	- <sup>2</sup>	800	-	-
690	690	690	690	690	690	690	690
1960	1980	2440	2340	3050	2960	5100	5800
0.94	0.93	0.93	0.97	0.91	0.93	0.94	0.94
97.8	97.5	97.9	97.6	97.8	97.7	98.3	98.3
97.7	97.2	97.8	97.2	97.9	97.4	98.2	98.2
97.3	96.4	97.4	96.3	97.6	96.7	97.7	97.7
95.4	93.6	95.7	93.4	96.3	94.2	97.1	97.1
IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
F	F	F	F	F	F	F	F
B	B	B	B	B	B	B	B

<sup>1</sup> Typical weight

<sup>2</sup> Available with special arrangement



