

SGen-3000W water-cooled generator series

for gas and steam power applications
from 540–1,300 MVA

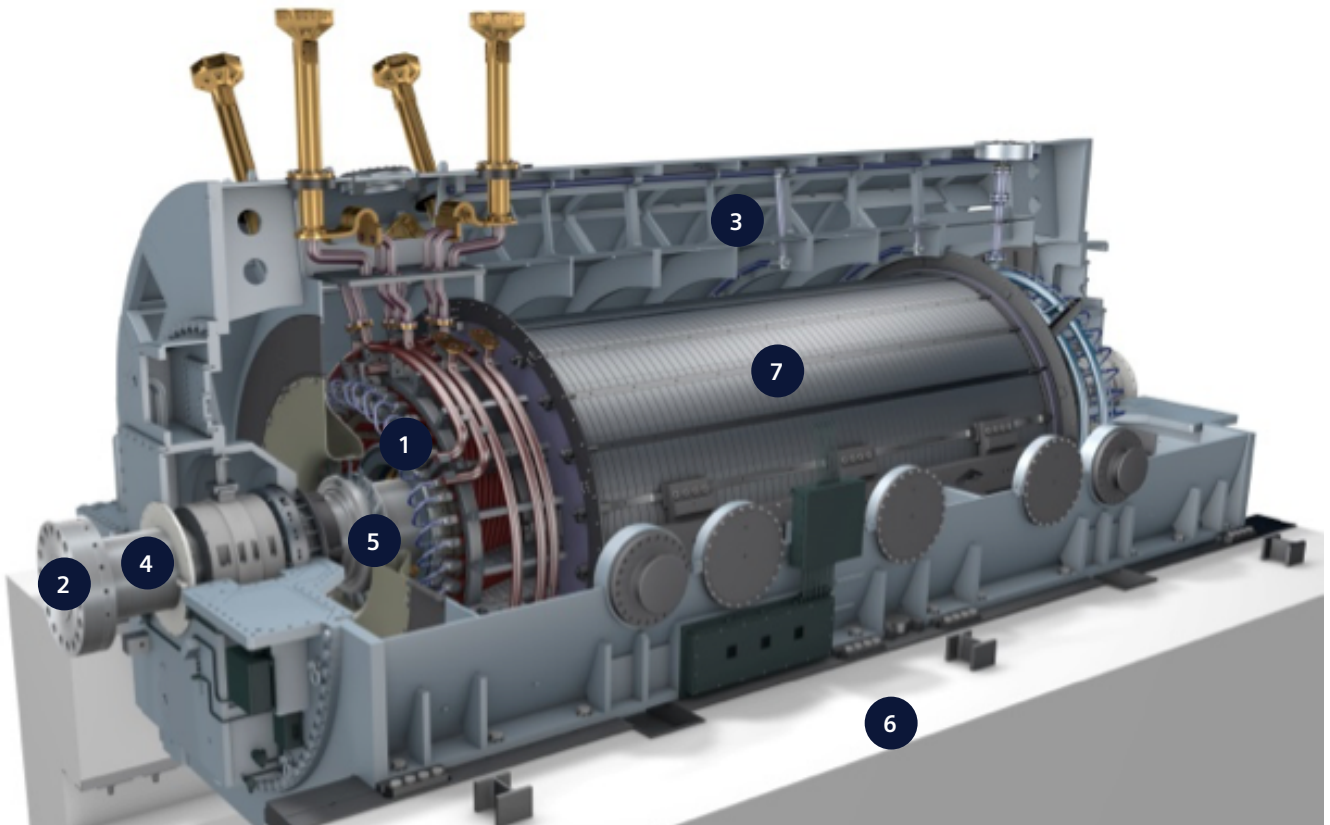
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The SGen-3000W generator series integrates proven design and manufacturing technologies to deliver world-class performance, reliability and customer value. It expands our modular approach to high output levels requiring efficient hydrogen cooling. Our modular “building block” approach allows Siemens Energy generators to share many features and components across the portfolio. With a water-cooled stator, the SGen-3000W series provides high operational flexibility and outstanding component robustness.

Key Benefits

- High output capability
- Operational flexibility
- High reliability
- Small footprint
- Proven features and components
- ISO class zone-A



- 1 **Stator:** Fleet-proven design of water-cooled stator bars with hollow stainless steel conductors
- 2 **Rotor:** 10,000 start / stop cycles without rotor removal during operational life cycle
- 3 **Generator frame with integral coolers:** easy service and maintenance of axial coolers
- 4 **Shaft sealing:** low maintenance gland seals with operational track record
- 5 **Simple ventilation:** 1-stage axisymmetric blower with radially cooled rotor and stator
- 6 **Smaller footprint:** ~15% lower foundation loads
- 7 **Stator core:** low complexity due to common assembly across generator products

SGen-3000W generator series for reliable gas and steam power generation



Our water-/hydrogen-cooled generators provide the flexibility and durability to operate in today's fluctuating grid environment. They can be coupled to other OEM turbines and meet environmental requirements as well as your individual needs.

- **Steam plants:** flexible integration into steam power plant applications or steam tailing applications
- **Large simple or combined cycle power plants:** suitable for peak, intermediate or base load duty, as well as cogeneration applications

Technical specifications for the SGen-3000W generator series

	Frequency	Apparent power	Efficiency	Design power factor	Terminal voltage	Design insulation class	Approx. weight
SGen5-3000W	50Hz	up to 1,300 MVA	Up to 99%	0,8	Up to 27kV	Class F	Up to 425 t
SGen6-3000W	60Hz	up to 1,300 MVA	Up to 99%	0,85	Up to 26kV	Class F	Up to 390 t

SGen-3000W generator series: simple installation, flexible operation and easy maintenance

Simple installation:

- Arrives on site with rotor and coolers in-stalled
- Footprint requires minimal space
- Bolt-on static excitation system
- Full line of user-friendly auxiliaries

Easy maintenance:

- Common components across portfolio im-prove availability of spare parts
- Digitalization packages available to equip and monitor generator health
- Easy generator access for any required maintenance or service

High operational flexibility:

- Design supports high ramp-up/down rates, frequent start/stops with low thermal mechanical stresses in stator windings
- Closed-loop water cooling less sensitive to water chemistry (no contact to copper)
- Automated auxiliaries with redundancies



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