

# INDAR

# SG W

# Synchronous Generator



The core of the series relies on its adaptation to the customer's specific requirements and the integration into the complete solution. This is a reliable and trustworthy product. The performance optimisation and the improvement in the maintenance are its main design criteria.

**Applications:**  
On-shore, Off-shore

Test	Procedure
Direct-current windings resistance measurement at cold condition	IEC 60034-4
Phase sequence check	IEC 60034-8
Temperature rise test	IEC 60034-1 IEC 60034-29
No-load saturation test (open circuit saturation curve)	IEC 60034-4
Iron losses measurement at no-load	IEC 60034-2-1
Friction and windage losses measurement (mechanical losses)	IEC 60034-2-1
Total harmonic distortion THD measurement (Voltage waveform)	IEC 60034-1
Sustained three-phase short-circuit test (short-circuit curve)	IEC 60034-4
Additional load losses measurement (stray losses)	IEC 60034-2-1
Determination of efficiency	IEC 60034-2-1
Vibration level measurement	IEC 60034-14
Overspeed test	IEC 60034-1
Withstand voltage test (High voltage dielectric test)	IEC 60034-1
Insulation resistance and polarization index measurement	IEEE Std 43
Noise level test	IEC 60034-9 ISO 3746
Reactances & time constants det.	IEC 60034-4
Full Load Test	IEC 60034

Main features	SG W
Rated power range	Up to 8 MW
Electrical layout	Full converter / Direct-on-Line (DoL)
Voltage	690 V-6600 V / <12000 V for DoL
Gen/Network frequency	Variable/50 Hz-60 Hz
Cooling	Air-Air / Air-Water / Water jacket
Insulation	F-H
Temperature range	-30 °C / +50 °C (-40 °C optional)
Construction	Horizontal (IM1001 / IM1101 / IM3001)
Protection degree	IP54 / IP55
Corrosive protection	C3H-C4H-C5M
<b>Speed Range</b>	<b>Drive-Train Config.</b>
LS	Direct-Drive
MS	1 and 2 stage gearbox
HS	3 stage gearbox
Power	<b>Laboratory Characteristics</b>
Voltage levels	back to back up to 43 MW
Driving machines	Up to 30 kV
Frequency	4 MW and 9 MW
	Internal 50/60 Hz network

Our machines are designed manufactured and tested according to the criteria and standards of the International Electrotechnical Commission (IEC). Additionally, we can design and manufacture in accordance with other standards.



[www.indar.net](http://www.indar.net)  
wind@indar.ingeteam.com

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[wind@indar.ingeteam.com](mailto:wind@indar.ingeteam.com)