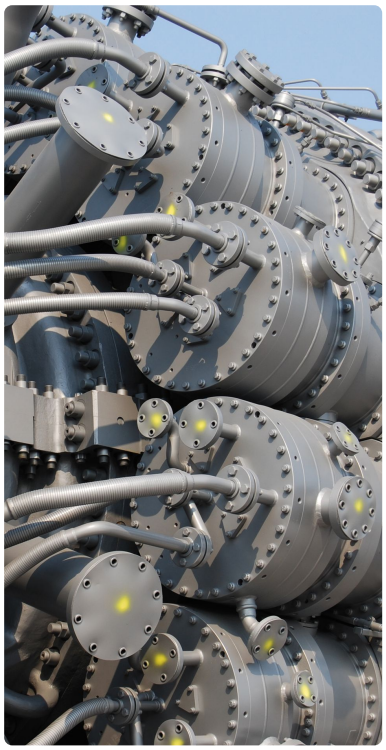
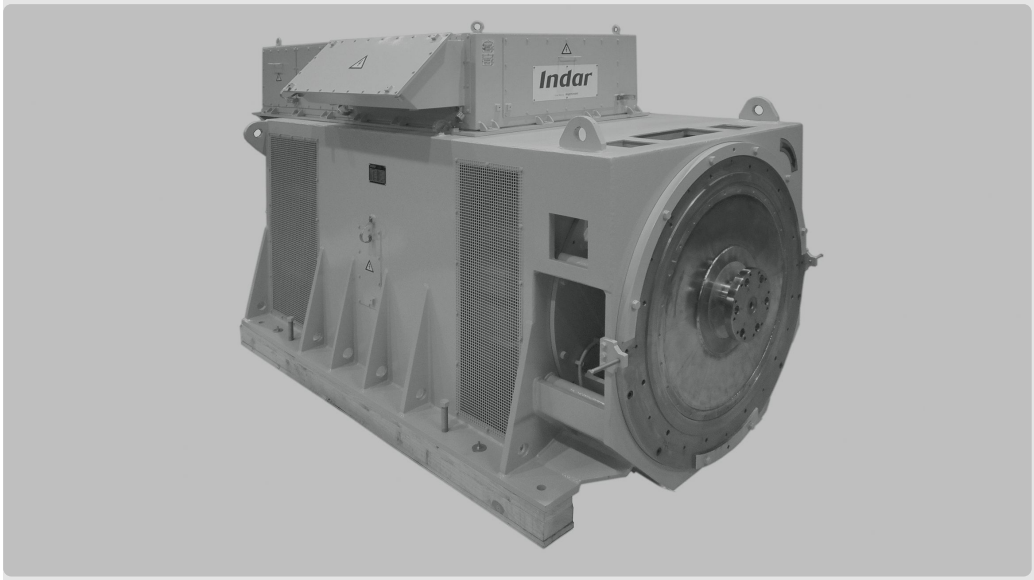
INDAR

SG G

Synchronous Generators
Driven by Gas Turbines

FY03INME01_A/0513 NJC





The INDAR **SGG** generator series (driven by gas turbines) is characterised by its adaptability to each manufacturer's standards, offering close couple gearbox or standalone gearbox variants.

Applications:

Biomass, Cogeneration, Combined Cycled Plant, Thermal Solar, Waste to Energy Plant

- Independent power producers (IPP)
- Public and municipal services: Hospitals, universities and other building complexes
- Industry:
  - Chemical
  - Wood and paper
  - Steel mills and the steel industry
  - Food
  - Petrochemical / refineries
  - Processing industry, pump manufacturers and compressors
  - Sugar and palm oil

Main features	SG G
Power	From 1,250 kVA up to 60,000 kVA
Excitation	Brushless or with direct excitation (with brushes)
Speed	4 poles; max. speed ≤ 1,800 rpm
Voltage	Up to 15 kV
Temperature Rise Class	F (155 ºC) / B (130 ºC)
Thermal Insul. Class	Up to class H (180 ºC)
Construction	Horizontal
Protection degree (IEC 60034-5)	Up to IP56
Cooling (IEC 60034-6)	IC01, IC11, IC21, IC31, IC06, IC16, IC26, IC36, IC17, IC27, IC37, IC81W, IC86W, IC611, IC616, IC661 and IC666
Bearings	With anti-friction bearings or sleeve bearings
Types of atmosphere	Only safe areas
Main options	AVRs, lubrication sets, hydrostatic sets, special sensors (vibrations, temperature, speed, etc.), transformers

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

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 (IEEE, NEMA, VDE, etc.). Indar's SG series generators adapt to the requirements established by the various Classification Societies for marine application. In the case of machines connected to the main grid, they are designed according the legislation in force in each country, as regards electrical grid connection in terms of voltage drops.

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CE

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