

INDAR

SG E

Synchronous Generators Driven by Electrical Motors



FY05INME01_A/0512 NJC

The INDAR **SGE** generator series is specially designed for sets in transformer test benches and rotary converter sets for harbour power plants: 50/60 Hz.

Applications:

- Equipment goods manufacturers (transformers, reducers, rotary electrical machines, etc.).
- Port authorities

Main features

SG E

Power	From 1,250 kVA up to 35,000 kVA
Excitation	Brushless or with direct excitation (with brushes)
Speed	2p ≥ 4 poles; max. speed ≤ 1,800 rpm
Voltage	Up to 15 kV
Temperature Rise Class	F (155 °C) / B (130 °C)
Thermal Insul. Class	Up to class H (180 °C)
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.



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