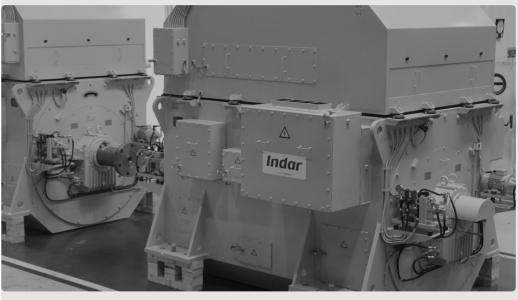
INDAR

Induction







Indar offers customised machines based on the requirements of our clients. The IM series of induction motors is a clear example of our versatility and adaptability to the client's specific requirements based on standard criteria. This flexibility allows us to cover markets as varied and demanding such as silent propulsion for oceanographic vessels in compliance with the ICES 209 standard or the cement industry, amongst others. All of the motors in the ${\bf IM}$ series can be fed both directly from the electrical grid and from frequency converters.

IM

Squirrel cage or wound rotor

From 400 kW to 11,000 kW

Applications:

The IMm series for marine applications:

· Marine: Propulsion, On-deck machinery The IMi series for standard industrial applications:

- Polling mills Tubo mills

applications: Metal Industry: Rolling mills, Tube mills, Auxiliary systems (pumps, fan) Mining: Lifting, Conveyor belts, Grinding mills Water treatment Cement Industry Power plants Test benches		Speed Voltage Temp. Increase Class Thermal Insul. Class Power Supply	Up to 2,000 rpm / $2p \ge 4$ poles From 400 V to 15,000 V F (155 °C) / B (130 °C) Up to class H (180°C) PWM or sinusoidal
		Construction	Horizontal and vertical
		Protection level (IEC 60034-5)	IP ≤ 67
		Cooling (JEC 60034-6)	IC01, IC11, IC21, IC31, IC06, IC16, IC26, IC36, IC17, IC27, IC37, IC81W, IC86W, IC611, IC616, IC661 and IC666
Test Direct-current windings resistance measurement at cold condition Phase sequence check Temperature rise test	Procedure	Supports	With antifriction bearings or sleeve bearings
	IEC 60034-4	Types of atmosphere	Only safe atmospheres
	IEC 60034-8 IEC 60034-1 IEC 60034-29	Main options	Lubrication groups, hydrostatic groups, special sensors (vibrations, temperature, speed, etc.), transformers.
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		Our machines are designed, manufactured and tested according to the criteria and standards or	

International Electrotechnical Commission. Indar's IMm series motors adapt to the requirements established by the various classifying bodies for marine application:





Main features

Rotor type

Power



















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