INDAR

# INDAR MOTOR RANGE

## *SYNCHRONOUS / PERMANENT MAGNET / SQUIRREL CAGE MOTORS*

| | SM | PMM | SCIM |
|---|---|---|---|
| Rotor Type | Excited salient poles | Permanent magnets | Squirrel cage |
| Frame Size | H≥900 | H≥630 | H≥630 |
| Power | Up to 15 MW | Up to 15 MW | Up to 25 MW |
| Speed | Up to 900 rpm | Up to 600 rpm | Up to 2,000 rpm / 2p ≥ 4 poles |
| Voltage | Up to 15,000 V | Up to 15,000 V | Up to 15,000 V |
| Temperature Rise Class | F / B | F / B | F / B |
| Thermal Insulation Class | Up to class H | Up to class H | Up to class H |
| Power Supply | PWM or DOL | PWM or DOL | PWM or DOL |
| Construction | Horizontal | Horizontal or vertical | Horizontal and Vertical |
| Protection Degree | Up to IP 56 | Up to IP 56 | Up to IP 56 |
| Cooling | Upon request (except IC411) | Upon request (except IC411) | Upon request (except IC411) |
| Bearings | Sleeve bearings | Sleeve bearings | Antifriction or sleeve bearings |
| Main Options | Lubrication groups, hydrostatic groups, special sensors (vibrations, temperature, speed, etc.) | Lubrication groups, hydrostatic groups, special sensors (vibrations, temperature, speed, etc.) | Lubrication groups, hydrostatic groups, special sensors (vibrations, temperature, speed, etc.) |

# ADVANTAGES AND APPLICATIONS

## MAIN ADVANTAGES

- ✓ Simple, compact and robust design.
- ✓ High power density.
- ✓ Proven reliability and endurance.
- ✓ Premium quality thermal insulation class.
- ✓ Optimized efficiency.
- ✓ Power factor control.
- ✓ Versatility (Construction/configuration, operation modes, cooling method, etc.).
- ✓ Operation under most severe operating conditions.

## TYPICAL APPLICATION

- ↗ Marine: Propulsion, on-deck machinery.
- ↗ Metals: Rolling mills, crushers, extruders.
- ↗ Mining: Grinding mills, conveyor belts, hoists.
- ↗ Heavy duty fans, wind tunnels.
- ↗ Heavy duty pumps.
- ↗ Test bench.
- ↗ Pulp & paper.

# STANDARDS & TESTS

Indar™ machines are designed, manufactured according to the criteria and standards of the IEC, IEEE or NEMA.

Thanks to our multiple test benches, every Indar machine is tested according to the above mentioned standards requirements as well as to any additional test required by each project.

When it comes to specific sectors such as the marine market, Indar motors are compliant with the requirements established by the various classifying bodies.

Additionally, special tests can be run on our combined power electronics and rotating electrical machine world class laboratory. This laboratory enables us to measure how the electrical machines operate once installed at their final destination, allowing for instance to test them at full load conditions or back-to-back configuration.