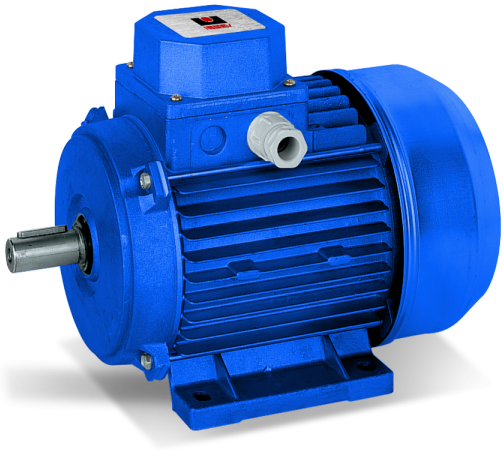
ALUMINUM THREE-PHASE ASYNCHRONOUS MOTORS IE2 - IE3



Power outputs	0,12 - 22kW
Voltages	Up to 690V
Frames	63 - 180
Efficiency classes	IE2 - IE3, where applicable
Sectors	Food / Marine / Rail / Industrial / Snowmaking / Steel Industry
Most common applications	Machine tools / Fans / Pumps / Handling and Lifting Systems

We designed these motor series specifically to be flexible in the combination of their materials. We support you in choosing the configuration that best meets the characteristics of the installation in which these motors will operate.

The series name identifies the combination of materials of the main mechanical components of the engine (case and endshields):

Series name	1B	2B	3B	4B	5B
D-End Endshield	Aluminum	Cast-Iron	Aluminum	Cast-Iron	
Case	Aluminum				Cast-Iron
N-End Endshield	Aluminum		Cast-Iron		

1B-2B-3B-4B MOTOR SERIES

	Standard configuration	**Special configuration**
Standards	Applicable IEC EN 60034	Specification on request
Polarity / Speed	Single	Double / Triple
Cooling method	IC 411	IC 410 / IC 416 / IC 418
IP Index of Protection	IP55	IP56 / IP65 / IP66
Insulaton Class	F	H
Temperature rise Class	B	F / H
Altitude	<1000m a.s.l.	up to 4000m a.s.l.
Power supply	Main	Frequency converter
Rotor	Squirrel cage	-
Material of the rotor windings	Aluminum	-
Duty	S1	S2 … S9
Ambient temperature	-20°C / +40°C	-20°C / + 120°C
Shaft extension	D-End	D-End + N-End
Shape of the shaft extension	Cylindric, with key	Conical / special
Material of the shaft	Steel C40	39NiCrMo3 / Stainless steel

	Standard configuration	Special configuration
Bearings	Ball	Roller / Angular
Seal ring	MIM (*)	Viton / Silicon / Labirinth (*)
Material of the screws	Galvanised	Stainless steel
Vibration grade	A (with half key)	B (with half or full key)
Material of the fan	Polyamide	Aluminum
Material of the fan cover	Steel	-
Lifting eyebolt	From 100 frame and above	-
Feet	Fixed	Removable feet (160 frame excluded)
Terminal box - position	On the top	Flying leads
Terminal box - material	Aluminum	-
Cable entry	On the right side, when seen from D-End	Rotatable in step of 90°
Q.ty of terminals (single polarity)	6	-
Q.ty of terminals (double polarity)	6	12
Q.ty of terminals (triple polarity)	12	-

(*): with cast-iron endshield

SPECIAL SOLUTIONS

Windings

Insulation class H
Tropicalisation
Stator windings with enhanced insulation system for inverter
Special voltage and/or frequency

Bearings

Sealed bearings
Roller bearings
Insulated bearings
Hybrid bearings
Bearings for high temperatures

Double impregnation
Encapsulation of the windings

Protections

Bi-metal protection
PTC Thermistors
PT100 Thermo-resistances
PT1000 Thermo-resistances
Anticondensation heaters

Transducers

Arrangment for vibration detector
Arrangment for speed detector (toothed wheel)
Encoder

Painting and solutions for extreme environment

Special painting colour (std RAL5010)
Special painting process for agressive environment
Drainage hole
Solutions for high temperatures (up to +120°C)
Anti-rain canopie
Anti-sun canopie
IP56, IP65, IP66 protection degrees
Stainless steel screws

Angular bearings
Re-greasing systems
D-End fixed bearing (with cast-iron endshield)
labirinth ring
Viton ring
Silicon ring

Shaft and Fan

Special shaft extension
Second shaft extension
Non-ventilated motor (IC410)
Forced ventilation (IC416)
Non-ventilated motor, externally cooled (IC418)
Aluminum fan
Vibration grade B (with half or full key)

Terminal box

12 terminals
Brass cableglands
Special cableglands
Flying leads
Auxiliary terminal box
Special cable entry