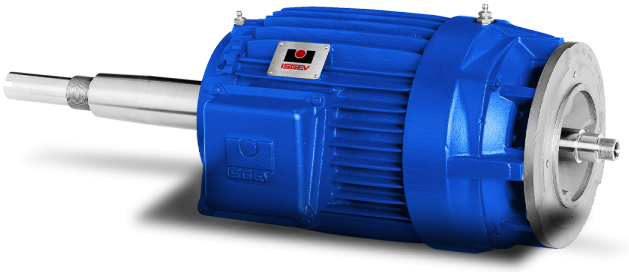
SYNCHRONOUS RELUCTANCE MOTORS



Power outputs	0,075 - 9kW
Voltages	690V
Frames	63 - 180
Efficiency classes	IE2 - IE3, where applicable
Sectors	Textile / Glass / Plastic
Most common applications	Machine tools / Fans / Stretching units for synthetic fibres

These closed, externally ventilated type motors have dimensions and designs in accordance with IEC standards.
The advantage of these motors is the total absence of maintenance which, together with the possibility of having a precise speed control, makes them suitable for a wide range of applications where speed regulation independent of load values is required.
Our synchronous reluctance motors are of the self-starting type like conventional asynchronous motors and can be designed for very high speed applications.

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	AR
D-End Endshield	Aluminum	Cast-Iron	Aluminum	Cast-Iron		
Case	Aluminum				Cast-Iron	
N-End Endshield	Aluminum		Cast-Iron			

1B-2B-3B-4B-5B (AR) MOTOR SERIES

	Standard configuration	Special configuration
Standards	Applicable IEC EN 60034	Specification on request
Polarity / Speed	Single	-
Maximum speed	Corresponding to 50Hz/60Hz	6000rpm (4Pole) / 4000rpm (6Pole)
Cooling method	IC 411	IC 416
IP Index of Protection	IP55	IP56 / IP65 / IP66
Insulaton Class	F	H
Temperature rise Class	B	F / H
Altitude	<1000m a.s.l.	fino a 4000m a.s.l.
Power supply	Main	Frequency converter
Rotor	Reluctance anisotropic	-
Duty	S1	S2 … S9
Ambient temperature	-20°C / +40°C	-
Shaft extension	D-End	D-End + N-End
Shape of the shaft extension	Cylindric, with key	Conical / special

	Standard configuration	Special configuration
Material of the shaft	Steel C40	39NiCrMo3 / Stainless steel
Bearings	Ball	Roller / Angular
Seal ring	MIM	Viton / Silicon / Labyrinth
Material of the screws	Galvanised	Stainless steel
Vibration grade	A (with half key)	B
Material of the fan	Polyamide	Aluminum
Material of the fan cover	Steel	-
Lifting eyebolt	From 100 frame and above	On request
Feet	Fixed	-
Terminal box - position	On the right side, when seen from D-End (Cast-iron) On top (Aluminum)	On top / On the left / Flying leads
Terminal box - material	Aluminum	Cast-iron
Cable entry	On the right side	Rotatable in step of 90°
Q.ty of terminals	6	-

SPECIAL SOLUTIONS

Windings

Insulation class H
Tropicalisation
Stator windings with enhanced insulation system for inverter
Special voltage and/or frequency
Double impregnation
Encapsulation of the windings

Painting and solutions for extreme environment

Special painting colour (std RAL5010)
Special painting process for agressive environment
Drainage hole
Anti-rain canopie
Anti-sun canopie
IP56, IP65, IP66 protection degrees

Protections

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

Transducers

Arrangment for vibration detector
Encoder
Tachometer

Brake

Stationary brake with separate DC or AC power supply
Manual release lever
Sealed braking unit
Axial brake release

Bearings

Sealed bearings
Roller bearings
Insulated bearings
Hybrid bearings
Angular bearings
Re-greasing systems
D-End fixed bearing
Rotating labyrinth
Viton ring
Silicon ring

Shaft and Fan

Special shaft extension and/or flange
Second shaft extension
Forced ventilation (IC416)
Metallic fan
Vibration grade B (with half or full key)

Terminal box

Brass cableglands
Special cableglands
Position of terminal box
Direction of cable entry
Flying leads
Auxiliary terminal box
Special cable entry