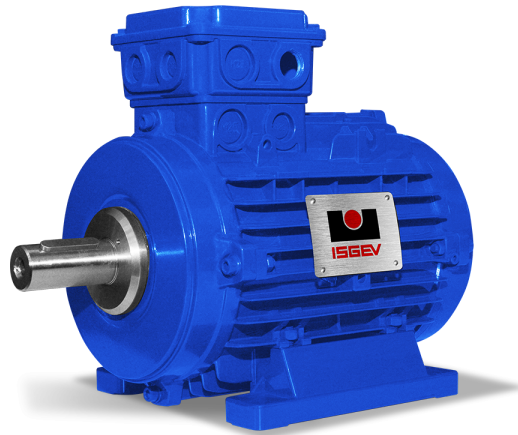


# MOTORS FOR EXTREME TEMPERATURES



<b>Power outputs</b>	0,12 - 45kW
<b>Voltages</b>	Up to 690V
<b>Frames</b>	63 - 280
<b>Sectors</b>	Food / Industrial / Snowmaking / Steel Industry
<b>Most common applications</b>	Machine tools / Fans / Pumps / Snow guns / Rolling tables on steel industry

The materials and protections with which we equip these machines ensure the correct functioning of the motors even in very severe temperature conditions.

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):

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

## > 1B-2B-3B-4B-5B MOTOR SERIES

	<b>Standard configuration</b>	<b>Special configuration</b>
<b>Standards</b>	Applicable IEC EN 60034	Specification on request
<b>Polarity / Speed</b>	Single	Double / Triple
<b>Cooling method</b>	IC 411	IC 410 / IC 416 / IC 418
<b>IP Index of Protection</b>	IP55	IP56 / IP65 / IP66
<b>Insulation Class</b>	F	H
<b>Temperature rise Class</b>	B	F / H
<b>Altitude</b>	<1000m a.s.l.	up to 4000m a.s.l.
<b>Power supply</b>	Main	Frequency converter
<b>Rotor</b>	Squirrel cage	-
<b>Material of the rotor windings</b>	Aluminum	-
<b>Duty</b>	S1	S2 ... S9
<b>Ambient temperature</b>	-20°C / +100°C	-20°C(*) / +120°C
<b>Shaft extension</b>	D-End	D-End + N-End
<b>Shape of the shaft extension</b>	Cylindric, with key	Conical / special
<b>Material of the shaft</b>	39NiCrMb3	Stainless steel
<b>Bearings</b>	Ball	Roller / Angular
<b>Seal ring</b>	Labyrinth	Viton / Silicon

	Standard configuration	Special configuration
<b>Drainage hole</b>	Closed with screw	Open
<b>Material of the screws</b>	Stainless steel	-
<b>Vibration grade</b>	A	B
<b>Material of the fan</b>	Aluminum	-
<b>Material of the fan cover</b>	Steel	-
<b>Lifting eyebolt</b>	From 100 frame and above	On request
<b>Feet</b>	Fixed (Cast-iron) / Removable (Aluminum)	-
<b>Terminal box - position</b>	On the right side, when seen from D-End (Cast-iron) On top (Aluminum)	On top(§) / On the left(§) / Flying leads
<b>Terminal box - material</b>	Aluminum (cast-iron for 200 and 225)	-
<b>Cable entry</b>	On the right side	Rotatable in step of 90°
<b>Q.ty of terminals (single polarity)</b>	6	-
<b>Q.ty of terminals (double polarity)</b>	6	12
<b>Q.ty of terminals (triple polarity)</b>	12	-

(\*): -50°C with 5B series only

(§): Available only on 5B Motor series

## SPECIAL SOLUTIONS

### Windings

Insulation class H

Tropicalisation

Stator windings with enhanced insulation system for inverter

### Bearings

Sealed bearings

Insulated bearings

Hybrid bearings

Bearings for low temperatures

Special voltage and/or frequency

Double impregnation

Encapsulation of the windings

### **Protections**

Bi-metal protection

PTC Thermistors

PT100 Thermo-resistances

PT1000 Thermo-resistances

Anticondensation heaters

### **Transducers**

Arrangement for vibration detector

Arrangement for speed detector (toothed wheel)

Encoder

### **Painting and solutions for extreme environment**

Special painting colour (std RAL5010)

Special painting process for aggressive environment

Solutions for low temperatures (down to -50°C(\*))

Solutions for high temperatures ( up to +120°C)

Anti-rain canopie

Anti-sun canopie

IP56, IP65, IP66 protection degrees

Open drainage hole

Angular bearings

Re-greasing systems

D-End fixed bearing (only with Cast-iron endshield)

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)

Metallic fan

Vibration grade B (with half or full key)

### **Terminal box**

12 terminals

Special cableglands

Position of terminal box (only with cast-iron case)

Direction of cable entry

Flying leads

Auxiliary terminal box

Special cable entry