

# GENERAL PURPOSE SINGLE-PHASE INDUCTION MOTORS



## 1 ~ MOTORS



POWER OF EXPERIENCE INDIVIDUAL PROFESSIONAL APPROACH  
PROFESSIONAL APPROACH ENERGY TOP QUALITY  
**DRIVING** PROFESSIONAL APPROACH TURNED INTO  
INTO **YOUR** ENERGY GAIN CONTINUOUS  
ENERGY **BUSINESS** GAIN SOLID PARTNER  
CHALLENGING PROJECTS MOST DEMANDING APPLICATIONS  
MORE ENERGY  
SOLID PARTNER  
**CANTONI**  EFFICIENT  
**MOTOR** POWER OF  
EXPERIENCE TOP QUALITY INDIVIDUAL APPROACH PROFESSIONAL

# Product range



|   |  |                                 |  |
|---|--|---------------------------------|--|
| <b>LOW VOLTAGE<br/>GENERAL PURPOSE<br/>3-PHASE<br/>INDUCTION MOTORS</b> | <p>Three-phase motors with squirrel-cage rotor series (2)Sg(m), Sh.</p> <p>High efficiency motors series 2SIE, 3SIE and 4SIE (efficiency classes IE2, IE3, IE4)</p>  | <p>from 0,04kW up to 2200kW</p> | <p>for general purpose applications like pumps, fans, compressors; complying with the newest efficiency requirements</p>   |
| <b>GENERAL PURPOSE<br/>1-PHASE<br/>INDUCTION MOTORS</b>                 | <p>Single-phase motors with squirrel-cage rotor series SEh(R), SEMh(R).</p> <ul style="list-style-type: none"> <li>– motors with standard starting torque</li> <li>– motors with increased starting torque</li> <li>– motors with high starting torque.</li> </ul> | <p>from 0,04kW up to 2,2kW</p>  | <p>for general purpose applications like pumps, fans, compressors, woodworking machines, devices for food processing, concrete mixers etc.</p>                                   |
| <b>HIGH VOLTAGE<br/>INDUCTION MOTORS<br/>UP TO 11kV</b>                 | <p>Three-phase squirrel-cage high voltage and high efficiency motors series Sh with cast-iron housing.</p> <p>High voltage motors with module construction (steel/welded housing) series Sf (-E), Sfw, Sfr.</p>  | <p>from 160kW up to 6000kW</p>  | <p>for general industrial use, drives used for own needs of power plants (pumps, fans, coal mills, conveyors)</p>  |
| <b>BRAKE MOTORS</b>   | <p>Three-phase and single-phase brake motors with AC and DC brakes</p>   | <p>from 0,04kW up to 200kW</p>  | <p>for applications with high safety requirements or where immediate stopping of the drive is required e.g.: theatres, concert, halls, lifts, platforms, etc.</p>                |
| <b>MOTORS WITH<br/>FORCED VENTILATION</b>                               | <p>Three-phase induction motors with forced ventilation.</p>   | <p>from 0,06kW up to 2500kW</p> | <p>for variable frequency drives with very wide speed regulation</p>   |
| <b>EXPLOSION-PROOF<br/>MOTORS</b>                                       | <p>Increased safety motors</p>   | <p>from 0,06kW up to 22kW</p>   | <p>adapted for operation in areas endangered by explosion (without methane)</p>  |
|   | <p>Flame-proof motors</p>  | <p>from 0,55kW up to 3200kW</p> | <p>for applications in chemical and mining industry where explosive atmosphere of gases, vapours or dust can occur</p>   |
| <b>NEMA MOTORS</b>  | <p>Low voltage NEMA motors SIE series (in compliance with the NEMA PREMIUM requirements).</p>  | <p>from 1HP up to 250HP</p>     | <p>for general industrial applications like pumps (including JM and JP), fans, compressors also for Hazardous Locations (Class I Div 2, Class II Div 2) with CSA certificate</p> |
| <b>TRACTION MOTORS</b>  | <p>Traction motors and traction generators.</p>  | <p>from 50kW up to 1500kW</p>   | <p>various traction vehicles: trams (including low-deck trams), trolleybuses, subway and locomotives</p>   |

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# Efficiency of motors

New efficiency classes for the low-voltage three-phase and single-phase motors (IE = International Efficiency).

Along with the international discussion on energy efficiency a worldwide harmonized energy efficiency standard classification system has been established for low-voltage three-phase and single-phase asynchronous motors.

The standard IEC 60034-30-1 defines and harmonizes worldwide the efficiency classes IE1, IE2, IE3 and IE4 for low-voltage three-phase motors in the power range from 0,12 kW to 1000 kW (2p=2, 4, 6, 8) and single-phase motors.

IE1 = Standard Efficiency

IE2 = High Efficiency

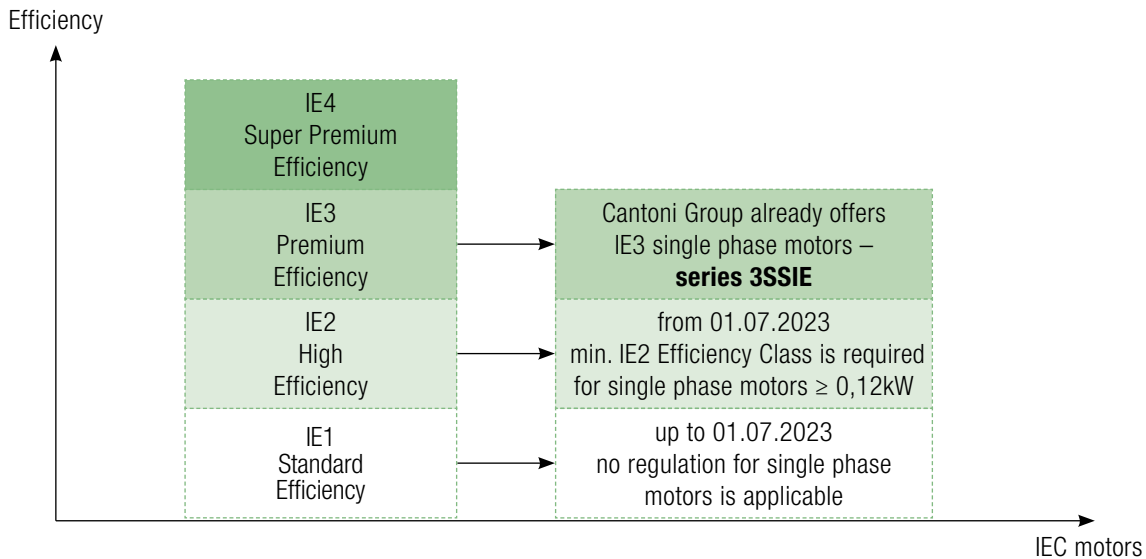
IE3 = Premium Efficiency

**IE4 = Super Premium Efficiency**

Complying with IEC 60034-30-1 standard the efficiency has to be determined in accordance with the new requirements given in the IEC 60034-2-1 standard.

According to the new EU Commission Regulation (EC) regarding minimum efficiency of electric motors pursuant to Directive 2009/125/EC which will repeal Regulation 640/2009 (including amendment 4/2014) on 01.07.2021, the required efficiency class of general-purpose single-phase motors has to be as follows:

**From 1<sup>st</sup> July 2023: single-phase motors  $\geq 0,12\text{kW}$  shall have minimum efficiency class of IE2.**



In addition to motors in Standard Efficiency, Cantoni Group already offers single-phase electric motors in Premium Efficiency Class IE3 – **series 3SSIE**.

This means, that Cantoni motors meet **IE3 Premium Efficiency** level before even IE2 High Efficiency is formally required.

**New EU Commission Regulation regarding minimum efficiency of electric motors  
pursuant Directive 2009/125/EC will repeal Regulation 640/2009  
(including amendment 4/2014) on 2021-07-01.**

## Motors covered by new Regulation

|                        |   |
|------------------------|---|
| <b>Type</b>            | general purpose, geared, with brake, Ex |
| <b>Voltage</b>         | >50V ÷ 1000V                            |
| <b>Frequency</b>       | 50 Hz, 60 Hz or 50/60 Hz                |
| <b>Number of poles</b> | 2, 4, 6, 8                              |
| <b>Rated power</b>     | 0,12kW ÷ 1000kW                         |
| <b>Duty</b>            | continuous (S1, S3≥80 % or S6≥80%)      |

## Motors excluded from new Regulation

|             |  |
|-------------|--|
| <b>Type</b> | <ul style="list-style-type: none"> <li>• multi-speed, slip-ring and with mechanical commutators</li> <li>• motors completely integrated into a product whose efficiency cannot be tested independently from the product</li> <li>• motors with an integrated variable speed drive (compact drives) whose efficiency cannot be tested independently from the variable speed drive</li> <li>• motors with an integrated brake which forms an integral part of the inner motor construction and can neither be removed nor powered by a separate power source during the testing of the motor efficiency</li> <li>• motors specifically designed and specified to operate wholly immersed in a liquid</li> <li>• motors specifically qualified for the safety of nuclear installations, as defined in Article 3 of Council Directive 2009/71/EURATOM</li> <li>• explosion-protected motors specifically designed and certified for mining, as defined in Annex I, point 1 of Directive 2014/34/EU</li> <li>• motors in cordless or battery-operated equipment and motors in hand-held equipment whose weight is supported by hand during operation</li> <li>• motors in hand-guided mobile equipment moved while in operation</li> <li>• Totally Enclosed Non-Ventilated (TENV) motors</li> <li>• motors placed on the market before 1 July 2029 as substitutes for identical motors integrated in products placed on the market before 1 July 2022, and specifically marketed as such</li> <li>• motors designed specifically for the traction of electric vehicles</li> </ul> |
|-------------|--|

**Designed for altitudes** > 4000 m a.s.l.

**Designed for ambient temperatures** < -30°C and > 60°C

**With maximum operating temperatures** > 400°C

## Timetable of new Regulation

| TYPE OF MOTORS | EFF CLASS   | General purpose motors            | Ex motors except motors for mining |                                  |
|----------------|---|-----------------------------------|------------------------------------|----------------------------------|
|                |   |                                   | Increased safety (Ex eb)           | Others                           |
| 1 PHASE MOTORS | IE2   | ≥0,12kW                           | ≥0,12kW                            | ≥0,12kW                          |
|                |   | from 2023-07-01                   | from 2023-07-01                    | from 2023-07-01                  |
| 3 PHASE MOTORS | IE2   | 2p=2, 4, 6, 8<br>0,12kW ÷ <0,75kW | 2p=2, 4, 6, 8<br>0,12kW ÷ 1000kW   | N/A                              |
|                |   | from 2021-07-01                   | from 2023-07-01                    |                                  |
|                | IE3   | 2p=2, 4, 6, 8<br>0,75kW ÷ 1000kW  | N/A                                | 2p=2, 4, 6, 8<br>0,75kW ÷ 1000kW |
|                |   | from 2021-07-01                   |                                    | from 2021-07-01                  |
| IE4            | 2p=2, 4, 6<br>75kW ÷ 200kW<br>except brake motors | N/A                               | N/A                                |                                  |
|                | from 2023-07-01                                   |                                   |                                    |                                  |

## Ratings – Tolerances

### Tolerances of motor parameters

Permissible deviations between catalogue values and real values are according to the IEC 60034-1:

|  |   |
|--|---|
| Power factor $\cos \varphi$              | $\Delta \cos \varphi = -1/6 (1 - \cos \varphi_N)$   |
| Efficiency $\eta$                        | $\Delta \eta = -15\% (100 - \eta_N)$ for $P_N \leq 150 \text{ kW}$<br>$\Delta \eta = -10\% (100 - \eta_N)$ for $P_N > 150 \text{ kW}$ |
| Speed $n$                                | $\Delta n = \pm 20\% (n_s - n_N)$ for $P_N > 1 \text{ kW}$<br>$\Delta n = \pm 30\% (n_s - n_N)$ for $P_N \leq 1 \text{ kW}$           |
| Locked rotor current ratio $I_L/I_N$     | $\Delta(I_L/I_N) = +20\% (I_L/I_N)$   |
| Locked rotor torque ratio $T_L/T_N$      | $\min (T_L/T_N) = -15\% (T_L/T_N)$<br>$\max (T_L/T_N) = +25\% (T_L/T_N)$  |
| Breakdown torque ratio $T_B/T_N$         | $\Delta(T_B/T_N) = -10\% (T_B/T_N)$   |
| Moment of inertia $J$ [ $\text{kgm}^2$ ] | $\Delta J = \pm 10\% J$   |
| Sound pressure level $L_{pA}$ [dB]       | $\Delta L_{pA} = +3 \text{ dB / A}$   |

### Tolerances of supply voltage value and frequency

Motors comply in standard with voltage value and voltage frequency variations within zone A according to the IEC 60034-1:

|                       |                      |
|-----------------------|----------------------|
| Voltage value $U$     | $\Delta U = \pm 5\%$ |
| Voltage frequency $f$ | $\Delta f = \pm 2\%$ |

Other extended tolerances of supply voltage and their frequency are available on request.

## Standards

The electric motors are manufactured according to the international standards:

|   |               |
|---|---------------|
| Rating and performance                            | IEC 60034-1   |
| Methods for determining losses and efficiency     | IEC 60034-2-1 |
| Classification of degrees of protection           | IEC 60034-5   |
| Methods of cooling                                | IEC 60034-6   |
| Symbols of construction and mounting arrangements | IEC 60034-7   |
| Terminal markings and direction of rotation       | IEC 60034-8   |
| Noise limits                                      | IEC 60034-9   |
| Dimensions and output of electric machines        | IEC 60072-1   |
| Vibration limits                                  | IEC 60034-14  |

## Definitions

### Relation between rated output power and rated torque on motor shaft:

$$T = \frac{9,55 \times P}{n}$$

where:

- $T$  [Nm] is rated output torque on motor shaft
- $P$  [W] is rated output power on motor shaft
- $n$  [rpm] is rated speed of motor shaft

### Relation between rated output power on shaft and rated consumed power from mains:

$$P_1 = \frac{P}{\eta} \times 100$$

where:

- $P_1$  [kW] is rated consumed power from mains by motor
- $P$  [kW] is rated output power on motor shaft
- $\eta$  [%] is rated efficiency of motor

### Relation between rated consumed power from mains and rated voltage, current, power factor:

$$P_1 = U \times I \times \cos\varphi$$

where:

- $P_1$  [W] is rated consumed power from mains by motor
- $U$  [V] is rated supply voltage of motor
- $I$  [A] is rated current consumed from mains by motor
- $\cos\varphi$  is rated power factor of motor

### Units of measurement

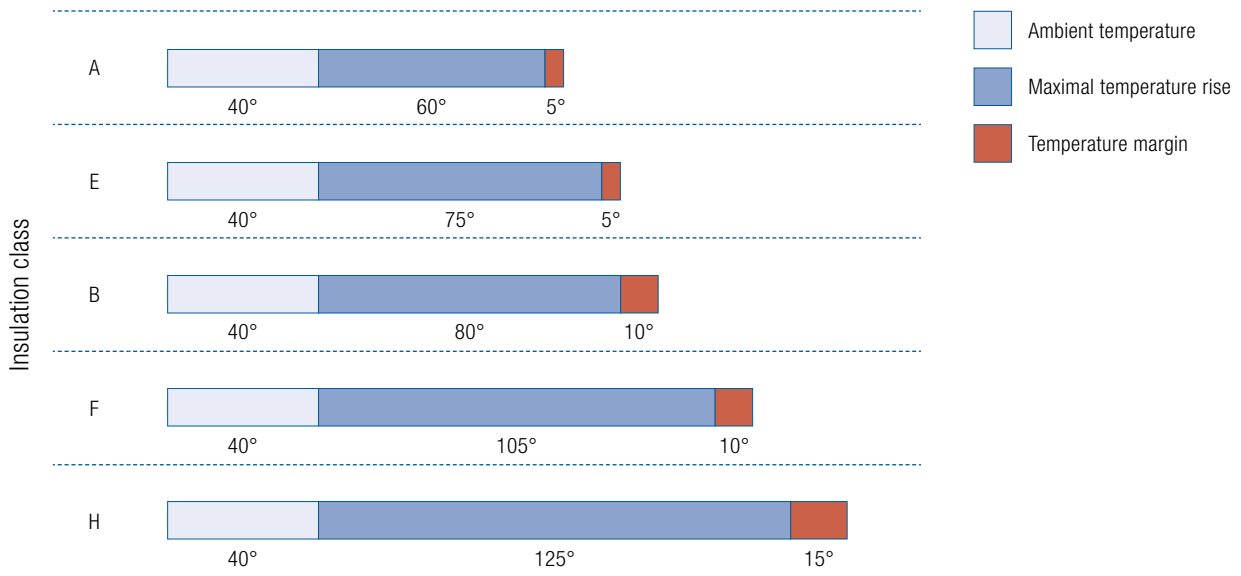
| Parameter name       | Symbol         | Unit name | Symbol |
|----------------------|----------------|-----------|--------|
| Frequency            | f              | Hertz     | Hz     |
| Active power         | P              | Watt      | W      |
| Voltage              | U              | Volt      | V      |
| Electric Current     | I              | Amper     | A      |
| Power factor         | cosφ           | N/A       | N/A    |
| Resistance           | R              | Ohm       | Ω      |
| Sound power level    | L <sub>w</sub> | decibel   | dB     |
| Sound pressure level | L <sub>p</sub> | decibel   | dB     |

## Insulation classification

The insulation system of an electric motor is determined by a given insulation class on the basis of its thermal resistance. This thermal resistance should be guaranteed by the entire set of electric insulating materials used in the motor insulating system.

Thermal resistance classification is related to the temperature of the hotspot in the insulation occurring during rated operating conditions of the electric motor, allowing for the highest permissible rise in average temperature.

This rise should be selected so that at the highest permissible ambient temperature, the temperature of the hotspot in insulation will not exceed the value assigned to a given thermal resistance class.



Insulation class F in an electric motor means that at ambient temperature of 40°C the temperature rise of the winding may be max. 105°C with the additional temperature margin of 10°C (under specified measuring conditions in accordance with the IEC 60034-1 standard).

Symbols of thermal resistance classes (permissible insulation temperatures at 40°C ambient temperature)

| Symbol | Temperature [°C] |
|--------|------------------|
| A      | 105              |
| E      | 120              |
| B      | 130              |
| F      | 155              |
| H      | 180              |

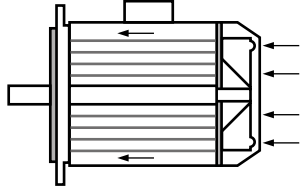
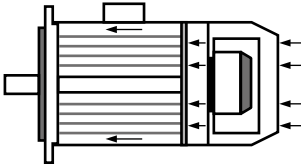
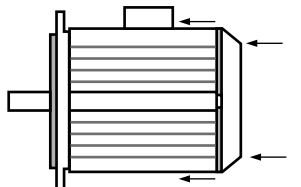
## 1-phase motors Class F

**For special request we can deliver motors equipped with insulation class H.**

Strengthened insulation system gives possibility to safe operation with frequency converters.

## Cooling

General purpose motors from Cantoni Group are equipped with standard IC411 cooling according to IEC 60034-6. Other cooling methods (for example motors with external/separate cooling) are available on request.

| IC code according to IEC 60034-6 | Description  | Drawing   |
|----------------------------------|--|---|
| <b>IC411</b>                     | <ul style="list-style-type: none"> <li>– Enclosed machine</li> <li>– Smooth or finned casing</li> <li>– External shaft-mounted fan</li> <li>– Often called TEFC motor</li> </ul> |    |
| <b>IC416A</b>                    | <ul style="list-style-type: none"> <li>– Enclosed machine</li> <li>– Smooth or finned casing</li> <li>– External motorized axial fan integrated with the motor</li> </ul>        |    |
| <b>IC418</b>                     | <ul style="list-style-type: none"> <li>– Enclosed machine</li> <li>– Smooth and finned casing</li> <li>– Ventilated by air flowing from the driven system</li> </ul>             |  |

## Standard terminal box equipment

| Motor frame size | Number of terminals | Number of cable glands | Size of cable glands | Permissible cable diameter for cable gland | Optional rotation of terminal box | Temperature sensors in the winding |
|------------------|---------------------|------------------------|----------------------|--|-----------------------------------|------------------------------------|
| 56               | 4                   | 1                      | M20                  | 7÷13                                       | 180°                              | on request                         |
| 63               | 4                   | 1                      | M20                  | 7÷13                                       | 180°                              | on request                         |
| 71               | 4                   | 1                      | M20                  | 7÷13                                       | 180°                              | on request                         |
| 80               | 4                   | 1                      | M20                  | 7÷13                                       | 180°                              | on request                         |
| 90               | 4                   | 1                      | M20                  | 7÷13                                       | 180°                              | on request                         |

## Vibration level

The rotor balancing method guarantees that a standard vibration level measured in accordance with the IEC 60034-14 does not exceed 2,8mm/s.

The value mentioned above refers to the uncoupled (disconnected from the driven machine) and operating at no load motors. On customer's demand the motors can be produced with reduced vibration.

## Noise level

Motors in standard comply with a permissible sound power level according to IEC 60034-9.

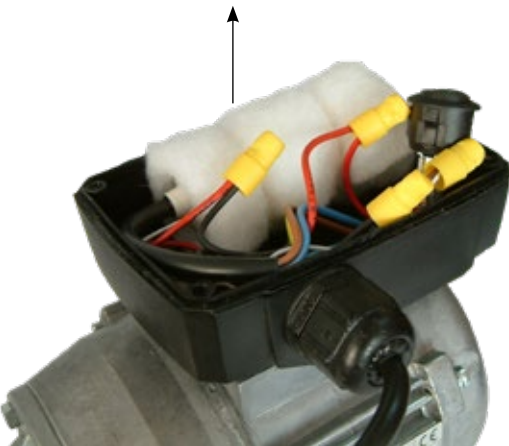
On customer's demand the motors can be delivered with reduced noise level.

## Terminal box

The standard terminal boxes of 1-phase motors are equipped with suitable cable glands. The box contains a terminal board with marked terminals making possible connection of supply cables and separate PE terminal.

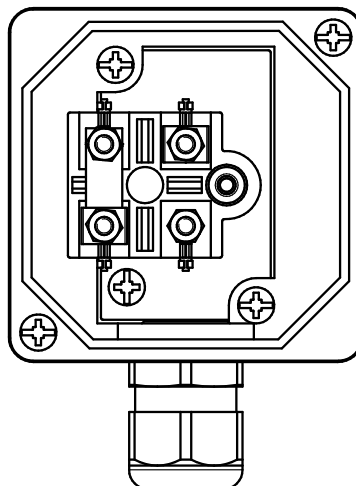
In addition, terminal boxes may be provided with additional terminals connected to the ends of thermal protection or anticondensation heater circuits and extra glands to connect these circuits.

Different shapes and sizes of terminal boxes and different terminal boards are available on request.



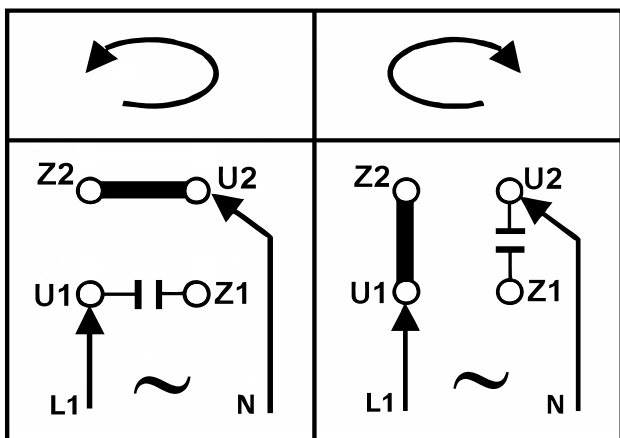
### Standard terminal box view:

Frame size  
SE(M)h56÷90 1-phase

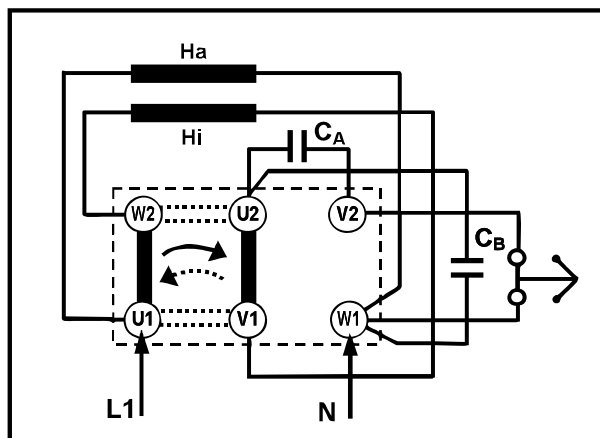


# Connection diagrams

Standard single-phase induction motors with run capacitor:

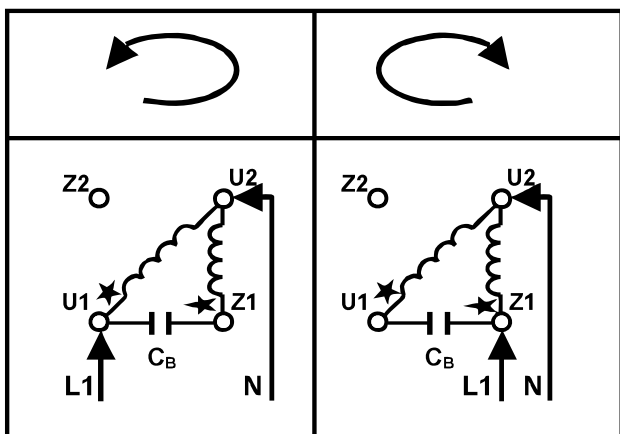


Single-phase induction motors with start capacitor, run capacitor, centrifugal switch or electronic switch:

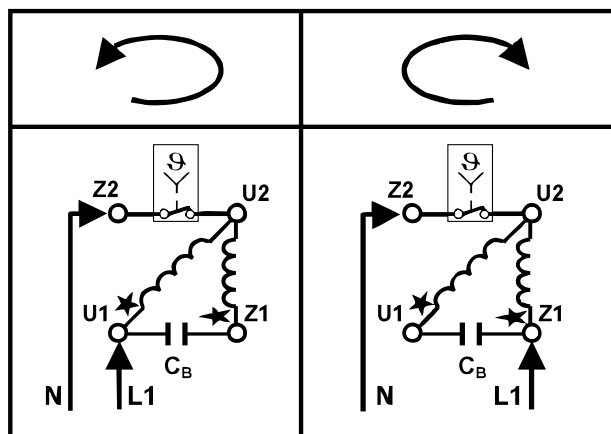


Single-phase induction reversible motors:

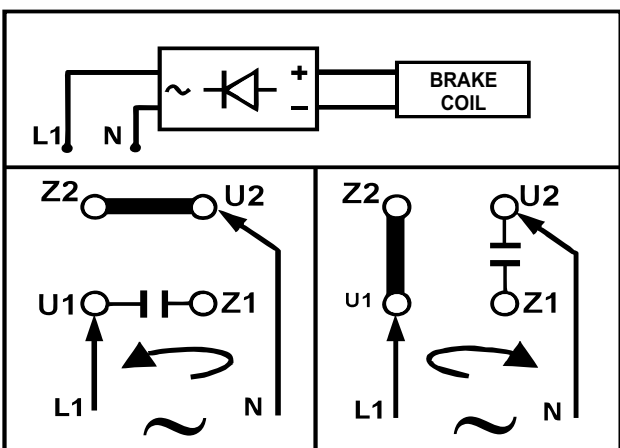
a) without temperature switch:



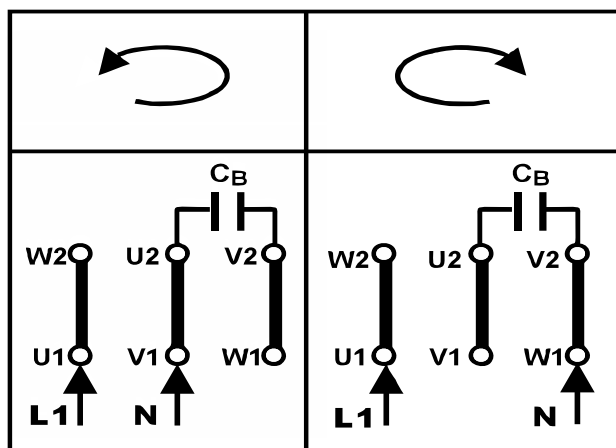
b) with temperature switch connected in series with the winding:



Single-phase induction motors with electromagnetic plate brakes of direct current:



Single-phase induction motors adapted to voltage speed control:


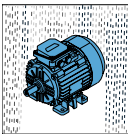

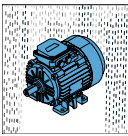
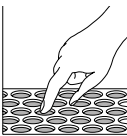
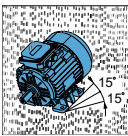
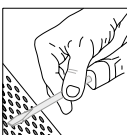
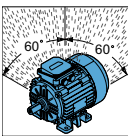
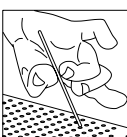
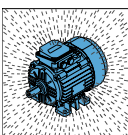
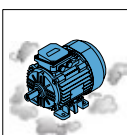
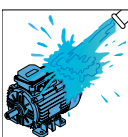
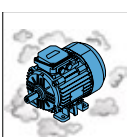

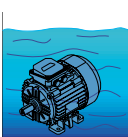
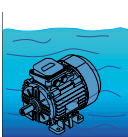


C<sub>A</sub> – start capacitor; C<sub>B</sub> – run capacitor

# Degree of protection IP

## IP 55

Degree of protection IP55 is the standard of our production according to the standard IEC 60034-5

| Protection against penetration of solid matter |   |  | Protection against penetration of fluids |   |  |
|--|---|--|--|---|--|
| 1st digit                                      | Description   |  | 2nd digit                                | Description   |  |
| 0  |  Not protected                                       |  | 0  |  Not protected   |  |
| 1  |  Protected against solid bodies larger than 50 mm    |  | 1  |  Protected against vertically falling drops of water           |  |
| 2  |  Protected against solid bodies larger than 12 mm   |  | 2  |  Protected against vertically falling drops of water up to 15° |  |
| 3  |  Protected against solid bodies larger than 2,5 mm |  | 3  |  Protected against rain up to 60°                             |  |
| 4  |  Protected against solid bodies larger than 1 mm   |  | 4  |  Protected against rain falling from any direction           |  |
| 5  |  Protected against deposition of dust              |  | 5  |  Protected against sprayed water from any direction          |  |
| 6  |  Totally protected against deposition of dust      |  | 6  |  Protected against temporary immersion                       |  |
|  |   |  | 7  |  Protected against immersion between 0,15 and 1 m            |  |
|  |   |  | 8  |  Protected against immersion at preset pressure and time     |  |

Each size 56 to 90 motor is equipped with seal rings (Simmerring or V-ring) on drive side and on non drive side. The terminal box is sealed with a gasket.

**Higher degree of protection is available on request.**

## Painting and corrosivity classes

Standard painting system with RAL5010 color used in all our motors comply with C3 corrosion class according to ISO 12944.

For special request motors can be painted with other colors and with alternative painting systems (e.g. C5M corrosion class).

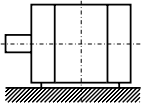
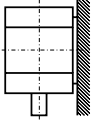
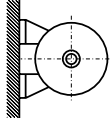
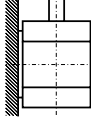
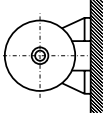
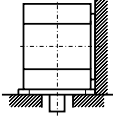
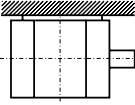
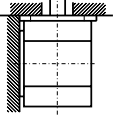
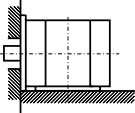
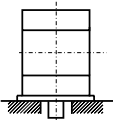
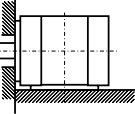
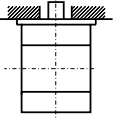
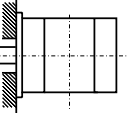
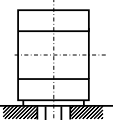
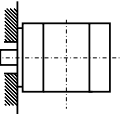
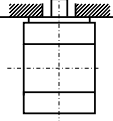
# RAL 5010/C3



| Corrosion class                         | Environment   |  |
|---|---|--|
|   | Interior  | Exterior   |
| <b>C1<br/>(very low)</b>                | Heated buildings with a clean atmosphere such as hotels, offices, shops, schools.                                     | N/A  |
| <b>C2<br/>(low)</b>                     | Unheated buildings, where condensation may occur e.g. storehouses, sports halls.                                      | Atmosphere contaminated to a small extent, mostly rural regions.   |
| <b>C3<br/>(medium)</b>                  | Production space of high humidity and certain air contamination e.g. foodstuff plants, laundries, breweries, dairies. | Industrial and urban atmosphere with an average Sulphur oxide (IV) contamination level. Inshore areas of low salinity. |
| <b>C4<br/>(high)</b>                    | Chemical plants, swimming pools, ship repair yards.   | Industrial areas and inshore areas of medium salinity.   |
| <b>C5I<br/>(very high – industrial)</b> | Buildings and areas of almost constant condensation and high contamination.   | Industrial areas of high humidity and aggressive atmosphere.   |
| <b>C5M<br/>(very high – marine)</b>     | Buildings and areas of almost constant condensation and high contamination.   | Coast and offshore areas with high salt content.   |

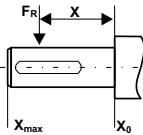
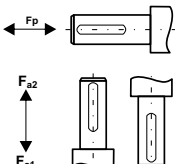
# Mounting arrangements

According to the IEC 60034-7 standard

| Horizontal shaft  |         |            |         | Vertical shaft  |                          |            |         |
|---|---------|------------|---------|---|--------------------------|------------|---------|
| Designation   |         |            |         | Designation   |                          |            |         |
| Code II   | Code I  | Frame size |         | Code II   | Code I                   | Frame size |         |
|    | IM 1001 | IM B3      | 56 ÷ 90 |    | IM 1011                  | IM V5      | 56 ÷ 90 |
|    | IM 1051 | IM B6      | 56 ÷ 90 |    | IM 1031                  | IM V6      | 56 ÷ 90 |
|   | IM 1061 | IM B7      | 56 ÷ 90 |   | IM 2011<br>or<br>IM 2111 | IM V15     | 56 ÷ 90 |
|  | IM 1071 | IM B8      | 56 ÷ 90 |  | IM 2031<br>or<br>IM 2131 | IM V36     | 56 ÷ 90 |
|  | IM 2001 | IM B35     | 56 ÷ 90 |  | IM 3011                  | IM V1      | 56 ÷ 90 |
|  | IM 2101 | IM B34     | 56 ÷ 90 |  | IM 3031                  | IM V3      | 56 ÷ 90 |
|  | IM 3001 | IM B5      | 56 ÷ 90 |  | IM 3611                  | IM V18     | 56 ÷ 90 |
|  | IM 3601 | IM B14     | 56 ÷ 90 |  | IM 3631                  | IM V19     | 56 ÷ 90 |

\*Other mounting arrangements available on special request

# Permissible shaft end loads

| Frame size | Number of poles | Horizontal operation  |   | Vertical operation |                         |               |                  |
|------------|-----------------|---|---|--------------------|-------------------------|---------------|------------------|
|            |                 |  |  | $F_R(x=0)$<br>[kN] | $F_R(x = \max)$<br>[kN] | $F_p$<br>[kN] | $F_{a1}$<br>[kN] |
| 56         | 2               |   | 0,20  | 0,16               | 0,04                    | 0,03          | 0,05             |
|            | 4               |   | 0,25  | 0,20               | 0,05                    | 0,04          | 0,06             |
|            | 6               |   | 0,25  | 0,20               | 0,06                    | 0,05          | 0,07             |
| 63         | 2               |   | 0,20  | 0,16               | 0,04                    | 0,04          | 0,06             |
|            | 4               |   | 0,25  | 0,20               | 0,06                    | 0,05          | 0,07             |
|            | 6               |   | 0,27  | 0,22               | 0,06                    | 0,05          | 0,07             |
|            | 8               |   | 0,27  | 0,22               | 0,07                    | 0,06          | 0,08             |
| 71         | 2               |   | 0,29  | 0,24               | 0,07                    | 0,05          | 0,09             |
|            | 4               |   | 0,36  | 0,30               | 0,09                    | 0,07          | 0,11             |
|            | 6               |   | 0,40  | 0,35               | 0,10                    | 0,08          | 0,12             |
|            | 8               |   | 0,40  | 0,35               | 0,11                    | 0,09          | 0,13             |
| 80         | 2               |   | 0,33  | 0,27               | 0,09                    | 0,06          | 0,12             |
|            | 4               |   | 0,44  | 0,37               | 0,12                    | 0,09          | 0,15             |
|            | 6               |   | 0,51  | 0,42               | 0,14                    | 0,11          | 0,17             |
|            | 8               |   | 0,51  | 0,42               | 0,17                    | 0,15          | 0,20             |
| 90         | 2               |   | 0,79  | 0,66               | 0,64                    | 0,44          | 0,84             |
|            | 4               |   | 1,00  | 0,83               | 0,80                    | 0,65          | 1,05             |
|            | 6               |   | 1,15  | 0,95               | 0,90                    | 0,77          | 1,17             |

Value of radial force  $F_R$  acting on the shaft end for a given belt pulley diameter is calculated according to the following formula:

$$F_R = \frac{19\,600 \times P \times k}{D_k \times n} \text{ [N]}$$

where: P – motor output [kW]  
 $D_k$  – belt pulley diameter [m]  
 n – speed [rpm]  
 k – belt tension factor:  
 for V-belts k=2,2  
 for flat belts k=3

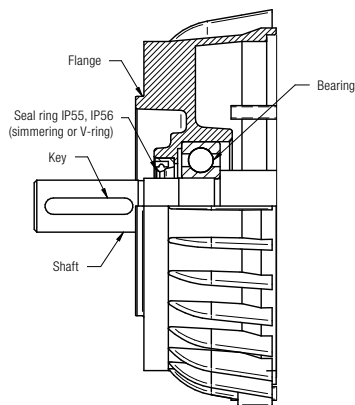
Value of force  $F_R$  acting on any point of the shaft end (between points  $X=\max$  and  $X=0$ ) may be calculated according to the following formula:

$$F_R = F_{x0} - \frac{X}{E} \times (F_{x0} - F_{x\max}) \text{ [N]}$$

where:  $F_{x0}$  – value of  $F_R$  force acting on the beginning of the shaft end  
 $F_{x\max}$  – value of  $F_R$  force acting on the end of the shaft end  
 E – length of the shaft end

## Bearing types and bearing nodes

Frame size  
3SIE, S(E)h56 ÷ 90



| Frame size    | DE Bearing | NDE Bearing |
|---------------|------------|-------------|
| 56            | 6201 2Z C3 | 6201 2Z C3  |
| 63            | 6202 2Z C3 | 6202 2Z C3  |
| 71            | 6203 2Z C3 | 6203 2Z C3  |
| 80            | 6204 2Z C3 | 6204 2Z C3  |
| 90            | 6205 2Z C3 | 6204 2Z C3  |
| (series R) 90 | 6205 2Z C3 | 6205 2Z C3  |

## Material of housing, end shields and feet

| Frame size [mm] | Motor housing | End shields | Feet                |
|-----------------|---------------|-------------|---------------------|
| 56              | Aluminium     | Aluminium   | Aluminium – screwed |
| 63              | Aluminium     | Aluminium   | Aluminium – screwed |
| 71              | Aluminium     | Aluminium   | Aluminium – screwed |
| 80              | Aluminium     | Aluminium   | Aluminium – screwed |
| 90              | Aluminium     | Aluminium   | Aluminium – screwed |

On request, in motors frame size 80 and 90 end shields may be made of cast iron.  
The frame, bearing shield, feet and terminal box are AK11 aluminium alloy cast.  
The fan is made of thermoplastic material, the fan cover is made of steel.

## Features

14

Single phase motors are manufactured within the range of frame size 56-90 as motors with:

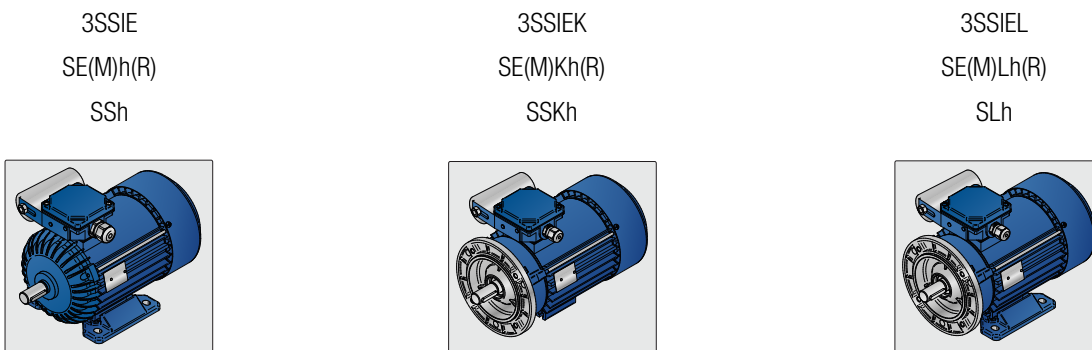
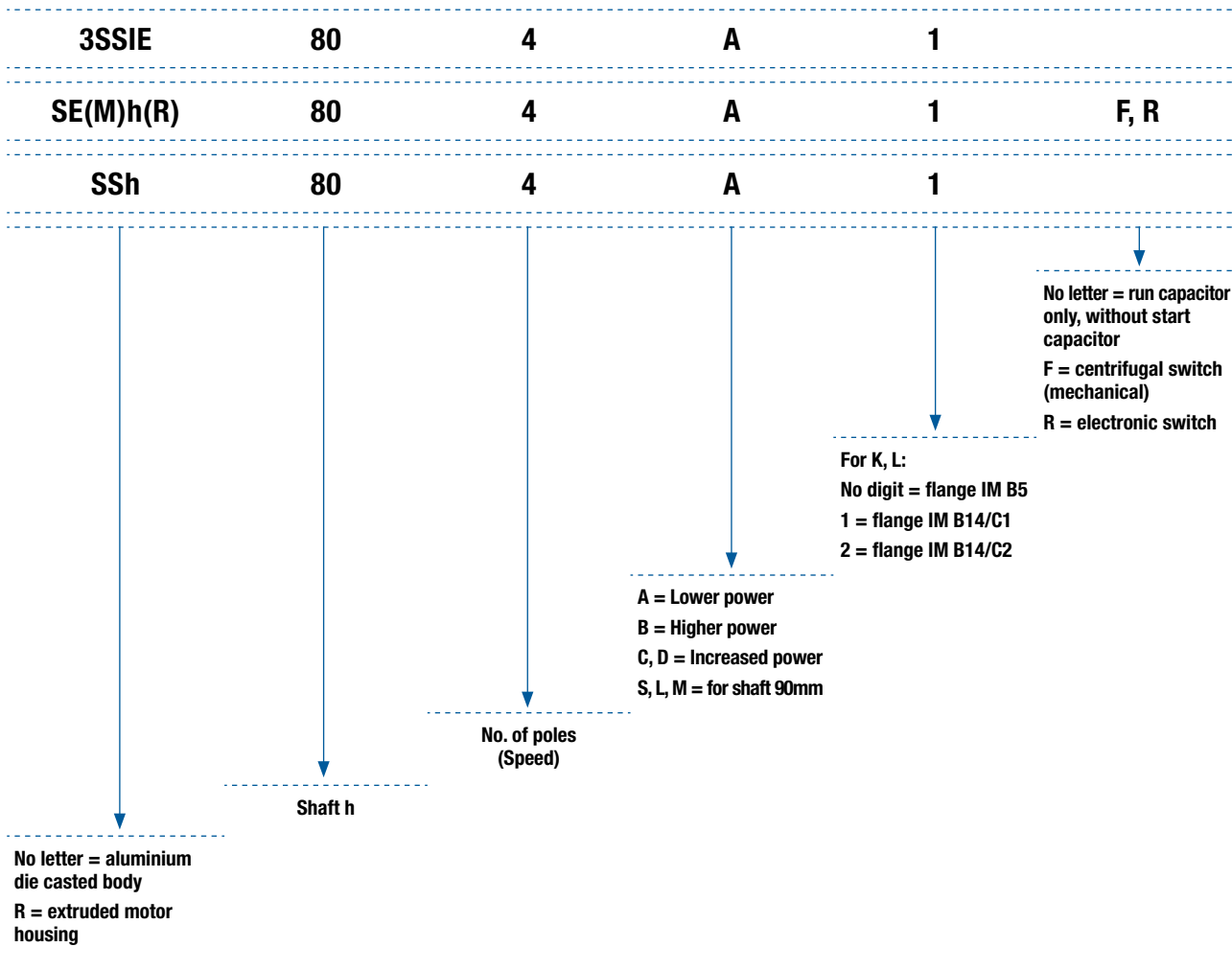
- **standard starting torque** (with run capacitor),
- **increased starting torque** (with run capacitor and specially adjusted parameters),
- **high starting torque** (with run capacitor, start capacitor and centrifugal switch).

Squirrel cages of standard starting torque motors are A1 aluminium cast, the rotors for increased starting torque are special aluminium alloy cast AK 121 (siluminium).

**Motors in frame sizes 100 and 112 available on request.**

**Other supply voltages and frequency 60 Hz available on request.**

# Nomenclature



**Type of motor:**

- 3SSIE** – single phase motor in efficiency class IE3
- SS** – single phase motor adapted to voltage speed control
- SE** – single phase motor
- SEM** – single phase motor with increased starting torque

**Mounting arrangements:**

- no letter** = foot (B3)
- K** = flange (B5, B14/C1, B14/C2)
- L** = foot/flange (B35, B34/C1, B34/C2)

# Totally Enclosed Motors IP 55 f=50Hz U=230V

| Item   | Type       | Rated output  |      | Rated speed                   | Rated torque  | Efficiency      | Power factor            | Full load current at 230V | Locked rotor torque ratio | Locked rotor current ratio | Breakdown torque ratio | Moment of Inertia        | Run capacitor | Weight (MIB3) |
|--|------------|---------------|------|-------------------------------|---------------|-----------------|-------------------------|---------------------------|---------------------------|----------------------------|------------------------|--------------------------|---------------|---------------|
|  |            | $P_N$<br>[kW] | [HP] | $n_N$<br>[min <sup>-1</sup> ] | $T_N$<br>[Nm] | $\eta_N$<br>[%] | $\cos \varphi_N$<br>[-] | $I_N$<br>[A]              | $T_L/T_N$<br>[-]          | $I_L/I_N$<br>[-]           | $T_B/T_N$<br>[-]       | J<br>[kgm <sup>2</sup> ] | $C_B$<br>[μF] | [kg]          |
| <b>Motors with standard starting torque (with run capacitor)</b> |            |               |      |                               |               |                 |                         |                           |                           |                            |                        |                          |               |               |
| <b>2p=2      n<sub>s</sub>=3000 rpm</b>                          |            |               |      |                               |               |                 |                         |                           |                           |                            |                        |                          |               |               |
| 1  | SEh 56-2A  | 0,09          | 0,12 | 2840                          | 0,30          | 51,0            | 0,77                    | 1,0                       | 0,55                      | 2,7                        | 1,9                    | 0,00007                  | 3             | 2,8           |
| 2  | SEh 56-2B  | 0,12          | 0,17 | 2860                          | 0,40          | 58,0            | 0,83                    | 1,1                       | 0,55                      | 2,9                        | 1,9                    | 0,00009                  | 5             | 3,1           |
| 3  | SEh 56-2C  | 0,18          | 0,25 | 2850                          | 0,60          | 63,0            | 0,89                    | 1,4                       | 0,55                      | 2,7                        | 1,7                    | 0,00010                  | 6             | 3,5           |
| 4  | SEh 63-2A  | 0,18          | 0,25 | 2840                          | 0,61          | 55,0            | 0,95                    | 1,5                       | 0,7                       | 2,7                        | 1,9                    | 0,000175                 | 8             | 3,7           |
| 5  | SEh 63-2B  | 0,25          | 0,33 | 2870                          | 0,83          | 64,0            | 0,95                    | 1,8                       | 0,55                      | 3,1                        | 1,8                    | 0,000235                 | 10            | 4,4           |
| 6  | SEh 63-2C  | 0,37          | 0,5  | 2850                          | 1,24          | 71,0            | 0,99                    | 2,3                       | 0,45                      | 3,1                        | 1,6                    | 0,000310                 | 12            | 4,9           |
| 7  | SEh 71-2A  | 0,37          | 0,5  | 2780                          | 1,27          | 66,0            | 0,98                    | 2,5                       | 0,45                      | 2,3                        | 1,2                    | 0,00038                  | 10            | 5,1           |
| 8  | SEh 71-2B  | 0,55          | 0,75 | 2820                          | 1,86          | 66,0            | 0,98                    | 3,7                       | 0,4                       | 2,7                        | 1,4                    | 0,00053                  | 14            | 6,3           |
| 9  | SEh 71-2C  | 0,75          | 1,0  | 2820                          | 2,54          | 72,0            | 0,99                    | 4,6                       | 0,4                       | 3,0                        | 1,5                    | 0,00069                  | 25            | 7,5           |
| 10   | SEh 80-2B  | 1,1           | 1,5  | 2780                          | 3,78          | 73,0            | 0,97                    | 6,8                       | 0,4                       | 2,8                        | 1,4                    | 0,00111                  | 25            | 9,8           |
| 11   | SEh 80-2C  | 1,5           | 2,0  | 2710                          | 5,29          | 73,0            | 0,99                    | 9,1                       | 0,5                       | 2,5                        | 1,4                    | 0,00142                  | 40            | 11,8          |
| 12   | SEh 90-2S  | 1,5           | 2,0  | 2710                          | 5,29          | 73,0            | 0,99                    | 9,1                       | 0,5                       | 2,5                        | 1,4                    | 0,00120                  | 40            | 12,4          |
| 13   | SEhR 90-2S | 1,5           | 2,0  | 2840                          | 5,04          | 77,0            | 0,98                    | 8,7                       | 0,45                      | 3,4                        | 1,6                    | 0,00120                  | 40            | 12,4          |
| 14   | SEhR 90-2L | 2,2           | 3,0  | 2840                          | 7,40          | 79,0            | 0,99                    | 12,2                      | 0,38                      | 3,0                        | 1,5                    | 0,00160                  | 50            | 15,2          |
| <b>2p=4      n<sub>s</sub>=1500 rpm</b>                          |            |               |      |                               |               |                 |                         |                           |                           |                            |                        |                          |               |               |
| 1  | SEh 56-4A  | 0,06          | 0,08 | 1410                          | 0,41          | 42,0            | 0,85                    | 0,75                      | 0,65                      | 2,1                        | 1,7                    | 0,00020                  | 3             | 2,8           |
| 2  | SEh 56-4B  | 0,09          | 0,12 | 1410                          | 0,61          | 45,0            | 0,80                    | 1,1                       | 0,65                      | 2,1                        | 1,7                    | 0,00025                  | 4             | 3,1           |
| 3  | SEh 56-4C  | 0,12          | 0,17 | 1400                          | 0,82          | 51,0            | 0,94                    | 1,1                       | 0,6                       | 1,7                        | 1,5                    | 0,00030                  | 6             | 3,3           |
| 4  | SEh 63-4A  | 0,12          | 0,17 | 1380                          | 0,83          | 51,0            | 0,86                    | 1,2                       | 0,5                       | 1,9                        | 1,4                    | 0,000240                 | 5             | 3,6           |
| 5  | SEh 63-4B  | 0,18          | 0,25 | 1380                          | 1,25          | 53,0            | 0,93                    | 1,6                       | 0,7                       | 2,0                        | 1,4                    | 0,000307                 | 8             | 4,2           |
| 6  | SEh 63-4C  | 0,25          | 0,33 | 1380                          | 1,73          | 62,0            | 0,93                    | 1,9                       | 0,5                       | 2,1                        | 1,3                    | 0,000380                 | 10            | 5,0           |
| 7  | SEh 71-4A  | 0,25          | 0,33 | 1330                          | 1,80          | 52,0            | 0,87                    | 2,4                       | 0,4                       | 1,9                        | 1,3                    | 0,00061                  | 8             | 5,0           |
| 8  | SEh 71-4B  | 0,37          | 0,5  | 1370                          | 2,58          | 64,0            | 0,88                    | 2,9                       | 0,5                       | 2,3                        | 1,4                    | 0,00085                  | 10            | 6,3           |
| 9  | SEh 71-4C  | 0,55          | 0,75 | 1320                          | 3,98          | 62,0            | 0,94                    | 4,1                       | 0,45                      | 1,9                        | 1,2                    | 0,00101                  | 18            | 7,4           |
| 10   | SEh 80-4A  | 0,55          | 0,75 | 1410                          | 3,73          | 70,0            | 0,90                    | 3,8                       | 0,4                       | 2,6                        | 1,4                    | 0,00157                  | 16            | 8,3           |
| 11   | SEh 80-4B  | 0,75          | 1,0  | 1410                          | 5,08          | 72,0            | 0,95                    | 4,8                       | 0,45                      | 2,7                        | 1,5                    | 0,00208                  | 25            | 9,6           |
| 12   | SEh 80-4C  | 1,1           | 1,5  | 1370                          | 7,67          | 73,0            | 0,95                    | 6,9                       | 0,4                       | 2,4                        | 1,3                    | 0,00265                  | 30            | 11,4          |
| 13   | SEh 90-4S  | 1,1           | 1,5  | 1370                          | 7,67          | 73,0            | 0,95                    | 6,9                       | 0,4                       | 2,4                        | 1,3                    | 0,00240                  | 30            | 12,3          |
| 14   | SEhR 90-4S | 1,1           | 1,5  | 1390                          | 7,56          | 67,0            | 0,98                    | 7,3                       | 0,45                      | 2,2                        | 1,3                    | 0,00240                  | 30            | 12,0          |
| 15   | SEhR 90-4L | 1,5           | 2,0  | 1380                          | 10,38         | 68,0            | 0,97                    | 9,9                       | 0,45                      | 2,6                        | 1,3                    | 0,00320                  | 35            | 15,0          |

# Totally Enclosed Motors IP 55 $f=50\text{Hz}$ $U=230\text{V}$

| Item  | Type        | Rated output |       | Rated speed          | Rated torque | Efficiency | Power factor     | Full load current at 230V | Locked rotor torque ratio | Locked rotor current ratio | Breakdown torque ratio | Moment of Inertia   | Run capacitor     | Weight (MIB3) |
|---|-------------|--------------|-------|----------------------|--------------|------------|------------------|---------------------------|---------------------------|----------------------------|------------------------|---------------------|-------------------|---------------|
|   |             | $P_N$        | $P_N$ | $n_N$                | $T_N$        | $\eta_N$   | $\cos \varphi_N$ | $I_N$                     | $T_L/T_N$                 | $I_L/I_N$                  | $T_B/T_N$              | J                   | $C_B$             |               |
|   |             | [kW]         | [HP]  | [min <sup>-1</sup> ] | [Nm]         | [%]        | [-]              | [A]                       | [-]                       | [-]                        | [-]                    | [kgm <sup>2</sup> ] | [ $\mu\text{F}$ ] | [kg]          |
| <b>Motors with increased starting torque (with run capacitor and specially adjusted parameters)</b> |             |              |       |                      |              |            |                  |                           |                           |                            |                        |                     |                   |               |
| <b>2p=2 <math>n_s=3000</math> rpm</b>   |             |              |       |                      |              |            |                  |                           |                           |                            |                        |                     |                   |               |
| 1   | SEMh 56-2A  | 0,06         | 0,08  | 2780                 | 0,21         | 39,0       | 0,70             | 1,0                       | 1,4                       | 2,5                        | 2,5                    | 0,00007             | 3                 | 2,8           |
| 2   | SEMh 56-2B  | 0,09         | 0,12  | 2760                 | 0,31         | 49,0       | 0,80             | 1,0                       | 1,2                       | 2,2                        | 2,2                    | 0,00009             | 5                 | 3,1           |
| 3   | SEMh 56-2C  | 0,12         | 0,17  | 2780                 | 0,41         | 54,0       | 0,80             | 1,2                       | 1,0                       | 2,3                        | 2,1                    | 0,00010             | 5                 | 3,5           |
| 4   | SEMh 63-2A  | 0,12         | 0,17  | 2750                 | 0,42         | 48,0       | 0,83             | 1,3                       | 1,2                       | 2,4                        | 2,2                    | 0,000175            | 6                 | 3,7           |
| 5   | SEMh 63-2B  | 0,18         | 0,25  | 2780                 | 0,62         | 56,0       | 0,87             | 1,6                       | 1,0                       | 2,4                        | 2,0                    | 0,000235            | 8                 | 4,4           |
| 6   | SEMh 63-2C  | 0,25         | 0,33  | 2780                 | 0,86         | 64,0       | 0,90             | 1,9                       | 0,9                       | 2,5                        | 2,0                    | 0,000310            | 10                | 4,9           |
| 7   | SEMh 71-2A  | 0,25         | 0,33  | 2720                 | 0,88         | 58,0       | 0,95             | 2,0                       | 0,8                       | 2,2                        | 1,7                    | 0,00039             | 10                | 5,1           |
| 8   | SEMh 71-2B  | 0,37         | 0,5   | 2800                 | 1,26         | 64,0       | 0,88             | 2,9                       | 0,7                       | 2,7                        | 1,9                    | 0,00054             | 12                | 6,3           |
| 9   | SEMh 71-2C  | 0,55         | 0,75  | 2780                 | 1,89         | 70,0       | 0,95             | 3,6                       | 0,65                      | 3,0                        | 1,9                    | 0,00069             | 20                | 7,4           |
| 10  | SEMh 80-2A  | 0,55         | 0,75  | 2760                 | 1,90         | 65,0       | 0,86             | 4,3                       | 0,65                      | 2,9                        | 1,8                    | 0,00080             | 20                | 8,2           |
| 11  | SEMh 80-2B  | 0,75         | 1,0   | 2800                 | 2,56         | 70,0       | 0,94             | 5,0                       | 0,7                       | 3,5                        | 2,0                    | 0,00111             | 25                | 9,8           |
| 12  | SEMh 80-2C  | 1,1          | 1,5   | 2780                 | 3,78         | 76,0       | 0,96             | 6,6                       | 0,55                      | 3,7                        | 1,8                    | 0,00142             | 30                | 11,7          |
| 13  | SEMh 90-2S  | 1,1          | 1,5   | 2780                 | 3,78         | 76,0       | 0,96             | 6,6                       | 0,55                      | 3,7                        | 1,8                    | 0,00120             | 30                | 12,4          |
| 14  | SEMhR 90-2S | 1,1          | 1,5   | 2760                 | 3,81         | 73,0       | 0,99             | 7,0                       | 0,6                       | 3,2                        | 1,6                    | 0,00120             | 30                | 12,4          |
| 15  | SEMhR 90-2L | 1,5          | 2,0   | 2750                 | 5,21         | 72,0       | 0,97             | 9,4                       | 0,7                       | 3,5                        | 1,6                    | 0,00160             | 40                | 15,2          |
| <b>2p=4 <math>n_s=1500</math> rpm</b>   |             |              |       |                      |              |            |                  |                           |                           |                            |                        |                     |                   |               |
| 1   | SEMh 56-4A  | 0,04         | 0,06  | 1370                 | 0,28         | 35,0       | 0,83             | 0,6                       | 1,6                       | 1,7                        | 2,4                    | 0,00020             | 3                 | 2,8           |
| 2   | SEMh 56-4B  | 0,06         | 0,08  | 1370                 | 0,42         | 34,0       | 0,77             | 1,0                       | 1,5                       | 2,4                        | 2,4                    | 0,00025             | 4                 | 3,1           |
| 3   | SEMh 56-4C  | 0,09         | 0,12  | 1320                 | 0,65         | 45,0       | 0,88             | 1,0                       | 1,0                       | 1,5                        | 1,7                    | 0,00030             | 5                 | 3,3           |
| 4   | SEMh 63-4A  | 0,09         | 0,12  | 1300                 | 0,66         | 42,0       | 0,84             | 1,1                       | 1,1                       | 1,4                        | 1,7                    | 0,000240            | 5                 | 3,6           |
| 5   | SEMh 63-4B  | 0,12         | 0,17  | 1320                 | 0,87         | 50,0       | 0,85             | 1,3                       | 1,1                       | 1,8                        | 1,8                    | 0,000307            | 6                 | 4,2           |
| 6   | SEMh 63-4C  | 0,18         | 0,25  | 1320                 | 1,30         | 52,0       | 0,89             | 1,7                       | 1,1                       | 1,7                        | 1,7                    | 0,000380            | 10                | 5,0           |
| 7   | SEMh 71-4B  | 0,25         | 0,33  | 1340                 | 1,78         | 55,0       | 0,83             | 2,4                       | 1,2                       | 1,9                        | 1,8                    | 0,00085             | 10                | 6,3           |
| 8   | SEMh 71-4C  | 0,37         | 0,5   | 1320                 | 2,68         | 62,0       | 0,89             | 2,9                       | 0,9                       | 2,0                        | 1,6                    | 0,00101             | 16                | 7,4           |
| 9   | SEMh 80-4A  | 0,37         | 0,5   | 1320                 | 2,68         | 60,0       | 0,87             | 3,1                       | 0,9                       | 2,3                        | 1,6                    | 0,00156             | 14                | 8,3           |
| 10  | SEMh 80-4B  | 0,55         | 0,75  | 1360                 | 3,86         | 68,0       | 0,91             | 3,9                       | 0,75                      | 2,6                        | 1,7                    | 0,00208             | 20                | 9,7           |
| 11  | SEMh 80-4C  | 0,75         | 1,0   | 1340                 | 5,35         | 71,0       | 0,94             | 4,9                       | 0,65                      | 2,2                        | 1,5                    | 0,00208             | 25                | 11,7          |
| 12  | SEMh 90-4S  | 0,75         | 1,0   | 1340                 | 5,35         | 71,0       | 0,94             | 4,9                       | 0,65                      | 2,2                        | 1,5                    | 0,00240             | 25                | 12,3          |
| 13  | SEMhR 90-4S | 0,75         | 1,0   | 1320                 | 5,43         | 60,0       | 0,97             | 5,6                       | 0,95                      | 2,1                        | 1,4                    | 0,00240             | 25                | 12,0          |
| 14  | SEMhR 90-4L | 1,1          | 1,5   | 1320                 | 7,96         | 66,0       | 0,93             | 7,8                       | 0,7                       | 2,3                        | 1,5                    | 0,00320             | 30                | 15,0          |
| 15  | SEMhR 90-4M | 1,5          | 2,0   | 1340                 | 10,69        | 63,0       | 0,97             | 11,0                      | 0,7                       | 2,5                        | 1,5                    | 0,00460             | 40                | 17,5          |

# Totally Enclosed Motors IP 55 f=50Hz U=230V

| Item   | Type           | Rated output |          | Rated speed          | Rated torque | Efficiency | Power factor     | Full load current at 230V | Locked rotor torque ratio | Locked rotor current ratio | Breakdown torque ratio | Moment of Inertia   | Run capacitor | Start capacitor | Weight (MIB3) |
|--|----------------|--------------|----------|----------------------|--------------|------------|------------------|---------------------------|---------------------------|----------------------------|------------------------|---------------------|---------------|-----------------|---------------|
|  |                | $P_N$        | $\eta_N$ | $n_N$                | $T_N$        | $\eta_N$   | $\cos \varphi_N$ | $I_N$                     | $T_L/T_N$                 | $I_L/I_N$                  | $T_B/T_N$              | J                   | $C_B$         | $C_A$           |               |
|  |                | [kW]         | [HP]     | [min <sup>-1</sup> ] | [Nm]         | [%]        | [-]              | [A]                       | [-]                       | [-]                        | [-]                    | [kgm <sup>2</sup> ] | [μF]          | [μF]            | [kg]          |
| <b>Motors with high starting torque (with run capacitor, start capacitor and centrifugal switch)</b> |                |              |          |                      |              |            |                  |                           |                           |                            |                        |                     |               |                 |               |
| <b>2p=2      n<sub>s</sub>=3000 rpm</b>  |                |              |          |                      |              |            |                  |                           |                           |                            |                        |                     |               |                 |               |
| 1  | SEh 63-2AR(F)  | 0,18         | 0,25     | 2840                 | 0,61         | 55,0       | 0,95             | 1,5                       | 1,9                       | 4,5                        | 1,9                    | 0,000175            | 8             | 25              | 3,9           |
| 2  | SEh 63-2BR(F)  | 0,25         | 0,33     | 2870                 | 0,83         | 64,0       | 0,95             | 1,8                       | 2,1                       | 4,2                        | 1,8                    | 0,000235            | 10            | 30              | 4,5           |
| 3  | SEh 63-2CR(F)  | 0,37         | 0,5      | 2850                 | 1,24         | 71,0       | 0,99             | 2,3                       | 1,8                       | 4,7                        | 1,6                    | 0,000310            | 12            | 40              | 5,3           |
| 4  | SEh 71-2BR(F)  | 0,55         | 0,75     | 2820                 | 1,86         | 70,0       | 0,96             | 3,6                       | 1,7                       | 3,6                        | 1,5                    | 0,00053             | 14            | 25              | 6,5           |
| 5  | SEh 71-2CR(F)  | 0,75         | 1,0      | 2820                 | 2,54         | 73,0       | 0,98             | 4,6                       | 1,7                       | 4,0                        | 1,5                    | 0,00069             | 25            | 70              | 8,2           |
| 6  | SEh 80-2BR(F)  | 1,1          | 1,5      | 2780                 | 3,78         | 73,0       | 0,97             | 6,8                       | 1,7                       | 3,6                        | 1,4                    | 0,00111             | 25            | 70              | 11,9          |
| 7  | SEh 80-2CR(F)  | 1,5          | 2,0      | 2710                 | 5,29         | 73,0       | 0,99             | 9,1                       | 1,9                       | 3,5                        | 1,4                    | 0,00142             | 40            | 60              | 12,9          |
| 8  | SEh 90-2SR(F)  | 1,5          | 2,0      | 2710                 | 5,29         | 73,0       | 0,99             | 9,1                       | 1,9                       | 3,5                        | 1,4                    | 0,00120             | 40            | 60              | 13,5          |
| 9  | SEhR 90-2SR(F) | 1,5          | 2,0      | 2840                 | 5,04         | 77,0       | 0,98             | 8,7                       | 1,9                       | 4,1                        | 1,6                    | 0,00120             | 40            | 125÷160         | 12,4          |
| 10   | SEhR 90-2LR(F) | 2,2          | 3,0      | 2840                 | 7,40         | 79,0       | 0,99             | 12,2                      | 1,9                       | 4,1                        | 1,5                    | 0,00160             | 50            | 160÷200         | 15,2          |
| <b>2p=4      n<sub>s</sub>=1500 rpm</b>  |                |              |          |                      |              |            |                  |                           |                           |                            |                        |                     |               |                 |               |
| 1  | SEh 63-4AR(F)  | 0,12         | 0,17     | 1380                 | 0,83         | 51,0       | 0,86             | 1,2                       | 1,8                       | 3,6                        | 1,4                    | 0,000240            | 5             | 14              | 4,3           |
| 2  | SEh 63-4BR(F)  | 0,18         | 0,25     | 1380                 | 1,25         | 53,0       | 0,93             | 1,6                       | 1,6                       | 3,5                        | 1,4                    | 0,000307            | 8             | 16              | 4,5           |
| 3  | SEh 63-4CR(F)  | 0,25         | 0,33     | 1380                 | 1,73         | 62,0       | 0,93             | 1,9                       | 1,6                       | 3,3                        | 1,3                    | 0,000380            | 10            | 20              | 5,2           |
| 4  | SEh 71-4BR(F)  | 0,37         | 0,5      | 1370                 | 2,58         | 64,0       | 0,88             | 2,9                       | 1,8                       | 3,5                        | 1,4                    | 0,00085             | 10            | 30              | 7,0           |
| 5  | SEh 71-4CR(F)  | 0,55         | 0,75     | 1320                 | 3,98         | 62,0       | 0,94             | 4,1                       | 1,9                       | 3,6                        | 1,2                    | 0,00101             | 18            | 60              | 8,2           |
| 6  | SEh 80-4BR(F)  | 0,75         | 1,0      | 1410                 | 5,08         | 72,0       | 0,95             | 4,8                       | 1,8                       | 3,0                        | 1,5                    | 0,00208             | 25            | 60              | 10,6          |
| 7  | SEh 80-4CR(F)  | 1,1          | 1,5      | 1370                 | 7,67         | 73,0       | 0,95             | 6,9                       | 1,9                       | 3,4                        | 1,3                    | 0,00265             | 30            | 75              | 12,6          |
| 8  | SEh 90-4SR(F)  | 1,1          | 1,5      | 1370                 | 7,67         | 73,0       | 0,95             | 6,9                       | 1,9                       | 3,4                        | 1,3                    | 0,00240             | 30            | 75              | 13,7          |
| 9  | SEhR 90-4SR(F) | 1,1          | 1,5      | 1390                 | 7,56         | 67,0       | 0,98             | 7,3                       | 1,6                       | 3,8                        | 1,3                    | 0,00240             | 25            | 125÷160         | 12,0          |
| 10   | SEhR 90-4LR(F) | 1,5          | 2,0      | 1380                 | 10,38        | 68,0       | 0,97             | 9,9                       | 1,3                       | 4,0                        | 1,3                    | 0,00320             | 35            | 125÷160         | 15,0          |

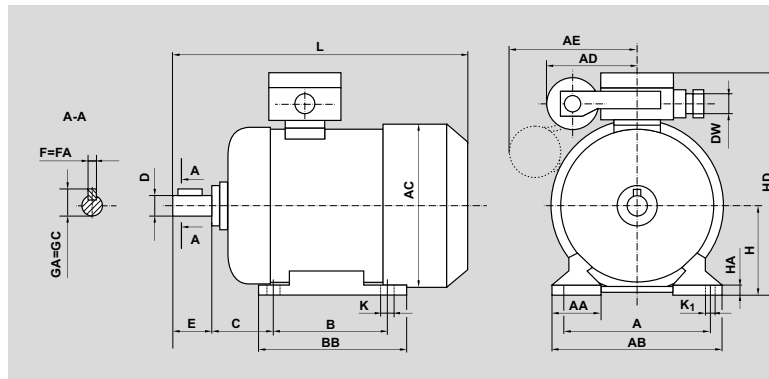
# IE3      IE3      IE3      IE3      IE3      IE3

## Totally Enclosed Motors IP 55    f=50Hz    U=230V    IE3

| Item   | Type            | Rated output          | Rated speed                   | Rated torque  | Efficiency      | Power factor            | Full load current at 230V | Locked rotor torque ratio | Locked rotor current ratio | Breakdown torque ratio | Moment of Inertia        | Run capacitor | Start capacitor | Weight (MBS) |      |      |
|--|-----------------|-----------------------|-------------------------------|---------------|-----------------|-------------------------|---------------------------|---------------------------|----------------------------|------------------------|--------------------------|---------------|-----------------|--------------|------|------|
|  |                 | $P_N$<br>[kW]    [HP] | $n_N$<br>[min <sup>-1</sup> ] | $T_N$<br>[Nm] | $\eta_N$<br>[%] | $\cos \varphi_N$<br>[-] | $I_N$<br>[A]              | $T_L/T_N$<br>[-]          | $I_L/I_N$<br>[-]           | $T_B/T_N$<br>[-]       | J<br>[kgm <sup>2</sup> ] | $C_B$<br>[μF] | $C_A$<br>[μF]   | [kg]         |      |      |
| <b>Motors with standard starting torque (with run capacitor)</b>   |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 |              |      |      |
| <b>2p=2      n<sub>s</sub>=3000 rpm</b>  |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 |              |      |      |
| 1  | 3SSIE 56-2B     | 0,12                  | 0,17                          | 2750          | 0,42            | 60,8                    | 0,99                      | 0,85                      | 0,36                       | 2,1                    | 1,4                      | 0,0001        | 10              | -            | 3,3  |      |
| 2  | 3SSIE 63-2A     | 0,18                  | 0,25                          | 2870          | 0,60            | 70,0                    | 0,97                      | 1,1                       | 0,4                        | 3,8                    | 1,6                      | 0,00017       | 16              | -            | 3,7  |      |
| 3  | 3SSIE 63-2B     | 0,25                  | 0,33                          | 2890          | 0,83            | 73,0                    | 0,94                      | 1,6                       | 0,35                       | 4,5                    | 2,0                      | 0,00024       | 20              | -            | 4,3  |      |
| 4  | 3SSIE 71-2A     | 0,37                  | 0,5                           | 2880          | 1,23            | 73,8                    | 0,99                      | 2,2                       | 0,3                        | 3,8                    | 1,6                      | 0,00048       | 25              | -            | 6,2  |      |
| 5  | 3SSIE 71-2B     | 0,55                  | 0,75                          | 2870          | 1,83            | 77,8                    | 0,99                      | 3,1                       | 0,3                        | 3,5                    | 1,6                      | 0,00069       | 35              | -            | 8,0  |      |
| 6  | 3SSIE 80-2A     | 0,75                  | 1,0                           | 2880          | 2,49            | 80,7                    | 0,96                      | 4,2                       | 0,3                        | 4,2                    | 1,6                      | 0,00100       | 50              | -            | 10,8 |      |
| 7  | 3SSIE 80-2B     | 1,1                   | 1,5                           | 2900          | 3,62            | 82,7                    | 0,99                      | 5,8                       | 0,3                        | 5,4                    | 2,0                      | 0,00142       | 70              | -            | 12,1 |      |
| <b>2p=4      n<sub>s</sub>=1500 rpm</b>  |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 |              |      |      |
| 1  | 3SSIE 63-4A     | 0,12                  | 0,17                          | 1420          | 0,81            | 64,8                    | 0,99                      | 0,8                       | 0,4                        | 2,7                    | 1,5                      | 0,00038       | 12              | -            | 4,8  |      |
| 2  | 3SSIE 63-4B     | 0,18                  | 0,25                          | 1400          | 1,23            | 69,9                    | 0,98                      | 1,1                       | 0,35                       | 2,7                    | 1,4                      | 0,00077       | 16              | -            | 6,1  |      |
| 3  | 3SSIE 63-4C     | 0,25                  | 0,33                          | 1420          | 1,68            | 73,5                    | 0,94                      | 1,5                       | 0,35                       | 3,2                    | 1,5                      | 0,00088       | 20              | -            | 6,7  |      |
| 4  | 3SSIE 71-4A     | 0,25                  | 0,33                          | 1420          | 1,68            | 73,5                    | 0,94                      | 1,5                       | 0,35                       | 3,2                    | 1,5                      | 0,00101       | 20              | -            | 7,7  |      |
| 5  | 3SSIE 71-4B     | 0,37                  | 0,5                           | 1440          | 2,45            | 77,3                    | 0,94                      | 2,2                       | 0,3                        | 2,8                    | 1,7                      | 0,00156       | 30              | -            | 8,0  |      |
| 6  | 3SSIE 80-4A     | 0,55                  | 0,75                          | 1430          | 3,69            | 80,8                    | 0,98                      | 3,0                       | 0,3                        | 3,7                    | 1,3                      | 0,00208       | 40              | -            | 9,8  |      |
| 7  | 3SSIE 80-4B     | 0,75                  | 1,0                           | 1430          | 5,01            | 82,5                    | 0,96                      | 4,1                       | 0,3                        | 4,0                    | 1,6                      | 0,00265       | 50              | -            | 11,2 |      |
| <b>Motors with high starting torque (with run capacitor, start capacitor, electronic switch R or centrifugal switch F)</b> |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 |              |      |      |
| <b>2p=2      n<sub>s</sub>=3000 rpm</b>  |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 |              |      |      |
|  |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 | R            | F    |      |
| 1  | 3SSIE 56-2BR(F) | 0,12                  | 0,17                          | 2750          | 0,42            | 60,8                    | 0,99                      | 0,85                      | 1,5                        | 2,8                    | 1,4                      | 0,0001        | 10              | 25           | 3,3  | 3,5  |
| 2  | 3SSIE 63-2AR(F) | 0,18                  | 0,25                          | 2870          | 0,60            | 70,0                    | 0,97                      | 1,1                       | 1,5                        | 4,1                    | 1,6                      | 0,00017       | 16              | 40           | 3,7  | 3,9  |
| 3  | 3SSIE 63-2BR(F) | 0,25                  | 0,33                          | 2890          | 0,83            | 73,0                    | 0,94                      | 1,6                       | 1,7                        | 4,7                    | 2,0                      | 0,00024       | 20              | 50           | 4,3  | 4,5  |
| 4  | 3SSIE 71-2AR(F) | 0,37                  | 0,5                           | 2880          | 1,23            | 73,8                    | 0,99                      | 2,2                       | 1,5                        | 4,1                    | 1,6                      | 0,00048       | 25              | 90           | 6,2  | 6,4  |
| 5  | 3SSIE 71-2BR(F) | 0,55                  | 0,75                          | 2870          | 1,83            | 77,8                    | 0,99                      | 3,1                       | 1,5                        | 3,8                    | 1,6                      | 0,00069       | 35              | 110          | 8,0  | 8,2  |
| 6  | 3SSIE 80-2AR(F) | 0,75                  | 1,0                           | 2880          | 2,49            | 80,7                    | 0,96                      | 4,2                       | 1,5                        | 5,1                    | 1,6                      | 0,00100       | 50              | 120          | 10,8 | 11,6 |
| 7  | 3SSIE 80-2BR(F) | 1,1                   | 1,5                           | 2900          | 3,62            | 82,7                    | 0,99                      | 5,8                       | 1,6                        | 6,3                    | 2,0                      | 0,00142       | 70              | 200-250      | 12,1 | 12,9 |
| <b>2p=4      n<sub>s</sub>=1500 rpm</b>  |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 |              |      |      |
|  |                 |                       |                               |               |                 |                         |                           |                           |                            |                        |                          |               |                 | R            | F    |      |
| 1  | 3SSIE 63-4AR(F) | 0,12                  | 0,17                          | 1420          | 0,81            | 64,8                    | 0,99                      | 0,8                       | 1,6                        | 3                      | 1,5                      | 0,00038       | 12              | 16           | 4,8  | 5,0  |
| 2  | 3SSIE 63-4BR(F) | 0,18                  | 0,25                          | 1400          | 1,23            | 69,9                    | 0,98                      | 1,1                       | 1,5                        | 3,3                    | 1,4                      | 0,00077       | 16              | 35           | 6,1  | 6,3  |
| 3  | 3SSIE 63-4CR(F) | 0,25                  | 0,33                          | 1420          | 1,68            | 73,5                    | 0,94                      | 1,5                       | 1,5                        | 3,6                    | 1,5                      | 0,00088       | 20              | 40           | 6,7  | 6,9  |
| 4  | 3SSIE 71-4AR(F) | 0,25                  | 0,33                          | 1420          | 1,68            | 73,5                    | 0,94                      | 1,5                       | 1,7                        | 3,7                    | 1,5                      | 0,00101       | 20              | 50           | 7,7  | 7,9  |
| 5  | 3SSIE 71-4BR(F) | 0,37                  | 0,5                           | 1440          | 2,45            | 77,3                    | 0,94                      | 2,2                       | 1,5                        | 3,1                    | 1,7                      | 0,00156       | 30              | 50           | 8,3  | 8,5  |
| 6  | 3SSIE 80-4AR(F) | 0,55                  | 0,75                          | 1430          | 3,69            | 80,8                    | 0,98                      | 3,0                       | 1,7                        | 4,0                    | 1,3                      | 0,00208       | 40              | 90           | 9,8  | 10,6 |
| 7  | 3SSIE 80-4BR(F) | 0,75                  | 1,0                           | 1430          | 5,01            | 82,5                    | 0,96                      | 4,1                       | 1,5                        | 4,1                    | 1,6                      | 0,00265       | 50              | 120          | 11,2 | 12,0 |

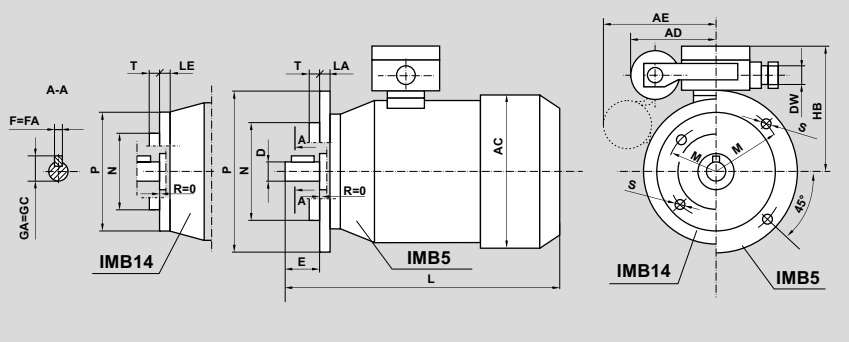
For  $T_L/T_N \geq 1,5$  during the start-up of the motor the second capacitor as well as the electronic switch R (or centrifugal switch F) must be applied.

# Dimensions of Foot Mounted Motors – IM B3



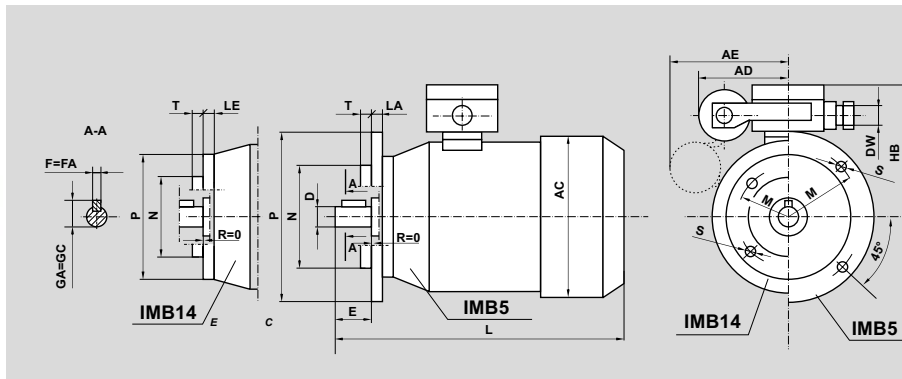
| Motor Type   | A   | B   | C  | D    | E  | F   | GA   | H  | K   | K1 | HA  | AC  | DW  | AA | AB  | BB  | AE  | AD | HD  | L   |
|--------------|-----|-----|----|------|----|-----|------|----|-----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|
| SE(M)h 56-A  | 90  | 71  | 36 | 9j6  | 20 | 3h9 | 10,2 | 56 | 5,8 | 8  | 7   | 117 | M20 | 30 | 110 | 92  | -   | 74 | 154 | 183 |
| SE(M)h 56-B  | 90  | 71  | 36 | 9j6  | 20 | 3h9 | 10,2 | 56 | 5,8 | 8  | 7   | 117 | M20 | 30 | 110 | 92  | -   | 74 | 154 | 193 |
| SE(M)h 56-C  | 90  | 71  | 36 | 9j6  | 20 | 3h9 | 10,2 | 56 | 5,8 | 8  | 7   | 117 | M20 | 30 | 110 | 92  | -   | 74 | 154 | 200 |
| SE(M)h 63-A  | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 200 |
| SEh 63-AR    | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 200 |
| SEh 63-AF    | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | 100 | 74 | 165 | 244 |
| SE(M)h 63-B  | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 210 |
| SEh 63-BR    | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 210 |
| SEh 63-BF    | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | 100 | 74 | 165 | 254 |
| SE(M)h 63-C  | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 225 |
| SEh 63-CR    | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 225 |
| SEh 63-CF    | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | 100 | 74 | 165 | 268 |
| SE(M)h 71-A  | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 223 |
| SE(M)h 71-B  | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 245 |
| SEh 71-BR    | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 245 |
| SEh 71-BF    | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | 100 | 90 | 182 | 285 |
| SE(M)h 71-C  | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 263 |
| SEh 71-CR    | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 263 |
| SEh 71-CF    | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | 100 | 90 | 182 | 303 |
| SE(M)h 80-A  | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 157 | M20 | 55 | 160 | 130 | -   | 95 | 200 | 266 |
| SE(M)h 80-B  | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 157 | M20 | 55 | 160 | 130 | -   | 95 | 200 | 278 |
| SEh 80-BR    | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 157 | M20 | 55 | 160 | 130 | -   | 95 | 200 | 278 |
| SEh 80-BF    | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 157 | M20 | 55 | 160 | 130 | 120 | 95 | 200 | 315 |
| SE(M)h 80-C  | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 157 | M20 | 55 | 160 | 130 | -   | 95 | 200 | 306 |
| SEh 80-CR    | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 157 | M20 | 55 | 160 | 130 | -   | 95 | 200 | 306 |
| SEh 80-CF    | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 157 | M20 | 55 | 160 | 130 | 120 | 95 | 200 | 343 |
| SE(M)h 90-S  | 140 | 100 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 157 | M20 | 60 | 170 | 153 | -   | 95 | 208 | 316 |
| SEh 90-SR    | 140 | 100 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 157 | M20 | 60 | 170 | 153 | -   | 95 | 208 | 316 |
| SEh 90-SF    | 140 | 100 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 157 | M20 | 60 | 170 | 153 | -   | 95 | 208 | 316 |
| SE(M)h 90-L  | 140 | 100 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 157 | M20 | 60 | 170 | 153 | 120 | 95 | 208 | 350 |
| SEh 90-LR    | 140 | 125 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 157 | M20 | 60 | 170 | 153 | -   | 95 | 208 | 328 |
| SEh 90-LF    | 140 | 125 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 157 | M20 | 60 | 170 | 153 | 120 | 95 | 208 | 364 |
| SE(M)hR 90-S | 140 | 100 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 166 | M20 | 63 | 170 | 153 | -   | 95 | 210 | 312 |
| SEhR 90-SR   | 140 | 100 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 166 | M20 | 63 | 170 | 153 | -   | 95 | 210 | 312 |
| SEhR 90-SF   | 140 | 100 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 166 | M20 | 63 | 170 | 153 | 120 | 95 | 210 | 352 |
| SE(M)hR 90-L | 140 | 125 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 166 | M20 | 63 | 170 | 178 | -   | 95 | 210 | 337 |
| SEhR 90-LR   | 140 | 125 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 166 | M20 | 63 | 170 | 178 | -   | 95 | 210 | 337 |
| SEhR 90-LF   | 140 | 125 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 166 | M20 | 63 | 170 | 178 | 120 | 95 | 210 | 377 |
| SEMhR 90-M   | 140 | 125 | 56 | 24j6 | 50 | 8h9 | 27   | 90 | 10  | 13 | 12  | 166 | M20 | 63 | 170 | 198 | -   | 95 | 210 | 357 |

# Dimensions of Flange Mounted Motors – IM B5



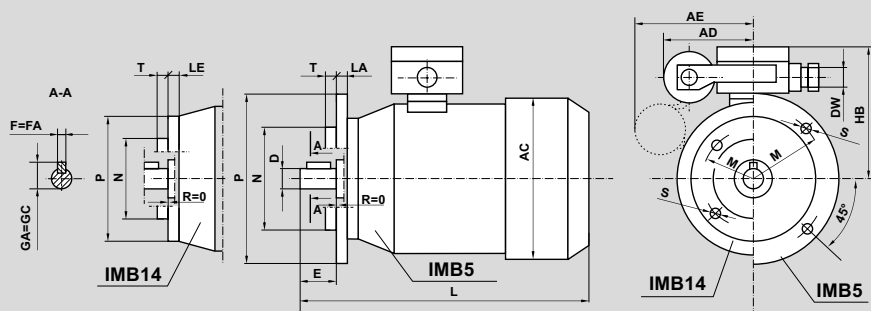
| Motor Type    | Flange | P   | M   | N     | S  | D    | E  | F   | GA   | AC  | DW  | LA | T   | AE  | AD | HB  | L   |
|---------------|--------|-----|-----|-------|----|------|----|-----|------|-----|-----|----|-----|-----|----|-----|-----|
| SE(M)Kh 56-A  | B5     | 120 | 100 | 80j6  | 7  | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 8  | 3   | -   | 74 | 98  | 183 |
| SE(M)Kh 56-B  | B5     | 120 | 100 | 80j6  | 7  | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 8  | 3   | -   | 74 | 98  | 193 |
| SE(M)Kh 56-C  | B5     | 120 | 100 | 80j6  | 7  | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 8  | 3   | -   | 74 | 98  | 200 |
| SE(M)Kh 63-A  | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 200 |
| SEKh 63-AR    | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 200 |
| SEKh 63-AF    | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | 100 | 74 | 102 | 244 |
| SE(M)Kh 63-B  | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 210 |
| SEKh 63-BR    | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 210 |
| SEKh 63-BF    | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | 100 | 74 | 102 | 254 |
| SE(M)Kh 63-C  | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 225 |
| SEKh 63-CR    | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 225 |
| SEKh 63-CF    | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | 100 | 74 | 102 | 268 |
| SE(M)Kh 71-A  | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 223 |
| SE(M)Kh 71-B  | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 245 |
| SEKh 71-BR    | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 245 |
| SEKh 71-BF    | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | 100 | 90 | 111 | 285 |
| SE(M)Kh 71-C  | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 263 |
| SEKh 71-CR    | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 263 |
| SEKh 71-CF    | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | 100 | 90 | 111 | 303 |
| SE(M)Kh 80-A  | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 10 | 3,5 | -   | 95 | 120 | 266 |
| SE(M)Kh 80-B  | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 10 | 3,5 | -   | 95 | 120 | 278 |
| SEKh 80-BR    | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 10 | 3,5 | -   | 95 | 120 | 278 |
| SEKh 80-BF    | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 10 | 3,5 | 120 | 95 | 120 | 315 |
| SE(M)Kh 80-C  | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 10 | 3,5 | -   | 95 | 120 | 306 |
| SEKh 80-CR    | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 10 | 3,5 | -   | 95 | 120 | 306 |
| SEKh 80-CF    | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 10 | 3,5 | 120 | 95 | 120 | 343 |
| SE(M)Kh 90-S  | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 316 |
| SEKh 90-SR    | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 316 |
| SEKh 90-SF    | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | 120 | 95 | 118 | 350 |
| SE(M)Kh 90-L  | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 328 |
| SEKh 90-LR    | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 328 |
| SEKh 90-LF    | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | 120 | 95 | 118 | 364 |
| SE(M)KhR 90-S | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 120 | 312 |
| SEKhR 90-SR   | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | -   | 95 | 120 | 312 |
| SEKhR 90-SF   | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | 120 | 95 | 120 | 352 |
| SE(M)KhR 90-L | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | -   | 95 | 120 | 337 |
| SEKhR 90-LR   | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | -   | 95 | 120 | 337 |
| SEKhR 90-LF   | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | 120 | 95 | 120 | 377 |
| SEMKhR 90-M   | B5     | 200 | 165 | 130j6 | 12 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | -   | 95 | 120 | 357 |

# Dimensions of Flange Mounted Motors – IM B14



| Motor Type    | Flange | P   | M   | N     | S  | D    | E  | F   | GA   | AC  | DW  | LE   | T   | AE  | AD | HB  | L   |
|---------------|--------|-----|-----|-------|----|------|----|-----|------|-----|-----|------|-----|-----|----|-----|-----|
| SE(M)Kh 56-A1 | B14/C1 | 105 | 85  | 70j6  | M6 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 15   | 2,5 | -   | 74 | 98  | 183 |
| SE(M)Kh 56-A2 | B14/C2 | 80  | 65  | 50j6  | M5 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 12,5 | 2,5 | -   | 74 | 98  | 183 |
| SE(M)Kh 56-B1 | B14/C1 | 105 | 85  | 70j6  | M6 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 15   | 2,5 | -   | 74 | 98  | 193 |
| SE(M)Kh 56-B2 | B14/C2 | 80  | 65  | 50j6  | M5 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 12,5 | 2,5 | -   | 74 | 98  | 193 |
| SE(M)Kh 56-C1 | B14/C1 | 105 | 85  | 70j6  | M6 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 15   | 2,5 | -   | 74 | 98  | 200 |
| SE(M)Kh 56-C2 | B14/C2 | 80  | 65  | 50j6  | M5 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 12,5 | 2,5 | -   | 74 | 98  | 200 |
| SE(M)Kh 63-A1 | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 200 |
| SEKh 63-A1R   | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 200 |
| SEKh 63-A1F   | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | 100 | 74 | 102 | 244 |
| SE(M)Kh 63-A2 | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 200 |
| SEKh 63-A2R   | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 200 |
| SEKh 63-A2F   | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 244 |
| SE(M)Kh 63-B1 | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 210 |
| SEKh 63-B1R   | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 210 |
| SEKh 63-B1F   | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | 100 | 74 | 102 | 254 |
| SE(M)Kh 63-B2 | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 210 |
| SEKh 63-B2R   | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 210 |
| SEKh 63-B2F   | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 254 |
| SE(M)Kh 63-C1 | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 225 |
| SEKh 63-C1R   | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 225 |
| SEKh 63-C1F   | B14/C1 | 120 | 100 | 80j6  | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | 100 | 74 | 102 | 268 |
| SE(M)Kh 63-C2 | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 225 |
| SEKh 63-C2R   | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 225 |
| SEKh 63-C2F   | B14/C2 | 90  | 75  | 60j6  | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 268 |
| SE(M)Kh 71-A1 | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 223 |
| SE(M)Kh 71-A2 | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 223 |
| SE(M)Kh 71-B1 | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 245 |
| SEKh 71-B1R   | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 245 |
| SEKh 71-B1F   | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | 100 | 90 | 111 | 285 |
| SE(M)Kh 71-B2 | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 245 |
| SEKh 71-B2R   | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 245 |
| SEKh 71-B2F   | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | 100 | 90 | 111 | 285 |
| SE(M)Kh 71-C1 | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 263 |
| SEKh 71-C1R   | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 263 |
| SEKh 71-C1F   | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | 100 | 90 | 111 | 303 |
| SE(M)Kh 71-C2 | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 263 |
| SEKh 71-C2R   | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 263 |
| SEKh 71-C2F   | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | 100 | 90 | 111 | 303 |
| SE(M)Kh 80-A1 | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 14   | 3,5 | -   | 95 | 120 | 266 |

# Dimensions of Flange Mounted Motors – IM B14

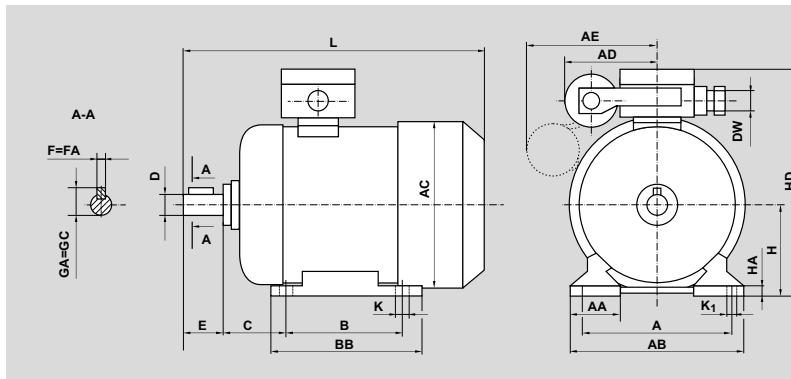


| Motor Type     | Flange | P   | M   | N     | S  | D    | E  | F   | GA   | AC  | DW  | LE | T   | AE  | AD | HB  | L   |
|----------------|--------|-----|-----|-------|----|------|----|-----|------|-----|-----|----|-----|-----|----|-----|-----|
| SE(M)Kh 80-A2  | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 12 | 3   | -   | 95 | 120 | 266 |
| SE(M)Kh 80-B1  | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 14 | 3,5 | -   | 95 | 120 | 278 |
| SEKh 80-B1R    | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 14 | 3,5 | -   | 95 | 120 | 278 |
| SEKh 80-B1F    | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 14 | 3,5 | 120 | 95 | 120 | 315 |
| SE(M)Kh 80-B2  | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 12 | 3   | -   | 95 | 120 | 278 |
| SEKh 80-B2R    | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 12 | 3   | -   | 95 | 120 | 278 |
| SEKh 80-B2F    | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 12 | 3   | 120 | 95 | 120 | 315 |
| E(M)Kh 80-C1   | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 14 | 3,5 | -   | 95 | 120 | 306 |
| SEKh 80-C1R    | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 14 | 3,5 | -   | 95 | 120 | 306 |
| SEKh 80-C1F    | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 14 | 3,5 | 120 | 95 | 120 | 343 |
| SE(M)Kh 80-C2  | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 12 | 3   | -   | 95 | 120 | 306 |
| SEKh 80-C2R    | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 12 | 3   | -   | 95 | 120 | 306 |
| SEKh 80-C2F    | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 157 | M20 | 12 | 3   | 120 | 95 | 120 | 343 |
| SE(M)Kh 90-S1  | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 316 |
| SEKh 90-S1R    | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 316 |
| SEKh 90-S1F    | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | 120 | 95 | 118 | 350 |
| SE(M)Kh 90-S2  | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3   | -   | 95 | 118 | 316 |
| SEKh 90-S2R    | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3   | -   | 95 | 118 | 316 |
| SEKh 90-S2F    | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3   | 120 | 95 | 118 | 350 |
| SE(M)Kh 90-L1  | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 328 |
| SEKh 90-L1R    | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | -   | 95 | 118 | 328 |
| SEKh 90-L1F    | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3,5 | 120 | 95 | 118 | 364 |
| SE(M)Kh 90-L2  | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3   | -   | 95 | 118 | 328 |
| SEKh 90-L2R    | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3   | -   | 95 | 118 | 328 |
| SEKh 90-L2F    | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 157 | M20 | 10 | 3   | 120 | 95 | 118 | 364 |
| SE(M)KhR 90-S1 | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | -   | 95 | 120 | 312 |
| SEKhR 90-S1R   | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | -   | 95 | 120 | 312 |
| SEKhR 90-S1F   | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 10 | 3,5 | 120 | 95 | 120 | 352 |
| SE(M)KhR 90-S2 | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3   | -   | 95 | 120 | 312 |
| SEKhR 90-S2R   | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3   | -   | 95 | 120 | 312 |
| SEKhR 90-S2F   | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3   | 120 | 95 | 120 | 352 |
| SE(M)KhR 90-L1 | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3,5 | -   | 95 | 120 | 337 |
| SEKhR 90-L1R   | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3,5 | -   | 95 | 120 | 337 |
| SEKhR 90-L1F   | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3,5 | 120 | 95 | 120 | 377 |
| SE(M)KhR 90-L2 | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3   | -   | 95 | 120 | 337 |
| SEKhR 90-L2R   | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3   | -   | 95 | 120 | 337 |
| SEKhR 90-L2F   | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3   | 120 | 95 | 120 | 377 |
| SEMkhr90-M1    | B14/C1 | 160 | 130 | 110j6 | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3,5 | -   | 95 | 120 | 357 |
| SEMkhr90-M2    | B14/C2 | 140 | 115 | 95j6  | M8 | 24j6 | 50 | 8h9 | 27   | 166 | M20 | 8  | 3   | -   | 95 | 120 | 357 |

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# Dimensions of Foot Mounted Motors – IM B3

IE3

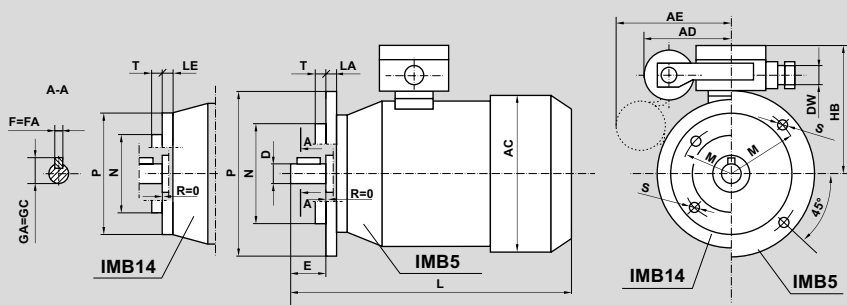


| Motor Type   | A   | B   | C  | D    | E  | F   | GA   | H  | K   | K1 | HA  | AC  | DW  | AA | AB  | BB  | AE  | AD | HD  | L   |
|--------------|-----|-----|----|------|----|-----|------|----|-----|----|-----|-----|-----|----|-----|-----|-----|----|-----|-----|
| 3SSIE 56-2B  | 90  | 71  | 36 | 9j6  | 20 | 3h9 | 10,2 | 56 | 5,8 | 8  | 7   | 117 | M20 | 30 | 110 | 92  | -   | 74 | 154 | 200 |
| 3SSIE 56-2BR | 90  | 71  | 36 | 9j6  | 20 | 3h9 | 10,2 | 56 | 5,8 | 8  | 7   | 117 | M20 | 30 | 110 | 92  | -   | 74 | 154 | 200 |
| 3SSIE 56-2BF | 90  | 71  | 36 | 9j6  | 20 | 3h9 | 10,2 | 56 | 5,8 | 8  | 7   | 117 | M20 | 30 | 110 | 92  | 100 | 74 | 154 | 244 |
| 3SSIE 63-2A  | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 210 |
| 3SSIE 63-2AR | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 210 |
| 3SSIE 63-2AF | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | 100 | 74 | 165 | 254 |
| 3SSIE 63-2B  | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 225 |
| 3SSIE 63-2BR | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 225 |
| 3SSIE 63-2BF | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | 100 | 74 | 165 | 268 |
| 3SSIE 63-4A  | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 225 |
| 3SSIE 63-4AR | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 225 |
| 3SSIE 63-4AF | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | 100 | 74 | 165 | 268 |
| 3SSIE 63-4B  | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 245 |
| 3SSIE 63-4BR | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | -   | 74 | 165 | 245 |
| 3SSIE 63-4BF | 100 | 80  | 40 | 11j6 | 23 | 4h9 | 12,5 | 63 | 7   | 10 | 8,5 | 126 | M20 | 36 | 124 | 106 | 100 | 74 | 165 | 289 |
| 3SSIE 71-2A  | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 245 |
| 3SSIE 71-2AR | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 245 |
| 3SSIE 71-2AF | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | 100 | 90 | 182 | 285 |
| 3SSIE 71-2B  | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 263 |
| 3SSIE 71-2BR | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 263 |
| 3SSIE 71-2BF | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | 100 | 90 | 182 | 303 |
| 3SSIE 71-4A  | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 263 |
| 3SSIE 71-4AR | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 263 |
| 3SSIE 71-4AF | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | 100 | 90 | 182 | 303 |
| 3SSIE 71-4B  | 112 | 95  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 246 |
| 3SSIE 71-4BR | 112 | 95  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | -   | 90 | 182 | 246 |
| 3SSIE 71-4BF | 112 | 90  | 45 | 14j6 | 30 | 5h9 | 16   | 71 | 7   | 10 | 8   | 134 | M20 | 45 | 142 | 116 | 100 | 90 | 182 | 286 |
| 3SSIE 80-2A  | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 278 |
| 3SSIE 80-2AR | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 278 |
| 3SSIE 80-2AF | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | 120 | 95 | 199 | 315 |
| 3SSIE 80-2B  | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 306 |
| 3SSIE 80-2BR | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 306 |
| 3SSIE 80-2BF | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | 120 | 95 | 199 | 343 |
| 3SSIE 80-4A  | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 278 |
| 3SSIE 80-4AR | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 278 |
| 3SSIE 80-4AF | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | 120 | 95 | 199 | 315 |
| 3SSIE 80-4B  | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 306 |
| 3SSIE 80-4BR | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | -   | 95 | 199 | 306 |
| 3SSIE 80-4BF | 125 | 100 | 50 | 19j6 | 40 | 6h9 | 21,5 | 80 | 10  | 13 | 9   | 150 | M20 | 55 | 160 | 130 | 120 | 95 | 199 | 343 |

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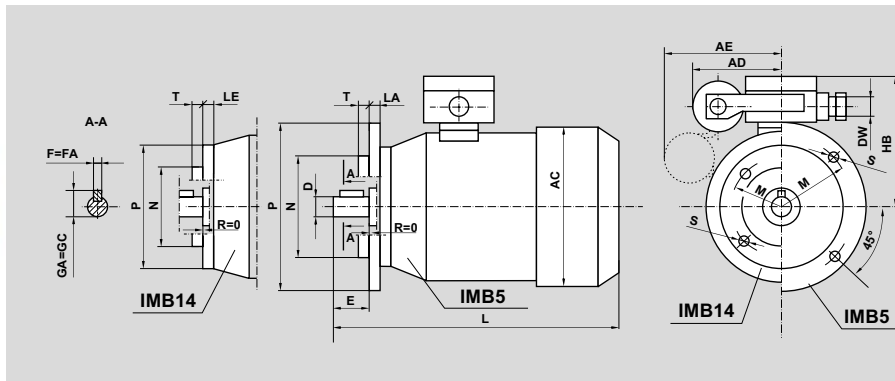
# Dimensions of Flange Mounted Motors – IM B5

IE3



| Motor Type    | Flange | P   | M   | N     | S  | D    | E  | F   | GA   | AC  | DW  | LA | T   | AE  | AD | HB  | L   |
|---------------|--------|-----|-----|-------|----|------|----|-----|------|-----|-----|----|-----|-----|----|-----|-----|
| 3SSIEK 56-2B  | B5     | 120 | 100 | 80j6  | 7  | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 8  | 3   | -   | 74 | 98  | 200 |
| 3SSIEK 56-2BR | B5     | 120 | 100 | 80j6  | 7  | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 8  | 3   | -   | 74 | 98  | 200 |
| 3SSIEK 56-2BF | B5     | 120 | 100 | 80j6  | 7  | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 8  | 3   | 100 | 74 | 98  | 244 |
| 3SSIEK 63-2A  | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 210 |
| 3SSIEK 63-2AR | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 210 |
| 3SSIEK 63-2AF | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | 100 | 74 | 102 | 254 |
| 3SSIEK 63-2B  | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-2BR | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-2BF | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | 100 | 74 | 102 | 268 |
| 3SSIEK 63-4A  | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-4AR | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-4AF | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | 100 | 74 | 102 | 268 |
| 3SSIEK 63-4B  | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 245 |
| 3SSIEK 63-4BR | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | -   | 74 | 102 | 245 |
| 3SSIEK 63-4BF | B5     | 140 | 115 | 95j6  | 10 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9  | 3   | 100 | 74 | 102 | 289 |
| 3SSIEK 71-2A  | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 245 |
| 3SSIEK 71-2AR | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 245 |
| 3SSIEK 71-2AF | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | 100 | 90 | 111 | 285 |
| 3SSIEK 71-2B  | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 263 |
| 3SSIEK 71-2BR | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 263 |
| 3SSIEK 71-2BF | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | 100 | 90 | 111 | 303 |
| 3SSIEK 71-4A  | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 263 |
| 3SSIEK 71-4AR | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 263 |
| 3SSIEK 71-4AF | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | 100 | 90 | 111 | 303 |
| 3SSIEK 71-4B  | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 246 |
| 3SSIEK 71-4BR | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | -   | 90 | 111 | 246 |
| 3SSIEK 71-4BF | B5     | 160 | 130 | 110j6 | 10 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 10 | 3,5 | 100 | 90 | 111 | 286 |
| 3SSIEK 80-2A  | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-2AR | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-2AF | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | 120 | 95 | 119 | 315 |
| 3SSIEK 80-2B  | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-2BR | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-2BF | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | 120 | 95 | 119 | 343 |
| 3SSIEK 80-4A  | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-4AR | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-4AF | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | 120 | 95 | 119 | 315 |
| 3SSIEK 80-4B  | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-4BR | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-4BF | B5     | 200 | 165 | 130j6 | 12 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 10 | 3,5 | 120 | 95 | 119 | 343 |

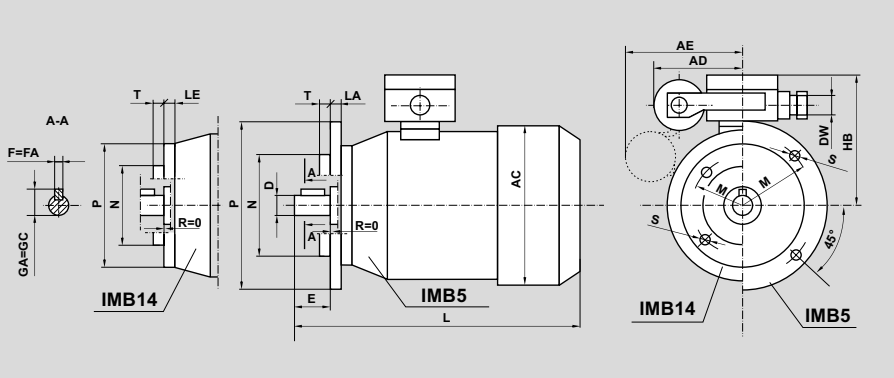
IE3 IE3 IE3 IE3 IE3 IE3 IE3  
**Dimensions of Flange Mounted Motors – IM B14** IE3



| Motor Type     | Flange | P   | M   | N    | S  | D    | E  | F   | GA   | AC  | DW  | LE   | T   | AE  | AD | HB  | L   |
|----------------|--------|-----|-----|------|----|------|----|-----|------|-----|-----|------|-----|-----|----|-----|-----|
| 3SSIEK 56-2B1  | B14/C1 | 105 | 85  | 70j6 | M6 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 15   | 2,5 | -   | 74 | 98  | 200 |
| 3SSIEK 56-2B2  | B14/C2 | 80  | 65  | 50j6 | M5 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 12,5 | 2,5 | -   | 74 | 98  | 200 |
| 3SSIEK 56-2B1R | B14/C1 | 105 | 85  | 70j6 | M6 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 15   | 2,5 | -   | 74 | 98  | 200 |
| 3SSIEK 56-2B2R | B14/C2 | 80  | 65  | 50j6 | M5 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 12,5 | 2,5 | -   | 74 | 98  | 200 |
| 3SSIEK 56-2B1F | B14/C1 | 105 | 85  | 70j6 | M6 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 15   | 2,5 | 100 | 74 | 98  | 244 |
| 3SSIEK 56-2B2F | B14/C2 | 80  | 65  | 50j6 | M5 | 9j6  | 20 | 3h9 | 10,2 | 117 | M20 | 12,5 | 2,5 | 100 | 74 | 98  | 244 |
| 3SSIEK 63-2A1  | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 210 |
| 3SSIEK 63-2A2  | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 210 |
| 3SSIEK 63-2A1R | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 210 |
| 3SSIEK 63-2A2R | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 210 |
| 3SSIEK 63-2A1F | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | 100 | 74 | 102 | 254 |
| 3SSIEK 63-2A2F | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 254 |
| 3SSIEK 63-2B1  | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-2B2  | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 225 |
| 3SSIEK 63-2B1R | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-2B2R | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 225 |
| 3SSIEK 63-2B1F | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | 100 | 74 | 102 | 268 |
| 3SSIEK 63-2B2F | B14/C2 | 90  | 75  | 60j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 268 |
| 3SSIEK 63-4A   | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-4AR  | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 225 |
| 3SSIEK 63-4AF  | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | 100 | 74 | 102 | 268 |
| 3SSIEK 63-4A   | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 225 |
| 3SSIEK 63-4AR  | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 225 |
| 3SSIEK 63-4AF  | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 268 |
| 3SSIEK 63-4B1  | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 245 |
| 3SSIEK 63-4B2  | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 245 |
| 3SSIEK 63-4B1R | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | -   | 74 | 102 | 245 |
| 3SSIEK 63-4B2R | B14/C2 | 90  | 75  | 60j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 245 |
| 3SSIEK 63-4B1F | B14/C1 | 120 | 100 | 80j6 | M6 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 14   | 3   | 100 | 74 | 102 | 289 |
| 3SSIEK 63-4B2F | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 289 |
| 3SSIEK 63-4C2  | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 245 |
| 3SSIEK 63-4C2R | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | -   | 74 | 102 | 245 |
| 3SSIEK 63-4C2F | B14/C2 | 90  | 75  | 60j6 | M5 | 11j6 | 23 | 4h9 | 12,5 | 126 | M20 | 9,5  | 2,5 | 100 | 74 | 102 | 289 |
| 3SSIEK 71-2A1  | B14/C1 | 140 | 115 | 95j6 | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 245 |
| 3SSIEK 71-2A2  | B14/C2 | 105 | 85  | 70j6 | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 245 |
| 3SSIEK 71-2A1R | B14/C1 | 140 | 115 | 95j6 | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 245 |
| 3SSIEK 71-2A2R | B14/C2 | 105 | 85  | 70j6 | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 245 |
| 3SSIEK 71-2A1F | B14/C1 | 140 | 115 | 95j6 | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | 100 | 90 | 111 | 285 |
| 3SSIEK 71-2A2F | B14/C2 | 105 | 85  | 70j6 | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12   | 2,5 | 100 | 90 | 111 | 285 |
| 3SSIEK 71-2B1  | B14/C1 | 140 | 115 | 95j6 | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14   | 3   | -   | 90 | 111 | 263 |
| 3SSIEK 71-2B2  | B14/C2 | 105 | 85  | 70j6 | M6 | 14j6 | 30 | 6h9 | 16   | 134 | M20 | 12   | 2,5 | -   | 90 | 111 | 263 |

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# Dimensions of Flange Mounted Motors – IM B14 IE3



| Motor Type     | Flange | P   | M   | N     | S  | D    | E  | F   | GA   | AC  | DW  | LE | T   | AE  | AD | HB  | L   |
|----------------|--------|-----|-----|-------|----|------|----|-----|------|-----|-----|----|-----|-----|----|-----|-----|
| 3SSIEK 71-2B1R | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | -   | 90 | 111 | 263 |
| 3SSIEK 71-2B2R | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | -   | 90 | 111 | 263 |
| 3SSIEK 71-2B1F | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | 100 | 90 | 111 | 303 |
| 3SSIEK 71-2B2F | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | 100 | 90 | 111 | 303 |
| 3SSIEK 71-4A1  | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | -   | 90 | 111 | 263 |
| 3SSIEK 71-4A2  | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | -   | 90 | 111 | 263 |
| 3SSIEK 71-4A1R | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | -   | 90 | 111 | 263 |
| 3SSIEK 71-4A2R | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | -   | 90 | 111 | 263 |
| 3SSIEK 71-4A1F | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | 100 | 90 | 111 | 303 |
| 3SSIEK 71-4A2F | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | 100 | 90 | 111 | 303 |
| 3SSIEK 71-4B1  | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | -   | 90 | 120 | 246 |
| 3SSIEK 71-4B2  | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | -   | 90 | 120 | 246 |
| 3SSIEK 71-4B1R | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | -   | 90 | 120 | 246 |
| 3SSIEK 71-4B2R | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | -   | 90 | 120 | 246 |
| 3SSIEK 71-4B1F | B14/C1 | 140 | 115 | 95j6  | M8 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 14 | 3   | 100 | 90 | 120 | 286 |
| 3SSIEK 71-4B2F | B14/C2 | 105 | 85  | 70j6  | M6 | 14j6 | 30 | 5h9 | 16   | 134 | M20 | 12 | 2,5 | 100 | 90 | 120 | 286 |
| 3SSIEK 80-2A1  | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-2A2  | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 278 |
| 3SSIEK 80-2A1R | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-2A2R | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 278 |
| 3SSIEK 80-2A1F | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | 120 | 95 | 119 | 315 |
| 3SSIEK 80-2A2F | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | 120 | 95 | 119 | 315 |
| 3SSIEK 80-2B1  | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-2B2  | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 306 |
| 3SSIEK 80-2B1R | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-2B2R | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 306 |
| 3SSIEK 80-2B1F | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | 120 | 95 | 119 | 343 |
| 3SSIEK 80-2B2F | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | 120 | 95 | 119 | 343 |
| 3SSIEK 80-4A1  | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-4A2  | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 278 |
| 3SSIEK 80-4A1R | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 278 |
| 3SSIEK 80-4A2R | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 278 |
| 3SSIEK 80-4A1F | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | 120 | 95 | 119 | 315 |
| 3SSIEK 80-4A2F | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | 120 | 95 | 119 | 315 |
| 3SSIEK 80-4B1  | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-4B2  | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 306 |
| 3SSIEK 80-4B1R | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | -   | 95 | 119 | 306 |
| 3SSIEK 80-4B2R | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | -   | 95 | 119 | 306 |
| 3SSIEK 80-4B1F | B14/C1 | 160 | 130 | 110j6 | M8 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 14 | 3,5 | 120 | 95 | 119 | 343 |
| 3SSIEK 80-4B2F | B14/C2 | 120 | 100 | 80j6  | M6 | 19j6 | 40 | 6h9 | 21,5 | 150 | M20 | 12 | 3   | 120 | 95 | 119 | 343 |

## SINGLE-PHASE INDUCTION MOTORS ADAPTED TO VOLTAGE SPEED CONTROL

**Type:** SSh(R) series

**Output:** from 0,04kW to 1,5kW

**Number of poles:** 2, 4, 6, 8

**Frame size:** from 56 to 90

**Rated voltage:** 230V

**Frequency:** 50Hz

**Colour:** RAL 5010

**Insulation class:** F

**Degree of protection:** IP 54 (as option IP 55, IP 56, IP 66)

**Duty:** continuous duty S1

**Application:**

Single-speed induction motors adapted to voltage speed control are used in fan systems.

Single-phase induction motors of the **SSh series** are designed to drive machines with a fan load characteristic  $T_{load} = f(n^2)$ , where the increase in the motor load is dependent on the square of the motor speed increase.

Such machines include, e.g. radial fans, axial fans.

The prerequisite for the correct adjustment of the rotational speed of the motors within the range from the minimum speed ( $n_{min}$ ) to the rated speed ( $n_N$ ) of the fan is the correct selection of the motor power to the fan.

A fan that is too small does not load the motor properly, and as a result the correct speed control can be impossible.

The advantage of these motors is the linear (proportional) dependence of the input power of the motor on the motor rotational speed  $P_1 = f(n)$ .

This means that the motor is characterized by a low power consumption at a low fan speed.



# SINGLE-PHASE INDUCTION MOTORS FOR AXIAL FANS

**Type:** SEMOh series and SSOh series

**Output:** from 0,15kW to 1,1kW

**Number of poles:** 2, 4, 6

**Frame size:** 80

**Rated voltage:** 230V

**Frequency:** 50Hz

**Colour:** RAL 5010

**Insulation class:** F

**Degree of protection:** IP 54 (IP 55, IP 56, IP 66 as option)

**Duty:** continuous duty S1

**Application:**

Single phase induction motors are used for driving of axial fans.

**SSOh** and **SEMOh** motors are used to drive **axial fans**.

In such fans, forced air circulation is engaged also over the housing of the driving motor.

These motors can work only with axial fans with air flowing over its housing.

**!** Caution: Working alone can damage the motor.

Motors series SSOh and SEMOh can be delivered with **voltage speed controllers**.

Fan motors are produced in two main variants:

- **SSOh motors** are delivered with a power cable and a separate run capacitor

- **SEMOh motors** have a run capacitor mounting under the cover and a terminal box



series SSOh



series SEMOh

## MOTORS WITH SHAFT HEIGHT 65 MM FOR WOODWORKING MACHINES

**Type:** SEh(R) series for 1-phase motors,  
Sh(R) for 3-phase motors

**Output:** from 0,75kW to 2,0kW

**Number of poles:** 2, 4, 6, 8

**Frame size:** 65

**Rated voltage:** rated voltage 230V (1-phase), 400V (3-phase)

**Frequency:** 50Hz

**Colour:** RAL 5010

**Degree of protection:** IP 54

**Insulation class:** F

**Duty:** – continuous duty S1 or intermittent duty S6  
(40% 60c/h) for 1-phase  
– intermittent duty S6 (40% 60c/h) for 3-phase

**Application:**

Motors with shaft height 65mm are mainly applied in woodworking machines.

**Other:** – aluminium housing,

– motors can be manufactured with variety of the shaft ends, with a fixed bearing at the drive end (no axial clearance).

Electric motors with a **lowered shaft (low shaft height motors)**, so-called dachshund motors, are used wherever small dimensions of the motor and the possibility of mounting relatively small circular saws, respectively cutters or drills are needed.

Such motors are very popular in stone factories, all kinds of carpentry shops and furniture factories.

The low shaft height motors work well for cutting and machining of aluminum and similar materials.

Motors for circular saw are designed for continuous duty S1 or for intermittent duty S6.

The discs on the motor shaft allow **mounting the circular saw**.

The low rise of the shaft and flange mounting allow for **maximum cutting thickness**.

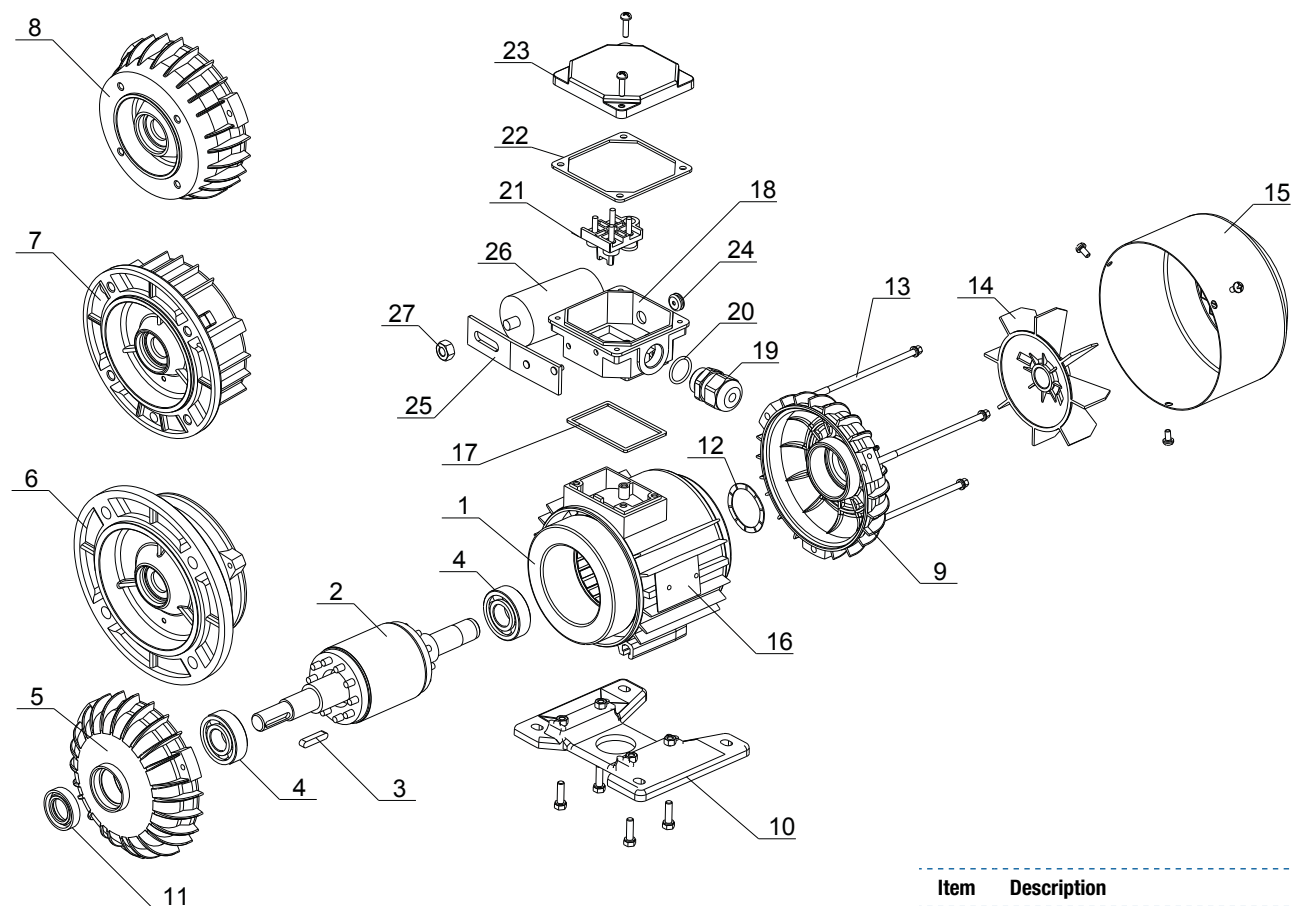
The saw motors can be equipped with an **electromagnetic brake** which increases the safety of use.



**! A switch with built-in safety-protection devices** is often used to guarantee that the saw will not turn on by itself after a power failure in the network and will turn off after exceeding the permissible temperature.

# List of Motor parts

Frame Size: 56÷90



| Item | Description                 |
|------|-----------------------------|
| 1    | stator                      |
| 2    | rotor                       |
| 3    | key                         |
| 4    | bearing                     |
| 5    | DE shield                   |
| 6    | flange B5                   |
| 7    | flange B14/C1               |
| 8    | flange B14/C2               |
| 9    | NDE shield                  |
| 10   | foot                        |
| 11   | shaft seal (IP55)           |
| 12   | spring washer               |
| 13   | tie rod                     |
| 14   | fan                         |
| 15   | fan cover                   |
| 16   | name plate                  |
| 17   | terminal box gasket         |
| 18   | terminal box                |
| 19   | cable gland                 |
| 20   | O-ring (IP55)               |
| 21   | terminal board              |
| 22   | terminal box cap gasket     |
| 23   | terminal box cap            |
| 24   | seal                        |
| 25   | mounting plate of capacitor |
| 26   | capacitor                   |
| 27   | nut M8                      |

DE – drive end

NDE – non drive end

## Ordering information

**In order to select the proper motor and provide you the most accurate offer as the requirements of customer's applications are various, we ask you to specify below motor details:**

### **Orders for motors should specify**

- » motor type designation,
- » rated output,
- » rated speed,
- » operating duty,
- » supply voltage and connection,
- » frequency,
- » mounting arrangements, end shield material,
- » degree of protection,
- » type of driven machine,
- » other details regarding special requests,

### **and information concerning additional accessories e.g.**

- » thermal protection,
- » anticondensation heaters,
- » vibration sensors,
- » etc.

### **When ordering special purpose motors one should also indicate:**

- » required direction of rotation,
- » required degree of interior protection,
- » method of start-up,
- » method of coupling with the driven unit (gears, dimensions of belt pulleys, etc.),
- » type of driven machine (type of load), including the moment of inertia J or flywheel effect GD2 calculated to motor shaft,
- » other customer's specifications.

### **When ordering spare parts one should specify:**

- » full designation of the motor type including its serial number (provided on the nameplate) or catalogue number,
- » degree of protection,
- » mounting arrangement,
- » name of part,
- » number of pieces.

**As part of our development program, we reserve the right to alter or amend any of the specifications without giving prior notice.**



Dear Customer,

Please complete the Order Form (included in the QR code on the left) and send it to [motor@cantonigroup.com](mailto:motor@cantonigroup.com). In case you need assistance, do not hesitate to contact us at phone number: 0048 33 813 87 00. It will be our pleasure to help you.

Cantoni Motor Team

Download editable .pdf file from the website.

# Cantoni Group – Certifications

## Cantoni Group’s factory, Celma Indukta was one of the first companies obtaining ISO 9001 certificate in Poland

All Cantoni Group manufacturing plants comply with the most important standards.

**ISO 9001** is based on a number of quality management principles including a strong customer focus, the motivation and involvement of top management, the process approach and continuous improvement. Using ISO 9001 helps to ensure that customers get consistent, good quality products and services. Our aim is to produce high quality products certified according to the most important standards. We always focus our work to provide a product that meets the customer requirements, define the approach to continuous improvement and monitor

customer satisfaction. All employees in our Group are fully engaged and motivated to provide the top quality products. We achieve this thanks to skilled technicians, trained workers and customer oriented attitude.

As a demonstration of our aim to meet all high level international standard requirements, we are also certified ISO 14001 and OHSAS 18001 to prove our internal processes and behaviour.

**ISO 14001** certification confirms that the organization manages their environmental responsibilities in an effective and internationally accepted way.

## In Cantoni Group we know that taking care of the environment means taking care of our present and future.



With **OHSAS 18001** certificate, Cantoni Group confirms the necessity of controlling and improving health and safety aspects within the organization.

## Employees are Cantoni Group’s main asset, thus, their well-being and safety are our priority.

Our laboratory Celma Indukta is also **ISO 17025** certified by Canadian Standard Association (CSA) for two aspects: safety and energy efficiency verification requirements as independent unit.

The safety part – Supervised Manufacturers Testing Certification (SMTC) confirms that our laboratory is allowed for supervised manufactured safety certification program.

The energy efficiency part confirms that energy verification program for motors operating as SMTC can be performed according to CSA 390 standard at our facilities.

All our prototype motors are tested and approved before series production and samples of our final products are tested periodically to check compliance with all parameters defined. Our production range has also different types of products certifications based on specific technical requirements, like UL-CSA, GOST, EAC, ATEX, IEC Ex, CCC, Bureau Veritas, DNV-GL, etc.

Our technicians are constantly updated, informed and trained about every new regulation in order to provide all possible solutions to meet final customer requirements and also study and engineer ad-hoc products with customers developers.

## Top quality electric motors

Cantoni Group's electric motors are manufactured in such a way as to provide a durable product that our customers can rely on:

- motors manufactured using high quality raw materials and components
- long-life bearings
- robust and tough construction
- raw materials only from European qualified suppliers
- production process from the beginning to the end at our facilities
- proven electrical performance

## Our motors for many applications

Our motors are produced with the aim to be flexible and adaptable to many different applications. The long tradition and experience of our technical departments, supported by a flexible and strong organization, can assure an engineering of the motor series that meet the most common requirements and the more and more specific requests from the manufacturers of cutting-edge machines.

Our long collaboration with some of the most important players in the global industrial market has built a strong and stable organization that is able to support the customer in the development of the best solutions for its application.

## Cantoni Group continuous investments

The strategy of Cantoni Group is to realize a strong and continuous plan of investments with the aim to constantly increase the range of products, quality level and high productivity. Cantoni Group international market leadership has been created thanks to such open and future oriented attitude. Investments into the new professional machinery, equipment and infrastructure increase the quality control, capacity and save the environment.

The use of world class CNC, automatic and semi-automatic machinery guarantees precision, repeatability and accuracy. Such considerable development plan of Cantoni Group enhances the already wide range of production, maximizes the quality of offered products and has led to a growing number of innovations (new series for specific applications, new design and solutions) and international approvals.



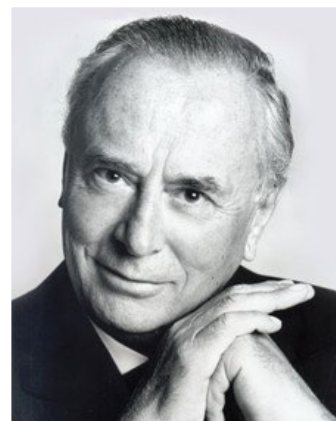
## Cantoni Group



### Giampiero Cantoni, Founder of Cantoni Group

Since almost a century, the Cantoni Group has been known worldwide as a leader in manufacturing and supplying electric motors, components and tools.

Thanks to the entrepreneurial commitment and great talent, the founder of the Group, **Prof. Giampiero Cantoni**, created diversified Group Enterprise that has gained outstanding success on the Domestic and International markets, placing us among the most important European manufacturers.



## Cantoni Motor



### Cantoni Motor, the International Sales Office and Headquarters, coordinates the sales and purchasing for the whole Cantoni Group.

The history of Cantoni Motor goes back to 1945 when Elektrim Export Office in Poland was created. Through the next years, many internal changes had occurred, the Office changed its name to Elektrim Motor, to become finally in the year 2000 – Cantoni Motor S.A. – a company with Italian ownership.

Cantoni Motor provides complete customer service, from offer submission until shipment, after-sales and full technical support. Thanks to the flexible organization, our technical and sales team

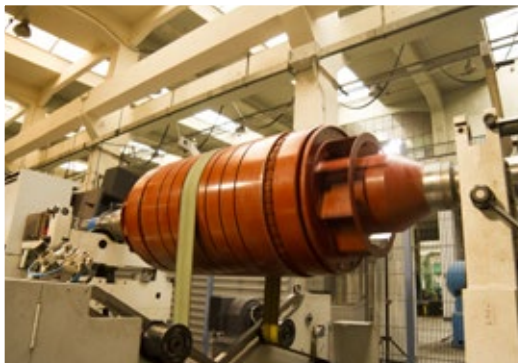
is able to face all requirements of modern market and realize the most challenging projects.

As the Headquarters, the company not only coordinates the sales and purchasing of key materials for the production of electric motors in the Group, but also is responsible for marketing and promotion actions as well as for certification processes, trademarks and patents.

Cantoni Group produces and exports high quality industrial electric motors – from 0,04 kW up to 6000 kW, in standard and special executions. Our motors are tough and reliable and operate in almost all industrial segments from pumps, fans, compressors, conveyors, mining, processing to power plants, etc.



## From the project to the application



# Driving Your Business

