

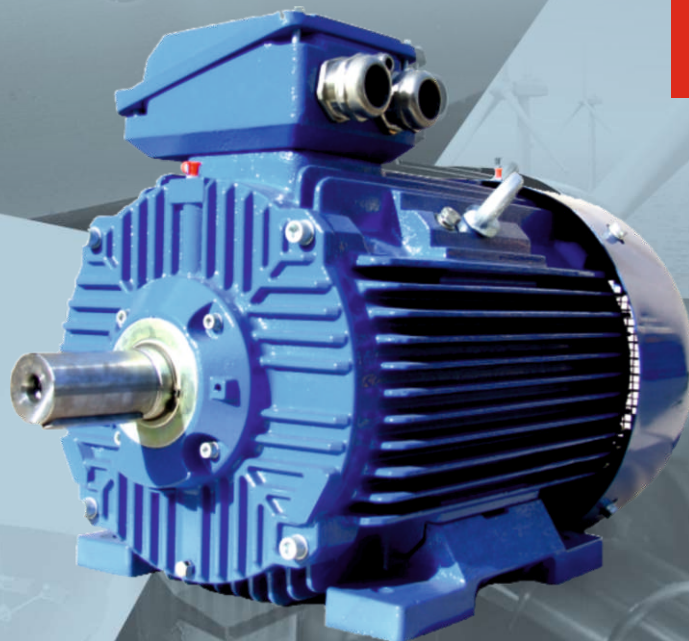
**CANTONI**  
**MOTOR**



# General Purpose 3-phase Induction Motors

*Energy Efficient  
Motors  
series 3SIE*

**IE3**



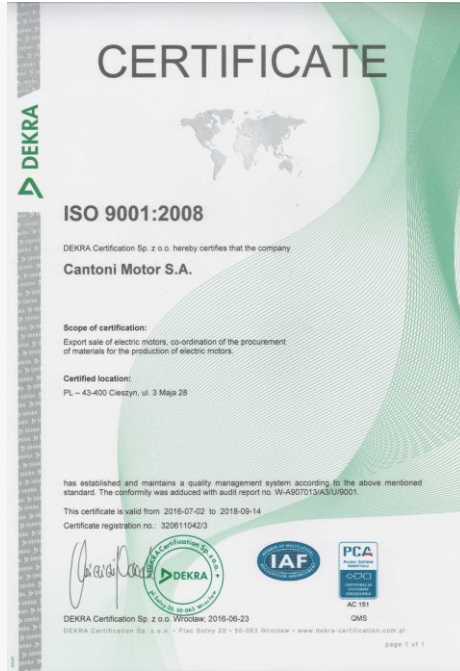
Comply with the new efficiency classes  
for low-voltage three-phase motors

IEC 60034-30 standard  
and EU Regulation 640/2009, 4/2014

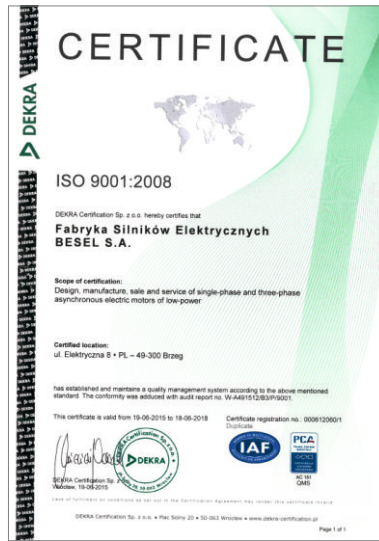
**Product Catalogue**

Certificates

**Cantoni Motor SA**  
ISO 9001  
Since September 30, 1999



**Besel SA**  
ISO 9001  
Since July 21, 1995



**Celma Indukta SA**  
ISO 9001  
Since April 1, 1993

ISO 14001  
Since November 15, 1999

**Emit SA**  
ISO 9001:2008  
ISO 14001:2004  
Since January 23, 2012



**Cantoni**®  
GROUP



since 1950



**CELMA**  
**indukta**

since 1920

since 1878



since 1921



# Contents

**General information**

**pages 5-14**

*Introduction to SIE motors*

*Efficiency of motors*

*Ratings-tolerances*

*Standards*

*Insulation classification*

*Terminal box*

*Vibration and noise level*

*Degree of protection*

*Mounting arrangements*

*Bearings*

*Permissible loads on the shaft end*

*Housing, endshields*

*Description of the customised executions*

*Ordering information*

**Technical data**

**pages 16-21**

---

**Dimensional drawings**

**pages 22-34**

---

**List of motor parts**

**pages 35-38**

---

**Production program**

**page 39**

---

**INTRODUCTION**

New efficiency classes for the low-voltage three-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 asynchronous motors. For many years low-voltage three-phase motors in the European Union have been sold in three efficiency classes EFF3, EFF2 and EFF1. Aside from this, many different efficiency classification systems have been introduced and well-proven in many countries all over the world.

This was the reason for the International Electrotechnical Commission IEC to develop and publish an energy efficiency standard which replaces all previous national issues. In parallel IEC developed and issued a new standard for determining motor efficiency. The new 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)

**IE1 = Standard Efficiency**

**IE2 = High Efficiency**

**IE3 = Premium Efficiency**

According to IEC 60034-30-1 standard the efficiency has to be determined according to the new requirements given in the IEC 60034-2-1 standard.

According to the Commission Regulation (EC) No 640/2009 (introduced in July 2009) including Commission Regulation (EC) No 4/2014 the required efficiency class of general-purpose motors with 2p=2, 4, 6 (introduced to the market in the future) will be as follows:

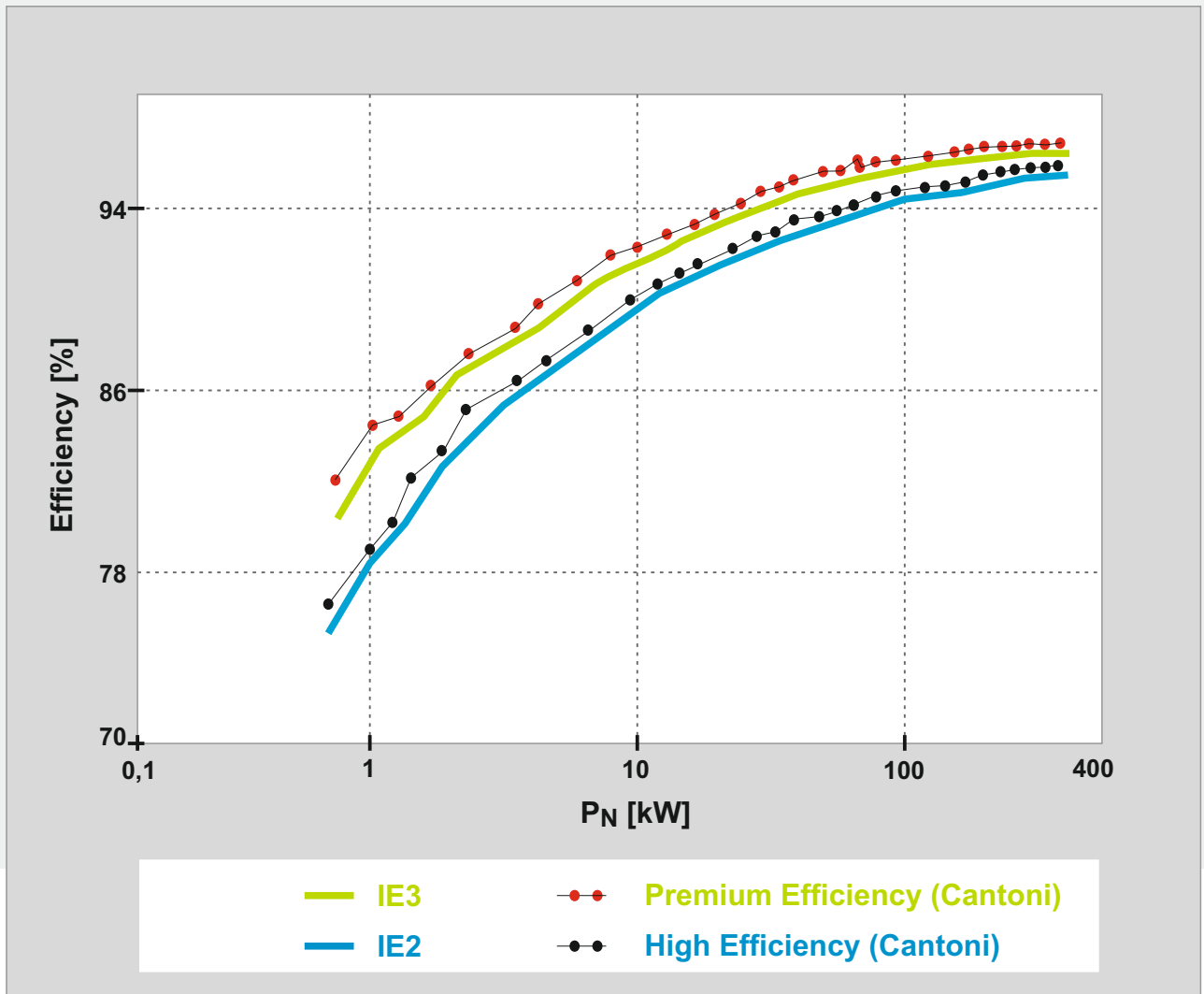
*From 1 January 2017: motors with a rated output between 0.75 - 375 kW shall have a minimum efficiency class of IE3, or IE2 if they are operated/equipped with electronic speed control (VSD).*

Electronic speed control is carried out using a frequency converter (VSD) that adjusts the speed of the motor - and therefore the torque produced - based on the energy needed.

## EFFICIENCY OF MOTORS

The present catalogue describes the electric motors which belong to the efficiency class IE3 (Premium Efficiency) and motors excluded from the Regulations (EC) 640/2009 and 4/2014 (motors with 2p = 8, 10, 12 and with rated output below 0.75kW and above 375kW).

Comparison between the efficiency of Cantoni Group motors (for example 2p=4) and efficiency class IE2/IE3 requirements according to the IEC 60034-30-1.



The efficiency class system specified under IEC 60034-30-1 is valid for low voltage three phase squirrel cage induction motors with the following specifications:

- Rated voltage up to 1.000 V
- Rated output between 0.12 kW and 1000 kW
- Either 2, 4, 6 or 8 poles
- Rated on the basis of continuous duty (S1)
- Supplied directly from mains
- With ambient temperature within the range of -30°C ÷ +60°C
- With altitude up to 4000 m. a.s.l.

Motors with flanges, feet and/or shafts with mechanical dimensions different from IEC 60072-1 are also covered by this standard.

**RATINGS - TOLERANCES**

Permissible deviations between real values and catalogue values 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 $P_N \leq 150 \text{ kW}$ $\Delta \eta = -10\% (100 - \eta_N)$ for $P_N > 150 \text{ kW}$
Speed $n$	$\Delta n = \pm 20\% (n_s - n_N)$ for $P_N > 1 \text{ kW}$ $\Delta n = \pm 30\% (n_s - n_N)$ for $P_N \leq 1 \text{ kW}$
Locked rotor current $I_L/I_N$	$\Delta(I_L/I_N) = +20\% (I_L/I_N)$
Locked rotor torque $T_L/T_N$	$\min(T_L/T_N) = -15\% (T_L/T_N)$ $\max(T_L/T_N) = +25\% (T_L/T_N)$
Breakdown torque $T_B/T_N$	$\Delta(T_B/T_N) = -10\% (T_B/T_N)$
Moment of inertia $J$ [kgm <sup>2</sup> ]	$\Delta J = \pm 10\% J$
Sound pressure level $L_{pA}$ [dB]	$\Delta L_{pA} = +3 \text{ dB /A/}$

**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

**New IEC standards regarding efficiency classes (IEC 60034-30-1) and efficiency measurements (IEC 60034-2-1)**

The resulting efficiency values differ from those obtained under the previous IEC 60034-2:1996 testing standard. It must be noted that the efficiency values are only comparable if they are obtained using the same measuring method.

**EU Regulation 640/2009 and 4/2014 adapted on 6 January 2014**

Commission Regulation 640/2009, adapted on 22 July 2009, specifies the requirements regarding the ecodesign of electric motors and the use of electronic speed control (VSD).

IE1  
IE2  
IE3

All the motors are manufactured according to Quality Assurance System consistent with ISO 9001.

ISO9001

The motors covered by the present catalogue comply with the regulations and standards effective in other countries, consistent with IEC standards.

IEC

All the motors described in the present catalogue are provided with CE mark.

CE

## INSULATION CLASSIFICATION

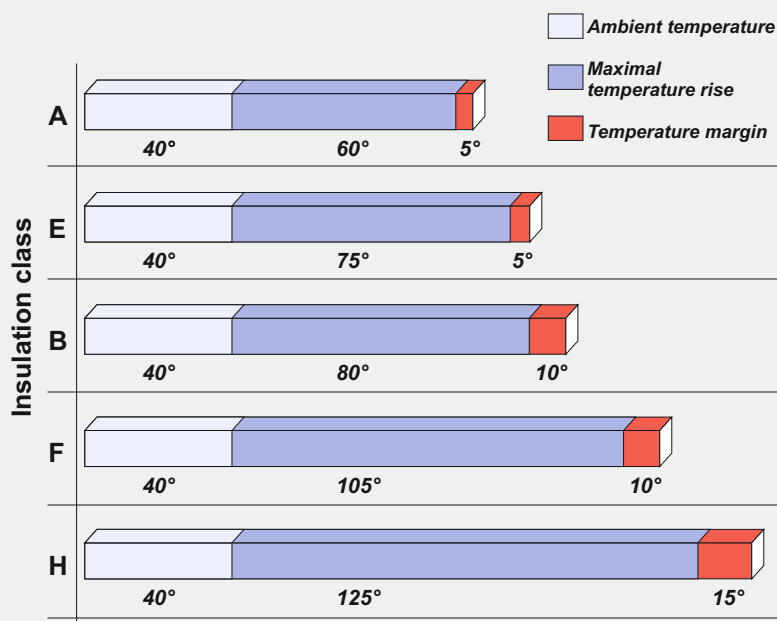
The insulation system of an electric motor is determined by a given insulation class on the basis of its thermal resistance. This thermal resistance should be guaranteed by the entire set of electric insulating materials used in the motor insulating system.

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.

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



*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).*

## Class F

*The standard motors made by Cantoni Motor in their basic version have the insulation class F while the temperature rise is for class B. This means longer life for motors.*

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

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

## MOTOR FEET

Motors with frame size ≤ 132 have screwed feet.

Motors with frame size > 132 up to 315 have screwed feet or feet integrated with the motor housing.

Motors with frame size from 355 have feet integrated with the motor housing.

## TERMINAL BOX

The terminal boxes of low voltage motors have threaded inlet holes designed for mounting cable glands. The box contains a terminal board with marked terminals making possible connection of supply cables.

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.

Low voltage high-power motors contain terminal boxes with cable gland seals.

The circuits of thermal protection and anticondensation heaters are connected to separate terminal boxes.

Inside the boxes there are special clamps used to ground the supply cable armouring.

## VIBRATION LEVEL AND NOISE LEVEL

The rotor balancing method guarantees that a standard vibration level A is maintained in accordance with the IEC 60034-14 and a standard sound power level is maintained in accordance with the IEC 60034-9. On customer's demand the motors can be made with reduced vibration or noise level.


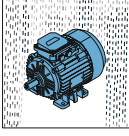
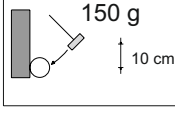

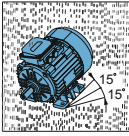
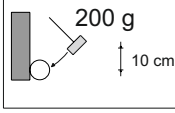

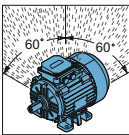
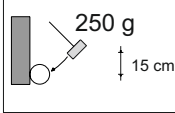
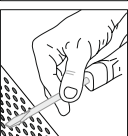
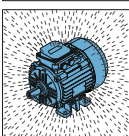
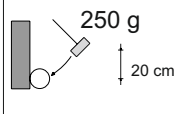
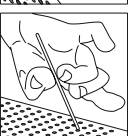

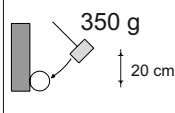
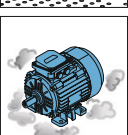

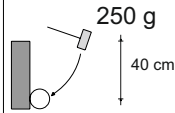
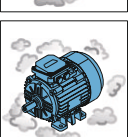
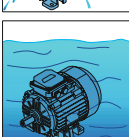
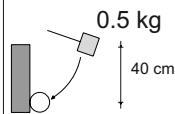
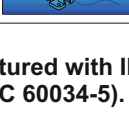
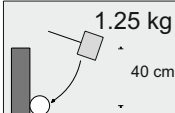
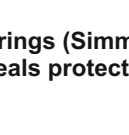
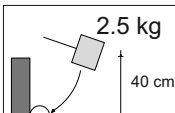
level A



**INTERNATIONAL PROTECTION MARKING IP**

According to the IEC 60034-5 standard the electric motors are provided with IP code which determines the degree of protection (ensured by the housing) against penetration of solid matter and fluids.

**IP55**

PROTECTION AGAINST PENETRATION OF SOLID MATTER		PROTECTION AGAINST PENETRATION OF FLUIDS		IK	MECHANICAL PROTECTION								
1st digit	DESCRIPTION	2nd digit	DESCRIPTION	3rd digit	DESCRIPTION								
				<b>00</b>	No protection								
<b>0</b>	 Not protected	<b>0</b>	 Not protected	<b>01</b>	 Striking energy: 0.15 J								
	 Protected against solid bodies larger than 50 mm		<b>1</b>		 Protected against vertically falling drops of water	<b>02</b>	 Striking energy: 0.20 J						
	 Protected against solid bodies larger than 12 mm		<b>2</b>		 Protected against vertically falling drops of water up to 15°		<b>03</b>	 Striking energy: 0.37 J					
	 Protected against solid bodies larger than 2.5 mm		<b>3</b>		 Protected against rain up to 60°			<b>04</b>	 Striking energy: 0.50 J				
	 Protected against solid bodies larger than 1 mm		<b>4</b>		 Protected against rain falling from any direction				<b>05</b>	 Striking energy: 0.70 J			
	 Protected against deposition of dust		<b>5</b>		 Protected against sprayed water from any direction					<b>06</b>	 Striking energy: 1 J		
	<b>6</b>		 Totally protected against deposition of dust		<b>6</b>						 Protected against temporary immersion	<b>07</b>	 Striking energy: 2 J
<b>7</b>		 Protected against immersion between 0.15 and 1 m			<b>08</b>						 Striking energy: 5 J		
		<b>8</b>	 Protected against immersion at preset pressure and time								<b>09</b>		 Striking energy: 10 J
													<b>10</b>

All Cantoni Group standard motors are manufactured with IP 55 degree of protection according to the standard in force (IEC 60034-5). The following table lists its characteristics.

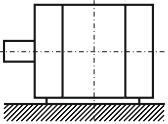
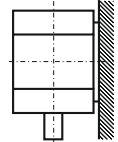
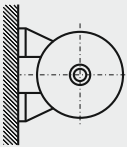
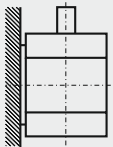
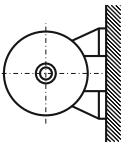
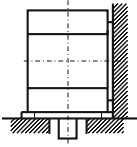
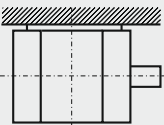
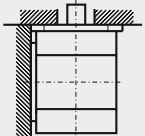
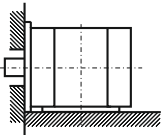
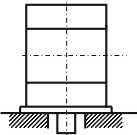
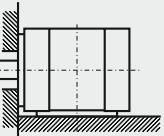
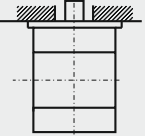
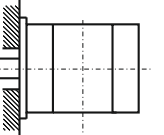
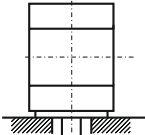
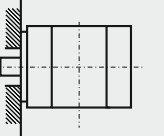
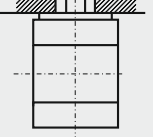
Each size 80 to 180 motor is equipped with seal rings (Simmerring or V-ring) on drive side and on non drive side. Labyrinth seals protect the motors from size 200 and above.

The terminal box is sealed with a gasket.

**Motors with a higher degree of protection are available on request.**

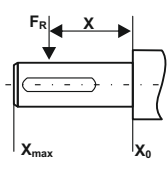
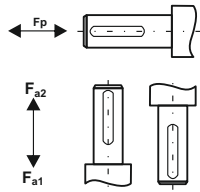
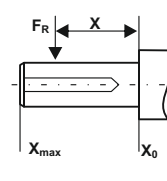
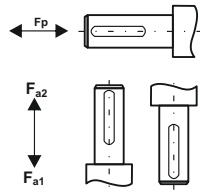
## MOUNTING ARRANGEMENTS

According to the IEC 60034-7 standard

Horizontal shaft				Vertical shaft			
	Designation		Frame size		Designation		Frame size
	Code II	Code I			Code II	Code I	
	IM 1001	IM B3	56 ÷ 500		IM 1011	IM V5	56 ÷ 315 without 3SIE 315 M6B,C,D without SIE 315 M8C,D
	IM 1051	IM B6	56 ÷ 280		IM 1031	IM V6	56 ÷ 315 without 3SIE 315 M6B,C,D without SIE 315 M8C,D
	IM 1061	IM B7	56 ÷ 280		IM 2011 or IM 2111	IM V15	56 ÷ 355
	IM 1071	IM B8	56 ÷ 280		IM 2031 or IM 2131	IM V36	56 ÷ 355
	IM 2001	IM B35	56 ÷ 500		IM 3011	IM V1	56 ÷ 500
	IM 2101	IM B34	56 ÷ 132		IM 3031	IM V3	56 ÷ 280
	IM 3001	IM B5	56 ÷ 315 without 3SIEK 315 M6B,C,D without SIEK 315 M8C,D		IM 3611	IM V18	56 ÷ 180
	IM 3601	IM B14	56 ÷ 132		IM 3631	IM V19	56 ÷ 180

\* Other mounting arrangements available on special request

**PERMISSIBLE LOADS ON THE SHAFT END**

Frame size	Number of poles	Horizontal operation		Vertical operation			Frame size	Number of poles	Horizontal operation		Vertical operation		
						$F_R(x=0)$			$F_R(x = \max)$	$F_p$	$F_{a1}$	$F_{a2}$	$F_R(x=0)$
		[kN]		[kN]					[kN]		[kN]		
Sh 56	2	0,20	0,16	0,04	0,03	0,05	3SIE 200 LA	2	2,91	2,44	2,24	1,72	2,92
Sh 56	4	0,25	0,20	0,05	0,04	0,06	3SIE 200 LB	2	2,85	2,39	2,23	1,67	2,93
Sh 56	6	0,25	0,20	0,06	0,05	0,07	3SIE 200 L	4	3,61	3,03	2,81	2,12	3,70
Sh 63	2	0,20	0,16	0,04	0,04	0,06	3SIE 200 LA	6	4,31	3,62	3,62	2,92	4,56
Sh 63	4	0,25	0,20	0,06	0,05	0,07	3SIE 200 LB	6	4,06	3,40	3,54	2,71	4,65
Sh 63	6	0,27	0,22	0,06	0,05	0,07	3SIE 225 S	4	4,18	3,40	3,19	2,42	4,16
Sh 63	8	0,27	0,22	0,07	0,06	0,08	3SIE 225 M	2	3,31	2,81	2,53	1,93	3,29
Sh 71	2	0,29	0,24	0,07	0,05	0,09	3SIE 225 M	4	3,97	3,23	3,13	2,26	4,24
Sh 71	4	0,36	0,30	0,09	0,07	0,11	3SIE 225 M	6	4,57	3,72	3,98	2,95	5,33
Sh 71	6	0,40	0,35	0,10	0,08	0,12	3SIE 250 M	2	4,09	3,39	3,11	2,33	4,13
Sh 71	8	0,40	0,35	0,11	0,09	0,13	3SIE 250 M	4	4,90	4,06	3,85	2,68	5,36
3SIE 80 (Sh)	2	0,33	0,27	0,09	0,06	0,12	3SIE 250 M	6	5,92	4,90	4,99	3,81	6,55
3SIE 80 (Sh)	4	0,44	0,37	0,12	0,09	0,15	3SIE 280 S	2	3,94	3,34	3,07	2,01	4,43
Sh 80	6	0,51	0,42	0,14	0,11	0,17	3SIE 280 S	4	6,69	5,67	5,01	3,65	6,77
Sh 80	8	0,51	0,42	0,17	0,15	0,20	3SIE 280 S	6	7,86	6,67	5,79	4,32	7,70
3SIE 90	2	0,79	0,66	0,64	0,44	0,84	3SIE 280 M	2	3,80	3,22	3,03	1,89	4,49
3SIE 90	4	1,00	0,83	0,80	0,65	1,05	3SIE 280 M	4	6,15	5,22	4,86	3,16	7,04
3SIE 90	6	1,15	0,95	0,90	0,77	1,17	3SIE 280 M	6	7,69	6,52	5,75	4,19	7,75
3SIE 100	2	1,11	0,89	0,90	0,61	1,17	3SIE 315 S	2	3,56	3,08	2,96	1,63	4,69
3SIE 100	4	1,39	1,12	1,12	0,90	1,46	3SIE 315 S	4	5,75	4,82	4,74	2,71	7,37
3SIE 100	6	1,60	1,29	1,26	1,08	1,64	3SIE 315 S	6	7,21	6,04	5,61	3,84	8,14
3SIE 112	2	1,56	1,22	1,23	0,84	1,60	3SIE 315 MA	2	3,07	2,65	2,82	1,23	4,89
3SIE 112	4	1,92	1,58	1,50	1,19	1,96	3SIE 315 MB	2	2,67	2,31	2,71	0,91	5,05
3SIE 112	6	2,20	1,80	1,69	1,26	2,20	3SIE 315 MA	4	5,40	4,52	4,64	2,41	7,53
3SIE 132	2	2,11	1,65	1,82	0,98	2,37	3SIE 315 MB	4	5,16	4,33	4,58	2,20	7,64
3SIE 132	4	2,67	2,08	2,31	1,36	3,00	3SIE 315 MA	6	6,75	5,66	5,48	3,22	8,40
3SIE 132	6	3,06	2,39	2,51	1,40	3,26	3SIE 315 MB	6	6,27	5,33	5,34	2,68	8,78
3SIE 160	2	2,43	1,88	1,97	1,00	2,56	3SIE 315 MC	2	2,84	2,48	2,71	0,63	5,37
3SIE 160	4	3,06	2,38	2,54	1,43	3,31	3SIE 315 MC	4	6,27	5,33	4,34	1,46	8,06
3SIE 160	6	3,54	2,81	2,83	1,80	3,68	3SIE 315 MC	6	7,57	6,44	5,08	1,87	9,23
3SIE 180	2	2,61	2,13	2,20	1,00	2,87	3SIE 315 MD	6	7,47	6,36	5,05	1,82	9,22
3SIE 180	4	3,30	2,68	2,83	1,37	3,68							
3SIE 180	6	3,78	3,07	3,17	1,93	4,12							

**PERMISSIBLE LOADS ON THE SHAFT END for motors 2Sg (2p = 8 ÷ 12)**

		$F_R(x=0)$	$F_R(x = \max)$	$F_p$	$F_{a1}$	$F_{a2}$			$F_R(x=0)$	$F_R(x = \max)$	$F_p$	$F_{a1}$	$F_{a2}$
		[kN]			[kN]				[kN]			[kN]	
2Sg 200L	8	5,10	4,20	4,10	3,40	5,00	2Sg 280S8	8	8,30	6,90	6,60	5,20	8,50
2Sg 200LA	10	5,50	4,60	4,20	3,50	5,10	2Sg 280S10	10	9,30	7,70	6,70	5,40	8,40
2Sg 200LB	10	5,50	4,50	4,10	3,40	5,10	2Sg 280S12	12	9,80	8,10	7,00	5,70	8,70
2Sg 200L	12	5,90	4,90	4,40	3,70	5,40	2Sg 280M8	8	8,00	6,60	6,50	4,90	8,60
2Sg 225S	8	5,90	4,70	4,70	3,90	5,70	2Sg 280M10	10	8,80	7,30	6,50	5,20	8,20
2Sg 225S	10	6,50	5,10	4,70	4,00	5,60	2Sg 280M12	12	9,20	7,60	6,80	5,00	9,30
2Sg 225S	12	6,70	5,30	4,80	4,20	6,00	2Sg 315S8	8	8,40	7,00	7,00	5,00	9,60
2Sg 225M	8	5,70	4,60	4,60	3,70	5,80	2Sg 315S10	10	9,30	7,70	7,60	5,60	10,20
2Sg 225M	10	6,30	4,90	5,70	4,40	7,40	2Sg 315S12	12	9,80	8,10	8,00	5,90	10,80
2Sg 225M	12	6,70	5,30	4,90	3,90	6,20	2Sg 315M8A	8	8,20	6,80	6,90	4,80	9,70
2Sg 250M	8	6,90	5,60	5,60	4,30	7,20	2Sg 315M8B	8	7,70	6,40	6,80	4,30	10,00
2Sg 250M	10	7,50	6,20	5,70	4,40	7,40	2Sg 315M10	10	8,40	7,00	7,30	4,80	10,70
2Sg 250M	12	8,10	6,70	6,10	4,80	7,80	2Sg 315M12A	12	9,30	7,70	7,90	5,50	11,10
							2Sg 315M12B	12	9,10	7,60	7,80	5,30	11,20

**VERSION WITH ROLLER BEARINGS for motors 355**

Mechanical Size	Type of construction	No. of poles, 2p	D.E. bearing	N.D.E. bearing
3SIE 355 ML	IM1001 (B3)	4 ÷ 6	NU222 EM1C3	6222 C3
3SIE 355 H	IM1001 (B3)	4 ÷ 6	NU322 EM1C3	6322 C3

Horizontal mounting					
			Permissible radial forces		Permissible axial forces
			FX0	FXmax	FA
Motor type	Number of poles	Length of shaft extension E(mm)	kN	kN	kN
3SIE 355 ML	4	210	22	18	5
	6	210	23	15	5,5
3SIE 355 H	4	210	27	17	6
	6	210	29	15	7

**VERSION WITH ROLLER BEARINGS for motors SEE355 and Sh355-500**

Mechanical Size	Type of construction	No. of poles, 2p	D.E. bearing	N.D.E. bearing
SEE 355	IM1001 (B3)	8	NU222 EM1C3	6222 C3
Sh 355..s	IM1001 (B3)	4 ÷ 8	NU322 EM1C3	6322 C3
Sh 400..s	IM1001 (B3)	4 ÷ 10	on request	on request
Sh 450..s	IM1001 (B3)	4 ÷ 12	on request	on request
Sh 500..s	IM1001 (B3)	4 ÷ 10	on request	on request

Horizontal mounting						Vertical operation
			Permissible radial forces		Permissible axial forces	
			FX0	FXmax	FA	
Motor type	Number of poles	Length of shaft extension E(mm)	kN	kN	kN	
SEE 355	8	210	24	14	6	on request
Sh 355..s	4	210	27	17	6	on request
	8	210	30	15	8	on request
Sh 400 Sh 450 Sh 500	4 ÷ 8		on request			

**PERMISSIBLE LOADS ON THE SHAFT END**

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

$$F_R = \frac{19600 \times P \times k}{D_k \times n} \text{ [N]}$$

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:

$$F_R = F_{X0} - \frac{X}{E} \times (F_{X0} - F_{XMAX}) \text{ [N]}$$

where:  $F_{X0}$  - value of  $F_R$  force acting on the beginning of the shaft end  
 $F_{XMAX}$  - value of  $F_R$  force acting on the end of the shaft end  
 E - length of the shaft end

Other specifications dependent on the frame size:

Frame size	Degree of protection	Position of the terminal box	Number of terminals	Number of cable outlets	Optional rotation of the terminal box	Glands	Temperature sensors in winding	Bearing lubrication on the run	Thermal protection of bearings
56	IP 55	top	6	1	180°	M 20	on request	no	no
63	IP 55	top	6	1	180°	M 20	on request	no	no
71	IP 55	top	6	1	180°	M 20	on request	no	no
80	IP 55	top	6	1	180°	M 20	on request	no	no
90	IP 55	top	6	2	180°	M 20	on request	no	no
100	IP 55	top	6	2	180°	M 20	on request	no	no
112	IP 55	top	6	2	180°	M 25	on request	no	no
132	IP 55	top	6	2	180°	M 25	on request	no	no
160	IP 55	top	6	2	180°	M 40	on request	on request	on request
180	IP 55	top	6	2	180°	M 40	on request	on request	on request
200	IP 55	top *	6	2	4 × 90°	M 50	PTC	yes	on request
225	IP 55	top *	6	2	4 × 90°	M 50	PTC	yes	on request
250	IP 55	top *	6	2	4 × 90°	M 63	PTC	yes	on request
280	IP 55	top *	6	2	4 × 90°	M 63	PTC	yes	on request
315	IP 55	top *	6	2	4 × 90°	M 76	PTC	yes	on request
355ML	IP 55	top	6	2	4 × 90°	M 76	PTC Mark A	yes	on request
355H	IP 55	top	6	2	4 × 90°	M 90	Pt 100	yes	Pt 100
400	IP 55	top	6 (bars)	3	180°	3×φ55	Pt 100	yes	Pt 100
450	IP 55	top	3 (bars)	3	180°	3×φ55	Pt 100	yes	Pt 100
500	IP 55	top	3 (bars)	3	180°	3×φ55	Pt 100	yes	Pt 100

\* terminal box on right side for 2Sg motors series ( $2p = 8 \div 12$ )

## BEARINGS

Frame size	Number of poles	Bearings
Sh 56	2 ÷ 6	6201 2Z
Sh 63	2 ÷ 8	6202 2Z
Sh 71	2 ÷ 8	6203 2Z
3SIE 80	2 ÷ 6	6204 2Z C3
3SIE 90	2 ÷ 6	6205 2Z C3
3SIE 100	2 ÷ 6	6206 2Z C3
3SIE 112	2 ÷ 6	6306 2Z C3
3SIE 132	2 ÷ 6	6308 2Z C3
3SIE 160	2 ÷ 6	6309 2Z C3
3SIE 180	2 ÷ 6	6311 2Z C3
3SIE 200	2 ÷ 6	6312 C3
3SIE 225	2 ÷ 6	6313 C3
3SIE 250	2 ÷ 6	6315 C3
3SIE 280	2	6315 C3
3SIE 280	4 ÷ 6	6318 C3
3SIE 315S,MA,MB	2	6315 C3
3SIE 315MC	2	6316 C3
3SIE 315S,MA,MB	4 ÷ 6	6318 C3
3SIE 315MC,MD	4 ÷ 6	6320 C3/6318 C3

The bearings in basic version of motors for horizontal and vertical duty, excluding 3SIE 315 with 2p=2.

### BEARINGS for 2Sg ( $2p = 8 \div 12$ )

Frame size	Number of poles	Bearings
2Sg 200	8 ÷ 12	6312 C3
2Sg 225	8 ÷ 12	6313 C3
2Sg 250	8 ÷ 12	6315 C3
2Sg 280	8 ÷ 12	6317 C3
2Sg 315	8 ÷ 12	6318 C3

Frame Size	Type of construction	No. of poles, 2p	D.E. bearing	N.D.E. bearing
3SIE 355 ML	IM1001 (B3)	2	6217 C3	6217 C3
3SIEL 355 ML	IM2001 (B35)	4 ÷ 6	6222 C3	6222 C3
3SIEK 355 ML	IM3011 (V1)	4 ÷ 6	6322 C3	6322 C3
3SIE 355 H	IM1001 (B3)	2	6217 C3	6217 C3
3SIEL 355 H	IM2001 (B35)	4 ÷ 6	6322 C3	6322 C3
3SIEK 355 H	IM3011 (V1)	4 ÷ 6	6322 C3	6322 C3

The bearings in basic version of motors for horizontal and vertical duty.

Frame Size	Type of construction	No. of poles, 2p	D.E. bearing	N.D.E. bearing
SEE 355	IM1001 (B3)	8	6222 C3	6222 C3
SLEE 355	IM2001 (B35)	8	6222 C3	6222 C3
SVEE 355	IM3011 (V1)	8	6322 C3	6322 C3
Sh 355..s	IM1001 (B3)	2	6217 C3	6217 C3
SLh 355..s	IM2001 (B35)	4 ÷ 8	6322 C3	6322 C3
SVh 355..s	IM3001 (V1)	4 ÷ 8	6322 C3	6322 C3
Sh 400..s	IM1001 (B3)	2	on request	
SLh 400..s	IM2001 (B35)	4 ÷ 10		
SVh 400..s	IM3011 (V1)	4 ÷ 10		
Sh 450..s	IM1001 (B3)	4 ÷ 12		
SLh 450..s	IM2001 (B35)	4 ÷ 12		
SVh 450..s	IM3011 (V1)	4 ÷ 12		
Sh 500..s	IM1001 (B3)	4 ÷ 12		
SLh 500..s	IM2001 (B35)	4 ÷ 12		
SVh 500..s	IM3011 (V1)	4 ÷ 12		

## HOUSING, END SHIELDS, FEET

Frame size [mm]	Motor housing	End shields	Feet
56	Aluminium	Aluminium	Aluminium - screwed
63	Aluminium	Aluminium	Aluminium - screwed
71	Aluminium	Aluminium	Aluminium - screwed
3SIE 80	Aluminium	Aluminium	Aluminium - screwed
3SIE 90	Aluminium	Aluminium	Aluminium - screwed
3 SIE100	Aluminium	Aluminium	Aluminium - screwed
3SIE 112	Aluminium	Cast iron	Aluminium - screwed
3SIE 132	Aluminium	Cast iron	Aluminium - screwed
3SIE 160	Cast iron	Cast iron	Cast iron - screwed or integrated
3SIE 180	Cast iron	Cast iron	Cast iron - screwed or integrated
3SIE 200	Cast iron	Cast iron	Cast iron - screwed or integrated
3SIE 225	Cast iron	Cast iron	Cast iron - screwed or integrated
3SIE 250	Cast iron	Cast iron	Cast iron - screwed or integrated
3SIE 280	Cast iron	Cast iron	Cast iron - screwed or integrated
3SIE 315	Cast iron	Cast iron	Cast iron - screwed or integrated
355	Cast iron	Cast iron	Cast iron - integrated
400	Cast iron	Cast iron	Cast iron - integrated
450	Cast iron	Cast iron	Cast iron - integrated
500	Cast iron	Cast iron	Cast iron - integrated

In motors series Sh, Sg of frame size 80, 90 and 100mm: on request end shields may be made of cast iron.

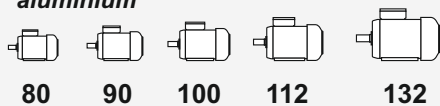
In motors series 3SIE of frame size 80, 90 and 100 mm: on request end shields may be made of cast iron.



In motors 3SIE of frame size 132, 160 and 180 mm - feet may be integrated with housing (motors with cast iron housing).

In motors 3SIE of frame size 132 mm - on request housing may be made of cast iron.

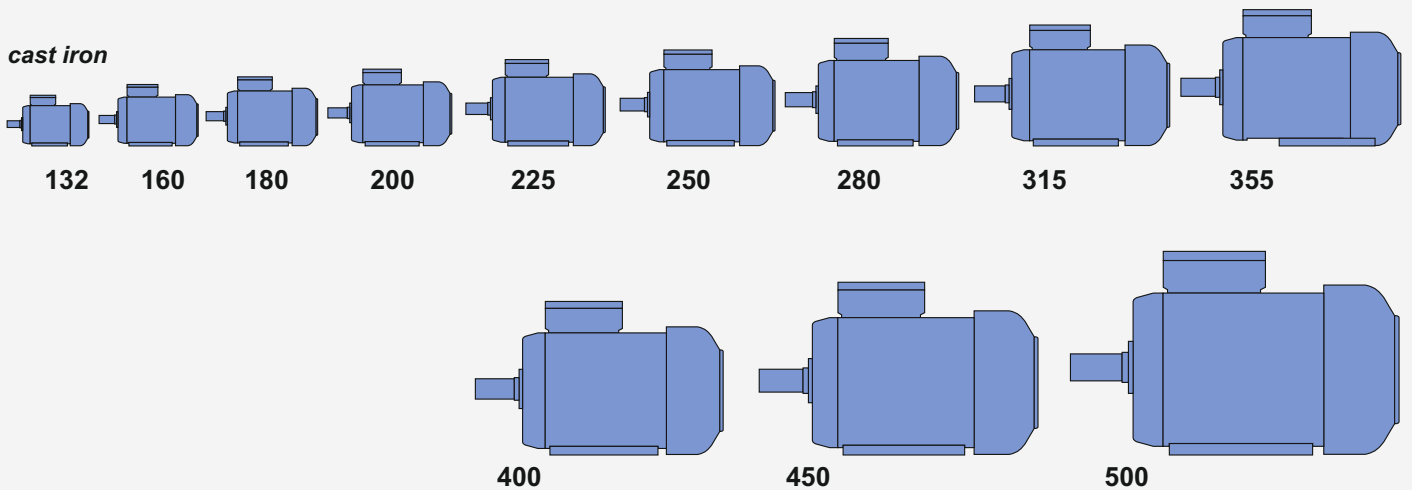
### Motor housing

#### aluminium



 aluminium  cast iron

#### cast iron



**DESCRIPTION OF THE CATALOGUE VERSION**

<b>3SIE</b>	<b>315</b>	<b>M</b>	<b>4</b>	<b>B</b>
(2)Sg, Sh, SEE	315	M	8	B

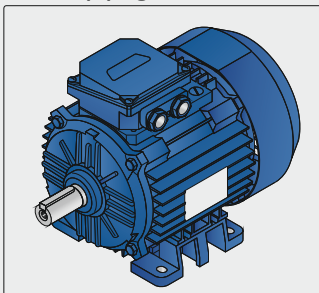
A=Lower power  
B=Higher power  
C,D=Increased Power

No. of poles  
(Speed)

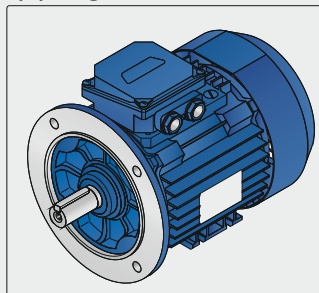
Frame length  
L=long  
M=medium  
S=short

Shaft h  
(in B3)

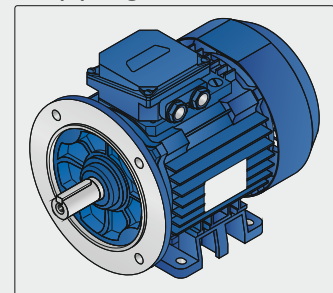
**3SIE**  
(2)Sg, Sh, SEE



**3SIEK**  
(2)SKg, SKh, SVEE, SVh



**3SIEL**  
(2)SLg, SLh, SLEE



**ORDERING INFORMATION**

*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 high-power or 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 machine driven (nature of load), including the moment of inertia J or flywheel effect GD<sup>2</sup> brought to the 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**

Totally Enclosed Motors IP 55

Item	Type	Rated output		Rated speed	Rated torque	Efficiency			Power factor	Full load current			Locked rotor torque	Locked rotor current	Breakdown torque	Moment of Inertia	Weight (IMB3)	
		P <sub>N</sub>				n <sub>N</sub>	T <sub>N</sub>	η <sub>N</sub> [%]			cos φ <sub>N</sub>	I <sub>N</sub> at rated voltage [A]						T <sub>L</sub> /T <sub>N</sub>
		[kW]	[HP]	[min <sup>-1</sup> ]	[Nm]	50%	75%	100%	[-]	230V	380V	400V	[-]	[-]	[-]	[kgm <sup>2</sup> ]	[kg]	
		<b>2p=2</b>		<b>n<sub>s</sub>=3000 rpm</b>					<b>f=50Hz</b>									
1	Sh 56-2A	0,09	0,12	2820	0,30	45	52	62	0,63	0,60	0,35	0,35	2,5	3,4	2,7	0,000076	2,9	
2	Sh 56-2B	0,12	0,17	2800	0,41	50	58	65	0,73	0,70	0,40	0,40	2,0	3,0	2,0	0,000095	3,2	
3	Sh 63-2A	0,18	0,25	2760	0,62	60	63	65	0,80	0,85	0,50	0,50	2,1	3,4	2,1	0,000175	3,5	
4	Sh 63-2B	0,25	0,33	2780	0,85	66	69	72	0,78	1,1	0,65	0,65	2,4	4,3	2,5	0,000235	4,1	
5	Sh 71-2A	0,37	0,50	2800	1,26	67	69	71	0,77	1,75	1,0	1,0	2,2	4,4	2,2	0,000389	5,1	
6	Sh 71-2B	0,55	0,75	2790	1,88	69	72	75	0,85	2,35	1,35	1,35	2,0	4,0	2,1	0,000484	6,3	
7	3SIE 80-2A	0,75	1	2890	2,48	79,0	82,0	82,0	0,82	2,95	1,65	1,7	3,4	7,5	4,2	0,00100	9,5	IE3
8	3SIE 80-2B	1,1	1,5	2890	3,63	82,0	83,0	83,0	0,77	4,3	2,2	2,5	5,1	9,0	4,7	0,00142	11,9	IE3
9	3SIE 90S2	1,5	2	2925	4,9	82,7	84,4	84,2	0,85	5,3	3,2	3,0	2,4	7,3	3,5	0,0014	16,5	IE3
10	3SIE 90L2	2,2	3	2910	7,2	85,4	86,5	85,9	0,86	7,5	4,5	4,3	2,7	8,0	4,0	0,0019	18,5	IE3
11	3SIE 100L2	3	4	2915	9,8	86,9	87,7	87,1	0,85	10,2	6,2	5,8	3,1	8,5	4,1	0,0039	25,0	IE3
12	3SIE 112M2	4	5,5	2925	13	88,7	89,0	88,1	0,89	12,8	7,8	7,4	2,3	8,4	3,2	0,0075	35,5	IE3
13	3SIE 132S2A	5,5	7,5	2940	17,9	87,7	89,2	89,2	0,89	17,4	10,5	10,0	2,6	8,2	3,4	0,014	55,0	IE3
14	3SIE 132S2B	7,5	10	2940	24,4	89,0	90,3	90,1	0,90	23,2	14,1	13,3	2,8	8,5	3,8	0,017	64,0	IE3
15	3SIE 132M2	9,2	12,3	2935	29,9	90,4	91,0	90,7	0,88	28,9	17,5	16,6	3,2	9,7	3,8	0,020	88,0	IE3
16	3SIE 132M2A	11	15	2925	35,9	90,8	91,4	91,2	0,89	34,1	20,6	19,6	2,6	8,1	3,8	0,021	95,0	IE3
17	3SIE 160M2A	11	15	2945	35,7	90,3	91,4	91,2	0,90	33,6	20,4	19,2	2,1	7,9	3,0	0,048	123	IE3
18	3SIE 160M2B	15	20	2945	48,6	89,8	91,9	91,9	0,90	45,5	27,6	26,2	2,4	8,0	3,4	0,059	132	IE3
19	3SIE 160L2	18,5	25	2940	60,1	92,2	92,8	92,4	0,90	55,8	33,8	32,1	2,3	7,7	3,0	0,072	139	IE3
20	3SIE 180M2	22	30	2955	71,1	91,1	92,4	92,7	0,90	66,2	40,1	38,1	3,2	9,2	3,7	0,095	190	IE3
21	3SIE 200L2A	30	40	2965	97	93,1	93,7	93,5	0,90	89	54	51	2,4	7,0	2,8	0,19	275	IE3
22	3SIE 200L2B	37	50	2955	120	93,5	93,8	93,7	0,90	110	67	63	2,2	6,3	2,6	0,20	295	IE3
23	3SIE 225M2	45	60	2972	145	94,2	94,6	94,2	0,88	136	82	78	2,0	6,7	2,6	0,26	385	IE3
24	3SIE 250M2	55	75	2969	177	94,5	94,8	94,5	0,91	161	97	92	2,2	6,9	2,9	0,42	495	IE3
25	3SIE 280S2	75	100	2978	241	94,2	94,8	94,7	0,91	218	132	126	1,8	6,7	2,9	0,76	660	IE3
26	3SIE 280M2	90	125	2979	289	94,5	95,1	95,0	0,91	261	158	150	1,8	7,3	3,1	0,95	690	IE3
27	3SIE 315S2	110	150	2978	353	95,4	95,6	95,2	0,92	315	191	181	1,9	6,9	2,9	0,98	865	IE3
28	3SIE 315M2A	132	175	2977	423	95,8	95,9	95,6	0,92	377	228	217	2,0	7,3	2,7	1,28	970	IE3
29	3SIE 315M2B	160	220	2978	513	95,9	96,1	95,8	0,92	456	276	262	2,2	8,2	3,1	1,57	1118	IE3
30	3SIE 315M2C	200	270	2980	641	95,9	96,1	95,8	0,93	-	341	324	2,3	8,1	3,1	1,74	1185	IE3
31	3SIE 355 ML2A	250	335	2982	801	94,8	95,7	95,8	0,91	-	-	414	1,9	6,8	2,8	2,80	1620	IE3
32	3SIE 355 ML2B	315	425	2982	1009	95,5	96,2	96,2	0,91	-	-	519	2,0	7,3	2,9	3,00	1700	IE3
33	3SIE 355 H2D	355	475	2985	1136	95,2	96,0	96,2	0,91	-	-	585	1,8	7,5	2,8	4,90	2160	IE3
34	3SIE 355 H2E	375	505	2985	1200	95,3	96,1	96,2	0,91	-	-	618	1,6	7,6	2,7	5,70	2220	IE3
35	Sh 355H2Es	400	540	2985	1280	95,7	96,4	96,5	0,91	-	-	657	1,6	8,0	2,8	5,7	2200	
36	Sh 400H2Cs	450	610	2983	1441	95,6	96,4	96,5	0,91	-	-	740	1,3	6,6	2,6	6,7	2800	
37	Sh 400H2Ds	500	680	2985	1600	95,7	96,5	96,6	0,91	-	-	821	1,4	7,2	2,8	7,7	2880	
38	Sh 400H2Es	560	760	2989	1789	95,5	96,4	96,6	0,90	-	-	930	1,7	8,0	3,0	8,7	3100	
39	Sh 400H2Es	630	850	2985	2015	96,2	96,7	96,8	0,91	-	-	1033	1,5	7,9	2,8	8,7	3100	
40	Sh 450H2Bs	710	950	2990	2268	96,1	96,8	97,0	0,88	-	-	696 <sup>2</sup>	0,6	6,2	2,7	17,2	4160	
41	Sh 450H2Cs	800	1080	2991	2254	96,2	96,9	97,1	0,88	-	-	783 <sup>2</sup>	0,7	6,8	3,0	18,4	4380	
42	Sh 450H2Ds	900	1200	2990	2875	96,5	97,1	97,2	0,89	-	-	870 <sup>2</sup>	0,7	6,6	2,8	19,0	4480	
43	Sh 500H2Bs	1000	1350	2992	3192	95,8	96,7	97,0	0,89	-	-	969 <sup>2</sup>	1,4	9,0	3,4	35,9	6200	
44	Sh 500H2Cs	1120	1500	2992	3575	95,9	96,7	97,0	0,88	-	-	1098 <sup>2</sup>	1,2	8,5	3,2	35,9	6200	
45	Sh 500H2Ds	1200	1609	2991	3832	96,0	96,8	97,0	0,90	-	-	1150 <sup>2</sup>	1,4	7,9	2,9	35,9	6200	

2 - at rated voltage 690V



Totally Enclosed Motors IP 55

Item	Type	Rated output		Rated speed	Rated torque	Efficiency			Power factor	Full load current			Locked rotor torque	Locked rotor current	Breakdown torque	Moment of Inertia	Weight (IMB3)	
		P <sub>N</sub>				T <sub>N</sub>	η <sub>N</sub> [%]			I <sub>N</sub> at rated voltage [A]								
		[kW]	[HP]	[min <sup>-1</sup> ]	[Nm]	50%	75%	100%	cos φ <sub>N</sub>	230V	380V	400V	T <sub>L</sub> /T <sub>N</sub>	I <sub>L</sub> /I <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>	J	[kgm <sup>2</sup> ]	[kg]
		<b>2p=4</b>				<b>n<sub>s</sub>=1500 rpm</b>				<b>f=50Hz</b>								
	46	Sh 56-4A	0,06	0,08	1400	0,41	40,0	48,0	50,0	0,58	0,52	0,30	0,30	2,0	2,8	2,3	0,00015	2,6
	47	Sh 56-4B	0,09	0,12	1380	0,62	54,0	58,0	60,0	0,61	0,60	0,35	0,35	2,0	2,4	2,1	0,00019	2,8
	48	Sh 63-4A	0,12	0,17	1380	0,83	56,0	60,0	60,0	0,63	0,80	0,45	0,45	1,9	2,6	2,0	0,00024	3,5
	49	Sh 63-4B	0,18	0,25	1380	1,26	60,0	63,0	65,0	0,65	1,1	0,65	0,65	2,0	2,6	2,0	0,00031	4,1
	50	Sh 71-4A	0,25	0,33	1380	1,73	60,0	63,0	66,0	0,64	1,5	0,85	0,85	2,0	3,0	2,0	0,00061	5,1
	51	Sh 71-4B	0,37	0,50	1370	2,6	64,0	67,0	70,0	0,68	2,2	1,25	1,25	2,1	3,1	2,1	0,00077	5,8
	52	Sh 80-4A	0,55	0,75	1380	3,8	70,0	69,0	73,0	0,69	2,8	1,6	1,6	2,5	3,9	2,5	0,00158	7,5
IE3	53	3SIE 80-4B	0,75	1	1430	5,0	81,5	82,0	82,5	0,64	3,6	2,1	2,1	3,8	5,7	3,8	0,00265	11,6
IE3	54	3SIE 90S4	1,1	1,5	1450	7,2	81,8	84,0	84,1	0,77	4,3	2,6	2,5	2,3	7,2	3,5	0,0036	18,0
IE3	55	3SIE 90L4	1,5	2	1450	9,9	83,9	85,5	85,3	0,78	5,7	3,4	3,3	2,5	7,4	3,4	0,0040	21,0
IE3	56	3SIE 100L4A	2,2	3	1465	14,3	85,0	86,8	86,7	0,80	8,0	4,8	4,6	2,3	7,5	2,9	0,0076	27,5
IE3	57	3SIE 100L4B	3	4	1465	19,6	85,8	87,7	87,7	0,79	10,9	6,6	6,3	2,5	7,4	3,5	0,0086	31,0
IE3	58	3SIE 112M4	4	5,5	1455	26,3	88,5	89,0	88,6	0,80	14,2	8,6	8,1	2,1	7,0	3,0	0,0115	41,5
IE3	59	3SIE 132S4	5,5	7,5	1465	35,7	88,6	89,8	89,6	0,85	18,1	11,0	10,4	2,5	8,5	3,3	0,036	63,0
IE3	60	3SIE 132M4	7,5	10	1465	49,1	89,7	90,6	90,4	0,83	25,1	15,2	14,4	2,9	8,8	3,8	0,042	67,0
IE3	61	3SIE 132M4A	9,2	12,3	1460	60,2	91,0	91,5	91,0	0,83	30,6	18,5	17,6	3,1	9,0	4,1	0,050	90,0
IE3	62	3SIE 132M4B	11	15	1460	72,0	91,7	92,1	91,4	0,83	36,4	22,0	20,9	3,2	9,5	4,4	0,057	110
IE3	63	3SIE 160M4	11	15	1470	71,5	90,9	91,7	91,4	0,83	36,4	22,0	20,9	2,6	7,3	3,0	0,088	136
IE3	64	3SIE 160L4	15	20	1475	97,1	92,0	92,5	92,1	0,83	49,3	29,8	28,3	2,7	8,1	3,2	0,104	154
IE3	65	3SIE 180M4	18,5	25	1475	120,2	91,4	92,5	92,6	0,85	59,0	35,7	33,9	2,9	8,3	3,5	0,162	190
IE3	66	3SIE 180L4	22	30	1475	142,4	91,4	92,8	93,0	0,83	71,5	43,3	41,1	3,2	8,5	3,6	0,185	200
IE3	67	3SIE 200L4	30	40	1477	194	94,2	94,3	93,8	0,89	90	55	52	2,1	6,4	2,6	0,38	329
IE3	68	3SIE 225S4	37	50	1485	238	94,1	94,4	94,0	0,87	114	69	65	2,0	6,9	2,8	0,51	373
IE3	69	3SIE 225M4	45	60	1483	290	94,4	94,8	94,3	0,88	136	82	78	2,1	7,1	2,7	0,59	410
IE3	70	3SIE 250M4	55	75	1487	353	94,0	94,8	94,7	0,90	162	98	93	2,5	7,6	2,9	1,00	520
IE3	71	3SIE 280S4	75	100	1488	481	93,9	95,0	95,0	0,91	218	132	125	2,0	6,8	2,5	1,37	710
IE3	72	3SIE 280M4	90	125	1491	576	94,9	95,5	95,4	0,89	266	161	153	2,6	8,4	3,0	1,80	761
IE3	73	3SIE 315S4	110	150	1488	706	95,1	95,5	95,4	0,90	322	195	185	2,0	6,6	2,4	2,25	920
IE3	74	3SIE 315M4A	132	175	1489	847	95,6	95,9	95,6	0,91	381	231	219	2,3	7,9	2,8	2,59	1030
IE3	75	3SIE 315M4B	160	220	1490	1026	95,9	96,1	95,8	0,90	466	282	268	2,4	8,5	3,1	2,80	1130
IE3	76	3SIE 315M4C	200	270	1488	1284	95,8	96,2	96,2	0,90	-	351	333	2,4	8,1	2,9	3,46	1205
IE3	77	3SIE 355 ML4A	250	335	1489	1603	95,8	96,2	96,1	0,89	-	-	422	2,0	7,4	2,3	5,30	1700
IE3	78	3SIE 355 ML4B	315	425	1489	2020	96,0	96,4	96,3	0,90	-	-	525	2,3	7,5	2,5	6,40	1830
IE3	79	3SIE 355 H4D	355	475	1488	2278	96,1	96,5	96,3	0,88	-	-	605	1,7	6,4	2,2	7,80	2200
IE3	80	3SIE 355 H4E	375	505	1491	2402	95,9	96,3	96,3	0,88	-	-	639	1,9	7,5	2,4	9,10	2340
	81	Sh 355H4Es	400	540	1489	2566	95,8	96,2	96,1	0,88	-	-	683	1,8	7,0	2,3	9,10	2320
	82	Sh 400H4Cs	450	610	1490	2884	96,3	96,9	96,9	0,88	-	-	762	1,6	7,6	2,6	12,3	2920
	83	Sh 400H4Ds	500	680	1491	3203	96,2	96,7	96,7	0,88	-	-	848	1,6	7,5	2,6	13,6	3100
	84	Sh 400H4Es	560	760	1491	3587	96,4	95,8	96,8	0,87	-	-	960	1,7	7,6	2,6	15,0	3250
	85	Sh 400H4Fs	630	850	1491	4035	96,5	96,9	96,9	0,87	-	-	1079	1,9	8,4	2,8	15,3	3440
	86	Sh 450H4Bs	710	960	1492	4545	96,5	97,0	97,0	0,88	-	-	696 <sup>2</sup>	1,6	7,0	2,5	27,1	4000
	87	Sh 450H4Cs	800	1080	1494	5114	96,7	97,0	97,0	0,89	-	-	1493 <sup>2</sup>	1,6	6,8	2,6	31,6	4400
	88	Sh 450H4Ds	900	1210	1493	6757	96,6	97,0	97,0	0,88	-	-	882 <sup>2</sup>	1,5	7,3	2,5	35,4	4620
	89	Sh 450H4Es	1000	1350	1493	6397	96,7	97,2	97,2	0,89	-	-	967 <sup>2</sup>	1,5	7,3	2,5	38,0	4700
	90	Sh 500H4Cs	1120	1510	1495	7155	96,7	97,4	97,4	0,87	-	-	1106 <sup>2</sup>	0,8	6,9	2,5	58,4	6100
	91	Sh 500H4Ds	1250	1680	1495	7985	96,7	97,4	97,5	0,87	-	-	1233 <sup>2</sup>	0,8	7,5	2,7	65,2	6600
	92	Sh 500H4Es	1400	1880	1494	8949	96,9	97,5	97,5	0,88	-	-	1365 <sup>2</sup>	0,7	6,4	2,4	66,5	6900

2 - at rated voltage 690V

Totally Enclosed Motors IP 55

Item	Type	Rated output		Rated speed	Rated torque	Efficiency			Power factor	Full load current			Locked rotor torque	Locked rotor current	Breakdown torque	Moment of Inertia	Weight (IMB3)
		P <sub>N</sub>	P <sub>N</sub>			η <sub>N</sub>	T <sub>N</sub>	η <sub>N</sub> [%]		I <sub>N</sub> at rated voltage [A]	T <sub>L</sub> /T <sub>N</sub>	I <sub>L</sub> /I <sub>N</sub>					
		[kW]	[HP]	[min <sup>-1</sup> ]	[Nm]	50%	75%	100%	[-]	230V	380V	400V	[-]	[-]	[-]	[kgm <sup>2</sup> ]	[kg]
		<b>2p=6</b>			<b>n<sub>s</sub>=1000 rpm</b>				<b>f=50Hz</b>								
93	Sh 56-6B	0,06	0,08	860	0,65	30	31	32	0,65	0,73	0,42	0,42	1,4	1,7	1,6	0,00019	2,8
94	Sh 63-6A	0,09	0,12	870	0,98	40	44	49	0,53	0,9	0,50	0,50	1,5	2,0	1,6	0,00024	3,5
95	Sh 63-6B	0,12	0,17	870	1,30	38	44	50	0,65	1,15	0,65	0,65	1,3	1,8	1,1	0,00031	4,1
96	Sh 71-6A	0,18	0,25	890	1,91	47	54	57	0,68	1,3	0,75	0,75	1,9	2,6	1,9	0,00074	4,8
97	Sh 71-6B	0,25	0,33	860	2,78	45	52	55	0,79	1,75	1,0	1,0	1,6	2,0	1,6	0,00095	5,6
98	Sh 80-6A	0,37	0,50	910	3,88	61	63	64	0,65	2,4	1,4	1,4	2,0	3,0	2,1	0,00169	7,4
99	Sh 80-6B	0,55	0,75	900	5,84	62	65	67	0,70	3,1	1,8	1,8	1,9	2,7	2,0	0,00207	8,6
100	3SIE 90S6	0,75	1	940	7,6	77,2	79,3	78,9	0,70	3,4	2,1	2,0	1,7	4,3	2,4	0,0032	16
101	3SIE 90L6	1,1	1,5	940	11,1	79,9	81,9	81,0	0,70	4,9	2,9	2,8	2,1	4,5	2,6	0,0090	19
102	3SIE 100L6	1,5	2	960	14,9	81,1	82,8	82,5	0,74	6,2	3,7	3,5	2,6	6,2	3,3	0,0100	23,5
103	3SIE 112M6	2,2	3	965	21,9	83,9	84,9	84,3	0,76	8,6	5,2	5,0	2,1	5,9	2,6	0,0177	34
104	3SIE 132S6	3	4	965	29,7	86,8	87,8	87,0	0,81	10,7	6,5	6,2	2,2	6,6	2,9	0,0440	54
105	3SIE 132M6A	4	5,5	965	39,8	89,1	89,2	88,0	0,81	14,1	8,5	8,1	2,3	6,6	3,0	0,0579	62
106	3SIE 132M6B	5,5	7,5	960	54,7	88,9	89,1	88,0	0,81	19,4	11,7	11,1	2,4	6,7	3,1	0,0637	66
107	3SIE 160M6	7,5	10	970	73,8	89,0	89,9	89,5	0,82	25,7	15,5	14,8	2,1	6,8	2,9	0,1020	134
108	3SIE 160L6	11	15	970	108,3	91,0	91,0	90,3	0,82	37,3	22,6	21,4	2,2	7,0	3,0	0,1230	146
109	3SIE 180L6	15	20	980	146,2	90,0	91,3	91,2	0,81	60,0	30,9	29,3	3,3	7,3	2,8	0,2760	198
110	3SIE 200L6A	18,5	25	988	179	91,3	92,0	91,7	0,81	63	38	36	2,0	5,8	2,4	0,50	285
111	3SIE 200L6B	22	30	987	213	91,7	92,2	92,2	0,82	73	44	42	2,0	5,7	2,1	0,64	309
112	3SIE 225M6	30	40	989	290	92,3	92,9	92,9	0,83	98	59	56	1,9	6,4	2,3	0,89	392
113	3SIE 250M6	37	50	991	356	92,2	93,4	93,3	0,82	121	73	70	2,0	6,7	2,6	1,23	440
114	3SIE 280S6	45	60	993	433	92,9	93,8	93,7	0,81	149	90	86	2,3	7,3	2,6	1,70	635
115	3SIE 280M6	55	75	992	529	93,8	94,4	94,1	0,82	179	108	103	2,3	6,8	2,6	1,90	695
116	3SIE 315S6	75	100	992	722	94,6	95,0	94,7	0,82	242	147	139	2,4	7,1	2,6	2,40	900
117	3SIE 315M6A	90	125	993	866	95,1	95,4	95,1	0,82	290	175	167	2,6	7,6	2,7	2,93	965
118	3SIE 315M6B	110	150	992	1059	95,2	95,6	95,2	0,82	354	214	203	2,8	7,5	2,8	3,46	1110
119	3SIE 315M6C	132	175	992	1271	95,4	95,8	95,4	0,83	-	253	241	2,5	7,0	2,5	4,21	1230
120	3SIE 315M6D	160	220	992	1540	95,2	95,7	95,6	0,78	-	-	310	3,3	8,0	2,7	4,36	1235
121	3SIE 355 ML6A	200	270	989	1931	95,4	95,9	95,8	0,86	-	-	350	2,0	7,1	2,3	7,20	1740
122	3SIE 355 ML6B	250	335	990	2412	95,6	96,0	95,8	0,86	-	-	438	2,1	7,2	2,4	8,60	1950
123	3SIE 355 H6C	315	430	992	3033	96,0	96,4	96,1	0,86	-	-	550	2,0	7,1	2,2	12,70	2390
124	3SIE 355 H6D	355	475	991	3421	95,9	96,3	96,1	0,86	-	-	620	1,9	7,0	2,3	13,60	2500
125	3SIE 355 H6E	375	505	991	3614	95,8	96,2	96,0	0,87	-	-	648	1,8	7,0	2,1	15,30	2620
126	Sh 355H6Es	400	540	992	3851	95,7	96,0	95,9	0,85	-	-	708	2,2	8,0	2,4	15,30	2600
127	Sh 400H6Cs	450	610	993	4328	95,8	96,3	96,0	0,83	-	-	815	1,5	7,5	2,5	19,4	3250
128	Sh 450H6As	500	680	994	4804	96,2	96,5	96,4	0,88	-	-	493 <sup>2</sup>	1,2	6,7	2,6	36,5	3800
129	Sh 450H6Bs	560	760	994	5380	95,9	96,5	96,4	0,88	-	-	552 <sup>2</sup>	1,2	6,8	2,6	40,6	4300
130	Sh 450H6Cs	630	850	994	6053	96,3	96,7	96,6	0,89	-	-	613 <sup>2</sup>	1,3	7,0	2,6	45,0	4500
131	Sh 450H6Ds	710	960	994	6821	96,3	96,6	96,6	0,89	-	-	691 <sup>2</sup>	1,4	7,4	2,6	50,0	4890
132	Sh 500H6As	800	1080	995	7678	96,5	96,9	96,8	0,86	-	-	804 <sup>2</sup>	0,9	5,8	2,2	61,5	6200
133	Sh 500H6Bs	900	1210	995	8638	96,6	96,9	96,8	0,87	-	-	894 <sup>2</sup>	1,0	6,0	2,2	71,0	6550
134	Sh 500H6Cs	1000	1350	995	9598	96,2	96,8	96,9	0,86	-	-	1004 <sup>2</sup>	1,0	6,4	2,5	70,0	6700
135	Sh 500H6Ds	1120	1510	996	10739	96,1	96,8	97,0	0,85	-	-	1137 <sup>2</sup>	1,1	7,0	2,6	80,0	7130
136	Sh 500H6Es	1250	1680	996	11985	96,2	96,9	97,0	0,85	-	-	1269 <sup>2</sup>	1,1	7,1	2,6	84,9	7460
137	Sh 500H6Es	1300	1743	996	12465	96,3	96,9	97,0	0,85	-	-	1319 <sup>2</sup>	1,1	6,9	2,5	84,9	7460

2 - at rated voltage 690V

Totally Enclosed Motors IP 55

Item	Type	Rated output		Rated speed	Rated torque	Efficiency			Power factor	Full load current			Locked rotor torque	Locked rotor current	Breakdown torque	Moment of inertia	Weight (IMB3)
		P <sub>N</sub>	n <sub>N</sub>			T <sub>N</sub>	η <sub>N</sub> [%] at % of full load			I <sub>N</sub> at rated voltage							
		[kW]	[HP]	[min <sup>-1</sup> ]	[Nm]	50%	75%	100%	cos φ <sub>N</sub>	[A] <sub>230V</sub>	[A] <sub>380V</sub>	[A] <sub>400V</sub>	T <sub>L</sub> /T <sub>N</sub>	I <sub>L</sub> /I <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>	J	[kgm <sup>2</sup> ]
		<b>2p=8</b>			<b>n<sub>s</sub>=750 rpm</b>			<b>f=50Hz</b>									
138	Sh 63-8A	0,04	0,05	670	0,61	20	25	30	0,56	0,9	0,5	0,5	1,9	1,3	1,7	0,00024	3,5
139	Sh 63-8B	0,06	0,08	660	0,87	20	24	28	0,48	1,1	0,65	0,65	1,4	1,4	1,4	0,000307	4,1
140	Sh 71-8A	0,09	0,12	680	1,27	25	31	35	0,5	1,3	0,75	0,75	2,2	1,6	2,2	0,000736	4,7
141	Sh 71-8B	0,12	0,17	670	1,71	40	45	47	0,63	1,25	0,7	0,7	1,7	1,9	1,8	0,000946	5,6
142	Sh 80-8A	0,18	0,25	680	2,53	43	51	53	0,57	1,55	0,9	0,9	1,8	2,3	2,0	0,001693	7,5
143	Sh 80-8B	0,25	0,33	680	3,51	52	55	57	0,6	2,1	1,2	1,2	1,7	2,5	1,7	0,00207	8,9
144	Sh 90S-8	0,37	0,5	695	5,08	54,2	60,8	63,4	0,59	2,5	1,5	1,4	1,7	3,0	2,3	0,0021	13,4
145	Sh 90L-8	0,55	0,75	675	7,78	60,4	65,3	65	0,64	3,3	2	1,9	1,7	2,8	1,9	0,0024	15,3
146	Sg 100L-8A	0,75	1	710	10,1	65,9	70,5	71,1	0,66	4	2,4	2,3	1,5	3,5	1,9	0,009	23,6
147	Sg 100L-8B	1,1	1,5	705	14,9	67,6	71,8	72,2	0,65	5,9	3,6	3,4	1,6	3,6	1,9	0,01	26,3
148	Sg 112M-8	1,5	2	720	19,9	72,5	76,2	76,8	0,71	6,9	4,2	4,0	1,9	4,6	2,3	0,0192	53
149	Sg 132S-8	2,2	3	710	29,6	75,4	78,2	78	0,74	9,6	5,8	5,5	2,0	4,7	2,4	0,033	53
150	Sg 132M-8	3	4	710	40,4	78,5	80,7	80	0,74	12,7	7,7	7,3	2,3	5,0	3,0	0,044	65
151	Sg 160M-8A	4	5,5	705	54,2	81,5	82,7	81,5	0,76	16,2	9,8	9,3	2,2	5,0	2,7	0,06	85
152	Sg 160M-8B	5,5	7,5	710	74	82,1	83,7	83	0,75	22,2	13,4	12,8	2,7	5,5	3,0	0,077	95
153	Sg 160L-8	7,5	10	705	102	84,5	85,5	84,5	0,78	28,6	17,3	16,4	2,7	5,8	3,0	0,102	115
154	Sg 180L-8	11	15	730	144	87,7	89,2	89	0,76	40,8	24,7	23,5	2,0	5,5	2,4	0,213	165
155	2Sg 200L8	15	20	733	195	88,8	90	89,5	0,83	51	30,5	29,1	2,2	5,5	2,1	0,45	255
156	2Sg 225S8	18,5	25	735	240	88,8	90	89,5	0,81	64	39	37	2,0	5,6	2,0	0,58	280
157	2Sg 225M8	22	30	735	286	90,0	90,8	90,4	0,80	76	46	44	2,0	5,2	1,8	0,68	315
158	2Sg 250M8	30	40	738	388	91,0	92	91,5	0,84	98	59	56	2,5	6,3	2,1	1,27	430
159	2Sg 280S8	37	50	737	479	92,0	93,1	92,8	0,83	121	73	69	2,0	5,3	1,8	1,47	535
160	2Sg 280M8	45	60	737	583	92,0	92,8	92,5	0,84	145	88	84	2,1	5,4	2,0	1,8	590
161	2Sg 315S8	55	75	735	715	92,0	93,0	92,7	0,81	184	111	106	2,0	5,3	1,9	2,16	720
162	2Sg 315M8A	75	100	737	972	92,5	93,5	93,2	0,82	246	149	142	2,5	6,2	1,9	2,29	750
163	2Sg 315M8B	90	125	737	1166	92,5	93,5	93,2	0,82	296	179	170	2,4	6,5	1,9	2,86	840
164	SIE 315M8C <sup>1</sup>	110	150	737	1425	92,3	93,1	93,3	0,79	375	227	215	2,3	5,4	2,2	3,46	1105
165	SIE 315M8D <sup>1</sup>	132	175	734	1717	92,7	93,3	93,2	0,81	439	266	252	2,3	5,4	2,2	3,69	1136
166	SEE 355ML8A	160	220	739	2068	95,1	95,5	95,0	0,80	-	-	304	1,6	5,8	2,0	7,0	1680
167	SEE 355ML8B	200	270	740	2581	95,1	95,5	95,0	0,79	-	-	385	1,8	6,2	2,1	8,3	1750
168	Sh 355H8Ds	250	340	742	3218	95,3	95,8	95,4	0,78	-	-	485	1,3	6,0	2,0	12,9	2440
169	Sh 355H8Es	315	430	742	4054	95,1	95,5	95,3	0,78	-	-	612	1,3	6,0	2,0	16,0	2590
170	Sh 400H8Ds	355	480	742	4569	95,1	95,6	95,6	0,77	-	-	696	1,2	5,8	2,0	18,8	3200
171	Sh 400H8Es	400	540	742	5148	95,1	95,7	95,7	0,77	-	-	783	1,2	5,9	2,0	21,0	3350
172	Sh 450H8Bs	450	610	746	5761	95,2	96,0	96,1	0,78	-	-	502 <sup>2</sup>	1,0	5,8	2,1	41,6	4400
173	Sh 450H8Cs	500	680	746	6401	95,3	96,1	96,2	0,78	-	-	558 <sup>2</sup>	1,0	5,8	2,1	46,0	4600
174	Sh 450H8Ds	560	760	746	7169	95,4	96,2	96,3	0,78	-	-	624 <sup>2</sup>	1,0	5,7	2,1	49,0	4770
175	Sh 450H8Es	630	850	746	8065	95,6	96,2	96,3	0,79	-	-	693 <sup>2</sup>	1,0	5,6	2,0	53,8	4980
176	Sh 500H8Bs	710	960	746	9089	95,8	96,4	96,5	0,81	-	-	760 <sup>2</sup>	1,0	6,0	2,4	92,4	6680
177	Sh 500H8Cs	800	1080	746	10241	95,8	96,4	96,5	0,80	-	-	867 <sup>2</sup>	1,1	6,3	2,5	95,8	6800
178	Sh 500H8Ds	900	1210	746	11522	95,8	96,5	96,6	0,80	-	-	975 <sup>2</sup>	1,0	6,0	2,4	108	7240
179	Sh 500H8Es	1000	1350	746	12802	95,8	96,6	96,6	0,80	-	-	1083 <sup>2</sup>	1,1	6,5	2,5	118	7570

1 - with insulation class H  
2 - at rated voltage 690V

Item	Type	Rated output		Rated speed	Rated torque	Efficiency			Power factor	Full load current			Locked rotor torque	Locked rotor current	Breakdown torque	Moment of inertia	Weight (IMB3)
		P <sub>N</sub>				n <sub>N</sub>	T <sub>N</sub>	η <sub>N</sub> [%] at % of full load			I <sub>N</sub> at rated voltage						
		[kW]	[HP]	[min <sup>-1</sup> ]	[Nm]	50%	75%	100%	cos φ <sub>N</sub>	I <sub>N</sub> at rated voltage			T <sub>L</sub> /T <sub>N</sub>	I <sub>L</sub> /I <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>	J	[kg]
		2p=10			n <sub>s</sub> =600 rpm			f=50Hz									
180	Sh 90S-10	0,25	0,34	560	4,3	44,9	51,3	55,6	0,51	2,2	1,3	1,3	1,8	2,2	2,0	0,0028	17
181	Sh 90L-10	0,37	0,50	565	6,3	50,7	58,9	63,4	0,56	2,6	1,6	1,5	1,9	2,3	2,15	0,0030	20
182	Sg 100L-10A	0,55	0,75	570	9,2	39,8	49,2	55,0	0,44	5,7	3,5	3,3	2,7	3,1	2,7	0,009	24
183	Sg 100L-10B	0,75	1,0	560	12,8	44,6	54,1	56,8	0,54	6,1	3,7	3,5	2,0	3,0	2,1	0,01	24,5
184	Sg 112M-10	0,75	1,0	550	13,0	42,6	52,1	71,3	0,65	4,1	2,5	2,3	2,5	3,1	2,5	0,0177	33
185	Sg 112M-10A	1,1	1,5	560	18,7	69,2	72,6	72,2	0,64	6,0	3,4	3,4	1,3	3,3	1,8	0,0180	32
186	Sg 132S-10	1,1	1,5	565	18,6	53,4	68,2	77	0,65	5,5	3,3	3,2	1,2	3,5	1,6	0,025	52
187	Sg 132S-10A	1,5	2,0	565	25,4	53,2	69,8	74	0,60	8,5	5,1	4,9	1,3	3,7	2,4	0,032	66
188	Sg 132S-10B	2,2	3,0	560	37,5	43,1	62,9	75	0,58	12,7	7,7	7,3	1,4	3,9	2,5	0,04	72
189	Sg 160L-10	5,5	7,5	575	91,4	76,1	79,9	80,9	0,56	30,5	18,4	17,5	1,9	4,8	2,6	0,096	125
190	Sg 180L-10	7,5	10,0	585	122	81,9	85,1	86	0,58	37,7	22,8	21,7	2,3	5,1	2,4	0,22	164
191	2Sg 200L10A	7,5	10	580	123	82,5	84	85	0,68	32,5	19,7	18,7	1,7	3,5	2,1	0,4	240
192	2Sg 200L10B	11	15	590	178	84,7	86,7	87,5	0,68	46,5	28,1	26,7	3,2	5,9	2,4	0,47	255
193	2Sg 225S10	13	18	592	210	87,5	89,3	90,5	0,67	54	32,5	31	1,8	3,8	2	0,6	280
194	2Sg 225M10	15	20	590	243	86	88	89	0,67	63	38	36,5	2,8	5,4	2	0,76	315
195	2Sg 225M10z	18,5	25	590	299	84,3	87,1	87,7	0,64	83	50	47,5	2,8	5,5	2,1	0,76	325
196	2Sg 250M10	22	30	592	355	87,5	89,6	90	0,70	88	53	50	3	5,8	2	1,27	430
197	2Sg 280S10A	30	40	586	489	85,3	87,3	88,8	0,71	119	72	69	2	4,5	1,7	1,35	525
198	2Sg 280S10B	37	50	583	606	87	90	91	0,75	136	82	78	1,9	4,5	1,5	1,61	565
199	2Sg 280M10	45	60	587	732	88	90,5	91,6	0,76	162	98	93	2	4,5	1,6	2,03	630
200	2Sg 315S10	45	60	588	731	91,5	91,5	92,1	0,71	173	105	99	2	4,1	2	2,16	720
201	2Sg 315S10z	55	75	583	901	88	90,5	91,5	0,75	201	122	116	1,7	4,7	1,9	2,86	840
202	2Sg 315M10	75	100	583	1229	88	90,5	91,5	0,75	274	166	158	1,8	4,9	1,5	3,01	895
203	Sg 355S10A	90	125	592	1453	93,1	94,1	94,0	0,81	-	-	176	1,4	5,7	2,2	8,2	1250
204	Sg 355S10B	110	150	592	1774	93,8	94,6	94,4	0,79	-	-	213	1,4	5,8	2,4	10,3	1390
205	Sg 355M10A	132	175	592	2129	93,9	94,6	94,4	0,80	-	-	253	1,8	6,1	2,3	12,7	1620
206	Sg 355M10B	160	220	592	2581	93,7	94,7	94,7	0,83	-	-	294	1,8	6,3	2,4	14,1	1730
207	Sh 400H10As	200	270	594	3216	94,4	95,1	95,0	0,82	-	-	371	1,0	5,4	2,5	25,6	3010
208	Sh 400H10Bs	250	340	593	4019	94,6	95,2	95,1	0,82	-	-	463	1,1	5,6	2,4	28,5	3170
209	Sh 400H10Cs	315	430	593	5064	95,1	95,5	95,4	0,82	-	-	581	1,1	5,7	2,4	32,2	3350
210	Sh 450H10As	355	480	594	5708	94,9	95,6	95,5	0,81	-	-	384 <sup>2</sup>	1,0	6,0	2,3	53,9	4130
211	Sh 450H10Bs	400	540	594	6431	94,9	95,6	95,6	0,81	-	-	432 <sup>2</sup>	1,1	6,4	2,3	58,3	4300
212	Sh 500H10As	450	610	594	7235	95,0	95,7	95,6	0,81	-	-	486 <sup>2</sup>	1,4	6,3	2,1	74,1	5420
213	Sh 500H10Bs	500	680	594	8039	95,1	95,8	95,7	0,82	-	-	533 <sup>2</sup>	1,5	6,6	2,2	85,5	5700
214	Sh 500H10Cs	560	760	593	9019	95,4	95,9	95,8	0,82	-	-	597 <sup>2</sup>	1,3	6,2	2,0	94,2	5950
215	Sh 500H10Ds	630	850	594	10129	95,3	95,8	95,8	0,82	-	-	671 <sup>2</sup>	1,7	6,9	2,2	108	6400

2 - at rated voltage 690V

Totally Enclosed Motors IP 55

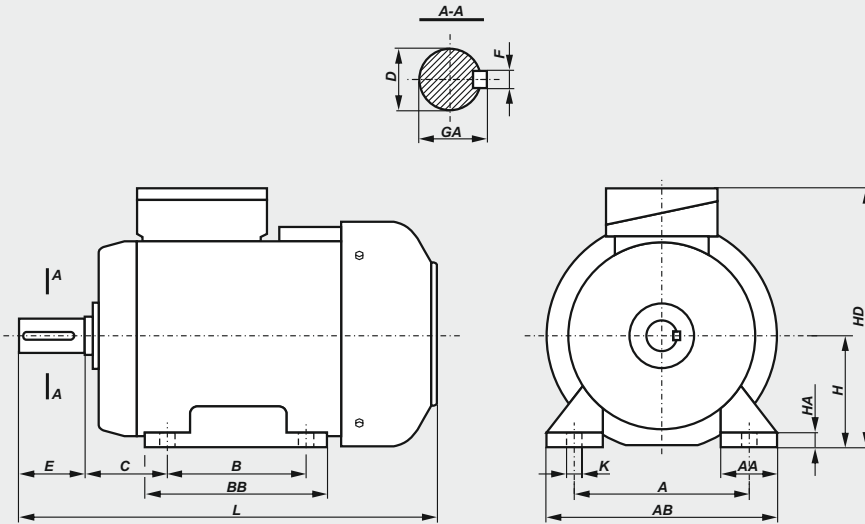
Item	Type	Rated output		Rated speed	Rated torque	Efficiency			Power factor	Full load current			Locked rotor torque	Locked rotor current	Breakdown torque	Moment of inertia	Weight (IMB3) *
		P <sub>N</sub>	η <sub>N</sub>			T <sub>N</sub>	η <sub>N</sub> [%] at % of full load			I <sub>N</sub> at rated voltage							
		[kW]	[HP]	[min <sup>-1</sup> ]	[Nm]	50%	75%	100%	cos φ <sub>N</sub>	I <sub>N</sub> at rated voltage			T <sub>L</sub> /T <sub>N</sub>	I <sub>L</sub> /I <sub>N</sub>	T <sub>b</sub> /T <sub>N</sub>	J	[kgm <sup>2</sup> ]
<b>2p=12                      n<sub>s</sub>=500 rpm                      f=50Hz</b>																	
216	Sg 100L-12	0,55	0,75	450	11,7	43,8	51,4	54,4	0,53	4,8	2,9	2,8	1,3	2,3	1,5	0,009	22
217	Sg 112M-12	0,75	1,0	475	15,1	54,3	59,8	65,3	0,47	6,1	3,7	3,5	1,5	3,0	2,5	0,0177	33
218	Sg 132S-12	1,1	1,5	435	22,8	62,3	68,2	69,0	0,61	6,6	4,0	3,8	1,0	2,8	1,6	0,025	54
219	Sg 132M-12	1,5	2,0	465	30,8	68,7	70,2	72,0	0,57	9,2	5,6	5,3	1,3	3,1	2,3	0,032	66
220	Sg 132M-12B	2,2	3,0	460	45,7	68,5	69,2	70,2	0,56	14	8,5	8,1	1,2	3,0	1,8	0,04	72
221	Sg 160M12	2,2	3,0	470	44,7	69,0	73,8	75,0	0,51	14,4	8,7	8,3	1,4	3,4	2,4	0,072	100
222	Sg 160L-12	3,0	4,0	480	59,7	69,8	75,0	78,5	0,51	18,8	11,4	10,8	1,5	3,7	2,5	0,096	125
223	Sg 180L-12	5,5	7,5	480	109,4	68,8	70,8	73,9	0,60	31,1	18,8	17,9	1,1	2,8	1,5	0,22	170
224	2Sg 200L12	9	12	490	175	75,3	80,1	81,8	0,55	50	30,5	28,9	2,7	4,3	2,5	0,47	255
225	2Sg 225S12	11	15	490	214	85,0	86,0	86,0	0,63	51	31	29,3	1,7	3,5	1,7	0,58	315
226	2Sg 225M12	13	18	475	261	82,2	82,5	82,5	0,59	67	40,5	38,5	1,7	3,5	1,7	0,68	350
227	2Sg 225M12z	15	20	491	290	80,5	83,5	84,4	0,58	77	46,5	44	2,7	4,6	1,8	0,68	350
228	2Sg 250M12	18,5	25	490	361	84,0	86,0	87,8	0,65	81	49,5	47	1,7	3,5	1,8	1,27	430
229	2Sg 280S12	22	30	491	428	86,9	89,2	89,6	0,61	101	61	58	2,3	4,5	1,8	1,47	535
230	2Sg 280M12	30	40	490	585	85,6	88,2	89,0	0,62	136	83	78	1,8	3,5	1,8	1,8	570
231	2Sg 315S12	37	50	492	718	87,5	89,9	90,4	0,58	177	107	102	2,6	4,5	1,9	2,29	730
232	2Sg 315M12A	45	60	490	877	87,9	89,0	90,1	0,58	216	131	124	2	3,5	1,8	2,86	870
233	2Sg 315M12B	55	75	490	1072	87,5	90,0	89,5	0,58	266	161	153	2,5	4,4	1,8	3,01	885
234	Sg 355S12	75	100	492	1456	91,2	92,6	92,5	0,75	-	-	157	1,2	4,3	1,9	8,3	1250
235	Sg 355S12A	90	125	493	1743	92,5	93,6	93,4	0,72	-	-	193	1,2	5,6	2,2	10,4	1390
236	Sg 355S12B	110	150	491	2140	92,6	93,7	93,5	0,76	-	-	224	1,5	5,1	1,9	12,1	1570
237	Sg 355M12	132	175	492	2562	92,4	93,8	94,2	0,74	-	-	273	1,2	4,8	1,9	13,1	1730
238	Sh 450H12As	160	220	494	3087	93,8	94,7	94,7	0,79	-	-	308	0,8	5,6	2,6	30,0	3470
239	Sh 450H12Bs	200	270	495	3859	94,4	94,9	94,7	0,80	-	-	381	0,9	5,7	2,3	33,7	3600
240	Sh 450H12Cs	250	340	492	4843	94,7	95,0	94,7	0,82	-	-	465	0,8	5,0	2,1	40,0	3750
241	Sh 450H12Ds	315	430	493	6102	94,9	95,2	94,9	0,81	-	-	592	0,8	5,1	2,3	34,7	4030
242	Sh 450H12Es	355	480	494	6863	94,7	95,2	95,1	0,80	-	-	674	0,9	5,6	2,5	41,7	4330
243	Sh 450H12Fs	400	540	494	7733	94,9	95,4	95,2	0,80	-	-	758	0,9	5,6	2,5	46,3	4530
244	Sh 500H12Cs	450	610	494	8699	94,7	95,3	95,3	0,81	-	-	842	1,1	6,1	2,5	100	6090
245	Sh 500H12Ds	500	680	495	9647	94,8	95,4	95,4	0,81	-	-	934	1,1	6,2	2,5	112	6370
246	Sh 500H12Es	560	760	495	10804	94,9	95,5	95,5	0,81	-	-	1045	1,2	6,5	2,6	125	6680
<b>2p=16                      n<sub>s</sub>=375 rpm                      f=50Hz</b>																	
247	Sg 132S-16	0,55	0,75	335	15,7	42,3	49,8	52,4	0,58	4,5	2,7	2,6	1,3	2,4	2,0	0,033	53
248	Sg 132M-16A	0,75	1,0	340	21,1	45,2	52,8	56,0	0,53	6,3	3,8	3,6	1,5	2,7	2,1	0,044	65
249	Sg 132M-16	1,1	1,5	335	31,2	44,3	51,5	53,8	0,55	9,3	5,6	5,4	1,55	2,45	1,9	0,050	65
250	Sg 160L-16	2,1	2,8	330	60,7	60,4	64,7	64,2	0,56	14,7	8,9	8,4	1,3	2,5	1,95	0,102	115
251	Sg 180L-16	4,0	5,4	355	107,6	74,5	74,5	75,1	0,49	27,3	16,5	15,7	1,1	2,8	1,7	0,213	165

\* weight mentioned above refers to the motor with aluminium body

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

You can always find an update our web-site: [www.cantonigroup.com](http://www.cantonigroup.com)

Dimensions for FOOT MOUNTED MOTORS - IM B3



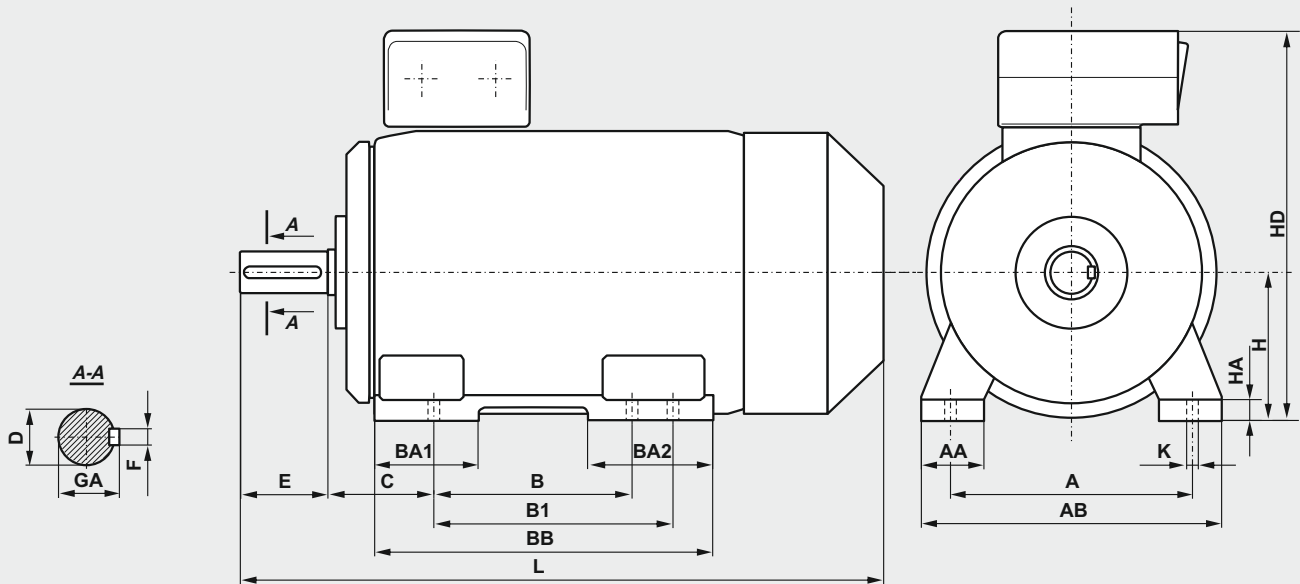
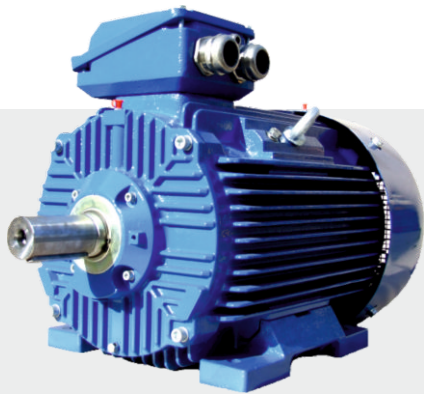
Motor type	A	B	C	D	E	F	GA	H	K	AA	AB	BB	HA	HD	L
Sh 56-.A	90	71	36	9j6	20	3h9	10,2	56	5,8	30	110	92	7	154	183
Sh 56-.B	90	71	36	9j6	20	3h9	10,2	56	5,8	30	110	92	7	154	193
Sh 63-.A	100	80	40	11j6	23	4h9	12,5	63	7	36	124	106	8,5	165	200
Sh 63-.B	100	80	40	11j6	23	4h9	12,5	63	7	36	124	106	8,5	165	210
Sh 71-.A	112	90	45	14j6	30	5h9	16	71	7	45	142	116	8	182	223
Sh 71-.B	112	90	45	14j6	30	5h9	16	71	7	45	142	116	8	182	245
Sh 80-.A	125	100	50	19j6	40	6h9	21,5	80	10	55	160	130	9	200	266
Sh 80-.B	125	100	50	19j6	40	6h9	21,5	80	10	55	160	130	9	200	278
3SIE 80-.A	125	100	50	19j6	40	6h9	21,5	80	10	55	160	130	9	199	278
3SIE 80-.B	125	100	50	19j6	40	6h9	21,5	80	10	55	160	130	9	199	306
3SIE 90S-2,4,6	140	100	56	24j6	50	8h9	27	90	10	47	182	153	10	238	331
3SIE 90L-2	140	125	56	24j6	50	8h9	27	90	10	47	182	153	10	238	331
3SIE 90L-4,6	140	125	56	24j6	50	8h9	27	90	10	47	182	153	10	238	356
3SIE 100L-2,6	160	140	63	28j6	60	8h9	31	100	12	52	202	170	12	257	377
3SIE 100L-4A,4B	160	140	63	28j6	60	8h9	31	100	12	52	202	170	12	257	417
3SIE 112M-2,6	190	140	70	28j6	60	8h9	31	112	12	52	222	170	14	280	398
3SIE 112M-4	190	140	70	28j6	60	8h9	31	112	12	52	222	170	14	280	425
3SIE 132S	216	140	89	38k6	80	10h9	41	132	12	61	266	220	18	329	512
3SIE 132M	216	178	89	38k6	80	10h9	41	132	12	61	266	220	18	329	512
3SIE 160M	254	210	108	42k6	110	12h9	45	160	15	81	320	300	25	383	643
3SIE 160L	254	254	108	42k6	110	12h9	45	160	15	81	320	300	25	383	643
3SIE 180M-2,4	279	241	121	48k6	110	14h9	51,5	180	15	92	353	320	27	414	723
3SIE 180L-4,6	279	279	121	48k6	110	14h9	51,5	180	15	92	353	320	27	414	723

**Dimensions for FOOT MOUNTED MOTORS - IM B3**

**MOTORS series Sh and Sg 2p=8, 10, 12, 16**

Type of motor	A	B	C	D	E	F	GA	H	HA	K	AA	AB	BB	HD	L
Sh90S-8	140	100	56	24j6	50	8h9	27	90	10	10	50	170	153	220	305
Sh90L-8	140	125	56	24j6	50	8h9	27	90	10	10	50	170	153	220	330
Sg100L-8A	160	140	63	28j6	60	8h9	31	100	14	12	45	200	172	240	376
Sg100L-8B	160	140	63	28j6	60	8h9	31	100	14	12	45	200	172	240	376
Sg112M-8	190	140	70	28j6	60	8h9	31	112	14	12	54	230	174	276	384
Sg132S-8	216	140	89	38k6	80	10h9	41	132	16	12	56	278	182	310	463
Sg132M-8	216	178	89	38k6	80	10h9	41	132	16	12	56	278	220	310	501
Sg160M-8A	254	210	108	42k6	110	12h9	45	160	20	15	60	305	256	370	612
Sg160M-8B	254	210	108	42k6	110	12h9	45	160	20	15	60	305	256	370	612
Sg160L-8	254	254	108	42k6	110	12h9	45	160	20	15	60	305	300	370	656
Sg180L-8	279	279	121	48k6	110	14h9	51,5	180	26	15	70	350	320	408	705
Sh 90S-10	140	100	56	24j6	50	8h9	27	90	10	10	50	170	153	220	305
Sh 90L-10	140	125	56	24j6	50	8h9	27	90	10	10	50	170	153	220	330
Sg 100L-10A	160	140	63	28j6	60	8h9	31	100	14	12	45	200	172	240	376
Sg 100L-10B	160	140	63	28j6	60	8h9	31	100	14	12	45	200	172	240	376
Sg 112M-10	190	140	70	28j6	60	8h9	31	112	14	12	54	230	174	276	384
Sg 112M-10A	190	140	70	28j6	60	8h9	31	112	14	12	54	230	174	276	384
Sg 132S-10	216	140	89	38k6	80	10h9	41	132	16	12	56	278	182	310	463
Sg 132S-10A	216	140	89	38k6	80	10h9	41	132	16	12	56	278	182	310	463
Sg 132S-10B	216	140	89	38k6	80	10h9	41	132	16	12	56	278	182	310	463
Sg 160L-10	254	254	108	42k6	110	12h9	45	160	20	15	60	305	300	370	656
Sg 180L-10	279	279	121	48k6	110	14h9	51,5	180	26	15	70	350	320	408	705
Sg 100L-12	160	140	63	28j6	60	8h9	31	100	14	12	45	200	172	240	376
Sg 112M-12	190	140	70	28j6	60	8h9	31	112	14	12	54	230	174	276	384
Sg 132S-12	216	140	89	38k6	80	10h9	41	132	16	12	56	278	182	310	463
Sg 132M-12	216	140	89	38k6	80	10h9	41	132	16	12	56	278	182	310	463
Sg 132M-12B	216	178	89	38k6	80	10h9	41	132	16	12	56	278	220	310	501
Sg 160M-12	254	210	108	42k6	110	12h9	45	160	20	15	60	305	256	370	612
Sg 160L-12	254	254	108	42k6	110	12h9	45	160	20	15	60	305	300	370	656
Sg 180L-12	279	279	121	48k6	110	14h9	51,5	180	26	15	70	350	320	408	705
Sg 132S-16	216	140	89	38k6	80	10h9	41	132	16	12	56	278	182	310	463
Sg 132M-16A	216	178	89	38k6	80	10h9	41	132	16	12	56	278	220	310	501
Sg 132M-16	216	178	89	38k6	80	10h9	41	132	16	12	56	278	220	310	501
Sg 160L-16	254	254	108	42k6	110	12h9	45	160	20	15	60	305	300	370	656
Sg 180L-16	279	279	121	48k6	110	14h9	51,5	180	26	15	70	350	320	408	705

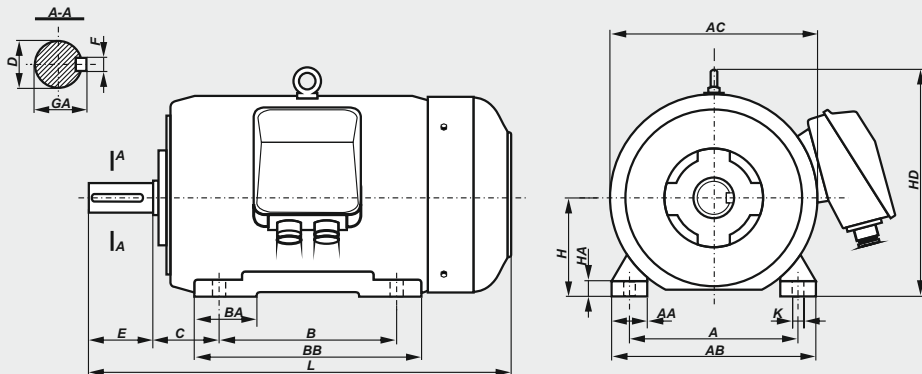
**Dimensions for FOOT MOUNTED MOTORS - IM B3**



Motor type	A	B	B1	C	D	E	F	GA	H	HA	K	AA	AB	BA1	BA2	BB	HD	L
3SIE200	318	305	-	133	55	110	16	59	200	32	19	80	400	113	113	380	520	850
3SIE225S4	356	286	311	149	60	140	18	64	225	34	19	85	440	115	115	380	570	930
3SIE225M2	356	286	311	149	55	110	16	59	225	34	19	85	440	115	115	380	570	900
3SIE225M4-6	356	286	311	149	60	140	18	64	225	34	19	85	440	115	115	380	570	930
3SIE250M2	406	349	-	168	60	140	18	64	250	37	24	90	480	135	135	445	635	1010
3SIE250M4-6	406	349	-	168	65	140	18	69	250	37	24	90	480	135	135	445	635	1040
3SIE280S2	457	368	419	190	65	140	18	69	280	40	24	105	550	130	165	520	720	1135
3SIE280S4-6	457	368	419	190	75	140	20	79,5	280	40	24	105	550	130	165	520	720	1135
3SIE280M2	457	368	419	190	65	140	18	69	280	40	24	105	550	130	165	520	720	1135
3SIE280M4-6	457	368	419	190	75	140	20	79,5	280	40	24	105	550	130	165	520	720	1135
3SIE315S2	508	406	457	216	65	140	18	69	315	48	28	120	610	160	160	565	805	1235
3SIE315S4-6	508	406	457	216	80	170	22	85	315	48	28	120	610	160	160	565	805	1265
3SIE315M2A;B	508	406	457	216	65	140	18	69	315	48	28	120	610	160	160	565	805	1235
3SIE315M4A;B;6A	508	406	457	216	80	170	22	85	315	48	28	120	610	160	160	565	805	1265
3SIE280M6B	508	406	457	216	80	170	22	85	315	48	28	135	610	135	205	600	805	1355
3SIE315M2C	508	406	457	216	70	140	20	74,5	315	48	28	135	610	135	205	600	805	1290
3SIE315M4C	508	406	457	216	80	170	22	85	315	48	28	135	610	135	205	600	805	1320
3SIE315M6C	508	406	457	216	80	170	22	85	315	48	28	135	610	135	205	600	805	1320
3SIE315M6D	508	406	457	216	90	170	25	95	315	48	28	135	610	135	205	600	805	1320
3SIE 355 ML (2)	610	560	630	254	80	170	22	85	355	50	28	150	720	250	300	890	935	1580
3SIE 355 ML (4, 6)	610	560	630	254	100	210	28	106	355	50	28	150	720	250	300	890	935	1620
3SIE 355 H (2)	610	900	-	200	70	140	20	74,5	355	45	28	160	730	265	265	1045	995	1800
3SIE 355 H (4, 6)	610	900	-	200	100	210	28	106	355	45	28	160	730	265	265	1045	995	1870

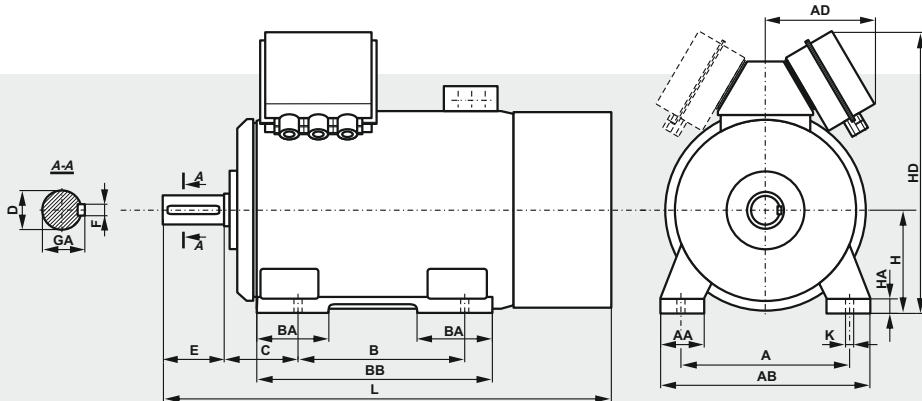


**Dimensions for FOOT MOUNTED MOTORS - IM B3**



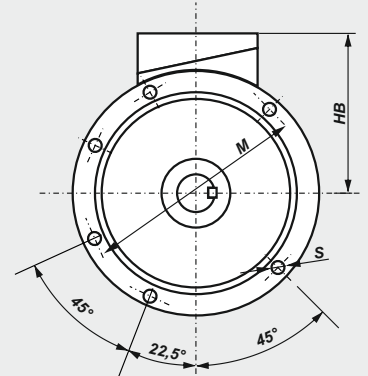
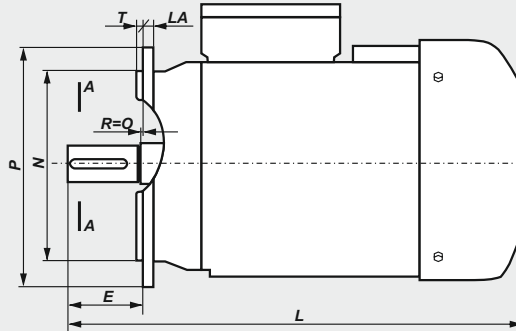
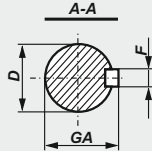
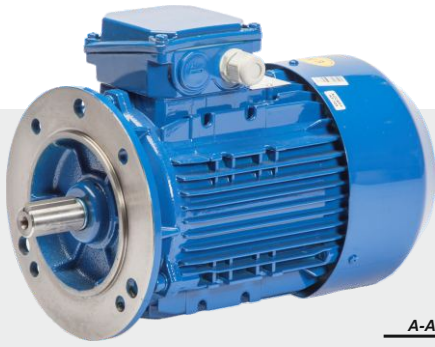
Motor type	A	B	C	D	E	F	GA	H	HA	K	AA	AB	AC	BA	BB	HD	L
2Sg 200 L8-12	318	305	133	55m6	110	16h9	59	200	32	19	80	400	450	100	380	485	825
2Sg 225 S8-12	356	286	149	60m6	140	18h9	64	225	34	19	85	445	505	110	355	535	865
2Sg 225 M8-12	356	311	149	60m6	140	18h9	64	225	34	19	85	445	505	110	380	535	890
2Sg 250 M8-12	406	349	168	65m6	140	18h9	69	250	36	24	90	495	540	120	420	590	965
2Sg 280 S8-12	457	368	190	75m6	140	20h9	79,5	280	40	24	100	560	620	165	520	660	1040
2Sg 280 M8-12	457	419	190	75m6	140	20h9	79,5	280	40	24	100	560	620	165	520	660	1040
2Sg 315 S8-12	508	406	216	80m6	170	22h9	85	315	46	28	105	610	620	190	560	695	1210
2Sg 315 M8-12	508	457	216	80m6	170	22h9	85	315	46	28	105	610	620	190	560	695	1210

**Dimensions for FOOT MOUNTED MOTORS - IM B3**



Motor type	Poles	A	B	C	D	E	F	GA	H	HA	K	AA	AB	AD	BA	BB	HD	L
Sh 355...s	2	610	900	200	70	140	20	74,5	355	45	28	160	730	-	265	1045	995	1800
Sh 355...s	4+8	610	900	200	100	210	28	106	355	45	28	160	730	-	265	1045	995	1870
Sh 400...s	2	686	1000	224	80	170	22	85	400	50	35	175	840	520	265	1160	1255	1980
Sh 400...s	4+10	686	1000	224	110	210	28	116	400	50	35	175	840	520	265	1160	1255	1960
Sh 450H2...s	2	750	1120	254	80	170	22	85	450	60	35	205	940	560	340	1320	1356	2155
Sh 450...s	4+12	750	1120	254	110	210	28	116	450	60	35	205	940	560	340	1320	1356	2105
Sh 500H2..	2	850	1250	450	90	170	25	95	500	70	42	223	1050	560	300	1450	1470	2758
Sh 500...s	4+12	850	1250	280	120	210	32	127	500	70	42	223	1050	560	300	1450	1470	2430

Dimensions for FLANGE MOUNTED MOTORS - IM B5, IM V1



Motor type	D	E	F	GA	M	N	P	LA	T	HB	L	S (f)	S (holes)
SKh 56-.A	9j6	20	3h9	10,2	100	80j6	120	8	3	98	183	7	4
SKh 56-.B	9j6	20	3h9	10,2	100	80j6	120	8	3	98	193	7	4
SKh 63-.A	11j6	23	4h9	12,5	115	95j6	140	9	3	102	200	10	4
SKh 63-.B	11j6	23	4h9	12,5	115	95j6	140	9	3	102	210	10	4
SKh 71-.A	14j6	30	5h9	16	130	110j6	160	9	3,5	111	223	10	4
SKh 71-.B	14j6	30	5h9	16	130	110j6	160	9	3,5	111	245	10	4
SKh 80-.A	19j6	40	6h9	21,5	165	130j6	200	10	3,5	120	266	12	4
SKh 80-.B	19j6	40	6h9	21,5	165	130j6	200	10	3,5	120	278	12	4
3SIEK 80-.A	19j6	40	6h9	21,5	165	130j6	200	10	3,5	119	278	12	4
3SIEK 80-.B	19j6	40	6h9	21,5	165	130j6	200	10	3,5	119	306	12	4
3SIEK 90S-2,4,6,L2	24j6	50	8h9	27	165	130j6	200	8	3,5	148	331	12	4
3SIEK 90L-4,6	24j6	50	8h9	27	165	130j6	200	8	3,5	148	356	12	4
3SIEK 100L-2,6	28j6	60	8h9	31	215	180j6	250	11	4	157	377	15	4
3SIEK 100L-4A,4B	28j6	60	8h9	31	215	180j6	250	11	4	157	417	15	4
3SIEK 112M-2,6	28j6	60	8h9	31	215	180j6	250	12	4	168	398	15	4
3SIEK 112M-4	28j6	60	8h9	31	215	180j6	250	12	4	168	425	15	4
3SIEK 132S	38k6	80	10h9	41	265	230j6	300	12	4	197	512	15	4
3SIEK 132M	38k6	80	10h9	41	265	230j6	300	12	4	197	512	15	4
3SIEK 160M	42k6	110	12h9	45	300	250j6	350	13	5	223	643	19	4
3SIEK 160L	42k6	110	12h9	45	300	250j6	350	13	5	223	643	19	4
3SIEK 180M-2,4	48k6	110	14h9	51,5	300	250j6	350	13	5	234	723	19	4
3SIEK 180L-4,6	48k6	110	14h9	51,5	300	250j6	350	13	5	234	723	19	4
3SIEK 200	55	110	16	59	350	300	400	16,5	5	320	850	19	4
3SIEK 225S4	60	140	18	64	400	350	450	18	5	345	930	19	8
3SIEK 225M2	55	110	16	59	400	350	450	18	5	345	900	19	8
3SIEK 225M4-6	60	140	18	64	400	350	450	18	5	345	930	19	8
3SIEK 250M2	60	140	18	64	500	450	550	23	5	385	1010	19	8
3SIEK 250M4-6	65	140	18	69	500	450	550	23	5	385	1040	19	8
3SIEK 280S2	65	140	18	69	500	450	550	23	5	440	1135	19	8
3SIEK 280S4-6	75	140	20	79,5	500	450	550	23	5	440	1135	19	8
3SIEK 280M2	65	140	18	69	500	450	550	23	5	440	1135	19	8
3SIEK 280M4-6	75	140	20	79,5	500	450	550	23	5	440	1135	19	8
3SIEK 315S2	65	140	18	69	600	550	660	23	6	490	1235	24	8
3SIEK 315S4-6	80	170	22	85	600	550	660	23	6	490	1265	24	8
3SIEK 315M2A;B	65	140	18	69	600	550	660	23	6	490	1235	24	8
3SIEK 315M4A;B;6A	80	170	22	85	600	550	660	23	6	490	1265	24	8
3SIEK 315M6B*	80	170	22	85	600	550	660	23	6	490	1355	24	8
3SIEK 315M2C*	70	140	20	74,5	600	550	660	23	6	490	1290	24	8
3SIEK 315M4C*	80	170	22	85	600	550	660	23	6	490	1320	24	8
3SIEK 315M6C*	80	170	22	85	600	550	660	23	6	490	1320	24	8
3SIEK 315M6D*	90	170	25	95	600	550	660	23	6	490	1320	24	8
3SIEK 355 ML (4 - 6)	100m6	210	28h9	106	740	680	800	24	6	580	1620	22	8
3SIEK 355 H (4 - 6)	100m6	210	28h9	106	740	680	800	24	6	638	1955	22	8
SVEE 355ML8	100	210	28	106	740	680	800	24	6	580	1620	22	8

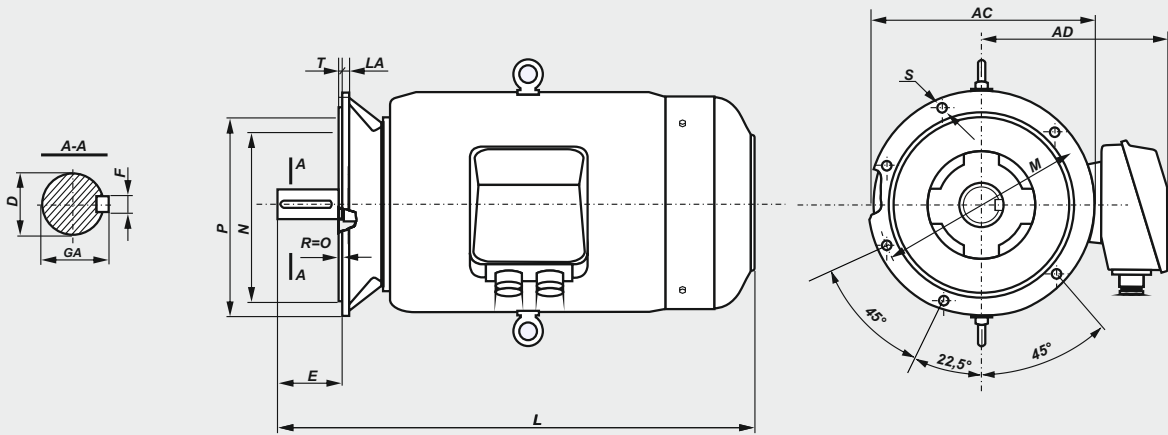
\* only in vertical position IM V1

**Dimensions for FLANGE MOUNTED MOTORS - IM B5, IM V1**

**MOTORS series Sh and Sg 2p=8, 10, 12, 16**

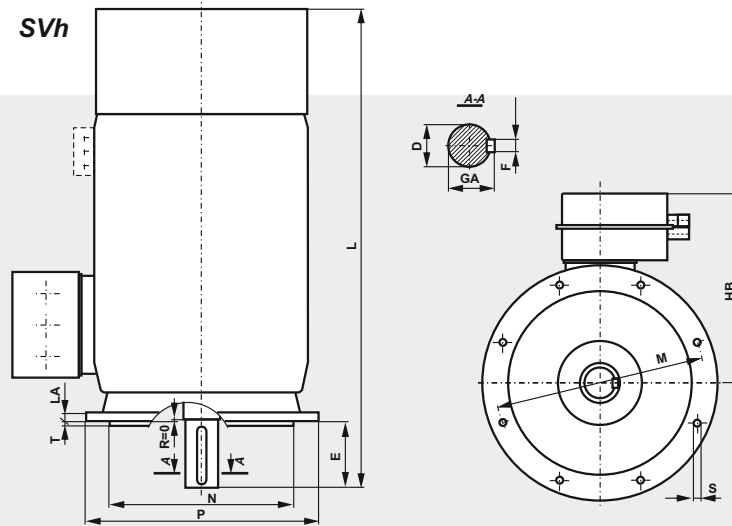
Type of motor	D	E	F	GA	M	N	P	LA	T	S	HB	L
SKh90S-8	24j6	50	8h9	27	165	130j6	200	8	3,5	12	130	305
SKh90L-8	24j6	50	8h9	27	165	130j6	200	8	3,5	12	130	330
SKg100L-8A	28j6	60	8h9	31	215	180j6	250	11	4	15	140	376
SKg100L-8B	28j6	60	8h9	31	215	180j6	250	11	4	15	140	376
SKg112M-8	28j6	60	8h9	31	215	180j6	250	12	4	15	164	384
SKg132S-8	38k6	80	10h9	41	265	230j6	300	12	4	15	178	463
SKg132M-8	38k6	80	10h9	41	265	230j6	300	12	4	15	178	501
SKg160M-8A	42k6	110	12h9	45	300	250j6	350	13	5	19	210	612
SKg160M-8B	42k6	110	12h9	45	300	250j6	350	13	5	19	210	612
SKg160L-8	42k6	110	12h9	45	300	250j6	350	13	5	19	210	656
SKg180L-8	48k6	110	14h9	51,5	300	250j6	350	13	5	19	228	705
SKh 90S-10	24j6	50	8h9	27	165	130j6	200	8	3,5	12	130	305
SKh 90L-10	24j6	50	8h9	27	165	130j6	200	8	3,5	12	130	330
SKg 100L-10A	28j6	60	8h9	31	215	180j6	250	11	4	15	140	376
SKg 100L-10B	28j6	60	8h9	31	215	180j6	250	11	4	15	140	376
SKg 112M-10	28j6	60	8h9	31	215	180j6	250	12	4	15	164	384
SKg 112M-10A	28j6	60	8h9	31	215	180j6	250	12	4	15	164	384
SKg 132S-10	38k6	80	10h9	41	265	230j6	300	12	4	15	178	463
SKg 132S-10A	38k6	80	10h9	41	265	230j6	300	12	4	15	178	463
SKg 132S-10B	38k6	80	10h9	41	265	230j6	300	12	4	15	178	501
SKg 160L-10	42k6	110	12h9	45	300	250j6	350	13	5	19	210	656
SKg 180L-10	48k6	110	14h9	51,5	300	250j6	350	13	5	19	228	705
SKg 100L-12	28j6	60	8h9	31	215	180j6	250	11	4	15	140	376
SKg 112M-12	28j6	60	8h9	31	215	180j6	250	12	4	15	164	384
SKg 132S-12	38k6	80	10h9	41	265	230j6	300	12	4	15	178	463
SKg 132M-12	38k6	80	10h9	41	265	230j6	300	12	4	15	178	501
SKg 132M-12B	38k6	80	10h9	41	265	230j6	300	12	4	15	178	501
SKg 160M-12	42k6	110	12h9	45	300	250j6	350	13	5	19	210	612
SKg 160L-12	42k6	110	12h9	45	300	250j6	350	13	5	19	210	656
SKg 180L-12	48k6	110	14h9	51,5	300	250j6	350	13	5	19	228	705
SKg 132S-16	38k6	80	10h9	41	265	230j6	300	12	4	15	178	463
SKg 132M-16A	38k6	80	10h9	41	265	230j6	300	12	4	15	178	501
SKg 132M-16	38k6	80	10h9	41	265	230j6	300	12	4	15	178	501
SKg 160L-16	42k6	110	12h9	45	300	250j6	350	13	5	19	210	656
SKg 180L-16	48k6	110	14h9	51,5	300	250j6	350	13	5	19	228	705

Dimensions for FLANGE MOUNTED MOTORS - IM B5, IM V1



Motor type	D	E	F	GA	AC	AD	L	LA	M	N	P	T	S	$\phi$	Holes
2SKg 200 L8-12	55m6	110	16h9	59	450	340	825	16,5	350	300j6	400	5	18	4	
2SKg 225 S8-12	60m6	140	18h9	64	505	360	865	18	400	350j6	450	5	18	8	
2SKg 225 M8-12	60m6	140	18h9	64	505	360	890	18	400	350j6	450	5	18	8	
2SKg 250 M8-12	65m6	140	18h9	69	540	405	965	19	500	450j6	550	5	18	8	
2SKg 280 S8-12	75m6	140	20h9	79,5	620	440	1040	20	500	450j6	550	5	18	8	
2SKg 280 M8-12	75m6	140	20h9	79,5	620	440	1040	20	500	450j6	550	5	18	8	
2SKg 315 S8-12	80m6	170	22h9	85	620	440	1210	22	600	550j6	660	6	22	8	
2SKg 315 M8-12	80m6	170	22h9	85	620	440	1210	22	600	550j6	660	6	22	8	

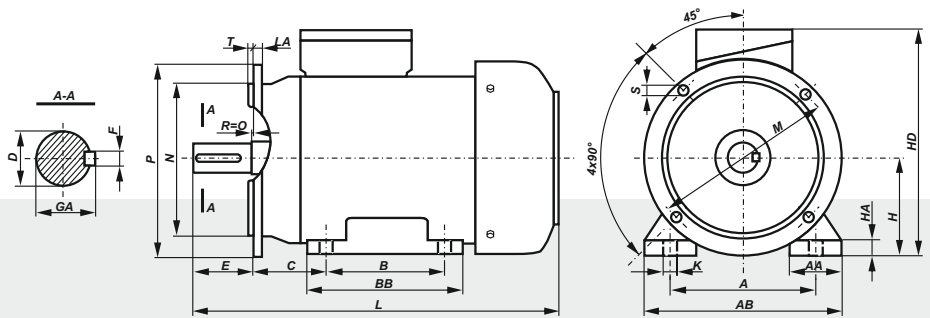
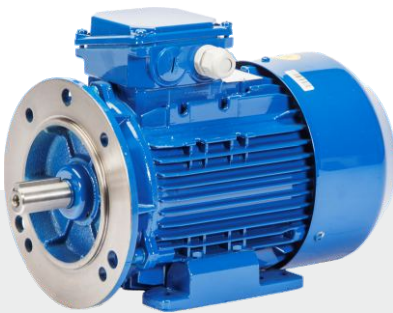
**Dimensions for FLANGE MOUNTED MOTORS - IM B5, IM V1**



Motor type	Poles	D	E	F	GA	HB	L	LA	M	N	P	S	T
SVh 355...s*	4+8	100	210	28	106	638	1955	24	740	680	800	22	6
SVh 400...s*	4+10	110	210	28	116	691	2090	30	940	880	1000	23	6
SVh 450...s*	4+12	110	210	28	116	849	2350	30	1080	1000	1150	28	6
SVh 500...s*	4+12	120	210	32	127	909	2504	30	1080	1000	1150	28	6

\* - the SVh motors may operate only in vertical position IM V1.

**Dimensions for FOOT/FLANGE MOUNTED MOTORS - IM B35**



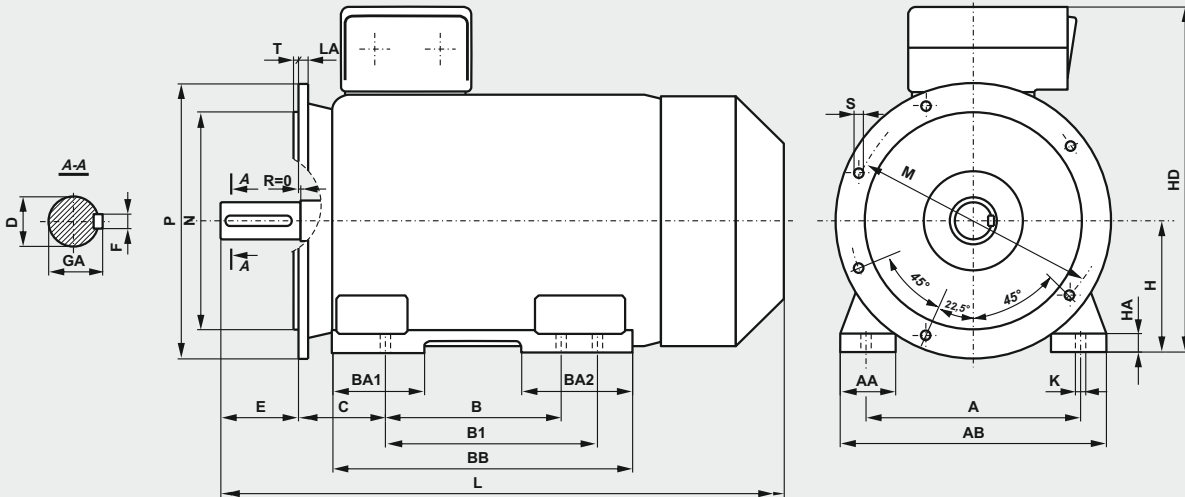
Motor type	A	B	C	D	E	F	GA	H	K	M	N	P	S	LA	T	AA	AB	BB	HA	HD	L
SLh 56-A	90	71	36	9j6	20	3h9	10,2	56	8	100	80j6	120	7	8	3	30	110	92	7	154	183
SLh 56-B	90	71	36	9j6	20	3h9	10,2	56	8	100	80j6	120	7	8	3	30	110	92	7	154	193
SLh 63-A	100	80	40	11j6	23	4h9	12,5	63	10	115	95j6	140	10	9	3	36	124	106	8,5	165	200
SLh 63-B	100	80	40	11j6	23	4h9	12,5	63	10	115	95j6	140	10	9	3	36	124	106	8,5	165	210
SLh 71-A	112	90	45	14j6	30	5h9	16	71	10	130	110j6	160	10	9	3,5	45	142	116	8	182	223
SLh 71-B	112	90	45	14j6	30	5h9	16	71	10	130	110j6	160	10	9	3,5	45	142	116	8	182	245
SLh 80-A	125	100	50	19j6	40	6h9	21,5	80	10	165	130j6	200	12	10	3,5	55	160	130	9	200	266
SLh 80-B	125	100	50	19j6	40	6h9	21,5	80	10	165	130j6	200	12	10	3,5	55	160	130	9	200	278
3SIEL 80-A	125	100	50	19j6	40	6h9	21,5	80	10	165	130j6	200	12	10	3,5	55	160	130	9	200	278
3SIEL 80-B	125	100	50	19j6	40	6h9	21,5	80	10	165	130j6	200	12	10	3,5	55	160	130	9	200	306
3SIEL 90S-2,4,6	140	100	56	24j6	50	8h9	27	90	10	165	130j6	200	12	8	3,5	47	182	153	10	238	331
3SIEL 90L-2	140	125	56	24j6	50	8h9	27	90	10	165	130j6	200	12	8	3,5	47	182	153	10	238	331
3SIEL 90L-4,6	140	125	56	24j6	50	8h9	27	90	10	165	130j6	200	12	8	3,5	47	182	153	10	238	356
3SIEL 100L-2,6	160	140	63	28j6	60	8h9	31	100	12	215	180j6	250	15	11	4	52	202	170	12	257	377
3SIEL 100L-4A,4B	160	140	63	28j6	60	8h9	31	100	12	215	180j6	250	15	11	4	52	202	170	12	257	417
3SIEL 112M-2,6	190	140	70	28j6	60	8h9	31	112	12	215	180j6	250	15	12	4	52	222	170	14	280	398
3SIEL 112M-4	190	140	70	28j6	60	8h9	31	112	12	215	180j6	250	15	12	4	52	222	170	14	280	425
3SIEL 132S	216	140	89	38k6	80	10h9	41	132	12	265	230j6	300	15	12	4	61	266	220	18	329	512
3SIEL 132M	216	178	89	38k6	80	10h9	41	132	12	265	230j6	300	15	12	4	61	266	220	18	329	512
3SIEL 160M	254	210	108	42k6	110	12h9	45	160	15	300	250j6	350	19	13	5	81	320	200	25	383	643
3SIEL 160L	254	254	108	42k6	110	12h9	45	160	15	300	250j6	350	19	13	5	81	320	300	25	383	643
3SIEL 180M	279	241	121	48k6	110	14h9	51,5	180	15	300	250j6	350	19	13	5	92	353	320	27	414	723
3SIEL 180L	279	279	121	48k6	110	14h9	51,5	180	15	300	250j6	350	19	13	5	92	353	320	27	414	723

**Dimensions for FOOT/FLANGE MOUNTED MOTORS - IM B35**

**MOTORS series Sh and Sg 2p=8, 10, 12, 16**

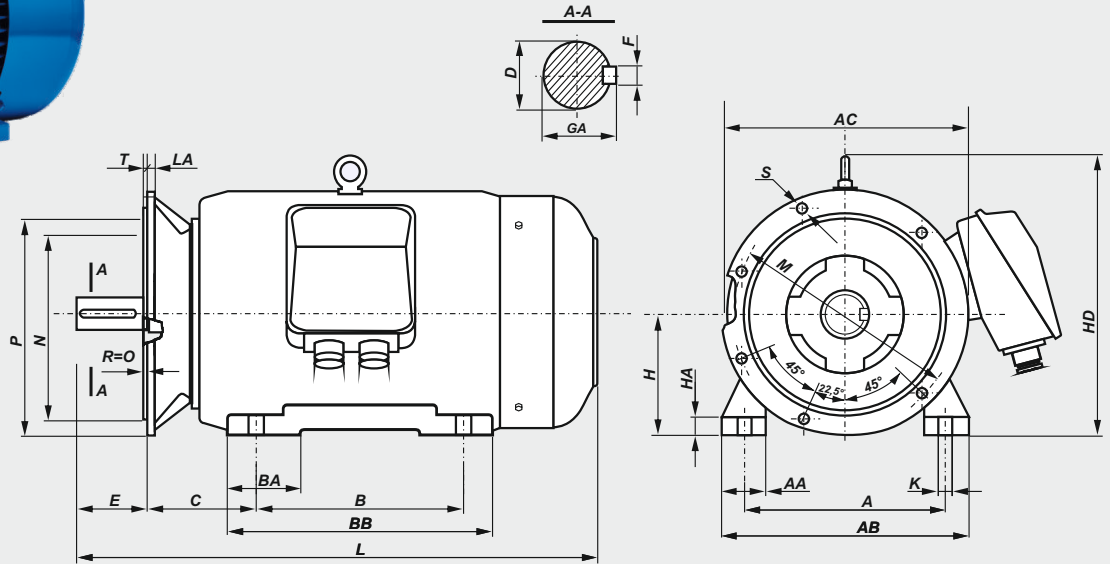
Type of motor	A	B	C	D	E	F	GA	H	HA	K	AA	AB	BB	HD	L	LA	M	N	P	T	S
SLh90S-8	140	100	56	24	50	8	27	90	10	10	50	170	153	220	305	8	165	130	200	3,5	12
SLh90L-8	140	125	56	24	50	8	27	90	10	10	45	200	153	220	330	8	165	130	200	3,5	12
SLg100L-8A	160	140	63	28	60	8	31	100	14	12	54	230	172	240	376	11	215	180	250	4	15
SLg100L-8B	160	140	63	28	60	8	31	100	14	12	54	230	172	240	376	11	215	180	250	4	15
SLg112M-8	190	140	70	28	60	8	31	112	14	12	56	278	174	276	384	12	215	180	250	4	15
SLg132S-8	216	140	89	38	80	10	41	132	16	12	56	278	182	310	463	12	265	230	300	4	15
SLg132M-8	216	178	89	38	80	10	41	132	16	12	56	278	220	310	501	12	265	230	300	4	15
SLg160M-8A	254	210	108	42	110	12	45	160	20	15	60	305	256	370	612	13	300	250	350	5	19
SLg160M-8B	254	210	108	42	110	12	45	160	20	15	60	305	256	370	612	13	300	250	350	5	19
SLg160L-8	254	254	108	42	110	12	45	160	20	15	60	305	300	370	656	13	300	250	350	5	19
SLg180L-8	279	279	121	48	110	14	51,5	180	26	19	70	350	320	408	705	13	300	250	350	5	19
SLh 90S-10	140	100	56	24	50	8	27	90	10	10	50	170	153	220	305	8	165	130	200	3,5	12
SLh 90L-10	140	125	56	24	50	8	27	90	10	10	45	200	153	220	330	8	165	130	200	3,5	12
SLg 100L-10A	160	140	63	28	60	8	31	100	14	12	54	230	172	240	376	11	215	180	250	4	15
SLg 100L-10B	160	140	63	28	60	8	31	100	14	12	54	230	172	240	376	11	215	180	250	4	15
SLg 112M-10	190	140	70	28	60	8	31	112	14	12	56	278	174	276	384	12	215	180	250	4	15
SLg 112M-10A	190	140	70	28	60	8	31	112	14	12	56	278	174	276	384	12	215	180	250	4	15
SLg 132S-10	216	140	89	38	80	10	41	132	16	12	56	278	182	310	463	12	265	230	300	4	15
SLg 132S-10A	216	140	89	38	80	10	41	132	16	12	56	278	182	310	463	12	265	230	300	4	15
SLg 132S-10B	216	178	89	38	80	10	41	132	16	12	56	278	220	310	501	12	265	230	300	4	15
SLg 160L-10	254	254	108	42	110	12	45	160	20	15	60	305	300	370	656	13	300	250	350	5	19
SLg 180L-10	279	279	121	48	110	14	51,5	180	26	19	70	350	320	408	705	13	300	250	350	5	19
SLg 100L-12	160	140	63	28	60	8	31	100	14	12	54	230	172	240	376	11	215	180	250	4	15
SLg 112M-12	190	140	70	28	60	8	31	112	14	12	56	278	174	276	384	12	215	180	250	4	15
SLg 132S-12	216	140	89	38	80	10	41	132	16	12	56	278	182	310	463	12	265	230	300	4	15
SLg 132M-12	216	178	89	38	80	10	41	132	16	12	56	278	220	310	501	12	265	230	300	4	15
SLg 132M-12B	216	178	89	38	80	10	41	132	16	12	56	278	220	310	501	12	265	230	300	4	15
SLg 160M-12	254	210	108	42	110	12	45	160	20	15	60	305	256	370	612	13	300	250	350	5	19
SLg 160L-12	254	254	108	42	110	12	45	160	20	15	60	305	300	370	656	13	300	250	350	5	19
SLg 180L-12	279	279	121	48	110	14	51,5	180	26	19	70	350	320	408	705	13	300	250	350	5	19
SLg 132S-16	216	140	89	38	80	10	41	132	16	12	56	278	182	310	463	12	265	230	300	4	15
SLg 132M-16A	216	178	89	38	80	10	41	132	16	12	56	278	220	310	501	12	265	230	300	4	15
SLg 132M-16	216	178	89	38	80	10	41	132	16	12	56	278	220	310	501	12	265	230	300	4	15
SLg 160L-16	254	254	108	42	110	12	45	160	20	15	60	305	300	370	656	13	300	250	350	5	19
SLg 180L-16	279	279	121	48	110	14	51,5	180	26	19	70	350	320	408	705	13	300	250	350	5	19

Dimensions for FOOT/FLANGE MOUNTED MOTORS - IM B35

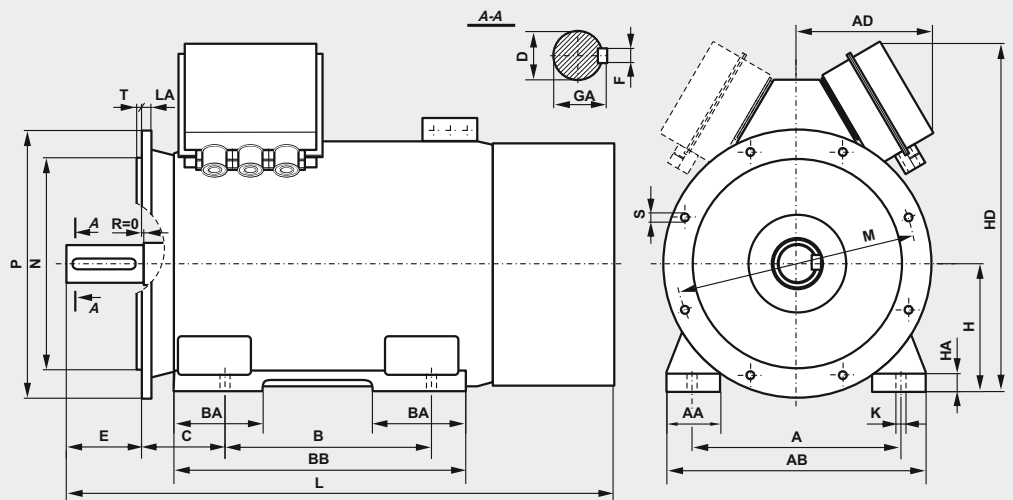


Motor type	A	B	B1	C	D	E	F	GA	H	HA	K	AA	AB	BA1	BA2	BB	HD	LA	P	M	N	T	L	S (φ)	S (holes)
3SIEL 200	318	305	-	133	55	110	16	59	200	32	19	80	400	113	113	380	520	16,5	400	350	300	5	850	19	4
3SIEL 225S4	356	286	311	149	60	140	18	64	225	34	19	85	440	115	115	380	570	18	450	400	350	5	930	19	8
3SIEL 225M2	356	286	311	149	55	110	16	59	225	34	19	85	440	115	115	380	570	18	450	400	350	5	900	19	8
3SIEL 225M4-6	356	286	311	149	60	140	18	64	225	34	19	85	440	115	115	380	570	18	450	400	350	5	930	19	8
3SIEL 250M2	406	349	-	168	60	140	18	64	250	37	24	90	480	135	135	445	635	23	550	500	450	5	1010	19	8
3SIEL 250M4-6	406	349	-	168	65	140	18	69	250	37	24	90	480	135	135	445	635	23	550	500	450	5	1040	19	8
3SIEL 280S2	457	368	419	190	65	140	18	69	280	40	24	105	550	130	165	520	720	23	550	500	450	5	1135	19	8
3SIEL 280S4-6	457	368	419	190	75	140	20	79,5	280	40	24	105	550	130	165	520	720	23	550	500	450	5	1135	19	8
3SIEL 280M2	457	368	419	190	65	140	18	69	280	40	24	105	550	130	165	520	720	23	550	500	450	5	1135	19	8
3SIEL 280M4-6	457	368	419	190	75	140	20	79,5	280	40	24	105	550	130	165	520	720	23	550	500	450	5	1135	19	8
3SIEL 315S2	508	406	457	216	65	140	18	69	315	48	28	120	610	160	160	565	805	23	660	600	550	6	1235	24	8
3SIEL 315S4-6	508	406	457	216	80	170	22	85	315	48	28	120	610	160	160	565	805	23	660	600	550	6	1265	24	8
3SIEL 315M2A;B	508	406	457	216	65	140	18	69	315	48	28	120	610	160	160	565	805	23	660	600	550	6	1235	24	8
3SIEL 315M4A;B;6A	508	406	457	216	80	170	22	85	315	48	28	120	610	160	160	565	805	23	660	600	550	6	1265	24	8
3SIEL 315M6B	508	406	457	216	80	170	22	85	315	48	28	135	610	135	205	600	805	23	660	600	550	6	1355	24	8
3SIEL 315M2C	508	406	457	216	70	140	20	74,5	315	48	28	135	610	135	205	600	805	23	660	600	550	6	1290	24	8
3SIEL 315M4C	508	406	457	216	80	170	22	85	315	48	28	135	610	135	205	600	805	23	660	600	550	6	1320	24	8
3SIEL 315M6C	508	406	457	216	80	170	22	85	315	48	28	135	610	135	205	600	805	23	660	600	550	6	1320	24	8
3SIEL 315M6D	508	406	457	216	90	170	25	95	315	48	28	135	610	135	205	600	805	23	660	600	550	6	1320	24	8
3SIEL 355 ML (2)	610	560	630	254	80	170	22	85	355	50	28	150	720	250	300	890	935	24	800	740	680	6	1580	22	8
3SIEL 355 ML (4,6)	610	560	630	254	100	210	28	106	355	50	28	150	720	250	300	890	935	24	800	740	680	6	1620	22	8
3SIEL 355 H (2)	610	900	-	254	70	140	20	74,5	355	45	28	160	730	265	265	1045	995	24	800	740	680	6	1854	22	8
3SIEL 355 H (4,6)	610	900	-	254	100	210	28	106	355	45	28	160	730	265	265	1045	995	24	800	740	680	6	1924	22	8
SLEE 355 ML8	610	560	630	254	100	210	28	106	355	50	28	150	720	250	300	890	935	24	800	740	680	6	1620	22	8

Dimensions for FOOT/FLANGE MOUNTED MOTORS - IM B35



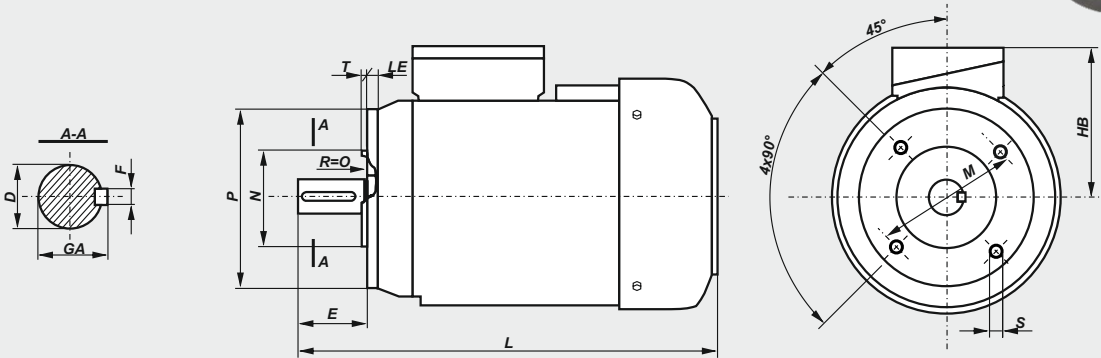
Motor type	A	B	C	D	E	F	GA	H	HA	K	AA	AB	AC	BA	BB	HD	L	LA	M	N	P	T	S	φ Holes
2SLg 200 L8-12	318	305	133	55m6	110	16h9	59	200	32	19	80	400	450	100	380	485	825	16,5	350	300	400	5	18	4
2SLg 225 S8-12	356	286	149	60m6	140	18h9	64	225	34	19	85	445	505	110	355	535	865	18	400	350	450	5	18	8
2SLg 225 M8-12	356	311	149	60m6	140	18h9	64	225	34	19	85	445	505	110	380	535	890	18	400	350	450	5	18	8
2SLg 250 M8-12	406	349	168	65m6	140	18h9	69	250	36	24	90	495	540	120	420	590	965	19	500	450	550	5	18	8
2SLg 280 S8-12	457	368	190	75m6	140	20h9	79,5	280	40	24	100	560	620	165	520	660	1040	20	500	450	550	5	18	8
2SLg 280 M8-12	457	419	190	75m6	140	20h9	79,5	280	40	24	100	560	620	165	520	660	1040	20	500	450	550	5	18	8
2SLg 315 S8-12	508	406	216	80m6	170	22h9	85	315	46	28	105	610	620	190	560	695	1210	22	600	550	660	6	22	8
2SLg 315 M8-12	508	457	216	80m6	170	22h9	85	315	46	28	105	610	620	190	560	695	1210	22	600	550	660	6	22	8



Motor type	Poles	A	B	C	D	E	F	GA	H	HA	K	AA	AB	AD	BA	BB	HD	L	LA	M	N	P	S	T
SLh 355...s	2	610	900	254	70	140	20	74.5	355	45	28	160	730	344	265	1045	995	1854	24	740	680	800	22	6
SLh 355...s	4+8	610	900	254	100	210	28	106	355	45	28	160	730	344	265	1045	995	1924	24	740	680	800	22	6
SLh 400...s	2	686	1000	280	80	170	22	85	400	50	35	175	840	520	265	1160	1255	2031	30	940	880	1000	25	6
SLh 400...s	4+10	686	1000	280	110	210	28	116	400	50	35	175	840	520	265	1160	1255	2016	30	940	880	1000	25	6
SLh 450H2...s	2	750	1120	315	80	170	22	85	450	60	35	205	940	560	340	1320	1356	2162	30	1080	1000	1150	28	6
SLh 450...s	4+12	750	1120	315	110	210	28	116	450	60	35	205	940	560	340	1320	1356	2162	30	1080	1000	1150	28	6
SLh 500...s	4+12	850	1250	355	120	210	32	127	500	70	42	223	1050	560	300	1450	1470	2505	30	1080	1000	1150	28	6



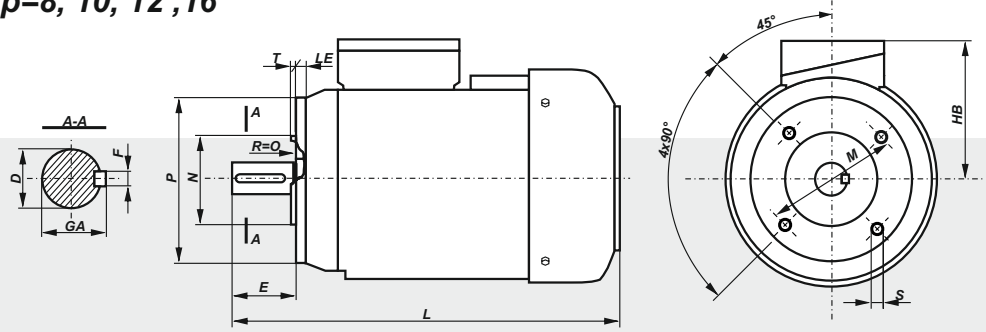
Dimensions for **FLANGE MOUNTED MOTORS - IM B14**



Motor type	Flange	D	E	F	GA	M	N	P	S	T	LE	HB	L
SKh 56- .A1	B14/C1	9j6	20	3h9	10,2	85	70j6	105	M6	2,5	15	98	183
SKh 56- .A2	B14/C2	9j6	20	3h9	10,2	65	50j6	80	M5	2,5	12,5	98	183
SKh 56- .B1	B14/C1	9j6	20	3h9	10,2	85	70j6	105	M6	2,5	15	98	193
SKh 56- .B2	B14/C2	9j6	20	3h9	10,2	65	50j6	80	M5	2,5	12,5	98	193
SKh 63- .A1	B14/C1	11j6	23	4h9	12,5	100	80j6	120	M6	3	14	102	200
SKh 63- .A2	B14/C2	11j6	23	4h9	12,5	75	60j6	90	M5	2,5	9,5	102	200
SKh 63- .B1	B14/C1	11j6	23	4h9	12,5	100	80j6	120	M6	3	14	102	210
SKh 63- .B2	B14/C2	11j6	23	4h9	12,5	75	60j6	90	M5	2,5	9,5	102	210
SKh 71- .A1	B14/C1	14j6	30	5h9	16	115	95j6	140	M8	3	14	111	223
SKh 71- .A2	B14/C2	14j6	30	5h9	16	85	70j6	105	M6	2,5	12	111	223
SKh 71- .B1	B14/C1	14j6	30	5h9	16	115	95j6	140	M8	3	14	111	245
SKh 71- .B2	B14/C2	14j6	30	5h9	16	85	70j6	105	M6	2,5	12	111	245
SKh 80- .A1	B14/C1	19j6	40	6h9	21,5	130	110j6	160	M8	3,5	14	120	266
SKh 80- .A2	B14/C2	19j6	40	6h9	21,5	100	80j6	120	M6	3	12	120	266
SKh 80- .B1	B14/C1	19j6	40	6h9	21,5	130	110j6	160	M8	3,5	14	120	278
SKh 80- .B2	B14/C2	19j6	40	6h9	21,5	100	80j6	120	M6	3	12	120	278
3SIEK 80- .A1	B14/C1	19j6	40	6h9	21,5	130	110j6	160	M8	3,5	14	119	278
3SIEK 80- .A2	B14/C2	19j6	40	6h9	21,5	100	80j6	120	M6	3	12	119	306
3SIEK 80- .B1	B14/C1	19j6	40	6h9	21,5	130	110j6	160	M8	3,5	14	119	278
3SIEK 80- .B2	B14/C2	19j6	40	6h9	21,5	100	80j6	120	M6	3	12	119	306
3SIEK 90S 2,4,6,L2	B14/C1	24j6	50	8h9	27	130	110j6	160	M8	3,5	10	148	331
3SIEK 90S 2,4,6,L2	B14/C2	24j6	50	8h9	27	115	95j6	140	M8	3	10	148	331
3SIEK 90L 4,6	B14/C1	24j6	50	8h9	27	130	110j6	160	M8	3,5	10	148	356
3SIEK 90L 4,6	B14/C2	24j6	50	8h9	27	115	95j6	140	M8	3	10	148	356
3SIEK 100L2,6	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	157	377
3SIEK 100L2,6	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	157	377
3SIEK 100L4A,4B	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	157	417
3SIEK 100L4A,4B	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	157	417
3SIEK 112M2,6	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	168	398
3SIEK 112M2,6	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	168	398
3SIEK 112M4	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	168	425
3SIEK 112M4	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	168	425
3SIEK 132S	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	197	512
3SIEK 132S	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	197	512
3SIEK 132M	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	197	512
3SIEK 132M	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	197	512

**Dimensions for FLANGE MOUNTED MOTORS - IM B14**

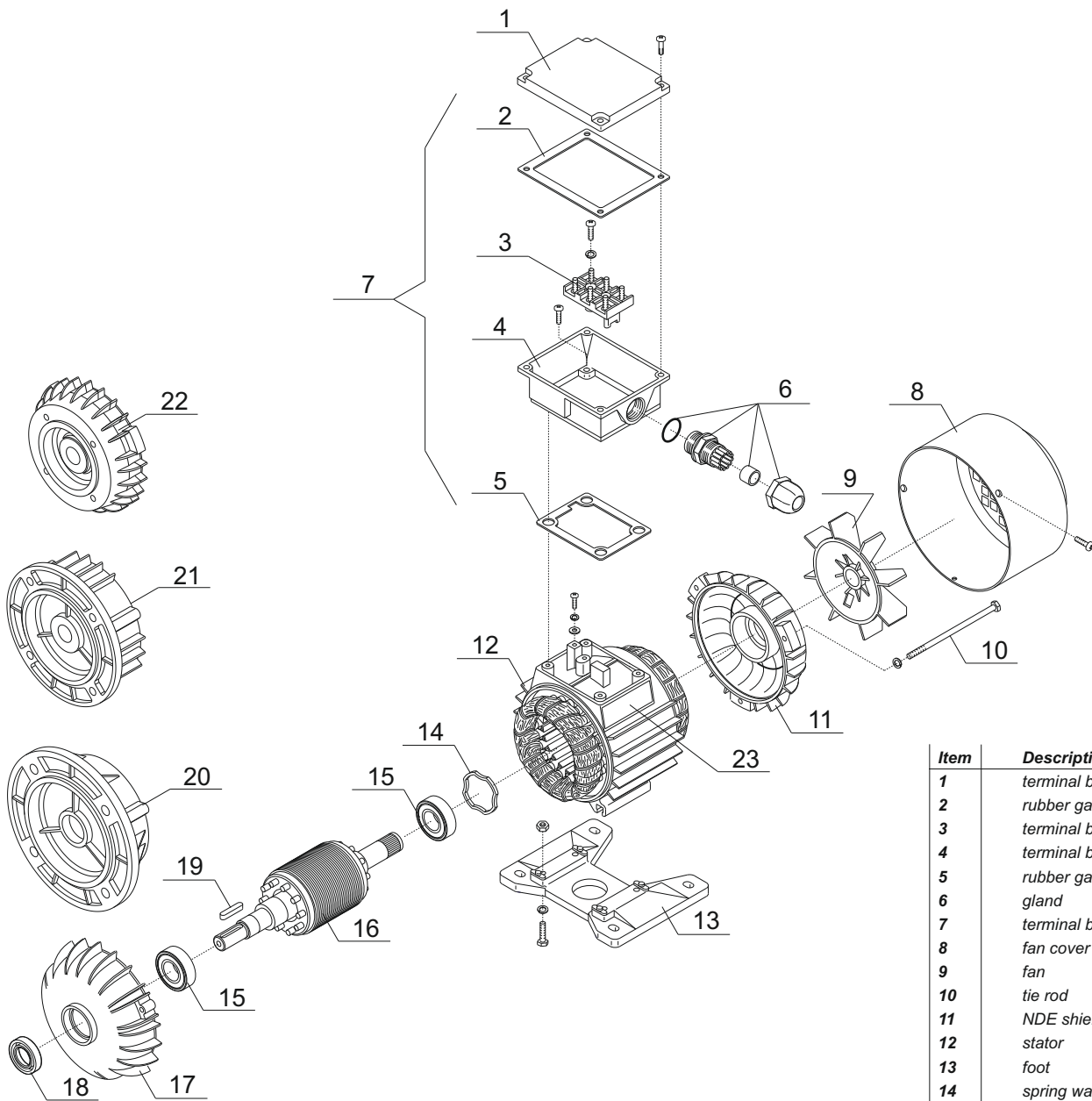
MOTORS series Sh and Sg 2p=8, 10, 12, 16



Motor type	Flange	D	E	F	GA	M	N	P	S	T	LE	HB	L
SKh90S-8	B14/C1	24j6	50	8h9	27	130	110j6	160	M8	3,5	10	-	305
SKh90S-8	B14/C2	24j6	50	8h9	27	100	80j6	120	M8	3	10	-	305
SKh90L-8	B14/C1	24j6	50	8h9	27	130	110j6	160	M8	3,5	10	-	330
SKh90L-8	B14/C2	24j6	50	8h9	27	100	80j6	120	M8	3	10	-	330
SKg100L-8A	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	376
SKg100L-8A	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	376
SKg112M-8	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	384
SKg112M-8	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	384
SKg132S-8	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg132S-8	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg132M-8	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg132M-8	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg160M-8A	B14/C1	42k6	110	12h9	45	265	230j6	300	M12	4	13	-	612
SKg160M-8A	B14/C2	42k6	110	12h9	45	215	180j6	250	M12	4	20	-	612
SKg160M-8B	B14/C1	42k6	110	12h9	45	265	230j6	300	M12	4	13	-	612
SKg160M-8B	B14/C2	42k6	110	12h9	45	215	180j6	250	M12	4	20	-	612
SKg160L-8	B14/C1	42k6	110	12h9	45	265	230j6	300	M12	4	13	-	612
SKg160L-8	B14/C2	42k6	110	12h9	45	215	180j6	250	M12	4	20	-	612
SKh 90S-10	B14/C1	24j6	50	8h9	27	130	110j6	160	M8	3,5	10	-	305
SKh 90S-10	B14/C2	24j6	50	8h9	27	100	80j6	120	M8	3	10	-	305
SKh 90L-10	B14/C1	24j6	50	8h9	27	130	110j6	160	M8	3,5	10	-	330
SKh 90L-10	B14/C2	24j6	50	8h9	27	100	80j6	120	M8	3	10	-	330
SKg 100L-10A	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	376
SKg 100L-10A	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	376
SKg 100L-10B	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	376
SKg 100L-10B	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	376
SKg 112M-10	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	384
SKg 112M-10	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	384
SKg 112M-10A	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	384
SKg 112M-10A	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	384
SKg 132S-10	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132S-10	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 132S-10A	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132S-10A	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 132S-10B	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132S-10B	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 160L-10	B14/C1	42k6	110	12h9	45	265	230j6	300	M12	4	13	-	612
SKg 160L-10	B14/C2	42k6	110	12h9	45	215	180j6	250	M12	4	20	-	612
SKg 100L-12	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	376
SKg 100L-12	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	376
SKg 112M-12	B14/C1	28j6	60	8h9	31	165	130j6	200	M10	3,5	12	-	384
SKg 112M-12	B14/C2	28j6	60	8h9	31	130	110j6	160	M8	3,5	12	-	384
SKg 132S-12	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132S-12	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 132M-12	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132M-12	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 132M-12B	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132M-12B	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 160M-12	B14/C1	42k6	110	12h9	45	265	230j6	300	M12	4	13	-	612
SKg 160M-12	B14/C2	42k6	110	12h9	45	215	180j6	250	M12	4	20	-	612
SKg 160L-12	B14/C1	42k6	110	12h9	45	265	230j6	300	M12	4	13	-	612
SKg 160L-12	B14/C2	42k6	110	12h9	45	215	180j6	250	M12	4	20	-	612
SKg 132S-16	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132S-16	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 132M-16A	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132M-16A	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 132M-16	B14/C1	38k6	80	10h9	41	215	180j6	250	M12	4	12	-	463
SKg 132M-16	B14/C2	38k6	80	10h9	41	165	130j6	200	M10	3,5	12	-	463
SKg 160L-16	B14/C1	42k6	110	12h9	45	265	230j6	300	M12	4	13	-	612
SKg 160L-16	B14/C2	42k6	110	12h9	45	215	180j6	250	M12	4	20	-	612

List of Motor parts

Frame Size: 56-80  
Motor series 3SIE and Sh

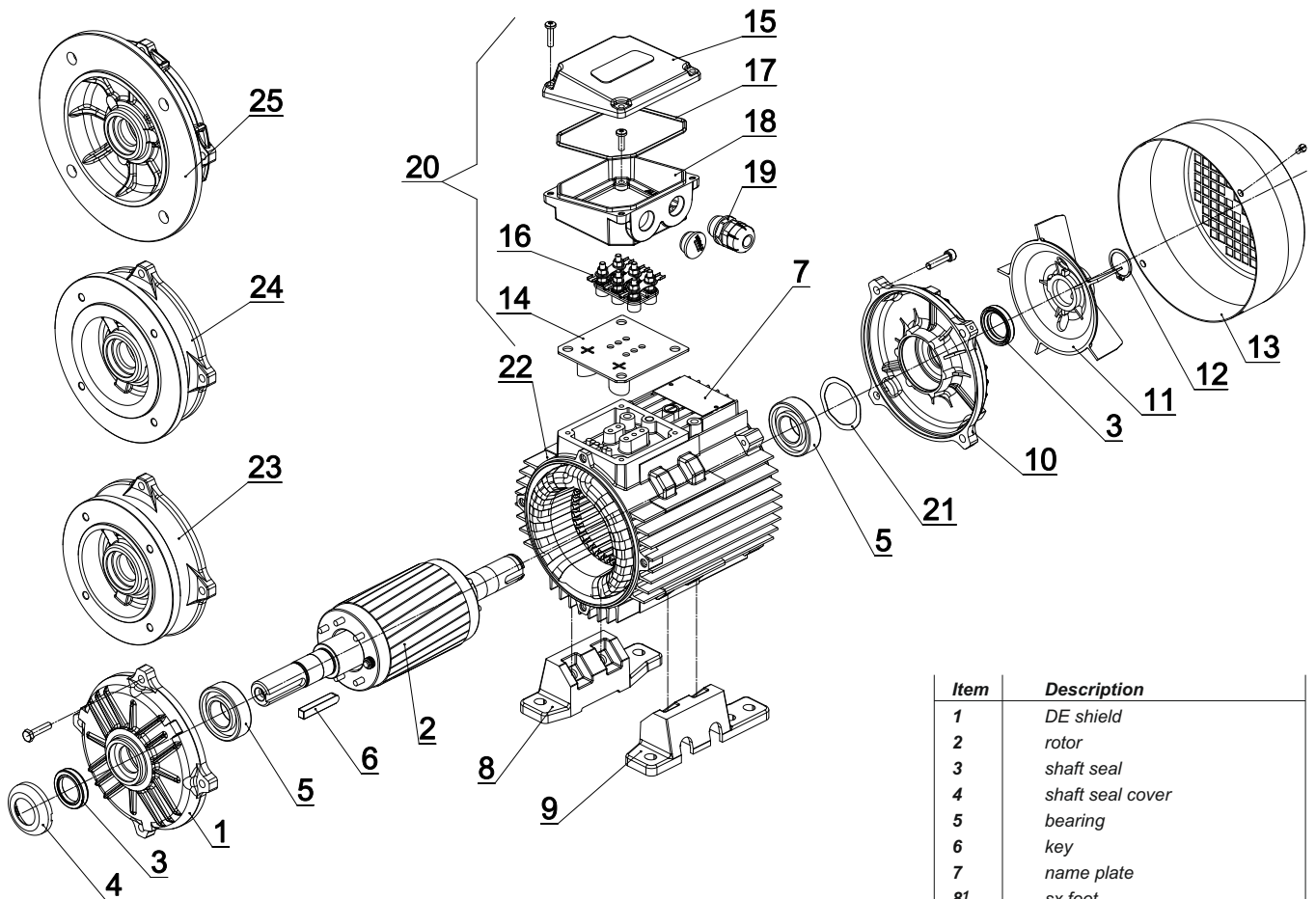


Item	Description
1	terminal box cover
2	rubber gasket
3	terminal board
4	terminal box
5	rubber gasket
6	gland
7	terminal box complete
8	fan cover
9	fan
10	tie rod
11	NDE shield
12	stator
13	foot
14	spring washer
15	bearing
16	rotor
17	DE shield
18	shaft seal
19	key
20	flange B5
21	flange B14/C1
22	flange B14/C2
23	name plate

DE - drive end  
NDE - non drive end

**Frame Size: 90 ÷ 180**  
**Motor series 3SIE, Sg and Sh (2p = 8 ÷ 12)**

**List of Motor parts**



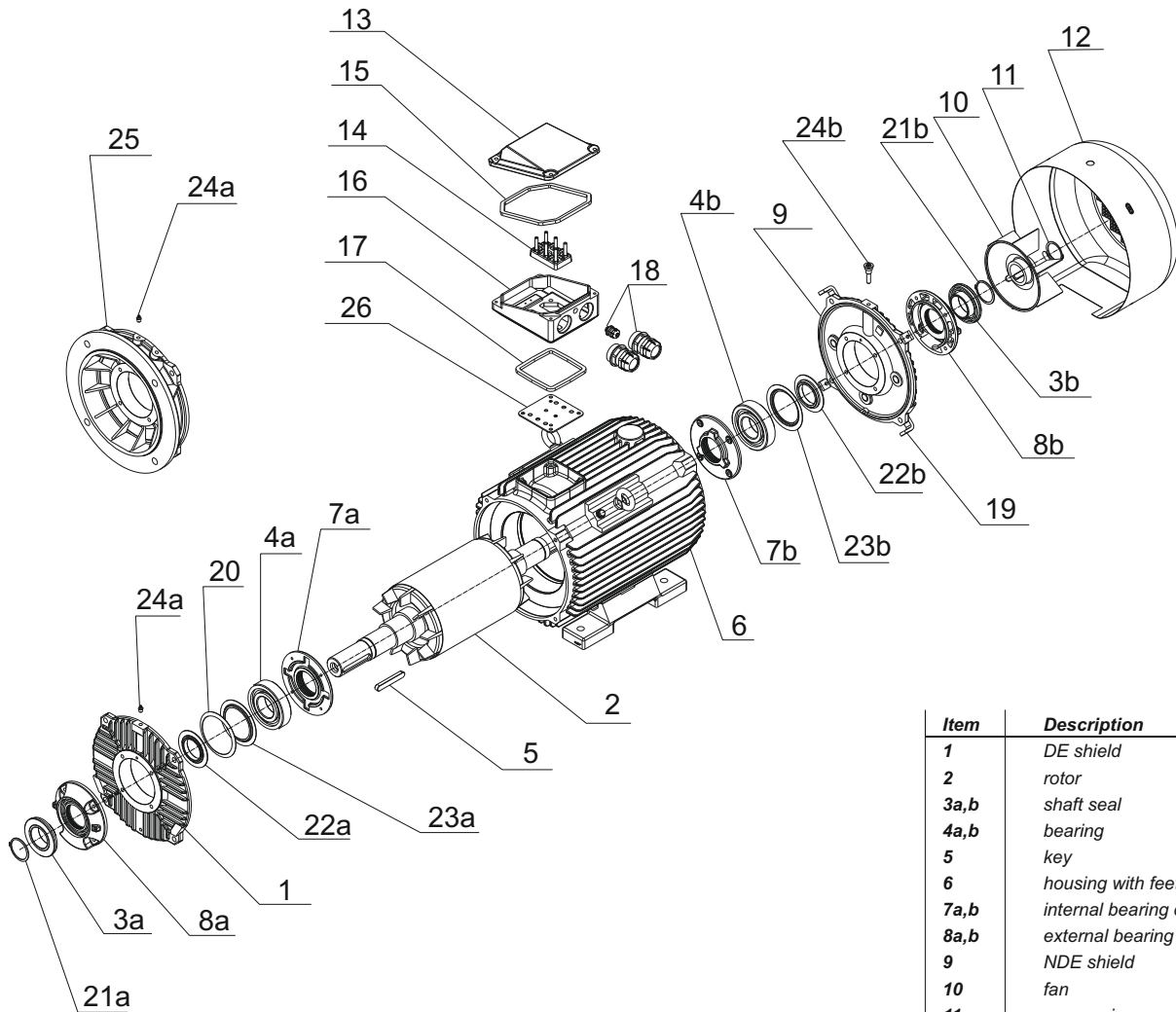
Item	Description
1	DE shield
2	rotor
3	shaft seal
4	shaft seal cover
5	bearing
6	key
7	name plate
8 <sup>1</sup>	sx foot
9 <sup>1</sup>	dx foot
10	NDE shield
11	fan
12	seeger ring
13	fan cover
14	rubber gasket
15	terminal box cover
16	terminal board
17	rubber gasket
18	terminal box
19	glands
20	terminal box complete
21	spring washer
22	stator
23 <sup>2</sup>	flange B14/C2
24 <sup>2</sup>	flange B14/C1
25	flange B5

DE - drive end  
 NDE - non drive end

<sup>1</sup> - for frame size 132 - 180 feet can be screwed or integrated with the motor housing,  
<sup>2</sup> - only for frame size 90 - 132.

List of Motor parts

Frame Size: 200÷355  
Motor series 3SIE

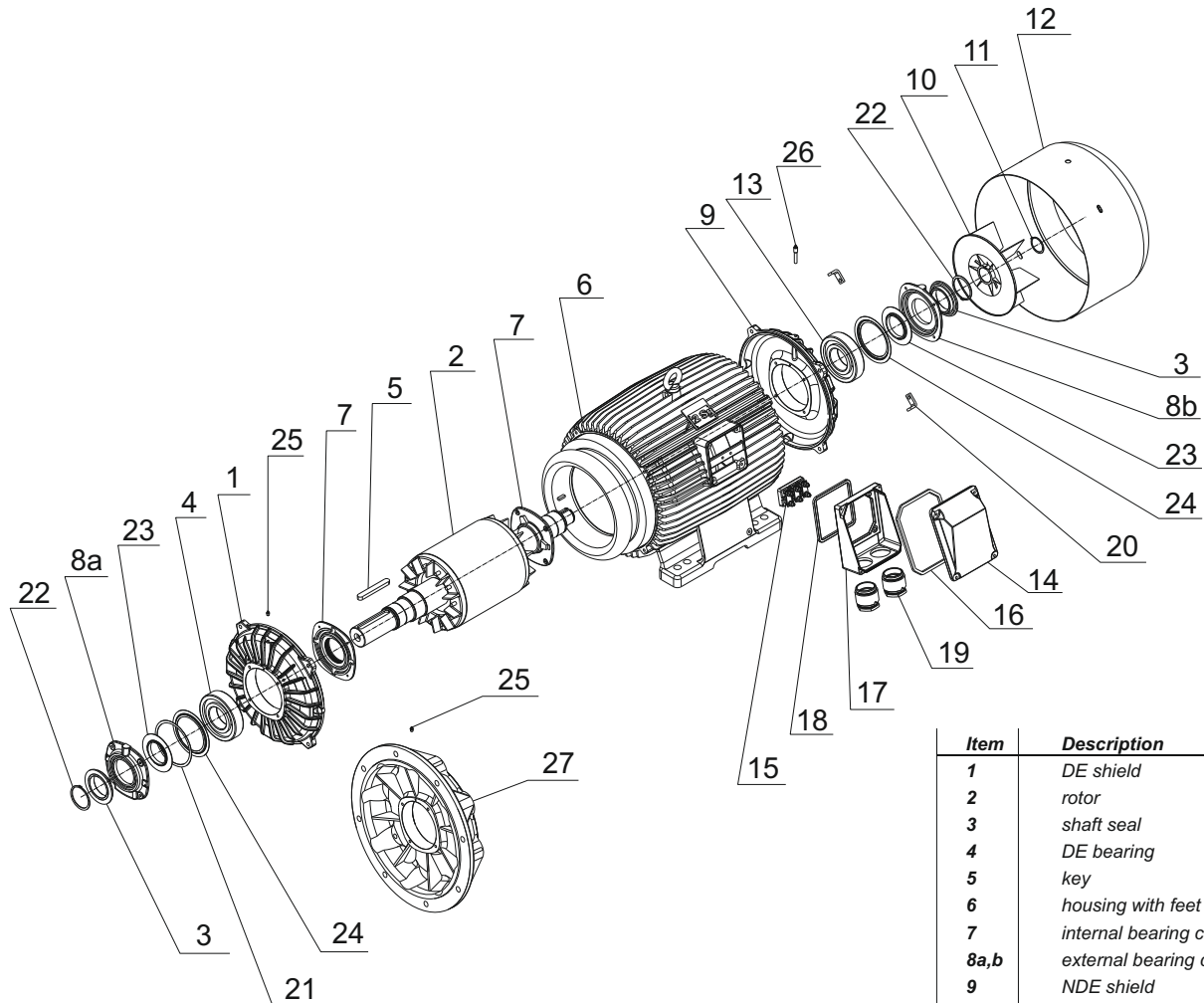


Item	Description
1	DE shield
2	rotor
3a,b	shaft seal
4a,b	bearing
5	key
6	housing with feet
7a,b	internal bearing cap
8a,b	external bearing cap
9	NDE shield
10	fan
11	seeger ring
12	fan cover
13	terminal box cover
14	terminal board
15	rubber gasket
16	terminal box housing
17	rubber gasket
18	cable glands
19	fan cover support
20	spring washer
21a,b	seeger ring
22a,b	grease shield
23a,b	bearing internal ring
24a,b	grease nipple
25	flange B5
26	rubber gasket

DE - drive end  
NDE - non drive end

**Frame Size: 200÷315**  
**Motor series 2Sg (2p = 8 ÷ 12)**

**List of Motor parts**



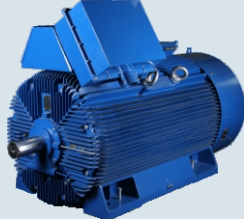


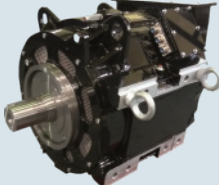


Item	Description
1	DE shield
2	rotor
3	shaft seal
4	DE bearing
5	key
6	housing with feet
7	internal bearing cap
8a,b	external bearing cap
9	NDE shield
10	fan
11	seeger ring
12	fan cover
13	NDE bearing
14	terminal box cover
15	terminal cover support
16	rubber gasket
17	terminal box housing
18	rubber gasket
19	cable glands
20	fan cover support
21	spring washer
22	seeger ring
23	grease shield *
24	bearing internal ring *
25	DE grease nipple
26	NDE grease nipple
27	flange B5

\* only for size 315

DE - drive end  
 NDE - non drive end

## PRODUCT RANGE

<p>LOW VOLTAGE GENERAL PURPOSE 3-PHASE INDUCTION MOTORS</p>	<p>Three-phase motors with squirrel-cage rotor series (2)Sg(m), Sh. High efficiency motors series 2SIE, 3SIE and 4SIE (Efficiency classes IE1, IE2, IE3, IE4)</p>	<p>from 0,04kW up to 2500kW</p>	<p>general purpose, pumps, fans, compressors, specific requirements relating to the highest efficiency</p>	
<p>GENERAL PURPOSE 1-PHASE INDUCTION MOTORS</p>	<p>Single-phase motors with squirrel-cage rotor series SEh(R), SEMh(R). - motors with standard starting torque - motors with increased starting torque - motors with high starting torque.</p>	<p>from 0,04kW up to 2,2kW</p>	<p>general purpose, pumps, fans, compressors, wood machines, machines and devices for food processing, mixers for building</p>	
<p>HIGH VOLTAGE INDUCTION MOTORS UP TO 1.1kV</p>	<p>Three-phase squirrel-cage high voltage and high efficiency motors series Sh with cast-iron housing. High voltage motors with module construction (steel/welded housing) series Sf (-E), Sfw, Sfr.</p>	<p>from 160kW up to 6000kW</p>	<p>general industrial use, drives used for own needs of power plants (pumps, fans, coal mills, conveyors)</p>	
<p>BRAKE MOTORS</p>	<p>Three-phase and single-phase brake motors with AC and DC brakes.</p>	<p>from 0,04kW up to 160kW</p>	<p>applied in case of necessity to stop the motor suddenly</p>	
<p>MOTORS WITH FOREIGN COOLING</p>	<p>Three-phase 3-phase induction motors with foreign cooling.</p>	<p>from 0,06kW up to 2500kW</p>	<p>drives adapted for speed regulation by frequency converter</p>	
<p>EXPLOSION-PROOF MOTORS</p>	<p>Increased safety motors.  Flame-proof motors.</p>	<p>from 0,06kW up to 22kW  from 0,75kW up to 3200kW</p>	<p>adapted for operation in areas endangered by explosion (without methane)  application in an atmosphere where a mixture of explosive gas and vapours may occur</p>	
<p>NEMA MOTORS</p>	<p>Low voltage NEMA motors SIE series (in compliance with the NEMA PREMIUM requirements).</p>	<p>from 1HP up to 250HP</p>	<p>general industrial application, pumps JM and JP, fans</p>	
<p>TRACTION MOTORS</p>	<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>	



**CANTONI MOTOR S.A.**  
**3 Maja 28**  
**43-400 Cieszyn, Poland**  
**tel.: +48 33 813 87 00**  
**fax: +48 33 813 87 01**  
**[motor@cantonigroup.com](mailto:motor@cantonigroup.com)**  
**[www.cantonigroup.com](http://www.cantonigroup.com)**