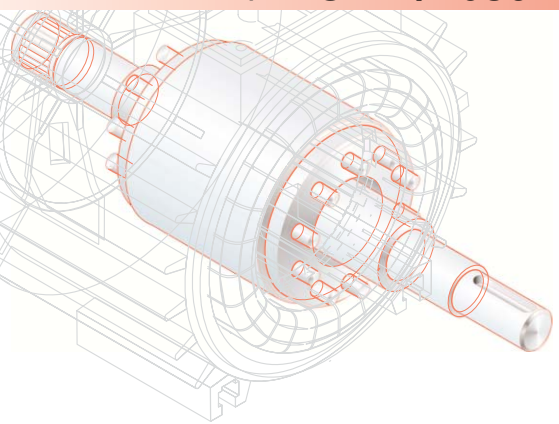


THREE-PHASE INDUCTION MOTORS ENERGY EFFICIENT MOTORS class IE2

Description of the catalogue motors:
- general purpose motors; temperate climate,
- duty S1 oraz S3 (above 80%),
- rated voltage 230V/400V (Δ/Y),
- frequency 50/60 Hz,
- ambient temperature from -15°C to +40°C,
- standard paint colour RAL 5010

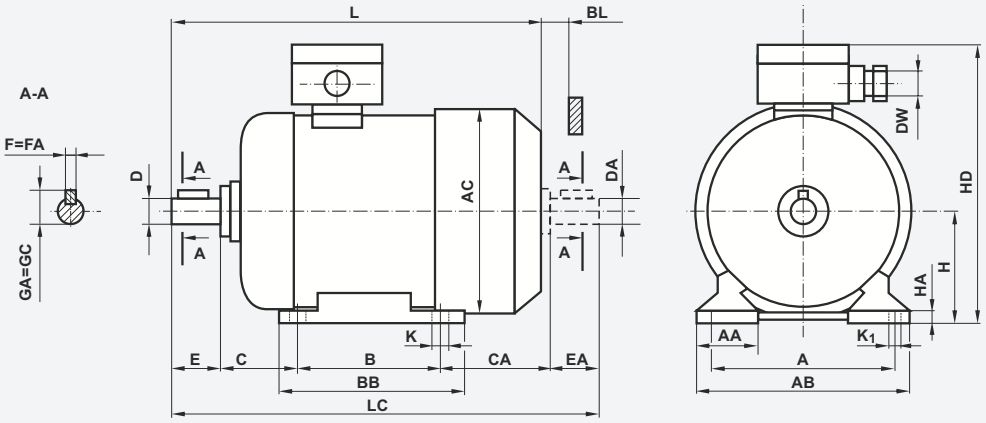
degree of protection: IP54 (IP55; IP56; IP65)
insulation class F

Typ	Moc		Prędkość obrotowa	Prąd [A] przy		Sprawność η [%] przy obciążeniu			Współczynnik mocy cos φN	Moment znamionowy MN [Nm]	Krotność prądu rozruchowego Ir/IN	Krotność momentu rozruchowego Mr/MN	Mmax / MN	Moment bezwładności J [kgm²]	Masa [kg]
	[kW]	[KM]	[min -1]	230 V Δ	400 V Y	100%	75%	50%							
Frame size	Rated output		Rated speed	Rated current [A] at		Efficiency η [%] at % of full load			Power factor cos φN	Torque TN [Nm]	Starting current/ rated current IL/IN	Starting torque/ rated torque TL/TN	Tb / TN	Moment of inertia J [kgm²]	Motor weight [kg]
	[kW]	[HP]	[min -1]	230 V Δ	400 V Y	100%	75%	50%							
2-pole motors, 3000 min-1; 50Hz															
2SIE 71x-2C	0,75	1,00	2780	3,10	1,80	78,0	76,5	75,0	0,81	2,57	2,2	2,1	2,2	0,000691	7,6
2SIE 80-2A	0,75	1,00	2840	3,30	1,90	79,0	76,5	72,0	0,74	2,52	5,0	3,2	3,0	0,00080	8,5
2SIE 80-2B	1,10	1,50	2840	4,80	2,70	80,0	80,0	77,0	0,75	3,70	5,5	3,4	3,4	0,00111	9,8
2SIE 80x-2C	1,50	2,00	2820	5,70	3,30	81,3	81,0	79,0	0,82	5,07	5,0	2,8	2,8	0,001450	12
Sh 90-2S/IE2	1,50	2,00	2820	5,70	3,30	81,3	81,0	79,0	0,82	5,07	5,0	2,8	2,8	0,001450	12
4-pole motors, 1500 min-1; 50Hz															
2SIE 80-4B	0,75	1,00	1400	3,70	2,20	80,0	77,0	70,0	0,65	5,12	4,2	3,1	3,2	0,002089	9,6
2SIE 80x-4C	1,1	1,50	1380	5,20	3,00	81,4	78,0	72,0	0,65	7,61	3,7	2,3	2,1	0,002680	11,5
Sh 90-4S/IE2	1,1	1,50	1380	5,20	3,00	81,4	78,0	72,0	0,65	7,61	3,7	2,3	2,1	0,002680	11,5

Motors meet requirements of Standard IEC 60034-30.

All motors are provided with CE mark.

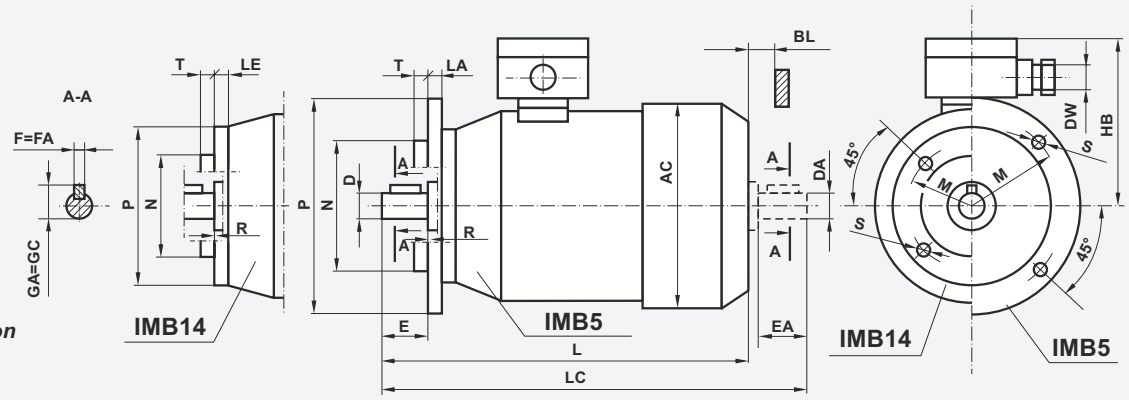
Foot - mounted motors
Type of construction
IMB3



Type of construction IMB3

Typ / Frame size	Dimensions (mm)																			Bearings
	A	B	C	CA	D= DA	E= EA	F= FA	GA= GC	H	K	K_1	DW	AA	AB	AC	BB	BL min	HA	HD	L	LC	
2SIE 71x-.C	112	90	45	106	14j6	30	5h9	16	$71_{-0,5}$	7	10	M20	45	142	141	116	12	8	182	263	301	6203 2ZC3
2SIE 80-.A	125	100	50	98	19j6	40	6h9	21,5	$80_{-0,5}$	10	13	M20	55	160	157	130	15	9	200	266	317	6204 2ZC3
2SIE 80-.B				98																278	329	
2SIE 80x-.C				120																306	357	
Sh 90-.S/IE2	140	100	56	114	24j6	50	8h9	27	$90_{-0,5}$	10	13	M20	60	170	157	153	15	12	208	316	376	6204 2ZC3 (P) 6205 2ZC3 (N)

Flange
- mounted motors
Types of construction
IMB5, IMB14



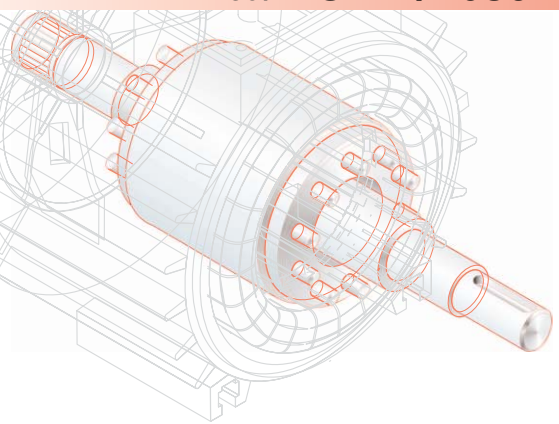
Type of construction IMB5

Typ / Frame size	Wymiary (mm) / Dimensions (mm)																	Łożyska / Bearings
	Kołnierz / Flange	P	M	N	S	D= DA	E= EA	F= FA	GA= GC	LA	T	R	DW	AC	BL min	HB	L	LC	
2SIE(K) 71x-.C	B5	160	130	110j6	10	14j6	30	5h9	16	9	3,5	0	M20	141	12	111	263	301	6203 2ZC3
2SIE(K) 80-.A	B5	200	165	130j6	12	19j6	40	6h9	21,5	10	3,5	0	M20	157	15	120	266	317	6204 2ZC3
2SIE(K) 80-.B																	278	329	
2SIE(K) 80-.C																	306	357	
S(K)h 90-.S/IE2						24j6	50	8h9	27	10	3,5	0	M20	157	15	118	316	376	6204 2ZC3 (P) 6205 2ZC3 (N)

Type of construction IMB14

Typ / Frame size	Dimensions (mm)																	Bearings
	Kołnierz / Flange	P	M	N	S	D= DA	E= EA	F= FA	GA= GC	LE	T	R	DW	AC	BL min	HB	L	LC	
SKh 71X-.C1	B14/1	140	115	95j6	M8	14j6	30	5h9	16	14	3	0	M20	141	12	111	263	301	6203 2ZC3
SKh 71X-.C2	B14/2	105	85	70j6	M6					12	2,5								
2SIE(K) 80-.A1	B14/1	160	130	110j6	M8	19j6	40	6h9	21,5	14	3,5	0	M20	157	15	120	266	317	6204 2ZC3
2SIE(K) 80-.A2	B14/2	120	100	80j6	M6					12	3								
2SIE(K) 80-.B1	B14/1	160	130	110j6	M8					14	3,5						278	329	
2SIE(K) 80-.B2	B14/2	120	100	80j6	M6					12	3								
2SIE(K) 80x-.C1	B14/1	160	130	110j6	M8					14	3,5						306	357	
2SIE(K) 80x-.C2	B14/2	120	100	80j6	M6					12	3								
Sh 90-.S1/IE2	B14/1	160	130	110j6	M8	24j6	50	8h9	27	10	3,5	0	M20	157	15	118	316	376	6204 2ZC3 (P) 6205 2ZC3 (N)
Sh 90-.S2/IE2	B14/2	120	100	80j6	M6					10	3								

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



THREE-PHASE INDUCTION MOTORS ENERGY EFFICIENT MOTORS class IE2

frame size 90mm - made of drawn tube - series hR

Description of the catalogue motors:
- general purpose motors; temperate climate,
- duty S1 or S3 (above 80%),
- rated voltage 230V/400V (Δ/Y),
- frequency 50 Hz,
- ambient temperature from -15°C to +40°C,
- standard paint colour RAL 5010.

degree of protection: IP54 (IP55; IP56; IP 65)
insulation class F

Typ / Frame size	Moc / Rated output [kW]	[KM] / [HP]	Prędkość obrotowa / Rated speed [min -1]	Prąd [A] przy / Rated current [A] at 230 V Δ	400 V Y	Sprawność η [%] / Efficiency η [%] 100%	75%	50%	Współczynnik mocy cos φN / Power factor cos φN	Moment znamionowy MN [Nm] / Torque TN [Nm]	Krotność prądu rozruchowego Ir/IN / Starting current/ rated current IL/IN	Krotność momentu rozruchowego Mr/MN / Starting torque/ rated torque TL/TN	Mmax/MN / Tb/TN	Moment bezwładności J [kgm²] / Moment of inertia J [kgm²]	Masa [kg] / Motor weight [kg]
2-pole motors, 3000 min-1; 50Hz															
ShR 90-2S/IE2	1,50	2,00	2800	5,50	3,20	81,3	79,0	77,5	0,87	5,1	5,5	2,8	2,6	0,0013	13,5
ShR 90-2L/IE2	2,20	3,00	2810	8,10	4,70	83,2	81,5	79,0	0,79	7,5	6,2	3,3	3,0	0,0018	16,5
4-pole motors, 1500 min-1; 50Hz															
ShR 90-4S/IE2	1,10	1,50	1390	4,30	2,50	81,4	79,5	78,0	0,79	7,6	5,6	2,1	2,8	0,0028	14,0
ShR 90-4L/IE2	1,50	2,00	1410	5,90	3,40	82,8	81,8	80,0	0,78	10,2	4,8	2,4	2,5	0,0045	16,7

Cooling fins are made in cruciform system.

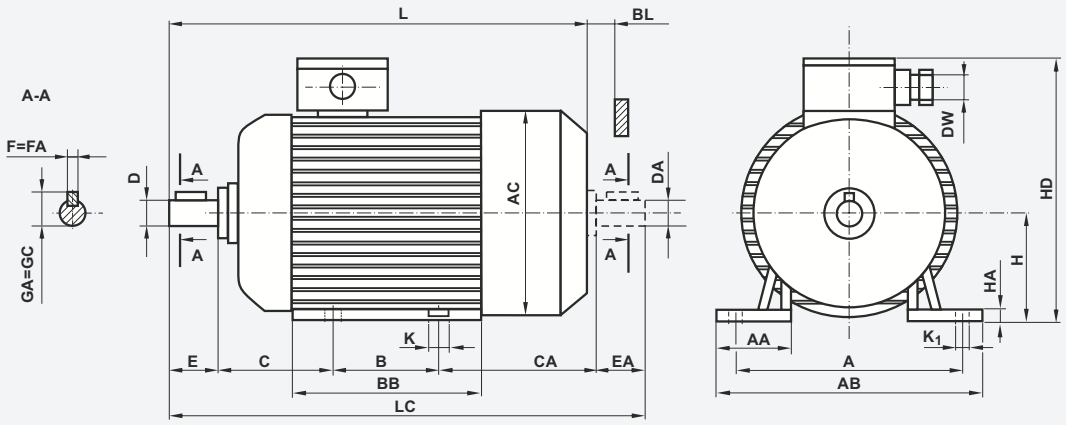
In IMB3 frame and foot are one cast.

Motors meet requirements of Polish Standard PN-EN 60034-1 and the international rules IEC 60034-1.

Motors meet requirements of Standard IEC 60034-30.

All motors are provided with CE mark.

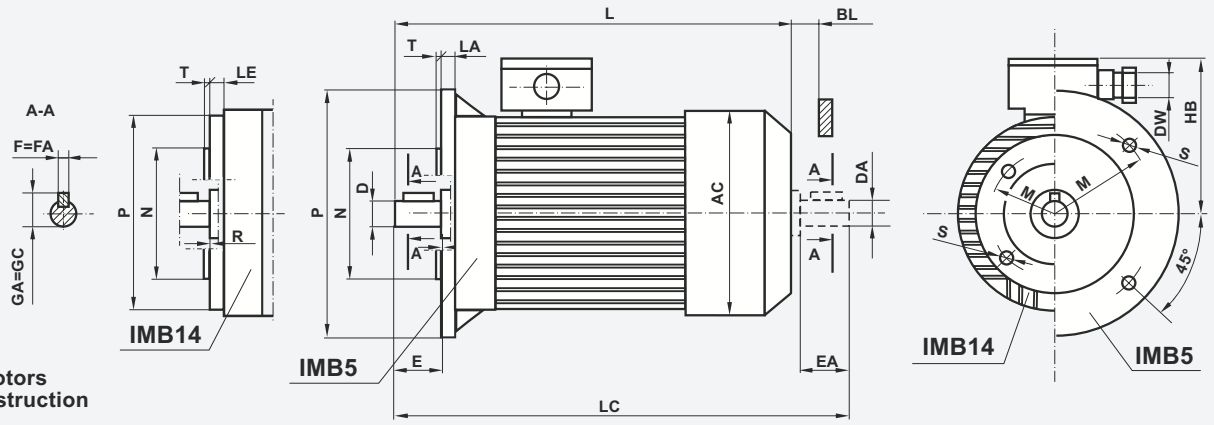
Foot - mounted motors
Type of construction
IMB3



Forma wykonania IMB3 **Type of construction IMB3**

Typ / Frame size	Dimensions (mm)																				Bearings
	A	B	C	CA	D= DA	E= EA	F= FA	GA= GC	H	K	K_1	DW	AA	AB	AC	BB	BL min	HA	HD	L	LC	
ShR 90-2S/IE2	140	100	56	117	24j6	50	8h9	27	$90_{-0,5}$	10	13	M20	63	170	166	153	15	12	210	317	378	6205 2ZC3
ShR 90-4S/IE2																				327	388	
ShR 90-2L/IE2		125														178				347	408	
ShR 90-4L/IE2																				357	418	

Flange
- mounted motors
Types of construction
IMB5, IMB14



Type of construction IMB5

Typ / Frame size	Wymiary (mm)	Dimensions (mm)																Łożyska / Bearings
	Kołnierz / Flange	P	M	N	S	D= DA	E= EA	F= FA	GA= GC	LA	T	R	DW	AC	BL min	HB	L	LC	
SKhR 90-2S/IE2	B5	200	165	130j6	12	24j6	50	8h9	27	10	3,5	0	M20	166	15	120	317	378	6205 2ZC3
SKhR 90-4S/IE2																	327	388	
SKhR 90-2L/IE2																	347	408	
SKhR 90-4L/IE2																	357	418	

Type of construction IMB14

Typ / Frame size	Dimensions (mm)																		Bearings
	Kołnierz / Flange	P	M	N	S	D= DA	E= EA	F= FA	GA= GC	LE	T	R	DW	AC	BL min	HB	L	LC	
SKhR 90-2S1/IE2	B14/1	160	130	110j6	M8	24j6	50	8h9	27	8	3,5	0	M20	166	15	120	317	378	6205 2ZC3
SKhR 90-2S2/IE2	B14/2	140	115	95j6							3								
SKhR 90-4S1/IE2	B14/1	160	130	110j6							3,5						327	388	
SKhR 90-4S2/IE2	B14/2	140	115	95j6							3								
SKhR 90-2L1/IE2	B14/1	160	130	110j6							3,5						347	408	
SKhR 90-2L2/IE2	B14/2	140	115	95j6							3								
SKhR 90-4L1/IE2	B14/1	160	130	110j6							3,5						357	418	
SKhR 90-4L2/IE2	B14/2	140	115	95j6							3								

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