



Enriching Lives

# KIRLOSKAR BROTHERS LIMITED

A Kirloskar Group Company



Energy Efficient

Three Phase IE2, IE3 & IE4 Series Motors

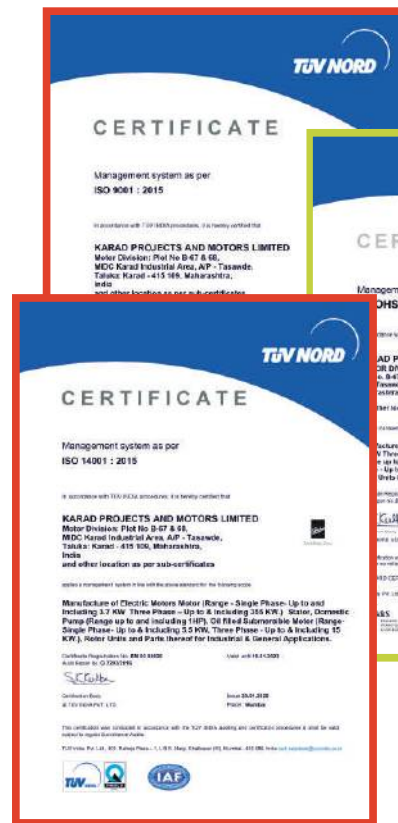


Established in 1888 and incorporated in 1920, Kirloskar Brothers Limited (KBL) is the flagship company of the \$ 2.1 billion Kirloskar group. The core businesses of KBL are large infrastructure projects (Water Supply, Power Plants, and Irrigation), Project and Engineered Pumps, Industrial Pumps, Agriculture and Domestic Pumps, Valves, Motors and Hydro turbines.

We develop customer oriented solutions, whether it is heavy industry, small Scale industry or a Specific Project, at KBL you will always find Motors, Pumps and Valves which suits your need best. Needless to say, all KBL products are meticulously designed & engineered to quality standards and then tested thoroughly to ensure that they meet or exceed all –encompassing goal of energy efficiency. At KBL, it is our constant endeavor to provide best solutions in terms of quality and price. In same line KBL offers complete range of IE2, IE3 and IE4 Motors to comply with national and international standard, IS-12615 /IEC 60034-30.

## Certifications :

BIS, CE, ISO 9001-2015, EMS 14001, OHSAS 18001



### **Mechanical Parameters:**

#### **Electrical Stampings :**

Stator and rotor laminations are made from low carbon electrical steel . Low loss coefficient is obtained by a special annealing treatment of the laminations .

#### **Windings :**

Stator winding of motors are exclusively made of high grade enameled copper wire and with class "F" insulating materials , mechanical strength of windings is ensured by impregnating them under vacuum with varnish of high solid content .

#### **Stator Enclosures :**

Over the entire range, the series is in rugged CI construction . The stator body and end shields are machined to close tolerance for perfect alignments and fits.

#### **Rotor :**

The squirrel cage rotors are made of Aluminum Pressure Die cast, locked positively on the shaft by heat shrink fitting process thus forms a compact unit .The shaft are made of 40C8 carbon steel. Shaft and rotor surface are provided with rust protective coating.

#### **Bearings :**

Motors up to 225 frame are provided with deep groove pre lubricated ZZ type ball bearing at both sides. These bearing are pre-lubricated for life and require no maintenance.

Motors from the frame 250 and above are provided with non shielded deep groove ball bearing with external online greasing arrangement.

#### **Standard & Reference :**

The following tables serve as reference lists for electrical and mechanical standards that apply to most induction motors depending on motor type and type of protection.

Indian standard	International standard	Title
IS/IEC 60034-1	IEC: 60034-1	Rotating electrical machines
IS:12824	IEC: 60034-1	Types of duty and classes of rating assigned to rotating electrical machines
IS:15999	IEC: 60034-2-1	Methods of determination of efficiency of rotating electrical machines
IS/IEC 60034-5	IEC: 60034-5	Degree of protection provided by enclosure for rotating electrical machines
IS:6362	IEC: 60034-6	Designation of methods of cooling of rotating electrical machines
IS:2253	IEC: 60034-7	Designation for types of construction & mounting arrangements of rotating electrical machines
IS/IEC 60034-8	IEC: 60034-8	Terminal marking & direction of rotation for rotating electrical machinery
IS:12065	IEC: 60034-9	Permissible limits of noise levels for rotating electrical machines
IS:12075	IEC: 60034-14	Mechanical vibration of rotating electrical machines & limits of vibration severity
IS:12615	IEC: 60034-30	Line operated 3Phase AC motors--Efficiency classes & performance specifications

## **General Specification :- AC Three Phase Squirrel Cage Induction Motor**

Product Range	
Power Range	0.55 kW to 315 kW
Frame	80 to 355
Efficiency	IE2, IE3 & IE4
Poles	2 , 4, 6



### **Motor Standard Features for IE2,IE3,IE4 efficiency**

No	Features	Standard	Optional
1	Voltage	415 +/- 10%	380V / 400V / 440V
2	Frequency	50Hz+/-5%	60Hz+/-5%
3	Mounting	B3	B5,B14,B35 and vertical combinations
4	Method of Cooling	IC 411	-
5	Altitude	Up to 1000 m above mean sea level	Higher altitude can also be offered on demand
6	Direction of Rotation	All motors are suitable for bi-directional	----
7	Method of starting	Up to 3HP DOL starting, above 3HP are suitable for DOL, Star/Delta starter	Inverter/VFD suitable
8	Insulation	Class 'F'	H
9	Temperature Rise	Limited to Class B	F,H
10	Rating / Duty	S1	S4,S5
11	Bearings	80 to 225 are with double shielded deep groove ball bearing (Pre-lubricated for life )	Roller bearing 160 & above, and insulated bearings 250 & above frame sizes
		250 to 355 frame motors are with open type ball bearing	
12	Greasing arrangement	For Frames 250 & above on line greasing facility is provided	----
13	Noise level	Noise levels of motors confirms to IS:12065, IEC 60034-9	----
14	Vibration	Vibration of motors confirms to IS:12075, IEC 60034-14	----
15	Paint shade	IE2-RAL 5010 Gentian Blue	Any types of colors and shades can be given as per standard
		IE3-RAL 6029 Mint Green	
		IE4- RAL 1004 Golden Yellow	
16	Shaft	Single shaft Extension	Double shaft extension up to 160 frame
17	Degree of protection	IP55 as per IEC 60034-5	Contact KPML
18	MOC/TB Position	Cast iron/TOP TB	----
19	Accessories	----	Thermister, space heater (suitable for 230v, 1phase, for 160 & Above frame) , RTD,BTD,Epoxy gel coat on windings, Aluminium fan,Bigger size T.box,cable glands, given on request

## Bearing Arrangement :

Frame Size	DE side	NDE Side
KI 80	6204ZZ	6204ZZ
KI 90	6205ZZ	6205ZZ
KI 100	6206ZZ	6206ZZ
KI 112	6306ZZ	6306ZZ
KI 132	6308ZZ	6308ZZ
KI 160	6309ZZ	6309ZZ
KI 180	6311ZZ	6311ZZ
KI 200	6312ZZ	6312ZZ
KI 225	6313ZZ	6313ZZ
KI250	6314	6314
KI 280 ( 2 Pole)	6314	6314
KI 280 (4, 6 Pole)	6317	6317
KI 315 ( 2 Pole)	6317	6317
KI 315 (4, 6 Pole)	NU 319	6319
KI 355 ( 2 Pole)	6319	6319
KI 355 (4, 6 Pole)	NU 322	6322



## Degree of Protection :

Ingress Protection Classification			
First Number		Second Number	
IP	Protection Provided	IP	Protection Provided
0	No Protection	0	No Protection
1	Protected against solid objects up to 50mm e.g. accidental touch by hands	1	Protected against vertically falling drops of water e.g. condensation
2	Protected against solid objects up to 12mm e.g. fingers	2	Protected against direct sprays of water up to 15 deg from the vertical
3	Protected against solid objects over 2.5mm e.g. tools	3	Protected against direct sprays of water up to 60 deg from the vertical
4	Protected against solid objects over 1mm e.g. wires	4	Protected against water sprayed from all directions -
5	Protected against dust - limited ingress (no harmful deposit)	5	Protected against low pressure jets of water from all directions
6	Totally protected against dust	6	Protected against strong jets of water e.g. for use on ship decks
		7	Protected against the effects of immersion between 15cm and 1m
		8	Protected against long periods of immersion under pressure



## Tolerances on Performance Parameters (As per IS 15999 / IEC 60034-1)

Sr No	Item	Tolerance
1	<b>Efficiency</b>	
	<b>a) By summation of losses</b>	
	i) Motors up to and including 150 kW	(-) 15% of ( 1- $\eta$ )
	ii) Motors above 150 kW	(-) 10% of ( 1- $\eta$ )
	<b>b) By input-output test up to 1 kW</b>	(-) 15% of ( 1- $\eta$ )
2	Total loss applicable to motors > 150 kW	(+) 10% of total losses
3	Power factor ( cos $\phi$ )	(-1/6) of ( 1- cos $\phi$ ) Min 0.02 & Max 0.07
4	Slip at full load & at working temperature	( $\pm$ ) 20% of the slip
5	Breakaway starting current of squirrel cage induction motors with short circuited rotor and with any specified starting apparatus	(+) 20% of the starting current (No -ve tolerance)
6	Breakaway Torque	(-) 15% to (+) 25% of the torque (+25 % can be exceed by agreement)
7	Pull-out Torque	(-) 10% of the torque except that after allowing for this tolerance, the torque shall not be less than 1.6 or 1.5 times the rated torque
8	Moment of inertia or stored energy constant applicable to motors of frame sizes above 315	( $\pm$ ) 10% of the value
9	Rotor voltage	( $\pm$ ) 10%

### Salient Features Testing Facility :

- Regenerative type motor type test up to 315 kW ( Up to 600v, 50/60 Hz)
- Test set up for efficiency determination as per IEC: 60034-2-1 and IS 15999
- Special test facility for noise, vibration, duty cycle test S1 – S10, Rotor bar angular test etc.
- Five test benches for conducting Type test.
- Inbuilt facility of Automatic efficiency calculation in line with IEC 60034-2-1

### Regenerative type motor type testing facility



## High Efficiency TEFC SC Motors - IE2

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B , Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615 , IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE2- 2 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE2 % Eff (FL)	Power Factor	Locked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 80	0.75	1	2	1.9	2810	77.4	0.77	2.1	6.5	2.2
KI 80	1.1	1.5	2	2.5	2800	79.6	0.82	2.1	6.5	2.2
KI 90S	1.5	2	2	3.3	2840	81.3	0.82	2.1	6.5	2.2
KI 90L	2.2	3	2	4.6	2850	83.2	0.83	2.1	7	2.2
KI 100L	3.7	5	2	7.2	2860	85.5	0.86	2	7	2.2
KI 132S	5.5	7.5	2	11	2920	87.0	0.88	2.1	7	2.2
KI 132S	7.5	10	2	13.7	2920	88.1	0.88	2	7	2.2
KI 160M	9.3	12.5	2	17	2930	88.8	0.88	2	7	2.2
KI 160M	11	15	2	20	2940	89.4	0.88	2	7	2.2
KI 160M	15	20	2	27	2940	90.3	0.88	2	7	2.2
KI 160L	18.5	25	2	33	2940	90.9	0.88	2	7	2.2
KI 180M	22	30	2	39	2950	91.3	0.88	2	7	2.2
KI 200L	30	40	2	52	2940	92.0	0.89	1.8	7	2.2
KI 200L	37	50	2	63	2950	92.5	0.89	1.8	7	2.2
KI 225M	45	60	2	76	2960	92.9	0.89	1.6	7	2.2
KI 250M	55	75	2	93	2970	93.2	0.89	1.9	7	2.2
KI 280S	75	100	2	125	2970	93.8	0.90	1.9	7	2.2
KI 280M	90	120	2	149	2970	94.1	0.90	1.9	7	2.2
KI 315S	110	150	2	184.5	2975	94.3	0.88	1.7	7	2.1
KI 315M	125	170	2	209	2980	94.5	0.88	1.7	7	2.1
KI 315M	132	180	2	220	2980	94.6	0.88	1.7	7	2.1
KI 315L	150	200	2	250	2980	94.8	0.88	1.7	7	2.1
KI 315L	160	215	2	264	2980	94.8	0.88	1.7	7	2.1
KI 315L	180	240	2	310	2980	94.9	0.88	1.7	7	2.1
KI315L	200	270	2	333	2980	95.0	0.88	1.7	7	2.1
KI355M	225	300	2	380	2980	95.0	0.88	1.7	7	2.1
KI355M	250	335	2	420	2980	95.0	0.88	1.7	7	2.1
KI355L	275	370	2	462	2980	95.0	0.88	1.7	7	2.1
KI355L	315	420	2	530	2980	95.0	0.88	1.7	7	2.1

## High Efficiency TEFC SC Motors - IE2

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B , Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615 , IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE2- 4 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE2 % Eff (FL)	Power Factor	Locked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 80	0.55	0.75	4	1.5	1360	77.1	0.73	2	6	2.2
KI 80	0.75	1	4	2.0	1380	79.6	0.73	2	6	2.2
KI 90S	1.1	1.5	4	2.8	1400	81.4	0.74	2.2	6	2.2
KI 90L	1.5	2	4	3.6	1400	82.8	0.74	2.1	6	2.2
KI 100L	2.2	3	4	5.0	1420	84.3	0.75	2.2	7	2.2
KI 112M	3.7	5	4	8	1420	86.3	0.75	2.2	7	2.2
KI 132S	5.5	7.5	4	11.2	1430	87.7	0.79	2.2	7	2.2
KI 132M	7.5	10	4	15	1450	88.7	0.79	2.2	7	2.2
KI 160M	9	12.5	4	17	1450	89.3	0.85	2	7	2.2
KI 160M	11	15	4	22	1465	89.8	0.84	2	7	2.2
KI 160L	15	20	4	29	1450	90.6	0.84	2	7	2.2
KI 180M	19	25	4	36	1445	91.2	0.80	2	7	2.2
KI 180L	22	30	4	41	1460	91.6	0.86	2	7	2.2
KI 200L	30	40	4	56	1460	92.3	0.86	2	7	2.2
KI 225S	37	50	4	65	1470	92.7	0.86	1.6	7	2.2
KI 225M	45	60	4	77	1470	93.1	0.88	1.7	7	2.2
KI 250M	55	75	4	94	1480	93.5	0.88	1.9	7	2.2
KI 280S	75	100	4	125	1480	94.0	0.90	1.9	7	2.2
KI 280M	90	120	4	149.0	1480	94.2	0.90	1.9	7	2.2
KI 315S	110	150	4	186	1480	94.5	0.88	2	7	2.1
KI 315M	125	170	4	211	1480	94.6	0.88	2	7	2.1
KI 315M	132	180	4	222	1480	94.7	0.88	2	7	2.1
KI 315L	150	200	4	250	1480	94.7	0.89	2	7	2.1
KI 315L	160	215	4	267	1480	94.9	0.89	2	7	2.1
KI 315L	180	240	4	310	1480	95.0	0.89	2	7	2.1
KI 315L	200	270	4	331	1480	95.1	0.89	2	7	2.1
KI 355M	225	300	4	375	1490	95.1	0.89	2	7	2.1
KI 355M	250	335	4	418	1490	95.1	0.89	2	7	2.1
KI 355L	275	370	4	460	1490	95.1	0.89	2	7	2.1
KI 355L	315	420	4	525.0	1490	95.1	0.89	2	7	2.1



## High Efficiency TEFC SC Motors - IE2

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B, Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615, IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE2- 6 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE2 % Eff (FL)	Power Factor	Locked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 90S	0.75	1	6	2.2	925	75.9	0.65	2	6	2
KI 90L	1.1	1.5	6	3.1	925	78.1	0.65	2	6	2
KI 100L	1.5	2	6	3.8	950	79.8	0.7	2	6	2
KI 112M	2.2	3	6	5.4	950	81.8	0.72	2	7	2
KI 132M	3.7	5	6	8.2	970	84.3	0.76	2	7	2
KI 132M	5.5	7.5	6	11.8	970	86.0	0.77	2	7	2
KI 160M	7.5	10	6	15.5	970	87.2	0.77	1.8	7	2
KI 160L	11	15	6	22.5	970	88.7	0.78	1.8	7	2
KI 180L	15	20	6	28.5	980	89.7	0.83	1.8	7	2
KI 200L	18.5	25	6	34.0	980	90.4	0.86	1.8	7	2
KI 200L	22	30	6	40.0	980	90.9	0.86	1.8	7	2
KI 225M	30	40	6	53.0	985	91.7	0.87	1.7	7	2
KI 250M	37	50	6	66.0	985	92.2	0.87	1.7	7	2.1
KI 280S	45	60	6	79.0	985	92.7	0.88	1.7	7	2.1
KI 280M	55	75	6	96.0	985	93.1	0.87	1.7	7	2.1
KI 315S	75	100	6	131.0	990	93.7	0.86	1.9	7	1.9
KI 315M	90	120	6	156.0	990	94.0	0.86	1.9	7	1.9
KI 315L	110	150	6	190.0	990	94.3	0.86	1.9	7	1.9
KI 315L	125	170	6	214.0	990	94.4	0.87	1.9	7	1.9
KI 315L	132	180	6	225.0	990	94.6	0.87	1.9	7	1.9
KI 355M	150	200	6	256.0	990	94.7	0.87	1.9	7	1.9
KI 355M	160	215	6	272.0	990	94.8	0.87	1.9	7	1.9
KI 355M	180	240	6	308.0	990	94.9	0.87	1.9	7	1.9
KI 355M	200	270	6	340.0	990	95.0	0.87	1.9	7	1.9
KI 355L	225	300	6	385.0	990	95.0	0.87	1.9	7	1.9
KI 355L	250	335	6	430.0	990	95.0	0.87	1.9	7	1.9
KI 355L	275	370	6	470.0	990	95.0	0.87	1.9	7	1.9

## Premium Efficiency TEFC SC Motors - IE3

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B, Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615, IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE3- 2 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE3 % Eff (FL)	Power Factor	Loacked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 80	0.75	1	2	1.7	2850	80.7	0.8	2.1	7	2.2
KI 80	1.1	1.5	2	2.3	2850	82.7	0.82	2.1	7	2.2
KI 90S	1.5	2	2	3.1	2870	84.2	0.82	2.1	7	2.2
KI 90L	2.2	3	2	4.3	2870	85.9	0.83	2.1	7.7	2.2
KI 100L	3.7	5	2	6.8	2870	87.8	0.87	2	7.7	2.2
KI 132S	5.5	7.5	2	9.8	2920	89.2	0.88	2	7.7	2.2
KI 132S	7.5	10	2	13.2	2920	90.1	0.88	2	7.7	2.2
KI 160M	9.3	12.5	2	16.5	2940	90.7	0.88	2	7.7	2.2
KI 160M	11	15	2	19.0	2940	91.2	0.88	2	7.7	2.2
KI 160M	15	20	2	26.0	2940	91.9	0.88	2	7.7	2.2
KI 160L	18.5	25	2	31.3	2940	92.4	0.89	2	7.7	2.2
KI 180M	22	30	2	37.2	2950	92.7	0.89	2	7.7	2.2
KI 200L	30	40	2	50.3	2950	93.3	0.89	1.9	7.7	2.2
KI 200L	37	50	2	61.8	2960	93.7	0.89	1.9	7.7	2.2
KI 225M	45	60	2	74.4	2970	94.0	0.9	1.9	7.7	2.2
KI 250M	55	75	2	90.7	2975	94.3	0.9	1.9	7.7	2.2
KI 280S	75	100	2	123.0	2975	94.7	0.9	1.9	7.7	2.2
KI 280M	90	120	2	147.0	2975	95.0	0.9	1.9	7.7	2.2
KI 315S	110	150	2	180.0	2980	95.2	0.9	1.8	7.7	2.1
KI 315M	125	170	2	204.0	2980	95.2	0.9	1.8	7.7	2.1
KI 315M	132	180	2	215.0	2980	95.4	0.9	1.8	7.7	2.1
KI 315L	150	200	2	245.0	2980	95.4	0.9	1.8	7.7	2.1
KI 315L	160	215	2	257.0	2980	95.6	0.91	1.8	7.7	2.1
KI 315L	180	240	2	290.0	2980	95.7	0.91	1.8	7.7	2.1
KI315L	200	270	2	321.0	2980	95.8	0.91	1.8	7.7	2.1
KI355M	225	300	2	365.0	2980	95.8	0.91	1.8	7.7	2.1
KI355M	250	335	2	410.0	2980	95.8	0.91	1.8	7.7	2.1
KI355L	275	370	2	450.0	2980	95.8	0.91	1.8	7.7	2.1
KI355L	315	420	2	510.0	2980	95.8	0.91	1.8	7.7	2.1

## Premium Efficiency TEFC SC Motors - IE3

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B, Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615, IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE3- 4 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE3 % Eff (FL)	Power Factor	Locked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 80	0.55	0.75	4	1.4	1405	80.8	0.73	2	6.5	2.2
KI 80	0.75	1	4	1.8	1405	82.5	0.73	2.1	6.5	2.2
KI 90S	1.1	1.5	4	2.5	1410	84.1	0.75	2	6.5	2.2
KI 90L	1.5	2	4	3.3	1410	85.3	0.75	2.1	6.5	2.2
KI 100L	2.2	3	4	4.7	1420	86.7	0.75	2.1	7.5	2.2
KI 112M	3.7	5	4	7.6	1440	88.4	0.77	2.1	7.5	2.2
KI 132S	5.5	7.5	4	10.7	1450	89.6	0.8	2.1	7.5	2.2
KI 132M	7.5	10	4	14.4	1455	90.4	0.8	2.1	7.5	2.2
KI 160M	9.3	12.5	4	17.5	1470	90.7	0.84	2.1	7.5	2.2
KI 160M	11	15	4	20.0	1470	91.4	0.84	2.1	7.5	2.2
KI 160L	15	20	4	27.0	1470	92.1	0.84	2.1	7.5	2.2
KI 180M	18.5	25	4	33.0	1475	92.6	0.85	2.1	7.5	2.2
KI 180L	22	30	4	39.0	1475	93.0	0.85	2.1	7.5	2.2
KI 200L	30	40	4	52.0	1480	93.6	0.86	2.1	7.5	2.2
KI 225S	37	50	4	64.0	1480	93.9	0.86	1.8	7.5	2.1
KI 225M	45	60	4	77.8	1480	94.2	0.86	1.8	7.5	2.1
KI 250M	55	75	4	94.6	1480	94.6	0.86	1.9	7.5	2.1
KI 280S	75	100	4	125.5	1480	95.0	0.88	1.9	7.7	2.1
KI 280M	90	120	4	150.0	1480	95.2	0.88	1.9	7.7	2.1
KI 315S	110	150	4	187.0	1485	95.4	0.89	2	7.7	2.1
KI 315M	125	170	4	210.0	1485	95.4	0.89	2	7.7	2.1
KI 315M	132	180	4	223.0	1485	95.6	0.89	2	7.7	2.1
KI 315L	150	200	4	250.0	1485	95.6	0.89	2	7.7	2.1
KI 315L	160	215	4	265.0	1485	95.8	0.89	2	7.7	2.1
KI 315L	180	240	4	300.0	1485	95.9	0.89	2	7.7	2.1
KI 315L	200	270	4	325.0	1485	96.0	0.9	2	7.7	2.1
KI 355M	225	300	4	370.0	1485	96.0	0.9	2	7.7	2.1
KI 355M	250	335	4	410.0	1485	96.0	0.9	2	7.7	2.1
KI 355L	275	370	4	450.0	1485	96.0	0.9	2	7.7	2.1
KI 355L	315	420	4	515.0	1485	96.0	0.9	2	7.7	2.1

## Premium Efficiency TEFC SC Motors - IE3

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B, Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615, IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE3- 6 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE3 % Eff (FL)	Power Factor	Loacked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 90S	0.75	1	6	2.1	930	78.9	0.65	2	6.5	2
KI 90L	1.1	1.5	6	3.0	930	81.0	0.65	2	6.5	2
KI 100L	1.5	2	6	3.7	950	82.5	0.7	2	6.5	2
KI 112M	2.2	3	6	5.2	950	84.3	0.72	2	7.5	2
KI 132M	3.7	5	6	8.1	970	86.5	0.74	2	7.5	2
KI 132M	5.5	7.5	6	11.7	970	88.0	0.75	2	7.5	2
KI 160M	7.5	10	6	15.4	970	89.1	0.77	2	7.5	2
KI 160L	11	15	6	21.2	975	90.3	0.8	1.9	7.5	2
KI 180L	15	20	6	29.0	980	91.2	0.81	1.9	7.5	2
KI 200L	18.5	25	6	35.0	980	91.7	0.81	1.9	7.5	2
KI 200L	22	30	6	41.4	980	92.2	0.81	1.9	7.5	2
KI 225M	30	40	6	55.0	980	92.9	0.83	2	7.5	2.1
KI 250M	37	50	6	66.2	985	93.3	0.84	2	7.5	2.1
KI 280S	45	60	6	79.0	985	93.7	0.85	1.8	7.5	2.1
KI 280M	55	75	6	96.0	985	94.1	0.85	1.8	7.5	2.1
KI 315S	75	100	6	130.0	985	94.6	0.85	1.9	7.7	2
KI 315M	90	120	6	156.0	985	94.9	0.85	1.9	7.7	2
KI 315L	110	150	6	190.5	985	95.1	0.85	2	7.7	2.1
KI 315L	125	170	6	217.0	985	95.1	0.85	2	7.7	2.1
KI 315L	132	180	6	228.0	990	95.4	0.85	2	7.7	2.1
KI 355M	150	200	6	265.0	990	95.5	0.85	2	7.7	2.1
KI 355M	160	215	6	280.0	990	95.6	0.85	2	7.7	2.1
KI 355M	180	240	6	315.0	990	95.7	0.85	2	7.7	2.1
KI 355M	200	270	6	345.0	990	95.8	0.85	2	7.7	2.1
KI 355L	225	300	6	390.0	990	95.8	0.85	2	7.7	2.1
KI 355L	250	335	6	430.0	990	95.8	0.85	2	7.7	2.1
KI 355L	275	370	6	480.0	990	95.8	0.85	2	7.7	2.1

## Super Premium Efficiency TEFC SC Motors - IE4

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B, Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615, IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE4- 2 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE4 % Eff (FL)	Power Factor	Locked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 80	0.75	1	2	1.6	2890	83.5	0.8	1.7	7.8	2
KI 80	1.1	1.5	2	2.3	2890	85.2	0.8	2	7.8	2.5
KI 90S	1.5	2	2	3.0	2880	86.5	0.82	2.5	7.8	2.5
KI 90L	2.2	3	2	4.2	2900	88.0	0.84	3	8.9	3.5
KI 100L	3.7	5	2	6.6	2920	89.7	0.88	2.8	8.9	3.3
KI 132S	5.5	7.5	2	9.7	2925	90.9	0.88	2.5	8.9	3
KI 132S	7.5	10	2	13.0	2930	91.7	0.88	2.5	8.9	3
KI 160M	9.3	12.5	2	16.0	2950	92.1	0.88	2	8.9	2.3
KI 160M	11	15	2	19.0	2950	92.6	0.88	2	8.9	2.3
KI 160M	15	20	2	25.5	2950	93.3	0.88	2	8.9	2.3
KI 160L	18.5	25	2	31.5	2950	93.7	0.88	2.1	8.9	2.3
KI 180M	22	30	2	37.2	2950	94.0	0.88	2	8.9	2.3
KI 200L	30	40	2	50.5	2950	94.5	0.88	2	8.9	2.3
KI 200L	37	50	2	62.0	2950	94.8	0.88	2	8.9	2.3
KI 225M	45	60	2	75.0	2970	95.0	0.88	2	8.9	2.3
KI 250M	55	75	2	90.0	2975	95.3	0.9	2	8.9	2.3
KI 280S	75	100	2	122.0	2975	95.6	0.9	1.8	8.9	2.2
KI 280M	90	120	2	146.0	2975	95.8	0.9	1.8	8.9	2.2
KI 315S	110	150	2	178.0	2980	96.0	0.9	1.8	8.9	2.2
KI 315M	125	170	2	203.0	2980	96.1	0.9	1.8	8.9	2.2
KI 315M	132	180	2	215.0	2980	96.2	0.9	1.8	8.9	2.2
KI 315L	150	200	2	242.0	2980	96.3	0.9	1.8	8.9	2.2
KI 315L	160	215	2	257.0	2980	96.3	0.9	1.8	8.9	2.2
KI 315L	180	240	2	292.0	2980	96.3	0.9	1.8	8.9	2.2
KI315L	200	270	2	322.0	2980	96.5	0.9	1.8	8.9	2.2
KI355M	225	300	2	364.0	2980	96.5	0.9	1.8	8.9	2.2
KI355M	250	335	2	405.0	2980	96.5	0.9	1.6	8.9	2
KI355L	275	370	2	445.0	2980	96.5	0.9	1.6	8.9	2
KI355L	315	420	2	510.0	2980	96.5	0.9	1.6	8.9	2



## Super Premium Efficiency TEFC SC Motors - IE4

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%. Combined variation 10%, Insulation class F with temperature rise limited to class B, Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615, IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE4- 4 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE4 % Eff (FL)	Power Factor	Locked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 80	0.55	0.75	4	1.3	1405	83.9	0.73	1.7	7	2
KI 80	0.75	1	4	1.7	1410	85.7	0.73	1.7	7	2
KI 90S	1.1	1.5	4	2.4	1410	87.2	0.75	2	7	2.2
KI 90L	1.5	2	4	3.2	1410	88.2	0.75	2.1	7	2.2
KI 100L	2.2	3	4	4.6	1420	89.5	0.75	2.1	8.3	2.2
KI 112M	3.7	5	4	7.4	1440	90.9	0.77	2.1	8.3	2.2
KI 132S	5.5	7.5	4	10.5	1450	91.9	0.8	2.1	8.3	2.2
KI 132M	7.5	10	4	14.2	1455	92.6	0.8	2.1	8.3	2.2
KI 160M	9.3	12.5	4	17.0	1470	93.0	0.84	2.1	8.3	2.2
KI 160M	11	15	4	19.6	1470	93.3	0.84	2.1	8.3	2.2
KI 160L	15	20	4	26.7	1470	93.9	0.84	2.1	8.3	2.2
KI 180M	18.5	25	4	32.4	1475	94.2	0.85	2.1	8.3	2.2
KI 180L	22	30	4	38.5	1475	94.5	0.85	2.1	8.3	2.2
KI 200L	30	40	4	51.5	1480	94.9	0.86	2.1	8.3	2.2
KI 225S	37	50	4	63.5	1480	95.2	0.86	2	8.3	2.2
KI 225M	45	60	4	77.0	1480	95.4	0.86	2	8.3	2.2
KI 250M	55	75	4	93.5	1480	95.7	0.86	2	8.3	2.2
KI 280S	75	100	4	124.0	1485	96.0	0.88	2	8.9	2.2
KI 280M	90	120	4	148.0	1485	96.1	0.88	2	8.9	2.2
KI 315S	110	150	4	179.0	1490	96.3	0.89	2	8.9	2.2
KI 315M	125	170	4	204.0	1490	96.4	0.89	2	8.9	2.2
KI 315M	132	180	4	215.0	1485	96.4	0.89	2	8.9	2.2
KI 315L	150	200	4	244.0	1485	96.5	0.89	2	8.9	2.2
KI 315L	160	215	4	260.0	1485	96.6	0.89	2	8.9	2.2
KI 315L	180	240	4	295.0	1485	96.6	0.89	2	8.9	2.2
KI 315L	200	270	4	325.0	1485	96.7	0.89	2	8.9	2.2
KI 355M	225	300	4	365.0	1485	96.7	0.89	2	8.9	2.2
KI 355M	250	335	4	406.0	1485	96.7	0.89	2	8.9	2.2
KI 355L	275	370	4	447.0	1485	96.7	0.89	2	8.9	2.2
KI 355L	315	420	4	511.0	1485	96.7	0.89	2	8.9	2.2

## Super Premium Efficiency TEFC SC Motors - IE4

3 Phase Squirrel Cage Induction motors suitable for 415 V  $\pm$  10%, 50Hz  $\pm$  5%, Combined variation 10%, Insulation class F with temperature rise limited to class B, Degree of protection IP-55, altitude upto 1000 mtrs. above m.s.l., Duty S1, Efficiency class confirms to IS 12615, IS / IEC 60034-1. Efficiency testing according to IEC:60034-2-1

IE4- 6 Pole										
Frame	kW	HP	Pole	Rated Current	Speed	IE4 % Eff (FL)	Power Factor	Loacked Rotor Torque / Rated Torque (Tst / Tn)	Locked Rotor Current (Ist / In)	Maximum Torque / Rated Torque (Tmax / Tn)
				Amps	RPM					
KI 90L	0.75	1	6	1.9	930	82.7	0.7	1.8	7.3	1.8
KI 90L	1.1	1.5	6	2.7	930	84.5	0.7	1.8	7.3	1.8
KI 100L	1.5	2	6	3.5	950	85.9	0.72	1.8	7.3	1.9
KI 112M	2.2	3	6	5.0	950	87.4	0.72	1.8	8.3	1.9
KI 132M	3.7	5	6	8.0	970	89.3	0.74	1.8	8.3	1.9
KI 132M	5.5	7.5	6	11.5	970	90.5	0.74	1.8	8.3	1.9
KI 160M	7.5	10	6	15.0	970	91.3	0.79	1.8	8.3	1.9
KI 160L	11	15	6	21.0	982	92.3	0.8	1.8	8.3	2
KI 180L	15	20	6	28.0	980	92.9	0.8	1.8	8.3	2
KI 200L	18.5	25	6	35.0	980	93.4	0.8	1.8	8.3	2
KI 200L	22	30	6	41.0	980	93.7	0.81	1.8	8.3	2
KI 225M	30	40	6	54.5	985	94.2	0.82	1.8	8.3	2
KI 250M	37	50	6	66.0	985	94.5	0.83	1.8	8.3	2
KI 280S	45	60	6	78.0	985	94.8	0.85	1.8	8.3	2
KI 280M	55	75	6	95.0	985	95.1	0.85	1.8	8.3	2
KI 315S	75	100	6	129.0	985	95.4	0.85	1.8	8.9	2
KI 315M	90	120	6	155.0	985	95.6	0.85	1.8	8.9	2
KI 315L	110	150	6	190.0	985	95.8	0.85	1.8	8.9	2
KI 315L	125	170	6	215.0	990	95.9	0.85	1.8	8.9	2
KI 315L	132	180	6	227.0	990	96.0	0.85	1.8	8.9	2
KI 355M	150	200	6	260.0	990	96.1	0.85	1.8	8.9	2
KI 355M	160	215	6	275.0	990	96.2	0.85	1.8	8.9	2
KI 355M	180	240	6	310.0	990	96.3	0.85	1.8	8.9	2
KI 355M	200	270	6	342.0	990	96.6	0.85	1.8	8.9	2
KI 355L	225	300	6	385.0	990	96.6	0.85	1.8	8.9	2
KI 355L	250	335	6	426.0	990	96.6	0.85	1.8	8.9	2
KI 355L	275	370	6	470.0	990	96.6	0.85	1.8	8.9	2

Note :- Due to policy of continual development and improvement the right is reserved to supply products which may differ slightly from those in this publication. All performance figures are subject to IS/IEC 60034-1 tolerances.

## Packing Details:

Frame size	Dimensions In mm	Gross weight in Kg.
	L x W x H	
KI80	355 x 233 x 305	20
KI90S	412 x 247 x 335	25
KI90L	412 x 247 x 335	30
KI100L	452 x 272 x 360	40
KI100L	487 x 272 x 360	41
KI112M	472 x 312 x 391	52
KI132S	586 x 345 x 450	78
KI132M	586 x 345 x 450	92
KI160M	810 x 485 x 550	170
KI160L	810 x 485 x 550	195

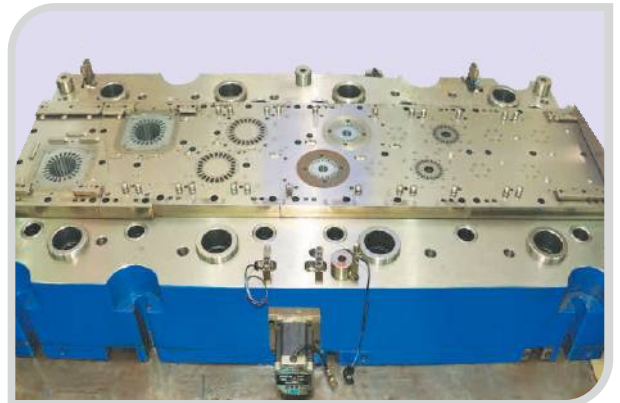
Frame size	Dimensions In mm	Gross weight in Kg.
	L x W x H	
KI180M	860 x 505 x 615	230
KI180L	860 x 505 x 615	250
KI200L	970 x 645 x 672	340
KI225S	1030 x 685 x 722	370
KI225M	1030 x 685 x 722	415
KI250M	1110 x 700 x 800	500
KI280S	1160 x 760 x 850	650
KI280M	1215 x 760 x 850	750
KI315	1620 x 1170 x 1030	1285
KI355	1870 x 1345 x 1180	1400

Note--Gross weight of highest kW is considered in each frame, For correct weight refer TDS

## Manufacturing Facility :



In house Stamping Manufacturing facility



In-house tooling facility

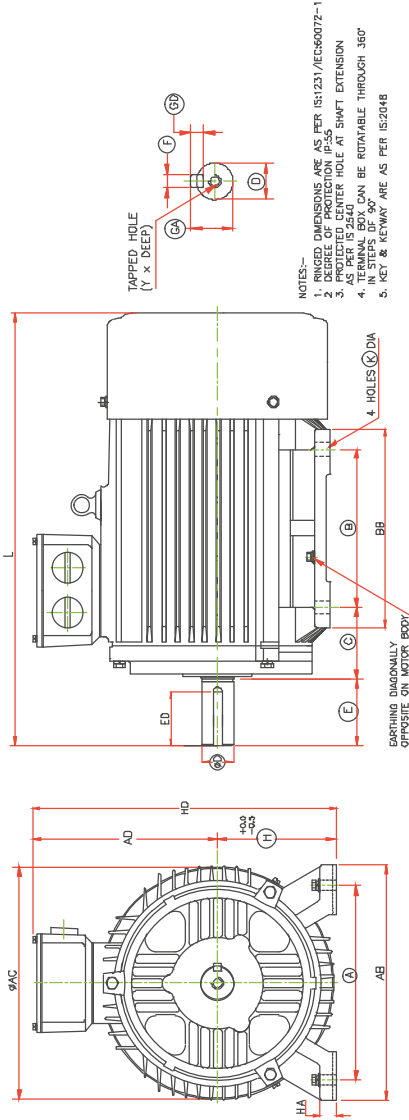


Semi Automatic Winding Line for Stator Production



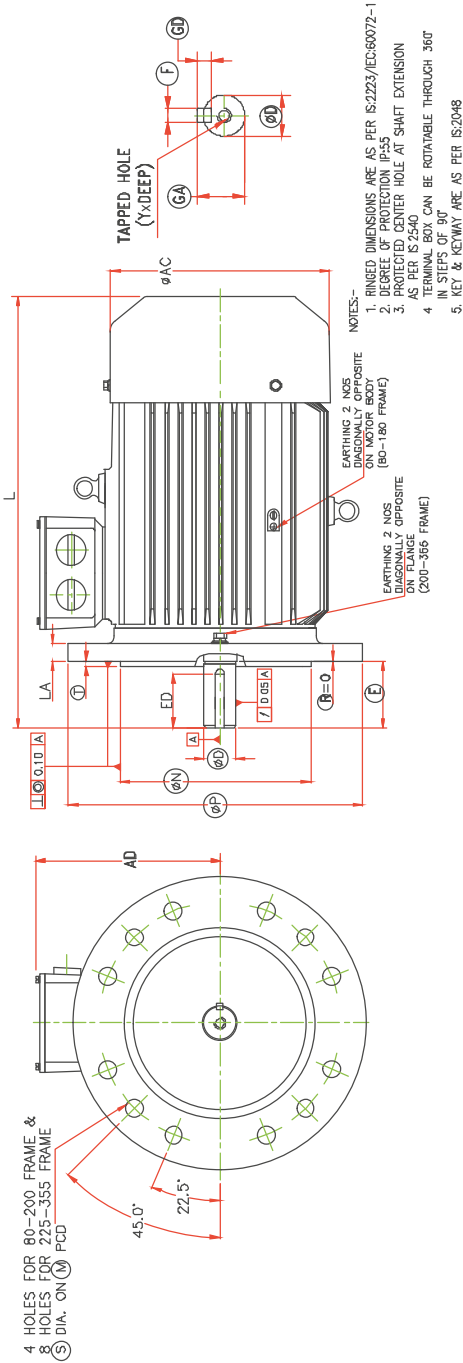
Dynamic Balancing Machine for Rotors Ensures Low Noise & Vibration

# GA Drawing / Dimensions for Foot (B3) mounting for IE2, IE3 :



Frame Size	Poles	FOOT MOUNTING (B3)										SHAFT EXTENSION										OVERALL		
		A	B	C	H	AB	BB	HA	KA	D	E	ED	FN9	GD	GA	YxDEEP	AD	HD	ØAC	L				
KI-80		125	100	50	80	160	130	10	10	19	40	28	6	6	21.5	M6X16	145	225	170	290				
KI-90S		140	100	56	90	175	140	10	10	24	50	35	8	7	27	MBX19	160	250	190	325				
KI-90L			125				165													355				
KI-100L		160	140	63	100	200	176	12	12	28	60	42	8	7	31	M10X22	175	275	210	375				
KI-112M		190	140	70	112	225	180	15	12	28	60	42	8	7	31	M10X22	190	302	235	400				
KI-132S	2,4,6	216	140	89	132	265	190	18	12	38	80	55	10	8	41	M12X28	203	335	270	470				
KI-132M			178				225													505				
KI-160M		254	210	108	160	315	260	20	15	42	110	80	12	8	45	M16X36	260	420	330	610				
KI-160L			254				305													660				
KI-180M		279	241	121	180	350	310	22	15	48	110	80	14	9	51.5	M16X36	275	455	370	665				
KI-180L			279				350													690				
KI-200L		318	305	133	200	395	370	25	19	55	110	90	16	10	59	M20X42	305	505	397	852				
KI-225S	4	356	286	149	225	435	365	25	19	60	140	110	18	11	64	M20X42	335	560	445	874				
KI-225M	2	356	311	149	225	435	385	25	19	55	110	90	16	10	59	M20X42	335	560	445	890				
	4,6									60	140	110	18	11	64					915				
KI-250M	2	406	349	168	250	490	440	30	24	60	140	110	18	11	64	M20X42	370	615	485	985				
	4,6									65	140	125	18	11	69					1045				
KI-280S	2	457	368	190	280	550	480	35	24	65	140	125	18	11	69	M20X42	410	680	547	1045				
	4,6									75	140	110	20	12	79.5					1095				
KI-280M	2	457	419	190	280	550	530	35	24	65	140	125	18	11	69	M20X42	410	680	547	1095				
	4,6									75	140	110	20	12	79.5					1185				
KI-315S	2	508	406	216	315	635	570	45	28	80	170	140	22	14	85	M20X42	530	845	620	1185				
	4,6									80	170	140	22	14	85					1220				
KI-315M	2	508	457	216	315	635	680	45	28	80	170	140	22	14	85	M20X42	530	845	620	1290				
	4,6									80	170	140	22	14	85					1325				
KI-315L	2	508	508	216	315	635	680	45	28	80	170	140	22	14	85	M20X42	530	845	620	1290				
	4,6									80	170	140	22	14	85					1325				
KI-355M	2	610	560	254	355	730	750	50	28	75	140	125	20	12	79.5	M20X42	655	1010	698	1500				
	4,6									95	170	160	25	14	100					1530				
KI-355L	2	610	560	254	355	730	750	50	28	75	140	125	20	12	79.5	M20X42	655	1010	698	1500				
	4,6									95	170	160	25	14	100					1530				

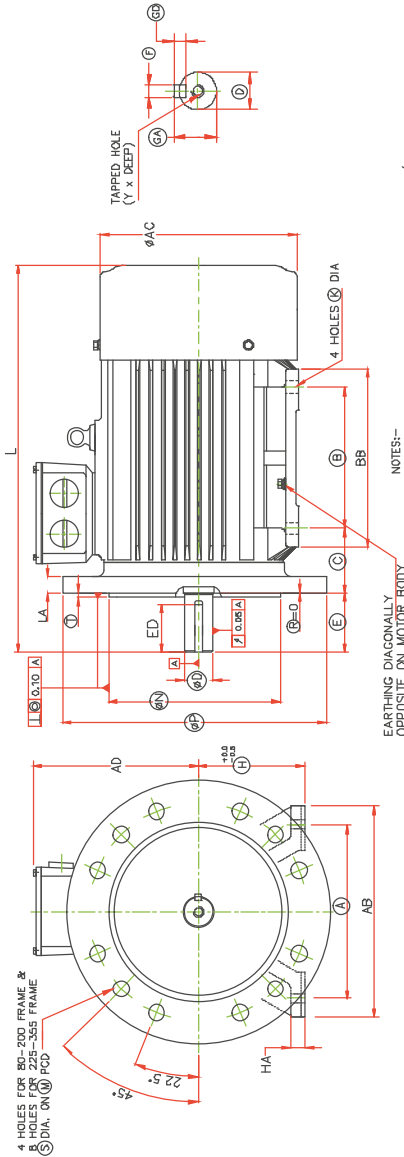
# GA Drawing / Dimensions for Flange (B5) mounting for IE2, IE3 :



Frame Size	Poles	'B' FLANGE MOUNTING (B5)										SHAFT EXTENSION						OVERALL		
		ØP	ØN	ØS	ØM	LA	T	D	E	ED	FN9	GD	GA	YxDEEP	AD	ØAC	L			
KI-80		200	130	12	165	12	3.5	19	40	28	6	21.5	M6X16	145	170	290				
KI-90S		200	130	12	165	14	3.5	24	50	35	7	27	M8X19	160	190	325				
KI-90L		250	180	15	215	14	4	28	60	42	7	31	M10X22	175	210	355				
KI-100L		250	180	15	215	14	4	28	60	42	7	31	M10X22	190	235	400				
KI-112M		300	230	15	265	14	4	38	80	55	10	41	M12X28	203	270	470				
KI-132S	2,4,6	350	250	19	300	15	5	42	110	80	12	45	M16X36	260	330	505				
KI-132M		350	250	19	300	15	5	48	110	80	14	51.5	M16X36	275	370	610				
KI-160M		400	300	19	350	15	5	55	110	90	16	59	M20X42	305	397	660				
KI-180L		450	350	19	400	16	5	60	140	110	18	64	M20X42	335	445	852				
KI-200L	4	450	350	19	400	16	5	55	110	90	16	59	M20X42	335	445	874				
KI-225S	2	450	350	19	400	16	5	60	140	110	18	64	M20X42	335	445	890				
KI-225M	4,6	550	450	19	500	18	5	60	140	110	18	64	M20X42	335	445	915				
KI-250M	2	550	450	19	500	18	5	65	140	125	18	69	M20X42	370	485	985				
KI-250M	4,6	550	450	19	500	18	5	65	140	125	18	69	M20X42	370	485	985				
KI-280S	2	550	450	19	500	18	5	75	140	125	18	69	M20X42	410	547	1045				
KI-280M	4,6	550	450	19	500	18	5	75	140	125	18	69	M20X42	410	547	1045				
KI-315S	2	660	550	24	600	22	6	80	170	140	22	85	M20X42	530	620	1185				
KI-315M	4,6	660	550	24	600	22	6	80	170	140	22	85	M20X42	530	620	1220				
KI-315M/L	2	660	550	24	600	22	6	85	170	140	22	85	M20X42	530	620	1290				
KI-315M/L	4,6	660	550	24	600	22	6	85	170	140	22	85	M20X42	530	620	1325				
KI-355M	2	800	680	24	740	25	6	75	140	125	20	79.5	M20X42	655	698	1500				
KI-355M	4,6	800	680	24	740	25	6	95	170	160	25	100	M20X42	655	698	1530				
KI-355L	2	800	680	24	740	25	6	75	140	125	20	79.5	M20X42	655	698	1500				
KI-355L	4,6	800	680	24	740	25	6	95	170	160	25	100	M20X42	655	698	1530				



# GA Drawing / Dimensions for Foot cum Flange (B35) mounting for IE2, IE3 :

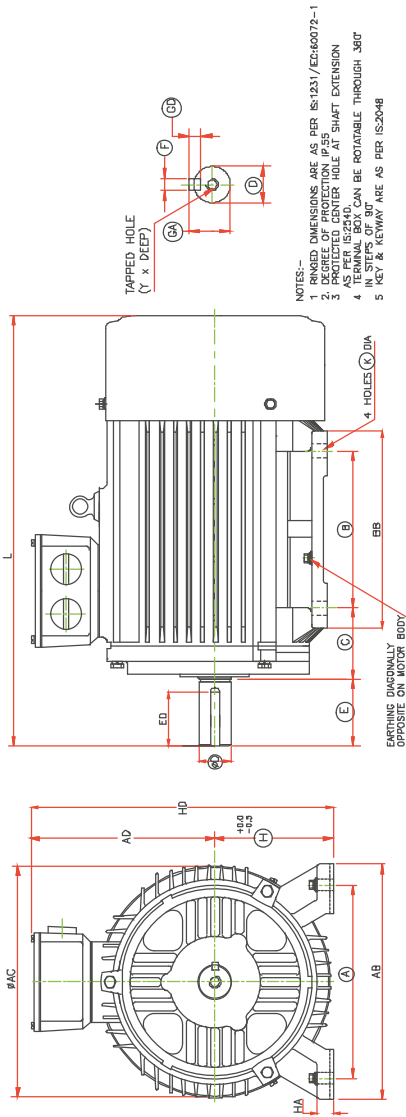


- NOTES:-  
 1. RINGED DIMENSIONS ARE AS PER IS:1231-2233/IEC-60072-1  
 2. DEGREE OF PROTECTION IP 55  
 3. PROTECTED CENTER HOLE AT SHAFT EXTENSION AS PER IS:2546  
 4. TERMINAL BOX CAN BE POSITIONED THROUGH 360° IN STEPS OF 90°  
 5. NET & RETRAY ARE AS PER IS:2048

EASTINGS DIAGONALLY OPPOSITE ON MOTOR BODY

Frame Size	Poles	FOOT MOUNTING (B3)										'B' FLANGE MOUNTING (B5)										SHAFT EXTENSION					OVERALL	
		A	B	C	H	AB	BB	HA	K	ØP	ØN	ØS	ØM	LA	T	D	E	ED	FN9	GD	GA	YxDEEP	AD	ØAC	L			
KI-80	2	125	100	50	80	160	130	10	10	200	130	12	165	12	3.5	19	40	28	6	6	21.5	M6X16	145	170	290			
KI-90S	2	140	100	56	90	175	140	10	10	200	130	12	165	14	3.5	24	50	35	8	7	27	M8X19	160	190	325			
KI-90L	2	125	100	56	90	165	140	10	10	200	130	12	165	14	3.5	24	50	35	8	7	27	M8X19	160	190	355			
KI-100L	2	160	140	63	100	200	176	12	12	250	180	15	215	14	4	28	60	42	8	7	31	M10X22	175	210	375			
KI-112M	2	190	140	70	112	225	180	15	12	250	180	15	215	14	4	28	60	42	8	7	31	M10X22	190	235	400			
KI-132S	2,4,6	216	140	89	132	265	190	18	12	300	230	15	265	14	4	38	80	55	10	8	41	M12X28	203	270	470			
KI-132M	2,4,6	178	140	89	132	225	190	18	12	300	230	15	265	14	4	38	80	55	10	8	41	M12X28	203	270	505			
KI-160M	2	254	210	108	160	315	260	20	15	350	250	19	300	15	5	42	110	80	12	8	45	M16X36	260	330	610			
KI-160L	2	254	210	108	160	315	305	20	15	350	250	19	300	15	5	42	110	80	12	8	45	M16X36	260	330	660			
KI-180M	2	279	241	121	180	350	310	22	15	350	250	19	300	15	5	48	110	80	14	9	51.5	M16X36	275	370	665			
KI-180L	2	279	241	121	180	350	350	22	15	350	250	19	300	15	5	48	110	80	14	9	51.5	M16X36	275	370	690			
KI-200L	2	318	305	133	200	395	370	25	19	400	300	19	350	15	5	55	110	90	16	10	59	M20X42	305	397	862			
KI-225S	4	356	286	149	225	435	365	25	19	450	350	19	400	16	5	60	140	110	18	11	64	M20X42	335	445	874			
KI-225M	2	356	311	149	225	435	385	25	19	450	350	19	400	16	5	60	140	110	18	11	64	M20X42	335	445	890			
KI-225M	4,6	356	311	149	225	435	385	25	19	450	350	19	400	16	5	60	140	110	18	11	64	M20X42	335	445	915			
KI-250M	2	406	349	168	250	490	440	30	24	550	450	19	500	18	5	65	140	125	18	11	69	M20X42	370	485	985			
KI-250M	4,6	406	349	168	250	490	440	30	24	550	450	19	500	18	5	65	140	125	18	11	69	M20X42	370	485	1045			
KI-280S	2	457	368	190	280	550	480	35	24	550	450	19	500	18	5	75	140	125	18	11	69	M20X42	410	547	1045			
KI-280S	4,6	457	368	190	280	550	480	35	24	550	450	19	500	18	5	75	140	125	18	11	69	M20X42	410	547	1095			
KI-280M	2	457	419	190	280	550	530	35	24	550	450	19	500	18	5	75	140	125	18	11	69	M20X42	410	547	1095			
KI-280M	4,6	457	419	190	280	550	530	35	24	550	450	19	500	18	5	75	140	125	18	11	69	M20X42	410	547	1095			
KI-315S	2	508	406	216	315	635	570	45	28	660	550	24	600	22	6	80	170	140	22	14	85	M20X42	530	620	1185			
KI-315S	4,6	508	406	216	315	635	570	45	28	660	550	24	600	22	6	80	170	140	22	14	85	M20X42	530	620	1220			
KI-315M	2	508	457	216	315	635	680	45	28	660	550	24	600	22	6	80	170	140	22	14	85	M20X42	530	620	1290			
KI-315M	4,6	508	457	216	315	635	680	45	28	660	550	24	600	22	6	80	170	140	22	14	85	M20X42	530	620	1325			
KI-315L	2	508	508	216	315	635	680	45	28	660	550	24	600	22	6	80	170	140	22	14	85	M20X42	530	620	1500			
KI-315L	4,6	508	508	216	315	635	680	45	28	660	550	24	600	22	6	80	170	140	22	14	85	M20X42	530	620	1530			
KI-355M	2	610	560	254	355	730	750	50	28	800	680	24	740	25	6	95	170	160	25	14	100	M20X42	655	698	1500			
KI-355M	4,6	610	560	254	355	730	750	50	28	800	680	24	740	25	6	95	170	160	25	14	100	M20X42	655	698	1530			
KI-355L	2	610	560	254	355	730	750	50	28	800	680	24	740	25	6	95	170	160	25	14	100	M20X42	655	698	1500			
KI-355L	4,6	610	560	254	355	730	750	50	28	800	680	24	740	25	6	95	170	160	25	14	100	M20X42	655	698	1530			

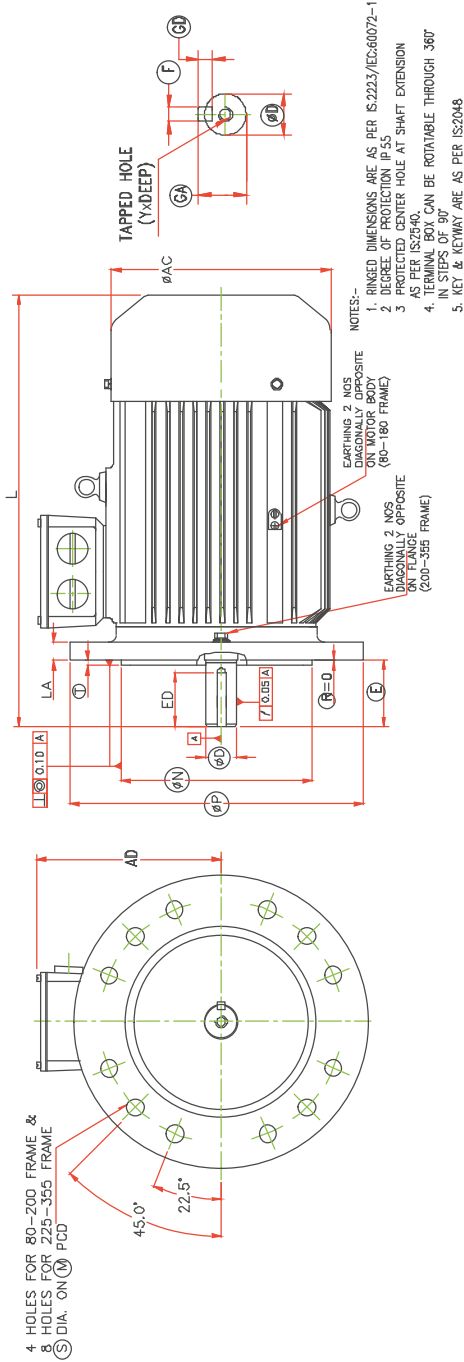
# GA Drawing / Dimensions for Foot (B3) mounting for IE4 :



- NOTES:-  
 1 DIMENSIONS ARE AS PER IS:131/EC:60072-1  
 2 RINGS OF PROTECTOR P.S.F.  
 3 PROTECTED CENTER HOLE AT SHAFT EXTENSION  
 4 VENTILATION IS 240.  
 5 KEYS CAN BE ROTATABLE THROUGH 360°  
 IN STEPS OF 90°  
 6 KEY & KEWAY ARE AS PER IS:2048

Frame Size	Poles	FOOT MOUNTING (B3)										SHAFT EXTENSION										OVERALL		
		A	B	C	H	AB	BB	HA	K	D	E	ED	F N9	GD	GA	YxDEEP	AD	HD	ØAC	L				
KI-80	2,4,6	125	100	50	80	160	140	10	10	19	40	28	6	6	21.5	M6X16	140	220	165	315				
		140	100	56	90	176	165	10	10	24	50	35	8	7	27	M8X19	160	255	175	375				
		160	140	63	100	200	210	12	12	28	60	42	8	7	31	M10X22	170	270	210	415				
KI-112M	2,4,6	190	140	70	112	225	210	15	12	28	60	42	8	7	31	M10X22	193	300	240	435				
		216	140	89	132	265	225	18	12	38	80	55	10	8	41	M12X28	205	337	260	490				
		178	210	108	160	315	260	20	15	42	110	80	12	8	45	M16X36	260	420	330	610				
KI-160M	2,4,6	254	254	121	180	355	305	22	15	48	110	80	14	9	51.5	M16X36	280	455	355	740				
		279	279	133	200	395	370	25	19	55	110	90	16	10	59	M20X42	305	505	397	852				
		318	305	149	225	435	365	25	19	60	140	110	18	11	64	M20X42	335	560	445	874				
KI-200L	4	356	286	149	225	435	385	25	19	55	110	90	16	10	59	M20X42	335	560	445	890				
		356	311	149	225	435	385	25	19	60	140	110	18	11	64	M20X42	335	560	445	915				
		406	349	168	250	490	440	30	24	60	140	110	18	11	64	M20X42	370	615	485	985				
KI-250M	2,4,6	457	368	190	280	550	480	35	24	65	140	125	18	11	69	M20X42	410	680	547	1045				
		457	419	190	280	550	530	35	24	65	140	110	20	12	79.5	M20X42	410	680	547	1095				
		508	406	216	315	635	570	45	28	65	140	125	18	11	69	M20X42	530	845	620	1185				
KI-280M	2,4,6	508	457	216	315	635	680	45	28	80	170	140	22	14	85	M20X42	530	845	620	1220				
		508	508	216	315	635	680	45	28	80	170	140	22	14	85	M20X42	530	845	620	1290				
		610	560	254	355	730	750	50	28	75	140	125	20	12	79.5	M20X42	655	1010	698	1500				
KI-315L	2,4,6	610	560	254	355	730	750	50	28	95	170	160	25	14	100	M20X42	655	1010	698	1530				
		610	560	254	355	730	750	50	28	75	140	125	20	12	79.5	M20X42	655	1010	698	1500				
		610	560	254	355	730	750	50	28	95	170	160	25	14	100	M20X42	655	1010	698	1530				





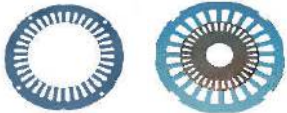




# GA Drawing / Dimensions for Flange (B5) mounting for IE4 :



Frame Size	Poles	'B' FLANGE MOUNTING (B5)						SHAFT EXTENSION										OVERALL		
		ØP	ØN	ØS	ØM	LA	T	D	E	ED	FN9	GD	GA	YxDEEP	AD	ØAC	L			
KI-80	2	200	130	12	165	12	3.5	19	40	28	6	6	21.5	M6X16	140	165	315			
KI-90S	2	200	130	12	165	14	3.5	24	50	35	8	7	27	M8X19	160	175	375			
KI-100L	2,4,6	250	180	15	215	14	4	28	60	42	8	7	31	M10X22	170	210	415			
KI-112M	2,4,6	250	180	15	215	14	4	28	60	42	8	7	31	M10X22	193	240	435			
KI-132S	2,4,6	300	230	15	265	14	4	38	80	55	10	8	41	M12X28	205	260	490			
KI-132M	2,4,6	350	250	19	300	15	5	42	110	80	12	8	45	M16X36	260	330	610			
KI-160M	2,4,6	350	250	19	300	15	5	48	110	80	14	9	51.5	M16X36	280	355	740			
KI-180M	2,4,6	400	300	19	350	15	5	55	110	90	16	10	59	M20X42	305	397	852			
KI-200L	2,4,6	450	350	19	400	16	5	60	140	110	18	11	64	M20X42	335	445	874			
KI-225S	2,4,6	450	350	19	400	16	5	55	110	90	16	10	59	M20X42	335	445	890			
KI-225M	2,4,6	450	350	19	400	16	5	60	140	110	18	11	64	M20X42	335	445	915			
KI-250M	2,4,6	550	450	19	500	18	5	60	140	110	18	11	64	M20X42	370	485	985			
KI-280S	2,4,6	550	450	19	500	18	5	65	125	125	18	11	69	M20X42	410	547	1045			
KI-280M	2,4,6	550	450	19	500	18	5	75	140	110	20	12	79.5	M20X42	410	547	1095			
KI-315S	2,4,6	660	550	24	600	22	6	65	140	125	18	11	69	M20X42	530	620	1185			
KI-315M/L	2,4,6	660	550	24	600	22	6	80	170	140	22	14	85	M20X42	530	620	1220			
KI-355M	2,4,6	800	680	24	740	25	6	65	140	125	18	11	69	M20X42	655	698	1290			
KI-355L	2,4,6	800	680	24	740	25	6	95	170	160	25	14	100	M20X42	655	698	1325			
	2,4,6	800	680	24	740	25	6	75	140	125	20	12	79.5	M20X42	655	698	1500			
	2,4,6	800	680	24	740	25	6	95	170	160	25	14	100	M20X42	655	698	1530			
	2,4,6	800	680	24	740	25	6	75	140	125	20	12	79.5	M20X42	655	698	1500			
	2,4,6	800	680	24	740	25	6	95	170	160	25	14	100	M20X42	655	698	1530			



## Products we offer

Sr. no	Products	Range/Applications	Pictures
1	Standard Motors	0.55kW to 315 kW, 2P, 4P, 6P Efficiency class IE2,IE3,IE4	
2	Special Motors	Frame 80 to 355 frame, as per customer specifications, such as Elevator/Escalator/Door motor etc	
3	Submersible Motors	Water filled & Oil filled, 0.37 kW to 18.5kW, with Available in 1Phase & 3Phase, Size 3" to 6"	
4	Mini Pumps	0.75kW, 1phase	
5	Electrical Stampings	Dia range 12mm to 500 mm, Thickness range 0.35 mm to 1.2mm	
6	Core Packs	OD 15mm to 260 mm Length 30 mm to 470 mm	
7	Wound Stators	2,4,6,8 Pole in 1Phase & 3Phase	
8	Rotors	Alluminium die cast & Copper Brazed Rotors OD 15 mm to 260mm, Core length 30 mm to 470mm	
9	Rotors with Shafts	Finished rotor with Shaft Die cast & Brazed Rotors OD 15 mm to 260mm, Core length 30 mm to 470mm	



# Manufacturing Plant

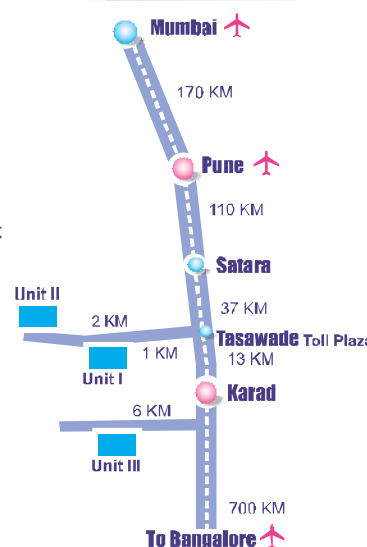
**Karad Projects and Motors Limited** is a wholly own subsidiary company of **Kirloskar Brothers Limited** and motor manufacturing company with more than 45+ years of experience in manufacturing of Electrical Stampings, Wound Stators, Die cast and Brazed Rotors and AC rotating machines. KPML manufactures energy efficient motors for various applications.

The company having best in class manufacturing facilities such as slitting line, High speed blanking lines of reputed make like Yamada Dobby, Minster, THT Vertical and Horizontal Die Casting machines, Statomat make semi-automatic winding line, customized motor performance test equipment of MEA make etc.

The company produces more than 2 million Stator Rotor per annum for applications such as Electric motors, Mono block pumps, Submersible Pumps, Sewage Pumps, Alternators, Elevator motors, Hermatic Compressors, Auto Electrical and Healthcare Equipment etc.

- | Motor Division (Erstwhile Hematic Motors Pvt Ltd incorporated in 1973)
- | Stamping Division (Erstwhile Pressmatic Electro Stampings Pvt Ltd incorporated in 1981)
- | Component Division (Erstwhile Quadromatic Engineering Pvt Ltd incorporated in 1982)

## Location Map



## Motor Division

## Stamping Division



**Works Address** : Karad Projects And Motors Limited,  
(A Wholly Owned Subsidiary Company of Kirloskar Brothers Limited)  
B 67/68 MIDC Karad Industrial Area, Taswade, Karad - 415 109, Maharashtra, INDIA  
**Tel** - 02164 258424 /26/28 **Fax** - 02164 258425 **Website** - [www.kpml.co.in](http://www.kpml.co.in)

**Registered Office & Global Headquarters** : Kirloskar Brothers Ltd.

"YAMUNA", Survey No. 98 /(3-7) , Baner, Pune -411045 , Tel : +91 20 2721 4444

**Customer Care Toll Free No. - 1800 10 34443**

**Website : [www.kirloskarpumps.com](http://www.kirloskarpumps.com)**