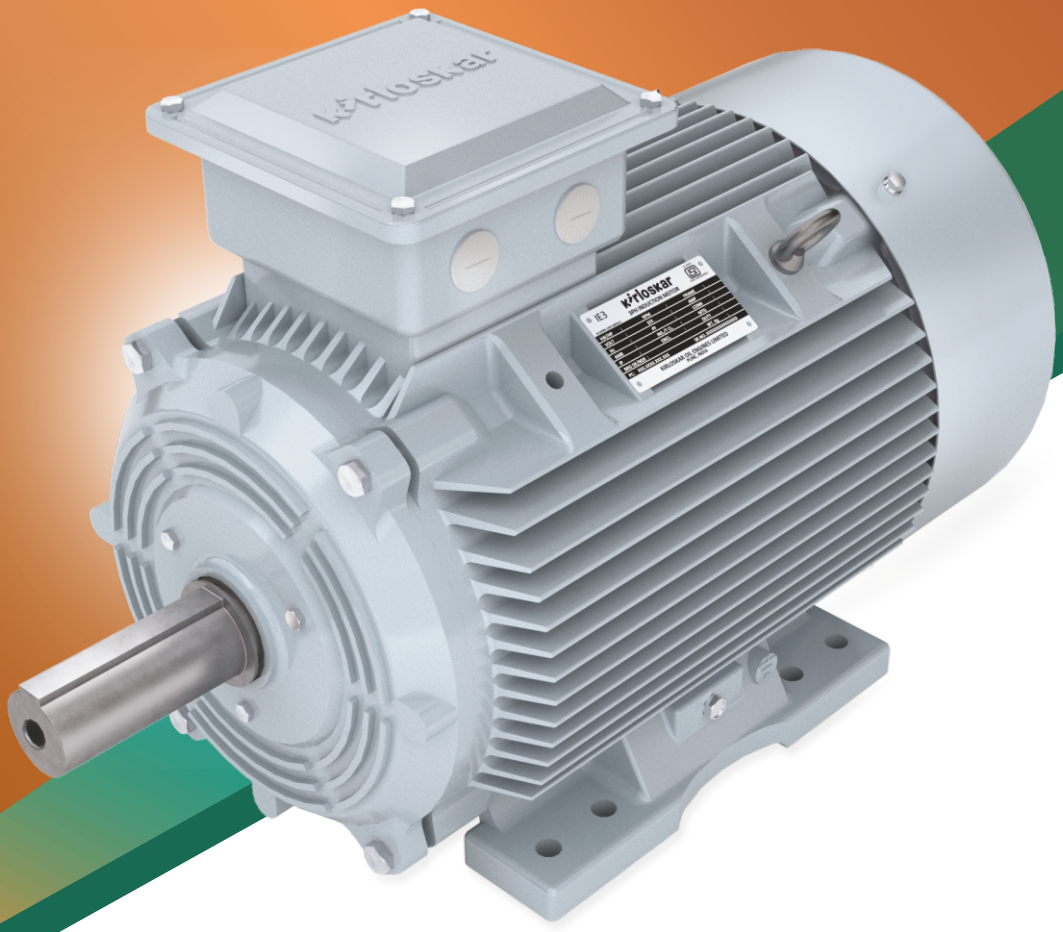
PRODUCT CATALOG

LOW VOLTAGE : COMPRESSOR DUTY
3 PHASE INDUCTION MOTOR



kirloskar motors

Performance Beyond Expectations

KIRLOSKAR OIL ENGINES LIMITED
A Kirloskar Group Company

kirloskar motors

Range & Standard Features:

Parameters	Details
Duty	Continuous (S1)
Installation	Indoor
Area of classification	Safe area
Motor enclosure	TEFC (Totally enclosed fan cooled)
Ambient temperature	50°C
Operating temperature	0 – 55°C
Humidity	Up to 95%
Motor type	3 Ø Squirrel cage Induction motor
Efficiency class	IE2 & IE3 as per IS 12615 : 2018 at rated output power
Output Power	5.5 to 45 kW
Pole	2 & 4
Frame size	KM132S to KM225M
Voltage	415V ±10%
Frequency	50Hz ±5%
Combined variation	10% (Absolute)
Service factor	1.2
Starting method	Direct on line
Winding connection	Delta
No of terminals	6
Insulation class	F
Temperature rise	95 °C at Service factor 1.2
Mounting	B03 (Horizontal foot mounting)
Terminal box position	TOP
Bearings	Deep groove anti-friction ball bearings
Degree of protection	IP 55
Type of coupling	Direct-Flexible
Paint shade	RAL 7046
Applicable standards	IS 12615: 2018, IS 1231, IS 2223, IS 15999

Cable Sizes & Cable Entry:

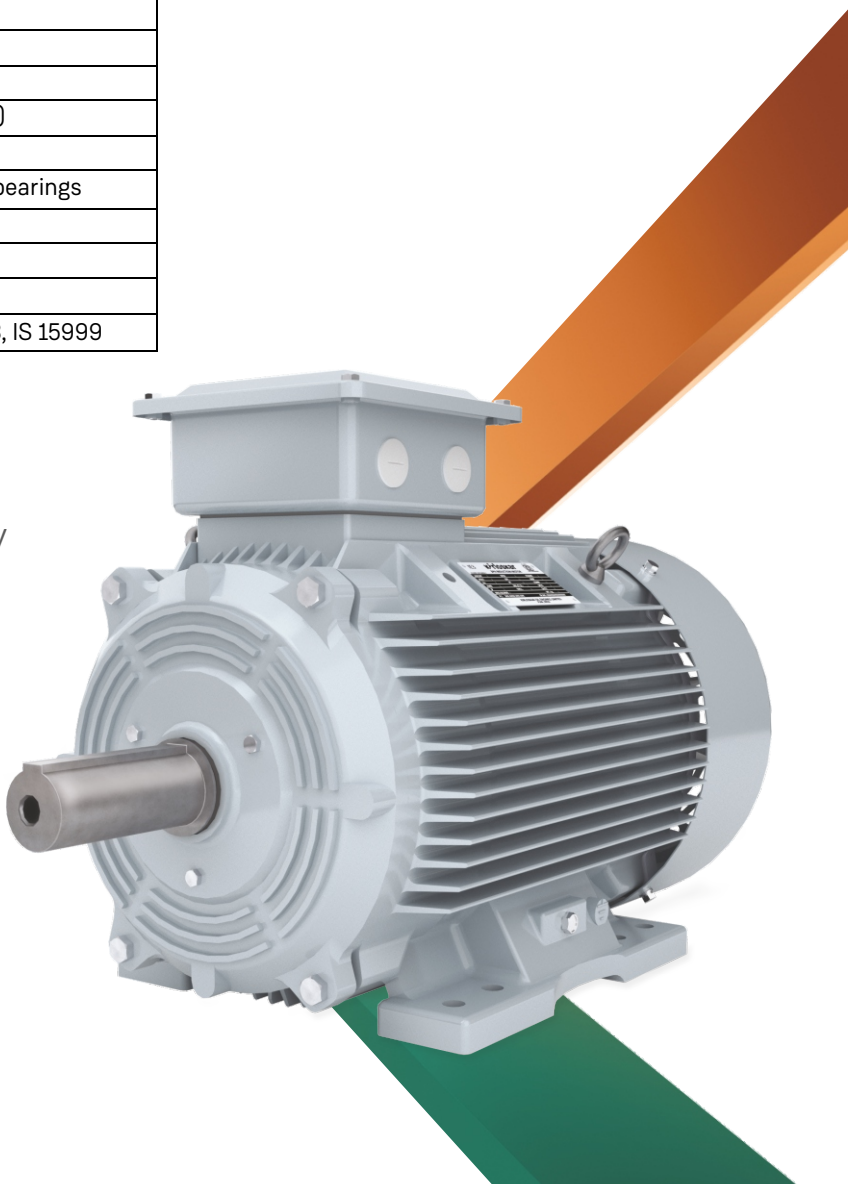
Sr. No.	Frame	Max. cable size	Cable entry
1	KM132	2X3CX10 mm²	M25 X 1.5 - 2 Nos.
2	KM160	2X3CX25 mm²	M25 X 1.5 - 2 Nos.
3	KM180	2X3CX35 mm²	M25 X 1.5 - 2 Nos.
4	KM200	2X3CX50 mm²	M40 X 1.5 - 2 Nos.
5	KM225	2X3CX95 mm²	M40 X 1.5 - 2 Nos.

Bearing references:

Sr. No.	Frame	DE Bearing	NDE Bearing
1	KM132	6308 ZZ C3	6208 ZZ C3
2	KM160	6309 ZZ C3	6209 ZZ C3
3	KM180	6310 ZZ C3	6210 ZZ C3
4	KM200	6312 ZZ C3	6212 ZZ C3
5	KM225	6313 ZZ C3	6213 ZZ C3

Optional Features at extra cost:

- Flying leads
- Class H insulation (to improve thermal capacity of the motor)
- Special shaft extension & diameter
- Special mounting dimensions
- Extreme voltage & frequency variations
- Other mountings B05, B35
- Winding accessories like thermistors, Resistance temperature detector (RTD's)
- Roller bearing at DE for reciprocating compressor type with v-belt coupling.
- Service factor up to 1.3 can be offered (after detailed engineering)
- Inverter duty (please get in touch with KOEL)



kirloskar motors

Performance Beyond Expectations

Top-notch Power factor
Lower reactive power, reduced energy losses and lower bills

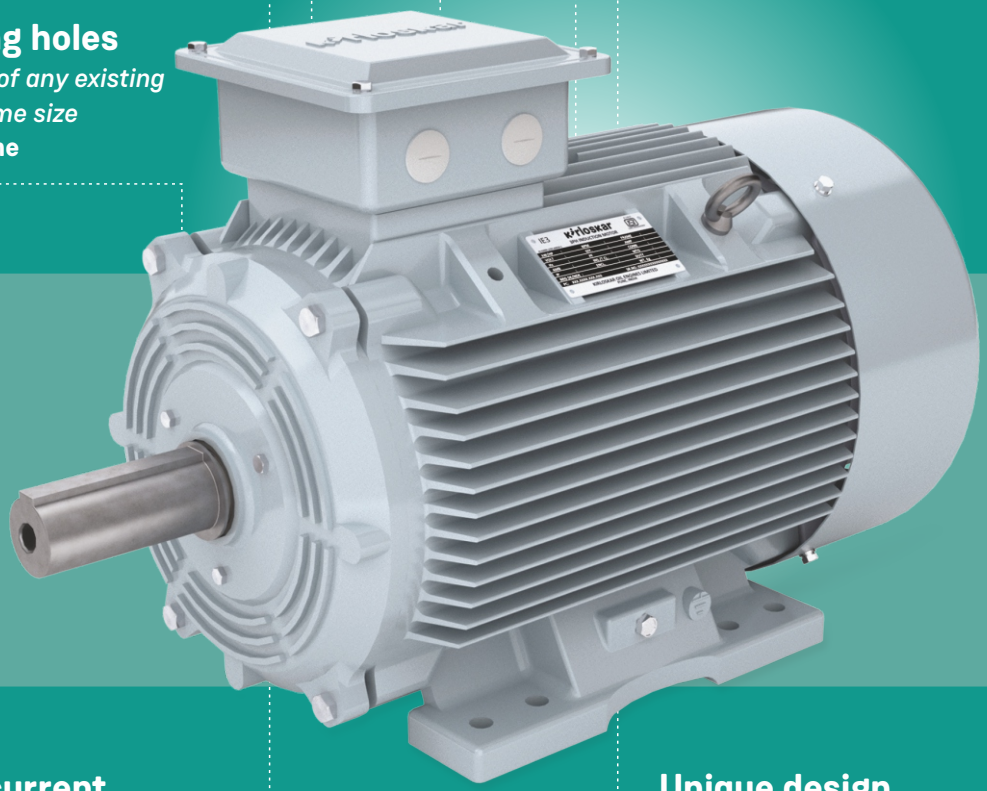
Saves money every month

Suitable for SF 1.20 at 50°C
Continuous operation at SF

Reliable, Saves cost

Dual mounting holes
Easy replacement of any existing motor of same frame size

Saves money & time



DE Locking in all frames
Prevents jerk in the driven equipment and loosening of bearing due to low axial play

Prolonged lifespan of Motors and Equipments

Lower Full load Current
Low energy consumption

Reduced carbon footprint

Low Starting current
Minimize voltage drops

Reduced burden on electrical supply system

Unique design
Easy interchangeability of TB from RHS to LHS and B3 to B35 mounting at site

Saves time & money

kirloskar motors

Performance Data - IE2 Efficiency : Compressor Duty

VOLTAGE	415 ± 10%	AMBIENT	50 °C	INSULATION CLASS	F
FREQUENCY	50 ± 5%	DUTY	S1	THERMAL CLASS	F
COMBINED VARIATION	10%	EFFICIENCY CLASS AS PER IEC60034-30-1:2014, IS12615:2018 AT RATED OUTPUT			
SERVICE FACTOR	1.2				

2 POLE																
Product code	Output	Frame Size	Rated Speed	FLC	FLC @ 1.2 SF	FLT	% Efficiency			Power Factor			Starting Current	Starting Torque	Pull Out Torque	GD²
	kW		RPM	A	A	kg-m	FL	3/4 FL	1/2 FL	FL	3/4 FL	1/2 FL	% FLC	% FLT	% FLT	kg-m²
KM2.5T50.AAC.TSP.B03	5.5	KM132S	2900	10.0	12.0	1.85	87.0	87.0	86.0	0.88	0.84	0.80	700	200	275	0.057
KM2.7T50.AAC.TSP.B03	7.5	KM132S	2900	13.5	16.2	2.52	88.1	88.1	87.0	0.88	0.84	0.80	700	225	275	0.068
KM2.9T30.AAC.TSP.B03	9.3	KM132S	2900	16.7	20.0	3.12	88.9	88.9	87.0	0.87	0.82	0.71	700	225	275	0.068
KM2.9T30.ABC.TSP.B03	9.3	KM160M	2920	16	19	3.10	88.9	88.9	89.0	0.90	0.87	0.81	700	200	275	0.14
KM2.11T0.ABC.TSP.B03	11	KM160M	2920	19	23	3.67	89.4	89.4	89.0	0.90	0.87	0.81	700	200	275	0.14
KM2.15T0.ABC.TSP.B03	15	KM160M	2920	26	31	5.00	90.3	90.3	89.0	0.90	0.87	0.81	700	200	275	0.17
KM2.18T5.ALC.TSP.B03	18.5	KM160L	2930	31	37	6.15	90.9	90.9	89.0	0.90	0.88	0.85	700	225	275	0.21
KM2.22T0.ACC.TSP.B03	22	KM180M	2935	37	44	7.30	91.3	91.3	90.0	0.90	0.88	0.85	700	200	275	0.37
KM2.30T0.ANC.TSP.B03	30	KM200L	2955	50	60	9.89	92.0	92.0	90.0	0.91	0.88	0.87	700	200	275	0.64
KM2.37T0.ANC.TSP.B03	37	KM200L	2955	61	73	12.20	92.5	92.5	90.0	0.91	0.88	0.87	700	225	275	0.86
KM2.45T0.AQC.TSP.B03	45	KM225M	2955	73	88	14.83	92.9	92.9	91.0	0.92	0.88	0.88	700	200	275	1.00

4 POLE																
Product code	Output	Frame Size	Rated Speed	FLC	FLC @ 1.2 SF	FLT	% Efficiency			Power Factor			Starting Current	Starting Torque	Pull Out Torque	GD²
	kW		RPM	A	A	kg-m	FL	3/4 FL	1/2 FL	FL	3/4 FL	1/2 FL	% FLC	% FLT	% FLT	kg-m²
KM2.5T50.BAC.TSP.B03	5.5	KM132S	1440	10.3	12.4	3.72	87.7	87.7	87.5	0.85	0.80	0.75	650	200	275	0.057
KM2.7T50.BKC.TSP.B03	7.5	KM132M	1445	13.7	16.4	5.06	88.7	88.7	87.5	0.86	0.82	0.75	650	200	275	0.068
KM2.9T30.BBC.TSP.B03	9.3	KM160M	1465	17	20	6.18	89.3	89.3	88.0	0.84	0.78	0.70	650	200	275	0.30
KM2.11T0.BBC.TSP.B03	11	KM160M	1465	20	24	7.31	89.8	89.8	88.0	0.84	0.80	0.72	650	200	275	0.33
KM2.15T0.BLC.TSP.B03	15	KM160L	1465	27	32	9.97	90.6	90.6	89.0	0.85	0.80	0.75	650	200	275	0.43

Performance Data - IE3 Efficiency : Compressor Duty

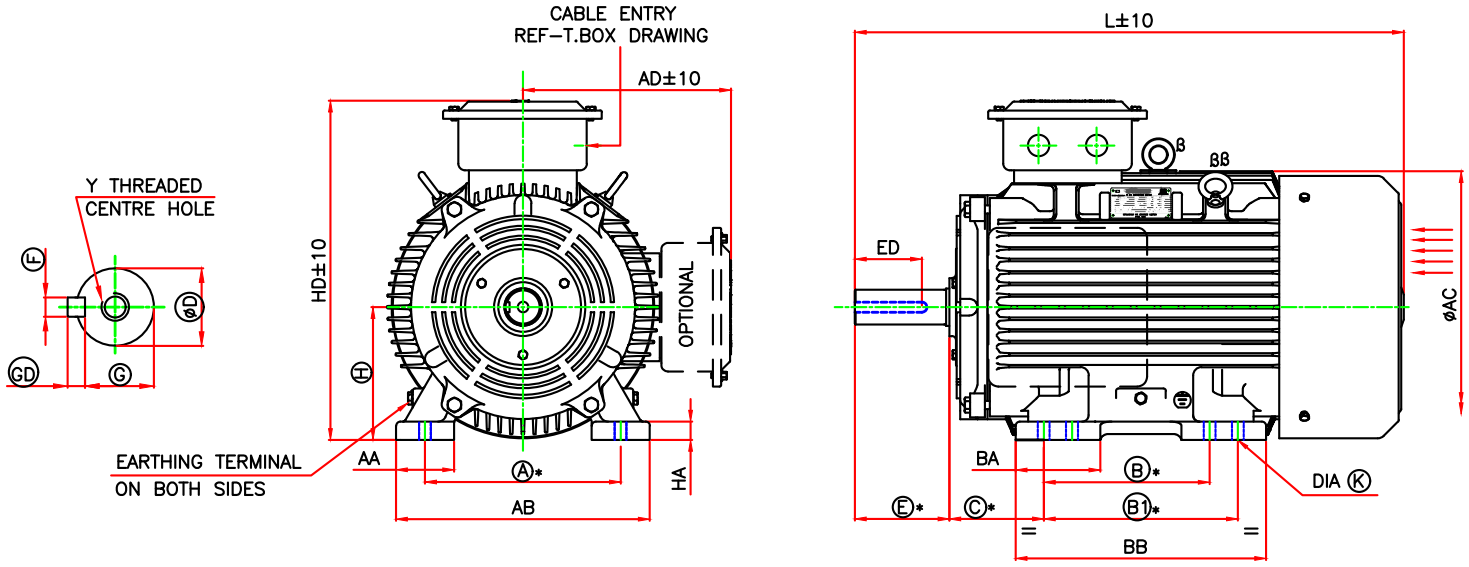
VOLTAGE	415 ± 10%	AMBIENT	50 °C	INSULATION CLASS	F
FREQUENCY	50 ± 5%	DUTY	S1	THERMAL CLASS	F
COMBINED VARIATION	10%	EFFICIENCY CLASS AS PER IEC60034-30-1:2014, IS12615:2018 AT RATED OUTPUT			
SERVICE FACTOR	1.2				

2 POLE																
Product code	Output	Frame Size	Rated Speed	FLC	FLC @ 1.2 SF	FLT	% Efficiency			Power Factor			Starting Current	Starting Torque	Pull Out Torque	GD²
	kW		RPM	A	A	kg-m	FL	3/4 FL	1/2 FL	FL	3/4 FL	1/2 FL	% FLC	% FLT	% FLT	kg-m²
KM3.5T50.AAC.TSP.B03	5.5	KM132S	2920	9.9	11.8	1.83	89.2	89.2	87.5	0.87	0.83	0.74	700	200	250	0.063
KM3.7T50.AAC.TSP.B03	7.5	KM132S	2920	13.2	15.8	2.50	90.1	90.1	88.0	0.88	0.84	0.75	700	225	275	0.077
KM3.9T30.ABC.TSP.B03	9.3	KM160M	2935	16	19	3.09	90.7	90.7	88.5	0.90	0.88	0.80	700	200	250	0.15
KM3.11T0.ABC.TSP.B03	11	KM160M	2920	19	22	3.67	91.2	91.2	89.8	0.90	0.88	0.81	700	200	250	0.15
KM3.15T0.ABC.TSP.B03	15	KM160M	2930	25	30	4.99	91.9	91.9	91.0	0.90	0.88	0.81	700	225	275	0.19
KM3.18T5.ALC.TSP.B03	18.5	KM160L	2935	31	37	6.14	92.4	92.4	92.0	0.90	0.88	0.82	700	225	275	0.23
KM3.22T0.ACC.TSP.B03	22	KM180M	2935	37	44	7.30	92.7	92.7	91.5	0.90	0.88	0.82	650	200	250	0.41
KM3.30T0.ANC.TSP.B03	30	KM200L	2955	50	60	9.89	93.3	93.3	90.7	0.90	0.88	0.80	700	200	250	0.70
KM3.37T0.ANC.TSP.B03	37	KM200L	2960	60	72	12.18	93.7	93.7	92.5	0.91	0.89	0.85	700	225	275	0.92
KM3.45T0.AQC.TSP.B03	45	KM225M	2965	73	88	14.78	94.0	94.0	92.5	0.91	0.89	0.86	700	225	275	1.82

4 POLE																
Product code	Output	Frame Size	Rated Speed	FLC	FLC @ 1.2 SF	FLT	% Efficiency			Power Factor			Starting Current	Starting Torque	Pull Out Torque	GD²
	kW		RPM	A	A	kg-m	FL	3/4 FL	1/2 FL	FL	3/4 FL	1/2 FL	% FLC	% FLT	% FLT	kg-m²
KM3.5T50.BAC.TSP.B03	5.5	KM132S	1455	10.0	12.1	3.68	89.6	89.6	89.0	0.85	0.80	0.75	650	200	250	0.149
KM3.7T50.BKC.TSP.B03	7.5	KM132M	1455	13.6	16.3	5.02	90.4	90.4	89.0	0.85	0.80	0.70	650	200	250	0.183
KM3.9T30.BBC.TSP.B03	9.3	KM160M	1465	17	20	6.18	91.0	91.0	90.0	0.85	0.82	0.75	650	200	250	0.32
KM3.11T0.BBC.TSP.B03	11	KM160M	1465	20	24	7.31	91.4	91.4	91.0	0.85	0.82	0.75	650	200	250	0.35
KM3.15T0.BLC.TSP.B03	15	KM160L	1465	27	32	9.97	92.1	92.1	91.2	0.85	0.82	0.75	650	200	250	0.46
KM3.18T5.BCC.TSP.B03	18.5	KM180M	1472	32	38	12.24	92.6	92.6	92.0	0.87	0.84	0.78	650	200	250	0.81
KM3.22T0.BMC.TSP.B03	22	KM180L	1472	37	45	14.56	93.0	93.0	91.5	0.88	0.84	0.78	650	200	250	0.97
KM3.30T0.BNC.TSP.B03	30	KM200L	1472	52	62	19.85	93.6	93.6	92.6	0.86	0.82	0.77	700	200	250	1.84
KM3.37T0.BPC.TSP.B03	37	KM225S	1480	64	77	24.35	93.9	93.9	92.0	0.85	0.82	0.74	700	250	300	2.02
KM3.45T0.BQC.TSP.B03	45	KM225M	1480	78	94	29.61	94.2	94.2	93.0	0.85	0.82	0.74	700	250	300	2.31

kirloskar motors

Dimensional Drawing For TEFC, Foot Mounted (B3) Motors:
Frames: KM132 to KM225



POLE: ALL

FRAME	FOOT FIXING										OVER ALL					SHAFT					
	A	B	B1	C	H TOL.	AA	AB	BA	BB	K	AC	L	HD	AD	HA	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM132S/M	216	140	178	89	132/131.5	50	253	83	215	12/12.5	274	500	340	210	16	38.018/38.002	80	60	10/9.964	8.0/7.9	33.0/32.8	M12X28
KM160M/L	254	210	254	108	160/159.5	70	306	102	302	14.5/15	328	665	415	255	22	42.018/42.002	110	80	12/11.957	8.0/7.9	37.0/36.8	M16X36
KM180M/L	279	241	279	121	180/179.5	70	340	105	321	14.5/15	365	720	455	275	24	48.018/48.002	110	80	14/13.957	9.0/8.9	42.5/42.3	M16X36
KM200L	318	-	305	133	200/199.5	70	380	111	357	18.5/19	418	770	520	320	26	55.030/55.011	110	80	16/15.957	10/9.9	49.0/48.8	M20X42

POLE: 2

FRAME	FOOT FIXING										OVER ALL					SHAFT					
	A	B	B1	C	H TOL.	AA	AB	BA	BB	K	AC	L	HD	AD	HA	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM225M	356	286	311	149	225/224.5	80	435	110	370	18.5/19	462	865	585	360	28	55.030/55.011	110	80	16/15.957	10/9.9	49.0/48.8	M20X42

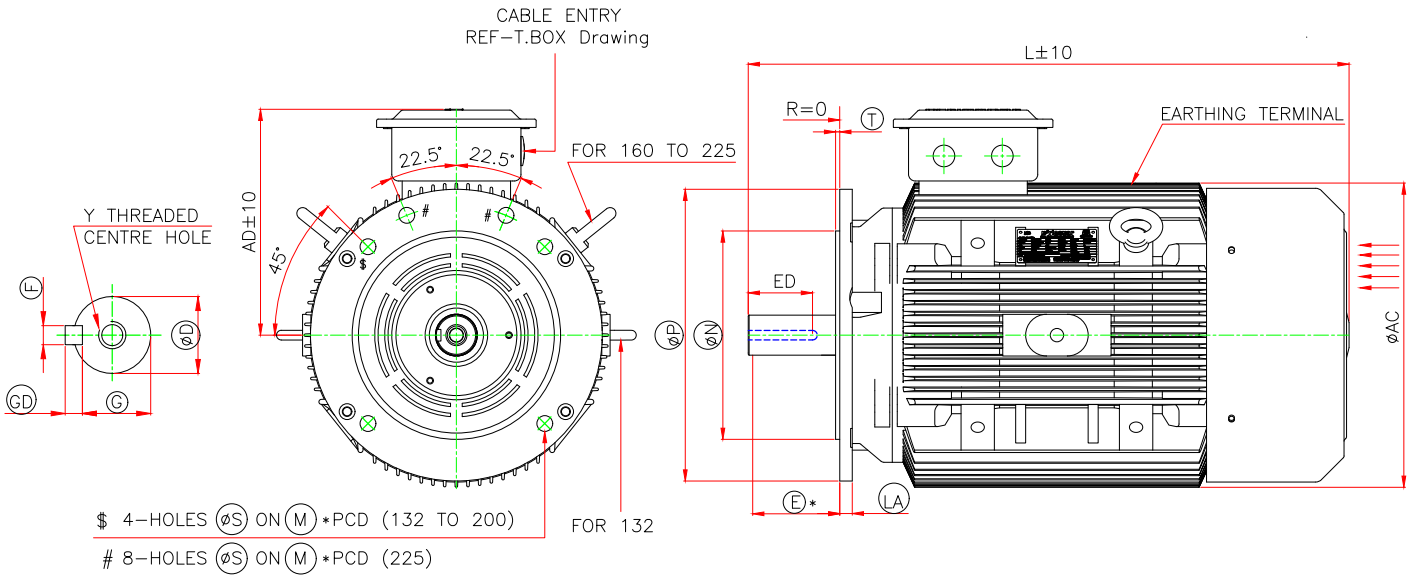
POLE: 4P&UP

FRAME	FOOT FIXING										OVER ALL					SHAFT					
	A	B	B1	C	H TOL.	AA	AB	BA	BB	K	AC	L	HD	AD	HA	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM225S/M	356	286	311	149	225/224.5	80	435	110	370	18.5/19	462	865	585	360	28	60.030/60.011	140	110	18/17.957	11/10.9	53.0/52.8	M20X42

NOTES:-

1) ALL DIMENSIONS ARE IN mm
2) RINGED DIMENSIONS ARE AS PER IS:1231 / IEC:60072 – 1
3) * TOLERANCES ON MANDATORY DIMENSIONS ARE AS PER IS:1231 / IEC:60072
4) MINIMUM CLEARANCE AFTER FANCOVER FOR AIR INLET: 100mm
5) TERMINAL BOX TOP: STANDARD FEATURE
   TERMINAL BOX RHS: ON REQUEST
6) β: APPLICABLE FOR 132 TO 225 RHS T. BOX POSITION & 132 – T. BOX POSITION
7) ββ: APPLICABLE FOR 160 TO 225 TOP T. BOX POSITION

Dimensional Drawing For TEFC, Flange Mounted (B5) Motors: Frames: KM132 to KM225



POLE: ALL

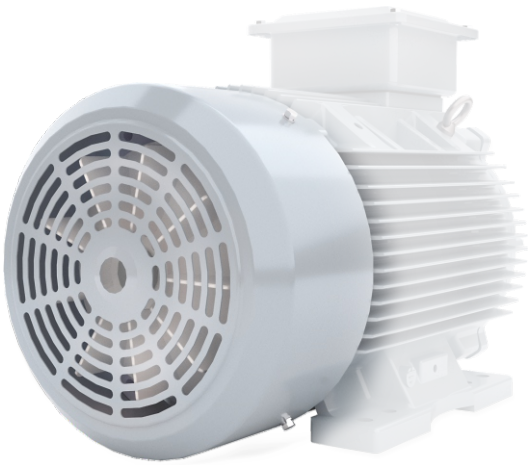
FRAME	FLANGE FIXING						OVER ALL			SHAFT						
	M TOL.	N TOL.	P	S	T	LA	AC	L	AD	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM132S/M	265	230.016/229.987	300	15	4	12	274	500	210	38.018/38.002	80	60	10/9.964	8.0/7.9	33.0/32.8	M12X28
KM160M/L	300	250.016/249.987	350	19	5	13	328	665	255	42.018/42.002	110	80	12/11.957	8.0/7.9	37.0/36.8	M16X36
KM180M/L	300	250.016/249.987	350	19	5	13	365	720	275	48.018/48.002	110	80	14/13.957	9.0/8.9	42.5/42.3	M16X36
KM200L	350	300.016/299.984	400	19	5	16	418	770	320	55.030/55.011	110	80	16/15.957	10/9.9	49.0/48.8	M20X42

POLE: 2

FRAME	FLANGE FIXING						OVER ALL			SHAFT						
	M TOL.	N TOL.	P	S	T	LA	AC	L	AD	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM225M	400	350.018/349.982	450	19	5	16	462	865	360	55.030/55.011	110	80	16/15.957	10/9.9	49.0/48.8	M20X42

POLE: 4P & UP

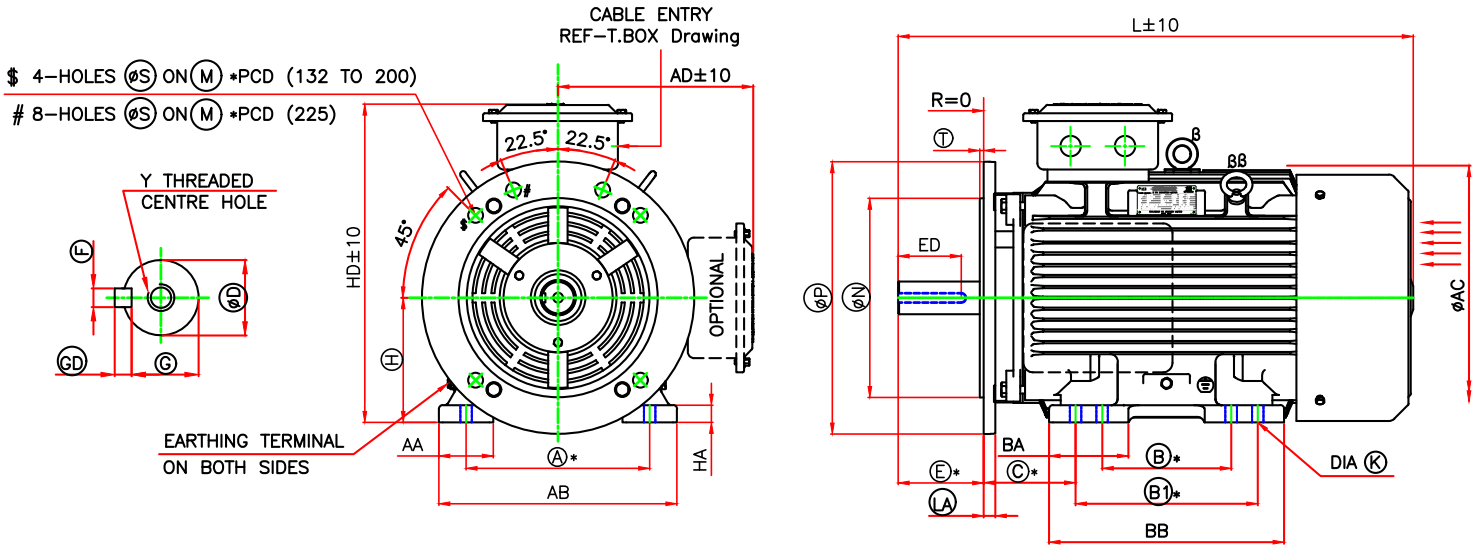
FRAME	FLANGE FIXING						OVER ALL			SHAFT						
	M TOL.	N TOL.	P	S	T	LA	AC	L	AD	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM225S/M	400	350.018/349.982	450	19	5	16	462	865	360	60.030/60.011	140	110	18/17.957	11/10.9	53.0/52.8	M20X42



NOTES:-

1) ALL DIMENSIONS ARE IN mm
2) RINGED DIMENSIONS ARE AS PER IS:2223 / IEC:60072-1
3) * TOLERANCES ON MANDATORY DIMENSIONS ARE AS PER IS:2223 / IEC:60072
4) MINIMUM CLEARANCE AFTER FANCOVER FOR AIR INLET: 100mm

Dimensional Drawing For TEFC, Foot Cum Flange Mounted (B35) Motors: Frames: KM132 to KM225



POLE: ALL

RAME	FOOT FIXING										OVER ALL					SHAFT						
	A	B	B1	C	H TOL.	AA	AB	BA	BB	K	AC	L	HD	AD	HA	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM132S/M	216	140	178	89	132/131.5	50	253	83	215	12/12.5	274	500	340	210	16	38.018/38.002	80	60	10/9.964	8.0/7.9	33.0/32.8	M12X28
KM160M/L	254	210	254	108	160/159.5	70	306	102	302	14.5/15	328	665	415	255	22	42.018/42.002	110	80	12/11.957	8.0/7.9	37.0/36.8	M16X36
KM180M/L	279	241	279	121	180/179.5	70	340	105	321	14.5/15	365	720	455	275	24	48.018/48.002	110	80	14/13.957	9.0/8.9	42.5/42.3	M16X36
KM200L	318	-	305	133	200/199.5	70	380	111	357	18.5/19	418	770	520	320	26	55.030/55.011	110	80	16/15.957	10/9.9	49.0/48.8	M20X42

POLE: 2

RAME	FOOT FIXING										OVER ALL					SHAFT						
	A	B	B1	C	H TOL.	AA	AB	BA	BB	K	AC	L	HD	AD	HA	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM225M	356	286	311	149	225/224.5	80	435	110	370	18.5/19	462	865	585	360	28	55.030/55.011	110	80	16/15.957	10/9.9	49.0/48.8	M20X42

POLE: 4P & UP

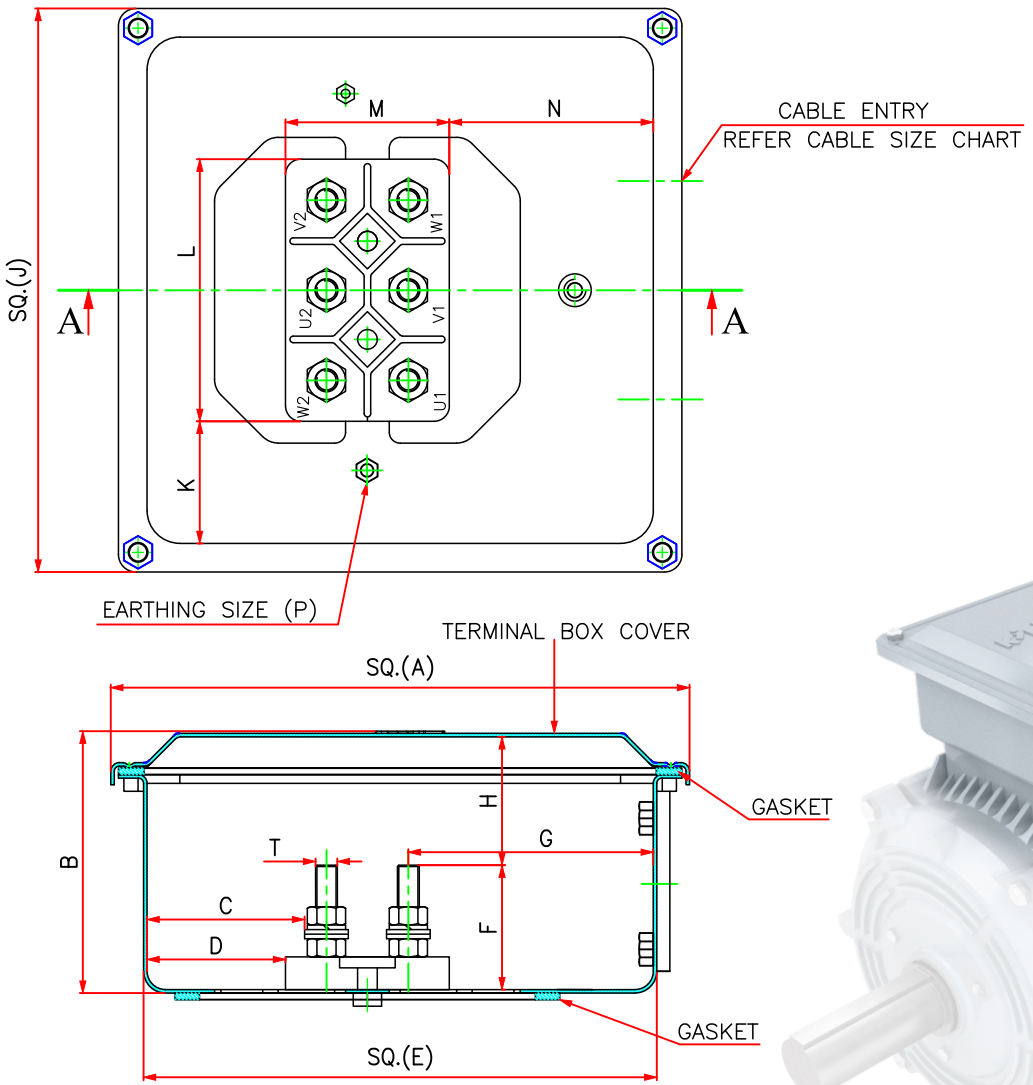
RAME	FOOT FIXING										OVER ALL					SHAFT						
	A	B	B1	C	H TOL.	AA	AB	BA	BB	K	AC	L	HD	AD	HA	D TOL.	E	ED	F TOL.	GD TOL.	G	Y
KM225S/M	356	286	311	149	225/224.5	80	435	110	370	18.5/19	462	865	585	360	28	60.030/60.011	140	110	18/17.957	11/10.9	53.0/52.8	M20X42

FRAME	FLANGE FIXING					
	M TOL.	N TOL.	P	S	T	LA
KM132S/M	265	230.016/229.987	300	15	4	12
KM160M/L	300	250.016/249.987	350	19	5	13
KM180M/L	300	250.016/249.987	350	19	5	13
KM200L	350	300.016/299.984	400	19	5	16
KM225S/M	400	350.018/349.982	450	19	5	16

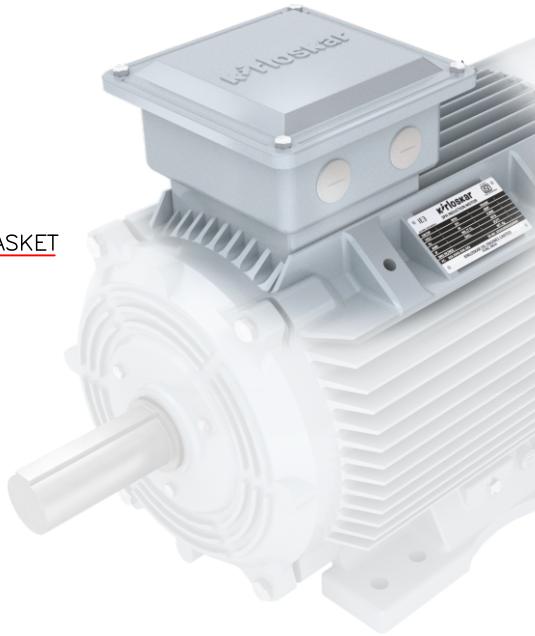
NOTES:-

1) ALL DIMENSIONS ARE IN mm
2) RINGED DIMENSIONS ARE AS PER IS:1231 / IS:2223 / IEC:60072 – 1
3) * TOLERANCES ON MANDATORY DIMENSIONS ARE AS PER IS:1231 / IS:2223 / IEC:60072
4) MINIMUM CLEARANCE AFTER FANCOVER FOR AIR INLET: 100mm
5) TERMINAL BOX TOP: STANDARD FEATURE
   TERMINAL BOX RHS: ON REQUEST
6) β: APPLICABLE FOR 132 TO 225 RHS T. BOX POSITION & 132 – T. BOX POSITION
7) ββ: APPLICABLE FOR 160 TO 225 TOP T. BOX POSITION

TERMINAL BOX ARRANGEMENT
FRAME: KM132 TO KM225



SECTION:A-A



FRAME	A	B	C	D	E	F	G	H	T	J	K	L	M	N	P
KM132	125	68	34	29	100	26.5	39	38	M5	119	17	64	40	29	M5
KM160-KM180	191	86	57	49	155	57	63	26	M6	185	34	85	55	49	M6
KM200	225	103	54	45	190	65	92	34	M8	218	42	104	68	75	M8
KM225	265	120	72	63	235	57	112	59	M10	258	56	120	75	93	M10

NOTE:
* TERMINAL BOX CAN BE ROTATED IN 360° IN STEPS PF 90°.
* ONE EARTHING TERMINAL IS PROVIDED INSIDE THE MAIN TERMIANL BOX.
* CABLE GLANDS ARE NOT IN KIRLOSKAR SCOPE OF SUPPLY.

kirloskar motors

Notes:

kirloskar motors

Notes:

kirloskar motors

Performance Beyond Expectations

For more information, please contact us at "head.motors@kirloskar.com"

kirloskar Oil Engines

www.kirloskaroilengines.com

KIRLOSKAR OIL ENGINES LIMITED

A Kirloskar Group Company

Laxmanrao Kirloskar Road, Khadki,
Pune 411 003 INDIA.

960 411 4411 / 960 411 8811

Stamp of Authorised Representative

REV01/Compressor Motors Catalog / December 2023