

# ABB India Limited

LV Motors

FRSM - 60 Effective from 15.06.2015  
(Superseding FRSM-59C dated 01.03.2015)

Price List



## 1. Standard Totally Enclosed Fan Cooled (TEFC) Squirrel Cage Motors

(Enclosure Conforming to protection IP55 ) Horizontal Foot Mounted Induction motors, continuously rated suitable for operation on 415±10%, 3-Phase, 50Hz±5%, AC Supply with class 'F' insulation for an ambient of 50 Deg.C and altitude less than 1000M above MSL and conforming to IS:325-1996

### Two Pole

Output				3000 rpm	
kW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)	
0.37	0.50	M2BA71A2	9975	499	
0.55	0.75	M2BA71B2	11025	551	
0.75	1.00	M2BA80A2	11393	570	
1.10	1.50	M2BA80B2	12495	625	
1.50	2.00	M2BA90S2	14459	723	
2.20	3.00	M2BA90LB2	18501	925	
3.70	5.00	M2BA100LB2	22700	1135	
5.50	7.50	M2BA132SA2	37328	1866	
7.50	10.00	M2BA132SB2	38367	1918	
9.30	12.50	M2BA132SC2	59756	2988	
11.00	15.00	HX+160MLB2	67032	3352	
15.00	20.00	HX+160MLD2	78603	3930	
18.50	25.00	HX+160MLE2	101871	5094	
22.00	30.00	HX+180MLB2	113558	5678	
30.00	40.00	HX+200MLB2	168683	8434	
37.00	50.00	HX+200MLC2	206168	10308	
45.00	60.00	HX+225SMC2	264705	13235	
55.00	75.00	HX+250MB2	356433	17822	
75.00	100.00	HX+280SMB2	463932	23197	
90.00	125.00	HX+280SMC2	537800	26890	

### Four Pole

Output				1500 rpm	
kW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)	
0.25	0.33	M2BA71A4	10185	509	
0.37	0.50	M2BA71B4	10532	527	
0.55	0.75	M2BA80A4	11729	586	
0.75	1.00	M2BA80B4	11834	592	
1.10	1.50	M2BA90S4	13482	674	
1.50	2.00	M2BA90L4	14762	738	
2.20	3.00	M2BA100LA4	19499	975	
3.70	5.00	M2BA112MA4	24969	1248	
5.50	7.50	M2BA132S4	34398	1720	
7.50	10.00	M2BA132M4	40100	2005	
9.30	12.50	HX+160MLB4	63504	3175	
11.00	15.00	HX+160MLD4	64218	3211	
15.00	20.00	HX+160MLE4	79800	3990	
18.50	25.00	HX+180MLB4	107552	5378	
22.00	30.00	HX+180MLC4	119952	5998	
30.00	40.00	HX+200MLC4	161742	8087	
37.00	50.00	HX+225SMB4	202965	10148	
45.00	60.00	HX+225SMC4	240786	12039	
55.00	75.00	HX+250MB4	330645	16532	
75.00	100.00	HX+280SMB4	423360	21168	
90.00	125.00	HX+280SMC4	491159	24558	

### Six Pole

Output				1000 rpm	
KW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)	
0.18	0.25	M2BA71A6	11351	568	
0.25	0.34	M2BA71B6	11571	579	
0.37	0.50	M2BA80A6	12464	623	
0.55	0.75	M2BA80B6	12737	637	
0.75	1.00	M2BA90L6	14385	719	
1.10	1.50	M2BA90LB6	15813	791	
1.50	2.00	M2BA100L6	20150	1007	
2.20	3.00	M2BA112M6	24098	1205	
3.70	5.00	M2BA132MA6	36803	1840	
5.50	7.50	M2BA132MC6	40971	2049	
7.50	10.00	HX+160MLC6	66150	3308	
9.30	12.50	HX+160MLD6	78278	3914	
11.00	15.00	HX+160MLE6	82299	4115	
15.00	20.00	HX+180MLC6	112403	5620	
18.50	25.00	HX+200MLB6	146412	7321	
22.00	30.00	HX+200MLC6	158981	7949	
30.00	40.00	HX+225SMC6	247737	12387	
37.00	50.00	HX+250MB6	333900	16695	
45.00	60.00	HX+280SMB6	425565	21278	
55.00	75.00	HX+280SMC6	482895	24145	

### Eight Pole

Output				750 rpm	
KW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)	
0.09	0.12	M2BA71A8	11582	579	
0.12	0.16	M2BA71B8	11813	591	
0.37	0.50	M2BA90L8	13787	689	
0.55	0.75	M2BA90LB8	15120	756	
0.75	1.00	M2BA100LA8	18522	926	
1.10	1.50	M2BA100LB8	22607	1130	
1.50	2.00	M2BA112MA8	26135	1307	
2.20	3.00	M2BA132S8	34619	1731	
3.70	5.00	HX+160MLB8	54411	2721	
5.50	7.50	HX+160MLD8	66150	3308	
7.50	10.00	HX+160MLE8	83895	4195	
9.30	12.50	HX+180MLA8	109148	5457	
11.00	15.00	HX+180MLB8	114881	5744	
15.00	20.00	HX+200MLC8	162288	8114	
18.50	25.00	HX+225SMB8	209475	10474	
22.00	30.00	HX+225SMC8	252693	12635	
30.00	40.00	HX+250MB8	339791	16990	
37.00	50.00	HX+280SMB8	434385	21719	
45.00	60.00	HX+280SMC8	503843	25192	



## 2. M2000 ENERGY EFFICIENT MOTORS

Standard TEFC Squirrel Cage Motor Suitable for Ambient temperature of 50 Deg. Centigrade, Horizontal foot mounting and conforming to IS:325-1996

### Two Pole

Output				3000 rpm
KW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)
110.0	150.00	M2BA315SMA2	712215	35611
125.0	170.00	M2BA315SMB2k	836220	41811
132.0	180.00	M2BA315SMB2	875165	43758
150.0	200.00	M2BA315MLA2k	925880	46294
160.0	220.00	M2BA315MLA2	957968	47898
180.0	240.00	M2BA315MLC2k	1009670	50483
200.0	270.00	M2BA315MLC2	1124550	56228
250.0	340.00	M2BA355SMA2	1248030	62402
315.0	425.00	M2BA355MLA2	1359120	67956

### Four Pole

Output				1500 rpm
KW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)
110.0	150.00	M2BA315SMA4	624015	31201
125.0	170.00	M2BA315SMB4k	714525	35726
132.0	180.00	M2BA315SMB4	734486	36724
150.0	200.00	M2BA315MLA4k	791595	39580
160.0	220.00	M2BA315MLA4	859425	42971
180.0	240.00	M2BA315MLB4k	917280	45864
187.0	250.00	M2BA315MLB4	949253	47463
200.0	270.00	M2BA315MLC4	1046273	52314
225.0	300.00	M2BA355SMA4k	1070528	53526
250.0	340.00	M2BA355SMA4	1153215	57661
260.0	350.00	M2BA355SMA4h	1153215	57661
315.0	425.00	M2BA355MLA4	1320795	66040
355.0	475.00	M2BA355MLB4	1702260	85113

### Six Pole

Output				1000 rpm
KW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)
75.0	100.00	M2BA315SMA6	598658	29933
90.0	125.00	M2BA315SMB6	752787	37639
110.0	150.00	M2BA315SMC6	839003	41950
125.0	170.00	M2BA315SMC6k	913973	45699
132.0	180.00	M2BA315MLC6	979577	48979
160.0	220.00	M2BA315MLD6	1033043	51652
180.0	240.00	M2BA355SMB6k	1149362	57468
200.0	270.00	M2BA355SMB6	1163138	58157
250.0	340.00	M2BA355MLA6	1252440	62622
280.0	376.00	M2BA355MLB6K	1510000	75500
315.0	425.00	M2BA355MLB6	1983398	99170

### Eight Pole

Output				750 rpm
KW	H.P	Frame size	Price (Rs)	Ex. Duty (Rs)
55.0	75.00	M2BA315SMA8	613988	30699
75.0	100.00	M2BA315SMB8	766238	38312
90.0	125.00	M2BA315SMC8	864360	43218
110.0	150.00	M2BA315MLC8	915075	45754
132.0	180.00	M2BA355SMA8	1117935	55897
150.0	200.00	M2BA355MLA8k	1199520	59976
160.0	220.00	M2BA355MLA8	1231493	61575
180.0	240.00	M2BA355MLB8i	1319693	65985
200.0	270.00	M2BA355MLB8	1347255	67363
225.0	300.00	M2BA355MLB8h	1910633	95532
250*	340.00	M2BA355MLB8k	2113493	105675

<b>Type</b>	Three phase squirrel cage induction motor
Enclosure	Totally enclosed fan cooled
Voltage +/- variation	415+/- 10%
Frequency +/- variation	50Hz +/- 5%
Combined +/- variation	10% ( Absolute Sum)
Mounting Reference	As per IS 4691
Frame Dimensions	As per IS 1231 : IS 2223
Altitude	Upto 1000 M
Relative Humidity	Upto 100%
Degree of Protection	IP55
Class of Insulation	Class F
Ambient Temperature/ Temp	50 Deg C/ 70 Deg C
Duty	S1 / Continuous
Position of terminal box	Top at drive end
Connection / No. of leads	Upto 2HP- STAR / 3 Leads > 2 HP- DELTA / 6 Leads
Direction of Rotation	Bi-directional
Grease Type	Lithium complex grease
Greasing arrangement	Online greasing arrangement for frame 250 and above
Cooling	IC411 (TEFC)
Paint	Polyurethane( Shade: Munsell Blue)

\* This rating is suitable for class F temp rise only

#### The M2000 Series

M2000 motors have been engineered for the twin objective of high power to weight ratio and efficiency at a designed ambient of 50Deg.C. The performance of M2BA' is well ahead of relevant IEC & IS standards resulting in lower consumption, reduced operational costs and ultimately faster returns on investment. M2BA motors have a wide range of applications including windmill.

#### Heavy Duty Design

The electrical and mechanical design of 'M2BA' motors offer high performance values in all the mounting arrangements, protection class and in all operations. M2BA' motors have withstood the test of time and are established for reliability in stringent operating conditions like thermal power plants worldwide.



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### Totally Enclosed Fan Cooled (TEFC) Squirrel Cage Flame Proof Motors

Enclosure conforming to protection IP55 as per IEC: 60034-5:2006, Horizontal foot mounted (B3) induction motors, continuously rated suitable for , operation on 415V +/- 10%, 3 phase, 50Hz +/- 5% A.C supply with class 'F' insulation for **50 Deg.C ambient temperature in Gas Group IIA & IIB** and altitude less than 1000M above MSL and conforming to IS/IEC 60079-1 (2007)

#### Two Pole

Output		Frame size	Price (Rs)	3000 rpm	
kW	H.P			Ex. Duty (Rs)	
0.37	0.50	JHX71C2	21389		1069
0.55	0.75	JHX71D2	24035		1202
0.75	1.00	JHX80C2	24812		1241
1.10	1.50	JHX80D2	27668		1383
1.50	2.00	JHX90SLD2	30870		1544
2.20	3.00	JHX90SLD2	38588		1929
3.70	5.00	JHX100LB2	49172		2459
5.50	7.50	JHX132SMB2	69794		3490
7.50	10.00	JHX132SMC2	77175		3859
9.30	12.50	JHX132SME2	109694		5485
11.00	15.00	JHX160MLB2	135608		6780
15.00	20.00	JHX160MLD2	164273		8214
18.50	25.00	JHX160MLE2	187425		9371
22.00	30.00	JHX180MLB2	221550		11078
30.00	40.00	JHX200MLB2	300300		15015
37.00	50.00	JHX200MLC2	388500		19425

#### Four Pole

Output		Frame size	Price (Rs)	1500 rpm	
kW	H.P			Ex. Duty (Rs)	
0.25	0.33	JHX71B4	20948		1047
0.37	0.50	JHX71C4	21053		1053
0.55	0.75	JHX80D4	23258		1163
0.75	1.00	JHX80E4	24255		1213
1.10	1.50	JHX90SLD4	27668		1383
1.50	2.00	JHX90SLE4	29988		1499
2.20	3.00	JHX100LB4	38252		1913
3.70	5.00	JHX112MB4	48510		2426
5.50	7.50	JHX132SMC4	66696		3335
7.50	10.00	JHX132SME4	76073		3804
9.30	12.50	JHX160MLB4	116309		5815
11.00	15.00	JHX160MLD4	122703		6135
15.00	20.00	JHX160MLE4	149499		7475
18.50	25.00	JHX180MLB4	169050		8453
22.00	30.00	JHX180MLC4	202650		10133
30.00	40.00	JHX200MLC4	273000		13650

#### Six Pole

Output		Frame size	Price (Rs)	1000 rpm	
kW	H.P			Ex. Duty (Rs)	
0.25	0.33	JHX80D6	24476		1224
0.37	0.50	JHX80D6	24581		1229
0.55	0.75	JHX80E6	25137		1257
0.75	1.00	JHX90SLD6	29211		1461
1.10	1.50	JHX90SLE6	30314		1516
1.50	2.00	JHX100LB6	43764		2188
2.20	3.00	JHX112MB6	50715		2536
3.70	5.00	JHX132SMC6	67358		3368
5.50	7.50	JHX132SME6	81585		4079
7.50	10.00	JHX160MLC6	126231		6312
9.30	12.50	JHX160MLD6	146633		7332
11.00	15.00	JHX160MLE6	154350		7718
15.00	20.00	JHX180MLC6	208635		10432
18.50	25.00	JHX200MLB6	259350		12968
22.00	30.00	JHX200MLC6	281400		14070

#### Eight Pole

Output		Frame size	Price (Rs)	750 rpm	
kW	H.P			Ex. Duty (Rs)	
0.37	0.50	JHX90SLA8	28665		1433
0.55	0.75	JHX90SLD8	31196		1560
0.75	1.00	JHX100LA8	37706		1885
1.10	1.50	JHX100LB8	44100		2205
1.50	2.00	JHX112MA8	52584		2629
2.20	3.00	JHX132SMB8	69458		3473
3.70	5.00	JHX160MLB8	112455		5623
5.50	7.50	JHX160MLD8	129318		6466
7.50	10.00	JHX160MLE8	157658		7883
9.30	12.50	JHX180MLA8	202650		10133
11.00	15.00	JHX180MLB8	213150		10658
15.00	20.00	JHX200MLC8	288750		14438

Note:- Special Features given below shall not be applicable for Flame Proof Motors.

ABB reserves the right to change the price, design, technical specification and dimensions without prior notice

**Additional charges for specific requirements**  
Frame 71-355 of TEFC



Sl no	Description for extra features	Extra charge
1.0	<b>Shaft</b>	
1.1	Non standard single/ double shaftextension, diameter of shaft being same or less as standard. kindly refer to us for following: a) Dia more than standard b) Length more than twice of the standard	5 % of LP
1.2	Shaft material - EN24	10% of LP
2.0	<b>Mounting</b>	
	Standard flange or face mounting ( B14, B5, V1, V18 & V19) or foot cum flange/ face mounting( B35, B34, V14, V36) ( for frames 225 and above in TEFC please refer to us.)	
2.1	Upto frame 160	3% of LP
2.2	Frame 180 and above	5% of LP
3.0	<b>Non standard paint shadeas per IS 5</b>	
3.1	<b>Epoxy</b>	
3.11	Epoxy 631/632	3% of LP
3.12	Paint shade other than munshell blue and 631/632 shade	5% of LP
3.2	<b>Non-Epoxy</b>	
3.21	Paint shade other than munshell blue and 631/632 shade	5% subject to max of RS 6500/-nett
3.3	<b>Paint Thickness</b>	
	Rust Coat Primer + PU paint is 70 microns For Additional Thickness upto 150 micros For thickness > 150 upto 215microns	4% of LP 6% of LP
4.0	<b>Epoxy gel coat on winding overhang</b>	3% of LP
5.0	<b>Insulation class "H"</b>	10% on LP
6.0	<b>Vaccum pressure impregnation</b>	5% on LP
7.0	<b>Stainless steel hardware</b>	Rs 500/-nett
8.0	<b>Non standard nominal voltage</b> 220-550 V with frequency 50 HZ and 60 HZ	3% of LP
9.0	<b>Multi speed motors</b>	
	Dual speed motor upto 8 pole (to be taken on higher frame)  Tapped winding is indicated by speed ratio 1:2( e.g 4/8, 2/4)  Two winding e.g. 4/6, 6/8	12.5% on LP for Tapped wdg 20% on LP for Two wdg.
10.0	<b>Crane duty motor( SCR)</b> ( KHX motors)	10% on LP ( frame wise)
11.0	<b>Enclosure/ Types</b>	
11.1	Ring frame (Textile motors)( RHX motors)	5% on LP
11.2	Non sparking Type "n"motors ( NHX motors)	7.5% on LP
11.3	Increased safety Type "e" motors ( IHX motors)	15% on LP
11.4	IP56	5% on LP
12.0	<b>Space Heaters</b>	
12.1	Frame 160	Rs 1200/-nett
12.2	Frame 180-355 frame	Rs 2650/-nett
13.0	<b>PTC thermistors (without relays)</b>	
13.1	3 no's	Rs 2150/-nett
13.2	6 no's	Rs 4300/-nett
14.0	<b>RTD ( frame 160-355)</b>	
14.1	3 no's	Rs 4000/-nett
14.2	6 no's	Rs 8000/-nett
15.0	<b>BTD( Frame 225-355)</b> 2 no's simplex	Rs 7500/-nett
16.0	<b>Cable glands</b>	
16.1	Single compression cable gands Frame 71-132 Frame 160-225 Frame 250-355	Rs 400/-nett Rs 1000/-nett Rs 1300/-nett
16.2	Double compression cable gland Frame 71-132 Frame 160-225 Frame 250-355	Rs 800/-nett Rs 2000/-nett Rs 2500/-nett



17.0	<b>Forced cooling arrangement</b> Frame 200- 225 Frame 250-280 Frame 315 Frame 355	Rs 20000/-nett Rs 25000/-nett Rs 31000/-nett Rs 35000/-nett
18	<b>Roller Bearing</b> Frame 160- 200 Frame 225- 250 Frame 280-315 Frame 355- 400	Rs 1500/-nett Rs 3000/-nett Rs 5000/-nett Rs 9000/-nett
19.0	<b>Testing</b>	
19.1	Routine Test per motor Frame 71-132 Frame 160-225 Frame 250-355	Rs 1200/-nett Rs 2400/-nett Rs 3600/-nett
19.2	Type test per rating on one motor Frame 71-132 Frame 160-225 Frame 250-280 Frame 315-355	Rs 5000/-nett Rs 7500/-nett Rs 10000/-nett Rs 15000/-nett
19.3	First Numeral IP55 Test Frame 71-200	Rs 5000/-nett
19.4	Second Numeral IP55 Test Frame 71-355	Rs 3000/-nett

**Terms & Conditions**

**1. Taxes & Duties:** The list price is exclusive of Excise Duties, Sales Tax and any other Central or Local Taxes, Octroi Duty and other levies. These will be charged extra as the rates ruling on the date of supply. Excise duty shall be inclusive of E. Cess. and H Cess

**2. Delivery:** Prices are Ex works/Ex- Godown basis

**3. Conditions of Sale:** The price list is subject to our Standard 'General Terms and Conditions' of Tender and sale and the prices are subject to revision without prior notice.

**4. General:**

a) Due to improvement being made from time to time, Frame sizes indicated above are provisional and subject to change without notice.  
b) For more details, please contact us.