

**Large range  
Efficient design**

Initial cost of Motor

Running cost of Motor

**Think long term  
use BCH IE2/IE3 motors**



**BCH IE2/IE3/IE4 MOTORS**




**BCH**

**BCH  
ELECTRIC  
LIMITED**



## Low Voltage AC TEFC Squirrel Cage Induction Motors

### Range & Features

- **Wide** range
- Range: 0.16 HP to 425 HP
- **Robust** design - **IE2/IE3/IE4<sup>a)</sup>** versions
- Dynamically balanced rotors
- Corrosion-resistant stator frames and end-bracket hardware
- High efficient stator laminations with superior low loss **CRNGO** steel
- **Inverter Ready<sup>b)</sup>** standard motors with unique **Dual Coat** copper winding wire
- Designed for 50° C ambient temperature for the entire range.
- Fully tropicalised design for Indian conditions.
- V / F / VF Variation  $\pm 10\% / 5\% / 10\%$ .
- Class **F** insulation
- Temperature rise restricted to class B limit
- Stainless steel rating plate
- **Six terminal** Terminal box across the range
- Various mounting possibilities
- Motor feet **Integral** to stator housing
- Superior aesthetics - RAL-5014 paint shade as standard
-  marking
- Manufactured in quality assurance system compliant with ISO 9001
- Customised motor design capability
- Compatible A.C. Drive & Soft Starter range
- Complete range of electromagnetic starters & MCC - A single source solution
- Nationwide sales & service network.

### Special Purpose Motors

- Crane duty & Hoist application motors
- Brake Motors
- Dual Speed Motors
- Cooling Tower Motors (upto 45 kw upto 12 Poles)
- Inverter Duty Motors
- Motor with Higher poles
- Low Vibration Motors
- Ginning Motors

a) IE4 Motors on request    b) Consult nearest Branch office to check suitability to specific application

## General Specifications

### Specification of Catalogue Versions

Description	
Supply voltage	: 415 Volts $\pm 10\%$ , 3 Phase, A. C.
Frequency	: 50 Hz $\pm 5\%$
Combined voltage & frequency variations (absolute sum)	: $\pm 10\%$
Ambient temperature	: 50° C
Altitude	: Up to 1000 meters above MSL
Relative humidity	: Up to 100%
Insulation class	: F
Winding temperature rise	: Designed to operate within class B limit
Duty	: Continuous (S1)
Protection class	: IP 55
Method of cooling	: IC0411 (Standard motors) / IC0416 (Forced cooling)
Motor feet	: Integral to motor housing
Terminal box position	: At Top towards drive end
Shaft Extension	: Single Cylindrical at drive end
Paint shade	: RAL-5014



## BCH IE SERIES : (As Per IS : 12615-2011, IEC-60034-30 2008)

### Low Voltage 3 Phase TEFC Squirrel Cage Induction Motor

**IE2/IE3**

Motors

IE2- Frame Size: 63 to 355 - Rating: 0.12 KW to 315 KW - Pole: 2, 4, 6 & 8

IE3- Frame Size: 63 to 355 - Rating: 0.12 KW to 315 KW - Pole: 2, 4, 6 & 8

### Motor Housing

- Cast Iron (CI) stator housing:  
63-355 frame
- Pressure Die Cast Aluminum stator housing : (On Request)  
63-132 frame

### Bearing arrangement

Frames up to 180L have sealed bearing which are lubricated for life. Frames 200 & above have re-greasing arrangement as a standard feature

Frame Size	Driving End	Non - Driving End	Regreasing Time (Hrs.)	
			2 pole	4, 6, 8 pole
63	6201ZZ	6201ZZ	-	-
71	6202ZZ	6202ZZ	-	-
80	6204ZZ	6204ZZ	-	-
90S/L	6305ZZ	6205ZZ	-	-
100L	6206ZZ	6206ZZ	-	-
112M	6206ZZ	6206ZZ	-	-
132S/M	6208ZZ	6208ZZ	-	-
160M/L	6309ZZ	6209ZZ	-	-
180M/L	6310ZZ	6210ZZ	-	-
200L	6312	6312	3,500	8,000
225S/M	6313	6313	3,500	8,000
250M	6315	6315	2,500	6,000
280S/M	6317	6317	2,000	5,000
315S/M/L	6319	6319	2,000	4,000

### Terminal Box Data

Frame Size	Cable Entry Size	Max. Cable Size DOL starting	Max. Cable Size Star-Delta starting	Terminal Stud Size
63-90	1 x 3/4" BSC	3C x 4.00mm <sup>2</sup>	-	M4
100-132	2 x 1" BSC	3C x 10.00mm <sup>2</sup>	2 x 3C x 10.00mm <sup>2</sup>	M5
160-180	2 x 1" BSC	3C x 35.00mm <sup>2</sup>	2 x 3C x 25.00mm <sup>2</sup>	M6
200	2 x 2" BSC	3C x 120.00mm <sup>2</sup>	2 x 3C x 70.00mm <sup>2</sup>	M8
225-250	2 x 2" BSC	3C x 120.00mm <sup>2</sup>	2 x 3C x 70.00mm <sup>2</sup>	M8
280-315	2 x 2 1/2" BSC	3C x 240.00mm <sup>2</sup>	2 x 3C x 150.00mm <sup>2</sup>	M12
355	2 x 3" BSC	3C x 400.00mm <sup>2</sup>	2 x 3C x 300.00mm <sup>2</sup>	M16

Equivalent metric & Pg threadings can also be provided on request





Low Voltage AC TEFC Squirrel Cage Induction Motors

**Electrical Performance**

IE2 MOTOR

2 Pole

BCH IE2 induction motors suitable for  $415 \pm 10\%$ ,  $50 \text{ Hz} \pm 5\%$ , combined  $\pm 10\%$ , 3 phase supply, ambient temperature  $50^\circ\text{C}$ , TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

2 Pole, 3000 RPM, IE2																	
Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Current (A)	Rated Torque (kg-m)	Efficiency %			Power factor %			Ist/ In	Tst/ Tn	Tpo/ Tn	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.18	0.25	EC2-260-0202M	63	2900	0.53	0.06	60.4	60.4	56.0	0.78	0.72	0.59	5.0	2.0	2.3	0.0009	8
0.25	0.33	EC2-263-0202M	63	2900	0.67	0.08	64.8	64.8	59.0	0.80	0.73	0.62	5.0	2.0	2.3	0.0009	9
0.37	0.50	EC2-270-0202M	71	2810	0.89	0.13	69.5	69.5	64.0	0.83	0.78	0.70	5.0	2.0	2.6	0.0010	10
0.55	0.75	EC2-273-0202M	71	2840	1.25	0.19	74.1	74.1	71.0	0.83	0.78	0.70	5.5	2.4	2.7	0.0014	11
0.75	1.0	EC2-280-0202M	80	2845	1.7	0.26	77.4	77.4	75.0	0.79	0.76	0.72	6.5	2.4	2.7	0.0038	14
1.1	1.5	EC2-283-0202M	80	2845	2.4	0.38	79.6	79.6	76.0	0.80	0.77	0.73	6.5	2.4	2.7	0.0049	16
1.5	2.0	EC2-290-0202M	90S	2870	3.2	0.51	81.3	81.3	77.0	0.80	0.77	0.73	6.5	2.4	2.8	0.0072	24
2.2	3.0	EC2-296-0202M	90L	2870	4.5	0.75	83.2	83.2	80.0	0.82	0.78	0.74	7.0	2.4	2.8	0.0093	26
3.7	5.0	EC2-306-0202M	100L	2900	7.2	1.24	85.5	85.5	82.0	0.84	0.81	0.77	7.0	2.4	2.8	0.0130	35
5.5	7.5	EC2-313-0202M	132S	2925	10.0	1.83	87.0	87.0	84.0	0.88	0.85	0.80	7.0	2.2	2.7	0.0583	61
7.5	10.0	EC2-330-0202M	132S	2925	13.3	2.50	88.1	88.1	85.0	0.89	0.86	0.82	7.0	2.2	2.5	0.0583	65
9.3	12.5	EC2-362-0202M	160M	2930	16.5	3.09	88.9	88.9	85.5	0.88	0.85	0.80	7.0	2.3	2.8	0.1301	100
11.0	15.0	EC2-363-0202M	160M	2935	19.5	3.65	89.4	89.4	86.0	0.88	0.85	0.80	7.0	2.3	2.8	0.1301	122
15.0	20.0	EC2-364-0202M	160M	2940	26.4	4.97	90.3	90.3	86.5	0.88	0.85	0.80	7.0	2.3	2.8	0.1705	128
18.5	25.0	EC2-366-0202M	160L	2940	32.0	6.13	90.9	90.9	87.0	0.88	0.85	0.80	7.0	2.3	2.8	0.1974	151
22.0	30.0	EC2-383-0202M	180M	2950	39.0	7.26	91.3	91.3	88.0	0.86	0.85	0.80	7.0	2.3	2.7	0.1972	179
30.0	40.0	EC2-406-0202M	200L	2955	51.0	9.89	92.0	92.0	89.0	0.89	0.86	0.81	7.0	2.3	2.7	0.4468	284
37.0	50.0	EC2-407-0202M	200L	2955	62.8	12.20	92.5	92.5	89.5	0.89	0.86	0.81	7.0	2.3	2.7	0.5257	300
45.0	60.0	EC2-423-0202M	225M	2965	76.0	14.78	92.9	92.9	90.0	0.89	0.86	0.81	7.0	2.4	2.7	0.6722	368
55.0	75.0	EC2-453-0202M	250M	2965	91.0	18.07	93.2	93.2	90.5	0.90	0.87	0.83	7.0	2.3	2.7	1.0690	501
75.0	100.0	EC2-480-0202M	280S	2975	124.0	24.55	93.8	93.8	91.0	0.90	0.87	0.83	7.0	2.3	2.7	2.2591	770
90.0	120.0	EC2-483-0202M	280M	2975	148.0	29.47	94.1	94.1	91.5	0.90	0.87	0.83	7.0	2.3	2.7	2.4850	810
110.0	150.0	EC2-510-0202M	315S	2980	180.0	35.95	94.3	94.3	91.8	0.90	0.87	0.83	7.0	2.2	2.6	3.3595	1030
132.0	180.0	EC2-514-0202M	315M	2980	216.0	43.14	94.6	94.6	92.0	0.90	0.87	0.83	7.0	2.2	2.6	3.9994	1070
160.0	215.0	EC2-516-0202M	315L	2985	260.0	52.21	94.8	94.8	92.5	0.90	0.87	0.83	7.0	2.2	2.6	4.6393	1160
200.0	270.0	EC2-517-0202M	315L	2985	326.0	65.26	95.0	95.0	93.0	0.90	0.87	0.83	7.0	2.2	2.6	4.1594	1200
250.0	335.0	EC2-553-0202M	355M	2985	407.0	81.57	95.0	95.0	93.0	0.90	0.87	0.83	7.0	2.0	2.4	8.9735	1710
315.0	425.0	EC2-557-0202M	355L	2985	512.0	102.78	95.0	95.0	93.0	0.90	0.87	0.83	7.0	2.0	2.4	10.0292	1900

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.







Low Voltage AC TEFC Squirrel Cage Induction Motors

**Electrical Performance**

IE2 MOTOR

4 Pole

BCH IE2 induction motors suitable for  $415 \pm 10\%$ ,  $50 \text{ Hz} \pm 5\%$ , combined  $\pm 10\%$ , 3 phase supply, ambient temperature  $50^\circ\text{C}$ , TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

4 Pole, 1500 RPM, IE2																	
Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Current (A)	Rated Torque (kg-m)	Efficiency %			Power factor %			$I_{st} / I_n$	$T_{st} / T_n$	$T_{po} / T_n$	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.12	0.16	EC2-260-0402M	63	1380	0.52	0.08	59.1	59.1	55.0	0.54	0.48	0.40	4.8	1.8	2.0	0.0010	8
0.18	0.25	EC2-263-0402M	63	1380	0.57	0.13	64.7	64.7	61.0	0.68	0.64	0.54	5.0	1.8	2.0	0.0010	8
0.25	0.33	EC2-270-0402M	71	1390	0.75	0.18	68.5	68.5	64.0	0.68	0.64	0.54	5.5	1.8	2.2	0.0022	10
0.37	0.50	EC2-273-0402M	71	1390	1.0	0.26	72.7	72.7	65.0	0.71	0.67	0.58	6.0	1.9	2.3	0.0024	11
0.55	0.75	EC2-280-0402M	80	1420	1.4	0.38	77.1	77.1	71.0	0.71	0.67	0.58	6.0	1.9	2.3	0.0038	15
0.75	1.0	EC2-283-0402M	80	1415	1.7	0.52	79.6	79.6	75.0	0.77	0.70	0.63	6.0	2.5	3.0	0.0062	18
1.1	1.5	EC2-290-0402M	90S	1430	2.4	0.75	81.4	81.4	80.0	0.78	0.73	0.65	6.0	2.5	3.0	0.0093	23
1.5	2.0	EC2-296-0402M	90L	1430	3.2	1.02	82.8	82.8	81.0	0.79	0.74	0.65	6.0	2.4	2.8	0.0134	29
2.2	3.0	EC2-306-0402M	100L	1440	4.4	1.49	84.3	84.3	82.5	0.83	0.76	0.65	6.5	2.4	2.8	0.0182	33
3.7	5.0	EC2-313-0402M	112M	1445	7.1	2.49	86.3	86.3	85.0	0.84	0.80	0.68	7.0	2.4	2.8	0.0404	45
5.5	7.5	EC2-330-0402M	132S	1450	10.5	3.69	87.7	87.7	86.0	0.83	0.79	0.72	7.0	2.4	2.8	0.0676	59
7.5	10.0	EC2-333-0402M	132M	1450	14.1	5.04	88.7	88.7	87.0	0.83	0.79	0.72	7.0	2.2	2.6	0.1013	76
9.3	12.5	EC2-334-0402M	160M	1455	17.5	6.23	89.3	89.3	87.5	0.83	0.80	0.72	7.0	2.2	2.6	0.1696	124
11.0	15.0	EC2-364-0402M	160M	1455	20.5	7.36	89.8	89.8	88.0	0.83	0.80	0.72	7.0	2.2	2.6	0.1871	132
15.0	20.0	EC2-366-0402M	160L	1455	27.5	10.04	90.6	90.6	89.0	0.84	0.80	0.73	7.0	2.2	2.6	0.2573	156
18.5	25.0	EC2-383-0402M	180M	1460	33.5	12.34	91.2	91.2	90.5	0.84	0.80	0.74	7.0	2.3	2.6	0.3222	182
22.0	30.0	EC2-386-0402M	180L	1460	40.0	14.68	91.6	91.6	90.5	0.84	0.80	0.74	7.0	2.3	2.6	0.3790	210
30.0	40.0	EC2-406-0402M	200L	1465	54.0	19.95	92.3	92.3	91.0	0.84	0.80	0.74	7.0	2.3	2.6	0.7298	347
37.0	50.0	EC2-420-0402M	225SX	1470	65.0	24.52	92.7	92.7	91.5	0.85	0.83	0.77	7.0	2.3	2.6	1.1642	365
45.0	60.0	EC2-423-0402M	225MX	1475	78.0	29.72	93.1	93.1	92.0	0.86	0.83	0.77	7.0	2.3	2.6	1.3970	390
55.0	75.0	EC2-453-0402M	250MX	1480	94.0	36.20	93.5	93.5	93.0	0.87	0.84	0.79	7.0	2.3	2.6	1.9856	529
75.0	100.0	EC2-480-0402M	280SX	1482	128.0	49.29	94.0	94.0	93.5	0.87	0.84	0.79	7.0	2.2	2.5	3.5195	716
90.0	120.0	EC2-483-0402M	280MX	1482	152.0	59.15	94.2	94.2	93.5	0.87	0.84	0.80	7.0	2.2	2.5	4.1594	755
110.0	150.0	EC2-510-0402M	315SX	1485	187.0	72.15	94.5	94.5	93.7	0.87	0.84	0.80	7.0	2.2	2.5	7.7057	1020
132.0	180.0	EC2-514-0402M	315MX	1485	226.0	86.58	94.7	94.7	94.0	0.86	0.84	0.80	7.0	2.2	2.5	8.8912	1060
160.0	215.0	EC2-516-0402M	315LX	1485	272.0	104.94	94.9	94.9	94.2	0.86	0.84	0.80	7.0	2.2	2.5	10.3731	1210
200.0	270.0	EC2-517-0402M	315LX	1485	336.0	131.18	95.1	95.1	94.6	0.87	0.84	0.80	7.0	2.2	2.5	13.0404	1250
250.0	335.0	EC2-553-0402M	355MX	1488	420.0	163.64	95.1	95.1	94.6	0.87	0.84	0.78	7.0	2.0	2.4	15.9163	1720
315.0	425.0	EC2-557-0402M	355LX	1488	527.0	206.19	95.1	95.1	94.6	0.87	0.84	0.78	7.0	2.0	2.4	19.9879	1900

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.





Low Voltage AC TEFC Squirrel Cage Induction Motors

**Electrical Performance**

IE2 MOTOR

6 Pole

BCH IE2 induction motors suitable for  $415 \pm 10\%$ ,  $50 \text{ Hz} \pm 5\%$ , combined  $\pm 10\%$ , 3 phase supply, ambient temperature  $50^\circ\text{C}$ , TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

6 Pole, 1000 RPM, IE2																	
Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Current (A)	Rated Torque (kg-m)	Efficiency %			Power factor %			Ist / In	Tst / Tn	Tpo / Tn	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.18	0.25	EC2-273-0602M	71	915	0.65	0.19	56.6	56.6	53.0	0.68	0.59	0.48	4.5	1.8	2.0	0.0033	11
0.25	0.33	EC2-274-0602M	71	915	0.80	0.27	61.6	61.6	55.0	0.71	0.61	0.50	4.5	1.8	2.0	0.0033	11
0.37	0.50	EC2-280-0602M	80	925	1.0	0.39	67.6	67.6	64.0	0.76	0.65	0.54	4.5	1.9	2.2	0.0049	16
0.55	0.75	EC2-283-0602M	80	930	1.5	0.58	73.1	73.1	67.0	0.70	0.63	0.52	4.5	2.2	2.6	0.0063	17
0.75	1.0	EC2-290-0602M	90S	935	2.0	0.78	75.9	75.9	73.0	0.69	0.63	0.52	5.0	2.1	2.5	0.0122	24
1.1	1.5	EC2-296-0602M	90L	935	2.7	1.15	78.1	78.1	74.0	0.73	0.68	0.54	5.0	2.1	2.5	0.0176	28
1.5	2.0	EC2-306-0602M	100L	945	3.4	1.55	79.8	79.8	77.0	0.77	0.70	0.56	5.5	2.1	2.5	0.0269	32
2.2	3.0	EC2-313-0602M	112M	950	4.8	2.26	81.8	81.8	78.5	0.78	0.71	0.58	6.0	2.1	2.5	0.0467	41
3.7	5.0	EC2-330-0602M	132S	950	7.6	3.79	84.3	84.3	80.0	0.80	0.74	0.62	6.0	2.2	2.6	0.0991	61
5.5	7.5	EC2-333-0602M	132M	955	11.0	5.61	86.0	86.0	83.0	0.81	0.76	0.62	6.5	2.2	2.6	0.1321	77
7.5	10.0	EC2-363-0602M	160M	970	14.6	7.53	87.2	87.2	84.0	0.82	0.77	0.65	7.0	2.2	2.6	0.2625	125
9.3	12.5	EC2-366-0602M	160L	970	18.0	9.34	88.1	88.1	85.0	0.82	0.77	0.65	7.0	2.1	2.5	0.3440	149
11.0	15.0	EC2-367-0602M	160L	970	21.0	11.05	88.7	88.7	86.0	0.82	0.77	0.65	7.0	2.1	2.5	0.4164	160
15.0	20.0	EC2-386-0602M	180L	970	29.0	15.06	89.7	89.7	86.5	0.80	0.75	0.65	7.0	2.1	2.5	0.5949	197
18.5	25.0	EC2-406-0602M	200L	975	35.6	18.48	90.4	90.4	87.0	0.80	0.75	0.65	7.0	2.1	2.5	0.8605	304
22.0	30.0	EC2-407-0602M	200L	975	42.0	21.98	90.9	90.9	87.5	0.80	0.75	0.65	7.0	2.1	2.5	1.1642	308
30.0	40.0	EC2-423-0602M	225MX	975	56.0	29.97	91.7	91.7	88.0	0.81	0.77	0.66	7.0	2.1	2.4	1.4702	370
37.0	50.0	EC2-453-0602M	250MX	980	68.0	36.77	92.2	92.2	89.0	0.82	0.79	0.70	7.0	2.1	2.4	2.0474	520
45.0	60.0	EC2-480-0602M	280SX	983	80.0	44.59	92.7	92.7	89.4	0.84	0.81	0.73	7.0	2.2	2.4	3.8890	694
55.0	75.0	EC2-483-0602M	280MX	983	98.0	54.50	93.1	93.1	89.7	0.84	0.81	0.73	7.0	2.2	2.4	4.8613	750
75.0	100.0	EC2-510-0602M	315SX	986	133.0	74.09	93.7	93.7	90.0	0.84	0.81	0.73	7.0	2.1	2.4	7.2611	1010
90.0	120.0	EC2-513-0602M	315MX	986	159.0	88.90	94.0	94.0	92.0	0.84	0.81	0.74	7.0	2.1	2.4	8.5948	1050
110.0	150.0	EC2-514-0602M	315MX	986	192.0	108.66	94.3	94.3	92.0	0.85	0.82	0.75	7.0	2.1	2.4	10.3731	1100
132.0	180.0	EC2-517-0602M	315LX	987	227.0	130.26	94.6	94.6	93.0	0.86	0.83	0.76	7.0	2.1	2.4	10.3731	1200
160.0	215.0	EC2-550-0602M	355SX	988	280.0	157.73	94.8	94.8	94.0	0.84	0.82	0.75	7.0	2.1	2.4	19.1900	1680
200.0	270.0	EC2-553-0602M	355MX	988	345.0	197.17	95.0	95.0	94.5	0.85	0.82	0.75	7.0	2.1	2.4	21.0176	1830
250.0	335.0	EC2-557-0602M	355LX	988	433.0	246.46	95.0	95.0	94.5	0.85	0.82	0.75	7.0	2.1	2.4	23.7590	2000

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.







Low Voltage AC TEFC Squirrel Cage Induction Motors

**Electrical Performance**

IE2 MOTOR

8 Pole

BCH IE2 induction motors suitable for  $415 \pm 10\%$ ,  $50 \text{ Hz} \pm 5\%$ , combined  $\pm 10\%$ , 3 phase supply, ambient temperature  $50^\circ\text{C}$ , TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

8 Pole, 1000 RPM, IE2																	
Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Current (A)	Rated Torque (kg-m)	Efficiency %			Power factor %			Ist / In	Tst / Tn	Tpo / Tn	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.12	0.16	EC2-273-0802M	71	680	0.75	0.17	39.8	39.8	35.0	0.56	0.50	0.42	3.5	1.6	2.0	0.0033	11
0.18	0.25	EC2-280-0802M	80	685	0.85	0.26	45.9	45.9	40.0	0.64	0.50	0.42	4.0	1.7	2.0	0.0049	16
0.25	0.33	EC2-283-0802M	80	690	1.0	0.35	50.6	50.6	45.0	0.69	0.52	0.42	4.0	1.8	2.1	0.0063	18
0.37	0.50	EC2-290-0802M	90S	695	1.4	0.52	56.1	56.1	49.0	0.66	0.53	0.42	4.0	1.7	2.0	0.0095	24
0.55	0.75	EC2-296-0802M	90L	700	2.0	0.77	61.7	61.7	56.0	0.62	0.54	0.42	4.5	1.8	2.0	0.0122	28
0.75	1.0	EC2-306-0802M	100L	705	2.2	1.04	66.2	66.2	62.0	0.72	0.60	0.48	5.0	1.9	2.1	0.0228	34
1.1	1.5	EC2-307-0802M	100L	700	3.0	1.53	70.8	70.8	65.0	0.72	0.62	0.48	5.0	1.9	2.1	0.0296	36
1.5	2.0	EC2-313-0802M	112M	710	3.9	2.06	77.0	74.1	73.0	0.69	0.63	0.51	5.5	1.8	2.3	0.0467	45
2.2	3.0	EC2-330-0802M	132S	715	5.3	3.00	77.6	77.6	75.0	0.74	0.66	0.53	5.0	2.2	2.4	0.0826	59
3.7	5.0	EC2-363-0802M	160M	722	8.2	4.99	81.4	81.4	79.5	0.77	0.71	0.59	6.0	2.2	2.4	0.2625	106
5.5	7.5	EC2-364-0802M	160M	720	11.8	7.44	83.8	83.8	82.0	0.77	0.72	0.60	6.0	2.0	2.2	0.2625	115
7.5	10.0	EC2-366-0802M	160L	723	15.8	10.10	85.3	85.3	83.0	0.77	0.72	0.60	6.0	2.0	2.2	0.3440	148
9.3	12.5	EC2-383-0802M	180M	725	19.5	12.49	86.3	86.3	83.5	0.77	0.72	0.60	6.0	2.1	2.3	0.5057	181
11.0	15.0	EC2-386-0802M	180L	727	23.0	14.74	86.9	86.9	84.0	0.77	0.68	0.55	6.0	2.2	2.4	0.5949	195
15.0	20.0	EC2-406-0802M	200L	730	31.0	20.01	88.0	88.0	85.0	0.76	0.68	0.56	6.0	2.0	2.2	1.1136	306
18.5	25.0	EC2-420-0802M	225SX	732	37.5	24.62	88.6	88.6	86.0	0.77	0.70	0.61	6.0	2.0	2.2	1.5437	366
22.0	30.0	EC2-423-0802M	225MX	733	44.8	29.23	89.1	89.1	87.0	0.77	0.70	0.58	6.0	2.2	2.4	1.8378	380
30.0	40.0	EC2-453-0802M	250MX	733	60.7	39.86	89.8	89.8	88.0	0.77	0.71	0.61	6.0	2.1	2.3	2.5127	523
37.0	50.0	EC2-480-0802M	280SX	735	72.0	49.03	90.3	90.3	89.0	0.79	0.74	0.64	6.0	2.2	2.5	3.8890	698
45.0	60.0	EC2-483-0802M	280MX	735	87.0	59.63	90.7	90.7	89.3	0.79	0.75	0.67	6.0	2.2	2.4	4.8613	735
55.0	75.0	EC2-510-0802M	315SX	737	108.4	72.69	91.0	91.0	90.0	0.78	0.72	0.60	6.0	2.1	2.3	7.2611	1010
75.0	100.0	EC2-513-0802M	315MX	737	146.0	99.12	91.6	91.6	90.5	0.78	0.73	0.64	6.0	2.1	2.3	8.5948	1050
90.0	120.0	EC2-516-0802M	315LX	737	175.0	118.94	91.9	91.9	90.7	0.78	0.74	0.65	6.0	2.0	2.2	10.3731	1180
110.0	150.0	EC2-517-0802M	315LX	737	213.0	145.37	92.3	92.3	91.0	0.78	0.74	0.64	6.0	2.0	2.3	11.8549	1200
132.0	180.0	EC2-550-0802M	355SX	739	255.8	173.98	92.6	92.6	91.5	0.78	0.72	0.60	6.0	2.0	2.2	19.1900	1680
160.0	215.0	EC2-553-0802M	355MX	739	315.0	210.88	93.0	93.0	91.7	0.76	0.68	0.56	6.0	2.0	2.4	23.7590	1830
200.0	270.0	EC2-556-0802M	355LX	739	390.0	263.60	93.5	93.5	92.5	0.76	0.70	0.60	6.0	2.0	2.4	28.3281	1920
225.0	300.0	EC2-557-0802M	355LX	739	431.0	296.55	93.5	93.5	93.0	0.78	0.71	0.63	6.0	2.0	2.2	28.3281	1930

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.







Low Voltage AC TEFC Squirrel Cage Induction Motors

**Electrical Performance**

IE3 Motor

2 Pole

BCH IE3 induction motors suitable for 415 ± 10%, 50 Hz ± 5%, combined ± 10%, 3 phase supply, ambient temperature 50°C, TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

2 Pole, 3000 RPM, IE3

Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Curr. (A)	Rated Torque (kgm)	Efficiency %			Power factor %			I <sub>st</sub> /I <sub>n</sub>	T <sub>st</sub> /T <sub>n</sub>	T <sub>po</sub> /T <sub>n</sub>	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.18	0.25	EC3-260-0202M	63	2800	0.53	0.06	65.9	65.9	60.5	0.72	0.64	0.52	6.5	2.0	2.3	0.0010	8
0.25	0.33	EC3-263-0202M	63	2800	0.66	0.09	69.7	69.7	67.0	0.76	0.66	0.54	6.5	2.0	2.3	0.0010	9
0.37	0.50	EC3-270-0202M	71	2810	0.90	0.13	73.8	73.8	70.5	0.77	0.69	0.57	6.5	2.1	2.5	0.0010	12
0.55	0.75	EC3-273-0202M	71	2840	1.25	0.19	77.8	77.8	74.5	0.79	0.74	0.60	7.0	2.2	2.6	0.0014	13
0.75	1.0	EC3-280-0202M	80	2850	1.6	0.26	80.7	80.7	78.0	0.81	0.76	0.63	7.0	2.5	2.5	0.0049	16
1.1	1.5	EC3-283-0202M	80	2850	2.2	0.38	82.7	82.7	80.0	0.84	0.80	0.72	7.0	2.6	2.5	0.0062	18
1.5	2.0	EC3-290-0202M	90S	2870	3.0	0.51	84.2	84.2	82.5	0.83	0.81	0.75	7.0	2.5	3.0	0.0052	27
2.2	3.0	EC3-296-0202M	90L	2870	4.3	0.75	85.9	85.9	84.5	0.83	0.81	0.75	7.7	2.5	3.0	0.0066	29
3.7	5.0	EC3-306-0202M	100L	2890	6.8	1.25	87.8	87.8	85.0	0.86	0.83	0.77	7.7	2.5	3.0	0.0168	39
5.5	7.5	EC3-313-0202M	132S	2945	9.8	1.82	89.2	89.2	87.0	0.88	0.86	0.82	7.7	2.5	3.0	0.0583	63
7.5	10.0	EC3-330-0202M	132S	2945	13.0	2.48	90.1	90.1	89.5	0.89	0.87	0.84	7.7	2.5	3.0	0.0716	71
9.3	12.5	EC3-362-0202M	160M	2940	16.0	3.08	90.7	90.7	89.0	0.89	0.86	0.81	7.0	2.3	2.8	0.1700	112
11.0	15.0	EC3-363-0202M	160M	2940	19.0	3.64	91.2	91.2	90.0	0.88	0.86	0.79	7.0	2.3	2.8	0.1700	137
15.0	20.0	EC3-364-0202M	160M	2935	25.3	4.98	91.9	91.9	90.9	0.90	0.88	0.82	7.0	2.5	2.9	0.2040	142
18.5	25.0	EC3-366-0202M	160L	2930	31.0	6.15	92.4	92.4	91.4	0.90	0.88	0.81	7.0	2.3	2.8	0.2312	164
22.0	30.0	EC3-383-0202M	180M	2935	37.0	7.30	92.7	92.7	91.5	0.89	0.87	0.81	7.0	2.2	2.7	0.2585	185
30.0	40.0	EC3-406-0202M	200L	2955	49.0	9.89	93.3	93.3	92.2	0.91	0.89	0.85	7.0	2.0	2.5	0.5257	300
37.0	50.0	EC3-407-0202M	200L	2955	60.5	12.20	93.7	93.7	92.5	0.91	0.90	0.85	7.0	2.0	2.5	0.5257	320
45.0	60.0	EC3-423-0202M	225M	2960	73.0	14.81	94.0	94.0	93.0	0.91	0.90	0.86	7.0	2.3	2.5	0.8450	386
55.0	75.0	EC3-453-0202M	250M	2960	89.0	18.10	94.3	94.3	93.0	0.91	0.90	0.86	7.0	2.0	2.5	1.0690	510
75.0	100.0	EC3-480-0202M	280S	2970	121.5	24.60	94.7	94.7	93.5	0.91	0.90	0.86	7.0	2.0	2.8	2.9368	800
90.0	120.0	EC3-483-0202M	280M	2970	145.0	29.52	95.0	95.0	94.0	0.91	0.89	0.84	7.0	2.0	2.8	2.9368	845
110.0	150.0	EC3-510-0202M	315S	2980	177.0	35.95	95.2	95.2	94.0	0.91	0.90	0.86	7.0	1.9	2.6	4.6393	1090
132.0	180.0	EC3-514-0202M	315M	2980	212.0	43.14	95.4	95.4	94.2	0.91	0.90	0.87	7.5	1.9	2.6	4.6393	1140
160.0	215.0	EC3-516-0202M	315L	2980	257.0	52.30	95.6	95.6	94.0	0.91	0.90	0.88	7.5	1.9	2.6	5.4392	1220
200.0	270.0	EC3-517-0202M	315L	2980	320.0	65.37	95.8	95.8	94.5	0.91	0.90	0.87	7.5	2.0	2.6	5.5991	1260
250.0	335.0	EC3-553-0202M	355M	2980	403.0	81.71	95.8	95.8	94.0	0.90	0.88	0.84	7.5	1.9	2.6	8.9735	1740
315.0	425.0	EC3-557-0202M	355L	2980	506.0	102.96	95.8	95.8	94.0	0.90	0.88	0.84	7.5	2.0	2.6	10.0292	1900

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.





## Low Voltage AC TEFC Squirrel Cage Induction Motors

### Electrical Performance

IE3 Motor

4 Pole

BCH IE3 induction motors suitable for  $415 \pm 10\%$ ,  $50 \text{ Hz} \pm 5\%$ , combined  $\pm 10\%$ , 3 phase supply, ambient temperature  $50^\circ\text{C}$ , TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

4 Pole, 1500 RPM, IE3																	
Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Current (A)	Rated Torque (kg-m)	Efficiency %			Power factor %			Ist/In	Tst/Tn	Tpo/Tn	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.12	0.16	EC3-260-0402M	63	1400	0.51	0.08	64.8	64.8	58.0	0.51	0.46	0.38	5.0	2.0	2.4	0.0010	8
0.18	0.25	EC3-263-0402M	63	1400	0.57	0.13	69.9	69.9	64.0	0.63	0.57	0.48	5.0	2.0	2.4	0.0010	9
0.25	0.33	EC3-270-0402M	71	1415	0.75	0.17	73.5	73.5	68.0	0.63	0.58	0.48	5.0	2.1	2.5	0.0022	11
0.37	0.50	EC3-273-0402M	71	1420	1.0	0.25	77.3	77.3	72.0	0.67	0.63	0.50	5.0	2.2	2.6	0.0028	12
0.55	0.75	EC3-280-0402M	80	1430	1.3	0.37	80.8	80.8	74.0	0.73	0.66	0.53	6.0	2.2	2.6	0.0049	16
0.75	1.0	EC3-283-0402M	80	1430	1.6	0.51	82.5	82.5	78.0	0.79	0.75	0.64	6.5	2.6	3.0	0.0062	18
1.1	1.5	EC3-290-0402M	90S	1430	2.3	0.75	84.1	84.1	81.5	0.79	0.75	0.64	6.5	2.5	3.0	0.0093	24
1.5	2.0	EC3-296-0402M	90L	1435	3.1	1.02	85.3	85.3	83.0	0.79	0.75	0.64	6.5	2.5	3.0	0.0134	29
2.2	3.0	EC3-306-0402M	100L	1440	4.3	1.49	86.7	86.7	84.0	0.82	0.78	0.67	7.0	2.5	3.0	0.0237	38
3.7	5.0	EC3-313-0402M	112M	1450	7.5	2.49	88.4	88.4	85.5	0.78	0.69	0.60	7.0	2.5	3.0	0.0497	53
5.5	7.5	EC3-330-0402M	132S	1455	10.5	3.68	89.6	89.6	87.0	0.81	0.76	0.65	7.0	2.5	3.0	0.0811	60
7.5	10.0	EC3-333-0402M	132M	1455	14.2	5.02	90.4	90.4	88.0	0.81	0.76	0.66	7.0	2.5	3.0	0.1081	77
9.3	12.5	EC3-363-0402M	160M	1465	16.5	6.18	91.0	91.0	90.0	0.86	0.82	0.73	7.0	2.5	2.8	0.2369	150
11.0	15.0	EC3-364-0402M	160M	1460	19.8	7.34	91.4	91.4	90.2	0.85	0.80	0.72	7.0	2.3	2.6	0.2369	162
15.0	20.0	EC3-366-0402M	160L	1470	26.2	9.94	92.1	92.1	91.4	0.86	0.83	0.74	7.0	2.4	2.7	0.3032	186
18.5	25.0	EC3-383-0402M	180M	1470	32.8	12.26	92.6	92.6	91.6	0.85	0.81	0.73	7.0	2.4	2.7	0.3790	195
22.0	30.0	EC3-386-0402M	180L	1470	38.8	14.58	93.0	93.0	92.0	0.85	0.81	0.73	7.0	2.3	2.6	0.4359	224
30.0	40.0	EC3-406-0402M	200L	1475	52.5	19.81	93.6	93.6	92.5	0.85	0.81	0.73	7.5	2.3	2.6	0.9987	367
37.0	50.0	EC3-420-0402M	225SX	1475	63.5	24.43	93.9	93.9	93.0	0.86	0.83	0.76	7.5	2.3	2.6	1.3970	387
45.0	60.0	EC3-423-0402M	225MX	1475	77.8	29.72	94.2	94.2	93.2	0.85	0.82	0.74	7.5	2.5	2.8	1.6299	413
55.0	75.0	EC3-453-0402M	250MX	1482	92.0	36.15	94.6	94.6	94.0	0.88	0.86	0.80	7.5	2.5	2.8	2.3466	557
75.0	100.0	EC3-480-0402M	280SX	1482	125.0	49.29	95.0	95.0	94.2	0.88	0.85	0.77	7.5	2.2	2.5	4.1594	746
90.0	120.0	EC3-483-0402M	280MX	1482	150.0	59.15	95.2	95.2	94.0	0.88	0.85	0.77	7.5	2.2	2.5	5.1192	790
110.0	150.0	EC3-510-0402M	315SX	1485	183.0	72.15	95.4	95.4	94.4	0.88	0.85	0.77	7.7	2.0	2.4	10.3731	1110
132.0	180.0	EC3-514-0402M	315MX	1485	216.0	86.58	95.6	95.6	94.5	0.89	0.87	0.82	7.7	2.2	2.5	11.8549	1110
160.0	215.0	EC3-516-0402M	315LX	1485	260.0	104.94	95.8	95.8	94.5	0.89	0.87	0.81	7.7	2.2	2.5	13.0404	1270
200.0	270.0	EC3-517-0402M	315LX	1485	326.0	131.18	96.0	96.0	95.0	0.89	0.87	0.81	7.7	2.2	2.5	15.4114	1310
250.0	335.0	EC3-553-0402M	355MX	1485	412.0	163.97	96.0	96.0	95.0	0.88	0.85	0.77	7.7	2.0	2.5	15.9163	1735
315.0	425.0	EC3-557-0402M	355LX	1486	519.0	206.47	96.0	96.0	95.0	0.88	0.85	0.77	7.7	2.0	2.5	19.9879	1950

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.







Low Voltage AC TEFC Squirrel Cage Induction Motors

**Electrical Performance**

IE3 Motor

6 Pole

BCH IE3 induction motors suitable for  $415 \pm 10\%$ ,  $50 \text{ Hz} \pm 5\%$ , combined  $\pm 10\%$ , 3 phase supply, ambient temperature  $50^\circ\text{C}$ , TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

6 Pole, 1000 RPM, IE3

Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Current (A)	Rated Torque (kg-m)	Efficiency %			Power factor %			Ist/In	Tst/Tn	Tpo/Tn	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.18	0.25	EC3-273-0602M	71	915	0.64	0.19	63.9	63.9	59.0	0.61	0.51	0.42	5.0	1.8	2.3	0.0033	12
0.25	0.33	EC3-274-0602M	71	915	0.80	0.27	68.6	68.6	64.0	0.63	0.57	0.46	5.0	1.8	2.3	0.0041	14
0.37	0.50	EC3-280-0602M	80	925	1.05	0.39	73.5	73.5	69.0	0.67	0.63	0.50	5.0	1.8	2.3	0.0049	18
0.55	0.75	EC3-283-0602M	80	925	1.45	0.58	77.2	77.2	72.0	0.68	0.62	0.50	5.0	2.0	2.4	0.0080	21
0.75	1.0	EC3-290-0602M	90S	930	1.9	0.79	78.9	78.9	74.0	0.70	0.62	0.50	5.0	2.2	2.6	0.0135	26
1.1	1.5	EC3-296-0602M	90L	940	2.7	1.14	81.0	81.0	76.0	0.70	0.62	0.50	5.5	2.2	2.6	0.0190	30
1.5	2.0	EC3-306-0602M	100L	945	3.3	1.55	82.5	82.5	80.0	0.77	0.71	0.60	5.5	2.2	2.6	0.0336	35
2.2	3.0	EC3-313-0602M	112M	955	4.7	2.24	84.3	84.3	82.0	0.77	0.71	0.60	6.0	2.2	2.6	0.0630	45
3.7	5.0	EC3-330-0602M	132S	960	7.5	3.75	86.5	86.5	84.0	0.79	0.72	0.63	6.5	2.4	2.8	0.1321	71
5.5	7.5	EC3-333-0602M	132M	960	11.0	5.58	88.0	88.0	86.0	0.79	0.72	0.63	7.5	2.6	3.0	0.1487	79
7.5	10.0	EC3-363-0602M	160M	970	14.0	7.53	89.1	89.1	88.0	0.84	0.79	0.69	7.0	2.2	2.5	0.3718	140
9.3	12.5	EC3-366-0602M	160L	965	17.0	9.39	89.8	89.8	88.5	0.85	0.80	0.70	7.0	2.2	2.5	0.4759	153
11.0	15.0	EC3-367-0602M	160L	965	20.0	11.10	90.3	90.3	88.5	0.85	0.80	0.70	7.0	2.2	2.5	0.5503	169
15.0	20.0	EC3-386-0602M	180L	970	27.5	15.06	91.2	91.2	90.0	0.83	0.80	0.71	7.5	2.3	2.6	0.7437	212
18.5	25.0	EC3-406-0602M	200L	978	34.0	18.42	91.7	91.7	90.3	0.83	0.78	0.70	7.0	2.2	2.5	1.1642	306
22.0	30.0	EC3-407-0602M	200L	978	40.0	21.91	92.2	92.2	90.7	0.83	0.78	0.69	7.0	2.2	2.5	1.3667	320
30.0	40.0	EC3-423-0602M	225MX	980	55.0	29.82	92.9	92.9	91.5	0.82	0.77	0.67	7.0	2.2	2.5	1.8378	388
37.0	50.0	EC3-453-0602M	250MX	982	66.0	36.70	93.3	93.3	92.0	0.84	0.81	0.72	7.0	2.2	2.5	2.6988	542
45.0	60.0	EC3-480-0602M	280SX	984	79.0	44.54	93.7	93.7	92.5	0.85	0.82	0.75	7.0	2.3	2.5	4.8613	740
55.0	75.0	EC3-483-0602M	280MX	984	95.0	54.44	94.1	94.1	93.2	0.86	0.84	0.77	7.0	2.3	2.5	5.8335	780
75.0	100.0	EC3-510-0602M	315SX	986	131.0	74.09	94.6	94.6	93.5	0.84	0.81	0.73	7.0	2.3	2.4	8.5948	1045
90.0	120.0	EC3-513-0602M	315MX	986	156.0	88.90	94.9	94.9	94.0	0.85	0.81	0.73	7.0	2.3	2.4	10.3731	1090
110.0	150.0	EC3-514-0602M	315MX	987	194.0	108.55	95.1	95.1	94.0	0.83	0.79	0.69	7.5	2.5	2.5	11.8549	1130
132.0	180.0	EC3-517-0602M	315LX	988	228.0	130.13	95.4	95.4	94.5	0.84	0.81	0.72	7.5	2.5	2.5	14.2259	1240
160.0	215.0	EC3-550-0602M	355SX	990	276.0	157.41	95.6	95.6	95.0	0.84	0.81	0.72	7.5	2.0	2.4	23.7590	1800
200.0	270.0	EC3-553-0602M	355MX	990	347.0	196.77	95.8	95.8	95.0	0.84	0.80	0.71	7.5	2.2	2.4	23.7590	1810
250.0	335.0	EC3-557-0602M	355LX	989	430.0	246.21	95.8	95.8	95.0	0.84	0.81	0.73	7.5	2.0	2.4	26.5005	2000

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.







Low Voltage AC TEFC Squirrel Cage Induction Motors

**Electrical Performance**

IE3 Motor

8 Pole

BCH IE3 induction motors suitable for 415 ± 10%, 50 Hz ± 5%, combined ± 10%, 3 phase supply, ambient temperature 50°C, TEFC, Class 'F' insulation, IP-55 protection, continuous rated (S1 duty) with bare shaft & key as per IS:12615-2011 / IEC:60034-1

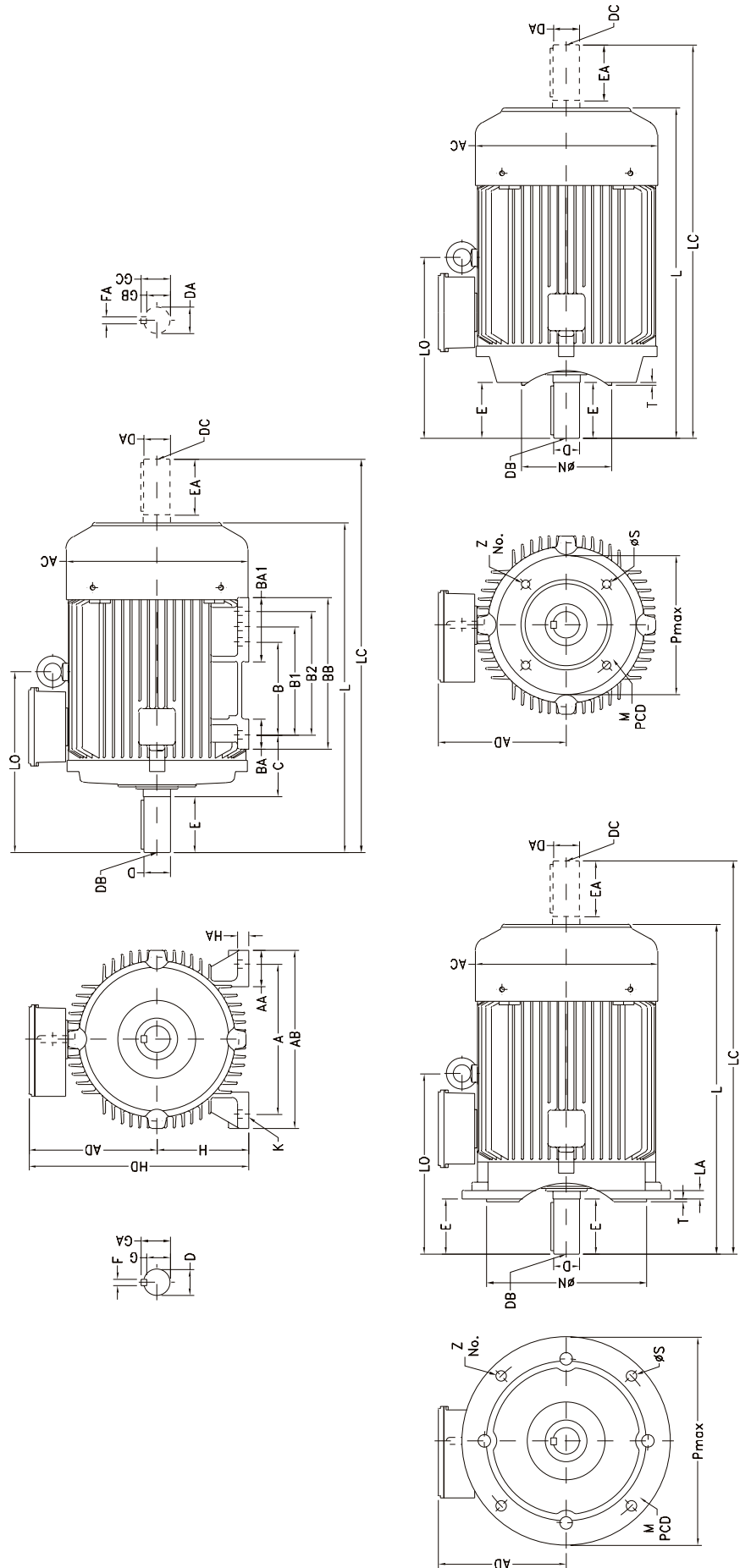
8 Pole, 1000 RPM, IE3																	
Rated Output		Motor Type	Frame Size	Rated Speed (rpm)	Rated Current (A)	Rated Torque (kg-m)	Efficiency %			Power factor %			Ist/In	Tst/Tn	Tpo/Tn	GD <sup>2</sup> (kgm <sup>2</sup> )	Wt. (kg)
KW	HP						FL	3/4L	1/2FL	FL	3/4L	1/2FL					
0.12	0.16	EC3-270-0802M	71	685	0.66	0.17	50.7	48.0	42.0	0.50	0.45	0.38	3.5	1.6	2.0	0.0033	11
0.18	0.25	EC3-280-0802M	80	690	0.75	0.25	58.7	56.0	49.0	0.57	0.50	0.40	4.0	1.8	2.1	0.0049	17
0.25	0.33	EC3-283-0802M	80	695	0.92	0.35	64.1	63.0	57.0	0.59	0.51	0.42	4.5	1.8	2.1	0.0080	20
0.37	0.50	EC3-290-0802M	90S	700	1.3	0.51	69.3	69.3	60.0	0.57	0.48	0.40	4.5	2.0	2.2	0.0122	27
0.55	0.75	EC3-296-0802M	90L	700	1.7	0.77	73.0	73.0	66.0	0.62	0.54	0.42	4.5	1.8	2.0	0.0176	30
0.75	1.0	EC3-306-0802M	100L	700	2.1	1.04	75.0	75.0	71.0	0.66	0.58	0.48	5.0	2.0	2.2	0.0228	35
1.1	1.5	EC3-307-0802M	100L	700	2.9	1.53	77.7	77.7	73.0	0.68	0.61	0.51	5.0	2.0	2.2	0.0336	38
1.5	2.0	EC3-313-0802M	112M	710	3.7	2.06	79.7	79.7	75.0	0.71	0.65	0.55	5.5	2.0	2.2	0.0584	48
2.2	3.0	EC3-330-0802M	132S	715	5.1	3.00	81.9	81.9	77.0	0.73	0.67	0.56	6.0	2.2	2.4	0.0991	62
3.7	5.0	EC3-363-0802M	160M	723	7.9	4.98	84.5	84.5	82.0	0.77	0.73	0.61	7.0	2.3	2.5	0.2625	110
5.5	7.5	EC3-364-0802M	160M	724	11.5	7.40	86.2	86.2	82.5	0.77	0.73	0.60	7.0	2.2	2.4	0.2625	118
7.5	10.0	EC3-366-0802M	160L	725	15.4	10.08	87.3	87.3	83.5	0.78	0.73	0.60	7.0	2.2	2.4	0.3440	152
9.3	12.5	EC3-383-0802M	180M	725	19.4	12.49	88.1	88.1	84.0	0.76	0.70	0.58	7.0	2.2	2.4	0.5057	184
11.0	15.0	EC3-386-0802M	180L	727	23.0	14.74	88.6	88.6	85.0	0.75	0.67	0.54	7.0	2.3	2.5	0.5949	198
15.0	20.0	EC3-406-0802M	200L	730	31.0	20.01	89.6	89.6	86.0	0.75	0.68	0.56	7.0	2.1	2.3	1.1136	310
18.5	25.0	EC3-420-0802M	225SX	732	37.0	24.62	90.1	90.1	87.0	0.77	0.71	0.60	7.0	2.0	2.2	1.5437	370
22.0	30.0	EC3-423-0802M	225MX	733	44.5	29.23	90.6	90.6	87.5	0.76	0.69	0.58	7.0	2.2	2.4	1.8378	385
30.0	40.0	EC3-453-0802M	250MX	733	60.0	39.86	91.3	91.3	88.5	0.76	0.70	0.60	7.0	2.2	2.4	2.5127	530
37.0	50.0	EC3-480-0802M	280SX	735	71.0	49.03	91.8	91.8	89.5	0.79	0.75	0.65	7.0	2.2	2.4	4.8613	720
45.0	60.0	EC3-483-0802M	280MX	735	86.0	59.63	92.2	92.2	90.0	0.79	0.76	0.67	7.0	2.2	2.4	5.8335	750
55.0	75.0	EC3-510-0802M	315SX	737	108.1	72.69	92.5	92.5	90.5	0.77	0.71	0.60	7.0	2.2	2.4	7.2611	1020
75.0	100.0	EC3-513-0802M	315MX	737	145.5	99.12	93.1	93.1	90.8	0.77	0.73	0.64	7.0	2.1	2.3	8.5948	1060
90.0	120.0	EC3-516-0802M	315LX	737	172.8	118.94	93.4	93.4	91.0	0.78	0.74	0.65	7.0	2.0	2.2	10.3731	1190
110.0	150.0	EC3-517-0802M	315LX	737	210.7	145.37	93.7	93.7	91.4	0.78	0.74	0.64	7.0	2.1	2.3	11.8549	1220
132.0	180.0	EC3-550-0802M	355SX	739	255.3	173.98	94.0	94.0	91.8	0.77	0.71	0.60	7.0	2.1	2.3	19.1900	1700
160.0	215.0	EC3-553-0802M	355MX	739	315.0	210.88	94.3	94.3	92.0	0.75	0.68	0.56	7.0	2.1	2.4	23.7590	1850
200.0	270.0	EC3-556-0802M	355LX	739	389.0	263.60	94.6	94.6	93.0	0.76	0.70	0.60	7.0	2.1	2.4	28.3281	1950
225.0	300.0	EC3-557-0802M	355LX	739	430.0	296.55	94.6	94.6	93.5	0.77	0.71	0.63	7.0	2.0	2.2	28.3281	1970

Note : Motors upto 2.0 HP are Star (Y) connected & Motors above 2.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.





## MECHANICAL DIMENSIONS - STANDARD, IE2 MOTORS

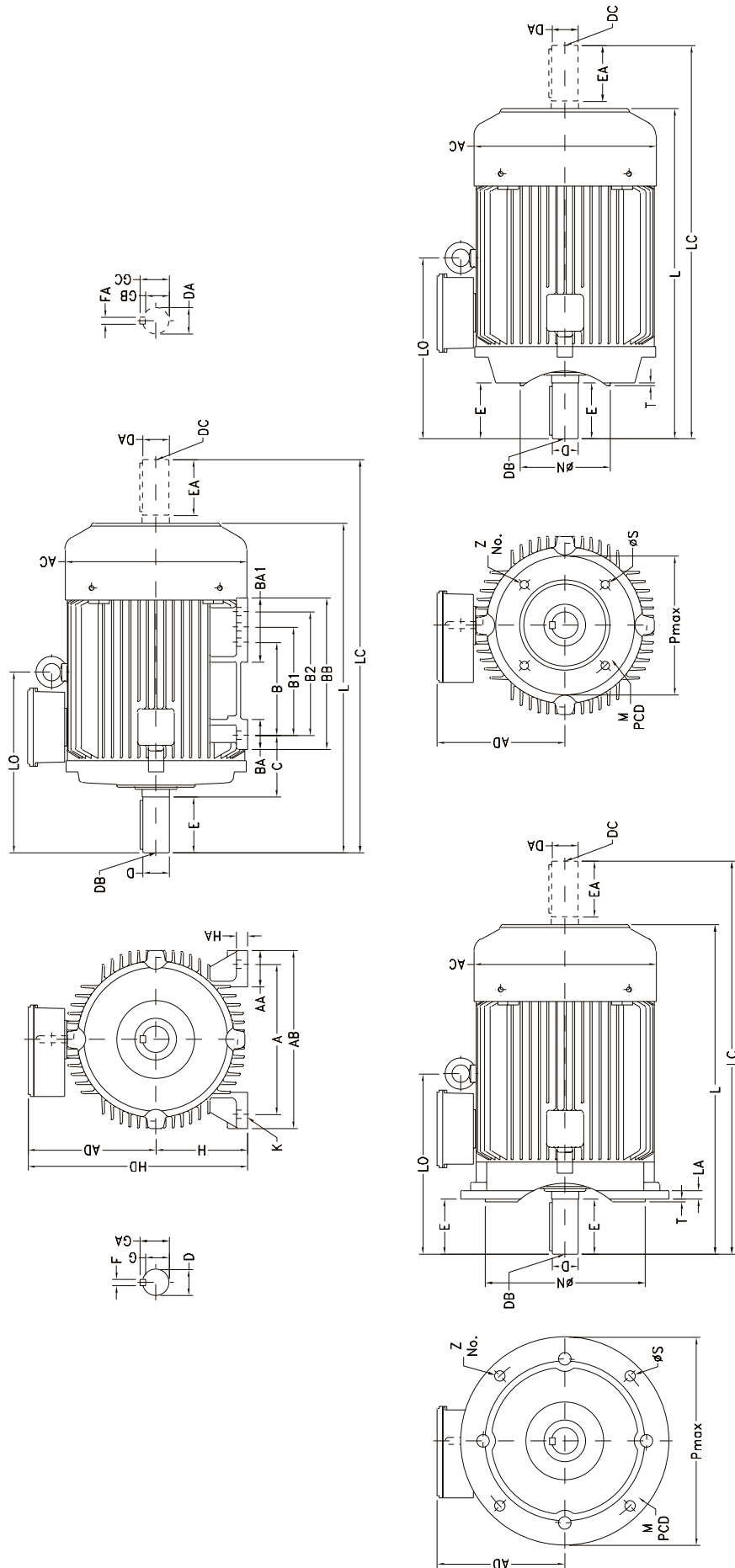








## MECHANICAL DIMENSIONS - STANDARD, IE3 MOTORS







# BCH IE SERIES : (As Per IS : 12615-2011, IEC-60034-30 2008)

## Low Voltage 3 Phase TEFC Squirrel Cage Induction Motor

**IE2/IE3**

Motors

IE2- Frame Size: 63 to 180 - Rating: 0.12 KW to 9.3 KW - Pole: 2, 4, 6 & 8

## Bhartia Series

### General Specifications

#### Specification of Catalogue Versions

Description	
Supply voltage	: 415 Volts $\pm$ 10%, 3 Phase, A. C.
Frequency	: 50 Hz $\pm$ 5%
Combined voltage & frequency variations (absolute sum)	: $\pm$ 10%
Ambient temperature	: 50° C
Altitude	: Up to 1000 meters above MSL
Relative humidity	: Up to 100%
Insulation class	: F
Winding temperature rise	: Designed to operate within class B limit
Duty	: Continuous (S1)
Protection class	: IP 55
Method of cooling	: IC0411 (Standard motors) / IC0416 (Forced cooling)
Motor feet	: Integral to motor housing
Terminal box position	: At Top towards drive end
Shaft Extension	: Single Cylindrical at drive end
Paint shade	: RAL-5014





## KEY FEATURES

- **Standard Followed:** All the motors are manufactured as per IS : 12615 for 3 phase for electrical parameters and mechanical dimensions are as per IS : 1231 & IS : 2223.
- **Ratings:** Motors are rated for continuous duty (S1) at an ambient temperature of 50°C and a height of up to 1000 meter above sea level.
- **Voltage :** Motors are designed for 415 volts 10% for 3 supply
- **Frequency :** Motors are designed for 50Hz 5% for 3 supply
- **Insulation Quality :** Motors are manufactured with insulation class F. class H also can be supplied (requirements need to be confirmed at the time of placing order).
- **Winding :** Modified super enamelled copper wire which is tested as per IS : 13730 part III is used for winding of all motors. Additionally, high dielectric and mechanical strength material used for slot insulation.
- **Stator :** Electrical stampings are of CRNO material with high grade, C-6 coating with lower losses.
- **Rotor & Shaft :** Aluminium pressure die casted rotors and shaft of EN8D steel material is provided in all motors. All rotors are dynamically balance for low vibration and long bearing life.
- **Bearings :** High quality bearings are used and mounted on shaft by induction heating procedure for smooth running, low noise and long life.
- **Motor Body and Covers :** These are made of graded C.I. casting material for required strength and reliability. Motor body with external fins increase heat dissipation rate, thus improving motor life.
- **Assembling :** Assembling is done on horizontal hydraulic press for perfect fitment and best alignment of shaft with bearings which is never possible in manual fitting thus improved quality & life by proper assembling.
- **Inspection & Testing :** All components are manufactured and inspected as per ISO:9001-2015 quality system on latest precision machineries and calibrated instruments to give years of maintenance free operation. All motors are tested as per relevant Indian Standard.





# BCH IE SERIES : (As Per IS : 12615-2011, IEC-60034-30 2008)

## Low Voltage 3 Phase TEFC Squirrel Cage Induction Motor

**IE2/IE3**

Motors

IE2- Frame Size: 63 to 180 - Rating: 0.12 KW to 9.3 KW - Pole: 2, 4, 6 & 8

### Motor Housing

- Cast Iron (CI) stator housing:  
63-180 frame
- Pressure Die Cast Aluminum stator housing : (On Request)  
63-100 frame

### Bearing arrangement

Frames up to 180L have sealed bearing which are lubricated for life.

Frame Size	Driving End	Non - Driving End	Regreasing Time (Hrs.)	
			2 pole	4, 6, 8 pole
63	6201ZZ	6201ZZ	-	-
71	6202ZZ	6202ZZ	-	-
80	6204ZZ	6204ZZ	-	-
90S/L	6305ZZ	6205ZZ	-	-
100L	6206ZZ	6206ZZ	-	-
112M	6206ZZ	6206ZZ	-	-
132S/M	6208ZZ	6208ZZ	-	-
160M/L	6309ZZ	6209ZZ	-	-
180M/L	6310ZZ	6210ZZ	-	-

### Terminal Box Data

Frame Size	Cable Entry Size	Max. Cable Size DOL starting	Max. Cable Size Star-Delta starting	Terminal Stud Size
63-90	1 x 3/4" BSC	3C x 4.00mm <sup>2</sup>	-	M4
100-132	2 x 1" BSC	3C x 10.00mm <sup>2</sup>	2 x 3C x 10.00mm <sup>2</sup>	M5
160-180	2 x 1" BSC	3C x 35.00mm <sup>2</sup>	2 x 3C x 25.00mm <sup>2</sup>	M6

Equivalent metric & Pg threadings can also be provided on request



## Low Voltage AC TEFC Squirrel Cage Induction Motors

### Electrical Performance

#### BHARTIA SERIES IE2 MOTORS

##### 2 POLE

BHARTIA Series IE2 Induction Motors suitable for 415  $\pm$ 10%, 50Hz  $\pm$ 5%, combin  $\pm$ 10%, 3 Phase supply , ambient temperature 50 °C, TEFC, , Insulation Class: F Temperature limited to Class:B, IP-55 Protection, Continuous rated (S1 duty) with bare shaft & Key as per IS:12615-2011/IEC:60034-1

MODEL NO:	KW	HP	FRAME	No. of Ph.	Pole	V	Hz	Rated Curr. (A)	rpm	Tq (Nm)	EFFICIENCY			POWER FACTOR			Temp. Rise (Res.)	Str. Con.	Motor Wt. (appr) (kg)
											100%	75%	50%	100%	75%	50%			
BC2-0D25-2P3B03	0.18	0.25	63	3	2	415	50	0.57	2750	0.06	60.4	59.0	57.0	0.72	0.67	0.55	31.71	STAR	6.3
BC2-0D33-2P3B03	0.25	0.33	63	3	2	415	50	0.90	2825	0.09	64.8	64.0	62.0	0.73	0.62	0.50	25.48	STAR	7.1
BC2-0D50-2P3B03	0.37	0.50	71	3	2	415	50	0.94	2820	0.13	69.5	69.5	67.0	0.78	0.72	0.58	25.23	STAR	10
BC2-0D75-2P3B03	0.55	0.75	71	3	2	415	50	1.4	2810	0.19	74.1	74.0	71.5	0.73	0.66	0.53	46.22	STAR	11
BC2-1D00-2P3B03	0.75	1.00	80	3	2	415	50	1.75	2860	0.26	77.4	76.5	73.0	0.77	0.71	0.58	44.35	STAR	15
BC2-1D50-2P3B03	1.1	1.5	80	3	2	415	50	2.34	2860	0.38	79.6	79.6	74.0	0.82	0.75	0.61	52.08	STAR	16
BC2-2D00-2P3B03	1.5	2.0	90S	3	2	415	50	3.25	2880	0.51	81.3	81.0	78.0	0.79	0.67	0.55	47.29	STAR	21
BC2-3D00-2P3B03	2.2	3.0	90L	3	2	415	50	4.59	2860	0.75	83.2	82.75	81.0	0.80	0.76	0.65	47.92	STAR	23
BC2-5D00-2P3B03	3.7	5.0	100L	3	2	415	50	7.25	2880	1.25	85.5	85.0	84.0	0.83	0.79	0.69	74.59	DELTA	35
BC2-7D50-2P3B03	5.5	7.5	132S	3	2	415	50	10.1	2930	1.86	87.0	85.8	82.0	0.87	0.87	0.81	59.41	DELTA	60
BC2-10D0-2P3B03	7.5	10.0	132S	3	2	415	50	13.6	2940	2.52	88.1	87.0	84.5	0.87	0.86	0.80	53.18	DELTA	74

##### 4 POLE

BHARTIA Series IE2 Induction Motors suitable for 415  $\pm$ 10%, 50Hz  $\pm$ 5%, combin  $\pm$ 10%, 3 Phase supply , ambient temperature 50 °C, TEFC, , Insulation Class: F Temperature limited to Class:B, IP-55 Protection, Continuous rated (S1 duty) with bare shaft & Key as per IS:12615-2011/IEC:60034-1

MODEL NO:	KW	HP	FRAME	No. of Ph.	Pole	V	Hz	Rated Curr. (A)	rpm	Tq	EFFICIENCY			POWER FACTOR			Temp. Rise (Res.)	Str. Con.	Motor Wt. (appr) (kg)
											100%	75%	50%	100%	75%	50%			
BC2-0D25-4P3B03	0.18	0.25	63	3	4	415	50	0.69	1370	0.13	64.7	62.0	59.0	0.56	0.45	0.35	41.56	STAR	6.7
BC2-0D33-4P3B03	0.25	0.33	71	3	4	415	50	0.79	1370	0.18	68.5	66.5	62.0	0.64	0.55	0.43	34.66	STAR	10.4
BC2-0D50-4P3B03	0.37	0.50	71	3	4	415	50	1.25	1375	0.26	72.7	70.0	65.0	0.57	0.47	0.36	48.40	STAR	10.65
BC2-0D75-4P3B03	0.55	0.75	80	3	4	415	50	1.45	1440	0.38	77.1	75.0	68.0	0.68	0.58	0.44	33.86	STAR	13
BC2-1D00-4P3B03	0.75	1.0	80	3	4	415	50	1.83	1425	0.51	79.6	79.0	74.0	0.72	0.63	0.49	43.41	STAR	15
BC2-1D50-4P3B03	1.1	1.50	90S	3	4	415	50	2.5	1435	0.75	81.4	81.0	78.0	0.75	0.64	0.50	41.66	STAR	19
BC2-2D00-4P3B03	1.5	2.0	90L	3	4	415	50	3.4	1440	1.01	82.8	82.0	80.0	0.74	0.65	0.51	54.72	STAR	23
BC2-3D00-4P3B03	2.2	3.0	100L	3	4	415	50	4.9	1445	1.48	84.3	84.0	82.0	0.74	0.65	0.51	57.55	STAR	31
BC2-5D00-4P3B03	3.7	5.0	112M	3	4	415	50	7.3	1440	2.49	86.3	86.0	84.0	0.82	0.76	0.64	61.34	DELTA	42
BC2-7D50-4P3B03	5.5	7.5	132S	3	4	415	50	10.63	1450	3.69	87.7	87.0	86.0	0.82	0.76	0.64	62.67	DELTA	59
BC2-10D0-4P3B03	7.5	10.0	132S	3	4	415	50	14.7	1460	5.02	88.7	88.00	86.5	0.80	0.74	0.61	73.89	DELTA	71
BC2-12D5-4P3B03	9.3	12.5	132M	3	4	415	50	18.25	1450	6.20	89.8	89.0	88.0	0.79	0.72	0.59	67.10	DELTA	90
BC2-12D5-4P3B03	9.3	12.5	160M	3	4	415	50	17.15	1450	6.20	89.8	89.0	88.0	0.84	0.83	0.76	65.98	DELTA	105

Note : Motors upto 3.0 HP are Star (Y) connected & Motors above 3.0 HP are Delta ( $\Delta$ ) connected suitable for Star-Delta Starting.







Low Voltage AC TEFC Squirrel Cage Induction Motors

## Electrical Performance

### BHARTIA SERIES IE2 MOTORS

#### 6 POLE

BHARTIA Series IE2 Induction Motors suitable for 415 ±10%, 50Hz ±5%, combined ±10%, 3 Phase supply, ambient temperature 50 °C, TEFC, Insulation Class: F Temperature limited to Class:B, IP-55 Protection, Continuous rated (S1 duty) with bare shaft & Key as per IS:12615-2011/IEC:60034-1

MODEL NO:	KW	HP	FRAME	No. of Ph.	Pole	V	Hz	Rated Curr. (A)	rpm	Tq (KgM)	EFFICIENCY			POWER FACTOR			Temp. Rise (Res.)	Str. Con.	Motor Wt. (appr) (kg)
											100%	75%	50%	100%	75%	50%			
BC2-0D50-6P3B03	0.37	0.50	80	3	6	415	50	1.1	920	0.40	67.6	67.0	65.0	0.68	0.57	0.44	53.99	STAR	15
BC2-0D75-6P3B03	0.55	0.75	80	3	6	415	50	1.74	930	0.59	73.5	72.5	68.0	0.60	0.50	0.38	51.76	STAR	16
BC2-1D00-6P3B03	0.75	1.0	90S	3	6	415	50	2.17	930	0.79	75.9	75.0	72.0	0.63	0.53	0.41	43.95	STAR	20
BC2-1D50-6P3B03	1.1	1.5	90L	3	6	415	50	2.96	935	1.15	78.1	77.5	74.0	0.66	0.58	0.45	67.64	STAR	24
BC2-2D00-6P3B03	1.5	2.0	100L	3	6	415	50	3.95	945	1.56	79.8	79.0	75.0	0.66	0.56	0.43	56.38	STAR	30.5
BC2-3D00-6P3B03	2.2	3.0	112M	3	6	415	50	5.5	940	2.28	81.8	80.0	79.0	0.68	0.61	0.48	69.64	STAR	40.18
BC2-5D00-6P3B03	3.7	5.0	132S	3	6	415	50	8.3	960	3.79	84.3	83.0	81.5	0.73	0.64	0.51	63.02	DELTA	58
BC2-7D50-6P3B03	5.5	7.5	132M	3	6	415	50	11.95	960	5.58	86.0	84.0	81.5	0.74	0.71	0.59	77.30	DELTA	73
BC2-10D0-6P3B03	7.5	10	160M	3	8	415	50	16	960	7.61	87.2	87.0	85.0	0.78	0.74	0.66	77.00	DELTA	110

#### 8 POLE

BHARTIA Series IE2 Induction Motors suitable for 415 ±10%, 50Hz ±5%, combined ±10%, 3 Phase supply, ambient temperature 50 °C, TEFC, Insulation Class: F Temperature limited to Class:B, IP-55 Protection, Continuous rated (S1 duty) with bare shaft & Key as per IS:12615-2011/IEC:60034-1

MODEL NO:	KW	HP	FRAME	No. of Ph.	Pole	V	Hz	Rated Curr. (A)	rpm	Tq	EFFICIENCY			POWER FACTOR			Temp. Rise (Res.)	Str. Con.	Motor Wt. (appr) (kg)
											100%	75%	50%	100%	75%	50%			
BC2-0D25-8P3B03	0.18	0.25	80	3	8	415	50	0.9	670	0.27	46.0	45.0	42.0	0.58	0.47	0.37	45.19	STAR	14
BC2-0D33-8P3B03	0.37	0.50	90S	3	8	415	50	1.5	690	0.55	56.1	55.5	54.0	0.60	0.44	0.34	41.43	STAR	19
BC2-0D50-8P3B03	0.55	0.75	90L	3	8	415	50	2.10	700	0.80	61.7	59.5	56.0	0.59	0.46	0.36	62.98	STAR	23
BC2-0D75-8P3B03	0.75	1.0	100L	3	8	415	50	2.64	705	1.09	66.2	65.0	64.0	0.60	0.48	0.37	66.75	STAR	31
BC2-1D00-8P3B03	1.1	1.5	100L	3	8	415	50	3.49	700	1.59	70.8	69.0	65.0	0.62	0.51	0.41	70.95	STAR	32
BC2-1D50-8P3B03	1.5	2.0	112M	3	8	415	50	4.5	700	2.15	74.1	73.5	72.0	0.62	0.52	0.40	72.03	STAR	41
BC2-2D00-8P3B03	2.2	3.0	132S	3	8	415	50	6.05	710	3.11	77.6	75.5	73.0	0.65	0.54	0.41	54.40	STAR	60

Note : Motors upto 3.0 HP are Star (Y) connected & Motors above 3.0 HP are Delta (Δ) connected suitable for Star-Delta Starting.

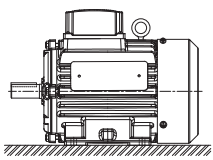




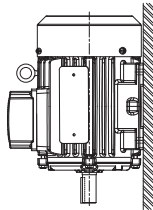
## MOUNTING DETAILS

### MOTOR MOUNTING POSITIONS

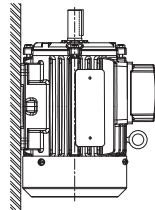
#### FOOT MOUNTING



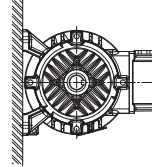
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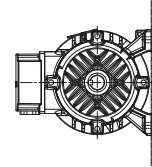
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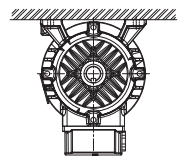
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**IM B6**  
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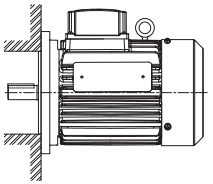
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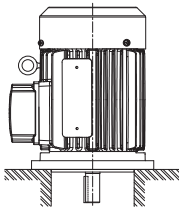
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#### FLANGE MOUNTING

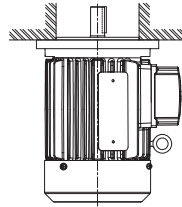
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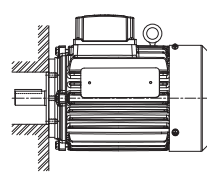
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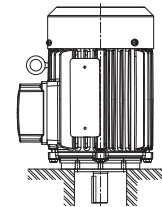
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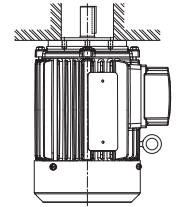
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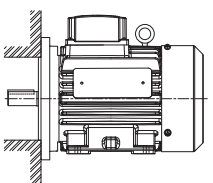
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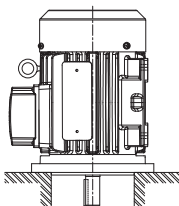
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#### FOOT CUM FLANGE MOUNTING

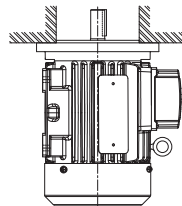
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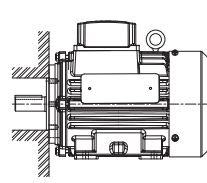
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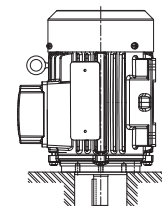
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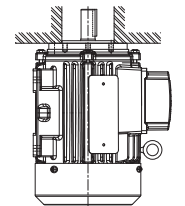
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**IM B34**  
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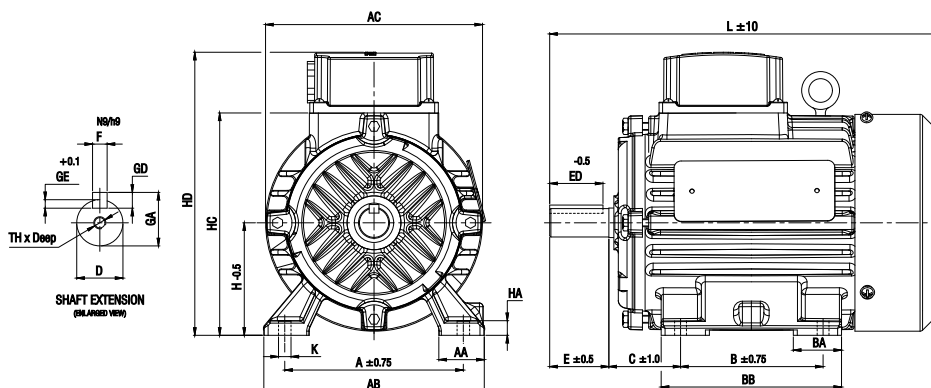


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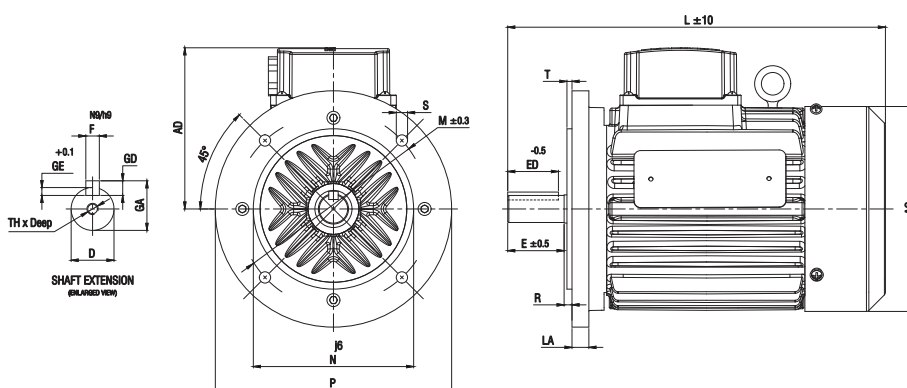


## DIMENSIONS OF FOOT MOUNTED MOTORS (B3) - CAST IRON



FRAME SIZE	A	B	C	H	K	L	TH	AA	AB	AC	BB	BA	HA	HD	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)		
																						D	K	GD
63	100	80	40	63	7	210	M4X10	25	123	122	101	27	8	159	11	23	20	4	12.5	4	2.5	+8	-25	
71	112	90	45	71	7	244	M5X13	30	135	140	113	30	10	178	14	30	28	5	16	5	3	-3	-30	
80	125	100	50	80	10	282	M6X20	35	155	160	128	41	10	205	19	40	35	6	21.5	6	3.5	+9		
90S	140	100	56	90	10	306	M8X20	35	170	177	128	41	12	225	24	50	45	8	27	7	4	-4	-90	
90L	140	125	56	90	10	331	M8X20	35	170	177	153	45	12	225	24	50	45	8	27	7	4	+18		
100L	160	140	63	100	12	369	M10X20	44	197	200	183	55	13	249	28	60	55	8	31	7	4	+2	+430	
112M	190	140	70	112	12	400	M10X20	49	229	220	174	49	14	273	28	60	55	8	31	7	4	+18		
132S	216	140	89	132	12	462	M12X25	57	258	258	186	49	18	316	38	80	70	10	41	8	5	+2	+90	
132M	216	178	89	132	12	500	M12X25	57	258	258	224	68	18	316	38	80	70	10	41	8	5	+18		
160M	254	210	108	160	15	606	M16X32	67	306	308	262	75	23	363	42	110	100	12	45	8	5	+2	+90	
160L	254	254	108	160	15	650	M16X32	67	306	308	295	75	23	363	42	110	100	12	45	8	5	+18		
180M	279	241	121	180	15	660	M16X32	75	345	353	295	85	25	470	48	110	100	14	51.5	9	5.5	+2	+90	
180L	279	279	121	180	15	700	M16X32	75	345	353	335	85	25	470	48	110	100	14	51.5	9	5.5	+18		
200L	318	305	133	200	19	770	M20X40	85	390	400	365	85	26	480	55	110	100	16	59	10	6	+30/+11	+520	

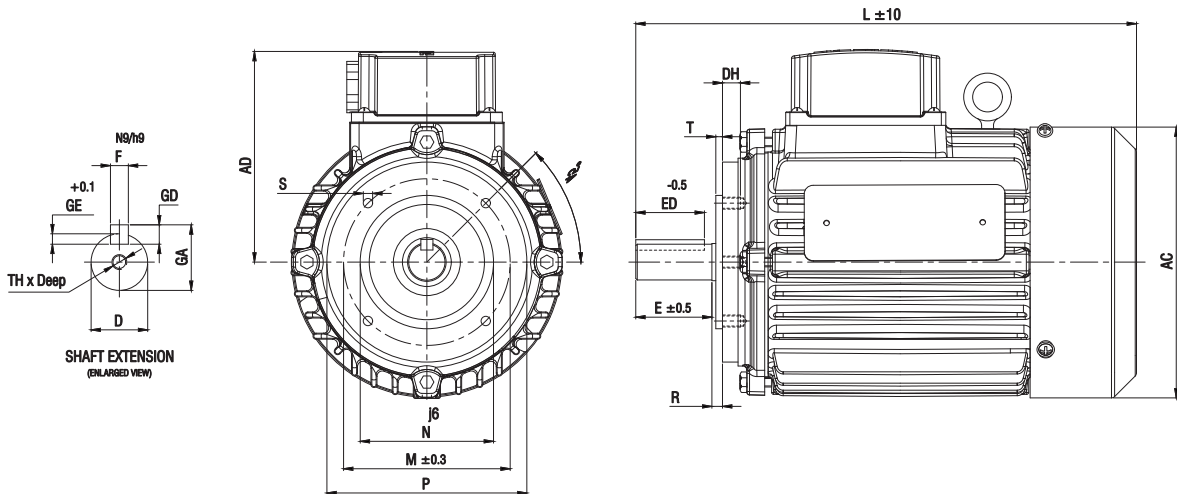
## DIMENSIONS OF FLANGE MOUNTED MOTORS (B5) - CAST IRON



FRAME SIZE	M	N	P	S	NO. OF HOLES	T	LA	L	TH	AC	AD	R	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)	
																				D	GD
63	115	95	140	10	4	3	9	210	M4X10	122	96	0	11	23	20	4	12.5	4	2.5	+8	-25
71	130	110	160	10	4	3.5	9	244	M5X13	140	107	0	14	30	28	5	16	5	3	-3	-30
80	165	130	200	12	4	3.5	10	282	M6X20	160	125	0	19	40	35	6	21.5	6	3.5	+9	
90S	165	130	200	12	4	3.5	10	315	M8X20	177	135	0	24	50	45	8	27	7	4	-4	-90
90L	165	130	200	12	4	3.5	10	345	M8X20	177	135	0	24	50	45	8	27	7	4	+18	
100L	215	180	250	15	4	4	11	369	M10X20	200	149	0	28	60	55	8	31	7	4	+2	+90
112M	215	180	250	15	4	4	11	400	M10X20	220	161	0	28	60	55	8	31	7	4	+18	
132S	265	230	300	15	4	4	12	462	M12X25	258	183	0	38	80	70	10	41	8	5	+2	+90
132M	265	230	300	15	4	4	12	500	M12X25	258	183	0	38	80	70	10	41	8	5	+18	
160M	300	250	350	19	4	5	13	606	M16X32	305	203	0	42	110	100	12	45	8	5	+2	+90
160L	300	250	350	19	4	5	13	650	M16X32	305	203	0	42	110	100	12	45	8	5	+18	

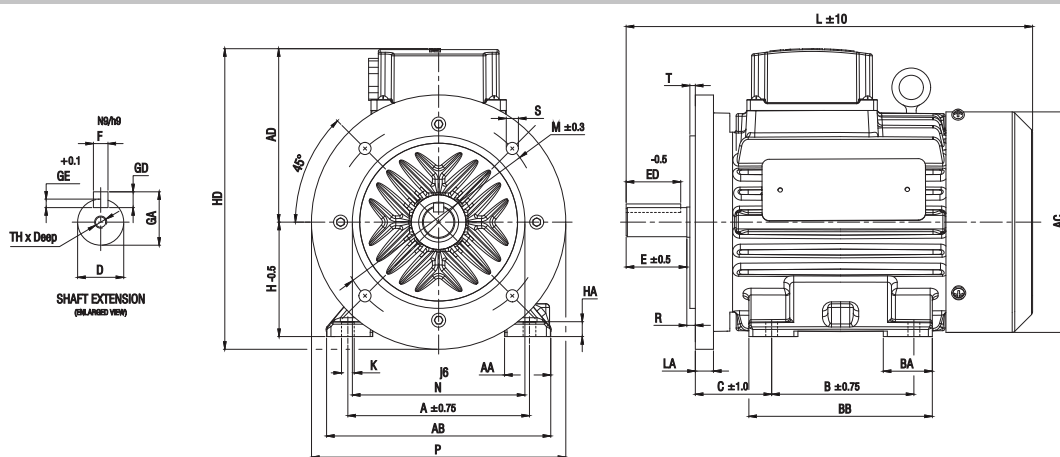


## DIMENSIONS OF FACE MOUNTED MOTORS (B14) - CAST IRON



FRAME SIZE	M	N	P	S	NO. OF HOLES	DH	T	TH	L	AC	AD	R	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)	
																				D	GD
63	75	60	90	M5	4	8	2.5	M4X10	210	122	96	0	11	23	20	4	12.5	4	2.5	+8	-25
71	85	70	105	M6	4	8	2.5	M5X13	244	140	107	0	14	30	28	5	16	5	3	-3	-30
80	100	80	120	M6	4	10	3	M6X20	282	160	125	0	19	40	35	6	21.5	6	3.5	+9	-30
90S	115	95	140	M8	4	10	3	M8X20	315	177	135	0	24	50	45	8	27	7	4	-4	-30
90L	115	95	140	M8	4	10	3	M8X20	345	177	135	0	24	50	45	8	27	7	4	+9	-30
100L	130	110	160	M8	4	10	3.5	M10X20	369	200	149	0	28	60	55	8	31	7	4	-4	-90
112M	130	110	160	M8	4	10	3.5	M10X20	387	220	161	0	28	60	55	8	31	7	4	-4	-90
132S	165	130	200	M12	4	14	3.5	M12X25	462	258	183	0	38	80	70	10	41	8	5	+18	-90
132M	165	130	200	M12	4	14	3.5	M12X25	500	258	183	0	38	80	70	10	41	8	5	+2	-90

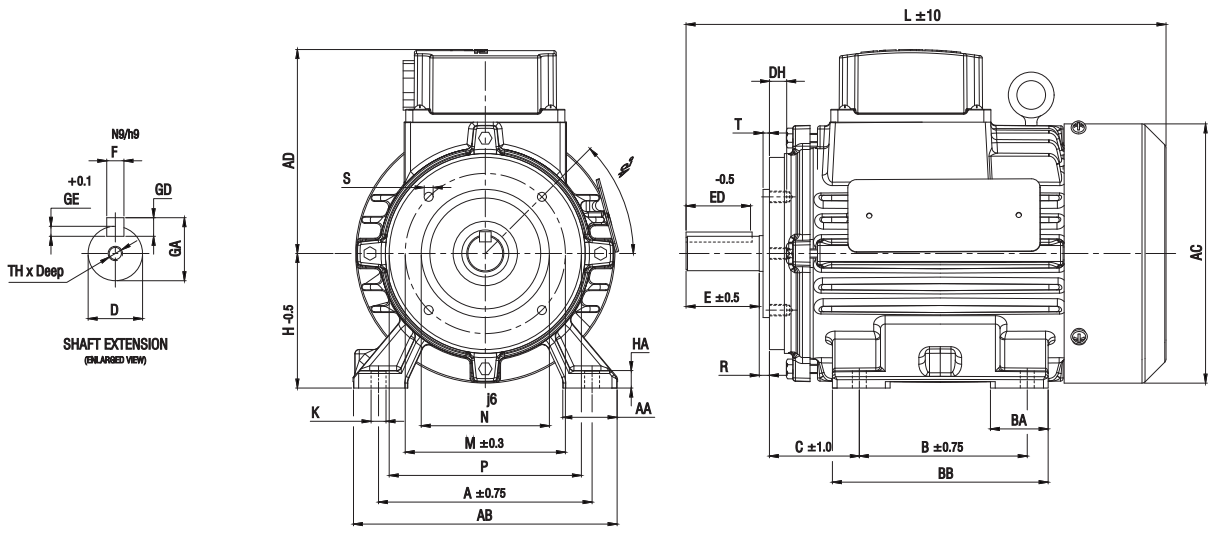
## DIMENSIONS OF FOOT CUM FLANGE MOUNTED MOTORS - CAST IRON



FRAME SIZE	A	B	C	H	K	M	N	P	S	NO. OF HOLES	T	LA	L	TH	AA	AB	BB	BA	HA	HD	AC	AD	R	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)	
																															D	GD
63	100	80	40	63	7	115	95	140	10	4	3	9	210	M4X10	25	123	101	27	8	166	122	96	0	11	23	20	4	12.5	4	2.5	+8	-25
71	112	90	45	71	7	130	110	160	10	4	3.5	9	244	M5X13	30	135	113	30	10	187	140	107	0	14	30	28	5	16	5	3	-3	-30
80	125	100	50	80	10	165	130	200	12	4	3.5	10	282	M6X20	35	155	128	41	10	225	160	125	0	19	40	35	6	21.5	6	3.5	+9	-30
90S	140	100	56	90	10	165	130	200	12	4	3.5	10	315	M8X20	35	170	128	42	12	235	177	135	0	24	50	45	8	27	7	4	-4	-90
90L	140	125	56	90	10	165	130	200	12	4	3.5	10	345	M8X20	35	170	153	41	12	235	177	135	0	24	50	45	8	27	7	4	-4	-90
100L	160	140	63	100	12	215	180	250	15	4	4	11	369	M10X20	44	197	183	55	13	275	200	149	0	28	60	55	8	31	7	4	-4	-90
112M	190	140	70	112	12	215	180	250	15	4	4	11	400	M10X20	49	229	174	49	14	287	220	161	0	28	60	55	8	31	7	4	-4	-90
132S	216	140	89	132	12	265	230	300	15	4	4	12	462	M12X25	57	258	186	49	18	335	258	183	0	38	80	70	10	41	8	5	+18	-90
132M	216	178	89	132	12	265	230	300	15	4	4	12	500	M12X25	57	258	224	68	18	335	258	183	0	38	80	70	10	41	8	5	+2	-90

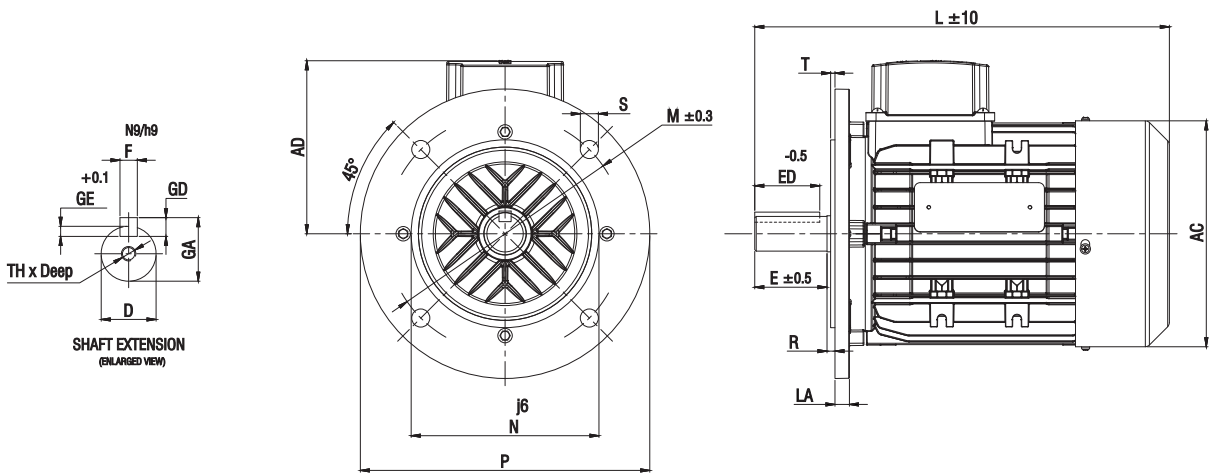


## DIMENSIONS OF FOOT CUM FACE MOUNTED MOTORS-CAST IRON



FRAME SIZE	A	B	C	H	K	M	N	P	S	NO. OF HOLES	T	LA	L	TH	AA	AB	BB	BA	HA	AC	AD	DH	R	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)	
																															D	GD
63	100	80	40	63	7	75	60	90	M5	4	3	10	210	M4X10	25	123	101	27	8	122	96	8	0	11	23	20	4	12.5	4	2.5	+8	-25
71	112	90	45	71	7	88	70	105	M6	4	3.5	10	244	M5X13	30	135	113	30	10	140	107	8	0	14	30	28	5	16	5	3	-3	-30
80	125	100	50	80	10	100	80	120	M6	4	3.5	10	275	M6X20	35	155	128	41	10	160	125	10	0	19	40	35	6	21.5	6	3.5	+9	-4
90S	140	100	56	90	10	115	95	140	M8	4	3.5	10	315	M8X20	35	170	128	42	12	177	135	10	0	24	50	45	8	27	7	4	-4	-90
90L	140	125	56	90	10	115	95	140	M8	4	3.5	10	345	M8X20	35	170	153	41	12	177	135	10	0	24	50	45	8	27	7	4	+9	-4
100L	160	140	63	100	12	130	110	160	M8	4	4	11	369	M10X20	44	197	183	55	13	200	149	10	0	28	60	55	8	31	7	4	-30	-90
112M	190	140	70	112	12	130	110	160	M8	4	4	11	387	M10X20	49	229	174	49	14	220	161	10	0	28	60	55	8	31	7	4	-30	-90
132S	216	140	89	132	12	165	130	200	M10	4	4	12	442	M12X25	57	258	186	49	18	258	183	12	0	38	80	70	10	41	8	5	+18	-30
132M	216	178	89	132	12	165	130	200	M10	4	4	12	480	M12X25	57	258	224	68	18	258	183	12	0	38	80	70	10	41	8	5	+2	-30

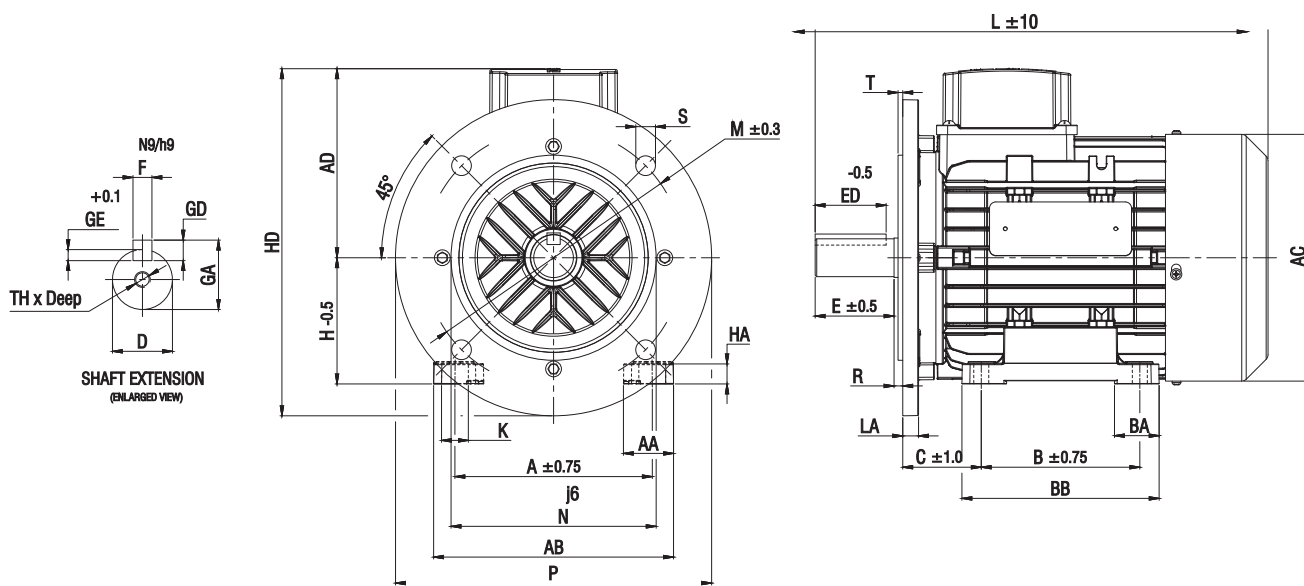
## DIMENSIONS OF FLANGE MOUNTED MOTORS-ALUMINIUM



FRAME SIZE	M	N	P	S	NO. OF HOLES	T	LA	L	TH	AC	AD	R	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)	
																				D	GD
63	115	95	140	10	4	3	9	212	M4X10	117	96	0	11	23	20	4	12.5	4	2.5	+8	-25
71	130	110	160	10	4	3.5	9	246	M5X13	134	103	0	14	30	28	5	16	5	3	-3	-30
80	165	130	200	12	4	3.5	10	274	M6X20	157	122	0	19	40	35	6	21.5	6	3.5	+9	-4
90S	165	130	200	12	4	3.5	10	304	M8X20	172	127	0	24	50	45	8	27	7	4	-4	-90
90L	165	130	200	12	4	3.5	10	329	M8X20	172	127	0	24	50	45	8	27	7	4	-4	-90

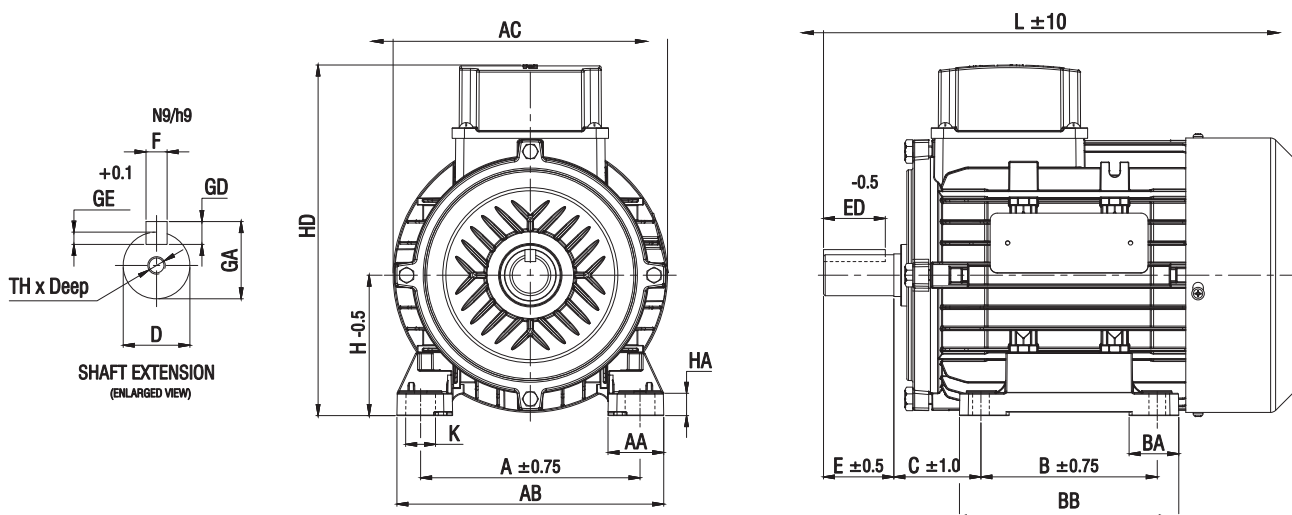


## DIMENSIONS OF FOOT CUM FLANGE MOUNTED MOTORS-ALUMINIUM



FRAME SIZE	A	B	C	H	K	M	N	P	S	NO. OF HOLES	T	LA	L	TH	AA	AB	AC	BB	BA	HA	HD	AD	R	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)	
																												D	GD			
63	100	80	40	63	13	115	95	140	10	4	3	9	212	M4X10	29	122	117	102	24	11	166	96	0	11	23	20	4	12.5	4	2.5	+8	-25
71	112	90	45	71	13	130	110	160	10	4	3.5	9	246	M5X13	30	137	134	108	26	12	180	103	0	14	30	28	5	16	5	3	-3	-30
80	125	100	50	80	17	165	130	200	12	4	3.5	10	274	M6X20	32	157	157	125	28	14	220	122	0	19	40	35	6	21.5	6	3.5	+9	-90
90S	140	100	56	90	17	165	130	200	12	4	3.5	10	304	M8X20	35	172	172	129	29	13	227	127	0	24	50	45	8	27	7	4	-4	-90
90L	140	125	56	90	17	165	130	200	12	4	3.5	10	329	M8X20	35	172	172	154	31	13	227	127	0	24	50	45	8	27	7	4		

## DIMENSIONS OF FOOT MOUNTED MOTORS-ALUMINIUM



FRAME SIZE	A	B	C	H	K	L	TH	AA	AB	AC	BB	BA	HA	HD	D	E	ED	F	GA	GD	GE	TOLERANCE IN MICRON (µm)		
																						D	K	GD
63	100	80	40	63	13	212	M4X10	29	122	117	102	24	11	159	11	23	20	4	12.5	4	2.5	+8		-25
71	112	90	45	71	13	246	M5X13	30	137	134	108	26	12	174	14	30	28	5	16	5	3	-3		-30
80	125	100	50	80	17	274	M6X20	32	152	157	125	28	14	202	19	40	35	6	21.5	6	3.5	+9	+360	-30
90S	140	100	56	90	17	304	M8X20	35	169	172	129	29	13	217	24	50	45	8	27	7	4	+9		-90
90L	140	125	56	90	17	329	M8X20	35	169	172	154	31	13	217	24	50	45	8	27	7	4	-4		-90



## Notes

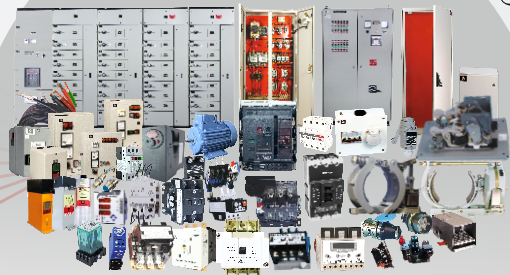
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## Notes

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