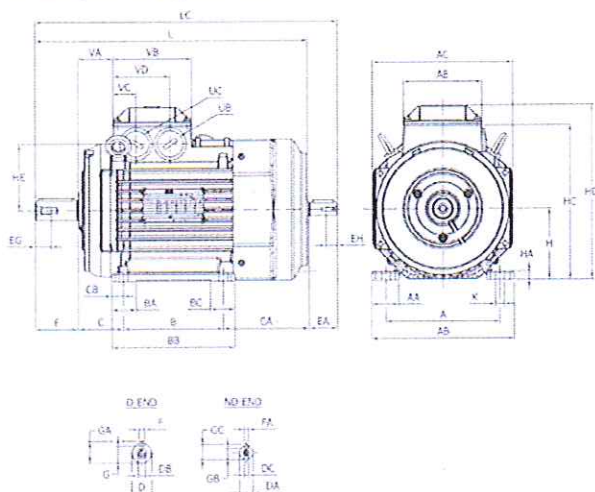


Industrial performance cast iron motors

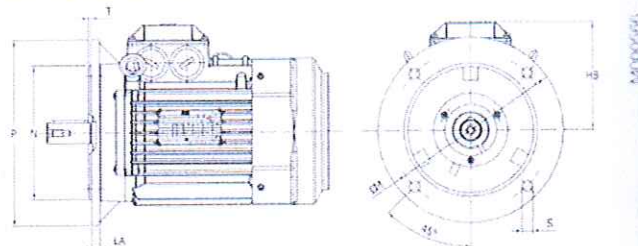
Dimension drawings

M3BA 71 - 132

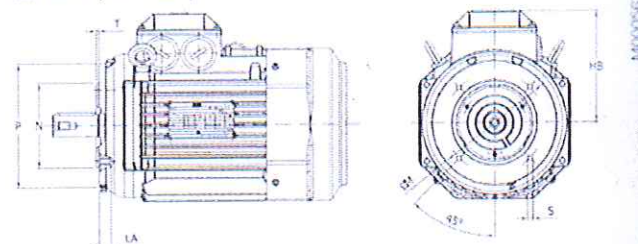
Foot-mounted motor;
IM B3 (IM 1001), IM 1002



Flange-mounted motor, large flange;
IM B5 (IM 3001), IM 3002



Flange-mounted motor, small flange;
IM B14 (IM 3601)



IM B3 (IM 1001), IM 1002

Motor size	A	AA	AB	AC	AE	AF	B	BA	BB	BC	C	CA	CB	D-Tol.	DA	DB	DC	E	EA	EG	EH
71	112	24	136	139	97	139	90	24	110	24	45	104	10	14-j6	11	M5	M4	30	23	12.5	10
80	125	28	154	157	97	157	100	28	125	28	50	136	12.5	19-j6	14	M6	M5	40	30	16	12.5
90S	140	30	170	177	110	177	100	30	150	55	56	156.5	12.5	24-j6	14	M8	M5	50	30	19	12.5
90L	140	30	170	177	110	177	125	30	150	55	56	131.5	12.5	24-j6	14	M8	M5	50	30	19	12.5
100	160	38	200	197	110	197	140	34	172	34	63	123	16	28-j6	19	M10	M6	60	40	22	16
112	190	41	230	197	110	197	140	34	172	34	70	138	16	28-j6	19	M10	M6	60	40	22	16
132S	216	47	262	261	160	261	140	40	212	76	89	228	16	38-k6	24	M12	M8	80	50	28	19
132M	216	47	262	261	160	261	178	40	212	76	89	190	16	38-k6	24	M12	M8	80	50	28	19

Motor size	F	FA	G	GA	GB	GC	H	HA	HC	HD	HE	K	L	LC	UB	UC	VA	VB	VC	VD
71	5	4	11	16	8.5	12.5	71	9	151	178	62	7	264	292	M16x1.5	M16x1.5	30	105	31.5	73.5
80	6	5	15.5	21.5	11	16	80	10	168	195	69	10	321	356	M25x1.5	M25x1.5	32	105	32	74
90	8	5	20	27	11	16	90	11	189	219	79	10	357	392	M25x1.5	M25x1.5	42	118	39	81
100	8	6	24	31	15.5	21.5	100	12	217	247	94	12	381	426	M32x1.5	M32x1.5	45	118	36	84
112	8	6	24	31	15.5	21.5	112	12	229	259	94	12	403	448	M32x1.5	M32x1.5	45	118	36	84
132	10	8	33	41	20	27	132	14	272	300	116	12	533	588	M32x1.5	M32x1.5	65	169	82	130

IM B5 (IM3001), IM 3002

Motor size	HB	LA	M	N	P	S	T
71	107.5	9	130	110	160	10	3.5
80	115.5	10	165	130	200	12	3.5
90	129.5	10	165	130	200	12	3.5
100	147.5	11	215	180	250	15	4
112	147.5	11	215	180	250	15	4
132	168	12.5	265	230	300	15	4

IM B14 (IM3601), IM 3602

Motor size	HB	LA	M	N	P	S	T
71	107.5	8	85	70	105	M6	2.5
80	115.5	8	100	80	120	M6	3
90	129.5	10	115	95	140	M8	3
100	147.5	10	130	110	160	M8	3.5
112	147.5	10	130	110	160	M8	3.5
132	168	12	165	130	200	M10	3.5

Tolerances:

A, B	+ 0.8	H	+0 -0.5
D, DA	ISO j6	N	ISO j6
F, FA	ISO h9	C, CA	+ 0.8

Above table gives the main dimensions in mm.
For detailed drawings please see our web-pages 'www.abb.com/motors&generators' or contact ABB.

Industrial performance cast iron motors

Technical data for totally enclosed squirrel cage three phase motors

IE2

IP 55 - IC 411 - Insulation class F, temperature rise class B
IE2 efficiency class according to IEC 60034-30; 2008

Output kW	Motor type	Product code	Speed r/min	Efficiency IEC 60034-2-1; 2007			Power factor cos φ	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight kg	Sound pressure level L _{PA} dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I _N A	I _s I _N	T _N Nm	T _L T _N	T _b T _N			
1000 r/min = 6-poles			400 V 50 Hz			GENELEC-design									
0.18	M3BA 71 A	3GBA 073 321-••B	900	63.7	63.8	59.0	0.71	0.57	3.1	1.9	2.0	2.1	0.00089	10	42
0.25	M3BA 71 B	3GBA 073 322-••B	895	67.2	67.2	62.6	0.69	0.77	3.4	2.6	2.2	2.3	0.0011	12	42
0.37	M3BA 80 A	3GBA 083 321-••B	915	71.0	71.1	67.0	0.69	1.09	3.6	3.8	1.8	2.2	0.00187	15	47
0.55	M3BA 80 B	3GBA 083 322-••B	920	73.9	75.0	72.8	0.71	1.51	3.8	5.7	1.8	2.2	0.00239	17	47
0.75	M3BA 90 LB	3GBA 093 323-••B	960	78.7	77.3	72.5	0.58	2.3	4.5	7.4	2.3	3.1	0.00491	25	44
1.1	M3BA 90 LD	3GBA 093 324-••B	930	78.2	78.6	76.4	0.66	3	4.0	11.2	1.9	2.3	0.0054	28	44
1.5	M3BA 100 L	3GBA 103 322-••B	950	82.2	82.9	81.6	0.69	3.8	4.0	15	1.5	1.1	0.00873	37	49
2.2	M3BA 112 MB	3GBA 113 322-••B	950	82.5	83.8	81.7	0.69	5.5	4.4	22.1	1.7	2.3	0.0125	44	66
3	M3BA 132 MA	3GBA 133 321-••B	975	85.8	84.8	81.9	0.60	8.4	5.5	29.3	1.7	2.9	0.03336	69	57
4	M3BA 132 MA	3GBA 133 322-••B	960	84.9	85.3	83.9	0.68	10	4.6	39.7	1.5	2.2	0.03336	69	57
5.5	M3BA 132 MC	3GBA 133 324-••B	965	86.1	86.6	85.5	0.71	12.9	5.1	54.4	2.0	2.3	0.0487	86	57
7.5	M3BA 160 MLA	3GBA 163 031-••G	975	88.6	89.9	89.7	0.79	15.4	7.4	73.4	1.7	3.2	0.087	134	59
11	M3BA 160 MLB	3GBA 163 032-••G	972	89.3	90.7	90.6	0.79	22.5	7.5	108	1.9	2.9	0.114	172	59
15	M3BA 180 MLA	3GBA 183 031-••G	981	90.5	91.4	91.0	0.77	31	6.5	146	1.8	2.8	0.192	221	59
18.5	M3BA 200 MLA	3GBA 203 031-••G	988	91.6	92.3	91.7	0.80	36.4	6.7	178	2.3	2.9	0.382	269	63
22	M3BA 200 MLB	3GBA 203 032-••G	987	92.0	93.0	92.8	0.82	42	6.6	212	2.2	2.8	0.448	291	63
30	M3BA 225 SMA	3GBA 223 031-••G	986	92.7	93.3	92.9	0.83	56.2	7.0	290	2.6	2.9	0.663	349	63
37	M3BA 250 SMA	3GBA 253 031-••G	989	93.1	93.8	93.4	0.82	69.9	6.8	357	2.4	2.7	1.13	395	63
1000 r/min = 6-poles			400 V 50 Hz			High-output design									
15	M3BA 160 MLC	3GBA 163 033-••G	967	88.7	90.5	90.5	0.76	32.1	6.3	148	2.0	2.9	0.131	185	59
18.5	M3BA 180 MLB	3GBA 183 032-••G	970	88.8	90.7	90.7	0.75	40	5.1	182	1.6	2.5	0.213	234	59
30	M3BA 200 MLC	3GBA 203 033-••G	985	92.0	93.1	92.9	0.83	56.7	6.9	290	2.3	2.8	0.531	318	63
37	M3BA 225 SMB	3GBA 223 034-••G	985	93.1	94.0	94.0	0.83	69.1	6.6	358	2.3	2.6	0.821	393	63
45	" M3BA 225 SMC	3GBA 223 033-••G	984	92.7	93.9	94.0	0.83	84.4	6.4	436	2.3	2.6	0.821	393	63
45	M3BA 250 SMB	3GBA 253 032-••G	989	93.4	94.1	93.9	0.83	83.7	7.0	434	2.5	2.7	1.369	441	63
55	" M3BA 250 SMC	3GBA 253 033-••G	988	93.2	94.1	94.0	0.84	101	7.1	531	2.6	2.8	1.5	468	63

¹⁾ Temperature rise class F

The bullets in the product code indicate choice of mounting arrangement, voltage and frequency, generation code (see ordering information page).

I_s / I_N = Starting current
T_L / T_N = Locked rotor torque
T_b / T_N = Breakdown torque

Efficiency values are given according to IEC 60034-2-1; 2007.

Please note that the values are not comparable without knowing the testing method.

ABB has calculated the efficiency values according to indirect method, stray load losses (additional losses) determined from measuring.