

Product note

Flameproof cast iron motors IE3 frame sizes 160 to 355 for 50 Hz and 60 Hz supply

ABB has further extended its range of IE3 flameproof motors. The motors now come in frame sizes 160 to 355. The motors are available with two separate electrical designs, one for 50Hz supply frequency and another for 60Hz.

The new IE3 motors for explosive atmospheres are based on the well proven and reliable IE2 range of flameproof motors.



Targeting a full range of IE3 premium efficiency flameproof motors

The first step towards a full portfolio of IE3 flameproof motors from ABB was taken earlier in 2015 by releasing the largest motors in the range. The range is now extended with the mid sizes. They are available with both a flameproof (Ex d) and an increased safety terminal box (Ex de), but also two different standard electrical versions, one optimized for 50 Hz supply and another for 60 Hz. The new product range is based on the well proven and reliable IE2 range of flameproof motors, offering excellent performance, safety and flexibility.

The now available sizes are 160 up to 355 rated from 11 kW up to 355 kW, including 2, 4, 6 and 8 pole versions. The range will be extended with the smallest motors in size 80-132 during 2016. Until these are ready IE3 motors can be offered on request by using special electrical designs in existing products.

Certification

In addition to ATEX certificates for both Ex d and Ex de protection, global IECEx certificates are also available for both protection types. Certificates include possibility for operation with frequency converter for maximized energy savings. Further, the motors can be double rated for either gas or dust environments, Ex d(e) / Ex t for full flexibility.

Technical data for flameproof IE3 cast iron motors Ex d and Ex de IIB/IIC T4 Gb, 50 Hz design

Technical data for 400 V 50 Hz motors can be found in the table below, data for other voltages on request.

Out-put kW	Motor type	Product code	Speed r/min	Efficiency IEC60034-30-1; 2014			Power factor cos φ	Current		Torque			Moment of inertia J = 1/4 GD² kgm²	Weight Ex d kg	Weight Ex de kg	Sound pressure level L _{PA} dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I _N A	I _g /I _N	T _N Nm	T _f /T _N	T _g /T _N				
3000 r/min = 2 poles			400 V 50 Hz			CENELEC-Design										
11	M3JP/KP 160 MLA 2	3GJP/KP 161410-••L	2943	91.2	92	91.6	0.91	19.1	7.2	35.57	2.6	3.6	0.057	225	219	69
15	M3JP/KP 160 MLB 2	3GJP/KP 161420-••L	2947	91.9	92.2	91.8	0.88	26.5	8.2	48.49	3.2	4.2	0.063	232	226	69
18.5	M3JP/KP 160 MLC 2	3GJP/KP 161430-••L	2949	92.4	93	92.6	0.9	32	9	59.81	3.3	3.9	0.076	246	240	73
22	M3JP/KP 180 MLA 2	3GJP/KP 181410-••L	2956	92.7	93.1	92.7	0.9	37.7	7.8	70.98	3.4	3.8	0.11	282	276	73
30	M3JP/KP 200 MLA 2	3GJP/KP 201410-••L	2957	93.3	93.8	93.6	0.88	52.4	7.5	96.92	2.5	3.1	0.182	332	312	73
37	M3JP/KP 200 MLB 2	3GJP/KP 201420-••L	2960	93.7	94.2	94.1	0.89	64.2	8.2	119.5	3.1	3.4	0.222	359	339	73
45	M3JP/KP 225 SMA 2	3GJP/KP 221210-••L	2968	94	94	93	0.87	79.6	7.3	144.8	3.2	3.1	0.296	405	405	76
55	M3JP/KP 250 SMA 2	3GJP/KP 251210-••L	2968	94.3	93.7	93.6	0.89	94.8	6.8	177	2.4	3	0.426	470	470	76
75	M3JP/KP 280 SMB 2	3GJP/KP 281220-••L	2978	94.7	94.4	93.5	0.88	130	7.0	240	2.3	3.0	0.90	766	686	74
90	M3JP/KP 280 SMC 2	3GJP/KP 281230-••L	2975	95.0	95.0	94.2	0.88	158	6.4	289	2.1	2.8	0.99	795	715	74
110	M3JP/KP 315 SMB 2	3GJP/KP 311220-••L	2982	95.2	94.9	93.9	0.87	192	7.0	352	1.8	2.7	1.3	1008	928	78
132	M3JP/KP 315 SMC 2	3GJP/KP 311230-••L	2982	95.4	95.4	94.6	0.87	229	6.8	422	2.0	2.8	1.5	1063	983	78
160	M3JP/KP 315 SMD 2	3GJP/KP 311240-••L	2983	95.6	95.6	94.9	0.87	275	7.4	512	2.2	2.8	1.7	1120	1040	78
200	M3JP/KP 315 MLA 2	3GJP/KP 311410-••L	2983	95.8	95.8	95.3	0.88	342	7.7	640	2.5	3.1	2.1	1190	1190	81
250 ¹⁾	M3JP/KP 315 LKB 2	3GJP/KP 311820-••L	2983	95.8	96.0	95.5	0.90	419	7.7	800	2.5	3.3	2.9	1630	1550	81
250	M3JP/KP 355 SMA 2	3GJP/KP 351210-••L	2985	95.8	95.6	94.6	0.89	423	7.7	800	2.1	3.3	3.0	1790	1630	83
315	M3JP/KP 355 SMB 2	3GJP/KP 351220-••L	2980	95.8	95.7	95.0	0.89	529	7.0	1009	2.1	3.0	3.4	1870	1710	83
355	M3JP/KP 355 SMC 2	3GJP/KP 351230-••L	2984	95.8	95.8	95.0	0.88	605	7.2	1136	2.2	3.0	3.6	1940	1780	83
1500 r/min = 4 poles			400 V 50 Hz			CENELEC-Design										
11	M3JP/KP 160MLA 4	3GJP/KP 162410-••L	1477	91.4	91.8	91.1	0.82	21.1	7.6	71.27	2.6	3.3	0.11	240	234	61
15	M3JP/KP 160MLB 4	3GJP/KP 162420-••L	1477	92.1	92.4	91.6	0.82	28.5	8.2	96.99	3	3.7	0.135	259	253	61
18.5	M3JP/KP 180MLA 4	3GJP/KP 182410-••L	1481	92.6	93.2	92.9	0.83	34.9	7.2	119.3	2.8	3	0.219	291	285	60
22	M3JP/KP 180MLB 4	3GJP/KP 182420-••L	1481	93	93.5	93.3	0.82	41.4	6.5	142	3	3.2	0.243	296	290	60
30	M3JP/KP 200MLA 4	3GJP/KP 202410-••L	1483	93.6	93.8	93.4	0.84	54.8	7.5	193.2	2.7	3.2	0.385	360	340	63
37	M3JP/KP 225SMA 4	3GJP/KP 222210-••L	1482	93.9	94.1	93.8	0.83	68.9	7.2	238.6	3.1	3.1	0.427	394	394	67
45	M3JP/KP 225SMB 4	3GJP/KP 222220-••L	1482	94.2	94.4	94	0.84	82.3	8	290	3.2	3.5	0.525	431	431	66
55	M3JP/KP 250SMA 4	3GJP/KP 252210-••L	1482	94.6	94.7	94	0.84	100	7.1	354.2	2.9	3.4	0.694	442	442	68
75	M3JP/KP 280 SMB 4	3GJP/KP 282220-••L	1485	95.0	95.2	94.8	0.86	133	6.4	483	2.3	2.8	1.38	749	669	75
90	M3JP/KP 280 SMC 4	3GJP/KP 282230-••L	1485	95.2	95.5	95.2	0.86	158	7.1	578	2.5	2.9	1.73	809	729	75
110	M3JP/KP 315 SMB 4	3GJP/KP 312220-••L	1489	95.4	95.5	94.9	0.84	195	7.0	705	2.1	3.0	2.43	1026	946	71
132	M3JP/KP 315 SMC 4	3GJP/KP 312230-••L	1488	95.6	95.9	95.5	0.86	231	6.7	847	2.2	2.9	2.9	1099	1019	71
160	M3JP/KP 315 SMD 4	3GJP/KP 312240-••L	1488	95.8	96.0	95.8	0.85	282	6.9	1026	2.2	3.0	3.2	1139	1059	71
200	M3JP/KP 315 MLB 4	3GJP/KP 312420-••L	1487	96.0	96.4	96.4	0.86	351	6.8	1284	2.4	3.0	3.9	1312	1232	74
250 ¹⁾	M3JP/KP 315 LKA 4	3GJP/KP 312810-••L	1488	96.0	96.3	96.1	0.85	442	6.9	1604	2.5	3.2	4.4	1500	1420	78
250	M3JP/KP 355 SMA 4	3GJP/KP 352210-••L	1491	96.0	96.0	95.6	0.86	435	6.4	1601	2.1	2.9	5.9	1791	1631	78
315	M3JP/KP 355 SMB 4	3GJP/KP 352220-••L	1491	96.0	96.1	95.7	0.85	550	7.3	2018	2.4	3.3	6.9	1959	1799	78
355	M3JP/KP 355 SMC 4	3GJP/KP 352230-••L	1490	96.0	96.2	95.8	0.86	616	6.3	2273	2.3	2.8	7.2	1999	1839	78

Technical data for flameproof IE3 cast iron motors Ex d and Ex de IIB/IIC T4 Gb, 50 Hz design

Technical data for 400 V 50 Hz motors can be found in the table below, data for other voltages on request.

Out-put kW	Motor type	Product code	Speed r/min	Efficiency IEC60034-30-1; 2014			Power factor cos ϕ	Current		Torque			Moment of inertia $J = 1/4$ GD ² kgm ²	Weight Ex d kg	Weight Ex de 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_f/T_N	T_v/T_N				
1000 r/min = 6 poles			400 V 50 Hz					CENELEC-Design								
7.5	M3JP/KP 160 MLA 6	3GJP/KP 163410-••L	975	89.1	90	90	0.77	15.7	5.7	73.24	1.4	3	0.089	225	219	59
11	M3JP/KP 160 MLB 6	3GJP/KP 163420-••L	975	90.3	91.1	91.1	0.78	22.5	6.4	107.5	1.6	3.1	0.138	259	253	64
15	M3JP/KP 180 MLA 6	3GJP/KP 183410-••L	979	91.2	91.9	91.6	0.79	30.1	5.2	146.9	1.5	2.7	0.212	288	282	63
18.5	M3JP/KP 200 MLA 6	3GJP/KP 203410-••L	989	91.7	91.9	91.2	0.82	35.2	6.5	178.8	2.2	3.2	0.496	340	320	59
22	M3JP/KP 200 MLB 6	3GJP/KP 203420-••L	989	92.2	92.4	91.4	0.81	42.4	7.3	212.4	2.6	3.5	0.585	367	347	59
30	M3JP/KP 225 SMA 6	3GJP/KP 223210-••L	988	92.9	93	92.2	0.77	60.4	7.7	290.6	2.9	3.6	0.724	419	419	63
37	M3JP/KP 250 SMA 6	3GJP/KP 253210-••L	990	93.3	93.7	93.5	0.8	71.1	6.5	357	2.4	3.1	1.3	503	503	58
45	M3JP/KP 280 SMB 6	3GJP/KP 283220-••L	991	93.7	94.0	93.5	0.84	82	7.4	433	2.7	3.0	1.87	735	655	72
55	M3JP/KP 280 SMC 6	3GJP/KP 283230-••L	992	94.1	94.3	93.8	0.86	99	7.5	528	2.8	3.0	2.57	785	705	71
75	M3JP/KP 315 SMB 6	3GJP/KP 313220-••L	994	94.6	94.9	94.6	0.84	136	6.8	720	1.8	2.6	4.1	994	914	75
90	M3JP/KP 315 SMC 6	3GJP/KP 313230-••L	994	94.9	95.1	94.7	0.84	164	7.2	864	2.0	3.0	4.6	1070	990	76
110	M3JP/KP 315 SMD 6	3GJP/KP 313240-••L	994	95.1	95.3	95.0	0.83	200	7.3	1056	2.2	3.1	4.9	1118	1038	75
132	M3JP/KP 315 MLB 6	3GJP/KP 313420-••L	995	95.4	95.5	95.1	0.82	242	7.3	1266	2.3	3.2	6.3	1292	1212	72
160 ¹⁾	M3JP/KP 315 LKA 6	3GJP/KP 313810-••L	994	95.6	95.8	95.4	0.81	298	7.5	1535	2.2	3.1	7.3	1500	1420	76
160	M3JP/KP 355 SMA 6	3GJP/KP 353210-••L	993	95.6	95.8	95.6	0.82	292	6.7	1538	2.5	2.6	7.9	1633	1553	75
200	M3JP/KP 355 SMB 6	3GJP/KP 353220-••L	993	95.8	96.2	96.1	0.82	365	6.7	1923	2.6	2.5	9.7	1792	1712	75
250	M3JP/KP 355 SMC 6	3GJP/KP 353230-••L	993	95.8	96.1	95.8	0.81	464	7.7	2404	3.0	3.1	11.3	2009	1849	75
315	M3JP/KP 355 MLB 6	3GJP/KP 353420-••L	993	95.8	96.1	96.0	0.83	571	6.8	3029	2.6	3.2	13.5	2370	2210	76
355	M3JP/KP 355 LKA 6	3GJP/KP 353810-••L	993	95.8	96.0	95.9	0.81	653	7.5	3413	2.9	3.2	15.5	2670	2510	76
750 r/min = 8 poles			400 V 50 Hz					CENELEC-Design								
37	M3JP/KP 280 SMA 8	3GJP/KP 284210-••L	742	91.8	92.1	91.4	0.79	73	7.1	476	1.7	3.0	1.85	705	625	65
45	M3JP/KP 280 SMB 8	3GJP/KP 284220-••L	741	92.2	92.4	91.8	0.78	89.6	7.1	579	1.8	3.1	2.2	745	665	65
55	M3JP/KP 315 SMA 8	3GJP/KP 314210-••L	742	92.5	93.1	92.5	0.80	106	7.1	707	1.8	2.7	3.2	930	850	62
75	M3JP/KP 315 SMB 8	3GJP/KP 314220-••L	740	93.1	93.3	93.1	0.79	146	7.1	966	1.7	2.7	4.1	1030	950	62
90	M3JP/KP 315 SMC 8	3GJP/KP 314230-••L	739	93.4	93.8	93.4	0.81	171	7.1	1159	1.8	2.7	4.9	1100	1020	64
110	M3JP/KP 315 MLA 8	3GJP/KP 314410-••L	740	93.7	94.0	94.1	0.80	211	7.1	1419	1.8	2.7	5.8	1250	1170	72
132	M3JP/KP 355 SMA 8	3GJP/KP 354210-••L	744	94.0	93.9	93.4	0.77	256	7.1	1694	1.5	2.6	7.9	1630	1550	69
160	M3JP/KP 355 SMB 8	3GJP/KP 354220-••L	744	94.3	94.3	93.9	0.77	293	7.1	1926	1.6	2.6	9.7	1790	1710	69
200	M3JP/KP 355 SMC 8	3GJP/KP 354230-••L	742	94.6	95.1	94.9	0.79	385	7.1	2576	1.6	2.6	11.3	1930	1850	69
250	M3JP/KP 355 MLB 8	3GJP/KP 354420-••L	743	94.6	94.8	94.2	0.80	472	7.1	3213	1.6	2.7	13.5	2180	2210	72

¹⁾ High output design

Voltages stamped on rating plate

Motors with design optimized for 50 Hz supply have following voltages stamped as standard: 400 V 50 Hz (IE3), 415 V 50 Hz (IE3), 690 VY 50 Hz (IE3), 440 VD 60 Hz (any IE class) and 460 V 60 Hz (any IE class).

Technical data for flameproof IE3 cast iron motors Ex d and Ex de IIB/IIC T4 Gb, 60 Hz design

Technical data for 460 V 60 Hz motors can be found in the table below, data for other voltages on request.

Out-put kW	Motor type	Product code	Speed r/min	Efficiency IEC60034-30-1; 2014			Power factor cos φ	Current		Torque			Moment of inertia J = 1/4 GD² kgm²	Weight Ex d kg	Weight Ex de 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 _r /T _N	T _b /T _N					
3000 r/min = 2 poles				460 V 60 Hz													
11	M3JP/KP 160 MLA 2	3GJP/KP 161410-••K	3552	91.8	91.8	90.6	0.91	16.5	9.2	29.5	2.9	3.8	0.052	232	219	73	
15	M3JP/KP 160 MLB 2	3GJP/KP 161420-••K	3552	92.3	92.5	91.5	0.92	22.1	9.6	40.3	3.3	3.8	0.062	243	226	73	
18.5	M3JP/KP 160 MLC 2	3GJP/KP 161430-••K	3551	92.9	93.1	92.4	0.93	26.8	9.5	49.7	3.4	4	0.072	257	240	73	
22	M3JP/KP 180 MLA 2	3GJP/KP 181410-••K	3563	92.9	93	92.2	0.91	32.5	9.2	58.9	2.8	3.6	0.116	307	301	73	
30	M3JP/KP 200 MLA 2	3GJP/KP 201410-••K	3563	93.5	93.5	92.7	0.9	44.5	8.8	80.4	2.9	3.5	0.196	358	338	76	
37	M3JP/KP 200 MLB 2	3GJP/KP 201420-••K	3566	94	94.2	93.4	0.91	54	10	99	3.2	3.8	0.217	370	350	76	
45	M3JP/KP 225 SMA 2	3GJP/KP 221210-••K	3575	94.4	94.2	93.1	0.89	66.8	8.9	120	3.2	3.3	0.323	457	457	78	
55	M3JP/KP 250 SMA 2	3GJP/KP 251210-••K	3578	94.4	94.2	93.2	0.89	81.5	9.1	146	2.9	3.6	0.579	509	509	79	
75	M3JP/KP 280 SMB 2	3GJP/KP 281220-••K	3582	94.9	94.6	93.3	0.87	113	8.2	200	2.2	3.2	0.90	766	686	80	
90	M3JP/KP 280 SMC 2	3GJP/KP 281230-••K	3582	95.3	95.0	93.8	0.88	133	9.0	240	2.6	3.4	1.15	836	756	80	
110	M3JP/KP 315 SMB 2	3GJP/KP 311220-••K	3598	95.3	94.9	93.5	0.88	165	7.5	293	1.9	2.9	1.4	1041	961	80	
132	M3JP/KP 315 SMC 2	3GJP/KP 311230-••K	3586	95.7	95.4	94.2	0.88	197	8.9	351	2.4	3.3	1.7	1116	1036	80	
160	M3JP/KP 315 MLA 2	3GJP/KP 311410-••K	3584	95.7	95.6	94.8	0.90	233	8.2	426	2.2	3.0	2.1	1286	1206	80	
200	M3JP/KP 315 MLB 2	3GJP/KP 311420-••K	3584	96.1	96.1	95.5	0.90	290	7.7	533	2.0	2.9	2.2	1311	1231	80	
200	M3JP/KP 355 SMA 2	3GJP/KP 351210-••K	3586	96.1	95.8	94.8	0.88	295	8.5	533	2.0	3.4	3.0	1781	1621	86	
250	M3JP/KP 315 LKB 2	3GJP/KP 311820-••K	3583	96.1	96.1	95.8	0.91	359	9.0	666	2.6	3.0	2.9	1620	1550	80	
250	M3JP/KP 355 SMB 2	3GJP/KP 351220-••K	3585	96.1	95.8	94.8	0.90	363	8.5	666	2.3	3.3	3.4	1878	1718	86	
315	M3JP/KP 355 SMC 2	3GJP/KP 351230-••K	3586	96.1	95.8	94.8	0.89	466	8.7	839	2.3	3.1	3.6	1953	1793	86	
355	M3JP/KP 355 MLA 2	3GJP/KP 351410-••K	3583	96.1	95.9	94.9	0.90	518	8.5	944	2.3	2.9	4.1	2188	2028	86	
1500 r/min = 4 poles				460 V 60 Hz													
11	M3JP/KP 160 MLA 4	3GJP/KP 162410-••K	1777	92.7	92.9	92.1	0.83	17.9	8.7	59.1	2.8	3.3	0.108	246	234	66	
15	M3JP/KP 160 MLB 4	3GJP/KP 162420-••K	1778	93.1	93.4	92.6	0.83	24.3	8.9	80.5	3	3.7	0.125	261	253	66	
18.5	M3JP/KP 180 MLA 4	3GJP/KP 182410-••K	1782	93.6	93.9	93.2	0.81	30.6	8.5	99.1	3.2	3.4	0.217	300	294	66	
22	M3JP/KP 180 MLB 4	3GJP/KP 182420-••K	1783	93.8	94.2	93.7	0.82	35.8	9.3	117	3	3.4	0.217	296	290	66	
30	M3JP/KP 200 MLA 4	3GJP/KP 202410-••K	1786	94.7	94.8	94.1	0.83	47.9	9.4	160	3.3	3.7	0.366	367	347	67	
37	M3JP/KP 225 SMA 4	3GJP/KP 222210-••K	1784	95.3	95.5	94.9	0.85	57.3	8.8	198	2.9	3.4	0.536	448	448	70	
45	M3JP/KP 225 SMB 4	3GJP/KP 222220-••K	1785	95.3	95.4	94.8	0.84	70.5	8.9	240	3	3.6	0.536	451	451	70	
55	M3JP/KP 250 SMA 4	3GJP/KP 252210-••K	1787	95.7	95.8	95.2	0.84	85.8	9.1	293	3.3	3.7	0.933	494	494	71	
75	M3JP/KP 280 SMB 4	3GJP/KP 282220-••K	1788	95.9	95.7	94.7	0.84	117	8.4	401	2.7	3.1	1.50	766	686	75	
90	M3JP/KP 280 SMC 4	3GJP/KP 282230-••K	1788	96.1	95.9	95.0	0.84	140	9.0	481	3.1	3.3	1.85	827	747	75	
110	M3JP/KP 315 SMC 4	3GJP/KP 312230-••K	1792	96.1	96.0	95.3	0.84	172	8.8	586	2.6	3.4	2.9	1093	1013	71	
132	M3JP/KP 315 SMD 4	3GJP/KP 312240-••K	1791	96.4	96.3	95.6	0.84	206	9.0	704	2.8	3.6	3.2	1149	1075	71	
160	M3JP/KP 315 MLB 4	3GJP/KP 312420-••K	1791	96.4	96.4	95.9	0.86	241	9.0	853	2.9	3.3	3.9	1308	1228	71	
200	M3JP/KP 315 LKB 4	3GJP/KP 312820-••K	1791	96.4	96.4	95.9	0.87	301	8.7	1066	2.7	3.2	5.0	1610	1530	77	
200	M3JP/KP 355 SMA 4	3GJP/KP 352210-••K	1792	96.4	96.2	95.4	0.87	301	8.3	1065	2.2	3.0	5.9	1794	1634	77	
250	M3JP/KP 315 LKC 4	3GJP/KP 312830-••K	1791	96.7	96.7	96.4	0.86	376	8.9	1332	2.5	3.3	5.5	1690	1610	77	
250	M3JP/KP 355 SMB 4	3GJP/KP 352220-••K	1792	96.7	96.6	96.0	0.86	381	8.8	1332	2.7	3.2	6.9	1950	1790	77	
315	M3JP/KP 355 SMC 4	3GJP/KP 352230-••K	1791	96.7	96.6	96.1	0.85	479	8.5	1679	3.1	3.2	7.2	1998	1838	77	
355	M3JP/KP 355 MLA 4	3GJP/KP 352410-••K	1792	96.7	96.5	95.9	0.86	542	9.0	1890	2.9	3.2	8.4	2333	2173	81	

Technical data for flameproof IE3 cast iron motors Ex d and Ex de IIB/IIC T4 Gb, 60 Hz design

Technical data for 460 V 60 Hz motors can be found in the table below, data for other voltages on request.

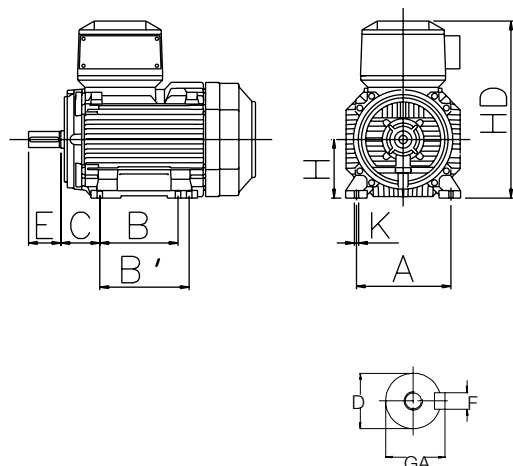
Out-put kW	Motor type	Product code	Speed r/min	Efficiency IEC60034-30-1; 2014			Power factor cos φ	Current		Torque			Moment of inertia J = 1/4 GD ² kgm ²	Weight Ex d kg	Weight Ex de kg	Sound pressure level L _{PA} dB
				Full load 100%	3/4 load 75%	1/2 load 50%		I _N A	I _s /I _N	T _N Nm	T _f /T _N	T _b /T _N				
1000 r/min = 6 poles				460 V 60 Hz												
7.5	M3JP/KP 160 MLA 6	3GJP/KP 163410-••K	1182	91.4	91.5	90.3	0.76	13.5	8.6	60.5	1.8	3.7	0.114	243	219	63
11	M3JP/KP 160 MLB 6	3GJP/KP 163420-••K	1183	91.7	91.8	90.5	0.73	20.6	9.4	88.7	2.3	4.4	0.131	256	253	63
15	M3JP/KP 180 MLA 6	3GJP/KP 183410-••K	1183	92.3	92	90.5	0.75	27.1	8.4	121	2.3	4	0.225	296	290	63
18.5	M3JP/KP 200 MLA 6	3GJP/KP 203410-••K	1191	93.3	93.2	92.1	0.77	32.3	8.6	148	2.9	3.6	0.448	340	320	67
22	M3JP/KP 200 MLB 6	3GJP/KP 203420-••K	1191	93.8	93.8	92.8	0.78	37.7	8.8	176	2.9	3.6	0.531	363	343	67
30	M3JP/KP 225 SMA 6	3GJP/KP 223210-••K	1191	94.2	94.3	93.6	0.8	49.9	8.9	240	3.2	3.5	0.813	440	440	67
37	M3JP/KP 250 SMA 6	3GJP/KP 253210-••K	1192	94.5	94.7	94.1	0.82	59.9	8.6	296	3	3.2	1.49	529	529	67
45	M3JP/KP 280 SMB 6	3GJP/KP 283220-••K	1193	95.3	95.2	94.3	0.85	70.6	7.9	361	2.6	2.9	2.20	777	697	68
55	M3JP/KP 280 SMC 6	3GJP/KP 283230-••K	1190	95.3	95.3	94.5	0.85	86.2	7.8	420	2.6	2.9	2.85	817	737	68
75	M3JP/KP 315 SMC 6	3GJP/KP 313230-••K	1195	95.7	95.5	94.7	0.82	121	7.9	600	2.5	3.1	4.9	1089	1009	70
90	M3JP/KP 315 SMD 6	3GJP/KP 313240-••K	1195	95.7	95.6	94.9	0.80	149	8.2	719	2.7	3.2	4.9	1123	1043	70
110	M3JP/KP 315 MLB 6	3GJP/KP 313420-••K	1194	96.1	96.0	95.4	0.81	177	7.9	880	2.6	3.0	6.3	1288	1208	71
132	M3JP/KP 315 LKA 6	3GJP/KP 313810-••K	1194	96.1	96.0	95.5	0.81	215	7.9	1055	2.7	3.0	7.3	1490	1420	71
160	M3JP/KP 315 LKC 6	3GJP/KP 313830-••K	1195	96.1	96.0	95.3	0.81	259	8.4	1279	3.0	3.2	9.2	1690	1610	71
160	M3JP/KP 355 SMB 6	3GJP/KP 353220-••K	1195	96.1	96.0	95.3	0.81	260	7.9	1278	2.3	3.0	9.7	1778	1698	76
200	M3JP/KP 355 SMC 6	3GJP/KP 353230-••K	1196	96.1	95.7	95.0	0.82	320	8.3	1598	2.5	3.1	11.3	1921	1841	76
250	M3JP/KP 355 MLB 6	3GJP/KP 353420-••K	1195	96.4	96.4	95.8	0.82	401	9.2	1997	2.3	3.0	13.5	2345	2185	76
315	M3JP/KP 355 LKA 6	3GJP/KP 353810-••K	1195	96.4	96.4	95.8	0.83	500	7.9	2516	2.6	2.9	15.5	2670	2510	79
355	M3JP/KP 355 LKB 6	3GJP/KP 353820-••K	1195	96.4	96.1	95.3	0.80	584	8.8	2835	3.0	3.2	16.5	2770	2610	79

Voltages stamped on rating plate

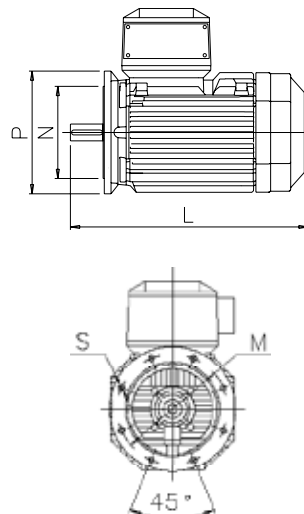
Motors with design optimized for 60 Hz supply have following voltages stamped as standard: 380 V 50 Hz (IE3), 400 V 50 Hz (IE3), 690 V 50 Hz (IE3), 415 V 50 Hz (IE3) and 460 V 60 Hz (IE3).

Dimension drawings for flameproof IE3 cast iron frame motors
Mechanical dimensions are shown in the table below.

Foot-mounted motor IM 1001, IM B3



Flange-mounted motor IM 3001, IM B5



Motor size	IM 1001, IM B3 and 3001, IM B5										IM 1001, IM B3							IM 3001, IM B5			
	D		GA		F		E		L max												
	poles		poles		poles		poles		poles												
	2	4-8	2	4-8	2	4-8	2	4-8	2	4-8	A	B	B	C	HD Ex d	HD Ex de	K	M	N	P	S
160 ML_	42	42	45	45	12	12	110	110	808	808	254	210	254	108	495	499	14.5	300	250	350	18.5
180 ML_	48	48	51.5	51.5	14	14	110	110	826	826	279	241	279	121	535	539	14.6	300	250	350	18.5
200 ML_	55	55	59	59	16	16	110	110	824	824	318	267	305	133	616	573	18.5	350	300	400	18.5
225 SM_	55	60	59	64	16	18	110	140	871	901	356	286	311	149	663	620	18.6	400	350	450	18.5
250 SM_	60	65	64	69	18	18	140	140	895	895	406	311	349	168	726	683	24	500	450	550	18.5
280 SM	65	75	69	79.5	18	20	140	140	1090	1090	457	368	419	190	862	768	24	500	450	550	18
315 SM	65	80	69	85	18	22	140	170	1176	1206	508	406	457	216	929	858	30	600	550	660	23
315 ML	65	90	69	95	18	25	140	170	1287	1317	508	457	508	216	929	858	30	600	550	660	23
315 LK_	65	90	69	95	18	25	140	170	1446	1475	508	508	560	216	929	858	30	600	550	660	23
315 LKC 2-4 pole	65	90	69	95	18	25	140	170	1446	1475	508	508	560	216	929	858	30	600	550	660	23
355 SM_	70	100	74.5	106	20	28	140	210	1409	1479	610	500	560	254	1124	984	35	740	680	800	23
355 SMC 8-pole	-	100	-	106	-	28	-	210	-	1479	610	500	560	254	1032	968	35	740	680	800	23
355 ML	70	100	74.5	106	20	28	140	210	1514	1584	610	560	630	254	1124	984	35	740	680	800	23
355 LK	70	100	74.5	106	20	28	140	210	1764	1834	610	630	710	254	1124	984	35	740	680	800	23

Note: The Lmax dimension of frame sizes 200-250 for IE3 motors differ from corresponding IE2.

For more information please contact:
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