

MS IE1 Series

ELECTRICAL AND MECHANICAL DATA



29. MS SERIES - Three-Phase Asynchronous single speed motors

Electrical data (50Hz) Efficiency IE1- 2 poles

Frame size	Power (KW)	Current (A)			Current (A)			Current (A)			rpm. (r/min)	Eff. (%)	Power factor (Cosφ)	Cs/ Cn	Cmax/ Cn	Cn (Nm)	Is/In	dB(A)	Weight (Kg)
		220V	380V	660V	230V	400V	690V	240V	415V	720V									
MS 561-2	0.09	0.66	0.38	0.22	0.62	0.36	0.21	0.60	0.35	0.20	2710	53	0.72	2.2	2.3	0,502	4	58	2.60
MS 562-2	0.12	0.73	0.42	0.24	0.69	0.40	0.23	0.67	0.39	0.22	2700	61	0.72	2.2	2.3	0,534	4	58	3.00
MS 563-2	0.18	1.00	0.58	0.33	0.95	0.55	0.32	0.92	0.53	0.31	2710	63	0.75	2.2	2.4	0,642	6	61	4.00
MS 631-2	0.18	1.00	0.58	0.33	0.95	0.55	0.32	0.92	0.53	0.31	2710	63	0.75	2.2	2.4	0,641	6	61	4.00
MS 632-2	0.25	1.29	0.75	0.43	1.23	0.71	0.41	1.19	0.69	0.40	2710	65	0.78	2.2	2.4	0,884	6	61	4.20
MS 633-2	0.37	1.92	1.11	0.64	1.82	1.05	0.61	1.76	1.02	0.59	2710	65	0.78	2.2	2.4	1,261	6	62	4.70
MS 711-2	0.37	1.76	1.02	0.59	1.67	0.97	0.56	1.61	0.93	0.54	2730	70	0.79	2.2	2.4	1,262	6	64	5.20
MS 712-2	0.55	2.57	1.49	0.86	2.45	1.42	0.82	2.36	1.36	0.79	2760	71	0.79	2.2	2.4	1,869	6	64	6.00
MS 713-2	0.75	3.33	1.93	1.11	3.18	1.83	1.06	3.06	1.77	1.02	2730	72	0.82	2.2	2.4	2,54	6	65	7.00
MS 801-2	0.75	3.21	1.86	1.07	3.06	1.77	1.02	2.94	1.70	0.98	2770	73	0.84	2.2	2.4	2,54	6	67	8.70
MS 802-2	1.1	4.56	2.64	1.52	4.35	2.51	1.45	4.18	2.42	1.39	2770	76.2	0.83	2.2	2.4	3,72	6	67	10.00
MS 803-2	1.5	6.04	3.50	2.01	5.87	3.32	1.92	5.54	3.20	1.85	2800	78.5	0.83	2.2	2.4	5,04	6	70	11.20
MS 90S-2	1.5	5.97	3.46	1.99	5.76	3.28	1.90	5.47	3.16	1.82	2840	78.5	0.84	2.2	2.4	5,04	6	72	12.00
MS 90L1-2	2.2	8.39	4.85	2.80	8.0	4.61	2.66	7.69	4.45	2.56	2840	81	0.85	2.2	2.4	7,4	6	72	14.50
MS 90L2-2	3	11.1	6.42	3.69	10.6	6.10	3.52	10.2	5.88	3.39	2840	82.6	0.86	2.2	2.4	10,1	6	74	15.00
MS 100L1-2	3	11.0	6.34	3.65	10.4	6.03	3.48	10.0	5.81	3.35	2840	82.6	0.87	2.2	2.3	10,1	7	76	20.00
MS 100L2-2	4	14.3	8.30	4.78	13.7	7.88	4.55	13.1	7.60	4.38	2850	84.2	0.87	2.2	2.3	13,4	7.5	77	24.00
MS 112M-2	4	14.3	8.30	4.78	13.7	7.88	4.55	13.1	7.60	4.38	2880	84.2	0.87	2.2	2.3	13,4	7.5	77	26.00
MS 112L-2	5.5	19.1	11.1	6.38	18.2	10.5	6.08	17.5	10.1	5.85	2880	85.7	0.88	2.2	2.3	18,2	7.5	78	29.30
MS 132S1-2	5.5	19.1	11.1	6.38	18.2	10.5	6.08	17.5	10.1	5.85	2900	85.7	0.88	2	2.2	18,1	7.5	80	38.40
MS 132S2-2	7.5	25.7	14.9	8.57	24.5	14.1	8.16	23.6	13.6	7.86	2920	87	0.88	2	2.2	24,7	7.5	80	41.30
MS 132M1-2	9.2	30.8	17.8	10.3	29.9	17.3	9.96	28.3	16.3	9.42	2930	88	0.89	2	2.2	29,5	7.5	81	48.20
MS 132M2-2	11	36.3	21.0	12.1	34.6	20.0	11.5	33.3	19.2	11.1	2930	88.4	0.9	2	2.2	36,0	7.5	83	52.50
MS 160M1-2	11	36.3	21.0	12.1	34.6	20.0	11.5	33.3	19.2	11.1	2940	88.4	0.9	2	2.2	36,1	7.5	86	76.00
MS 160M2-2	15	48.4	28.0	16.1	46.1	26.6	15.4	44.4	25.7	14.8	2940	89.4	0.91	2	2.2	48,9	7.5	86	77.50
MS 160L-2	18.5	59.3	34.3	19.8	56.5	32.6	18.8	54.3	31.4	18.1	2940	90	0.91	2	2.2	60,1	7.5	86	92.00
MS 180M-2	22	71.3	41.3	23.8	68.2	39.2	22.6	65.3	37.8	21.8	2950	90	0.9	2	2.2	71,2	7.5	91	121.0
MS 200L1-2	30	96.0	55.6	32.1	91.8	52.8	30.5	88.0	50.9	29.4	2950	91.2	0.9	2	2.2	97,0	7.5	94	144.0
MS 200L2-2	37	117	67.9	39.2	112	64.5	37.2	108	62.2	35.9	2940	92	0.9	2	2.2	119	7.5	94	151.0

Electrical data (50Hz) Efficiency IE1 - 4 poles

Frame size	Power (KW)	Current (A)			Current (A)			Current (A)			rpm. (r/min)	Eff. (%)	Power factor (Cosφ)	Cs/ Cn	Cmax/ Cn	Cn (Nm)	Is/In	dB(A)	Weight (Kg)
		220V	380V	660V	230V	400V	690V	240V	415V	720V									
MS 561-4	0.06	0.64	0.37	0.21	0.61	0.35	0.20	0.58	0.34	0.19	1360	50	0.56	2.3	2.4	0,478	4	50	2.90
MS 562-4	0.09	0.82	0.47	0.27	0.78	0.45	0.26	0.75	0.43	0.25	1360	52	0.59	2.3	2.4		4	50	3.20
MS 631-4	0.12	1.00	0.58	0.33	0.95	0.55	0.32	0.92	0.53	0.31	1360	52	0.64	2.2	2.4	0,93	4	52	3.70
MS 632-4	0.18	1.28	0.74	0.43	1.21	0.70	0.40	1.17	0.67	0.39	1310	57	0.65	2.2	2.4	1,28	4	52	4.20
MS 633-4	0.25	1.66	0.96	0.55	1.58	0.91	0.53	1.52	0.88	0.51	1340	60	0.66	2.2	2.2	1,77	4	54	5.00
MS 711-4	0.25	1.52	0.88	0.51	1.45	0.84	0.48	1.39	0.81	0.46	1350	60	0.72	2.2	2.4	1,78	6	55	5.00
MS 712-4	0.37	2.02	1.17	0.67	1.92	1.11	0.64	1.85	1.07	0.62	1370	65	0.74	2.2	2.4	2,62	6	55	5.80
MS 713-4	0.55	2.92	1.69	0.97	2.78	1.60	0.93	2.67	1.55	0.89	1380	66	0.75	2.2	2.4	3,86	6	57	6.50
MS 801-4	0.55	2.87	1.66	0.96	2.74	1.58	0.91	2.63	1.52	0.88	1370	67	0.75	2.2	2.4	3,87	6	58	8.10
MS 802-4	0.75	3.50	2.03	1.17	3.34	02.33.00	1.11	3.21	1.86	1.07	1380	72	0.78	2.2	2.4	5,27	6	58	9.10
MS 803-4	1.1	4.86	2.81	1.62	4.63	2.67	1.54	4.45	2.57	1.48	1390	76.2	0.78	2.2	2.4	7,61	6	60	11.00
MS 90S-4	1.1	4.80	2.78	1.60	4.57	2.64	1.52	4.40	2.54	1.47	1400	76.2	0.79	2.2	2.4	7,60	6	61	11.70
MS 90L1-4	1.5	6.27	3.63	2.09	5.97	3.45	1.99	5.75	3.32	1.92	1400	78.5	0.8	2.2	2.4	10,38	6	61	14.40
MS 90L2-4	2.2	8.91	5.16	2.97	8.45	4.90	2.83	8.17	4.72	2.72	1400	81	0.8	2.2	2.4	14,90	7	63	17.60
MS 100L1-4	2.2	8.80	5.09	2.93	8.38	4.84	2.79	8.07	4.66	2.69	1420	81	0.81	2.2	2.3	14,90	7	64	19.20
MS 100L2-4	3	11.8	6.81	3.92	11.2	6.47	3.74	10.8	6.24	3.60	1420	82.6	0.81	2.2	2.3	20,32	7	64	22.50
MS 100L3-4	4	15.2	8.80	5.07	14.2	8.36	4.83	13.9	8.06	4.65	1430	84.2	0.82	2.2	2.3	26,93	7	65	27.30
MS 112M-4	4	15.0	8.70	5.01	14.3	8.26	4.77	13.8	7.96	4.59	1430	84.2	0.83	2.2	2.2	26,90	7	65	29.00
MS 112L-4	5.5	20.3	11.7	6.76	19.3	11.2	6.44	18.6	10.8	6.20	1440	85.7	0.83	2.2	2.2	36,74	7	68	35.70
MS 132S-4	5.5	20.1	11.6	6.68	19.1	11.0	6.37	18.4	10.6	6.13	1450	85.7	0.84	2.2	2.2	36,72	7	71	39.00
MS 132M-4	7.5	26.6	15.4	8.87	25.4	14.6	8.45	24.4	14.1	8.13	1450	87	0.85	2.2	2.2	50,12	7	71	48.60
MS 132L1-4	9.2	32.5	18.8	10.8	30.9	17.9	10.3	29.8	17.2	9.9	1460	87.5	0.85	2.2	2.2	60,13	7.5	74	56.50
MS 132L2-4	11	38.0	22.0	12.7	36.2	20.9	12.1	34.8	20.1	11.6	1460	88.4	0.86	2.2	2.2	71,74	7.5	74	64.00
MS 160M-4	11	37.5	21.7	12.5	35.8	20.6	11.9	34.4	19.9	11.5	1460	88.4	0.87	2.2	2.2	71,78	7	75	73.00
MS 160L1-4	15	51.2	29.6	17.1	48.8	28.2	16.3	46.9	27.1	15.6	1460	88.4	0.87	2.2	2.2	97,83	7.5	75	88.50
MS 160L2-4	18.5	63.1	36.5	21.0	60.1	34.7	20.0	57.9	33.5	19.3	1460	90.5	0.85	2.2	2.2	120	7.5	78	97.50
MS 180M-4	18.5	62.4	36.1	20.8	59.7	34.3	19.8	57.2	33.1	19.1	1460	90.5	0.86	2.2	2.2	143	7.5	80	118.0
MS 180L-4	22	73.8	42.7	24.7	70.6	40.6	23.4	67.7	39.1	22.6	1460	91	0.86	2.2	2.2	143	7.5	80	128.0
MS 200L-4	30	99.5	57.6	33.2	95.1	54.7	31.6	91.2	52.7	30.4	1470	92	0.86	2.2	2.2	195	7.5	83	158.0

29. MS SERIES - Three-Phase Asynchronous single speed motors

Electrical data (50Hz) Efficiency IE1 - 6 poles

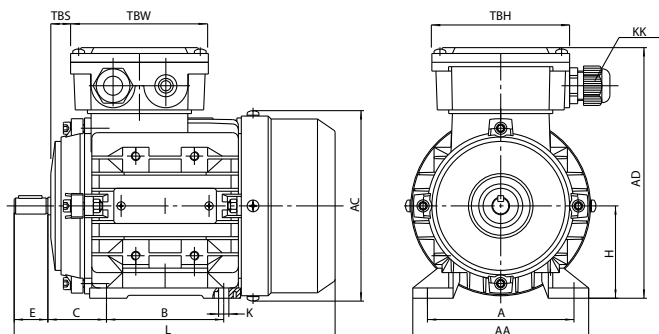
Frame size	Power (KW)	Current (A)			Current (A)			Current (A)			rpm. (r/min)	Eff. (%)	Power factor (Cosφ)	Cs/ Cn	Cmax/ Cn	Cn (Nm)	Is/In	dB(A)	Weight (Kg)
		220V	380V	660V	230V	400V	690V	240V	415V	720V									
MS 631-6	0.09	0.92	0.53	0.31	0.88	0.51	0.29	0.85	0.49	0.28	840	42	0.61	2	2	0.98	3.5	50	4.20
MS 632-6	0.12	1.13	0.65	0.38	1.08	0.62	0.36	1.03	0.60	0.34	850	45	0.62	2	2	1,18	3.5	50	4.50
MS 711-6	0.18	1.28	0.74	0.43	1.22	0.70	0.41	1.17	0.68	0.39	880	56	0.66	1.6	1.7	1,93	4	52	5.60
MS 712-6	0.25	1.59	0.92	0.53	1.51	0.87	0.50	1.46	0.84	0.49	900	59	0.7	2.1	2.2	2,36	4	52	6.00
MS 713-6	0.37	2.31	1.34	0.77	2.2	1.27	0.73	2.11	1.22	0.70	890	61	0.69	2	2.1	3,93	4	54	6.80
MS 801-6	0.37	2.24	1.30	0.75	2.13	1.23	0.71	2.05	1.19	0.68	900	62	0.7	1.9	1.9	3,90	4	56	8.10
MS 802-6	0.55	2.99	1.73	1.00	2.85	1.65	0.95	2.74	1.59	0.91	900	67	0.72	2	2.3	5,84	4	56	9.60
MS 803-6	0.75	4.02	2.33	1.34	3.83	2.21	1.28	3.69	2.13	1.23	900	68	0.72	2	2.3	7,88	4	58	10.00
MS 90S-6	0.75	3.96	2.29	1.32	3.77	2.18	1.26	3.63	2.10	1.21	920	69	0.72	2.2	2.2	7,83	5.5	59	11.30
MS 90L1-6	1.1	5.49	3.18	1.83	5.23	3.02	1.74	5.03	2.91	1.68	925	72	0.73	2.2	2.2	11,54	5.5	59	14.40
MS 90L2-6	1.5	7.09	4.11	2.36	6.76	3.90	2.25	6.50	3.76	2.17	925	74	0.75	2.2	2.2	15,64	5.5	60	15.50
MS 100L1-6	1.5	7.00	4.05	2.33	6.67	3.85	2.22	6.42	3.71	2.14	945	74	0.76	2.2	2.2	15,62	6	61	18.80
MS 100L2-6	2.2	9.87	5.71	3.29	9.40	5.43	3.13	9.04	5.23	3.01	950	77	0.76	2.2	2.2	22,31	6	63	19.80
MS 112M-6	2.2	9.7	5.64	3.25	9.28	5.36	3.09	8.93	5.16	2.98	955	78	0.76	2.2	2.2	22,34	6	64	25.00
MS 112L-6	3	12.9	7.49	4.31	12.3	7.12	4.11	11.9	6.86	3.95	950	79	0.77	2.2	2.2	30,21	6	64	30.00
MS 132S-6	3	13.1	7.59	4.37	12.5	7.21	4.16	12.0	6.95	4.01	960	79	0.76	2	2	30,18	6.5	64	35.00
MS 132M1-6	4	17.2	9.93	5.72	16.4	9.44	5.45	15.7	9.10	5.24	960	80.5	0.76	2	2	40,21	6.5	68	47.60
MS 132M2-6	5.5	22.6	13.1	7.53	21.5	12.4	7.17	20.7	12.0	6.9	960	83	0.77	2	2	55,32	6.5	68	50.70
MS 132L-6	7.5	30.1	17.4	10.0	28.7	16.5	9.55	27.6	15.9	9.2	960	85	0.77	2	2	74,60	6.5	68	47.60
MS 160M-6	7.5	28.6	16.6	9.5	27.3	15.7	9.08	26.2	15.2	8.7	960	86	0.8	2	2.2	74,58	6.5	68	70.0
MS 160L-6	11	41.8	24.2	13.9	39.8	23.0	13.3	38.3	22.1	12.8	960	87.5	0.79	2	2.2	109,43	6.5	73	87.0
MS 180L-6	15	54.6	31.6	18.2	52.2	30.0	17.3	50.1	28.9	16.7	970	89	0.81	2	2.2	147,73	6.5	79	122.0
MS 200L1-6	18.5	66.6	38.6	22.2	63.7	36.6	21.1	61.0	35.3	20.3	975	90	0.81	2	2.2	181,23	6.5	82	136.0
MS 200L2-6	22	77.3	44.7	25.8	73.9	42.5	24.5	70.8	41.0	23.6	975	90	0.83	2	2.2	215,21	6.5	82	152.0

Electrical data (50Hz) - 8 poles

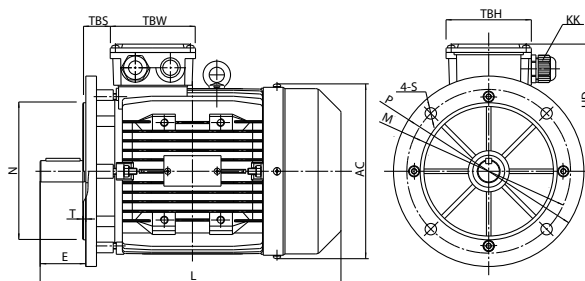
Frame size	Power (KW)	Current (A)			Current (A)			Current (A)			rpm. (r/min)	Eff. (%)	Power factor (Cosφ)	Cs/ Cn	Cmax/ Cn	Cn (Nm)	Is/In	dB(A)	Weight (Kg)
		220V	380V	660V	230V	400V	690V	240V	415V	720V									
MS 711-8	0.09	0.88	0.51	0.29	0.84	0.48	0.28	0.81	0.47	0.27	680	48	0.56	1.5	1.7	1,05	3	50	5.60
MS 712-8	0.12	1.05	0.61	0.35	1.00	0.58	0.33	0.96	0.55	0.32	690	51	0.59	1.6	1.7	1,63	2.7	50	6.00
MS 801-8	0.18	1.52	0.88	0.51	1.45	0.84	0.48	1.39	0.80	0.46	680	51	0.61	1.5	1.7	2,60	2.8	52	9.40
MS 802-8	0.25	1.92	1.11	0.64	1.83	1.06	0.61	1.76	1.02	0.59	680	56	0.61	1.6	2	3,60	2.7	52	10.10
MS 90S-8	0.37	2.45	1.42	0.82	2.33	1.35	0.78	2.24	1.30	0.75	680	63	0.63	1.6	1.8	5,22	2.8	56	12.50
MS 90L-8	0.55	3.36	1.95	1.12	3.21	1.85	1.07	3.08	1.78	1.03	680	66	0.65	1.6	1.8	7,63	3	56	15.30
MS 100L1-8	0.75	4.45	2.58	1.48	4.24	2.45	1.41	4.08	2.36	1.36	710	66	0.67	1.7	2.1	10,42	3.5	59	17.20
MS 100L2-8	1.1	5.81	3.36	1.94	5.54	3.20	1.85	5.33	3.08	1.78	710	72	0.69	1.7	2.1	15,18	3.5	59	19.50
MS 112M-8	1.5	7.82	4.53	2.61	7.45	4.30	2.48	7.17	4.15	2.39	710	74	0.68	1.8	2.1	20,63	4.2	61	25.50
MS 132S-8	2.2	10.8	6.28	3.61	10.3	5.96	3.44	9.94	5.75	3.31	720	75	0.71	2	2	29,82	5.5	64	34.20
MS 132M-8	3	14.0	8.11	4.67	13.3	7.70	4.45	12.8	7.43	4.28	720	77	0.73	2	2	42,35	5.5	64	40.00
MS 160M1-8	4	18.0	10.4	5.99	17.1	9.89	5.71	16.5	9.53	5.49	730	80	0.73	1.9	2.1	53,81	6	68	59.00
MS 160M2-8	5.5	23.4	13.5	7.79	22.3	12.9	7.42	21.4	12.4	7.14	720	83.5	0.74	2	2.2	73,27	6	68	69.00
MS 160L-8	7.5	30.9	17.9	10.3	29.4	17.0	9.8	28.3	16.4	9.43	720	85	0.75	1.9	2.2	100,65	6	68	87.00
MS 180L-8	11	45.2	26.2	15.1	43.6	25.1	14.5	41.5	24.0	13.8	715	87.4	0.73	1.9	2.2	144,2	6	78	125.0
MS 200L-8	15	58.9	34.1	19.6	56.3	32.4	18.7	54.0	31.2	18.0	725	88.0	0.76	1.9	2.2	194,65	6	80	151.0

31. MS SERIES - Overall & Installation dimension

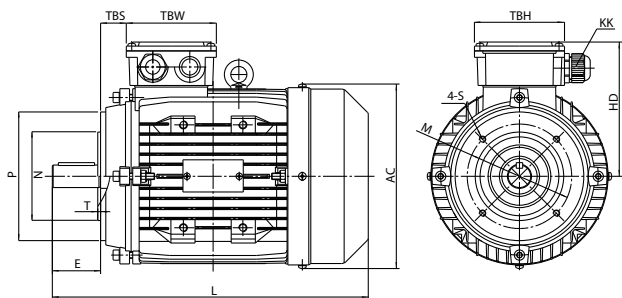
Measures in mm



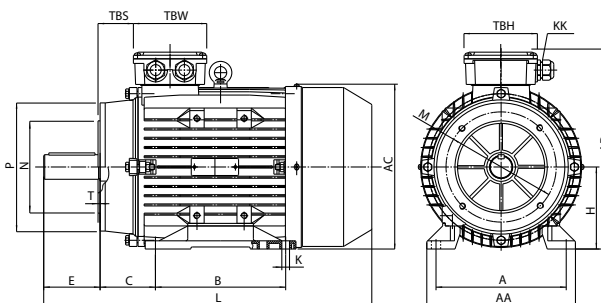
IM B3



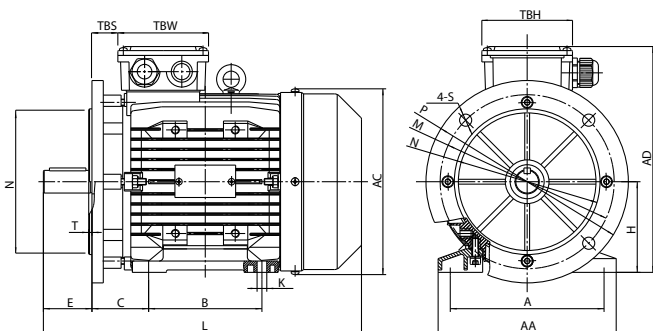
IM B5



IM B14



IM B34



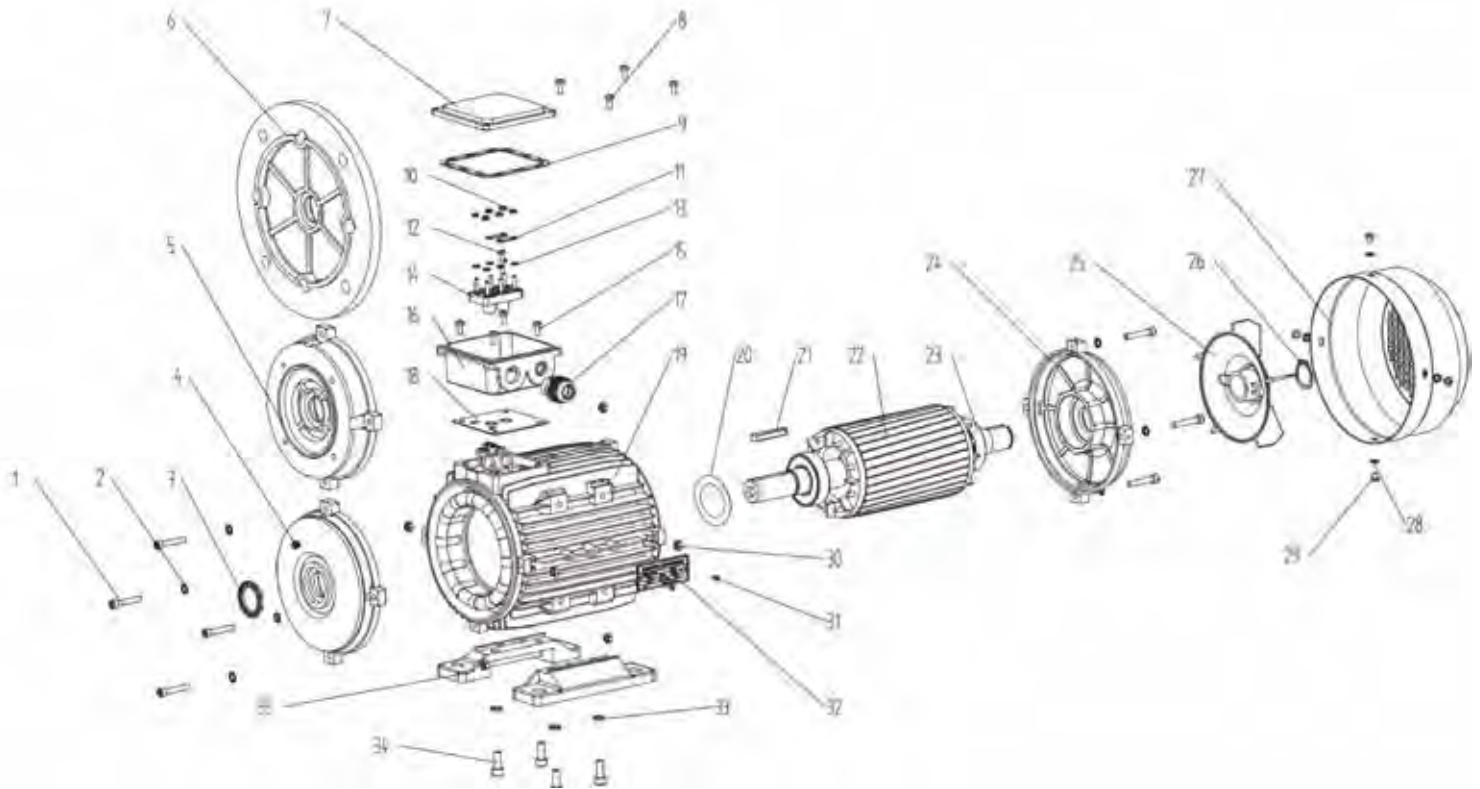
IM B35



Frame size	B3					Shaft							General								
	H	A	B	C	K	D	E	F	G	SS	XX	ZZ	AA	AD	HD	AC	L	KK	TBS	TBW	TBH
56	56	90	71	36	5.8X8.8	Ø9	20	3	7.2	M3	9	12	110	156	100	Ø117	196	1-M16X1.5	14	88	88
63	63	100	80	40	7X10	Ø11	23	4	8.5	M4	10	14	120	171	108	Ø130	220	1-M16X1.5	14	94	94
71	71	112	90	45	7X10	Ø14	30	5	11	M5	12	17	132	186	115	Ø147	241	1-M20X1.5	20	94	94
80	80	125	100	50	10X13	Ø19	40	6	15.5	M6	16	21	160	213	133	Ø163	290	1-M20X1.5	27	105	105
90S	90	140	100	56	10X13	Ø24	50	8	20	M8	19	25	175	229	139	Ø183	312	1-M20X1.5	30	105	105
90L1/L2	90	140	125	56	10X13	Ø24	50	8	20	M8	19	25	175	229	139	Ø183	337/367	1-M20X1.5	30	105	105
100	100	160	140	63	12X15	Ø28	60	8	24	M10	22	30	198	252	152	Ø205	369	2-M20X1.5	26	105	105
112	112	190	140	70	12X15	Ø28	60	8	24	M10	22	30	220	279	167	Ø229	395	2-M25X1.5	32	112	112
132S	132	216	140	89	12X15	Ø38	80	10	33	M12	28	37	252	318	186	Ø265	437	2-M25X1.5	38	112	112
132ML	132	216	178	89	12X15	Ø38	80	10	33	M12	28	37	252	318	186	Ø265	475/501	2-M25X1.5	38	112	112
160ML	160	254	210/254	108	15X19	Ø42	110	12	37	M16	36	45	290	384	224	Ø325	640	2-M32X1.5	64	143	143
180ML	180	279	241/279	121	15X25	Ø48	110	14	42.5	M16	36	45	340	440	260	Ø368	730	2-M32X1.5	73	190	190
200L	200	318	305	133	19X29	Ø55	110	16	49	M20	42	53	390	460	260	Ø368	745	2-M40X1.5	85	190	190

Frame size	B5						B5R						B14						B14B						
	M	N	P	T	S	R	M	N	P	T	S	R	N	M	P	T	S	R	N	M	P	T	S	R	
56	Ø100	Ø80	Ø120	3.0	Ø7	0							Ø50	Ø65	Ø80	2.5	M5	0							
63	Ø115	Ø95	Ø140	3.0	Ø10	0							Ø60	Ø75	Ø90	2.5	M5	0	Ø80	Ø100	Ø120	3.0	M6	0	
71	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø115	Ø95	Ø140	3.5	Ø10	0	Ø70	Ø85	Ø105	2.5	M6	0	Ø95	Ø115	Ø140	3.0	M8	0	
80	Ø165	Ø130	Ø200	3.5	Ø12	0	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø80	Ø100	Ø120	3.0	M6	0	Ø110	Ø130	Ø160	3.5	M8	0	
90S	Ø165	Ø130	Ø200	3.5	Ø12	0	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø95	Ø115	Ø140	3.0	M8	0	Ø110	Ø130	Ø160	3.5	M8	0	
90L1/L2	Ø165	Ø130	Ø200	3.5	Ø12	0	Ø130	Ø110	Ø160	3.5	Ø10	0	Ø95	Ø115	Ø140	3.0	M8	0	Ø110	Ø130	Ø160	3.5	M8	0	
100	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø165	Ø130	Ø200	4.0	Ø12	0	Ø110	Ø130	Ø160	3.5	M8	0	Ø130	Ø165	Ø200	3.5	M10	0	
112	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø165	Ø130	Ø200	4.0	Ø12	0	Ø110	Ø130	Ø160	3.5	M8	0	Ø130	Ø165	Ø200	3.5	M10	0	
132S	Ø265	Ø230	Ø300	4.0	Ø15	0	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø130	Ø165	Ø200	4.0	M10	0	Ø180	Ø215	Ø250	4.0	M12	0	
132M/L	Ø265	Ø230	Ø300	4.0	Ø15	0	Ø215	Ø180	Ø250	4.0	Ø15	0	Ø130	Ø165	Ø200	4.0	M10	0	Ø180	Ø215	Ø250	4.0	M12	0	
160M/L	Ø300	Ø250	Ø350	5.0	Ø19	0							Ø180	Ø215	Ø250	4.0	M12	0							
180M/L	Ø300	Ø250	Ø350	5.0	Ø19	0																			
200L	Ø350	Ø300	Ø400	5.0	Ø19	0																			

32. MS SERIES - Exploded drawing spare part list



- | | | |
|-------------------------------|--------------------------------|-----------------------------|
| 1. Screw | 13. Terminal shim | 25. Cooling fan |
| 2. Gasket | 14. Terminal board | 26. Fan circlip |
| 3. Oil seal | 15. Terminal box fixing screws | 27. Fan cover |
| 4. DE endshleld | 16. Terminal box Dase | 28. Fan cover fixing shim |
| 5. B14 nang | 17. Cable gland | 29. Fan cover fixing screws |
| 6. B5 nange | 18. Terminal box bottomgaskel | 30. Endshield fixing nul |
| 7. Terminal box cover | 19. Frame | 31. Rivet |
| 8. Terminal box fixing screws | 20. Preload washer | 32. Nameplate |
| 9. Terminal box upper gasket | 21. Key | 33. Foot fixing nut |
| 10. Terminal box fixing nut | 22. Rotor | 34. Foot fixing screws |
| 11. Terminal bridge | 23. Bearing | 35. Foot |
| 12. Terminal pin | 24. NDE endshield | |