

IMfinity® 3-phase induction motors - IE2 - IE3 - IE4 - Non IE Efficiency

IP55 Aluminium frame

Electrical and mechanical characteristics

Non IE efficiency - Powered by the mains

Type	Rated power P _n kW	Rated torque M _n N.m	Starting torque/ Rated torque M _d /M _n	Maximum torque/ Rated torque M _m /M _n	Starting current/Rated current I _d /I _n	Moment of inertia J kg.m ²	Weight IM B3 kg	Noise LP db(A)	400V / 50Hz							
									Rated speed N _n min ⁻¹	Rated current I _n A	Efficiency IEC 60034-2-1 2014			Power factor		
											η 4/4	η 3/4	η 2/4	cos φ 4/4	cos φ 3/4	cos φ 2/4
2 poles																
LS 56M*	0.09	0.31	5.3	5.4	5	0.00015	3.8	54	2860	0.44	54.00	45.20	37.10	0.55	0.45	0.40
LS 56M*	0.12	0.41	4	4.1	4.6	0.00015	3.8	54	2820	0.5	58.70	54.00	45.20	0.60	0.55	0.45
LS 63M*	0.18	0.62	3.3	2.9	5	0.00019	4.8	57	2790	0.52	67.40	66.90	59.30	0.75	0.65	0.55
LS 63M*	0.25	0.85	2.9	3.2	5.4	0.00025	6.0	57	2800	0.71	67.80	67.30	59.20	0.75	0.65	0.55
LS 71M*	0.37	1.26	3.3	3.9	5.2	0.00035	6.4	62	2800	0.98	68.40	67.60	63.90	0.80	0.70	0.60
LS 71L*	0.55	1.88	3.2	3.1	6	0.00045	7.3	62	2800	1.32	75.70	75.20	71.10	0.80	0.70	0.55
LS 71L*	0.75	2.58	3.3	2.9	6	0.00060	8.3	62	2780	1.7	73.00	73.00	71.00	0.85	0.75	0.65
LS 80L	0.75	2.55	2.15	2.4	5.05	0.00070	8.4	56	2820	1.75	72.10	73.40	71.50	0.85	0.77	0.64
LS 80L	1.1	3.70	2.35	2.6	5.3	0.00090	9.7	56	2830	2.5	75.00	76.33	74.90	0.84	0.77	0.63
LS 90SL	1.5	4.95	2.5	3	6.1	0.0014	13.5	66	2880	3.35	77.20	77.80	76.30	0.84	0.77	0.66
LS 90L	2.2	7.30	2.75	2.9	6.17	0.0021	15.7	67	2870	4.6	79.70	81.10	80.60	0.86	0.80	0.69
LS 100L	3	10	2.85	2.9	6	0.0022	19.5	70	2860	6.45	81.50	82.70	81.50	0.82	0.75	0.62
LS 100L	3.7	12.2	3.65	3.9	8.05	0.0029	24.8	66	2905	7.8	82.70	83.20	82.00	0.83	0.76	0.65
LS 112M	4	13.2	3.55	3.55	7.9	0.0029	24.8	66	2890	8.2	83.10	84.00	83.30	0.85	0.79	0.68
LS 132S	5.5	18	2.3	3.15	7.35	0.0079	35.8	63	2925	11	84.70	85.00	83.30	0.85	0.79	0.67
LS 132S	7.5	24.4	2.65	3.5	8.33	0.0096	39.4	63	2915	14.6	86.00	86.60	85.50	0.86	0.79	0.67
LS 132M	9	29.3	2.15	2.95	6.55	0.011	50.7	71	2935	18	86.80	87.40	86.60	0.83	0.77	0.66
LS 160MP	11	35.8	2.2	3.05	6.77	0.0126	61.2	74	2935	22	89.20	89.40	88.20	0.81	0.74	0.63
LS 160MR	15	48.8	2.65	3.25	7.81	0.015	72.9	75	2935	27.9	90.10	90.70	90.10	0.86	0.82	0.73
LS 160L	18.5	60	2.7	3.36	7.54	0.044	100	72	2945	34.3	91.80	92.50	92.20	0.85	0.81	0.71
LS 180MT	22	71.5	2.65	3.2	7.3	0.052	105	73	2940	41.6	89.90	90.60	90.30	0.85	0.81	0.72
LS 200LR	30	97.1	3.05	3.55	8.25	0.0901	158	74	2950	55.8	90.70	91.10	90.80	0.86	0.82	0.74
LS 200L	37	120	1.95	2.75	6.45	0.117	198	74	2940	67.9	91.20	91.80	91.80	0.86	0.83	0.76
LS 225MT	45	146	2.25	3.3	7.15	0.1389	200	73	2950	83.3	91.70	92.30	92.30	0.85	0.81	0.73
4 poles																
LS 56M*	0.09	0.61	2.75	2.75	3.2	0.00025	4	47	1400	0.39	53.00	47.60	40.80	0.60	0.52	0.42
LS 63M*	0.12	0.83	2.41	2.31	3.2	0.00035	4.8	49	1380	0.44	54.00	52.00	44.80	0.70	0.58	0.47
LS 63M*	0.18	1.24	2.61	2.61	3.7	0.00048	5	49	1390	0.64	60.00	56.00	49.00	0.65	0.55	0.44
LS 71M*	0.25	1.68	2.73	2.93	4.63	0.00068	6.4	49	1425	0.8	67.00	65.00	58.00	0.65	0.55	0.44
LS 71M*	0.37	2.49	2.41	2.81	4.9	0.00085	7.3	49	1420	1.06	70.00	70.00	64.00	0.70	0.59	0.47
LS 71L*	0.55	3.75	2.32	2.53	4.8	0.0011	8.3	49	1400	1.62	68.00	68.00	63.00	0.70	0.62	0.49
LS 80L	0.55	3.75	2.15	2.3	3.9	0.00128	8.2	61	1405	1.7	66.90	64.60	57.30	0.71	0.59	0.46
LS 80L	0.75	5.1	1.8	2.15	4.25	0.00164	9.2	61	1400	2.05	69.30	68.80	64.00	0.77	0.67	0.53
LS 80L	0.9	6.05	3.1	3.1	5.33	0.0024	11.8	61	1420	2.55	74.30	73.70	69.60	0.69	0.58	0.45
LS 90SL	1.1	7.35	1.5	2.15	4.5	0.00265	12	48	1425	2.5	76.10	78.40	77.60	0.84	0.77	0.64
LS 90L	1.5	10	1.9	2.4	5.25	0.00337	13.8	49	1430	3.3	79.30	80.80	79.80	0.83	0.75	0.62
LS 90L	1.8	12	2	2.55	5.6	0.0038	14.8	54	1435	3.95	79.90	81.30	80.00	0.82	0.74	0.60
LS 100L	2.2	14.6	2.3	2.7	5.7	0.0043	18.8	52	1435	4.8	80.20	81.60	80.40	0.82	0.74	0.61
LS 100L	3	20	2.6	3.1	6.65	0.0057	22.5	50	1435	6.35	82.20	83.70	83.00	0.83	0.76	0.64
LS 112M	4	26.7	2.65	3.05	5.85	0.0062	22.8	51	1430	8.95	81.40	82.40	80.60	0.79	0.70	0.55
LS 132S	5.5	36.1	2.41	3.06	6.33	0.0145	38.3	58	1456	11.5	86.40	87.70	87.60	0.81	0.74	0.60
LS 132M	7.5	49.6	2.29	2.99	5.9	0.0192	47.9	63	1445	15.6	86.40	87.70	87.60	0.80	0.74	0.60
LS 132M	9	59.5	2.4	2.95	6.64	0.0228	51.8	63	1445	17.7	88.10	89.60	89.90	0.83	0.77	0.65
LS 160MP	11	72.3	2.9	3.3	6.85	0.0278	66	63	1450	22.1	88.80	89.70	89.30	0.81	0.72	0.58
LS 160LR	15	98.4	2.85	3.35	7.45	0.0357	79	64	1456	30	89.10	89.90	89.40	0.81	0.73	0.59
LS 180MT	18.5	121	2.1	3.15	7.95	0.0844	100	58	1464	36	89.30	90.10	90.10	0.83	0.77	0.66
LS 180LR	22	143	2.6	3.35	8.35	0.0956	108	60	1466	41.9	89.90	90.70	90.60	0.84	0.79	0.68
LS 200LR	30	196	1.95	2.55	7.6	0.1563	166	64	1464	57.4	90.70	91.60	91.70	0.83	0.78	0.69
LS 225ST	37	240	2.65	2.7	6.14	0.2294	205	64	1474	71	91.90	92.60	92.70	0.82	0.77	0.67
LS 225MR	45	292	2.25	2.35	6.72	0.2885	230	70	1472	85.7	92.30	93.00	92.90	0.82	0.78	0.68
6 poles																
LS 63M*	0.09	1.02	1.59	1.59	2.11	0.0006	5.5	48	860	0.46	33.00	30.00	24.00	0.80	0.70	0.63
LS 71M*	0.12	1.25	2.6	2.62	3	0.0007	6.5	52	950	0.75	44.00	38.00	30.00	0.51	0.44	0.38
LS 71M*	0.18	1.92	1.78	1.88	3.26	0.0011	7.6	52	945	0.95	51.00	47.00	39.00	0.52	0.46	0.38
LS 71L*	0.25	2.84	1.56	1.56	3.04	0.0013	7.9	52	915	1.15	50.00	48.00	40.00	0.60	0.52	0.43
LS 80L	0.37	3.7	2.1	2.45	3.85	0.0032	8.8	41	954	1.30	61.70	58.50	50.30	0.66	0.55	0.44
LS 80L	0.55	5.5	2.55	2.95	3.4	0.0042	10.6	41	956	2.15	61.00	56.80	47.40	0.60	0.50	0.40
LS 90SL	0.75	7.5	1.9	2.4	3.7	0.0033	14.8	43	952	2.25	70.00	70.20	66.80	0.68	0.58	0.44
LS 90L	1.1	11.2	1.85	2.2	3.85	0.0038	16	56	940	3.05	72.90	74.00	72.20	0.71	0.61	0.47
LS 100L	1.5	15.2	1.98	2.28	3.75	0.00437	20.3	70	940	4.00	75.20	77.10	76.00	0.72	0.62	0.48
LS 112MG	2.2	21.9	2.05	2.4	4.75	0.0152	30.4	50	960	5.60	77.70	78.90	78.00	0.73	0.65	0.52
LS 132S	3	29.8	2.35	2.65	5	0.0192	38.4	49	960	7.65	79.70	80.71	79.80	0.71	0.63	0.50
LS 132M	4	39.6	2.15	2.6	5.35	0.02528	47.8	53	964	9.25	81.40	82.80	82.60	0.77	0.71	0.59
LS 132M	5.5	54.4	2.55	2.75	5.6	0.03027	54	58	966	13.10	83.10	84.20	83.60	0.73	0.66	0.53
LS 160M	7.5	73.5	1.7	2.7	5.2	0.0884	82	59	974	17.20	84.70	84.85	83.30	0.74	0.66	0.53
LS 160L	11	109	1.85	2.55	5.23	0.116	90	59	968	23.70	86.40	87.30	86.80	0.78	0.72	0.59
LS 180LR	15	149	1.8	2.5	4.75	0.139	108	59	960	31.90	87.00	88.20	87.80	0.78	0.73	0.61
LS 200LR	18.5	181	2.6	2.85	6.65	0.25	165	58	974	37.70	88.60	89.60	89.70	0.80	0.75	0.64

* non IMfinity® generation

IMfinity® 3-phase induction motors - IE2 - IE3 - IE4 - Non IE Efficiency

IP55 Aluminium frame

Electrical and mechanical characteristics

Non IE efficiency - Powered by the mains

Type	Rated power at 50Hz P _n kW	380V / 50Hz				415V / 50Hz				460V / 60Hz				
		Rated speed N _n min ⁻¹	Rated current I _n A	Efficiency η 4/4	Power factor Cos φ 4/4	Rated speed N _n min ⁻¹	Rated current I _n A	Efficiency η 4/4	Power factor Cos φ 4/4	Rated power at 60Hz P _n kW	Rated speed N _n min ⁻¹	Rated current I _n A	Efficiency η 4/4	Power factor Cos φ 4/4
2 poles														
LS 56M*	0.09	2850	0.42	56.00	0.60	2870	0.49	51.00	0.50	0.11	3454	0.44	59.60	0.54
LS 56M*	0.12	2800	0.47	60.70	0.65	2830	0.50	56.70	0.60	0.14	3404	0.46	61.40	0.66
LS 63M*	0.18	2750	0.52	65.40	0.80	2800	0.55	65.40	0.70	0.22	3398	0.49	73.00	0.76
LS 63M*	0.25	2750	0.73	64.80	0.80	2810	0.74	66.80	0.70	0.30	3418	0.64	78.20	0.76
LS 71M*	0.37	2780	0.97	68.40	0.85	2820	0.95	68.40	0.80	0.44	3382	0.94	70.30	0.86
LS 71L*	0.55	2750	1.33	74.70	0.85	2810	1.36	75.70	0.75	0.66	3379	1.31	77.40	0.82
LS 71L*	0.75	2730	1.84	71.00	0.85	2790	1.74	73.00	0.80	0.90	3359	1.7	76.76	0.87
LS 80L	0.75	2790	1.85	70.60	0.88	2840	1.75	72.60	0.82	0.86	3425	1.7	74.70	0.84
LS 80L	1.1	2800	2.6	74.10	0.87	2845	2.5	75.40	0.81	1.26	3435	2.45	77.30	0.84
LS 90SL	1.5	2860	3.45	76.40	0.86	2890	3.35	77.50	0.81	1.72	3475	3.25	78.00	0.85
LS 90L	2.2	2840	4.85	79.70	0.86	2890	4.6	80.10	0.83	2.53	3465	4.55	80.70	0.86
LS 100L	3	2835	6.6	80.70	0.86	2870	6.45	81.40	0.79	3.45	3455	6.25	82.80	0.84
LS 100L	3.7	2890	7.9	82.50	0.86	2910	7.75	82.80	0.80	4.26	3505	7.55	83.60	0.85
LS 112M	4	2875	8.35	82.50	0.85	2900	8.15	83.30	0.82	4.6	3485	7.95	84.00	0.86
LS 132S	5.5	2910	11.1	84.40	0.89	2930	11	84.60	0.82	6.3	3520	10.6	85.20	0.88
LS 132S	7.5	2900	15	85.50	0.89	2925	15.2	85.60	0.80	8.6	3510	14.1	86.60	0.89
LS 132M	9	2925	18.4	86.40	0.86	2940	18.3	86.73	0.79	10.3	3535	17.7	87.30	0.84
LS 160MP	11	2930	21.9	89.10	0.86	2945	22.3	88.90	0.77	12.6	3540	21.1	89.70	0.84
LS 160MR	15	2925	28.6	89.50	0.89	2945	27.5	90.30	0.84	17.2	3540	27.2	90.40	0.88
LS 160L	18.5	2935	35.6	91.20	0.87	2954	34.1	92.00	0.82	21	3545	34.4	89.20	0.87
LS 180MT	22	2930	42.6	89.30	0.88	2945	41	90.20	0.83	25	3545	39.7	90.60	0.87
LS 200LR	30	2945	57.6	90.20	0.88	2954	54.5	90.90	0.84	34	3550	54.2	90.10	0.87
LS 200L	37	2925	70.8	90.30	0.87	2945	67	91.20	0.84	42	3540	66.6	90.90	0.87
LS 225MT	45	2935	86.4	91.20	0.87	2950	81.8	91.80	0.83	52	3545	82.6	92.10	0.86
4 poles														
LS 56M*	0.09	1380	0.38	54.00	0.65	1410	0.4	50.00	0.60	0.11	1702	0.38	61.60	0.58
LS 63M*	0.12	1365	0.47	54.00	0.70	1390	0.46	54.00	0.65	0.14	1678	0.45	58.79	0.69
LS 63M*	0.18	1375	0.68	60.00	0.65	1400	0.68	59.00	0.60	0.22	1689	0.64	64.86	0.65
LS 71M*	0.25	1425	0.78	68.00	0.70	1430	0.84	67.00	0.60	0.30	1684	0.82	68.42	0.77
LS 71M*	0.37	1410	1.1	71.00	0.70	1430	1.1	70.00	0.65	0.44	1713	1.05	73.00	0.73
LS 71L*	0.55	1385	1.59	68.00	0.75	1410	1.56	68.00	0.70	0.66	1671	1.56	70.60	0.75
LS 80L	0.55	1390	1.65	67.50	0.75	1415	1.75	65.50	0.67	0.63	1710	1.6	71.60	0.70
LS 80L	0.75	1380	2.05	68.30	0.81	1410	2.05	69.00	0.73	0.86	1710	1.95	73.30	0.76
LS 80L	0.9	1405	2.5	74.30	0.74	1430	2.65	73.60	0.64	1.04	1720	2.4	76.70	0.70
LS 90SL	1.1	1410	2.6	74.30	0.87	1435	2.45	76.90	0.82	1.26	1730	2.4	78.80	0.84
LS 90L	1.5	1420	3.4	78.10	0.86	1440	3.25	79.60	0.80	1.72	1735	3.2	81.20	0.83
LS 90L	1.8	1425	4.1	78.80	0.85	1445	4	80.70	0.78	2.07	1735	3.9	81.80	0.82
LS 100L	2.2	1425	4.9	79.30	0.86	1445	4.9	80.60	0.78	2.53	1735	4.7	82.40	0.82
LS 100L	3	1425	6.5	81.30	0.86	1440	6.3	82.70	0.80	3.45	1735	6.15	83.80	0.84
LS 112M	4	1420	8.9	80.90	0.84	1440	9.1	81.40	0.75	4.6	1735	8.7	83.40	0.80
LS 132S	5.5	1450	11.4	85.90	0.86	1458	11.6	85.20	0.77	6.3	1756	11	86.70	0.83
LS 132M	7.5	1440	16	85.50	0.83	1450	16.5	86.70	0.73	8.6	1750	14.9	88.00	0.82
LS 132M	9	1435	18.2	87.20	0.86	1452	17.4	89.50	0.81	10.3	1745	17.1	89.40	0.85
LS 160MP	11	1440	22.1	88.00	0.86	1454	21.5	89.30	0.80	12.6	1750	20.9	90.20	0.84
LS 160LR	15	1450	31	88.70	0.83	1458	32.2	88.90	0.73	17.2	1756	29.6	90.40	0.81
LS 180MT	18.5	1460	36.9	88.80	0.86	1468	35.7	89.50	0.81	21	1762	34	92.10	0.84
LS 180LR	22	1460	43.1	89.20	0.87	1468	41.7	89.90	0.81	25	1768	39.9	92.70	0.85
LS 200LR	30	1458	58.4	91.43	0.85	1468	56.6	91.00	0.81	34	1764	54.2	92.90	0.85
LS 225ST	37	1468	73.4	91.20	0.84	1478	69.8	92.20	0.80	42	1774	68.7	92.30	0.83
LS 225MR	45	1466	89.1	91.80	0.84	1474	84.7	92.50	0.80	52	1770	83.7	92.60	0.84
6 poles														
LS 63M*	0.09	840	0.47	33.00	0.84	880	0.46	32.00	0.80	0.11	1064	0.44	45.00	0.68
LS 71M*	0.12	910	0.62	48.00	0.59	925	0.67	45.00	0.53	0.14	1151	0.70	49.87	0.51
LS 71M*	0.18	850	0.82	48.00	0.67	895	0.82	49.00	0.60	0.22	1130	0.89	59.40	0.52
LS 71L*	0.25	830	1.09	47.00	0.71	890	1.05	50.00	0.64	0.30	1112	1.08	61.00	0.57
LS 80L	0.37	945	1.25	63.10	0.70	958	1.35	60.80	0.63	0.43	1154	1.25	66.60	0.64
LS 80L	0.55	952	2.05	63.70	0.64	960	2.35	57.90	0.56	0.63	1156	2	66.90	0.59
LS 90SL	0.75	945	2.25	69.90	0.72	956	2.3	70.10	0.65	0.86	1154	2.2	72.80	0.67
LS 90L	1.1	930	3.1	71.70	0.75	945	3.05	73.00	0.68	1.26	1145	3	75.80	0.70
LS 100L	1.5	925	4.05	73.80	0.76	945	4.05	75.50	0.68	1.72	1140	3.8	78.60	0.72
LS 112MG	2.2	952	5.85	76.50	0.75	962	5.6	77.90	0.71	2.53	1160	5.5	79.50	0.73
LS 132S	3	954	7.8	78.80	0.74	964	7.65	79.90	0.68	3.45	1160	7.5	81.60	0.71
LS 132M	4	956	9.6	80.00	0.80	966	9.15	81.60	0.75	4.6	1162	9.1	82.50	0.77
LS 132M	5.5	960	13.4	82.50	0.75	970	13.5	83.40	0.68	6.3	1158	12.4	83.90	0.76
LS 160M	7.5	970	17.3	84.44	0.78	976	17.4	84.55	0.71	8.6	1174	16.6	85.90	0.76
LS 160L	11	962	24.1	85.70	0.81	972	23.3	86.60	0.76	12.6	1162	22.1	87.80	0.82
LS 180LR	15	952	32.2	85.90	0.82	966	31.1	87.30	0.77	17.2	1150	31.4	86.90	0.79
LS 200LR	18.5	968	39.3	87.80	0.82	976	36.8	89.00	0.78	21	1174	36.4	89.30	0.81

* non IMfinity® generation

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