

Rated output at		Frame size	Operating characteristics at rated output							Order No.	Price	Weight
50 Hz	60 Hz		Rated speed at 50 Hz	Rated torque at 50 Hz	Relevant for IE changeover					For Order No. supplements for voltage, type of construction, motor protection and connection box, see table from Page 3.	For type of construction IM B3	For type of construction IM B3 approx.
					Efficiency Class according to IEC 60034-30 standard	Efficiency at 50 Hz 100 %-load	Efficiency at 50 Hz 75 %-load	Power factor at 50 Hz 100 %-load	Rated current at 400 V, 50 Hz			
P_{rated} kW	P_{rated} kW	FS	n_{rated} rpm	M_{rated} Nm		η_{rated} %	η_{rated} %	$\cos\varphi_{\text{rated}}$	I_{rated} A			m kg
Motor version: temperature class 155 (F), IP55 degree of protection, used acc. to temperature class 130 (B)												
2-pole – 3000 rpm at 50 Hz, 3600 rpm at 60 Hz												
3	3.45	100 L	2835	10	IE1	81.5	81.8	0.87	6.1	1LE1002-1AA4Q-00000		20
4	4.6	112 M	2930	13	IE1	83.1	82.9	0.86	8.1	1LE1002-1BA2Q-00000		25
5.5	6.3	132 S	2905	18	IE1	84.7	85	0.89	10.6	1LE1002-1CA0Q-00000		35
7.5	8.6	132 S	2925	24	IE1	86	86.5	0.88	14.4	1LE1002-1CA1Q-00000		40
11	12.6	160 M	2920	36	IE1	87.6	87.6	0.85	21.5	1LE1002-1DA2Q-00000		60
15	17.3	160 M	2930	49	IE1	88.7	88.8	0.84	29	1LE1002-1DA3Q-00000		68
18.5	21.3	160 L	2935	60	IE1	89.3	89.3	0.86	35	1LE1002-1DA4Q-00000		78
4-pole – 1500 rpm at 50 Hz, 1800 rpm at 60 Hz												
2.2	2.55	100 L	1425	14.8	IE1	79.7	81	0.81	4.75	1LE1002-1AB4Q-00000		18
3	3.45	100 L	1425	20.2	IE1	81.5	82	0.85	6.3	1LE1002-1AB5Q-00000		22
4	4.6	112 M	1435	27	IE1	83.1	83.5	0.84	8.2	1LE1002-1BB2Q-00000		27
5.5	6.3	132 S	1450	36	IE1	84.7	85	0.83	11.4	1LE1002-1CB0Q-00000		38
7.5	8.6	132 M	1450	49	IE1	86	86.2	0.83	15.4	1LE1002-1CB2Q-00000		44
11	12.6	160 M	1460	72	IE1	87.6	87.4	0.82	22	1LE1002-1DB2Q-00000		62
15	17.3	160 L	1460	98	IE1	88.7	88.8	0.82	30	1LE1002-1DB4Q-00000		73
6-pole – 1000 rpm at 50 Hz, 1200 rpm at 60 Hz												
1.5	1.75	100 L	940	15.3	IE1	75.2	73.8	0.74	3.9	1LE1002-1AC4Q-00000		19
2.2	2.55	112 M	930	23	IE1	77.7	77.7	0.77	5.3	1LE1002-1BC2Q-00000		25
3	3.45	132 S	955	30	IE1	79.7	79.4	0.74	7.3	1LE1002-1CC0Q-00000		34
4	4.6	132 M	950	40	IE1	81.4	81.5	0.76	9.3	1LE1002-1CC2Q-00000		39
5.5	6.3	132 M	950	55	IE1	83.1	83.2	0.75	12.8	1LE1002-1CC3Q-00000		48
7.5	8.6	160 M	970	75	IE1	84.7	84.4	0.73	17.6	1LE1002-1DC2Q-00000		72
11	12.6	160 L	965	110	IE1	86.4	86.5	0.77	24	1LE1002-1DC4Q-00000		92
8-pole – 750 rpm at 50 Hz, 900 rpm at 60 Hz												
0.75	0.86	100 L	705	10.4		65.4	60.2	0.62	2.65	1LE1002-1AD4Q-00000		17
1.1	1.3	100 L	705	15.1		68.3	67.6	0.63	3.7	1LE1002-1AD5Q-00000		22
1.5	1.75	112 M	700	20		75.9	72.8	0.68	4.2	1LE1002-1BD2Q-00000		25
2.2	2.55	132 S	715	29		81	80.4	0.66	5.9	1LE1002-1CD0Q-00000		37
3	3.45	132 M	710	40		81.6	81.4	0.68	7.8	1LE1002-1CD2Q-00000		44
4	4.6	160 M	720	53		80	78.7	0.69	10.4	1LE1002-1DD2Q-00000		60
5.5	6.3	160 M	720	73		83.5	83.9	0.70	13.6	1LE1002-1DD3Q-00000		72
7.5	8.6	160 L	715	100		83.5	84.7	0.70	18.6	1LE1002-1DD4Q-00000		91

Note:
The 2-pole, 4-pole and 6-pole motors listed above are also available with shorter delivery time.
These motors can be selected in the section “General Line and motors with shorter delivery time” in predefined versions (voltages, types of construction, motor protection and connection box position).

Order No.	Locked-rotor torque with direct starting torque	Locked-rotor current as multiple of rated current	Breakdown torque	Torque class	Moment of inertia	Noise at rated output	
	T_{LR}/T_{rated}	I_{LR}/I_{rated}	T_B/T_{rated}	CL	J kgm ²	Measuring-surface sound pressure level at 50 Hz $L_{p(A)}$ dB(A)	Sound pressure level at 50 Hz L_{WA} dB(A)
Motor version: temperature class 155 (F), IP55 degree of protection, used acc. to temperature class 130 (B)							
2-pole – 3000 rpm at 50 Hz, 3600 rpm at 60 Hz							
1LE1002-1AA4Q-QQQQ	3.2	6.2	2.9	16	0.0034	67	79
1LE1002-1BA2Q-QQQQ	2.7	7.3	3.7	16	0.0067	69	81
1LE1002-1CA0Q-QQQQ	2	5.6	2.6	16	0.01267	68	80
1LE1002-1CA1Q-QQQQ	2.2	6.4	3	16	0.01601	68	80
1LE1002-1DA2Q-QQQQ	2.1	6.1	2.7	16	0.02971	70	82
1LE1002-1DA3Q-QQQQ	2.5	6.1	3.2	16	0.03619	70	82
1LE1002-1DA4Q-QQQQ	2.5	7	3.2	16	0.04395	70	82
4-pole – 1500 rpm at 50 Hz, 1800 rpm at 60 Hz							
1LE1002-1AB4Q-QQQQ	2.3	5.1	2.7	16	0.0059	60	72
1LE1002-1AB5Q-QQQQ	2.4	5.4	2.6	16	0.0078	60	72
1LE1002-1BB2Q-QQQQ	2.2	5.3	2.6	16	0.0102	58	70
1LE1002-1CB0Q-QQQQ	2.3	6.2	2.7	16	0.0186	64	76
1LE1002-1CB2Q-QQQQ	2.5	6.6	2.9	16	0.02371	64	76
1LE1002-1DB2Q-QQQQ	2.3	6.4	3.1	16	0.04395	65	77
1LE1002-1DB4Q-QQQQ	2.5	7	3.4	16	0.05616	65	77
6-pole – 1000 rpm at 50 Hz, 1200 rpm at 60 Hz							
1LE1002-1AC4Q-QQQQ	2	4	2.2	16	0.0065	61	73
1LE1002-1BC2Q-QQQQ	2.3	4.1	2.5	16	0.0092	68	80
1LE1002-1CC0Q-QQQQ	2	4.6	2.6	16	0.0167	63	75
1LE1002-1CC2Q-QQQQ	2.1	4.7	2.5	16	0.02116	63	75
1LE1002-1CC3Q-QQQQ	2.5	5.2	2.8	16	0.02734	63	75
1LE1002-1DC2Q-QQQQ	2.1	5.5	2.9	16	0.04993	68	80
1LE1002-1DC4Q-QQQQ	1.9	5.9	2.7	16	0.0678	68	80
8-pole – 750 rpm at 50 Hz, 900 rpm at 60 Hz							
1LE1002-1AD4Q-QQQQ	1.9	3	2.2	16	0.0056	60	72
1LE1002-1AD5Q-QQQQ	2	3.2	2.3	16	0.0078	60	72
1LE1002-1BD2Q-QQQQ	1.9	3.4	2.1	16	0.0094	63	75
1LE1002-1CD0Q-QQQQ	1.7	3.9	2.4	13	0.0186	63	75
1LE1002-1CD2Q-QQQQ	1.8	3.9	2.2	13	0.02372	63	75
1LE1002-1DD2Q-QQQQ	1.7	3.8	2.3	13	0.0439	63	75
1LE1002-1DD3Q-QQQQ	1.6	4	2.2	13	0.0562	63	75
1LE1002-1DD4Q-QQQQ	1.7	3.8	2.2	13	0.0772	63	75

Motor type	Frame size	Positions 12 and 13: Voltages (voltage codes)								
		Standard voltages				Further voltages				
		50 Hz				50 Hz				
		230 VΔ/400 VY	400 VΔ/690 VY	500 VY	500 VΔ	220 VΔ/380 VY	380 VΔ/660 VY	415 VY	415 VΔ	
		60 Hz				Rated voltage range				
		460 VY	460 VΔ	(210 ... 230 VΔ/ 360 ... 400 VY) ¹⁾ (360 ... 400 VΔ/ 625 ... 695 VY) ¹⁾ (395 ... 435 VY) ¹⁾ (395 ... 435 VΔ) ¹⁾						
see "Selection and ordering data" for outputs at 60 Hz										
		22	34	27	40	21	33	23	35	
1LE1002-1A..□-□...	100 L	○	○	○	○	✓	✓	✓	✓	
1LE1002-1B..□-□...	112 M	○	○	○	○	✓	✓	✓	✓	
1LE1002-1C..□-□...	132 S/M	○	○	○	○	✓	✓	✓	✓	
1LE1002-1D..□-□...	160 M/L	○	○	○	○	✓	✓	✓	✓	
○	Without additional charge									
✓	With additional charge									
Order other voltages with voltage code 9 in position 12, code 0 in position 13 and the corresponding order code (see "Special versions" under "Voltages").										

Motor type	Frame size	Position 14: Types of construction (type letter)												
		Without flange								With flange (acc. to DIN EN 50347)				
		IM B3 2) 3)	IM B6 3)	IM B7 3)	IM B8 3)	IM V6 3)	IM V5 without protective cover 3)	IM V5 with protective cover 3) 4) 5)	Flange size	IM B5 3) 6)	IM V1 without protective cover 3)	IM V1 with protective cover 3) 4) 5)	IM V3 3)	IM B35
		A	T	U	V	D	C	C		F	G	G	H	J
		Order No. supplement -Z with order code	-	-	-	-	-	-	-Z H00		-	-	-Z H00	-
1LE1002-1A...-Q..	100 L	□	□	□	□	□	□	✓	FF 215	✓	✓	✓	✓	✓
1LE1002-1B...-Q..	112 M	□	□	□	□	□	□	✓	FF 215	✓	✓	✓	✓	✓
1LE1002-1C...-Q..	132 S/M	□	□	□	□	□	□	✓	FF 265	✓	✓	✓	✓	✓
1LE1002-1D...-Q..	160 M/L	□	□	□	□	□	□	✓	FF 300	✓	✓	✓	✓	✓

Motor type	Frame size	Position 14: Types of construction (type letter)												
		With standard flange (acc. to DIN EN 50347)						With standard flange (next larger standard flange acc. to DIN EN 50347)						
		Flange size	IM B14 3) 7)	IM V19 3)	IM V18 without protective cover 3)	IM V18 with protective cover 3) 4) 5)	IM B34	Flange size	IM B14 3) 7)	IM V19 3)	IM V18 without protective cover 3)	IM V18 with protective cover 3) 4) 5)	IM B34	
			K	L	M	M	N		K	L	M	M	N	
			-	-	-	-Z H00	-		-Z	-Z	-Z	-Z H00	-Z	
		Order No. supplement -Z with order code							P01	P01	P01	P01	P01	
1LE1002-1A...-Q..	100 L	FT 130	✓	✓	✓	✓	✓	FT 165	✓	✓	✓	✓	✓	
1LE1002-1B...-Q..	112 M	FT 130	✓	✓	✓	✓	✓	FT 165	✓	✓	✓	✓	✓	
1LE1002-1C...-Q..	132 S/M	FT 165	✓	✓	✓	✓	✓	FT 215	✓	✓	✓	✓	✓	
1LE1002-1D...-Q..	160 M/L	FT 215	✓	✓	✓	✓	✓	-	-	-	-	-	-	

- Standard version
✓ With additional charge

- ¹⁾ A rated voltage range is also specified on the rating plate.
- ²⁾ The types of construction IM B6/7/8, IM V6 and IM V5 without protective cover/with protective cover are also possible as long as no condensation drainage holes (order code **H03**) and no stamping of these types of construction on the rating plate are required. As standard, the type of construction IM B3 is then stamped on the rating plate. With type of construction IM V5 with protective cover, the protective cover has to be additionally ordered with order code **H00**. The protective cover is not stamped on the rating plate.
- ³⁾ The type of construction is stamped on the rating plate. When ordering with condensation drainage holes (order code **H03**), it is absolutely necessary to specify the type of construction for the exact position of the condensation drainage holes during manufacture.
- ⁴⁾ Option second shaft extension (order code **L05**) not possible.
- ⁵⁾ In combination with an encoder, it is not necessary to order the protective cover (order code **H00**), as this is delivered as a protection for the encoder as standard. In this case, the protective cover is standard design (without additional charge).
- ⁶⁾ The types of construction IM V3 and IM V1 without protective cover/with protective cover are also possible as long as no condensation drainage holes (order code **H03**) and no stamping of these types of construction on the rating plate are required. As standard, the type of construction IM B5 is then stamped on the rating plate. With type of construction IM V1 with protective cover, the protective cover has to be additionally ordered with order code **H00**. The protective cover is not stamped on the rating plate.
- ⁷⁾ The types of construction IM V19 and IM V18 without protective cover/with protective cover are also possible as long as no condensation drainage holes (order code **H03**) and no stamping of these types of construction on the rating plate are required. As standard, the type of construction IM B14 is then stamped on the rating plate. With type of construction IM V18 with protective cover, the protective cover has to be additionally ordered with order code **H00**. The protective cover is not stamped on the rating plate.

Motor type	Frame size	Position 15: Motor protection (motor protection letter)					
		Without motor protection	Motor protection with PTC thermistors with 3 embedded temperature sensors for tripping ¹⁾	Motor protection with PTC thermistors with 6 embedded temperature sensors for alarm and tripping ¹⁾	Motor temperature detection with embedded temperature sensor KTY 84-130 ¹⁾	NTC thermistors for tripping	Temperature detectors for tripping ¹⁾
		A	B	C	F	Z Q2A	Z Q3A
Order code							
1LE1002-1A...-□.	100 L	□	✓	✓	✓	✓	✓
1LE1002-1B...-□.	112 M	□	✓	✓	✓	✓	✓
1LE1002-1C...-□.	132 S/M	□	✓	✓	✓	✓	✓
1LE1002-1D...-□.	160 M/L	□	✓	✓	✓	✓	✓

☐ Standard version

☒ With additional charge

Motortyp	Frame size	Position 16: Connection box (connection box code)			
		Connection box top ²⁾	Connection box on RHS ³⁾	Connection box on LHS ³⁾	Connection box bottom ³⁾
		4	5	6	7
1LE1002-1A...-...□	100 L	□	✓	✓	✓
1LE1002-1B...-...□	112 M	□	✓	✓	✓
1LE1002-1C...-...□	132 S/M	□	✓	✓	✓
1LE1002-1D...-...□	160 M/L	□	✓	✓	✓

☐ Standard version
☒ With additional charge

1) Evaluation with appropriate tripping unit (see Catalog LV 1) is recommended.

2) With type of construction, cast feet as standard. Screwed-on feet are available with order code **H01**, see "Special versions".

3) With type of construction, screwed-on feet as standard.