

Rated output at 50 Hz,		Frame size	Rated speed at 50 Hz,		Rated torque at 50 Hz,		Efficiency at 50 Hz 4/4-load		Power factor at 50 Hz 4/4-load		Rated current at 400 V, 50 Hz		Order No.	Price	Weight motor
1500 rpm	3000 rpm	FS	1500 rpm	3000 rpm	1500 rpm	3000 rpm	1500 rpm	3000 rpm	1500 rpm	3000 rpm	1500 rpm	3000 rpm			
P_{rated} kW	kW		n_{rated} rpm	rpm	T_{rated} Nm	Nm	η_{rated} %	%	$\cos\phi_{rated}$	I_{rated} A	A				
4/2-pole, 1500/3000 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection Double pole-changing for driving fans with a winding in a Dahlander circuit															m kg
0.15	0.7	80 M	1400	2745	1	2.4	67	63	0.83	0.91	0.39	1.76	1LA7 080-0BA□□		10
0.25	0.95	80 M	1385	2780	1.7	3.3	67	64	0.88	0.89	0.61	2.4	1LA7 083-0BA□□		11
0.33	1.4	90 S	1420	2835	2.2	4.8	75	70	0.84	0.83	0.76	3.5	1LA7 090-0BA□□		13
0.5	2	90 L	1420	2835	3.4	6.8	77	70	0.87	0.86	1.08	4.8	1LA7 096-0BA□□		16
0.65	2.5	100 L	1430	2865	4.4	8.4	73	75	0.89	0.89	1.44	5.4	1LA7 106-0BA□□		21
0.8	3.1	100 L	1425	2860	5.4	10	79	77	0.86	0.83	1.7	7	1LA7 107-0BA□□		24
1.1	4.4	112 M	1445	2885	7.3	15	77	74	0.83	0.8	2.5	10.7	1LA7 113-0BA□□		31
1.45	5.9	132 S	1455	2920	9.5	19	83	80	0.84	0.83	3	12.8	1LA7 130-0BA□□		41
2	8	132 M	1455	2930	13	26	85	86	0.85	0.84	4	16	1LA7 133-0BA□□		50
2.9	11.5	160 M	1455	2930	19	37	85.5	85	0.86	0.89	5.7	22	1LA7 163-0BA□□		74
4.3	17	160 L	1455	2930	28	55	86	86	0.86	0.92	8.4	31	1LA7 166-0BA□□		92

Order No. supplements

Motor type	Penultimate position: Voltage code				Final position: Type of construction code						
	50 Hz, direct online starting				Without flange	With flange			With standard flange		With special flange
	230 V	400 V	500 V	690 V	IM B3, IM B6/7/8, IM V6/5 without protective cover	IM B5, IM V1 without protective cover, IM V3 ¹⁾	IM V1 with protective cover ^{1) 2)}	IM B35	IM B14, IM V19 IM V18 without protective cover	IM B34	IM B14 IM V19 IM V18 without protective cover
	1	6	5	0	0	1	4	6	2	7	3
1LA7 08 . - . . . □□	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 09 . - . . . □□	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 10 . - . . . □□	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 11 . - . . . □□	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 13 . - . . . □□	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 16 . - . . . □□	○	○	○	○	□	✓	✓	✓	✓	✓	✓

- Standard version
- Without additional charge
- ✓ With additional charge
- Not possible

Order other voltages with voltage code **9** in the penultimate position and the corresponding order code (see “Special versions” in the “Options” under “Voltages”).

Order other types of construction with type of construction code **9** in the final position and the corresponding order code (see “Special versions” in the “Options” under “Types of construction”).

1) For type of construction IM V1 with/without protective cover, motors 1LA5 183-... to 1LA5 223-... (motor series 1LA5 frame sizes 180 M to 225 M) can be supplied with two additional eyebolts; specify order supplement **“Z”** and order code **K32**.

2) The “Second shaft extension” option, order code **K16** is not possible.

Order No.	Locked-rotor torque with direct starting 1500 rpm T_{LR}/T_{rated}	Locked-rotor torque as multiple torque 3000 rpm T_{LR}/T_{rated}	Locked-rotor current of rated current 1500 rpm I_{LR}/I_{rated}	Locked-rotor current current 3000 rpm I_{LR}/I_{rated}	Breakdown torque torque 1500 rpm T_B/T_{rated}	Breakdown torque torque 3000 rpm T_B/T_{rated}	Torque class CL	Moment of inertia J kgm ²	Mechanical limit speed at maximum supply frequency $n_{max.}$ rpm
4/2-pole, 1500/3000 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection Double pole-changing for driving fans with a winding in a Dahlander circuit									
1LA7 080-0BA□□	1.8	1.6	3.8	4	2	2	10	0.0014	4200
1LA7 083-0BA□□	1.8	1.9	3.8	4.2	2	2	10	0.0017	4200
1LA7 090-0BA□□	1.9	1.8	4.5	4.3	2.1	2	10	0.0024	4200
1LA7 096-0BA□□	2.2	2.2	5.1	5	2.5	2.5	10	0.0033	4200
1LA7 106-0BA□□	1.7	2.2	5	5.5	2.3	2.3	10	0.0048	4200
1LA7 107-0BA□□	1.8	2.3	5.7	6.1	2.6	2.6	10	0.0055	4200
1LA7 113-0BA□□	2.1	2.2	6.2	6.2	2.4	2.4	10	0.011	4200
1LA7 130-0BA□□	2	2.1	6.8	6.5	2.8	2.8	10	0.018	4200
1LA7 133-0BA□□	1.9	2.1	7.6	7.5	2.6	2.6	10	0.023	4200
1LA7 163-0BA□□	1.8	1.8	6.9	7.4	2.5	2.4	10	0.043	4200
1LA7 166-0BA□□	1.9	2.2	7.1	8.5	2.5	2.6	10	0.06	4200

Rated output at 50 Hz,		Frame size	Rated speed at 50 Hz,		Rated torque at 50 Hz,		Efficiency at 50 Hz 4/4-load		Power factor at 50 Hz 4/4-load		Rated current at 400 V, 50 Hz		Order No.	Price	Weight motor
1000 rpm	1500 rpm		1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm	1000 rpm	1500 rpm			
P_{rated} kW	kW		n_{rated} rpm	rpm	T_{rated} Nm	Nm	η_{rated} %		$\cos\phi_{rated}$		I_{rated} A	A			m kg
6/4-pole, 1000/1500 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection Double pole-changing for driving fans with two windings															
0.12	0.4	80 M	940	1430	1.2	2.7	45	55	0.75	0.76	0.51	1.38	1LA7 080-1BDQQ		9
0.18	0.55	80 M	930	1420	1.9	3.7	49	66	0.72	0.74	0.73	1.62	1LA7 083-1BDQQ		10
0.29	0.8	90 S	950	1430	2.9	5.3	55	68	0.71	0.81	1.07	2.1	1LA7 090-1BDQQ		13
0.38	1.1	90 L	950	1430	3.8	7.3	58	74	0.71	0.81	1.33	2.65	1LA7 096-1BDQQ		16
0.6	1.7	100 L	950	1410	6	11	67	75	0.74	0.86	1.75	3.8	1LA7 106-1BDQQ		21
0.75	2.1	100 L	950	1420	7.5	14	63	78	0.75	0.86	2.3	4.55	1LA7 107-1BDQQ		24
0.9	3	112 M	980	1450	8.8	20	71	81	0.61	0.8	3	6.7	1LA7 113-1BDQQ		31
1.2	3.9	132 S	975	1460	12	26	72	81	0.69	0.83	3.5	8.4	1LA7 130-1BDQQ		41
1.7	5.4	132 M	975	1460	17	35	75	82.5	0.72	0.83	4.55	11.4	1LA7 133-1BDQQ		49
2.5	7.2	160 M	980	1470	24	47	78	86	0.72	0.84	6.4	14.4	1LA7 163-1BDQQ		74
3.7	12	160 L	980	1470	36	78	77	89.5	0.75	0.83	9.3	23.3	1LA7 166-1BDQQ		92
5.5	16	180 M	965	1470	54	104	84	90.5	0.8	0.81	11.8	31.5	1LA5 183-1BDQQ		114
6.5	19	180 L	965	1460	64	124	84	88.5	0.81	0.85	13.8	36.5	1LA5 186-1BDQQ		128
9.5	26	200 L	980	1470	93	170	87	92.3	0.79	0.83	20	49	1LA5 207-1BDQQ		157

Order No. supplements

Motor type	Penultimate position: Voltage code				Final position: Type of construction code						
	50 Hz, direct online starting				Without flange	With flange			With standard flange		With special flange
	230 V	400 V	500 V	690 V	IM B3, IM B6/7/8, IM V6/5 without protective cover	IM B5, IM V1 without protective cover, IM V3 ¹⁾	IM V1 with protective cover ^{1) 2)}	IM B35	IM B14, IM V19 IM V18 without protective cover	IM B34	IM B14 IM V19 IM V18 without protective cover
	1	6	5	0	0	1	4	6	2	7	3
1LA7 08 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 09 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 10 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 11 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 13 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 16 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA5 18 . - . . . QQ	○	○	○	○	□	✓ ³⁾	✓	✓	–	–	–
1LA5 20 . - . . . QQ	○	○	○	○	□	✓ ³⁾	✓	✓	–	–	–

- Standard version
- Without additional charge
- ✓ With additional charge
- Not possible

Order other voltages with voltage code **9** in the penultimate position and the corresponding order code (see “Special versions” in the “Options” under “Voltages”).

Order other types of construction with type of construction code **9** in the final position and the corresponding order code (see “Special versions” in the “Options” under “Types of construction”).

¹⁾ For type of construction IM V1 with/without protective cover, motors 1LA5 183-... to 1LA5 223-... (motor series 1LA5 frame sizes 180 M to 225 M) can be supplied with two additional eyebolts; specify order supplement “**Z**” and order code **K32**.

²⁾ The “Second shaft extension” option, order code **K16** is not possible.
³⁾ Type of construction IM V3 is only possible using type of construction code **9** and order code **M1G**.

Order No.	Locked-rotor torque with direct starting 1000 rpm T_{LR}/T_{rated}	Locked-rotor torque as multiple 1500 rpm T_{LR}/T_{rated}	Locked-rotor current of rated current 1000 rpm I_{LR}/I_{rated}	Locked-rotor current 1500 rpm I_{LR}/I_{rated}	Breakdown torque 1000 rpm T_B/T_{rated}	Breakdown torque 1500 rpm T_B/T_{rated}	Torque class CL	Moment of inertia J kgm ²	Mechanical limit speed at maximum supply frequency $n_{max.}$ rpm
6/4-pole, 1000/1500 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection Double pole-changing for driving fans with two windings									
1LA7 080-1BD□□	1.7	1.7	2.8	4	1.8	2	10	0.0014	4200
1LA7 083-1BD□□	1.5	1.7	2.5	4	1.8	2	10	0.0017	4200
1LA7 090-1BD□□	1.5	1.5	3.4	4.3	2	2	10	0.0027	4200
1LA7 096-1BD□□	1.8	1.8	3.8	4.9	2.3	2.3	10	0.0033	4200
1LA7 106-1BD□□	1.8	1.8	4.2	5.2	2.2	2.2	10	0.0049	4200
1LA7 107-1BD□□	1.6	1.9	3.9	5.2	2	2.2	10	0.0057	4200
1LA7 113-1BD□□	2	2.1	4.5	6.1	2.5	2.5	10	0.012	4200
1LA7 130-1BD□□	1.9	1.7	5.1	6.1	2.5	2.2	10	0.018	4200
1LA7 133-1BD□□	2.1	1.9	5.1	6.6	2.6	2.5	10	0.023	4200
1LA7 163-1BD□□	1.9	2	5.6	7.3	1.9	2	10	0.043	4200
1LA7 166-1BD□□	1.9	2.4	5.7	8.1	2.3	3	10	0.06	4200
1LA5 183-1BD□□	1.8	1.9	4.3	5.9	1.9	2.6	10	0.081	4200
1LA5 186-1BD□□	1.8	1.9	4.3	5.6	2.1	2.6	10	0.094	4200
1LA5 207-1BD□□	1.9	1.5	5.3	5.5	2.1	2.1	10	0.16	4200

Rated output at 50 Hz,		Frame size	Rated speed at 50 Hz,		Rated torque at 50 Hz,		Efficiency at 50 Hz 4/4-load		Power factor at 50 Hz 4/4-load		Rated current at 400 V, 50 Hz		Order No.	Price	Weight motor
750 rpm	1500 rpm		750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm	750 rpm	1500 rpm			
P_{rated} kW	kW		n_{rated} rpm	rpm	T_{rated} Nm	Nm	η_{rated} %	%	$\cos\phi_{rated}$		I_{rated} A	A			m kg
8/4-pole, 750/1500 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection Double pole-changing for driving fans with a winding in a Dahlander circuit															
0.1	0.5	80 M	680	1375	1.4	3.5	42	69	0.61	0.82	0.57	1.28	1LA7 080-0BBQQ		9
0.15	0.7	80 M	685	1380	2.1	4.8	46	70	0.61	0.82	0.77	1.76	1LA7 083-0BBQQ		10
0.22	1	90 S	695	1370	3	7	41	70	0.62	0.86	1.25	2.4	1LA7 090-0BBQQ		13
0.33	1.5	90 L	700	1375	4.5	10	43	75	0.61	0.88	1.8	3.3	1LA7 096-0BBQQ		16
0.5	2	100 L	710	1415	6.7	13	51	79	0.57	0.85	2.5	4.3	1LA7 106-0BBQQ		21
0.65	2.5	100 L	700	1400	8.9	17	55	77	0.61	0.88	2.8	5.3	1LA7 107-0BBQQ		24
0.9	3.6	112 M	720	1440	12	24	55	78	0.5	0.83	4.7	11	1LA7 113-0BBQQ		31
1.1	4.7	132 S	720	1455	15	31	76	79	0.6	0.78	3.5	10.3	1LA7 130-0BBQQ		41
1.4	6.4	132 M	720	1455	19	42	77	83.5	0.6	0.83	4.4	13.3	1LA7 133-0BBQQ		49
2.2	9.5	160 M	725	1465	29	62	79	84	0.62	0.83	6.5	19.7	1LA7 163-0BBQQ		73
3.3	14	160 L	730	1470	43	91	85.5	88.5	0.6	0.8	9.3	28.6	1LA7 166-0BBQQ		91
4.5	16	180 M	730	1470	59	104	81	86	0.59	0.83	13.1	32.3	1LA5 183-0BBQQ		111
5	18.5	180 L	730	1470	65	120	80	88	0.6	0.83	15	36.5	1LA5 186-0BBQQ		118
7.5	28	200 L	732	1470	98	182	85	90.4	0.62	0.86	20.5	52	1LA5 207-0BBQQ		157

Order No. supplements

Motor type	Penultimate position: Voltage code				Final position: Type of construction code						
	50 Hz, direct online starting				Without flange	With flange			With standard flange		With special flange
	230 V	400 V	500 V	690 V	IM B3, IM B6/7/8, IM V6/5 without protective cover	IM B5, IM V1 without protective cover, IM V3 ¹⁾	IM V1 with protective cover ^{1) 2)}	IM B35	IM B14, IM V19 IM V18 without protective cover	IM B34	IM B14 IM V19 IM V18 without protective cover
	1	6	5	0	0	1	4	6	2	7	3
1LA7 08 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 09 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 10 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 11 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 13 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA7 16 . - . . . QQ	○	○	○	○	□	✓	✓	✓	✓	✓	✓
1LA5 18 . - . . . QQ	○	○	○	○	□	✓ ³⁾	✓	✓	–	–	–
1LA5 20 . - . . . QQ	○	○	○	○	□	✓ ³⁾	✓	✓	–	–	–

- Standard version
- Without additional charge
- ✓ With additional charge
- Not possible

Order other voltages with voltage code **9** in the penultimate position and the corresponding order code (see “Special versions” in the “Options” under “Voltages”).

Order other types of construction with type of construction code **9** in the final position and the corresponding order code (see “Special versions” in the “Options” under “Types of construction”).

¹⁾ For type of construction IM V1 with/without protective cover, motors 1LA5 183-... to 1LA5 223-... (motor series 1LA5 frame sizes 180 M to 225 M) can be supplied with two additional eyebolts; specify order supplement **“Z”** and order code **K32**.

²⁾ The “Second shaft extension” option, order code **K16** is not possible.

³⁾ Type of construction IM V3 is only possible using type of construction code **9** and order code **M1G**.

Order No.	Locked-rotor torque with direct starting torque 750 rpm T_{LR}/T_{rated}	Locked-rotor torque starting as multiple torque 1500 rpm T_{LR}/T_{rated}	Locked-rotor current of rated current 750 rpm I_{LR}/I_{rated}	Locked-rotor current 1500 rpm I_{LR}/I_{rated}	Breakdown torque 750 rpm T_B/T_{rated}	Breakdown torque 1500 rpm T_B/T_{rated}	Torque class CL	Moment of inertia J kgm ²	Mechanical limit speed at maximum supply frequency $n_{max.}$ rpm
8/4-pole, 750/1500 rpm at 50 Hz, temperature class 155 (F), IP55 degree of protection Double pole-changing for driving fans with a winding in a Dahlander circuit									
1LA7 080-0BBQQ	1.4	1.7	2.3	4.1	1.7	1.8	10	0.0014	4200
1LA7 083-0BBQQ	1.4	1.8	2.4	4.2	1.7	1.8	10	0.0017	4200
1LA7 090-0BBQQ	1.3	1.5	2.4	3.7	1.8	2	10	0.0024	4200
1LA7 096-0BBQQ	1.5	1.8	2.6	4.2	1.8	2	10	0.0033	4200
1LA7 106-0BBQQ	1.1	1.9	3.1	5.2	1.8	2.1	10	0.0047	4200
1LA7 107-0BBQQ	1.1	1.9	3.1	5.4	1.8	2.1	10	0.0054	4200
1LA7 113-0BBQQ	1.6	2.6	3.2	6.5	2.4	2.6	10	0.012	4200
1LA7 130-0BBQQ	2	2.3	4.3	6.4	2.5	2.9	10	0.018	4200
1LA7 133-0BBQQ	2.2	1.9	4.6	6.8	2.7	2.5	10	0.023	4200
1LA7 163-0BBQQ	1.7	2	4.1	7	2	2.6	10	0.043	4200
1LA7 166-0BBQQ	2	2.6	4.7	8.1	2.2	3.1	10	0.06	4200
1LA5 183-0BBQQ	1.4	2.3	3.8	7	2.1	2.9	10	0.13	4200
1LA5 186-0BBQQ	1.5	2.3	3.8	7	2.1	2.7	10	0.15	4200
1LA5 207-0BBQQ	1.9	2.5	4.3	7.1	2.2	2.5	10	0.24	4200