Parallel shaft geared motors

3

Orientation

Overview

MOTOX parallel shaft gearboxes are part of the MOTOX modular system. With helical, bevel helical, helical worm, or variable speed gearboxes and three-phase AC motors with or without brakes, this system covers all possible drive combinations, right up to electronic variable speed drives.

MOTOX parallel shaft gearboxes are designed for continuous duty. The gearbox housings made of gray cast iron or aluminium are developed in 3D CAD and have an optimized structure in terms of rigidity and vibration absorption. Radial shaft seals with dust-protection lips prevent oil from leaking out of the housing and dust and water from entering it. The tooth flanks are ground or honed so that they are convex and corrected in terms of the profile. Optimum running smoothness is achieved thanks to the gear wheels' helical teeth. The output shaft is parallel to the input shaft on 2-stage and 3-stage gearboxes.

MOTOX parallel shaft gearboxes are available in 2-stage and 3-stage designs. Standard series gearboxes can be supplied for attaching in any position. The gearboxes are available in a solid-shaft or hollow-shaft design with a feather key connection, shrink disk connection, or splined shaft.

Overview (continued)

The parallel shaft gearboxes are designated as follows:

Gearbox type:

F Parallel shaft gearbox

Transmission stage
Z 2-stage
D 3-stage

Type:

Shaft (-) Solid shaft
A Hollow shaft

Mounting (-) Foot-mounted design
F Flange-mounted design (A-type)
Z Housing flange (C-type)
D Torque arm
M Mixer flange
E Extruder flange

Connections
(-) Feather key
S Shrink disk
T Hollow shaft with splined shaft

Type of intermediate gearbox:

(-) Helical gearbox

Transmission stage
Z 2-stage
D 3-stage

Input unit:

K2 Coupling lantern with flexible coupling for connecting an IEC motor

K2TC Coupling lantern with flexible coupling for connecting a NEMA motor [1)]

K4 Short coupling lantern with clamp connection for connecting an IEC motor

K5 Short coupling lantern with clamp connection for connecting a NEMA motor [1)]

KQ Lantern for servomotor with feather key and zero-backlash flexible coupling for connecting a servomotor

KQS Lantern for servomotor without feather key and zero-backlash flexible coupling for connecting a servomotor

A Input unit with free input shaft

A5 Input unit with free input shaft (NEMA design) [1)]

P Input unit with free input shaft and piggy back for connecting an IEC motor

P5 Input unit with free input shaft and piggy back for connecting a NEMA motor [1)]

PS Input unit with free input shaft and piggy back with protection cover

Example: **F Z F 108 B - Z 38 - K4 (100)**

- Gearbox type
- Transmission stages
- Type
- Size
- Revision marks
- Type of intermediate
- Size
- Input unit
- (for motor size)

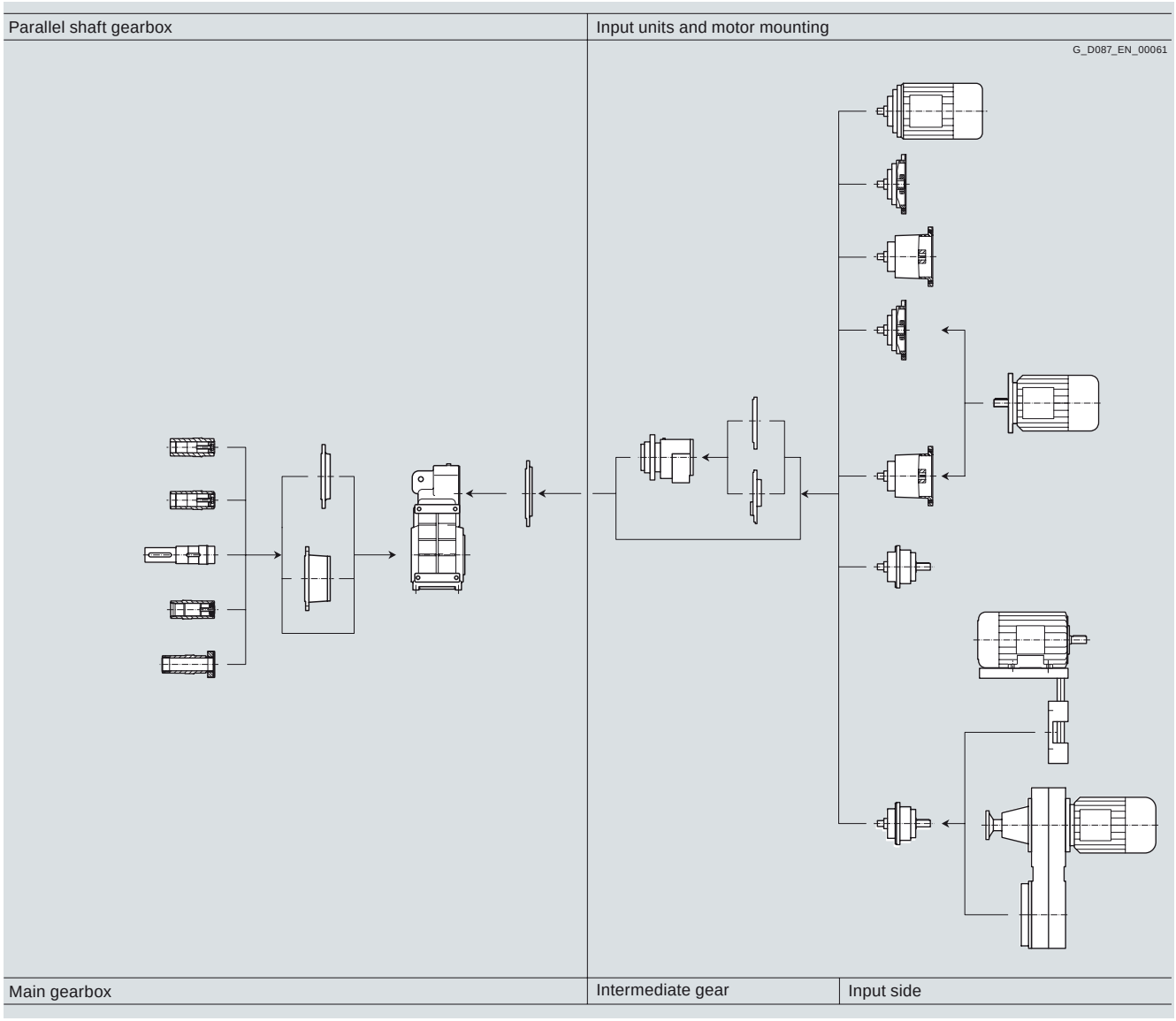
The series currently comprises 10 gearbox sizes.

The basic designs available are 2- and 3-stage gearboxes.

[1)] These designs can be selected from our MOTOX Configurator electronic catalog.

Orientation

Modular system



Use

MOTOX parallel shaft gearboxes are the ideal solution when space is at a premium, thanks to their compact, well-shaped structures.

The variety of output shafts – hollow or solid – and the range of mounting options available, which allow the device to be used as a shaft-mounted gearbox with a torque arm, or as a foot- or flange-mounted design, enable you to achieve exactly the right solution, at the right price.

Parallel shaft gearboxes are extremely efficient. They are very economical, thanks to their low price and low maintenance requirements.

Oil quantities

The oil quantities corresponding to the applicable mounting positions are specified in the operating instructions and on the rating plate.

Permissible radial force F_{Rperm}

2-stage and 3-stage parallel shaft gearbox – standard bearing arrangement

							F_{Rperm} in N with x = l/2 for output speeds n_2 in rpm							
Gearbox type	**d** mm	**l** mm	**y** mm	**z** mm	**a** kNmm	Direction of rotation when viewing the output shaft	≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
F.F28	25	50	128.5	104	115	Left	4 600	4 600	4 150	3 330	2 730	2 350	1 840	1 780
						Right	4 600	4 600	3 950	3 120	2 520	2 160	1 650	1 650
F.F38B	25	50	146.0	121	131	Left	5 246	5 246	4 810	4 020	2 980	2 870	2 590	2 480
						Right	5 246	5 246	4 360	3 610	2 500	2 480	2 450	2 370
F.F48B	30	60	176.0	146	245	Left	8 154	8 060	6 640	5 270	4 840	4 530	4 070	3 770
						Right	8 150	7 500	6 080	4 720	4 400	4 280	3 900	3 650
F.F68B	40	80	213.0	173	357	Left	8 927	7 680	6 160	5 050	3 710	3 930	3 710	3 650
						Right	8 927	6 830	5 310	4 200	2 860	3 290	3 300	3 440
F.F88B	50	100	262.0	212	741	Left	14 825	13 420	10 040	8 310	7 020	6 590	6 320	6 130
						Right	14 340	12 360	8 740	7 010	5 800	5 960	5 920	5 800
F.F108B	60	120	298.0	238	1 100	Left	17 930	13 620	10 750	8 190	6 070	6 610	6 840	7 080
						Right	15 860	11 550	8 680	6 120	4 040	4 960	5 780	6 390
F.F128B	70	140	371.5	302	1 786	Left	25 516	19 950	15 710	10 270	9 120	10 890	10 860	10 360
						Right	23 190	17 570	13 530	7 900	6 740	9 300	9 920	9 810
F.F148B	90	170	434.0	349	2 241	Left	23 390	17 850	13 190	8 530	9 840	11 680	11 800	11 660
						Right	20 390	14 850	10 180	5 620	7 380	10 030	10 530	10 830
F.F168B	110	210	517.5	413	4 814	Left	35 450	27 240	20 850	13 740	12 970	17 210	16 400	16 450
						Right	31 510	23 300	17 200	9 800	9 280	15 230	14 590	15 330
F.F188B	120	210	538.0	433	11 898	Left	113 314	113 314	113 314	106 120	88 810	78 120	76 850	–
						Right	113 314	113 314	113 314	102 690	84 350	75 050	74 100	–
F.F208	160	250	622.0	497	18 750	Left	150 000	150 000	150 000	150 000	143 760	127 130	121 290	–
			598.0	493		Right	150 000	150 000	150 000	150 000	135 990	120 310	114 800	–

2-stage and 3-stage parallel shaft gearbox – reinforced bearing arrangement

							F_{Rperm} in N with x = l/2 for output speeds n_2 in rpm							
Gearbox type	**d** mm	**l** mm	**y** mm	**z** mm	**a** kNmm	Direction of rotation when viewing the output shaft	≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
F.F68B	40	80	213.0	173	546	Left	13 643	13 643	13 643	13 643	13 643	13 260	11 920	10 620
						Right	13 643	13 643	13 643	13 643	13 230	12 690	11 540	10 390
F.F88B	50	100	262.0	212	1 171	Left	23 411	23 411	23 411	23 411	23 411	21 180	19 050	18 130
						Right	23 411	23 411	23 411	23 411	22 960	20 520	18 620	17 790
F.F108B	60	120	298.0	238	1 723	Left	28 718	28 718	28 718	28 718	28 718	26 040	24 150	23 420
						Right	28 718	28 718	28 718	28 718	26 590	24 740	23 300	22 680
F.F128B	70	140	371.5	302	2 514	Left	35 921	35 921	35 921	35 921	35 921	35 921	35 921	34 420
						Right	35 921	35 921	35 921	35 921	35 921	35 921	35 921	33 830
F.F148B	90	170	434.0	349	5 737	Left	67 493	67 493	67 300	55 150	52 240	46 910	44 010	41 380
						Right	67 493	67 493	64 110	52 070	50 180	45 380	42 870	40 510
F.F168B	110	210	517.5	413	9 566	Left	91 102	91 102	91 102	87 720	78 620	71 650	65 350	62 000
						Right	91 102	91 102	91 102	83 520	75 920	69 990	63 850	60 810
F.F188B	120	210	538.0	433	11 898	Left	113 314	113 314	113 314	106 120	88 810	78 120	76 850	–
						Right	113 314	113 314	113 314	102 690	84 350	75 050	74 100	–
F.F208	160	250	622.0	497	18 750	Left	150 000	150 000	150 000	150 000	150 000	150 000	150 000	–
			598.0	493		Right	150 000	150 000	150 000	150 000	150 000	150 000	150 000	–

The values in the table apply to the worst-case scenario.
The output shaft bearing arrangement can be calculated using our MOTOX Configurator electronic catalog.

See Chapter 1 of the configuring guide for more information on calculating the permissible radial force.

Geared motors up to 200 kW

Selection and ordering data

The selection tables show the most common variants and combinations. Other combinations can be selected using our MOTOX Configurator or made available on request.

At an identical power rating and output speed, priority is given in the selection tables to 4-pole geared motors.

At the available transmission ratios, they cover the majority of output speeds.

Due to their prevalence, 4-pole geared motors are easily available, with short delivery times and at a low cost.
They also feature a favorable size / power ratio.

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio		Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}			(No. of poles)	kg
0.09 (50 Hz) 0.11 (60 Hz)	**FD.48B-LA71M8**								
	2.3	**2.8**	367	1.5	268.80	★	**2KJ1402 - ■CE13 - ■■S1**	**P02**	27
	2.6	**3.1**	326	1.7	238.65		**2KJ1402 - ■CE13 - ■■R1**	**P02**	27
	3	**3.6**	285	1.9	209.23	★	**2KJ1402 - ■CE13 - ■■Q1**	**P02**	27
	FD.38B-LA71M8								
	2.6	**3.1**	330	0.88	241.91	★	**2KJ1401 - ■CE13 - ■■M1**	**P02**	20
	3	**3.6**	284	1	207.83		**2KJ1401 - ■CE13 - ■■L1**	**P02**	20
	FD.38B-LA71B6								
	3.2	**3.8**	269	1.1	280.41		**2KJ1401 - ■CB13 - ■■N1**	**P01**	20
	3.7	**4.4**	232	1.2	241.91	★	**2KJ1401 - ■CB13 - ■■M1**	**P01**	20
	4.3	**5.2**	200	1.5	207.83		**2KJ1401 - ■CB13 - ■■L1**	**P01**	20
	4.7	**5.6**	184	1.6	191.34	★	**2KJ1401 - ■CB13 - ■■K1**	**P01**	20
0.12 (50 Hz) 0.14 (60 Hz)	**FD.188B-D48-LA71B4**								
	0.05	**0.06**	15 668	1.3	28 045	★	**2KJ1440 - ■CB13 - ■■E1**		638
	0.06	**0.07**	12 819	1.6	22 946	★	**2KJ1440 - ■CB13 - ■■C1**		638
	0.06	**0.07**	14 134	1.4	25 299		**2KJ1440 - ■CB13 - ■■D1**		638
	0.07	**0.08**	10 683	1.9	19 122	★	**2KJ1440 - ■CB13 - ■■A1**		638
	0.07	**0.08**	11 680	1.7	20 906		**2KJ1440 - ■CB13 - ■■B1**		638
	FD.188B-Z48-LA71B4								
	0.08	**0.1**	10 013	2	17 537		**2KJ1438 - ■CB13 - ■■A2**		638
	FD.168B-D48-LA71B4								
	0.05	**0.06**	16 202	0.86	29 000		**2KJ1436 - ■CB13 - ■■F1**		455
	0.06	**0.07**	12 901	1.1	23 093		**2KJ1436 - ■CB13 - ■■D1**		455
	0.06	**0.07**	14 302	0.98	25 599	★	**2KJ1436 - ■CB13 - ■■E1**		455
	0.07	**0.08**	10 661	1.3	19 083		**2KJ1436 - ■CB13 - ■■B1**		455
	0.07	**0.08**	11 701	1.2	20 944	★	**2KJ1436 - ■CB13 - ■■C1**		455
	0.08	**0.10**	9 751	1.4	17 454	★	**2KJ1436 - ■CB13 - ■■A1**		455
	FD.168B-Z48-LA71B4								
	0.09	**0.11**	9 139	1.5	16 007		**2KJ1435 - ■CB13 - ■■A2**		454
	0.10	**0.12**	8 088	1.7	14 165	★	**2KJ1435 - ■CB13 - ■■X1**		454
	0.11	**0.13**	7 353	1.9	12 878		**2KJ1435 - ■CB13 - ■■W1**		454
	FD.148B-D38-LA71B4								
	0.07	**0.08**	10 870	0.83	19 456		**2KJ1433 - ■CB13 - ■■B1**		288
	0.08	**0.1**	9 891	0.91	17 704	★	**2KJ1433 - ■CB13 - ■■A1**		288
	FD.148B-Z38-LA71B4								
	0.09	**0.11**	9 272	0.97	16 239	★	**2KJ1432 - ■CB13 - ■■W1**		287
	0.10	**0.12**	8 245	1.1	14 441		**2KJ1432 - ■CB13 - ■■V1**		287
	0.11	**0.13**	7 152	1.3	12 527	★	**2KJ1432 - ■CB13 - ■■U1**		287
	0.12	**0.14**	6 683	1.3	11 705		**2KJ1432 - ■CB13 - ■■T1**		287

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.12 (50 Hz) 0.14 (60 Hz)	**FD.148B-Z38-LA71B4**								
	0.14	**0.17**	5 878	1.5	10 295	★	**2KJ1432 - ■CB13 - ■■S1**		287
	0.16	**0.19**	5 148	1.7	9 016		**2KJ1432 - ■CB13 - ■■R1**		287
	0.18	**0.22**	4 553	2.0	7 975	★	**2KJ1432 - ■CB13 - ■■Q1**		287
	FD.128B-Z38-LA71B4								
	0.12	**0.14**	6 445	0.95	11 289		**2KJ1428 - ■CB13 - ■■T1**		197
	0.12	**0.14**	6 899	0.88	12 083	★	**2KJ1428 - ■CB13 - ■■U1**		197
	0.14	**0.17**	5 669	1.1	9 929	★	**2KJ1428 - ■CB13 - ■■S1**		197
	0.16	**0.19**	4 965	1.2	8 696		**2KJ1428 - ■CB13 - ■■R1**		197
	0.18	**0.22**	4 391	1.4	7 691	★	**2KJ1428 - ■CB13 - ■■Q1**		197
	0.20	**0.24**	3 980	1.5	6 971		**2KJ1428 - ■CB13 - ■■P1**		197
	0.23	**0.28**	3 513	1.7	6 153	★	**2KJ1428 - ■CB13 - ■■N1**		197
	0.25	**0.30**	3 169	1.9	5 551		**2KJ1428 - ■CB13 - ■■M1**		197
	FD.108B-Z38-LA71B4								
	0.19	**0.23**	4 270	0.8	7 479	★	**2KJ1426 - ■CB13 - ■■F2**		122
	0.21	**0.25**	3 870	0.88	6 778		**2KJ1426 - ■CB13 - ■■E2**		122
	0.23	**0.28**	3 416	1.0	5 983	★	**2KJ1426 - ■CB13 - ■■D2**		122
	0.26	**0.31**	3 081	1.1	5 397		**2KJ1426 - ■CB13 - ■■C2**		122
	0.29	**0.35**	2 795	1.2	4 895	★	**2KJ1426 - ■CB13 - ■■B2**		122
	0.31	**0.37**	2 546	1.3	4 460		**2KJ1426 - ■CB13 - ■■A2**		122
	0.34	**0.41**	2 329	1.5	4 079	★	**2KJ1426 - ■CB13 - ■■X1**		122
	0.38	**0.46**	2 083	1.6	3 648		**2KJ1426 - ■CB13 - ■■W1**		122
	0.42	**0.50**	1 912	1.8	3 349	★	**2KJ1426 - ■CB13 - ■■V1**		122
	0.46	**0.55**	1 724	2.0	3 019		**2KJ1426 - ■CB13 - ■■U1**		122
	FD.88B-Z28-LA71B4								
	0.34	**0.41**	2 386	0.8	4 179		**2KJ1422 - ■CB13 - ■■W1**		73
	0.38	**0.46**	2 118	0.9	3 709	★	**2KJ1422 - ■CB13 - ■■V1**		73
	0.43	**0.52**	1 856	1.0	3 251		**2KJ1422 - ■CB13 - ■■U1**		73
	0.49	**0.59**	1 632	1.2	2 858	★	**2KJ1422 - ■CB13 - ■■T1**		73
	0.54	**0.65**	1 474	1.3	2 582		**2KJ1422 - ■CB13 - ■■S1**		73
	0.62	**0.74**	1 285	1.5	2 250	★	**2KJ1422 - ■CB13 - ■■R1**		73
	0.69	**0.83**	1 154	1.6	2 021		**2KJ1422 - ■CB13 - ■■Q1**		73
	0.77	**0.92**	1 041	1.8	1 824	★	**2KJ1422 - ■CB13 - ■■P1**		73
	0.85	**1.0**	944	2.0	1 654		**2KJ1422 - ■CB13 - ■■N1**		73
	FD.68B-Z28-LA71B4								
	0.69	**0.83**	1 162	0.86	2 035		**2KJ1417 - ■CB13 - ■■T1**		43
	0.78	**0.94**	1 021	0.98	1 789	★	**2KJ1417 - ■CB13 - ■■S1**		43
	0.87	**1.0**	923	1.1	1 616		**2KJ1417 - ■CB13 - ■■R1**		43
	0.99	**1.2**	804	1.2	1 408	★	**2KJ1417 - ■CB13 - ■■Q1**		43
	1.1	**1.3**	722	1.4	1 265		**2KJ1417 - ■CB13 - ■■P1**		43
	1.2	**1.4**	652	1.5	1 142	★	**2KJ1417 - ■CB13 - ■■N1**		43
	1.4	**1.7**	592	1.7	1 036		**2KJ1417 - ■CB13 - ■■M1**		43
	1.5	**1.8**	538	1.9	942	★	**2KJ1417 - ■CB13 - ■■L1**		43

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
0.12 (50 Hz) 0.14 (60 Hz)	**FD.68B-LA71MB8**							
	2.2	**2.6**	526	1.9	296.18 ★	**2KJ1403 - ■CF13 - ■■S1**		43
	FD.48B-Z28-LA71B4							
	1.3	**1.6**	614	0.88	1 076 ★	**2KJ1413 - ■CB13 - ■■N1**		29
	1.4	**1.7**	557	0.97	976	**2KJ1413 - ■CB13 - ■■M1**		29
	1.6	**1.9**	507	1.1	888 ★	**2KJ1413 - ■CB13 - ■■L1**		29
	1.8	**2.2**	448	1.2	785	**2KJ1413 - ■CB13 - ■■K1**		29
	1.9	**2.3**	414	1.3	725 ★	**2KJ1413 - ■CB13 - ■■J1**		29
	2.2	**2.6**	356	1.5	624	**2KJ1413 - ■CB13 - ■■H1**		29
	FD.48B-LA71MB8							
	2.4	**2.9**	478	1.1	268.80 ★	**2KJ1402 - ■CF13 - ■■S1**	**P02**	27
	2.7	**3.2**	424	1.3	238.65	**2KJ1402 - ■CF13 - ■■R1**	**P02**	27
	3.1	**3.7**	372	1.5	209.23 ★	**2KJ1402 - ■CF13 - ■■Q1**	**P02**	27
	FD.48B-LA71C6							
	3.2	**3.8**	358	1.5	268.80 ★	**2KJ1402 - ■CC13 - ■■S1**	**P01**	27
	3.6	**4.3**	318	1.7	238.65	**2KJ1402 - ■CC13 - ■■R1**	**P01**	27
	4.1	**4.9**	279	1.9	209.23 ★	**2KJ1402 - ■CC13 - ■■Q1**	**P01**	27
	FZ.38B-Z28-LA71B4							
	2.4	**2.9**	339	0.86	587.00	**2KJ1313 - ■CB13 - ■■G1**		22
	FD.38B-LA71C6							
	3.6	**4.3**	322	0.9	241.91 ★	**2KJ1401 - ■CC13 - ■■M1**	**P01**	20
	4.1	**4.9**	277	1	207.83	**2KJ1401 - ■CC13 - ■■L1**	**P01**	20
	4.5	**5.4**	255	1.1	191.34 ★	**2KJ1401 - ■CC13 - ■■K1**	**P01**	20
	FD.38B-LA71B4							
	5	**6**	230	1.3	280.41	**2KJ1401 - ■CB13 - ■■N1**		20
	5.8	**7**	198	1.5	241.91 ★	**2KJ1401 - ■CB13 - ■■M1**		20
	6.7	**8**	170	1.7	207.83	**2KJ1401 - ■CB13 - ■■L1**		20
	7.3	**8.8**	157	1.9	191.34 ★	**2KJ1401 - ■CB13 - ■■K1**		20
	8	**9.6**	142	2	173.94	**2KJ1401 - ■CB13 - ■■J1**		20
	FD.28-LA71B4							
	6.7	**8**	170	0.88	207.53	**2KJ1400 - ■CB13 - ■■L1**		11
	7.3	**8.8**	156	0.96	191.06 ★	**2KJ1400 - ■CB13 - ■■K1**		11
	8.1	**9.7**	142	1.1	173.69	**2KJ1400 - ■CB13 - ■■J1**		11
	9.1	**10.9**	126	1.2	153.74 ★	**2KJ1400 - ■CB13 - ■■H1**		11
	10.9	**13.1**	105	1.4	128.77	**2KJ1400 - ■CB13 - ■■G1**		11
	12.8	**15.4**	90	1.7	109.79 ★	**2KJ1400 - ■CB13 - ■■F1**		11
	15	**18**	76	2	93.32 ★	**2KJ1400 - ■CB13 - ■■E1**		11
	17.3	**21**	66	2.3	81.10	**2KJ1400 - ■CB13 - ■■D1**		11
	19.8	**24**	58	2.6	70.59 ★	**2KJ1400 - ■CB13 - ■■C1**		11
	22	**26**	52	2.9	63.68	**2KJ1400 - ■CB13 - ■■B1**		11
	25	**30**	46	3.3	56.20	**2KJ1400 - ■CB13 - ■■A1**		11
	FZ.28-LA71B4							
	24	**29**	49	3.1	59.65	**2KJ1300 - ■CB13 - ■■C2**		11
	28	**34**	41	3.6	50.30 ★	**2KJ1300 - ■CB13 - ■■B2**		11

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.12 (50 Hz) 0.14 (60 Hz)	**FZ.28-LA71B4**								
	31	**37**	37	4.1	44.66		**2KJ1300 - ■CB13 - ■■A2**		11
	36	**43**	32	4.7	39.15	★	**2KJ1300 - ■CB13 - ■■X1**		11
	40	**48**	29	5.2	35.04		**2KJ1300 - ■CB13 - ■■W1**		11
	45	**54**	26	5.9	31.10	★	**2KJ1300 - ■CB13 - ■■V1**		11
	51	**61**	22	6.7	27.25		**2KJ1300 - ■CB13 - ■■U1**		11
	58	**70**	20	7.6	23.96	★	**2KJ1300 - ■CB13 - ■■T1**		11
	65	**78**	18	8.5	21.64		**2KJ1300 - ■CB13 - ■■S1**		11
	74	**89**	15	9.7	18.86	★	**2KJ1300 - ■CB13 - ■■R1**		11
	83	**100**	14	10.8	16.94		**2KJ1300 - ■CB13 - ■■Q1**		11
	92	**110**	12	12	15.29	★	**2KJ1300 - ■CB13 - ■■P1**		11
	101	**121**	11	13.2	13.87		**2KJ1300 - ■CB13 - ■■N1**		11
	111	**133**	10	14.3	12.62	★	**2KJ1300 - ■CB13 - ■■M1**		11
0.18 (50 Hz) 0.22 (60 Hz)	**FD.188B-D48-LA71C4**								
	0.05	**0.06**	24 072	0.83	25 299		**2KJ1440 - ■CC13 - ■■D1**		638
	0.06	**0.07**	21 833	0.92	22 946	★	**2KJ1440 - ■CC13 - ■■C1**		638
	0.07	**0.08**	18 195	1.1	19 122	★	**2KJ1440 - ■CC13 - ■■A1**		638
	0.07	**0.08**	19 892	1	20 906		**2KJ1440 - ■CC13 - ■■B1**		638
	FD.188B-Z48-LA71C4								
	0.08	**0.1**	17 053	1.2	17 537		**2KJ1438 - ■CC13 - ■■A2**		638
	0.09	**0.11**	15 091	1.3	15 519	★	**2KJ1438 - ■CC13 - ■■X1**		638
	0.1	**0.12**	13 719	1.5	14 108		**2KJ1438 - ■CC13 - ■■W1**		638
	0.11	**0.13**	12 325	1.6	12 674	★	**2KJ1438 - ■CC13 - ■■V1**		638
	0.13	**0.16**	10 563	1.9	10 863		**2KJ1438 - ■CC13 - ■■U1**		638
	FD.168B-D48-LA71C4								
	0.08	**0.1**	16 608	0.84	17 454	★	**2KJ1436 - ■CC13 - ■■A1**		455
	FD.168B-Z48-LA71C4								
	0.09	**0.11**	15 566	0.9	16 007		**2KJ1435 - ■CC13 - ■■A2**		454
	0.1	**0.12**	13 774	1	14 165	★	**2KJ1435 - ■CC13 - ■■X1**		454
	0.11	**0.13**	12 523	1.1	12 878		**2KJ1435 - ■CC13 - ■■W1**		454
	0.12	**0.14**	11 249	1.2	11 568	★	**2KJ1435 - ■CC13 - ■■V1**		454
	0.14	**0.17**	9 643	1.5	9 916		**2KJ1435 - ■CC13 - ■■U1**		454
	0.15	**0.18**	8 724	1.6	8 971	★	**2KJ1435 - ■CC13 - ■■T1**		454
	0.16	**0.19**	8 053	1.7	8 281		**2KJ1435 - ■CC13 - ■■S1**		454
	0.19	**0.23**	7 002	2	7 201	★	**2KJ1435 - ■CC13 - ■■R1**		454
	FD.148B-Z38-LA71C4								
	0.13	**0.16**	10 011	0.9	10 295	★	**2KJ1432 - ■CC13 - ■■S1**		287
	0.15	**0.18**	8 767	1	9 016		**2KJ1432 - ■CC13 - ■■R1**		287
	0.17	**0.2**	7 755	1.2	7 975	★	**2KJ1432 - ■CC13 - ■■Q1**		287
	0.19	**0.23**	7 028	1.3	7 227		**2KJ1432 - ■CC13 - ■■P1**		287
	0.22	**0.26**	6 204	1.5	6 380	★	**2KJ1432 - ■CC13 - ■■N1**		287
	0.24	**0.29**	5 596	1.6	5 755		**2KJ1432 - ■CC13 - ■■M1**		287
	0.26	**0.31**	5 076	1.8	5 220	★	**2KJ1432 - ■CC13 - ■■L1**		287
	0.29	**0.35**	4 625	1.9	4 756		**2KJ1432 - ■CC13 - ■■K1**		287

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.18 (50 Hz) 0.22 (60 Hz)	**FD.128B-Z38-LA71C4**								
	0.18	**0.22**	7 479	0.82	7 691	★	**2KJ1428 - ■CC13 - ■■Q1**		197
	0.2	**0.24**	6 779	0.9	6 971		**2KJ1428 - ■CC13 - ■■P1**		197
	0.22	**0.26**	5 983	1	6 153	★	**2KJ1428 - ■CC13 - ■■N1**		197
	0.25	**0.3**	5 398	1.1	5 551		**2KJ1428 - ■CC13 - ■■M1**		197
	0.27	**0.32**	4 895	1.2	5 034	★	**2KJ1428 - ■CC13 - ■■L1**		197
	0.3	**0.36**	4 461	1.4	4 587		**2KJ1428 - ■CC13 - ■■K1**		197
	0.33	**0.4**	4 079	1.5	4 195	★	**2KJ1428 - ■CC13 - ■■J1**		197
	0.36	**0.43**	3 648	1.7	3 751		**2KJ1428 - ■CC13 - ■■H1**		197
	0.4	**0.48**	3 350	1.8	3 445	★	**2KJ1428 - ■CC13 - ■■G1**		197
	0.44	**0.53**	3 019	2	3 105		**2KJ1428 - ■CC13 - ■■F1**		197
	FD.108B-Z38-LA71C4								
	0.34	**0.41**	3 967	0.86	4 079	★	**2KJ1426 - ■CC13 - ■■X1**		122
	0.38	**0.46**	3 547	0.96	3 648		**2KJ1426 - ■CC13 - ■■W1**		122
	0.41	**0.49**	3 257	1	3 349	★	**2KJ1426 - ■CC13 - ■■V1**		122
	0.45	**0.54**	2 936	1.2	3 019		**2KJ1426 - ■CC13 - ■■U1**		122
	0.53	**0.64**	2 524	1.3	2 596	★	**2KJ1426 - ■CC13 - ■■T1**		122
	0.59	**0.71**	2 251	1.5	2 315		**2KJ1426 - ■CC13 - ■■S1**		122
	0.64	**0.77**	2 067	1.6	2 126	★	**2KJ1426 - ■CC13 - ■■R1**		122
	0.72	**0.86**	1 863	1.8	1 916		**2KJ1426 - ■CC13 - ■■Q1**		122
	FD.88B-Z28-LA71C4								
	0.61	**0.73**	2 188	0.87	2 250	★	**2KJ1422 - ■CC13 - ■■R1**		73
	0.68	**0.82**	1 965	0.97	2 021		**2KJ1422 - ■CC13 - ■■Q1**		73
	0.75	**0.9**	1 774	1.1	1 824	★	**2KJ1422 - ■CC13 - ■■P1**		73
	0.83	**1**	1 608	1.2	1 654		**2KJ1422 - ■CC13 - ■■N1**		73
	0.91	**1.1**	1 464	1.3	1 505	★	**2KJ1422 - ■CC13 - ■■M1**		73
	1	**1.2**	1 294	1.5	1 331		**2KJ1422 - ■CC13 - ■■L1**		73
	1.1	**1.3**	1 195	1.6	1 229	★	**2KJ1422 - ■CC13 - ■■K1**		73
	1.3	**1.6**	1 029	1.8	1 058		**2KJ1422 - ■CC13 - ■■J1**		73
	1.4	**1.7**	935	2	962	★	**2KJ1422 - ■CC13 - ■■H1**		73
	FD.88B-LA80S8								
	1.7	**2**	1 031	1.8	404.92		**2KJ1404 - ■DB13 - ■■V1**	**P02**	78
	FD.68B-Z28-LA71C4								
	1.1	**1.3**	1 230	0.81	1 265		**2KJ1417 - ■CC13 - ■■P1**		43
	1.2	**1.4**	1 111	0.9	1 142	★	**2KJ1417 - ■CC13 - ■■N1**		43
	1.3	**1.6**	1 007	0.99	1 036		**2KJ1417 - ■CC13 - ■■M1**		43
	1.5	**1.8**	916	1.1	942	★	**2KJ1417 - ■CC13 - ■■L1**		43
	1.6	**1.9**	810	1.2	833		**2KJ1417 - ■CC13 - ■■K1**		43
	1.8	**2.2**	748	1.3	769	★	**2KJ1417 - ■CC13 - ■■J1**		43
	2.1	**2.5**	644	1.6	662		**2KJ1417 - ■CC13 - ■■H1**		43
	FD.68B-LA80S8								
	2.3	**2.8**	754	1.3	296.18	★	**2KJ1403 - ■DB13 - ■■S1**	**P02**	47
	2.6	**3.1**	671	1.5	263.39		**2KJ1403 - ■DB13 - ■■R1**	**P02**	47

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
0.18 (50 Hz) 0.22 (60 Hz)	**FD.68B-LA71S6**							
	2.9	**3.5**	599	1.7	296.18 ★	**2KJ1403 - ■CD13 - ■■S1**	**P01**	43
	3.2	**3.8**	533	1.9	263.39	**2KJ1403 - ■CD13 - ■■R1**	**P01**	43
	FD.48B-Z28-LA71C4							
	2.2	**2.6**	607	0.89	624.00	**2KJ1413 - ■CC13 - ■■H1**		29
	FD.48B-LA80S8							
	2.8	**3.4**	608	0.89	238.65	**2KJ1402 - ■DB13 - ■■R1**	**P02**	31
	FD.48B-LA71S6							
	3.2	**3.8**	544	0.99	268.80 ★	**2KJ1402 - ■CD13 - ■■S1**	**P01**	27
	3.6	**4.3**	483	1.1	238.65	**2KJ1402 - ■CD13 - ■■R1**	**P01**	27
	4.1	**4.9**	423	1.3	209.23 ★	**2KJ1402 - ■CD13 - ■■Q1**	**P01**	27
	4.5	**5.4**	379	1.4	187.24	**2KJ1402 - ■CD13 - ■■P1**	**P01**	27
	FD.48B-LA71C4							
	5.1	**6.1**	337	1.6	268.80 ★	**2KJ1402 - ■CC13 - ■■S1**		27
	5.7	**6.8**	299	1.8	238.65	**2KJ1402 - ■CC13 - ■■R1**		27
	6.5	**7.8**	263	2.1	209.23 ★	**2KJ1402 - ■CC13 - ■■Q1**		27
	FD.38B-LA71C4							
	4.9	**5.9**	352	0.82	280.41	**2KJ1401 - ■CC13 - ■■N1**		20
	5.7	**6.8**	304	0.96	241.91 ★	**2KJ1401 - ■CC13 - ■■M1**		20
	6.6	**7.9**	261	1.1	207.83	**2KJ1401 - ■CC13 - ■■L1**		20
	7.2	**8.6**	240	1.2	191.34 ★	**2KJ1401 - ■CC13 - ■■K1**		20
	7.9	**9.5**	218	1.3	173.94	**2KJ1401 - ■CC13 - ■■J1**		20
	8.9	**10.7**	193	1.5	153.96 ★	**2KJ1401 - ■CC13 - ■■H1**		20
	10.6	**12.7**	162	1.8	128.95	**2KJ1401 - ■CC13 - ■■G1**		20
	12.5	**15**	138	2.1	109.95 ★	**2KJ1401 - ■CC13 - ■■F1**		20
	FD.28-LA71C4							
	10.6	**12.7**	162	0.93	128.77	**2KJ1400 - ■CC13 - ■■G1**		11
	12.5	**15**	138	1.1	109.79 ★	**2KJ1400 - ■CC13 - ■■F1**		11
	14.7	**17.6**	117	1.3	93.32 ★	**2KJ1400 - ■CC13 - ■■E1**		11
	16.9	**20**	102	1.5	81.10	**2KJ1400 - ■CC13 - ■■D1**		11
	19.4	**23**	89	1.7	70.59 ★	**2KJ1400 - ■CC13 - ■■C1**		11
	22	**26**	80	1.9	63.68	**2KJ1400 - ■CC13 - ■■B1**		11
	24	**29**	70	2.1	56.20	**2KJ1400 - ■CC13 - ■■A1**		11
	FZ.28-LA71C4							
	23	**28**	75	2	59.65	**2KJ1300 - ■CC13 - ■■C2**		11
	27	**32**	63	2.4	50.30 ★	**2KJ1300 - ■CC13 - ■■B2**		11
	31	**37**	56	2.7	44.66	**2KJ1300 - ■CC13 - ■■A2**		11
	35	**42**	49	3.1	39.15 ★	**2KJ1300 - ■CC13 - ■■X1**		11
	39	**47**	44	3.4	35.04	**2KJ1300 - ■CC13 - ■■W1**		11
	44	**53**	39	3.8	31.10 ★	**2KJ1300 - ■CC13 - ■■V1**		11
	50	**60**	34	4.4	27.25	**2KJ1300 - ■CC13 - ■■U1**		11
	57	**68**	30	5	23.96 ★	**2KJ1300 - ■CC13 - ■■T1**		11
	63	**76**	27	5.5	21.64	**2KJ1300 - ■CC13 - ■■S1**		11
	73	**88**	24	6.3	18.86 ★	**2KJ1300 - ■CC13 - ■■R1**		11

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.18 (50 Hz) 0.22 (60 Hz)	**FZ.28-LA71C4**								
	81	**97**	21	7.1	16.94		**2KJ1300 - ■CC13 - ■■Q1**		11
	90	**108**	19	7.8	15.29	★	**2KJ1300 - ■CC13 - ■■P1**		11
	99	**119**	17	8.6	13.87		**2KJ1300 - ■CC13 - ■■N1**		11
	109	**131**	16	9.3	12.62	★	**2KJ1300 - ■CC13 - ■■M1**		11
	123	**148**	14	10.1	11.16		**2KJ1300 - ■CC13 - ■■L1**		11
	133	**160**	13	10.7	10.30	★	**2KJ1300 - ■CC13 - ■■K1**		11
	154	**185**	11	11.8	8.87		**2KJ1300 - ■CC13 - ■■J1**		11
	170	**204**	10	12.6	8.06	★	**2KJ1300 - ■CC13 - ■■H1**		11
	190	**228**	9	13.9	7.20	★	**2KJ1300 - ■CC13 - ■■G1**		11
	210	**252**	8	14.9	6.53		**2KJ1300 - ■CC13 - ■■F1**		11
0.25 (50 Hz) 0.3 (60 Hz)	**FD.188B-Z48-LA71S4**								
	0.09	**0.11**	22 462	0.89	15 519	★	**2KJ1438 - ■CD13 - ■■X1**		638
	0.1	**0.12**	20 419	0.98	14 108		**2KJ1438 - ■CD13 - ■■W1**		638
	0.11	**0.13**	18 344	1.1	12 674	★	**2KJ1438 - ■CD13 - ■■V1**		638
	0.12	**0.14**	15 723	1.3	10 863		**2KJ1438 - ■CD13 - ■■U1**		638
	0.14	**0.17**	14 226	1.4	9 829	★	**2KJ1438 - ■CD13 - ■■T1**		638
	0.15	**0.18**	13 132	1.5	9 073		**2KJ1438 - ■CD13 - ■■S1**		638
	0.17	**0.2**	11 418	1.8	7 889	★	**2KJ1438 - ■CD13 - ■■R1**		638
	0.19	**0.23**	10 367	1.9	7 163		**2KJ1438 - ■CD13 - ■■Q1**		638
	FD.168B-Z48-LA71S4								
	0.12	**0.14**	16 743	0.84	11 568	★	**2KJ1435 - ■CD13 - ■■V1**		454
	0.14	**0.17**	14 352	0.98	9 916		**2KJ1435 - ■CD13 - ■■U1**		454
	0.15	**0.18**	12 984	1.1	8 971	★	**2KJ1435 - ■CD13 - ■■T1**		454
	0.16	**0.19**	11 986	1.2	8 281		**2KJ1435 - ■CD13 - ■■S1**		454
	0.19	**0.23**	10 422	1.3	7 201	★	**2KJ1435 - ■CD13 - ■■R1**		454
	0.21	**0.25**	9 463	1.5	6 538		**2KJ1435 - ■CD13 - ■■Q1**		454
	0.23	**0.28**	8 641	1.6	5 970	★	**2KJ1435 - ■CD13 - ■■P1**		454
	0.25	**0.3**	7 927	1.8	5 477		**2KJ1435 - ■CD13 - ■■N1**		454
	0.27	**0.32**	7 303	1.9	5 046	★	**2KJ1435 - ■CD13 - ■■M1**		454
	FD.148B-Z38-LA71S4								
	0.19	**0.23**	10 460	0.86	7 227		**2KJ1432 - ■CD13 - ■■P1**		287
	0.21	**0.25**	9 234	0.97	6 380	★	**2KJ1432 - ■CD13 - ■■N1**		287
	0.24	**0.29**	8 330	1.1	5 755		**2KJ1432 - ■CD13 - ■■M1**		287
	0.26	**0.31**	7 555	1.2	5 220	★	**2KJ1432 - ■CD13 - ■■L1**		287
	0.28	**0.34**	6 884	1.3	4 756		**2KJ1432 - ■CD13 - ■■K1**		287
	0.31	**0.37**	6 296	1.4	4 350	★	**2KJ1432 - ■CD13 - ■■J1**		287
	0.35	**0.42**	5 629	1.6	3 889		**2KJ1432 - ■CD13 - ■■H1**		287
	0.38	**0.46**	5 169	1.7	3 571	★	**2KJ1432 - ■CD13 - ■■G1**		287
	0.42	**0.5**	4 659	1.9	3 219		**2KJ1432 - ■CD13 - ■■F1**		287
	FD.128B-Z38-LA71S4								
	0.27	**0.32**	7 286	0.84	5 034	★	**2KJ1428 - ■CD13 - ■■L1**		197
	0.29	**0.35**	6 639	0.92	4 587		**2KJ1428 - ■CD13 - ■■K1**		197
	0.32	**0.38**	6 072	1	4 195	★	**2KJ1428 - ■CD13 - ■■J1**		197

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio		Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}			(No. of poles)	kg
0.25 (50 Hz) 0.3 (60 Hz)	**FD.128B-Z38-LA71S4**								
	0.36	**0.43**	5 429	1.1	3 751		**2KJ1428 - ■CD13 - ■■H1**		197
	0.39	**0.47**	4 986	1.2	3 445	★	**2KJ1428 - ■CD13 - ■■G1**		197
	0.44	**0.53**	4 494	1.4	3 105		**2KJ1428 - ■CD13 - ■■F1**		197
	0.51	**0.61**	3 864	1.6	2 670	★	**2KJ1428 - ■CD13 - ■■E1**		197
	0.57	**0.68**	3 446	1.8	2 381		**2KJ1428 - ■CD13 - ■■D1**		197
	0.62	**0.74**	3 164	1.9	2 186	★	**2KJ1428 - ■CD13 - ■■C1**		197
	FD.108B-Z38-LA71S4								
	0.52	**0.62**	3 757	0.9	2 596	★	**2KJ1426 - ■CD13 - ■■T1**		122
	0.58	**0.7**	3 351	1	2 315		**2KJ1426 - ■CD13 - ■■S1**		122
	0.64	**0.77**	3 077	1.1	2 126	★	**2KJ1426 - ■CD13 - ■■R1**		122
	0.7	**0.84**	2 773	1.2	1 916		**2KJ1426 - ■CD13 - ■■Q1**		122
	0.82	**0.98**	2 384	1.4	1 647	★	**2KJ1426 - ■CD13 - ■■P1**		122
	0.88	**1.1**	2 209	1.5	1 526		**2KJ1426 - ■CD13 - ■■N1**		122
	0.98	**1.2**	2 003	1.7	1 384	★	**2KJ1426 - ■CD13 - ■■M1**		122
	1.1	**1.3**	1 825	1.9	1 261		**2KJ1426 - ■CD13 - ■■L1**		122
	1.2	**1.4**	1 669	2	1 153	★	**2KJ1426 - ■CD13 - ■■K1**		122
	FD.88B-Z28-LA71S4								
	0.9	**1.1**	2 178	0.87	1 505	★	**2KJ1422 - ■CD13 - ■■M1**		73
	1	**1.2**	1 926	0.99	1 331		**2KJ1422 - ■CD13 - ■■L1**		73
	1.1	**1.3**	1 779	1.1	1 229	★	**2KJ1422 - ■CD13 - ■■K1**		73
	1.3	**1.6**	1 531	1.2	1 058		**2KJ1422 - ■CD13 - ■■J1**		73
	1.4	**1.7**	1 392	1.4	962	★	**2KJ1422 - ■CD13 - ■■H1**		73
	1.5	**1.8**	1 265	1.5	874	★	**2KJ1422 - ■CD13 - ■■G1**		73
	FD.88B-LA80M8								
	1.7	**2**	1 411	1.3	404.92		**2KJ1404 - ■DC13 - ■■V1**	**P02**	78
	1.9	**2.3**	1 249	1.5	358.33	★	**2KJ1404 - ■DC13 - ■■U1**	**P02**	78
	FD.88B-LA71M6								
	2.1	**2.5**	1 124	1.7	404.92		**2KJ1404 - ■CE13 - ■■V1**	**P01**	74
	2.4	**2.9**	995	1.9	358.33	★	**2KJ1404 - ■CE13 - ■■U1**	**P01**	74
	FD.68B-Z28-LA71S4								
	1.6	**1.9**	1 206	0.83	833		**2KJ1417 - ■CD13 - ■■K1**		43
	1.8	**2.2**	1 113	0.9	769	★	**2KJ1417 - ■CD13 - ■■J1**		43
	2	**2.4**	958	1	662		**2KJ1417 - ■CD13 - ■■H1**		43
	FD.68B-LA80M8								
	2.3	**2.8**	1 032	0.97	296.18	★	**2KJ1403 - ■DC13 - ■■S1**	**P02**	47
	2.6	**3.1**	918	1.1	263.39		**2KJ1403 - ■DC13 - ■■R1**	**P02**	47
	FD.68B-LA71M6								
	2.9	**3.5**	822	1.2	296.18	★	**2KJ1403 - ■CE13 - ■■S1**	**P01**	43
	3.3	**4**	731	1.4	263.39		**2KJ1403 - ■CE13 - ■■R1**	**P01**	43
	3.8	**4.6**	634	1.6	228.48	★	**2KJ1403 - ■CE13 - ■■Q1**	**P01**	43
	4	**4.8**	593	1.7	213.48		**2KJ1403 - ■CE13 - ■■P1**	**P01**	43
	FD.68B-LA71S4								
	4.6	**5.5**	524	1.9	296.18	★	**2KJ1403 - ■CD13 - ■■S1**		43

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
0.25 (50 Hz) 0.3 (60 Hz)	**FD.68B-LA71S4**							
	5.1	**6.1**	466	2.1	263.39	**2KJ1403 - ■CD13 - ■■R1**		43
	FD.48B-LA71M6							
	3.6	**4.3**	663	0.82	238.65	**2KJ1402 - ■CE13 - ■■R1**	**P01**	27
	4.1	**4.9**	581	0.93	209.23 ★	**2KJ1402 - ■CE13 - ■■Q1**	**P01**	27
	4.6	**5.5**	520	1	187.24	**2KJ1402 - ■CE13 - ■■P1**	**P01**	27
	FD.48B-LA71S4							
	5	**6**	475	1.1	268.80 ★	**2KJ1402 - ■CD13 - ■■S1**		27
	5.7	**6.8**	422	1.3	238.65	**2KJ1402 - ■CD13 - ■■R1**		27
	6.5	**7.8**	370	1.5	209.23 ★	**2KJ1402 - ■CD13 - ■■Q1**		27
	7.2	**8.6**	331	1.6	187.24	**2KJ1402 - ■CD13 - ■■P1**		27
	8.1	**9.7**	294	1.8	166.19 ★	**2KJ1402 - ■CD13 - ■■N1**		27
	9.3	**11.2**	258	2.1	145.63	**2KJ1402 - ■CD13 - ■■M1**		27
	FD.38B-LA71S4							
	7.1	**8.5**	338	0.86	191.34 ★	**2KJ1401 - ■CD13 - ■■K1**		20
	7.8	**9.4**	308	0.94	173.94	**2KJ1401 - ■CD13 - ■■J1**		20
	8.8	**10.6**	272	1.1	153.96 ★	**2KJ1401 - ■CD13 - ■■H1**		20
	10.5	**12.6**	228	1.3	128.95	**2KJ1401 - ■CD13 - ■■G1**		20
	12.3	**14.8**	194	1.5	109.95 ★	**2KJ1401 - ■CD13 - ■■F1**		20
	14.4	**17.3**	165	1.8	93.46 ★	**2KJ1401 - ■CD13 - ■■E1**		20
	16.6	**19.9**	144	2	81.22	**2KJ1401 - ■CD13 - ■■D1**		20
	19.1	**23**	125	2.3	70.70 ★	**2KJ1401 - ■CD13 - ■■C1**		20
	FZ.38B-LA71S4							
	24	**29**	100	2.1	56.72 ★	**2KJ1301 - ■CD13 - ■■B2**		19
	FD.28-LA71S4							
	14.5	**17.4**	165	0.91	93.32 ★	**2KJ1400 - ■CD13 - ■■E1**		11
	16.6	**19.9**	143	1	81.10	**2KJ1400 - ■CD13 - ■■D1**		11
	19.1	**23**	125	1.2	70.59 ★	**2KJ1400 - ■CD13 - ■■C1**		11
	21	**25**	113	1.3	63.68	**2KJ1400 - ■CD13 - ■■B1**		11
	24	**29**	99	1.5	56.20	**2KJ1400 - ■CD13 - ■■A1**		11
	FZ.28-LA71S4							
	23	**28**	105	1.4	59.65	**2KJ1300 - ■CD13 - ■■C2**		11
	27	**32**	89	1.7	50.30 ★	**2KJ1300 - ■CD13 - ■■B2**		11
	30	**36**	79	1.9	44.66	**2KJ1300 - ■CD13 - ■■A2**		11
	34	**41**	69	2.2	39.15 ★	**2KJ1300 - ■CD13 - ■■X1**		11
	38	**46**	62	2.4	35.04	**2KJ1300 - ■CD13 - ■■W1**		11
	43	**52**	55	2.7	31.10 ★	**2KJ1300 - ■CD13 - ■■V1**		11
	50	**60**	48	3.1	27.25	**2KJ1300 - ■CD13 - ■■U1**		11
	56	**67**	42	3.5	23.96 ★	**2KJ1300 - ■CD13 - ■■T1**		11
	62	**74**	38	3.9	21.64	**2KJ1300 - ■CD13 - ■■S1**		11
	72	**86**	33	4.5	18.86 ★	**2KJ1300 - ■CD13 - ■■R1**		11
	80	**96**	30	5	16.94	**2KJ1300 - ■CD13 - ■■Q1**		11
	88	**106**	27	5.5	15.29 ★	**2KJ1300 - ■CD13 - ■■P1**		11
	97	**116**	24	6.1	13.87	**2KJ1300 - ■CD13 - ■■N1**		11

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.25 (50 Hz) 0.3 (60 Hz)	**FZ.28-LA71S4**								
	107	**128**	22	6.6	12.62	★	**2KJ1300 - ■CD13 - ■■M1**		11
	121	**145**	20	7.2	11.16		**2KJ1300 - ■CD13 - ■■L1**		11
	131	**157**	18	7.6	10.30	★	**2KJ1300 - ■CD13 - ■■K1**		11
	152	**182**	16	8.4	8.87		**2KJ1300 - ■CD13 - ■■J1**		11
	167	**200**	14	8.9	8.06	★	**2KJ1300 - ■CD13 - ■■H1**		11
	188	**226**	13	9.9	7.20	★	**2KJ1300 - ■CD13 - ■■G1**		11
	207	**248**	12	10.6	6.53		**2KJ1300 - ■CD13 - ■■F1**		11
	227	**272**	10	11.2	5.94	★	**2KJ1300 - ■CD13 - ■■E1**		11
	257	**308**	9	12	5.25		**2KJ1300 - ■CD13 - ■■D1**		11
	278	**334**	9	12.8	4.85	★	**2KJ1300 - ■CD13 - ■■C1**		11
	323	**388**	7	13.4	4.18		**2KJ1300 - ■CD13 - ■■B1**		11
	355	**426**	7	14.3	3.80	★	**2KJ1300 - ■CD13 - ■■A1**		11
0.37 (50 Hz) 0.44 (60 Hz)	**FD.188B-Z48-LA71M4**								
	0.13	**0.16**	23 944	0.84	10 863		**2KJ1438 - ■CE13 - ■■U1**		638
	0.14	**0.17**	21 665	0.92	9 829	★	**2KJ1438 - ■CE13 - ■■T1**		638
	0.15	**0.18**	19 998	1	9 073		**2KJ1438 - ■CE13 - ■■S1**		638
	0.17	**0.2**	17 389	1.2	7 889	★	**2KJ1438 - ■CE13 - ■■R1**		638
	0.19	**0.23**	15 788	1.3	7 163		**2KJ1438 - ■CE13 - ■■Q1**		638
	0.21	**0.25**	14 415	1.4	6 540	★	**2KJ1438 - ■CE13 - ■■P1**		638
	0.23	**0.28**	13 227	1.5	6 001		**2KJ1438 - ■CE13 - ■■N1**		638
	0.25	**0.3**	12 187	1.6	5 529	★	**2KJ1438 - ■CE13 - ■■M1**		638
	0.27	**0.32**	11 067	1.8	5 021		**2KJ1438 - ■CE13 - ■■L1**		638
	0.3	**0.36**	10 082	2	4 574	★	**2KJ1438 - ■CE13 - ■■K1**		638
	FD.168B-Z48-LA71M4								
	0.19	**0.23**	15 872	0.88	7 201	★	**2KJ1435 - ■CE13 - ■■R1**		454
	0.21	**0.25**	14 411	0.97	6 538		**2KJ1435 - ■CE13 - ■■Q1**		454
	0.23	**0.28**	13 159	1.1	5 970	★	**2KJ1435 - ■CE13 - ■■P1**		454
	0.25	**0.3**	12 072	1.2	5 477		**2KJ1435 - ■CE13 - ■■N1**		454
	0.27	**0.32**	11 122	1.3	5 046	★	**2KJ1435 - ■CE13 - ■■M1**		454
	0.3	**0.36**	10 102	1.4	4 583		**2KJ1435 - ■CE13 - ■■L1**		454
	0.33	**0.4**	9 202	1.5	4 175	★	**2KJ1435 - ■CE13 - ■■K1**		454
	0.36	**0.43**	8 431	1.7	3 825		**2KJ1435 - ■CE13 - ■■J1**		454
	0.4	**0.48**	7 523	1.9	3 413	★	**2KJ1435 - ■CE13 - ■■H1**		454
	FD.148B-Z38-LA71M4								
	0.29	**0.35**	10 483	0.86	4 756		**2KJ1432 - ■CE13 - ■■K1**		287
	0.32	**0.38**	9 588	0.94	4 350	★	**2KJ1432 - ■CE13 - ■■J1**		287
	0.35	**0.42**	8 572	1	3 889		**2KJ1432 - ■CE13 - ■■H1**		287
	0.38	**0.46**	7 871	1.1	3 571	★	**2KJ1432 - ■CE13 - ■■G1**		287
	0.43	**0.52**	7 095	1.3	3 219		**2KJ1432 - ■CE13 - ■■F1**		287
	0.5	**0.6**	6 101	1.5	2 768	★	**2KJ1432 - ■CE13 - ■■E1**		287
	0.56	**0.67**	5 440	1.7	2 468		**2KJ1432 - ■CE13 - ■■D1**		287
	0.6	**0.72**	4 995	1.8	2 266	★	**2KJ1432 - ■CE13 - ■■C1**		287
	0.67	**0.8**	4 503	2	2 043		**2KJ1432 - ■CE13 - ■■B1**		287

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.37 (50 Hz) 0.44 (60 Hz)	**FD.128B-Z38-LA71M4**								
	0.4	**0.48**	7 593	0.8	3 445	★	**2KJ1428 - ■CE13 - ■■G1**		197
	0.44	**0.53**	6 844	0.89	3 105		**2KJ1428 - ■CE13 - ■■F1**		197
	0.51	**0.61**	5 885	1	2 670	★	**2KJ1428 - ■CE13 - ■■E1**		197
	0.57	**0.68**	5 248	1.2	2 381		**2KJ1428 - ■CE13 - ■■D1**		197
	0.63	**0.76**	4 818	1.3	2 186	★	**2KJ1428 - ■CE13 - ■■C1**		197
	0.7	**0.84**	4 342	1.4	1 970		**2KJ1428 - ■CE13 - ■■B1**		197
	0.81	**0.97**	3 734	1.6	1 694	★	**2KJ1428 - ■CE13 - ■■A1**		197
	FD.128B-Z48-LA71M4								
	0.91	**1.1**	3 315	1.8	1 504		**2KJ1431 - ■CE13 - ■■L1**		206
	1	**1.2**	3 020	2	1 370	★	**2KJ1431 - ■CE13 - ■■K1**		206
	FD.108B-Z38-LA71M4								
	0.72	**0.86**	4 223	0.81	1 916		**2KJ1426 - ■CE13 - ■■Q1**		122
	0.83	**1**	3 630	0.94	1 647	★	**2KJ1426 - ■CE13 - ■■P1**		122
	0.9	**1.1**	3 364	1	1 526		**2KJ1426 - ■CE13 - ■■N1**		122
	0.99	**1.2**	3 051	1.1	1 384	★	**2KJ1426 - ■CE13 - ■■M1**		122
	1.1	**1.3**	2 779	1.2	1 261		**2KJ1426 - ■CE13 - ■■L1**		122
	1.2	**1.4**	2 541	1.3	1 153	★	**2KJ1426 - ■CE13 - ■■K1**		122
	1.3	**1.6**	2 272	1.5	1 031		**2KJ1426 - ■CE13 - ■■J1**		122
	1.4	**1.7**	2 087	1.6	947	★	**2KJ1426 - ■CE13 - ■■H1**		122
	FD.108B-LA90SA8								
	1.6	**1.9**	2 222	1.5	424.49	★	**2KJ1405 - ■EB13 - ■■V1**	**P02**	128
	1.8	**2.2**	2 004	1.7	382.79		**2KJ1405 - ■EB13 - ■■U1**	**P02**	128
	2	**2.4**	1 807	1.9	345.19	★	**2KJ1405 - ■EB13 - ■■T1**	**P02**	128
	FD.88B-Z28-LA71M4								
	1.3	**1.6**	2 332	0.81	1 058		**2KJ1422 - ■CE13 - ■■J1**		73
	1.4	**1.7**	2 120	0.9	962	★	**2KJ1422 - ■CE13 - ■■H1**		73
	1.6	**1.9**	1 926	0.99	874	★	**2KJ1422 - ■CE13 - ■■G1**		73
	FD.88B-LA90SA8								
	1.9	**2.3**	1 876	1	358.33	★	**2KJ1404 - ■EB13 - ■■U1**	**P02**	81
	FD.88B-LA80S6								
	2.3	**2.8**	1 555	1.2	404.92		**2KJ1404 - ■DB13 - ■■V1**	**P01**	78
	2.6	**3.1**	1 376	1.4	358.33	★	**2KJ1404 - ■DB13 - ■■U1**	**P01**	78
	2.8	**3.4**	1 251	1.5	325.76		**2KJ1404 - ■DB13 - ■■T1**	**P01**	78
	3.1	**3.7**	1 124	1.7	292.64	★	**2KJ1404 - ■DB13 - ■■S1**	**P01**	78
	FD.88B-LA71M4								
	3.4	**4.1**	1 044	1.8	404.92		**2KJ1404 - ■CE13 - ■■V1**		74
	FD.68B-LA80S6								
	3.1	**3.7**	1 138	0.88	296.18	★	**2KJ1403 - ■DB13 - ■■S1**	**P01**	47
	3.5	**4.2**	1 012	0.99	263.39		**2KJ1403 - ■DB13 - ■■R1**	**P01**	47
	4	**4.8**	878	1.1	228.48	★	**2KJ1403 - ■DB13 - ■■Q1**	**P01**	47
	4.3	**5.2**	820	1.2	213.48		**2KJ1403 - ■DB13 - ■■P1**	**P01**	47
	FD.68B-LA71M4								
	4.6	**5.5**	764	1.3	296.18	★	**2KJ1403 - ■CE13 - ■■S1**		43

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
0.37 (50 Hz) 0.44 (60 Hz)	**FD.68B-LA71M4**							
	5.2	**6.2**	679	1.5	263.39	**2KJ1403 - ■CE13 - ■■R1**		43
	6	**7.2**	589	1.7	228.48 ★	**2KJ1403 - ■CE13 - ■■Q1**		43
	6.4	**7.7**	551	1.8	213.48	**2KJ1403 - ■CE13 - ■■P1**		43
	7.3	**8.8**	484	2.1	187.76 ★	**2KJ1403 - ■CE13 - ■■N1**		43
	FD.48B-LA71M4							
	5.7	**6.8**	616	0.88	238.65	**2KJ1402 - ■CE13 - ■■R1**		27
	6.5	**7.8**	540	1	209.23 ★	**2KJ1402 - ■CE13 - ■■Q1**		27
	7.3	**8.8**	483	1.1	187.24	**2KJ1402 - ■CE13 - ■■P1**		27
	8.2	**9.8**	429	1.3	166.19 ★	**2KJ1402 - ■CE13 - ■■N1**		27
	9.4	**11.3**	376	1.4	145.63	**2KJ1402 - ■CE13 - ■■M1**		27
	10.7	**12.8**	330	1.6	128.04 ★	**2KJ1402 - ■CE13 - ■■L1**		27
	11.8	**14.2**	298	1.8	115.68	**2KJ1402 - ■CE13 - ■■K1**		27
	13.6	**16.3**	260	2.1	100.80 ★	**2KJ1402 - ■CE13 - ■■J1**		27
	FD.38B-LA71M4							
	10.6	**12.7**	333	0.87	128.95	**2KJ1401 - ■CE13 - ■■G1**		20
	12.5	**15**	284	1	109.95 ★	**2KJ1401 - ■CE13 - ■■F1**		20
	14.7	**17.6**	241	1.2	93.46 ★	**2KJ1401 - ■CE13 - ■■E1**		20
	16.9	**20**	209	1.4	81.22	**2KJ1401 - ■CE13 - ■■D1**		20
	19.4	**23**	182	1.6	70.70 ★	**2KJ1401 - ■CE13 - ■■C1**		20
	22	**26**	164	1.8	63.77	**2KJ1401 - ■CE13 - ■■B1**		20
	24	**29**	145	2	56.28	**2KJ1401 - ■CE13 - ■■A1**		20
	FZ.38B-LA71M4							
	24	**29**	146	1.4	56.72 ★	**2KJ1301 - ■CE13 - ■■B2**		19
	27	**32**	130	1.8	50.44	**2KJ1301 - ■CE13 - ■■A2**		19
	31	**37**	113	2.2	43.75 ★	**2KJ1301 - ■CE13 - ■■X1**		19
	34	**41**	105	2.6	40.88	**2KJ1301 - ■CE13 - ■■W1**		19
	FD.28-LA71M4							
	19.4	**23**	182	0.82	70.59 ★	**2KJ1400 - ■CE13 - ■■C1**		11
	22	**26**	164	0.91	63.68	**2KJ1400 - ■CE13 - ■■B1**		11
	24	**29**	145	1	56.20	**2KJ1400 - ■CE13 - ■■A1**		11
	FZ.28-LA71M4							
	23	**28**	154	0.97	59.65	**2KJ1300 - ■CE13 - ■■C2**		11
	27	**32**	130	1.2	50.30 ★	**2KJ1300 - ■CE13 - ■■B2**		11
	31	**37**	115	1.3	44.66	**2KJ1300 - ■CE13 - ■■A2**		11
	35	**42**	101	1.5	39.15 ★	**2KJ1300 - ■CE13 - ■■X1**		11
	39	**47**	90	1.7	35.04	**2KJ1300 - ■CE13 - ■■W1**		11
	44	**53**	80	1.9	31.10 ★	**2KJ1300 - ■CE13 - ■■V1**		11
	50	**60**	70	2.1	27.25	**2KJ1300 - ■CE13 - ■■U1**		11
	57	**68**	62	2.4	23.96 ★	**2KJ1300 - ■CE13 - ■■T1**		11
	63	**76**	56	2.7	21.64	**2KJ1300 - ■CE13 - ■■S1**		11
	73	**88**	49	3.1	18.86 ★	**2KJ1300 - ■CE13 - ■■R1**		11
0.55 (50 Hz) 0.66 (60 Hz)	**FD.188B-Z48-LA71ZMP4**							
	0.19	**0.23**	24 147	0.83	7 163	**2KJ1438 - ■CG13 - ■■Q1**		638

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.55 (50 Hz) 0.66 (60 Hz)	**FD.188B-Z48-LA71ZMP4**								
	0.21	**0.25**	22 047	0.91	6 540	★	**2KJ1438 - ■CG13 - ■■P1**		638
	0.23	**0.28**	20 230	0.99	6 001		**2KJ1438 - ■CG13 - ■■N1**		638
	0.25	**0.3**	18 639	1.1	5 529	★	**2KJ1438 - ■CG13 - ■■M1**		638
	0.27	**0.32**	16 926	1.2	5 021		**2KJ1438 - ■CG13 - ■■L1**		638
	0.3	**0.36**	15 419	1.3	4 574	★	**2KJ1438 - ■CG13 - ■■K1**		638
	0.33	**0.4**	14 125	1.4	4 190		**2KJ1438 - ■CG13 - ■■J1**		638
	0.37	**0.44**	12 604	1.6	3 739	★	**2KJ1438 - ■CG13 - ■■H1**		638
	FD.168B-Z48-LA71ZMP4								
	0.27	**0.32**	17 010	0.82	5 046	★	**2KJ1435 - ■CG13 - ■■M1**		454
	0.3	**0.36**	15 450	0.91	4 583		**2KJ1435 - ■CG13 - ■■L1**		454
	0.33	**0.4**	14 074	0.99	4 175	★	**2KJ1435 - ■CG13 - ■■K1**		454
	0.36	**0.43**	12 894	1.1	3 825		**2KJ1435 - ■CG13 - ■■J1**		454
	0.4	**0.48**	11 505	1.2	3 413	★	**2KJ1435 - ■CG13 - ■■H1**		454
	0.65	**0.78**	7 143	2	2 119	★	**2KJ1435 - ■CG13 - ■■D1**		454
	FD.148B-Z48-LA71ZMP4								
	0.84	**1**	5 508	1.6	1 634		**2KJ1434 - ■CG13 - ■■K1**		296
	0.92	**1.1**	5 020	1.8	1 489	★	**2KJ1434 - ■CG13 - ■■J1**		296
	1	**1.2**	4 598	2	1 364		**2KJ1434 - ■CG13 - ■■H1**		296
	FD.148B-Z38-LA71ZMP4								
	0.43	**0.52**	10 852	0.83	3 219		**2KJ1432 - ■CG13 - ■■F1**		287
	0.5	**0.6**	9 331	0.96	2 768	★	**2KJ1432 - ■CG13 - ■■E1**		287
	0.56	**0.67**	8 320	1.1	2 468		**2KJ1432 - ■CG13 - ■■D1**		287
	0.6	**0.72**	7 639	1.2	2 266	★	**2KJ1432 - ■CG13 - ■■C1**		287
	0.67	**0.8**	6 887	1.3	2 043		**2KJ1432 - ■CG13 - ■■B1**		287
	0.78	**0.94**	5 923	1.5	1 757	★	**2KJ1432 - ■CG13 - ■■A1**		287
	FD.128B-Z48-LA71ZMP4								
	0.91	**1.1**	5 070	1.2	1 504		**2KJ1431 - ■CG13 - ■■L1**		206
	1	**1.2**	4 618	1.3	1 370	★	**2KJ1431 - ■CG13 - ■■K1**		206
	1.1	**1.3**	4 231	1.4	1 255		**2KJ1431 - ■CG13 - ■■J1**		206
	1.2	**1.4**	3 776	1.6	1 120	★	**2KJ1431 - ■CG13 - ■■H1**		206
	FD.128B-Z38-LA71ZMP4								
	0.63	**0.76**	7 369	0.83	2 186	★	**2KJ1428 - ■CG13 - ■■C1**		197
	0.7	**0.84**	6 641	0.92	1 970		**2KJ1428 - ■CG13 - ■■B1**		197
	0.81	**0.97**	5 711	1.1	1 694	★	**2KJ1428 - ■CG13 - ■■A1**		197
	FD.128B-LA90LA8								
	1.5	**1.8**	3 486	1.7	447.96		**2KJ1406 - ■EE13 - ■■V1**	**P02**	212
	1.7	**2**	3 155	1.9	405.47	★	**2KJ1406 - ■EE13 - ■■U1**	**P02**	212
	FD.108B-Z38-LA71ZMP4								
	1.1	**1.3**	4 251	0.8	1 261		**2KJ1426 - ■CG13 - ■■L1**		122
	1.2	**1.4**	3 887	0.87	1 153	★	**2KJ1426 - ■CG13 - ■■K1**		122
	1.3	**1.6**	3 476	0.98	1 031		**2KJ1426 - ■CG13 - ■■J1**		122
	1.4	**1.7**	3 192	1.1	947	★	**2KJ1426 - ■CG13 - ■■H1**		122

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
0.55 (50 Hz) 0.66 (60 Hz)	**FD.108B-LA90LA8**							
	1.6	**1.9**	3 303	1	424.49 ★	**2KJ1405 - ■EE13 - ■■V1**	**P02**	131
	1.8	**2.2**	2 979	1.1	382.79	**2KJ1405 - ■EE13 - ■■U1**	**P02**	131
	2	**2.4**	2 686	1.3	345.19 ★	**2KJ1405 - ■EE13 - ■■T1**	**P02**	131
	FD.108B-LA80M6							
	2.1	**2.5**	2 450	1.4	424.49 ★	**2KJ1405 - ■DC13 - ■■V1**	**P01**	125
	2.4	**2.9**	2 209	1.5	382.79	**2KJ1405 - ■DC13 - ■■U1**	**P01**	125
	2.6	**3.1**	1 992	1.7	345.19 ★	**2KJ1405 - ■DC13 - ■■T1**	**P01**	125
	3	**3.6**	1 742	2	301.88	**2KJ1405 - ■DC13 - ■■S1**	**P01**	125
	FD.88B-LA80M6							
	2.2	**2.6**	2 337	0.81	404.92	**2KJ1404 - ■DC13 - ■■V1**	**P01**	78
	2.5	**3**	2 068	0.92	358.33 ★	**2KJ1404 - ■DC13 - ■■U1**	**P01**	78
	2.8	**3.4**	1 880	1	325.76	**2KJ1404 - ■DC13 - ■■T1**	**P01**	78
	3.1	**3.7**	1 689	1.1	292.64 ★	**2KJ1404 - ■DC13 - ■■S1**	**P01**	78
	FD.88B-LA71ZMP4							
	3.4	**4.1**	1 552	1.2	404.92	**2KJ1404 - ■CG13 - ■■V1**		74
	3.8	**4.6**	1 374	1.4	358.33 ★	**2KJ1404 - ■CG13 - ■■U1**		74
	4.2	**5**	1 249	1.5	325.76	**2KJ1404 - ■CG13 - ■■T1**		74
	4.7	**5.6**	1 122	1.7	292.64 ★	**2KJ1404 - ■CG13 - ■■S1**		74
	5.5	**6.6**	962	2	250.83	**2KJ1404 - ■CG13 - ■■R1**		74
	FD.68B-LA80M6							
	4.3	**5.2**	1 232	0.81	213.48	**2KJ1403 - ■DC13 - ■■P1**	**P01**	47
	FD.68B-LA71ZMP4							
	4.6	**5.5**	1 136	0.88	296.18 ★	**2KJ1403 - ■CG13 - ■■S1**		43
	5.2	**6.2**	1 010	0.99	263.39	**2KJ1403 - ■CG13 - ■■R1**		43
	6	**7.2**	876	1.1	228.48 ★	**2KJ1403 - ■CG13 - ■■Q1**		43
	6.4	**7.7**	818	1.2	213.48	**2KJ1403 - ■CG13 - ■■P1**		43
	7.3	**8.8**	720	1.4	187.76 ★	**2KJ1403 - ■CG13 - ■■N1**		43
	8.3	**10**	630	1.6	164.44	**2KJ1403 - ■CG13 - ■■M1**		43
	9.4	**11.3**	558	1.8	145.44 ★	**2KJ1403 - ■CG13 - ■■L1**		43
	10.4	**12.5**	505	2	131.82	**2KJ1403 - ■CG13 - ■■K1**		43
	11.8	**14.2**	446	2.2	116.36 ★	**2KJ1403 - ■CG13 - ■■J1**		43
	FD.48B-LA71ZMP4							
	8.2	**9.8**	637	0.85	166.19 ★	**2KJ1402 - ■CG13 - ■■N1**		27
	9.4	**11.3**	558	0.97	145.63	**2KJ1402 - ■CG13 - ■■M1**		27
	10.7	**12.8**	491	1.1	128.04 ★	**2KJ1402 - ■CG13 - ■■L1**		27
	11.8	**14.2**	444	1.2	115.68	**2KJ1402 - ■CG13 - ■■K1**		27
	13.6	**16.3**	386	1.4	100.80 ★	**2KJ1402 - ■CG13 - ■■J1**		27
	15.1	**18.1**	347	1.6	90.53	**2KJ1402 - ■CG13 - ■■H1**		27
	16.8	**20**	313	1.7	81.73 ★	**2KJ1402 - ■CG13 - ■■G1**		27
	18.5	**22**	284	1.9	74.10	**2KJ1402 - ■CG13 - ■■F1**		27
	20	**24**	259	2.1	67.43 ★	**2KJ1402 - ■CG13 - ■■E1**		27
	23	**28**	229	2.4	59.62	**2KJ1402 - ■CG13 - ■■D1**		27

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
0.55 (50 Hz) 0.66 (60 Hz)	**FZ.48B-LA71ZMP4**							
	23	**28**	233	1.7	60.71 ★	**2KJ1302 - ■CG13 - ■■B2**		27
	25	**30**	212	2.4	55.19	**2KJ1302 - ■CG13 - ■■A2**		27
	FD.38B-LA71ZMP4							
	14.7	**17.6**	358	0.81	93.46 ★	**2KJ1401 - ■CG13 - ■■E1**		20
	16.9	**20**	311	0.93	81.22	**2KJ1401 - ■CG13 - ■■D1**		20
	19.4	**23**	271	1.1	70.70 ★	**2KJ1401 - ■CG13 - ■■C1**		20
	22	**26**	244	1.2	63.77	**2KJ1401 - ■CG13 - ■■B1**		20
	24	**29**	216	1.3	56.28	**2KJ1401 - ■CG13 - ■■A1**		20
	FZ.38B-LA71ZMP4							
	24	**29**	217	0.97	56.72 ★	**2KJ1301 - ■CG13 - ■■B2**		19
	27	**32**	193	1.2	50.44	**2KJ1301 - ■CG13 - ■■A2**		19
	31	**37**	168	1.5	43.75 ★	**2KJ1301 - ■CG13 - ■■X1**		19
	34	**41**	157	1.8	40.88	**2KJ1301 - ■CG13 - ■■W1**		19
	38	**46**	138	2.1	35.96 ★	**2KJ1301 - ■CG13 - ■■V1**		19
	44	**53**	121	2.4	31.49	**2KJ1301 - ■CG13 - ■■U1**		19
	49	**59**	107	2.7	27.85 ★	**2KJ1301 - ■CG13 - ■■T1**		19
	FZ.28-LA71ZMP4							
	31	**37**	171	0.88	44.66	**2KJ1300 - ■CG13 - ■■A2**		11
	35	**42**	150	1	39.15 ★	**2KJ1300 - ■CG13 - ■■X1**		11
	39	**47**	134	1.1	35.04	**2KJ1300 - ■CG13 - ■■W1**		11
	44	**53**	119	1.3	31.10 ★	**2KJ1300 - ■CG13 - ■■V1**		11
	50	**60**	104	1.4	27.25	**2KJ1300 - ■CG13 - ■■U1**		11
	57	**68**	92	1.6	23.96 ★	**2KJ1300 - ■CG13 - ■■T1**		11
	63	**76**	83	1.8	21.64	**2KJ1300 - ■CG13 - ■■S1**		11
	73	**88**	72	2.1	18.86 ★	**2KJ1300 - ■CG13 - ■■R1**		11
	81	**97**	65	2.3	16.94	**2KJ1300 - ■CG13 - ■■Q1**		11
	90	**108**	59	2.6	15.29 ★	**2KJ1300 - ■CG13 - ■■P1**		11
	99	**119**	53	2.8	13.87	**2KJ1300 - ■CG13 - ■■N1**		11
	109	**131**	48	3.1	12.62 ★	**2KJ1300 - ■CG13 - ■■M1**		11
	123	**148**	43	3.3	11.16	**2KJ1300 - ■CG13 - ■■L1**		11
	133	**160**	40	3.5	10.30 ★	**2KJ1300 - ■CG13 - ■■K1**		11
	154	**185**	34	3.9	8.87	**2KJ1300 - ■CG13 - ■■J1**		11
	170	**204**	31	4.1	8.06 ★	**2KJ1300 - ■CG13 - ■■H1**		11
0.75 (50 Hz) 0.90 (60 Hz)	**FD.188B-Z48-LA80M4**							
	0.28	**0.34**	23 016	0.87	5 021	**2KJ1438 - ■DC13 - ■■L1**		642
	0.3	**0.36**	20 967	0.95	4 574 ★	**2KJ1438 - ■DC13 - ■■K1**		642
	0.33	**0.4**	19 207	1	4 190	**2KJ1438 - ■DC13 - ■■J1**		642
	0.37	**0.44**	17 140	1.2	3 739 ★	**2KJ1438 - ■DC13 - ■■H1**		642
	0.42	**0.5**	15 297	1.3	3 337	**2KJ1438 - ■DC13 - ■■G1**		642
	0.49	**0.59**	12 991	1.5	2 834	**2KJ1438 - ■DC13 - ■■F1**		642
	0.59	**0.71**	10 814	1.8	2 359 ★	**2KJ1438 - ■DC13 - ■■E1**		642
	0.6	**0.72**	10 644	1.9	2 322 ★	**2KJ1438 - ■DC13 - ■■D1**		642

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio		Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}			(No. of poles)	kg
0.75 (50 Hz) 0.90 (60 Hz)	**FD.168B-Z48-LA80M4**								
	0.36	**0.43**	17 534	0.8	3 825		**2KJ1435 - ■DC13 - ■■J1**		458
	0.41	**0.49**	15 645	0.89	3 413	★	**2KJ1435 - ■DC13 - ■■H1**		458
	0.46	**0.55**	13 963	1	3 046		**2KJ1435 - ■DC13 - ■■G1**		458
	0.54	**0.65**	11 859	1.2	2 587		**2KJ1435 - ■DC13 - ■■F1**		458
	0.65	**0.78**	9 869	1.4	2 153	★	**2KJ1435 - ■DC13 - ■■E1**		458
	0.66	**0.79**	9 713	1.4	2 119	★	**2KJ1435 - ■DC13 - ■■D1**		458
	0.74	**0.89**	8 668	1.6	1 891		**2KJ1435 - ■DC13 - ■■C1**		458
	0.87	**1**	7 362	1.9	1 606		**2KJ1435 - ■DC13 - ■■B1**		458
	FD.148B-Z38-LA80M4								
	0.56	**0.67**	11 313	0.8	2 468		**2KJ1432 - ■DC13 - ■■D1**		291
	0.62	**0.74**	10 387	0.87	2 266	★	**2KJ1432 - ■DC13 - ■■C1**		291
	0.68	**0.82**	9 365	0.96	2 043		**2KJ1432 - ■DC13 - ■■B1**		291
	0.79	**0.95**	8 054	1.1	1 757	★	**2KJ1432 - ■DC13 - ■■A1**		291
	FD.148B-Z48-LA80M4								
	0.85	**1**	7 490	1.2	1 634		**2KJ1434 - ■DC13 - ■■K1**		300
	0.94	**1.1**	6 826	1.3	1 489	★	**2KJ1434 - ■DC13 - ■■J1**		300
	1	**1.2**	6 253	1.4	1 364		**2KJ1434 - ■DC13 - ■■H1**		300
	1.1	**1.3**	5 579	1.6	1 217	★	**2KJ1434 - ■DC13 - ■■G1**		300
	1.3	**1.6**	4 978	1.8	1 086		**2KJ1434 - ■DC13 - ■■F1**		300
	FD.148B-LA100LA8								
	1.5	**1.8**	4 732	1.9	449.21	★	**2KJ1407 - ■FB13 - ■■U1**	**P02**	316
	FD.128B-Z48-LA80M4								
	0.93	**1.1**	6 894	0.88	1 504		**2KJ1431 - ■DC13 - ■■L1**		210
	1	**1.2**	6 280	0.97	1 370	★	**2KJ1431 - ■DC13 - ■■K1**		210
	1.1	**1.3**	5 753	1.1	1 255		**2KJ1431 - ■DC13 - ■■J1**		210
	1.2	**1.4**	5 134	1.2	1 120	★	**2KJ1431 - ■DC13 - ■■H1**		210
	1.4	**1.7**	4 579	1.3	999		**2KJ1431 - ■DC13 - ■■G1**		210
	FD.128B-LA100LA8								
	1.9	**2.3**	3 739	1.6	354.99		**2KJ1406 - ■FB13 - ■■T1**	**P02**	220
	FD.128B-LA90S6								
	2	**2.4**	3 507	1.7	447.96		**2KJ1406 - ■EC13 - ■■V1**	**P01**	209
	2.3	**2.8**	3 174	1.9	405.47	★	**2KJ1406 - ■EC13 - ■■U1**	**P01**	209
	FD.108B-LA90S6								
	2.2	**2.6**	3 323	1	424.49	★	**2KJ1405 - ■EC13 - ■■V1**	**P01**	128
	2.4	**2.9**	2 996	1.1	382.79		**2KJ1405 - ■EC13 - ■■U1**	**P01**	128
	2.7	**3.2**	2 702	1.3	345.19	★	**2KJ1405 - ■EC13 - ■■T1**	**P01**	128
	3	**3.6**	2 363	1.4	301.88		**2KJ1405 - ■EC13 - ■■S1**	**P01**	128
	FD.108B-LA80M4								
	3.3	**4**	2 180	1.6	424.49	★	**2KJ1405 - ■DC13 - ■■V1**		125
	3.6	**4.3**	1 965	1.7	382.79		**2KJ1405 - ■DC13 - ■■U1**		125
	4	**4.8**	1 772	1.9	345.19	★	**2KJ1405 - ■DC13 - ■■T1**		125
	FD.88B-LA90S6								
	3.1	**3.7**	2 291	0.83	292.64	★	**2KJ1404 - ■EC13 - ■■S1**	**P01**	81

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
0.75 (50 Hz) 0.90 (60 Hz)	**FD.88B-LA80M4**							
	3.4	**4.1**	2 079	0.91	404.92	**2KJ1404 - ■DC13 - ■■V1**		78
	3.9	**4.7**	1 840	1	358.33 ★	**2KJ1404 - ■DC13 - ■■U1**		78
	4.3	**5.2**	1 673	1.1	325.76	**2KJ1404 - ■DC13 - ■■T1**		78
	4.8	**5.8**	1 503	1.3	292.64 ★	**2KJ1404 - ■DC13 - ■■S1**		78
	5.6	**6.7**	1 288	1.5	250.83	**2KJ1404 - ■DC13 - ■■R1**		78
	6.1	**7.3**	1 165	1.6	226.94 ★	**2KJ1404 - ■DC13 - ■■P1**		78
	6.7	**8**	1 076	1.8	209.49	**2KJ1404 - ■DC13 - ■■N1**		78
	7.7	**9.2**	935	2	182.15 ★	**2KJ1404 - ■DC13 - ■■M1**		78
	FD.68B-LA80M4							
	6.1	**7.3**	1 173	0.85	228.48 ★	**2KJ1403 - ■DC13 - ■■Q1**		47
	6.5	**7.8**	1 096	0.91	213.48	**2KJ1403 - ■DC13 - ■■P1**		47
	7.4	**8.9**	964	1	187.76 ★	**2KJ1403 - ■DC13 - ■■N1**		47
	8.5	**10.2**	844	1.2	164.44	**2KJ1403 - ■DC13 - ■■M1**		47
	9.6	**11.5**	747	1.3	145.44 ★	**2KJ1403 - ■DC13 - ■■L1**		47
	10.6	**12.7**	677	1.5	131.82	**2KJ1403 - ■DC13 - ■■K1**		47
	12	**14.4**	597	1.7	116.36 ★	**2KJ1403 - ■DC13 - ■■J1**		47
	13.3	**16**	539	1.9	104.96	**2KJ1403 - ■DC13 - ■■H1**		47
	14.7	**17.6**	489	2	95.20 ★	**2KJ1403 - ■DC13 - ■■G1**		47
	16.1	**19.3**	445	2.2	86.74	**2KJ1403 - ■DC13 - ■■F1**		47
	FD.48B-LA80M4							
	10.9	**13.1**	657	0.82	128.04 ★	**2KJ1402 - ■DC13 - ■■L1**		31
	12.1	**14.5**	594	0.91	115.68	**2KJ1402 - ■DC13 - ■■K1**		31
	13.8	**16.6**	518	1	100.80 ★	**2KJ1402 - ■DC13 - ■■J1**		31
	15.4	**18.5**	465	1.2	90.53	**2KJ1402 - ■DC13 - ■■H1**		31
	17.1	**21**	420	1.3	81.73 ★	**2KJ1402 - ■DC13 - ■■G1**		31
	18.8	**23**	380	1.4	74.10	**2KJ1402 - ■DC13 - ■■F1**		31
	21	**25**	346	1.6	67.43 ★	**2KJ1402 - ■DC13 - ■■E1**		31
	23	**28**	306	1.8	59.62	**2KJ1402 - ■DC13 - ■■D1**		31
	25	**30**	283	1.9	55.06 ★	**2KJ1402 - ■DC13 - ■■C1**		31
	29	**35**	243	2.2	47.40	**2KJ1402 - ■DC13 - ■■B1**		31
	32	**38**	221	2.4	43.09 ★	**2KJ1402 - ■DC13 - ■■A1**		31
	FZ.48B-LA80M4							
	23	**28**	312	1.3	60.71 ★	**2KJ1302 - ■DC13 - ■■B2**		31
	25	**30**	283	1.8	55.19	**2KJ1302 - ■DC13 - ■■A2**		31
	28	**34**	255	2.1	49.58 ★	**2KJ1302 - ■DC13 - ■■X1**		31
	33	**40**	218	2.5	42.50	**2KJ1302 - ■DC13 - ■■W1**		31
	FD.38B-LA80M4							
	19.7	**24**	363	0.8	70.70 ★	**2KJ1401 - ■DC13 - ■■C1**		24
	22	**26**	327	0.89	63.77	**2KJ1401 - ■DC13 - ■■B1**		24
	25	**30**	289	1	56.28	**2KJ1401 - ■DC13 - ■■A1**		24
	FZ.38B-LA80M4							
	28	**34**	259	0.89	50.44	**2KJ1301 - ■DC13 - ■■A2**		23
	32	**38**	225	1.1	43.75 ★	**2KJ1301 - ■DC13 - ■■X1**		23

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
0.75 (50 Hz) 0.90 (60 Hz)	**FZ.38B-LA80M4**								
	34	**41**	210	1.3	40.88		**2KJ1301 - ■DC13 - ■■W1**		23
	39	**47**	185	1.6	35.96	★	**2KJ1301 - ■DC13 - ■■V1**		23
	44	**53**	162	1.8	31.49		**2KJ1301 - ■DC13 - ■■U1**		23
	50	**60**	143	2	27.85	★	**2KJ1301 - ■DC13 - ■■T1**		23
	55	**66**	130	2.2	25.24		**2KJ1301 - ■DC13 - ■■S1**		23
	63	**76**	114	2.5	22.28	★	**2KJ1301 - ■DC13 - ■■R1**		23
	69	**83**	103	2.8	20.10		**2KJ1301 - ■DC13 - ■■Q1**		23
	76	**91**	94	3.1	18.23	★	**2KJ1301 - ■DC13 - ■■P1**		23
	FD.28-LA71ZMD4								
	43	**52**	167	0.9	31.10	★	**2KJ1300 - ■CH13 - ■■V1**		11
	49	**59**	147	1	27.25		**2KJ1300 - ■CH13 - ■■U1**		11
	56	**67**	129	1.2	23.96	★	**2KJ1300 - ■CH13 - ■■T1**		11
	62	**74**	117	1.3	21.64		**2KJ1300 - ■CH13 - ■■S1**		11
	70	**84**	102	1.5	18.86	★	**2KJ1300 - ■CH13 - ■■R1**		11
	78	**94**	91	1.6	16.94		**2KJ1300 - ■CH13 - ■■Q1**		11
	87	**104**	82	1.8	15.29	★	**2KJ1300 - ■CH13 - ■■P1**		11
	96	**115**	75	2	13.87		**2KJ1300 - ■CH13 - ■■N1**		11
	105	**126**	68	2.2	12.62	★	**2KJ1300 - ■CH13 - ■■M1**		11
	119	**143**	60	2.4	11.16		**2KJ1300 - ■CH13 - ■■L1**		11
	129	**155**	56	2.5	10.30	★	**2KJ1300 - ■CH13 - ■■K1**		11
	150	**180**	48	2.7	8.87		**2KJ1300 - ■CH13 - ■■J1**		11
	165	**198**	43	2.9	8.06	★	**2KJ1300 - ■CH13 - ■■H1**		11
	185	**222**	39	3.2	7.20	★	**2KJ1300 - ■CH13 - ■■G1**		11
	204	**245**	35	3.5	6.53		**2KJ1300 - ■CH13 - ■■F1**		11
	224	**269**	32	3.7	5.94	★	**2KJ1300 - ■CH13 - ■■E1**		11
	253	**304**	28	3.9	5.25		**2KJ1300 - ■CH13 - ■■D1**		11
	274	**329**	26	4.2	4.85	★	**2KJ1300 - ■CH13 - ■■C1**		11
	318	**382**	22	4.4	4.18		**2KJ1300 - ■CH13 - ■■B1**		11
	350	**420**	20	4.7	3.80	★	**2KJ1300 - ■CH13 - ■■A1**		11
1.1 (50 Hz) 1.3 (60 Hz)	**FD.188B-Z48-LA90S4**								
	0.38	**0.46**	25 111	0.8	3 739	★	**2KJ1438 - ■EL13 - ■■H1**		645
	0.42	**0.5**	22 411	0.89	3 337		**2KJ1438 - ■EL13 - ■■G1**		645
	0.5	**0.6**	19 033	1.1	2 834		**2KJ1438 - ■EL13 - ■■F1**		645
	0.6	**0.72**	15 843	1.3	2 359	★	**2KJ1438 - ■EL13 - ■■E1**		645
	0.61	**0.73**	15 595	1.3	2 322	★	**2KJ1438 - ■EL13 - ■■D1**		645
	0.68	**0.82**	13 916	1.4	2 072		**2KJ1438 - ■EL13 - ■■C1**		645
	0.8	**0.96**	11 820	1.7	1 760		**2KJ1438 - ■EL13 - ■■B1**		645
	0.97	**1.2**	9 839	2	1 465	★	**2KJ1438 - ■EL13 - ■■A1**		645
	FD.168B-Z48-LA90S4								
	0.55	**0.66**	17 374	0.81	2 587		**2KJ1435 - ■EL13 - ■■F1**		461
	0.66	**0.79**	14 460	0.97	2 153	★	**2KJ1435 - ■EL13 - ■■E1**		461
	0.67	**0.8**	14 231	0.98	2 119	★	**2KJ1435 - ■EL13 - ■■D1**		461
	0.75	**0.9**	12 700	1.1	1 891		**2KJ1435 - ■EL13 - ■■C1**		461

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
1.1 (50 Hz) 1.3 (60 Hz)	**FD.168B-Z48-LA90S4**								
	0.88	**1.1**	10 786	1.3	1 606		**2KJ1435 - ■EL13 - ■■B1**		461
	1.1	**1.3**	8 979	1.6	1 337	★	**2KJ1435 - ■EL13 - ■■A1**		461
	FD.168B-Z68-LA90S4								
	1.1	**1.3**	8 717	1.6	1 298		**2KJ1437 - ■EL13 - ■■H1**		478
	1.3	**1.6**	7 441	1.9	1 108	★	**2KJ1437 - ■EL13 - ■■G1**		478
	FD.148B-Z48-LA90S4								
	0.87	**1**	10 974	0.82	1 634		**2KJ1434 - ■EL13 - ■■K1**		303
	0.95	**1.1**	10 000	0.9	1 489	★	**2KJ1434 - ■EL13 - ■■J1**		303
	1	**1.2**	9 161	0.98	1 364		**2KJ1434 - ■EL13 - ■■H1**		303
	1.2	**1.4**	8 173	1.1	1 217	★	**2KJ1434 - ■EL13 - ■■G1**		303
	1.3	**1.6**	7 294	1.2	1 086		**2KJ1434 - ■EL13 - ■■F1**		303
	FD.148B-LA100L8								
	1.5	**1.8**	6 940	1.3	449.21	★	**2KJ1407 - ■FL13 - ■■U1**	**P02**	316
	1.7	**2**	6 364	1.4	411.98		**2KJ1407 - ■FL13 - ■■T1**	**P02**	316
	1.8	**2.2**	5 686	1.6	368.06	★	**2KJ1407 - ■FL13 - ■■S1**	**P02**	316
	2	**2.4**	5 207	1.7	337.07		**2KJ1407 - ■FL13 - ■■R1**	**P02**	316
	FD.128B-Z48-LA90S4								
	1.3	**1.6**	7 522	0.81	1 120	★	**2KJ1431 - ■EL13 - ■■H1**		213
	1.4	**1.7**	6 709	0.91	999		**2KJ1431 - ■EL13 - ■■G1**		213
	FD.128B-LA100L8								
	1.9	**2.3**	5 484	1.1	354.99		**2KJ1406 - ■FL13 - ■■T1**	**P02**	220
	FD.128B-LA90L6								
	2	**2.4**	5 143	1.2	447.96		**2KJ1406 - ■EP13 - ■■V1**	**P01**	212
	2.3	**2.8**	4 655	1.3	405.47	★	**2KJ1406 - ■EP13 - ■■U1**	**P01**	212
	2.6	**3.1**	4 076	1.5	354.99		**2KJ1406 - ■EP13 - ■■T1**	**P01**	212
	2.9	**3.5**	3 677	1.7	320.24	★	**2KJ1406 - ■EP13 - ■■S1**	**P01**	212
	3.1	**3.7**	3 366	1.8	293.22		**2KJ1406 - ■EP13 - ■■R1**	**P01**	212
	FD.128B-LA90S4								
	3.2	**3.8**	3 326	1.8	447.96		**2KJ1406 - ■EL13 - ■■V1**		209
	3.5	**4.2**	3 010	2	405.47	★	**2KJ1406 - ■EL13 - ■■U1**		209
	FD.108B-LA90L6								
	2.7	**3.2**	3 963	0.86	345.19	★	**2KJ1405 - ■EP13 - ■■T1**	**P01**	131
	3	**3.6**	3 466	0.98	301.88		**2KJ1405 - ■EP13 - ■■S1**	**P01**	131
	FD.108B-LA90S4								
	3.3	**4**	3 151	1.1	424.49	★	**2KJ1405 - ■EL13 - ■■V1**		128
	3.7	**4.4**	2 842	1.2	382.79		**2KJ1405 - ■EL13 - ■■U1**		128
	4.1	**4.9**	2 563	1.3	345.19	★	**2KJ1405 - ■EL13 - ■■T1**		128
	4.7	**5.6**	2 241	1.5	301.88		**2KJ1405 - ■EL13 - ■■S1**		128
	5.2	**6.2**	2 012	1.7	271.01	★	**2KJ1405 - ■EL13 - ■■R1**		128
	5.7	**6.8**	1 838	1.9	247.53		**2KJ1405 - ■EL13 - ■■Q1**		128
	6.4	**7.7**	1 631	2.1	219.66	★	**2KJ1405 - ■EL13 - ■■P1**		128
	FD.88B-LA90S4								
	4.8	**5.8**	2 173	0.87	292.64	★	**2KJ1404 - ■EL13 - ■■S1**		81

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
1.1 (50 Hz) 1.3 (60 Hz)	**FD.88B-LA90S4**							
	5.6	**6.7**	1 862	1	250.83	**2KJ1404 - ■EL13 - ■■R1**		81
	6.2	**7.4**	1 685	1.1	226.94 ★	**2KJ1404 - ■EL13 - ■■P1**		81
	6.8	**8.2**	1 555	1.2	209.49	**2KJ1404 - ■EL13 - ■■N1**		81
	7.8	**9.4**	1 352	1.4	182.15 ★	**2KJ1404 - ■EL13 - ■■M1**		81
	8.6	**10.3**	1 228	1.5	165.38	**2KJ1404 - ■EL13 - ■■L1**		81
	9.4	**11.3**	1 121	1.7	151.01 ★	**2KJ1404 - ■EL13 - ■■K1**		81
	10.2	**12.2**	1 029	1.8	138.56	**2KJ1404 - ■EL13 - ■■J1**		81
	11.1	**13.3**	948	2	127.66 ★	**2KJ1404 - ■EL13 - ■■H1**		81
	12.2	**14.6**	861	2.2	115.93	**2KJ1404 - ■EL13 - ■■G1**		81
	FD.68B-LA90S4							
	8.6	**10.3**	1 221	0.82	164.44	**2KJ1403 - ■EL13 - ■■M1**		50
	9.7	**11.6**	1 080	0.93	145.44 ★	**2KJ1403 - ■EL13 - ■■L1**		50
	10.7	**12.8**	979	1	131.82	**2KJ1403 - ■EL13 - ■■K1**		50
	12.2	**14.6**	864	1.2	116.36 ★	**2KJ1403 - ■EL13 - ■■J1**		50
	13.5	**16.2**	779	1.3	104.96	**2KJ1403 - ■EL13 - ■■H1**		50
	14.9	**17.9**	707	1.4	95.20 ★	**2KJ1403 - ■EL13 - ■■G1**		50
	16.3	**19.6**	644	1.6	86.74	**2KJ1403 - ■EL13 - ■■F1**		50
	17.8	**21**	589	1.7	79.33 ★	**2KJ1403 - ■EL13 - ■■E1**		50
	19.9	**24**	527	1.9	70.93	**2KJ1403 - ■EL13 - ■■D1**		50
	22	**26**	484	2.1	65.14 ★	**2KJ1403 - ■EL13 - ■■C1**		50
	24	**29**	436	2.3	58.71	**2KJ1403 - ■EL13 - ■■B1**		50
	FZ.68B-LA90S4							
	23	**28**	454	1.9	61.17 ★	**2KJ1303 - ■EL13 - ■■B2**		49
	FD.48B-LA90S4							
	15.6	**18.7**	672	0.8	90.53	**2KJ1402 - ■EL13 - ■■H1**		34
	17.3	**21**	607	0.89	81.73 ★	**2KJ1402 - ■EL13 - ■■G1**		34
	19.1	**23**	550	0.98	74.10	**2KJ1402 - ■EL13 - ■■F1**		34
	21	**25**	501	1.1	67.43 ★	**2KJ1402 - ■EL13 - ■■E1**		34
	24	**29**	443	1.2	59.62	**2KJ1402 - ■EL13 - ■■D1**		34
	26	**31**	409	1.3	55.06 ★	**2KJ1402 - ■EL13 - ■■C1**		34
	30	**36**	352	1.5	47.40	**2KJ1402 - ■EL13 - ■■B1**		34
	33	**40**	320	1.7	43.09 ★	**2KJ1402 - ■EL13 - ■■A1**		34
	FZ.48B-LA90S4							
	23	**28**	451	0.89	60.71 ★	**2KJ1302 - ■EL13 - ■■B2**		34
	26	**31**	410	1.2	55.19	**2KJ1302 - ■EL13 - ■■A2**		34
	28	**34**	368	1.5	49.58 ★	**2KJ1302 - ■EL13 - ■■X1**		34
	33	**40**	316	1.7	42.50	**2KJ1302 - ■EL13 - ■■W1**		34
	37	**44**	285	1.9	38.45 ★	**2KJ1302 - ■EL13 - ■■V1**		34
	40	**48**	263	2	35.49	**2KJ1302 - ■EL13 - ■■U1**		34
	46	**55**	229	2.4	30.86 ★	**2KJ1302 - ■EL13 - ■■T1**		34
	50	**60**	208	2.6	28.02	**2KJ1302 - ■EL13 - ■■S1**		34
	55	**66**	190	2.8	25.59 ★	**2KJ1302 - ■EL13 - ■■R1**		34

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}		Order No.	Order code (No. of poles)	Weight *) kg
1.1 (50 Hz) 1.3 (60 Hz)	**FZ.38B-LA90S4**								
	35	**42**	303	0.91	40.88		**2KJ1301 - ■EL13 - ■■W1**		26
	39	**47**	267	1.1	35.96	★	**2KJ1301 - ■EL13 - ■■V1**		26
	45	**54**	234	1.2	31.49		**2KJ1301 - ■EL13 - ■■U1**		26
	51	**61**	207	1.4	27.85	★	**2KJ1301 - ■EL13 - ■■T1**		26
	56	**67**	187	1.5	25.24		**2KJ1301 - ■EL13 - ■■S1**		26
	64	**77**	165	1.8	22.28	★	**2KJ1301 - ■EL13 - ■■R1**		26
	70	**84**	149	1.9	20.10		**2KJ1301 - ■EL13 - ■■Q1**		26
	78	**94**	135	2.1	18.23	★	**2KJ1301 - ■EL13 - ■■P1**		26
	85	**102**	123	2.4	16.61		**2KJ1301 - ■EL13 - ■■N1**		26
	93	**112**	113	2.6	15.19	★	**2KJ1301 - ■EL13 - ■■M1**		26
	104	**125**	101	2.9	13.58		**2KJ1301 - ■EL13 - ■■L1**		26
	113	**136**	93	3.1	12.47	★	**2KJ1301 - ■EL13 - ■■K1**		26
	126	**151**	83	3.5	11.24		**2KJ1301 - ■EL13 - ■■J1**		26
	146	**175**	72	4	9.67	★	**2KJ1301 - ■EL13 - ■■H1**		26
	FZ.28-LA90S4								
	59	**71**	178	0.84	23.96	★	**2KJ1300 - ■EL13 - ■■T1**		18
	65	**78**	161	0.93	21.64		**2KJ1300 - ■EL13 - ■■S1**		18
	75	**90**	140	1.1	18.86	★	**2KJ1300 - ■EL13 - ■■R1**		18
	84	**101**	126	1.2	16.94		**2KJ1300 - ■EL13 - ■■Q1**		18
	92	**110**	114	1.3	15.29	★	**2KJ1300 - ■EL13 - ■■P1**		18
	102	**122**	103	1.5	13.87		**2KJ1300 - ■EL13 - ■■N1**		18
	112	**134**	94	1.6	12.62	★	**2KJ1300 - ■EL13 - ■■M1**		18
	127	**152**	83	1.7	11.16		**2KJ1300 - ■EL13 - ■■L1**		18
	137	**164**	76	1.8	10.30	★	**2KJ1300 - ■EL13 - ■■K1**		18
	160	**192**	66	2	8.87		**2KJ1300 - ■EL13 - ■■J1**		18
	176	**211**	60	2.1	8.06	★	**2KJ1300 - ■EL13 - ■■H1**		18
	197	**236**	54	2.4	7.20	★	**2KJ1300 - ■EL13 - ■■G1**		18
	217	**260**	48	2.5	6.53		**2KJ1300 - ■EL13 - ■■F1**		18
	238	**286**	44	2.7	5.94	★	**2KJ1300 - ■EL13 - ■■E1**		18
	270	**324**	39	2.8	5.25		**2KJ1300 - ■EL13 - ■■D1**		18
	292	**350**	36	3.1	4.85	★	**2KJ1300 - ■EL13 - ■■C1**		18
	339	**407**	31	3.2	4.18		**2KJ1300 - ■EL13 - ■■B1**		18
	372	**446**	28	3.4	3.80	★	**2KJ1300 - ■EL13 - ■■A1**		18
1.5 (50 Hz) 1.8 (60 Hz)	**FD.188B-Z48-LA90L4**								
	0.6	**0.72**	21 689	0.92	2 359	★	**2KJ1438 - ■EP13 - ■■E1**		648
	0.61	**0.73**	21 349	0.94	2 322	★	**2KJ1438 - ■EP13 - ■■D1**		648
	0.68	**0.82**	19 050	1	2 072		**2KJ1438 - ■EP13 - ■■C1**		648
	0.81	**0.97**	16 182	1.2	1 760		**2KJ1438 - ■EP13 - ■■B1**		648
	0.97	**1.2**	13 470	1.5	1 465	★	**2KJ1438 - ■EP13 - ■■A1**		648
	FD.188B-Z68-LA90L4								
	0.98	**1.2**	13 322	1.5	1 449		**2KJ1441 - ■EP13 - ■■H1**		665
	1.1	**1.3**	11 364	1.8	1 236	★	**2KJ1441 - ■EP13 - ■■G1**		665

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio		Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}			(No. of poles)	kg
1.5 (50 Hz) 1.8 (60 Hz)	**FD.168B-Z48-LA90L4**								
	0.75	**0.9**	17 386	0.81	1 891		**2KJ1435 - ■EP13 - ■■C1**		464
	0.88	**1.1**	14 766	0.95	1 606		**2KJ1435 - ■EP13 - ■■B1**		464
	1.1	**1.3**	12 293	1.1	1 337	★	**2KJ1435 - ■EP13 - ■■A1**		464
	FD.168B-Z68-LA90L4								
	1.1	**1.3**	11 934	1.2	1 298		**2KJ1437 - ■EP13 - ■■H1**		481
	1.3	**1.6**	10 187	1.4	1 108	★	**2KJ1437 - ■EP13 - ■■G1**		481
	FD.148B-Z48-LA90L4								
	1.2	**1.4**	11 189	0.8	1 217	★	**2KJ1434 - ■EP13 - ■■G1**		306
	1.3	**1.6**	9 985	0.9	1 086		**2KJ1434 - ■EP13 - ■■F1**		306
	FD.148B-LA112M8								
	1.6	**1.9**	9 128	0.99	449.21	★	**2KJ1407 - ■GG13 - ■■U1**	**P02**	323
	1.7	**2**	8 371	1.1	411.98		**2KJ1407 - ■GG13 - ■■T1**	**P02**	323
	1.9	**2.3**	7 479	1.2	368.06	★	**2KJ1407 - ■GG13 - ■■S1**	**P02**	323
	FD.148B-LA100L6								
	2.1	**2.5**	6 957	1.3	449.21	★	**2KJ1407 - ■FL13 - ■■U1**	**P01**	316
	2.2	**2.6**	6 380	1.4	411.98		**2KJ1407 - ■FL13 - ■■T1**	**P01**	316
	2.5	**3**	5 700	1.6	368.06	★	**2KJ1407 - ■FL13 - ■■S1**	**P01**	316
	2.7	**3.2**	5 220	1.7	337.07		**2KJ1407 - ■FL13 - ■■R1**	**P01**	316
	3	**3.6**	4 809	1.9	310.51	★	**2KJ1407 - ■FL13 - ■■Q1**	**P01**	316
	FD.128B-LA100L6								
	2.6	**3.1**	5 498	1.1	354.99		**2KJ1406 - ■FL13 - ■■T1**	**P01**	220
	2.9	**3.5**	4 959	1.2	320.24	★	**2KJ1406 - ■FL13 - ■■S1**	**P01**	220
	FD.128B-LA90L4								
	3.2	**3.8**	4 519	1.3	447.96		**2KJ1406 - ■EP13 - ■■V1**		212
	3.5	**4.2**	4 090	1.5	405.47	★	**2KJ1406 - ■EP13 - ■■U1**		212
	4	**4.8**	3 581	1.7	354.99		**2KJ1406 - ■EP13 - ■■T1**		212
	4.4	**5.3**	3 231	1.9	320.24	★	**2KJ1406 - ■EP13 - ■■S1**		212
	FD.108B-LA90L4								
	3.7	**4.4**	3 862	0.88	382.79		**2KJ1405 - ■EP13 - ■■U1**		131
	4.1	**4.9**	3 482	0.98	345.19	★	**2KJ1405 - ■EP13 - ■■T1**		131
	4.7	**5.6**	3 045	1.1	301.88		**2KJ1405 - ■EP13 - ■■S1**		131
	5.2	**6.2**	2 734	1.2	271.01	★	**2KJ1405 - ■EP13 - ■■R1**		131
	5.7	**6.8**	2 497	1.4	247.53		**2KJ1405 - ■EP13 - ■■Q1**		131
	6.5	**7.8**	2 216	1.5	219.66	★	**2KJ1405 - ■EP13 - ■■P1**		131
	7	**8.4**	2 046	1.7	202.77		**2KJ1405 - ■EP13 - ■■N1**		131
	7.7	**9.2**	1 850	1.8	183.39	★	**2KJ1405 - ■EP13 - ■■M1**		131
	8.4	**10.1**	1 704	2	168.88		**2KJ1405 - ■EP13 - ■■L1**		131
	FD.88B-LA90L4								
	6.3	**7.6**	2 289	0.83	226.94	★	**2KJ1404 - ■EP13 - ■■P1**		84
	6.8	**8.2**	2 113	0.9	209.49		**2KJ1404 - ■EP13 - ■■N1**		84
	7.8	**9.4**	1 838	1	182.15	★	**2KJ1404 - ■EP13 - ■■M1**		84
	8.6	**10.3**	1 668	1.1	165.38		**2KJ1404 - ■EP13 - ■■L1**		84
	9.4	**11.3**	1 523	1.2	151.01	★	**2KJ1404 - ■EP13 - ■■K1**		84

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
1.5 (50 Hz) 1.8 (60 Hz)	**FD.88B-LA90L4**							
	10.2	**12.2**	1 398	1.4	138.56	**2KJ1404 - ■EP13 - ■■J1**		84
	11.1	**13.3**	1 288	1.5	127.66 ★	**2KJ1404 - ■EP13 - ■■H1**		84
	12.2	**14.6**	1 170	1.6	115.93	**2KJ1404 - ■EP13 - ■■G1**		84
	13.4	**16.1**	1 065	1.8	105.61 ★	**2KJ1404 - ■EP13 - ■■F1**		84
	14.7	**17.6**	976	1.9	96.75	**2KJ1404 - ■EP13 - ■■E1**		84
	16.4	**19.7**	871	2.2	86.33 ★	**2KJ1404 - ■EP13 - ■■D1**		84
	FD.68B-LA90L4							
	12.2	**14.6**	1 174	0.85	116.36 ★	**2KJ1403 - ■EP13 - ■■J1**		53
	13.5	**16.2**	1 059	0.94	104.96	**2KJ1403 - ■EP13 - ■■H1**		53
	14.9	**17.9**	960	1	95.20 ★	**2KJ1403 - ■EP13 - ■■G1**		53
	16.4	**19.7**	875	1.1	86.74	**2KJ1403 - ■EP13 - ■■F1**		53
	17.9	**21**	800	1.2	79.33 ★	**2KJ1403 - ■EP13 - ■■E1**		53
	20	**24**	716	1.4	70.93	**2KJ1403 - ■EP13 - ■■D1**		53
	22	**26**	657	1.5	65.14 ★	**2KJ1403 - ■EP13 - ■■C1**		53
	24	**29**	592	1.7	58.71	**2KJ1403 - ■EP13 - ■■B1**		53
	28	**34**	509	2	50.48 ★	**2KJ1403 - ■EP13 - ■■A1**		53
	FZ.68B-LA90L4							
	23	**28**	617	1.4	61.17 ★	**2KJ1303 - ■EP13 - ■■B2**		52
	26	**31**	540	1.9	53.50	**2KJ1303 - ■EP13 - ■■A2**		52
	30	**36**	485	2.1	48.03 ★	**2KJ1303 - ■EP13 - ■■X1**		52
	32	**38**	443	2.3	43.87	**2KJ1303 - ■EP13 - ■■V1**		52
	36	**43**	393	2.5	38.93 ★	**2KJ1303 - ■EP13 - ■■U1**		52
	FD.48B-LA90L4							
	24	**29**	601	0.9	59.62	**2KJ1402 - ■EP13 - ■■D1**		37
	26	**31**	555	0.97	55.06 ★	**2KJ1402 - ■EP13 - ■■C1**		37
	30	**36**	478	1.1	47.40	**2KJ1402 - ■EP13 - ■■B1**		37
	33	**40**	435	1.2	43.09 ★	**2KJ1402 - ■EP13 - ■■A1**		37
	FZ.48B-LA90L4							
	26	**31**	557	0.9	55.19	**2KJ1302 - ■EP13 - ■■A2**		37
	29	**35**	500	1.1	49.58 ★	**2KJ1302 - ■EP13 - ■■X1**		37
	33	**40**	429	1.3	42.50	**2KJ1302 - ■EP13 - ■■W1**		37
	37	**44**	388	1.4	38.45 ★	**2KJ1302 - ■EP13 - ■■V1**		37
	40	**48**	358	1.5	35.49	**2KJ1302 - ■EP13 - ■■U1**		37
	46	**55**	311	1.7	30.86 ★	**2KJ1302 - ■EP13 - ■■T1**		37
	51	**61**	283	1.9	28.02	**2KJ1302 - ■EP13 - ■■S1**		37
	56	**67**	258	2.1	25.59 ★	**2KJ1302 - ■EP13 - ■■R1**		37
	60	**72**	237	2.3	23.48	**2KJ1302 - ■EP13 - ■■Q1**		37
	66	**79**	218	2.5	21.63 ★	**2KJ1302 - ■EP13 - ■■P1**		37
	72	**86**	198	2.7	19.64	**2KJ1302 - ■EP13 - ■■N1**		37
	79	**95**	180	3	17.89 ★	**2KJ1302 - ■EP13 - ■■M1**		37
	87	**104**	165	3.3	16.39	**2KJ1302 - ■EP13 - ■■L1**		37
	FZ.38B-LA90L4							
	40	**48**	363	0.8	35.96 ★	**2KJ1301 - ■EP13 - ■■V1**		29

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
1.5 (50 Hz) 1.8 (60 Hz)	**FZ.38B-LA90L4**							
	45	**54**	318	0.91	31.49	**2KJ1301 - ■EP13 - ■■U1**		29
	51	**61**	281	1	27.85 ★	**2KJ1301 - ■EP13 - ■■T1**		29
	56	**67**	255	1.1	25.24	**2KJ1301 - ■EP13 - ■■S1**		29
	64	**77**	225	1.3	22.28 ★	**2KJ1301 - ■EP13 - ■■R1**		29
	71	**85**	203	1.4	20.10	**2KJ1301 - ■EP13 - ■■Q1**		29
	78	**94**	184	1.6	18.23 ★	**2KJ1301 - ■EP13 - ■■P1**		29
	86	**103**	168	1.7	16.61	**2KJ1301 - ■EP13 - ■■N1**		29
	94	**113**	153	1.9	15.19 ★	**2KJ1301 - ■EP13 - ■■M1**		29
	105	**126**	137	2.1	13.58	**2KJ1301 - ■EP13 - ■■L1**		29
	114	**137**	126	2.3	12.47 ★	**2KJ1301 - ■EP13 - ■■K1**		29
	126	**151**	113	2.6	11.24	**2KJ1301 - ■EP13 - ■■J1**		29
	147	**176**	98	3	9.67 ★	**2KJ1301 - ■EP13 - ■■H1**		29
	167	**200**	86	3.4	8.52 ★	**2KJ1301 - ■EP13 - ■■G1**		29
	183	**220**	78	3.7	7.76	**2KJ1301 - ■EP13 - ■■F1**		29
	200	**240**	72	4	7.10 ★	**2KJ1301 - ■EP13 - ■■E1**		29
	224	**269**	64	4.3	6.35	**2KJ1301 - ■EP13 - ■■D1**		29
	244	**293**	59	4.7	5.83 ★	**2KJ1301 - ■EP13 - ■■C1**		29
	270	**324**	53	4.8	5.25	**2KJ1301 - ■EP13 - ■■B1**		29
	314	**377**	46	5	4.52 ★	**2KJ1301 - ■EP13 - ■■A1**		29
	FD.28-LA90L4							
	84	**101**	171	0.88	16.94	**2KJ1300 - ■EP13 - ■■Q1**		21
	93	**112**	154	0.97	15.29 ★	**2KJ1300 - ■EP13 - ■■P1**		21
	102	**122**	140	1.1	13.87	**2KJ1300 - ■EP13 - ■■N1**		21
	113	**136**	127	1.2	12.62 ★	**2KJ1300 - ■EP13 - ■■M1**		21
	127	**152**	113	1.3	11.16	**2KJ1300 - ■EP13 - ■■L1**		21
	138	**166**	104	1.3	10.30 ★	**2KJ1300 - ■EP13 - ■■K1**		21
	160	**192**	90	1.5	8.87	**2KJ1300 - ■EP13 - ■■J1**		21
	176	**211**	81	1.6	8.06 ★	**2KJ1300 - ■EP13 - ■■H1**		21
	197	**236**	73	1.7	7.20 ★	**2KJ1300 - ■EP13 - ■■G1**		21
	217	**260**	66	1.9	6.53	**2KJ1300 - ■EP13 - ■■F1**		21
	239	**287**	60	2	5.94 ★	**2KJ1300 - ■EP13 - ■■E1**		21
	270	**324**	53	2.1	5.25	**2KJ1300 - ■EP13 - ■■D1**		21
	293	**352**	49	2.2	4.85 ★	**2KJ1300 - ■EP13 - ■■C1**		21
	340	**408**	42	2.3	4.18	**2KJ1300 - ■EP13 - ■■B1**		21
	374	**449**	38	2.5	3.80 ★	**2KJ1300 - ■EP13 - ■■A1**		21
2.2 (50 Hz) 2.6 (60 Hz)	**FD.188B-Z48-LA100L4**							
	0.81	**0.97**	23 887	0.84	1 760	**2KJ1438 - ■FL13 - ■■B1**		656
	0.97	**1.2**	19 884	1	1 465 ★	**2KJ1438 - ■FL13 - ■■A1**		656
	FD.188B-Z68-LA100L4							
	0.98	**1.2**	19 666	1	1 449	**2KJ1441 - ■FL13 - ■■H1**		673
	1.1	**1.3**	16 776	1.2	1 236 ★	**2KJ1441 - ■FL13 - ■■G1**		673
	1.4	**1.7**	13 980	1.4	1 030	**2KJ1441 - ■FL13 - ■■F1**		673

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
2.2 (50 Hz) 2.6 (60 Hz)	**FD.188B-LA132S8**							
	1.7	**2**	12 122	1.6	403.86 ★	**2KJ1410 - ■HE13 - ■■U1**	**P02**	676
	1.9	**2.3**	11 121	1.8	370.52	**2KJ1410 - ■HE13 - ■■T1**	**P02**	676
	2	**2.4**	10 263	1.9	341.94 ★	**2KJ1410 - ■HE13 - ■■S1**	**P02**	676
	FD.168B-Z68-LA100L4							
	1.3	**1.6**	15 038	0.93	1 108 ★	**2KJ1437 - ■FL13 - ■■G1**		489
	1.5	**1.8**	12 527	1.1	923	**2KJ1437 - ■FL13 - ■■F1**		489
	FD.168B-LA132S8							
	1.9	**2.3**	11 083	1.3	369.26 ★	**2KJ1408 - ■HE13 - ■■V1**	**P02**	495
	2.1	**2.5**	10 160	1.4	338.49	**2KJ1408 - ■HE13 - ■■U1**	**P02**	495
	2.2	**2.6**	9 368	1.5	312.12 ★	**2KJ1408 - ■HE13 - ■■T1**	**P02**	495
	2.4	**2.9**	8 682	1.6	289.26	**2KJ1408 - ■HE13 - ■■S1**	**P02**	495
	2.5	**3**	8 255	1.7	275.03 ★	**2KJ1408 - ■HE13 - ■■R1**	**P02**	495
	FD.148B-LA132S8							
	1.9	**2.3**	11 047	0.81	368.06 ★	**2KJ1407 - ■HE13 - ■■S1**	**P02**	333
	FD.148B-LA112M6							
	2.1	**2.5**	10 040	0.9	449.21 ★	**2KJ1407 - ■GG13 - ■■U1**	**P01**	323
	2.3	**2.8**	9 208	0.98	411.98	**2KJ1407 - ■GG13 - ■■T1**	**P01**	323
	2.6	**3.1**	8 227	1.1	368.06 ★	**2KJ1407 - ■GG13 - ■■S1**	**P01**	323
	2.8	**3.4**	7 534	1.2	337.07	**2KJ1407 - ■GG13 - ■■R1**	**P01**	323
	3	**3.6**	6 940	1.3	310.51 ★	**2KJ1407 - ■GG13 - ■■Q1**	**P01**	323
	FD.148B-LA100L4							
	3.2	**3.8**	6 646	1.4	449.21 ★	**2KJ1407 - ■FL13 - ■■U1**		316
	3.4	**4.1**	6 096	1.5	411.98	**2KJ1407 - ■FL13 - ■■T1**		316
	3.9	**4.7**	5 446	1.7	368.06 ★	**2KJ1407 - ■FL13 - ■■S1**		316
	4.2	**5**	4 987	1.8	337.07	**2KJ1407 - ■FL13 - ■■R1**		316
	4.6	**5.5**	4 594	2	310.51 ★	**2KJ1407 - ■FL13 - ■■Q1**		316
	FD.128B-LA112M6							
	2.9	**3.5**	7 158	0.85	320.24 ★	**2KJ1406 - ■GG13 - ■■S1**	**P01**	227
	FD.128B-LA100L4							
	4	**4.8**	5 252	1.2	354.99	**2KJ1406 - ■FL13 - ■■T1**		220
	4.4	**5.3**	4 738	1.3	320.24 ★	**2KJ1406 - ■FL13 - ■■S1**		220
	4.8	**5.8**	4 338	1.4	293.22	**2KJ1406 - ■FL13 - ■■R1**		220
	5.4	**6.5**	3 859	1.6	260.84 ★	**2KJ1406 - ■FL13 - ■■Q1**		220
	6	**7.2**	3 527	1.7	238.39	**2KJ1406 - ■FL13 - ■■P1**		220
	6.5	**7.8**	3 242	1.9	219.15 ★	**2KJ1406 - ■FL13 - ■■N1**		220
	7	**8.4**	2 996	2	202.48	**2KJ1406 - ■FL13 - ■■M1**		220
	FD.108B-LA100L4							
	5.2	**6.2**	4 010	0.85	271.01 ★	**2KJ1405 - ■FL13 - ■■R1**		139
	5.7	**6.8**	3 662	0.93	247.53	**2KJ1405 - ■FL13 - ■■Q1**		139
	6.5	**7.8**	3 250	1	219.66 ★	**2KJ1405 - ■FL13 - ■■P1**		139
	7	**8.4**	3 000	1.1	202.77	**2KJ1405 - ■FL13 - ■■N1**		139
	7.7	**9.2**	2 713	1.3	183.39 ★	**2KJ1405 - ■FL13 - ■■M1**		139
	8.4	**10.1**	2 499	1.4	168.88	**2KJ1405 - ■FL13 - ■■L1**		139

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
2.2 (50 Hz) 2.6 (60 Hz)	**FD.108B-LA100L4**							
	9.1	**10.9**	2 311	1.5	156.19 ★	**2KJ1405 - ■FL13 - ■■K1**		139
	9.8	**11.8**	2 145	1.6	144.99	**2KJ1405 - ■FL13 - ■■J1**		139
	11.1	**13.3**	1 893	1.8	127.92 ★	**2KJ1405 - ■FL13 - ■■H1**		139
	12	**14.4**	1 748	1.9	118.11	**2KJ1405 - ■FL13 - ■■G1**		139
	13.4	**16.1**	1 566	2.2	105.81 ★	**2KJ1405 - ■FL13 - ■■F1**		139
	FD.88B-LA100L4							
	9.4	**11.3**	2 234	0.85	151.01 ★	**2KJ1404 - ■FL13 - ■■K1**		92
	10.2	**12.2**	2 050	0.93	138.56	**2KJ1404 - ■FL13 - ■■J1**		92
	11.1	**13.3**	1 889	1	127.66 ★	**2KJ1404 - ■FL13 - ■■H1**		92
	12.2	**14.6**	1 715	1.1	115.93	**2KJ1404 - ■FL13 - ■■G1**		92
	13.4	**16.1**	1 563	1.2	105.61 ★	**2KJ1404 - ■FL13 - ■■F1**		92
	14.7	**17.6**	1 431	1.3	96.75	**2KJ1404 - ■FL13 - ■■E1**		92
	16.4	**19.7**	1 277	1.5	86.33 ★	**2KJ1404 - ■FL13 - ■■D1**		92
	18.4	**22**	1 140	1.7	77.04	**2KJ1404 - ■FL13 - ■■C1**		92
	22	**26**	968	2	65.43	**2KJ1404 - ■FL13 - ■■B1**		92
	26	**31**	806	2.4	54.47 ★	**2KJ1404 - ■FL13 - ■■A1**		92
	FZ.88B-LA100L4							
	22	**26**	956	2	64.58 ★	**2KJ1304 - ■FL13 - ■■X1**		91
	24	**29**	875	2.2	59.13	**2KJ1304 - ■FL13 - ■■W1**		91
	27	**32**	778	2.4	52.60 ★	**2KJ1304 - ■FL13 - ■■V1**		91
	FD.68B-LA100L4							
	17.9	**21**	1 174	0.85	79.33 ★	**2KJ1403 - ■FL13 - ■■E1**		61
	20	**24**	1 049	0.95	70.93	**2KJ1403 - ■FL13 - ■■D1**		61
	22	**26**	964	1	65.14 ★	**2KJ1403 - ■FL13 - ■■C1**		61
	24	**29**	869	1.2	58.71	**2KJ1403 - ■FL13 - ■■B1**		61
	28	**34**	747	1.3	50.48 ★	**2KJ1403 - ■FL13 - ■■A1**		61
	FZ.68B-LA100L4							
	26	**31**	792	1.3	53.50	**2KJ1303 - ■FL13 - ■■A2**		60
	30	**36**	711	1.4	48.03 ★	**2KJ1303 - ■FL13 - ■■X1**		60
	32	**38**	649	1.5	43.87	**2KJ1303 - ■FL13 - ■■V1**		60
	36	**43**	576	1.7	38.93 ★	**2KJ1303 - ■FL13 - ■■U1**		60
	40	**48**	532	1.9	35.93	**2KJ1303 - ■FL13 - ■■T1**		60
	44	**53**	481	2.1	32.50 ★	**2KJ1303 - ■FL13 - ■■S1**		60
	47	**56**	443	2.3	29.93	**2KJ1303 - ■FL13 - ■■R1**		60
	51	**61**	410	2.4	27.68 ★	**2KJ1303 - ■FL13 - ■■Q1**		60
	55	**66**	380	2.6	25.69	**2KJ1303 - ■FL13 - ■■P1**		60
	63	**76**	335	3	22.67 ★	**2KJ1303 - ■FL13 - ■■N1**		60
	FD.48B-LA100L4							
	33	**40**	638	0.85	43.09 ★	**2KJ1402 - ■FL13 - ■■A1**		45
	FZ.48B-LA100L4							
	33	**40**	629	0.86	42.50	**2KJ1302 - ■FL13 - ■■W1**		45
	37	**44**	569	0.95	38.45 ★	**2KJ1302 - ■FL13 - ■■V1**		45
	40	**48**	525	1	35.49	**2KJ1302 - ■FL13 - ■■U1**		45

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
2.2 (50 Hz) 2.6 (60 Hz)	**FZ.48B-LA100L4**							
	46	**55**	457	1.2	30.86 ★	**2KJ1302 - ■FL13 - ■■T1**		45
	51	**61**	415	1.3	28.02	**2KJ1302 - ■FL13 - ■■S1**		45
	56	**67**	379	1.4	25.59 ★	**2KJ1302 - ■FL13 - ■■R1**		45
	60	**72**	347	1.6	23.48	**2KJ1302 - ■FL13 - ■■Q1**		45
	66	**79**	320	1.7	21.63 ★	**2KJ1302 - ■FL13 - ■■P1**		45
	72	**86**	291	1.9	19.64	**2KJ1302 - ■FL13 - ■■N1**		45
	79	**95**	265	2	17.89 ★	**2KJ1302 - ■FL13 - ■■M1**		45
	87	**104**	243	2.2	16.39	**2KJ1302 - ■FL13 - ■■L1**		45
	97	**116**	216	2.5	14.63 ★	**2KJ1302 - ■FL13 - ■■K1**		45
	109	**131**	193	2.8	13.05	**2KJ1302 - ■FL13 - ■■J1**		45
	128	**154**	164	3.3	11.09	**2KJ1302 - ■FL13 - ■■H1**		45
	154	**185**	137	3.9	9.23 ★	**2KJ1302 - ■FL13 - ■■G1**		45
	169	**203**	124	4.1	8.39 ★	**2KJ1302 - ■FL13 - ■■F1**		45
	185	**222**	114	4.1	7.68	**2KJ1302 - ■FL13 - ■■E1**		45
	207	**248**	101	4.4	6.86 ★	**2KJ1302 - ■FL13 - ■■D1**		45
	232	**278**	91	4.5	6.12	**2KJ1302 - ■FL13 - ■■C1**		45
	273	**328**	77	4.9	5.20	**2KJ1302 - ■FL13 - ■■B1**		45
	328	**394**	64	5.1	4.33 ★	**2KJ1302 - ■FL13 - ■■A1**		45
	FZ.38B-LA100L4							
	64	**77**	330	0.88	22.28 ★	**2KJ1301 - ■FL13 - ■■R1**		37
	71	**85**	297	0.98	20.10	**2KJ1301 - ■FL13 - ■■Q1**		37
	78	**94**	270	1.1	18.23 ★	**2KJ1301 - ■FL13 - ■■P1**		37
	86	**103**	246	1.2	16.61	**2KJ1301 - ■FL13 - ■■N1**		37
	94	**113**	225	1.3	15.19 ★	**2KJ1301 - ■FL13 - ■■M1**		37
	105	**126**	201	1.4	13.58	**2KJ1301 - ■FL13 - ■■L1**		37
	114	**137**	185	1.6	12.47 ★	**2KJ1301 - ■FL13 - ■■K1**		37
	126	**151**	166	1.7	11.24	**2KJ1301 - ■FL13 - ■■J1**		37
	147	**176**	143	2	9.67 ★	**2KJ1301 - ■FL13 - ■■H1**		37
	167	**200**	126	2.3	8.52 ★	**2KJ1301 - ■FL13 - ■■G1**		37
	183	**220**	115	2.5	7.76	**2KJ1301 - ■FL13 - ■■F1**		37
	200	**240**	105	2.8	7.10 ★	**2KJ1301 - ■FL13 - ■■E1**		37
	224	**269**	94	2.9	6.35	**2KJ1301 - ■FL13 - ■■D1**		37
	244	**293**	86	3.2	5.83 ★	**2KJ1301 - ■FL13 - ■■C1**		37
	270	**324**	78	3.3	5.25	**2KJ1301 - ■FL13 - ■■B1**		37
	314	**377**	67	3.4	4.52 ★	**2KJ1301 - ■FL13 - ■■A1**		37
	FZ.28-LA90ZLB4							
	123	**148**	171	0.83	11.16	**2KJ1300 - ■EQ13 - ■■L1**		21
	133	**160**	157	0.88	10.30 ★	**2KJ1300 - ■EQ13 - ■■K1**		21
	155	**186**	136	0.97	8.87	**2KJ1300 - ■EQ13 - ■■J1**		21
	171	**205**	123	1	8.06 ★	**2KJ1300 - ■EQ13 - ■■H1**		21
	191	**229**	110	1.1	7.20 ★	**2KJ1300 - ■EQ13 - ■■G1**		21
	211	**253**	100	1.2	6.53	**2KJ1300 - ■EQ13 - ■■F1**		21
	231	**277**	91	1.3	5.94 ★	**2KJ1300 - ■EQ13 - ■■E1**		21

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
2.2 (50 Hz) 2.6 (60 Hz)	**FZ.28-LA90ZLB4**							
	262	**314**	80	1.4	5.25	**2KJ1300 - ■EQ13 - ■■D1**		21
	284	**341**	74	1.5	4.85 ★	**2KJ1300 - ■EQ13 - ■■C1**		21
	329	**395**	64	1.6	4.18	**2KJ1300 - ■EQ13 - ■■B1**		21
	362	**434**	58	1.7	3.80 ★	**2KJ1300 - ■EQ13 - ■■A1**		21
3 (50 Hz) 3.6 (60 Hz)	**FD.188B-Z68-LA100LB4**							
	1.1	**1.3**	22 960	0.87	1 236 ★	**2KJ1441 - ■FM13 - ■■G1**		673
	1.4	**1.7**	19 133	1	1 030	**2KJ1441 - ■FM13 - ■■F1**		673
	FD.188B-LA132MA8							
	1.7	**2**	16 529	1.2	403.86 ★	**2KJ1410 - ■HG13 - ■■U1**	**P02**	684
	1.9	**2.3**	15 165	1.3	370.52	**2KJ1410 - ■HG13 - ■■T1**	**P02**	684
	2	**2.4**	13 995	1.4	341.94 ★	**2KJ1410 - ■HG13 - ■■S1**	**P02**	684
	2.2	**2.6**	12 982	1.5	317.18	**2KJ1410 - ■HG13 - ■■R1**	**P02**	684
	2.3	**2.8**	12 246	1.6	299.20 ★	**2KJ1410 - ■HG13 - ■■Q1**	**P02**	684
	FD.188B-LA132S6							
	2.4	**2.9**	12 180	1.6	403.86 ★	**2KJ1410 - ■HE13 - ■■U1**	**P01**	676
	2.6	**3.1**	11 174	1.8	370.52	**2KJ1410 - ■HE13 - ■■T1**	**P01**	676
	2.8	**3.4**	10 312	1.9	341.94 ★	**2KJ1410 - ■HE13 - ■■S1**	**P01**	676
	FD.168B-Z68-LA100LB4							
	1.5	**1.8**	17 146	0.82	923	**2KJ1437 - ■FM13 - ■■F1**		489
	FD.168B-LA132MA8							
	1.9	**2.3**	15 113	0.93	369.26 ★	**2KJ1408 - ■HG13 - ■■V1**	**P02**	503
	2.1	**2.5**	13 854	1	338.49	**2KJ1408 - ■HG13 - ■■U1**	**P02**	503
	2.2	**2.6**	12 775	1.1	312.12 ★	**2KJ1408 - ■HG13 - ■■T1**	**P02**	503
	2.4	**2.9**	11 839	1.2	289.26	**2KJ1408 - ■HG13 - ■■S1**	**P02**	503
	2.5	**3**	11 257	1.2	275.03 ★	**2KJ1408 - ■HG13 - ■■R1**	**P02**	503
	FD.168B-LA132S6							
	2.6	**3.1**	11 136	1.3	369.26 ★	**2KJ1408 - ■HE13 - ■■V1**	**P01**	495
	2.8	**3.4**	10 208	1.4	338.49	**2KJ1408 - ■HE13 - ■■U1**	**P01**	495
	3	**3.6**	9 413	1.5	312.12 ★	**2KJ1408 - ■HE13 - ■■T1**	**P01**	495
	3.3	**4**	8 723	1.6	289.26	**2KJ1408 - ■HE13 - ■■S1**	**P01**	495
	3.5	**4.2**	8 294	1.7	275.03 ★	**2KJ1408 - ■HE13 - ■■R1**	**P01**	495
	3.7	**4.4**	7 752	1.8	257.04	**2KJ1408 - ■HE13 - ■■Q1**	**P01**	495
	FD.148B-LA132S6							
	2.6	**3.1**	11 100	0.81	368.06 ★	**2KJ1407 - ■HE13 - ■■S1**	**P01**	333
	2.8	**3.4**	10 165	0.89	337.07	**2KJ1407 - ■HE13 - ■■R1**	**P01**	333
	3.1	**3.7**	9 364	0.96	310.51 ★	**2KJ1407 - ■HE13 - ■■Q1**	**P01**	333
	FD.148B-LA100LB4							
	3.2	**3.8**	9 063	0.99	449.21 ★	**2KJ1407 - ■FM13 - ■■U1**		316
	3.4	**4.1**	8 312	1.1	411.98	**2KJ1407 - ■FM13 - ■■T1**		316
	3.9	**4.7**	7 426	1.2	368.06 ★	**2KJ1407 - ■FM13 - ■■S1**		316
	4.2	**5**	6 801	1.3	337.07	**2KJ1407 - ■FM13 - ■■R1**		316
	4.6	**5.5**	6 265	1.4	310.51 ★	**2KJ1407 - ■FM13 - ■■Q1**		316
	4.9	**5.9**	5 800	1.6	287.49	**2KJ1407 - ■FM13 - ■■P1**		316

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
3 (50 Hz) 3.6 (60 Hz)	**FD.148B-LA100LB4**							
	5.3	**6.4**	5 394	1.7	267.35 ★	**2KJ1407 - ■FM13 - ■■N1**		316
	5.7	**6.8**	5 036	1.8	249.58	**2KJ1407 - ■FM13 - ■■M1**		316
	6.4	**7.7**	4 506	2	223.31 ★	**2KJ1407 - ■FM13 - ■■L1**		316
	FD.128B-LA100LB4							
	4	**4.8**	7 162	0.85	354.99	**2KJ1406 - ■FM13 - ■■T1**		220
	4.4	**5.3**	6 461	0.94	320.24 ★	**2KJ1406 - ■FM13 - ■■S1**		220
	4.8	**5.8**	5 916	1	293.22	**2KJ1406 - ■FM13 - ■■R1**		220
	5.4	**6.5**	5 263	1.2	260.84 ★	**2KJ1406 - ■FM13 - ■■Q1**		220
	6	**7.2**	4 810	1.3	238.39	**2KJ1406 - ■FM13 - ■■P1**		220
	6.5	**7.8**	4 422	1.4	219.15 ★	**2KJ1406 - ■FM13 - ■■N1**		220
	7	**8.4**	4 085	1.5	202.48	**2KJ1406 - ■FM13 - ■■M1**		220
	7.6	**9.1**	3 791	1.6	187.88 ★	**2KJ1406 - ■FM13 - ■■L1**		220
	8.1	**9.7**	3 531	1.7	175.01	**2KJ1406 - ■FM13 - ■■K1**		220
	9	**10.8**	3 192	1.9	158.22 ★	**2KJ1406 - ■FM13 - ■■J1**		220
	9.7	**11.6**	2 939	2.1	145.66	**2KJ1406 - ■FM13 - ■■H1**		220
	FD.108B-LA100LB4							
	7	**8.4**	4 091	0.83	202.77	**2KJ1405 - ■FM13 - ■■N1**		139
	7.7	**9.2**	3 700	0.92	183.39 ★	**2KJ1405 - ■FM13 - ■■M1**		139
	8.4	**10.1**	3 407	1	168.88	**2KJ1405 - ■FM13 - ■■L1**		139
	9.1	**10.9**	3 151	1.1	156.19 ★	**2KJ1405 - ■FM13 - ■■K1**		139
	9.8	**11.8**	2 925	1.2	144.99	**2KJ1405 - ■FM13 - ■■J1**		139
	11.1	**13.3**	2 581	1.3	127.92 ★	**2KJ1405 - ■FM13 - ■■H1**		139
	12	**14.4**	2 383	1.4	118.11	**2KJ1405 - ■FM13 - ■■G1**		139
	13.4	**16.1**	2 135	1.6	105.81 ★	**2KJ1405 - ■FM13 - ■■F1**		139
	14.6	**17.5**	1 969	1.7	97.57	**2KJ1405 - ■FM13 - ■■E1**		139
	17.3	**21**	1 652	2.1	81.86	**2KJ1405 - ■FM13 - ■■D1**		139
	FZ.108B-LA100LB4							
	22	**26**	1 296	2.3	64.21 ★	**2KJ1305 - ■FM13 - ■■A2**		138
	FD.88B-LA100LB4							
	12.2	**14.6**	2 339	0.81	115.93	**2KJ1404 - ■FM13 - ■■G1**		92
	13.4	**16.1**	2 131	0.89	105.61 ★	**2KJ1404 - ■FM13 - ■■F1**		92
	14.7	**17.6**	1 952	0.97	96.75	**2KJ1404 - ■FM13 - ■■E1**		92
	16.4	**19.7**	1 742	1.1	86.33 ★	**2KJ1404 - ■FM13 - ■■D1**		92
	18.4	**22**	1 554	1.2	77.04	**2KJ1404 - ■FM13 - ■■C1**		92
	22	**26**	1 320	1.4	65.43	**2KJ1404 - ■FM13 - ■■B1**		92
	26	**31**	1 099	1.7	54.47 ★	**2KJ1404 - ■FM13 - ■■A1**		92
	FZ.88B-LA100LB4							
	22	**26**	1 303	1.5	64.58 ★	**2KJ1304 - ■FM13 - ■■X1**		91
	24	**29**	1 193	1.6	59.13	**2KJ1304 - ■FM13 - ■■W1**		91
	27	**32**	1 061	1.8	52.60 ★	**2KJ1304 - ■FM13 - ■■V1**		91
	30	**36**	969	2	48.03	**2KJ1304 - ■FM13 - ■■U1**		91
	32	**38**	892	2.1	44.20 ★	**2KJ1304 - ■FM13 - ■■T1**		91
	35	**42**	824	2.3	40.83	**2KJ1304 - ■FM13 - ■■S1**		91

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
3 (50 Hz) 3.6 (60 Hz)	**FZ.88B-LA100LB4**							
	38	**46**	764	2.5	37.89 ★	**2KJ1304 - ■FM13 - ■■R1**		91
	40	**48**	712	2.7	35.29	**2KJ1304 - ■FM13 - ■■Q1**		91
	FD.68B-LA100LB4							
	24	**29**	1 185	0.84	58.71	**2KJ1403 - ■FM13 - ■■B1**		61
	28	**34**	1 018	0.98	50.48 ★	**2KJ1403 - ■FM13 - ■■A1**		61
	FZ.68B-LA100LB4							
	26	**31**	1 079	0.93	53.50	**2KJ1303 - ■FM13 - ■■A2**		60
	30	**36**	969	1	48.03 ★	**2KJ1303 - ■FM13 - ■■X1**		60
	32	**38**	885	1.1	43.87	**2KJ1303 - ■FM13 - ■■V1**		60
	36	**43**	785	1.3	38.93 ★	**2KJ1303 - ■FM13 - ■■U1**		60
	40	**48**	725	1.4	35.93	**2KJ1303 - ■FM13 - ■■T1**		60
	44	**53**	656	1.5	32.50 ★	**2KJ1303 - ■FM13 - ■■S1**		60
	47	**56**	604	1.7	29.93	**2KJ1303 - ■FM13 - ■■R1**		60
	51	**61**	558	1.8	27.68 ★	**2KJ1303 - ■FM13 - ■■Q1**		60
	55	**66**	518	1.9	25.69	**2KJ1303 - ■FM13 - ■■P1**		60
	63	**76**	457	2.2	22.67 ★	**2KJ1303 - ■FM13 - ■■N1**		60
	68	**82**	422	2.4	20.93	**2KJ1303 - ■FM13 - ■■M1**		60
	76	**91**	378	2.6	18.75 ★	**2KJ1303 - ■FM13 - ■■L1**		60
	82	**98**	349	2.9	17.29	**2KJ1303 - ■FM13 - ■■K1**		60
	98	**118**	293	3.4	14.51	**2KJ1303 - ■FM13 - ■■J1**		60
	FZ.48B-LA100LB4							
	46	**55**	623	0.87	30.86 ★	**2KJ1302 - ■FM13 - ■■T1**		45
	51	**61**	565	0.96	28.02	**2KJ1302 - ■FM13 - ■■S1**		45
	56	**67**	516	1	25.59 ★	**2KJ1302 - ■FM13 - ■■R1**		45
	60	**72**	474	1.1	23.48	**2KJ1302 - ■FM13 - ■■Q1**		45
	66	**79**	436	1.2	21.63 ★	**2KJ1302 - ■FM13 - ■■P1**		45
	72	**86**	396	1.4	19.64	**2KJ1302 - ■FM13 - ■■N1**		45
	79	**95**	361	1.5	17.89 ★	**2KJ1302 - ■FM13 - ■■M1**		45
	87	**104**	331	1.6	16.39	**2KJ1302 - ■FM13 - ■■L1**		45
	97	**116**	295	1.8	14.63 ★	**2KJ1302 - ■FM13 - ■■K1**		45
	109	**131**	263	2.1	13.05	**2KJ1302 - ■FM13 - ■■J1**		45
	128	**154**	224	2.4	11.09	**2KJ1302 - ■FM13 - ■■H1**		45
	154	**185**	186	2.8	9.23 ★	**2KJ1302 - ■FM13 - ■■G1**		45
	169	**203**	169	3	8.39 ★	**2KJ1302 - ■FM13 - ■■F1**		45
	185	**222**	155	3	7.68	**2KJ1302 - ■FM13 - ■■E1**		45
	207	**248**	138	3.2	6.86 ★	**2KJ1302 - ■FM13 - ■■D1**		45
	232	**278**	123	3.3	6.12	**2KJ1302 - ■FM13 - ■■C1**		45
	273	**328**	105	3.6	5.20	**2KJ1302 - ■FM13 - ■■B1**		45
	328	**394**	87	3.7	4.33 ★	**2KJ1302 - ■FM13 - ■■A1**		45
	FZ.38B-LA100LB4							
	86	**103**	335	0.87	16.61	**2KJ1301 - ■FM13 - ■■N1**		37
	94	**113**	306	0.95	15.19 ★	**2KJ1301 - ■FM13 - ■■M1**		37
	105	**126**	274	1.1	13.58	**2KJ1301 - ■FM13 - ■■L1**		37

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
3 (50 Hz) 3.6 (60 Hz)	**FZ.38B-LA100LB4**							
	114	**137**	252	1.2	12.47 ★	**2KJ1301 - ■FM13 - ■■K1**		37
	126	**151**	227	1.3	11.24	**2KJ1301 - ■FM13 - ■■J1**		37
	147	**176**	195	1.5	9.67 ★	**2KJ1301 - ■FM13 - ■■H1**		37
	167	**200**	172	1.7	8.52 ★	**2KJ1301 - ■FM13 - ■■G1**		37
	183	**220**	157	1.9	7.76	**2KJ1301 - ■FM13 - ■■F1**		37
	200	**240**	143	2	7.10 ★	**2KJ1301 - ■FM13 - ■■E1**		37
	224	**269**	128	2.1	6.35	**2KJ1301 - ■FM13 - ■■D1**		37
	244	**293**	118	2.3	5.83 ★	**2KJ1301 - ■FM13 - ■■C1**		37
	270	**324**	106	2.4	5.25	**2KJ1301 - ■FM13 - ■■B1**		37
	314	**377**	91	2.5	4.52 ★	**2KJ1301 - ■FM13 - ■■A1**		37
4 (50 Hz) 4.8 (60 Hz)	**FD.188B-Z68-K2-LAI112MB4**							
	1.4	**1.7**	24 905	0.8	1 030	**2KJ1441 - ■GH13 - ■■F1**		680
	FD.188B-Z68-K4-LAI112MB4							
	1.4	**1.7**	24 905	0.8	1 030	**2KJ1441 - ■GH13 - ■■F1**		680
	FD.188B-LA132MA6							
	2.4	**2.9**	16 239	1.2	403.86 ★	**2KJ1410 - ■HG13 - ■■U1**	**P01**	684
	2.6	**3.1**	14 899	1.3	370.52	**2KJ1410 - ■HG13 - ■■T1**	**P01**	684
	2.8	**3.4**	13 750	1.5	341.94 ★	**2KJ1410 - ■HG13 - ■■S1**	**P01**	684
	3	**3.6**	12 754	1.6	317.18	**2KJ1410 - ■HG13 - ■■R1**	**P01**	684
	3.2	**3.8**	12 031	1.7	299.20 ★	**2KJ1410 - ■HG13 - ■■Q1**	**P01**	684
	3.4	**4.1**	11 253	1.8	279.86	**2KJ1410 - ■HG13 - ■■P1**	**P01**	684
	FD.168B-LA132MA6							
	2.6	**3.1**	14 848	0.94	369.26 ★	**2KJ1408 - ■HG13 - ■■V1**	**P01**	503
	2.8	**3.4**	13 611	1	338.49	**2KJ1408 - ■HG13 - ■■U1**	**P01**	503
	3	**3.6**	12 551	1.1	312.12 ★	**2KJ1408 - ■HG13 - ■■T1**	**P01**	503
	3.3	**4**	11 631	1.2	289.26	**2KJ1408 - ■HG13 - ■■S1**	**P01**	503
	3.5	**4.2**	11 059	1.3	275.03 ★	**2KJ1408 - ■HG13 - ■■R1**	**P01**	503
	3.7	**4.4**	10 336	1.4	257.04	**2KJ1408 - ■HG13 - ■■Q1**	**P01**	503
	FD.148B-LA112MB4							
	3.5	**4.2**	10 929	0.82	411.98	**2KJ1407 - ■GH13 - ■■T1**		323
	3.9	**4.7**	9 764	0.92	368.06 ★	**2KJ1407 - ■GH13 - ■■S1**		323
	4.3	**5.2**	8 942	1	337.07	**2KJ1407 - ■GH13 - ■■R1**		323
	4.6	**5.5**	8 237	1.1	310.51 ★	**2KJ1407 - ■GH13 - ■■Q1**		323
	5	**6**	7 626	1.2	287.49	**2KJ1407 - ■GH13 - ■■P1**		323
	5.4	**6.5**	7 092	1.3	267.35 ★	**2KJ1407 - ■GH13 - ■■N1**		323
	5.8	**7**	6 621	1.4	249.58	**2KJ1407 - ■GH13 - ■■M1**		323
	6.4	**7.7**	5 924	1.5	223.31 ★	**2KJ1407 - ■GH13 - ■■L1**		323
	7	**8.4**	5 489	1.6	206.93	**2KJ1407 - ■GH13 - ■■K1**		323
	7.6	**9.1**	5 032	1.8	189.69 ★	**2KJ1407 - ■GH13 - ■■J1**		323
	8.3	**10**	4 613	2	173.89	**2KJ1407 - ■GH13 - ■■H1**		323
	FD.128B-LA112MB4							
	5.5	**6.6**	6 920	0.88	260.84 ★	**2KJ1406 - ■GH13 - ■■Q1**		227
	6	**7.2**	6 324	0.96	238.39	**2KJ1406 - ■GH13 - ■■P1**		227

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
4 (50 Hz) 4.8 (60 Hz)	**FD.128B-LA112MB4**							
	6.6	**7.9**	5 814	1	219.15 ★	**2KJ1406 - ■GH13 - ■■N1**		227
	7.1	**8.5**	5 371	1.1	202.48	**2KJ1406 - ■GH13 - ■■M1**		227
	7.7	**9.2**	4 984	1.2	187.88 ★	**2KJ1406 - ■GH13 - ■■L1**		227
	8.2	**9.8**	4 643	1.3	175.01	**2KJ1406 - ■GH13 - ■■K1**		227
	9.1	**10.9**	4 197	1.5	158.22 ★	**2KJ1406 - ■GH13 - ■■J1**		227
	9.9	**11.9**	3 864	1.6	145.66	**2KJ1406 - ■GH13 - ■■H1**		227
	11	**13.2**	3 475	1.8	131.01 ★	**2KJ1406 - ■GH13 - ■■G1**		227
	11.9	**14.3**	3 206	1.9	120.87	**2KJ1406 - ■GH13 - ■■F1**		227
	14.1	**16.9**	2 717	2.2	102.41	**2KJ1406 - ■GH13 - ■■E1**		227
	FD.108B-LA112MB4							
	9.2	**11**	4 143	0.82	156.19 ★	**2KJ1405 - ■GH13 - ■■K1**		146
	9.9	**11.9**	3 846	0.88	144.99	**2KJ1405 - ■GH13 - ■■J1**		146
	11.3	**13.6**	3 393	1	127.92 ★	**2KJ1405 - ■GH13 - ■■H1**		146
	12.2	**14.6**	3 133	1.1	118.11	**2KJ1405 - ■GH13 - ■■G1**		146
	13.6	**16.3**	2 807	1.2	105.81 ★	**2KJ1405 - ■GH13 - ■■F1**		146
	14.8	**17.8**	2 588	1.3	97.57	**2KJ1405 - ■GH13 - ■■E1**		146
	17.6	**21**	2 172	1.6	81.86	**2KJ1405 - ■GH13 - ■■D1**		146
	21	**25**	1 853	1.8	69.84 ★	**2KJ1405 - ■GH13 - ■■C1**		146
	25	**30**	1 544	2.2	58.20	**2KJ1405 - ■GH13 - ■■B1**		146
	FZ.108B-LA112MB4							
	22	**26**	1 703	1.8	64.21 ★	**2KJ1305 - ■GH13 - ■■A2**		145
	24	**29**	1 560	1.9	58.80	**2KJ1305 - ■GH13 - ■■X1**		145
	27	**32**	1 437	2.4	54.17 ★	**2KJ1305 - ■GH13 - ■■W1**		145
	FD.88B-LA112MB4							
	16.7	**20**	2 290	0.83	86.33 ★	**2KJ1404 - ■GH13 - ■■D1**		99
	18.7	**22**	2 044	0.93	77.04	**2KJ1404 - ■GH13 - ■■C1**		99
	22	**26**	1 736	1.1	65.43	**2KJ1404 - ■GH13 - ■■B1**		99
	26	**31**	1 445	1.3	54.47 ★	**2KJ1404 - ■GH13 - ■■A1**		99
	FZ.88B-LA112MB4							
	22	**26**	1 713	1.1	64.58 ★	**2KJ1304 - ■GH13 - ■■X1**		98
	24	**29**	1 569	1.2	59.13	**2KJ1304 - ■GH13 - ■■W1**		98
	27	**32**	1 395	1.4	52.60 ★	**2KJ1304 - ■GH13 - ■■V1**		98
	30	**36**	1 274	1.5	48.03	**2KJ1304 - ■GH13 - ■■U1**		98
	33	**40**	1 173	1.6	44.20 ★	**2KJ1304 - ■GH13 - ■■T1**		98
	35	**42**	1 083	1.8	40.83	**2KJ1304 - ■GH13 - ■■S1**		98
	38	**46**	1 005	1.9	37.89 ★	**2KJ1304 - ■GH13 - ■■R1**		98
	41	**49**	936	2	35.29	**2KJ1304 - ■GH13 - ■■Q1**		98
	45	**54**	847	2.2	31.91 ★	**2KJ1304 - ■GH13 - ■■P1**		98
	49	**59**	779	2.4	29.38	**2KJ1304 - ■GH13 - ■■N1**		98
	54	**65**	701	2.7	26.42 ★	**2KJ1304 - ■GH13 - ■■M1**		98
	59	**71**	647	2.9	24.38	**2KJ1304 - ■GH13 - ■■L1**		98
	FZ.68B-LA112MB4							
	33	**40**	1 164	0.86	43.87	**2KJ1303 - ■GH13 - ■■V1**		67

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
4 (50 Hz) 4.8 (60 Hz)	**FZ.68B-LA112MB4**							
	37	**44**	1 033	0.97	38.93 ★	**2KJ1303 - ■GH13 - ■■U1**		67
	40	**48**	953	1	35.93	**2KJ1303 - ■GH13 - ■■T1**		67
	44	**53**	862	1.2	32.50 ★	**2KJ1303 - ■GH13 - ■■S1**		67
	48	**58**	794	1.3	29.93	**2KJ1303 - ■GH13 - ■■R1**		67
	52	**62**	734	1.4	27.68 ★	**2KJ1303 - ■GH13 - ■■Q1**		67
	56	**67**	681	1.5	25.69	**2KJ1303 - ■GH13 - ■■P1**		67
	64	**77**	601	1.7	22.67 ★	**2KJ1303 - ■GH13 - ■■N1**		67
	69	**83**	555	1.8	20.93	**2KJ1303 - ■GH13 - ■■M1**		67
	77	**92**	497	2	18.75 ★	**2KJ1303 - ■GH13 - ■■L1**		67
	83	**100**	459	2.2	17.29	**2KJ1303 - ■GH13 - ■■K1**		67
	99	**119**	385	2.6	14.51	**2KJ1303 - ■GH13 - ■■J1**		67
	116	**139**	328	3	12.38 ★	**2KJ1303 - ■GH13 - ■■H1**		67
	140	**168**	274	3.7	10.31	**2KJ1303 - ■GH13 - ■■G1**		67
	179	**215**	213	4.2	8.03	**2KJ1303 - ■GH13 - ■■E1**		67
	FZ.48B-LA112MB4							
	56	**67**	679	0.8	25.59 ★	**2KJ1302 - ■GH13 - ■■R1**		52
	61	**73**	623	0.87	23.48	**2KJ1302 - ■GH13 - ■■Q1**		52
	67	**80**	574	0.94	21.63 ★	**2KJ1302 - ■GH13 - ■■P1**		52
	73	**88**	521	1	19.64	**2KJ1302 - ■GH13 - ■■N1**		52
	80	**96**	475	1.1	17.89 ★	**2KJ1302 - ■GH13 - ■■M1**		52
	88	**106**	435	1.2	16.39	**2KJ1302 - ■GH13 - ■■L1**		52
	98	**118**	388	1.4	14.63 ★	**2KJ1302 - ■GH13 - ■■K1**		52
	110	**132**	346	1.6	13.05	**2KJ1302 - ■GH13 - ■■J1**		52
	130	**156**	294	1.8	11.09	**2KJ1302 - ■GH13 - ■■H1**		52
	156	**187**	245	2.1	9.23 ★	**2KJ1302 - ■GH13 - ■■G1**		52
	172	**206**	223	2.3	8.39 ★	**2KJ1302 - ■GH13 - ■■F1**		52
	188	**226**	204	2.3	7.68	**2KJ1302 - ■GH13 - ■■E1**		52
	210	**252**	182	2.4	6.86 ★	**2KJ1302 - ■GH13 - ■■D1**		52
	235	**282**	162	2.5	6.12	**2KJ1302 - ■GH13 - ■■C1**		52
	277	**332**	138	2.7	5.20	**2KJ1302 - ■GH13 - ■■B1**		52
	333	**400**	115	2.8	4.33 ★	**2KJ1302 - ■GH13 - ■■A1**		52
5.5 (50 Hz) 6.6 (60 Hz)	**FD.208-LA160MB8**							
	2.9	**3.5**	17 904	1.9	242.01	**2KJ1411 - ■JF13 - ■■T1**	**P02**	1 133
	FD.188B-LA132MB6							
	2.4	**2.9**	22 329	0.9	403.86 ★	**2KJ1410 - ■HJ13 - ■■U1**	**P01**	684
	2.6	**3.1**	20 486	0.98	370.52	**2KJ1410 - ■HJ13 - ■■T1**	**P01**	684
	2.8	**3.4**	18 906	1.1	341.94 ★	**2KJ1410 - ■HJ13 - ■■S1**	**P01**	684
	3	**3.6**	17 537	1.1	317.18	**2KJ1410 - ■HJ13 - ■■R1**	**P01**	684
	3.2	**3.8**	16 543	1.2	299.20 ★	**2KJ1410 - ■HJ13 - ■■Q1**	**P01**	684
	3.4	**4.1**	15 473	1.3	279.86	**2KJ1410 - ■HJ13 - ■■P1**	**P01**	684
	FD.188B-LA132SB4							
	3.6	**4.3**	14 579	1.4	403.86 ★	**2KJ1410 - ■HF13 - ■■U1**		676
	3.9	**4.7**	13 376	1.5	370.52	**2KJ1410 - ■HF13 - ■■T1**		676

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
5.5 (50 Hz) 6.6 (60 Hz)	**FD.188B-LA132SB4**							
	4.3	**5.2**	12 344	1.6	341.94 ★	**2KJ1410 - ■HF13 - ■■S1**		676
	4.6	**5.5**	11 450	1.7	317.18	**2KJ1410 - ■HF13 - ■■R1**		676
	4.9	**5.9**	10 801	1.9	299.20 ★	**2KJ1410 - ■HF13 - ■■Q1**		676
	5.2	**6.2**	10 103	2	279.86	**2KJ1410 - ■HF13 - ■■P1**		676
	FD.168B-LA132MB6							
	3	**3.6**	17 257	0.81	312.12 ★	**2KJ1408 - ■HJ13 - ■■T1**	**P01**	503
	3.3	**4**	15 993	0.88	289.26	**2KJ1408 - ■HJ13 - ■■S1**	**P01**	503
	3.5	**4.2**	15 206	0.92	275.03 ★	**2KJ1408 - ■HJ13 - ■■R1**	**P01**	503
	3.7	**4.4**	14 212	0.99	257.04	**2KJ1408 - ■HJ13 - ■■Q1**	**P01**	503
	FD.168B-LA132SB4							
	3.9	**4.7**	13 330	1.1	369.26 ★	**2KJ1408 - ■HF13 - ■■V1**		495
	4.3	**5.2**	12 219	1.1	338.49	**2KJ1408 - ■HF13 - ■■U1**		495
	4.7	**5.6**	11 267	1.2	312.12 ★	**2KJ1408 - ■HF13 - ■■T1**		495
	5	**6**	10 442	1.3	289.26	**2KJ1408 - ■HF13 - ■■S1**		495
	5.3	**6.4**	9 928	1.4	275.03 ★	**2KJ1408 - ■HF13 - ■■R1**		495
	5.7	**6.8**	9 279	1.5	257.04	**2KJ1408 - ■HF13 - ■■Q1**		495
	6.4	**7.7**	8 185	1.7	226.74 ★	**2KJ1408 - ■HF13 - ■■P1**		495
	6.8	**8.2**	7 721	1.8	213.87	**2KJ1408 - ■HF13 - ■■N1**		495
	7.6	**9.1**	6 918	2	191.63 ★	**2KJ1408 - ■HF13 - ■■M1**		495
	FD.148B-LA132SB4							
	4.7	**5.6**	11 209	0.8	310.51 ★	**2KJ1407 - ■HF13 - ■■Q1**		333
	5.1	**6.1**	10 378	0.87	287.49	**2KJ1407 - ■HF13 - ■■P1**		333
	5.4	**6.5**	9 651	0.93	267.35 ★	**2KJ1407 - ■HF13 - ■■N1**		333
	5.8	**7**	9 010	1	249.58	**2KJ1407 - ■HF13 - ■■M1**		333
	6.5	**7.8**	8 061	1.1	223.31 ★	**2KJ1407 - ■HF13 - ■■L1**		333
	7	**8.4**	7 470	1.2	206.93	**2KJ1407 - ■HF13 - ■■K1**		333
	7.7	**9.2**	6 848	1.3	189.69 ★	**2KJ1407 - ■HF13 - ■■J1**		333
	8.4	**10.1**	6 277	1.4	173.89	**2KJ1407 - ■HF13 - ■■H1**		333
	9.8	**11.8**	5 349	1.7	148.18	**2KJ1407 - ■HF13 - ■■G1**		333
	11.1	**13.3**	4 720	1.9	130.76 ★	**2KJ1407 - ■HF13 - ■■F1**		333
	13.1	**15.7**	4 018	2.2	111.29	**2KJ1407 - ■HF13 - ■■E1**		333
	FZ.148B-LA132SB4							
	21	**25**	2 463	2.3	68.23	**2KJ1307 - ■HF13 - ■■V1**		325
	FD.128B-LA132SB4							
	7.2	**8.6**	7 309	0.83	202.48	**2KJ1406 - ■HF13 - ■■M1**		237
	7.7	**9.2**	6 782	0.9	187.88 ★	**2KJ1406 - ■HF13 - ■■L1**		237
	8.3	**10**	6 318	0.97	175.01	**2KJ1406 - ■HF13 - ■■K1**		237
	9.2	**11**	5 712	1.1	158.22 ★	**2KJ1406 - ■HF13 - ■■J1**		237
	10	**12**	5 258	1.2	145.66	**2KJ1406 - ■HF13 - ■■H1**		237
	11.1	**13.3**	4 729	1.3	131.01 ★	**2KJ1406 - ■HF13 - ■■G1**		237
	12	**14.4**	4 363	1.4	120.87	**2KJ1406 - ■HF13 - ■■F1**		237
	14.2	**17**	3 697	1.7	102.41	**2KJ1406 - ■HF13 - ■■E1**		237
	16.3	**19.6**	3 222	1.9	89.25 ★	**2KJ1406 - ■HF13 - ■■D1**		237
	19.2	**23**	2 741	2.2	75.93	**2KJ1406 - ■HF13 - ■■C1**		237

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
5.5 (50 Hz) 6.6 (60 Hz)	**FZ.128B-LA132SB4**							
	26	**31**	2 037	2.1	56.42 ★	**2KJ1306 - ■HF13 - ■■A2**		233
	28	**34**	1 888	2.4	52.29	**2KJ1306 - ■HF13 - ■■X1**		233
	FD.108B-LA132SB4							
	12.3	**14.8**	4 264	0.8	118.11	**2KJ1405 - ■HF13 - ■■G1**		156
	13.8	**16.6**	3 820	0.89	105.81 ★	**2KJ1405 - ■HF13 - ■■F1**		156
	14.9	**17.9**	3 522	0.97	97.57	**2KJ1405 - ■HF13 - ■■E1**		156
	17.8	**21**	2 955	1.2	81.86	**2KJ1405 - ■HF13 - ■■D1**		156
	21	**25**	2 521	1.3	69.84 ★	**2KJ1405 - ■HF13 - ■■C1**		156
	25	**30**	2 101	1.6	58.20	**2KJ1405 - ■HF13 - ■■B1**		156
	30	**36**	1 741	2	48.24 ★	**2KJ1405 - ■HF13 - ■■A1**		156
	FZ.108B-LA132SB4							
	23	**28**	2 318	1.3	64.21 ★	**2KJ1305 - ■HF13 - ■■A2**		155
	25	**30**	2 123	1.4	58.80	**2KJ1305 - ■HF13 - ■■X1**		155
	27	**32**	1 956	1.7	54.17 ★	**2KJ1305 - ■HF13 - ■■W1**		155
	29	**35**	1 810	1.9	50.15	**2KJ1305 - ■HF13 - ■■V1**		155
	31	**37**	1 684	2	46.64 ★	**2KJ1305 - ■HF13 - ■■U1**		155
	33	**40**	1 572	2.2	43.54	**2KJ1305 - ■HF13 - ■■T1**		155
	37	**44**	1 406	2.4	38.95 ★	**2KJ1305 - ■HF13 - ■■S1**		155
	40	**48**	1 303	2.6	36.10	**2KJ1305 - ■HF13 - ■■R1**		155
	FD.88B-LA132SB4							
	22	**26**	2 362	0.8	65.43	**2KJ1404 - ■HF13 - ■■B1**		109
	27	**32**	1 966	0.97	54.47 ★	**2KJ1404 - ■HF13 - ■■A1**		109
	FZ.88B-LA132SB4							
	28	**34**	1 899	1	52.60 ★	**2KJ1304 - ■HF13 - ■■V1**		108
	30	**36**	1 734	1.1	48.03	**2KJ1304 - ■HF13 - ■■U1**		108
	33	**40**	1 596	1.2	44.20 ★	**2KJ1304 - ■HF13 - ■■T1**		108
	36	**43**	1 474	1.3	40.83	**2KJ1304 - ■HF13 - ■■S1**		108
	38	**46**	1 368	1.4	37.89 ★	**2KJ1304 - ■HF13 - ■■R1**		108
	41	**49**	1 274	1.5	35.29	**2KJ1304 - ■HF13 - ■■Q1**		108
	46	**55**	1 152	1.6	31.91 ★	**2KJ1304 - ■HF13 - ■■P1**		108
	50	**60**	1 061	1.8	29.38	**2KJ1304 - ■HF13 - ■■N1**		108
	55	**66**	954	2	26.42 ★	**2KJ1304 - ■HF13 - ■■M1**		108
	60	**72**	880	2.2	24.38	**2KJ1304 - ■HF13 - ■■L1**		108
	70	**84**	745	2.5	20.65	**2KJ1304 - ■HF13 - ■■K1**		108
	81	**97**	650	2.9	18.00 ★	**2KJ1304 - ■HF13 - ■■J1**		108
	95	**114**	553	3.4	15.31	**2KJ1304 - ■HF13 - ■■H1**		108
	FZ.68B-LA132SB4							
	45	**54**	1 173	0.85	32.50 ★	**2KJ1303 - ■HF13 - ■■S1**		77
	49	**59**	1 080	0.93	29.93	**2KJ1303 - ■HF13 - ■■R1**		77
	53	**64**	999	1	27.68 ★	**2KJ1303 - ■HF13 - ■■Q1**		77
	57	**68**	927	1.1	25.69	**2KJ1303 - ■HF13 - ■■P1**		77
	64	**77**	818	1.2	22.67 ★	**2KJ1303 - ■HF13 - ■■N1**		77
	70	**84**	756	1.3	20.93	**2KJ1303 - ■HF13 - ■■M1**		77

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
5.5 (50 Hz) 6.6 (60 Hz)	**FZ.68B-LA132SB4**							
	78	**94**	677	1.5	18.75 ★	**2KJ1303 - ■HF13 - ■■L1**		77
	84	**101**	624	1.6	17.29	**2KJ1303 - ■HF13 - ■■K1**		77
	100	**120**	524	1.9	14.51	**2KJ1303 - ■HF13 - ■■J1**		77
	118	**142**	447	2.2	12.38 ★	**2KJ1303 - ■HF13 - ■■H1**		77
	141	**169**	372	2.7	10.31	**2KJ1303 - ■HF13 - ■■G1**		77
	170	**204**	309	3.2	8.55 ★	**2KJ1303 - ■HF13 - ■■F1**		77
	181	**217**	290	3.1	8.03	**2KJ1303 - ■HF13 - ■■E1**		77
	216	**259**	243	3.4	6.74	**2KJ1303 - ■HF13 - ■■D1**		77
	253	**304**	208	3.6	5.75 ★	**2KJ1303 - ■HF13 - ■■C1**		77
	304	**365**	173	3.9	4.79	**2KJ1303 - ■HF13 - ■■B1**		77
	366	**439**	143	4.1	3.97 ★	**2KJ1303 - ■HF13 - ■■A1**		77
7.5 (50 Hz) 9.0 (60 Hz)	**FD.208-LA160LB8**							
	3.0	**3.6**	24 243	1.4	242.01	**2KJ1411 - ■JJ13 - ■■T1**	**P02**	1 145
	3.3	**4.0**	21 892	1.6	218.54	**2KJ1411 - ■JJ13 - ■■S1**	**P02**	1 145
	3.5	**4.2**	20 517	1.7	204.81	**2KJ1411 - ■JJ13 - ■■R1**	**P02**	1 145
	FD.208-LA160MB6							
	4	**4.8**	18 056	1.9	242.01	**2KJ1411 - ■JF13 - ■■T1**	**P01**	1 133
	FD.188B-LA160MB6							
	3.2	**3.8**	22 323	0.9	299.20 ★	**2KJ1410 - ■JF13 - ■■Q1**	**P01**	708
	3.4	**4.1**	20 880	0.96	279.86	**2KJ1410 - ■JF13 - ■■P1**	**P01**	708
	FD.188B-LA132M4							
	3.6	**4.3**	19 881	1	403.86 ★	**2KJ1410 - ■HH13 - ■■U1**		684
	3.9	**4.7**	18 240	1.1	370.52	**2KJ1410 - ■HH13 - ■■T1**		684
	4.3	**5.2**	16 833	1.2	341.94 ★	**2KJ1410 - ■HH13 - ■■S1**		684
	4.6	**5.5**	15 614	1.3	317.18	**2KJ1410 - ■HH13 - ■■R1**		684
	4.9	**5.9**	14 729	1.4	299.20 ★	**2KJ1410 - ■HH13 - ■■Q1**		684
	5.2	**6.2**	13 777	1.5	279.86	**2KJ1410 - ■HH13 - ■■P1**		684
	5.8	**7**	12 250	1.6	248.85 ★	**2KJ1410 - ■HH13 - ■■N1**		684
	6.2	**7.4**	11 565	1.7	234.93	**2KJ1410 - ■HH13 - ■■M1**		684
	6.9	**8.3**	10 381	1.9	210.89 ★	**2KJ1410 - ■HH13 - ■■L1**		684
	7.5	**9**	9 528	2.1	193.56	**2KJ1410 - ■HH13 - ■■K1**		684
	FD.168B-LA132M4							
	4.3	**5.2**	16 663	0.84	338.49	**2KJ1408 - ■HH13 - ■■U1**		503
	4.7	**5.6**	15 365	0.91	312.12 ★	**2KJ1408 - ■HH13 - ■■T1**		503
	5	**6**	14 239	0.98	289.26	**2KJ1408 - ■HH13 - ■■S1**		503
	5.3	**6.4**	13 539	1	275.03 ★	**2KJ1408 - ■HH13 - ■■R1**		503
	5.7	**6.8**	12 653	1.1	257.04	**2KJ1408 - ■HH13 - ■■Q1**		503
	6.4	**7.7**	11 162	1.3	226.74 ★	**2KJ1408 - ■HH13 - ■■P1**		503
	6.8	**8.2**	10 528	1.3	213.87	**2KJ1408 - ■HH13 - ■■N1**		503
	7.6	**9.1**	9 433	1.5	191.63 ★	**2KJ1408 - ■HH13 - ■■M1**		503
	8.2	**9.8**	8 710	1.6	176.94	**2KJ1408 - ■HH13 - ■■L1**		503
	9.6	**11.5**	7 442	1.9	151.18	**2KJ1408 - ■HH13 - ■■K1**		503
	10.6	**12.7**	6 726	2.1	136.63 ★	**2KJ1408 - ■HH13 - ■■J1**		503
	11.1	**13.3**	6 480	2.2	131.64	**2KJ1408 - ■HH13 - ■■H1**		503

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
7.5 (50 Hz) 9.0 (60 Hz)	**FD.148B-LA132M4**							
	6.5	**7.8**	10 993	0.82	223.31 ★	**2KJ1407 - ■HH13 - ■■L1**		341
	7	**8.4**	10 187	0.88	206.93	**2KJ1407 - ■HH13 - ■■K1**		341
	7.7	**9.2**	9 338	0.96	189.69 ★	**2KJ1407 - ■HH13 - ■■J1**		341
	8.4	**10.1**	8 560	1.1	173.89	**2KJ1407 - ■HH13 - ■■H1**		341
	9.8	**11.8**	7 294	1.2	148.18	**2KJ1407 - ■HH13 - ■■G1**		341
	11.1	**13.3**	6 437	1.4	130.76 ★	**2KJ1407 - ■HH13 - ■■F1**		341
	13.1	**15.7**	5 478	1.6	111.29	**2KJ1407 - ■HH13 - ■■E1**		341
	15.1	**18.1**	4 747	1.9	96.43 ★	**2KJ1407 - ■HH13 - ■■D1**		341
	17.9	**21**	3 995	2.3	81.15 ★	**2KJ1407 - ■HH13 - ■■C1**		341
	FZ.148B-LA132M4							
	21	**25**	3 359	1.7	68.23	**2KJ1307 - ■HH13 - ■■V1**		333
	23	**28**	3 169	2.1	64.37 ★	**2KJ1307 - ■HH13 - ■■U1**		333
	24	**29**	2 964	2.4	60.21	**2KJ1307 - ■HH13 - ■■T1**		333
	FD.128B-LA132M4							
	10	**12**	7 170	0.85	145.66	**2KJ1406 - ■HH13 - ■■H1**		245
	11.1	**13.3**	6 449	0.95	131.01 ★	**2KJ1406 - ■HH13 - ■■G1**		245
	12	**14.4**	5 950	1	120.87	**2KJ1406 - ■HH13 - ■■F1**		245
	14.2	**17**	5 041	1.2	102.41	**2KJ1406 - ■HH13 - ■■E1**		245
	16.3	**19.6**	4 393	1.4	89.25 ★	**2KJ1406 - ■HH13 - ■■D1**		245
	19.2	**23**	3 738	1.6	75.93	**2KJ1406 - ■HH13 - ■■C1**		245
	22	**26**	3 190	1.9	64.80 ★	**2KJ1406 - ■HH13 - ■■B1**		245
	27	**32**	2 615	2.3	53.13 ★	**2KJ1406 - ■HH13 - ■■A1**		245
	FZ.128B-LA132M4							
	26	**31**	2 777	1.5	56.42 ★	**2KJ1306 - ■HH13 - ■■A2**		241
	28	**34**	2 574	1.8	52.29	**2KJ1306 - ■HH13 - ■■X1**		241
	29	**35**	2 447	2	49.71 ★	**2KJ1306 - ■HH13 - ■■W1**		241
	31	**37**	2 287	2.3	46.46	**2KJ1306 - ■HH13 - ■■V1**		241
	FD.108B-LA132M4							
	17.8	**21**	4 030	0.84	81.86	**2KJ1405 - ■HH13 - ■■D1**		164
	21	**25**	3 438	0.99	69.84 ★	**2KJ1405 - ■HH13 - ■■C1**		164
	25	**30**	2 865	1.2	58.20	**2KJ1405 - ■HH13 - ■■B1**		164
	30	**36**	2 375	1.4	48.24 ★	**2KJ1405 - ■HH13 - ■■A1**		164
	FZ.108B-LA132M4							
	23	**28**	3 161	0.95	64.21 ★	**2KJ1305 - ■HH13 - ■■A2**		163
	25	**30**	2 895	1	58.80	**2KJ1305 - ■HH13 - ■■X1**		163
	27	**32**	2 667	1.3	54.17 ★	**2KJ1305 - ■HH13 - ■■W1**		163
	29	**35**	2 469	1.4	50.15	**2KJ1305 - ■HH13 - ■■V1**		163
	31	**37**	2 296	1.5	46.64 ★	**2KJ1305 - ■HH13 - ■■U1**		163
	33	**40**	2 143	1.6	43.54	**2KJ1305 - ■HH13 - ■■T1**		163
	37	**44**	1 917	1.8	38.95 ★	**2KJ1305 - ■HH13 - ■■S1**		163
	40	**48**	1 777	1.9	36.10	**2KJ1305 - ■HH13 - ■■R1**		163
	44	**53**	1 629	2.1	33.09 ★	**2KJ1305 - ■HH13 - ■■Q1**		163
	48	**58**	1 493	2.3	30.33	**2KJ1305 - ■HH13 - ■■P1**		163

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
7.5 (50 Hz) 9.0 (60 Hz)	**FZ.108B-LA132M4**							
	56	**67**	1 273	2.7	25.85	**2KJ1305 - ■HH13 - ■■N1**		163
	64	**77**	1 123	3	22.81 ★	**2KJ1305 - ■HH13 - ■■M1**		163
	FZ.88B-LA132M4							
	30	**36**	2 364	0.8	48.03	**2KJ1304 - ■HH13 - ■■U1**		116
	33	**40**	2 176	0.87	44.20 ★	**2KJ1304 - ■HH13 - ■■T1**		116
	36	**43**	2 010	0.95	40.83	**2KJ1304 - ■HH13 - ■■S1**		116
	38	**46**	1 865	1	37.89 ★	**2KJ1304 - ■HH13 - ■■R1**		116
	41	**49**	1 737	1.1	35.29	**2KJ1304 - ■HH13 - ■■Q1**		116
	46	**55**	1 571	1.2	31.91 ★	**2KJ1304 - ■HH13 - ■■P1**		116
	50	**60**	1 446	1.3	29.38	**2KJ1304 - ■HH13 - ■■N1**		116
	55	**66**	1 301	1.5	26.42 ★	**2KJ1304 - ■HH13 - ■■M1**		116
	60	**72**	1 200	1.6	24.38	**2KJ1304 - ■HH13 - ■■L1**		116
	70	**84**	1 017	1.9	20.65	**2KJ1304 - ■HH13 - ■■K1**		116
	81	**97**	886	2.1	18.00 ★	**2KJ1304 - ■HH13 - ■■J1**		116
	95	**114**	754	2.5	15.31	**2KJ1304 - ■HH13 - ■■H1**		116
	111	**133**	643	3	13.07 ★	**2KJ1304 - ■HH13 - ■■G1**		116
	136	**163**	527	3.6	10.71 ★	**2KJ1304 - ■HH13 - ■■F1**		116
	158	**190**	452	3.7	9.19	**2KJ1304 - ■HH13 - ■■E1**		116
	182	**218**	394	3.9	8.01 ★	**2KJ1304 - ■HH13 - ■■D1**		116
	213	**256**	336	4.3	6.82	**2KJ1304 - ■HH13 - ■■C1**		116
	250	**300**	286	4.7	5.82 ★	**2KJ1304 - ■HH13 - ■■B1**		116
	FZ.68B-LA132M4							
	64	**77**	1 116	0.9	22.67 ★	**2KJ1303 - ■HH13 - ■■N1**		85
	70	**84**	1 030	0.97	20.93	**2KJ1303 - ■HH13 - ■■M1**		85
	78	**94**	923	1.1	18.75 ★	**2KJ1303 - ■HH13 - ■■L1**		85
	84	**101**	851	1.2	17.29	**2KJ1303 - ■HH13 - ■■K1**		85
	100	**120**	714	1.4	14.51	**2KJ1303 - ■HH13 - ■■J1**		85
	118	**142**	609	1.6	12.38 ★	**2KJ1303 - ■HH13 - ■■H1**		85
	141	**169**	508	2	10.31	**2KJ1303 - ■HH13 - ■■G1**		85
	170	**204**	421	2.4	8.55 ★	**2KJ1303 - ■HH13 - ■■F1**		85
	181	**217**	395	2.3	8.03	**2KJ1303 - ■HH13 - ■■E1**		85
	216	**259**	332	2.5	6.74	**2KJ1303 - ■HH13 - ■■D1**		85
	253	**304**	283	2.7	5.75 ★	**2KJ1303 - ■HH13 - ■■C1**		85
	304	**365**	236	2.9	4.79	**2KJ1303 - ■HH13 - ■■B1**		85
	366	**439**	195	3	3.97 ★	**2KJ1303 - ■HH13 - ■■A1**		85
9.2 (50 Hz) 11.0 (60 Hz)	**FD.188B-LA132ZMP4**							
	3.6	**4.3**	24 556	0.81	403.86 ★	**2KJ1410 - ■HT13 - ■■U1**		684
	3.9	**4.7**	22 529	0.89	370.52	**2KJ1410 - ■HT13 - ■■T1**		684
	4.2	**5**	20 791	0.96	341.94 ★	**2KJ1410 - ■HT13 - ■■S1**		684
	4.6	**5.5**	19 285	1	317.18	**2KJ1410 - ■HT13 - ■■R1**		684
	4.8	**5.8**	18 192	1.1	299.20 ★	**2KJ1410 - ■HT13 - ■■Q1**		684
	5.2	**6.2**	17 016	1.2	279.86	**2KJ1410 - ■HT13 - ■■P1**		684
	5.8	**7**	15 131	1.3	248.85 ★	**2KJ1410 - ■HT13 - ■■N1**		684

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
9.2 (50 Hz) 11.0 (60 Hz)	**FD.188B-LA132ZMP4**							
	6.2	**7.4**	14 284	1.4	234.93	**2KJ1410 - ■HT13 - ■■M1**		684
	6.9	**8.3**	12 823	1.6	210.89 ★	**2KJ1410 - ■HT13 - ■■L1**		684
	7.5	**9**	11 769	1.7	193.56	**2KJ1410 - ■HT13 - ■■K1**		684
	8.7	**10.4**	10 156	2	167.03	**2KJ1410 - ■HT13 - ■■J1**		684
	FD.168B-LA132ZMP4							
	5	**6**	17 588	0.8	289.26	**2KJ1408 - ■HT13 - ■■S1**		503
	5.3	**6.4**	16 723	0.84	275.03 ★	**2KJ1408 - ■HT13 - ■■R1**		503
	5.6	**6.7**	15 629	0.9	257.04	**2KJ1408 - ■HT13 - ■■Q1**		503
	6.4	**7.7**	13 786	1	226.74 ★	**2KJ1408 - ■HT13 - ■■P1**		503
	6.8	**8.2**	13 004	1.1	213.87	**2KJ1408 - ■HT13 - ■■N1**		503
	7.5	**9**	11 652	1.2	191.63 ★	**2KJ1408 - ■HT13 - ■■M1**		503
	8.2	**9.8**	10 758	1.3	176.94	**2KJ1408 - ■HT13 - ■■L1**		503
	9.6	**11.5**	9 192	1.5	151.18	**2KJ1408 - ■HT13 - ■■K1**		503
	10.6	**12.7**	8 307	1.7	136.63 ★	**2KJ1408 - ■HT13 - ■■J1**		503
	11	**13.2**	8 004	1.7	131.64	**2KJ1408 - ■HT13 - ■■H1**		503
	12.7	**15.2**	6 923	2	113.86	**2KJ1408 - ■HT13 - ■■G1**		503
	FD.148B-LA132ZMP4							
	8.3	**10**	10 573	0.85	173.89	**2KJ1407 - ■HT13 - ■■H1**		341
	9.8	**11.8**	9 010	1	148.18	**2KJ1407 - ■HT13 - ■■G1**		341
	11.1	**13.3**	7 951	1.1	130.76 ★	**2KJ1407 - ■HT13 - ■■F1**		341
	13	**15.6**	6 767	1.3	111.29	**2KJ1407 - ■HT13 - ■■E1**		341
	15	**18**	5 863	1.5	96.43 ★	**2KJ1407 - ■HT13 - ■■D1**		341
	17.8	**21**	4 934	1.8	81.15 ★	**2KJ1407 - ■HT13 - ■■C1**		341
	19.7	**24**	4 452	2	73.22	**2KJ1407 - ■HT13 - ■■B1**		341
	23	**28**	3 826	2.4	62.93 ★	**2KJ1407 - ■HT13 - ■■A1**		341
	FZ.148B-LA132ZMP4							
	21	**25**	4 149	1.3	68.23	**2KJ1307 - ■HT13 - ■■V1**		333
	22	**26**	3 914	1.7	64.37 ★	**2KJ1307 - ■HT13 - ■■U1**		333
	24	**29**	3 661	1.9	60.21	**2KJ1307 - ■HT13 - ■■T1**		333
	27	**32**	3 255	2.5	53.53 ★	**2KJ1307 - ■HT13 - ■■S1**		333
	FD.128B-LA132ZMP4							
	12	**14.4**	7 349	0.83	120.87	**2KJ1406 - ■HT13 - ■■F1**		245
	14.1	**16.9**	6 227	0.98	102.41	**2KJ1406 - ■HT13 - ■■E1**		245
	16.2	**19.4**	5 427	1.1	89.25 ★	**2KJ1406 - ■HT13 - ■■D1**		245
	19	**23**	4 617	1.3	75.93	**2KJ1406 - ■HT13 - ■■C1**		245
	22	**26**	3 940	1.5	64.80 ★	**2KJ1406 - ■HT13 - ■■B1**		245
	27	**32**	3 230	1.9	53.13 ★	**2KJ1406 - ■HT13 - ■■A1**		245
	FZ.128B-LA132ZMP4							
	26	**31**	3 430	1.3	56.42 ★	**2KJ1306 - ■HT13 - ■■A2**		241
	28	**34**	3 179	1.4	52.29	**2KJ1306 - ■HT13 - ■■X1**		241
	29	**35**	3 023	1.6	49.71 ★	**2KJ1306 - ■HT13 - ■■W1**		241
	31	**37**	2 825	1.8	46.46	**2KJ1306 - ■HT13 - ■■V1**		241
	35	**42**	2 492	2.3	40.99 ★	**2KJ1306 - ■HT13 - ■■U1**		241
	37	**44**	2 351	2.6	38.66	**2KJ1306 - ■HT13 - ■■T1**		241

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
9.2 (50 Hz) 11.0 (60 Hz)	**FD.108B-LA132ZMP4**							
	21	**25**	4 246	0.8	69.84 ★	**2KJ1405 - ■HT13 - ■■C1**		164
	25	**30**	3 539	0.96	58.20	**2KJ1405 - ■HT13 - ■■B1**		164
	30	**36**	2 933	1.2	48.24 ★	**2KJ1405 - ■HT13 - ■■A1**		164
	FZ.108B-LA132ZMP4							
	25	**30**	3 575	0.84	58.80	**2KJ1305 - ■HT13 - ■■X1**		163
	27	**32**	3 294	1	54.17 ★	**2KJ1305 - ■HT13 - ■■W1**		163
	29	**35**	3 049	1.1	50.15	**2KJ1305 - ■HT13 - ■■V1**		163
	31	**37**	2 836	1.2	46.64 ★	**2KJ1305 - ■HT13 - ■■U1**		163
	33	**40**	2 647	1.3	43.54	**2KJ1305 - ■HT13 - ■■T1**		163
	37	**44**	2 368	1.4	38.95 ★	**2KJ1305 - ■HT13 - ■■S1**		163
	40	**48**	2 195	1.5	36.10	**2KJ1305 - ■HT13 - ■■R1**		163
	44	**53**	2 012	1.7	33.09 ★	**2KJ1305 - ■HT13 - ■■Q1**		163
	48	**58**	1 844	1.8	30.33	**2KJ1305 - ■HT13 - ■■P1**		163
	56	**67**	1 572	2.2	25.85	**2KJ1305 - ■HT13 - ■■N1**		163
	63	**76**	1 387	2.5	22.81 ★	**2KJ1305 - ■HT13 - ■■M1**		163
	74	**89**	1 180	2.9	19.41	**2KJ1305 - ■HT13 - ■■L1**		163
	86	**103**	1 023	3.3	16.82 ★	**2KJ1305 - ■HT13 - ■■K1**		163
	FZ.88B-LA132ZMP4							
	38	**46**	2 304	0.82	37.89 ★	**2KJ1304 - ■HT13 - ■■R1**		116
	41	**49**	2 146	0.89	35.29	**2KJ1304 - ■HT13 - ■■Q1**		116
	45	**54**	1 940	0.98	31.91 ★	**2KJ1304 - ■HT13 - ■■P1**		116
	49	**59**	1 786	1.1	29.38	**2KJ1304 - ■HT13 - ■■N1**		116
	55	**66**	1 606	1.2	26.42 ★	**2KJ1304 - ■HT13 - ■■M1**		116
	59	**71**	1 482	1.3	24.38	**2KJ1304 - ■HT13 - ■■L1**		116
	70	**84**	1 256	1.5	20.65	**2KJ1304 - ■HT13 - ■■K1**		116
	80	**96**	1 094	1.7	18.00 ★	**2KJ1304 - ■HT13 - ■■J1**		116
	94	**113**	931	2	15.31	**2KJ1304 - ■HT13 - ■■H1**		116
	111	**133**	795	2.4	13.07 ★	**2KJ1304 - ■HT13 - ■■G1**		116
	135	**162**	651	2.9	10.71 ★	**2KJ1304 - ■HT13 - ■■F1**		116
	157	**188**	559	3	9.19	**2KJ1304 - ■HT13 - ■■E1**		116
	180	**216**	487	3.2	8.01 ★	**2KJ1304 - ■HT13 - ■■D1**		116
	212	**254**	415	3.5	6.82	**2KJ1304 - ■HT13 - ■■C1**		116
	248	**298**	354	3.8	5.82 ★	**2KJ1304 - ■HT13 - ■■B1**		116
	303	**364**	290	4.1	4.77 ★	**2KJ1304 - ■HT13 - ■■A1**		116
	FZ.68B-LA132ZMP4							
	77	**92**	1 140	0.88	18.75 ★	**2KJ1303 - ■HT13 - ■■L1**		85
	84	**101**	1 051	0.95	17.29	**2KJ1303 - ■HT13 - ■■K1**		85
	100	**120**	882	1.1	14.51	**2KJ1303 - ■HT13 - ■■J1**		85
	117	**140**	753	1.3	12.38 ★	**2KJ1303 - ■HT13 - ■■H1**		85
	140	**168**	627	1.6	10.31	**2KJ1303 - ■HT13 - ■■G1**		85
	169	**203**	520	1.9	8.55 ★	**2KJ1303 - ■HT13 - ■■F1**		85
	180	**216**	488	1.8	8.03	**2KJ1303 - ■HT13 - ■■E1**		85
	214	**257**	410	2	6.74	**2KJ1303 - ■HT13 - ■■D1**		85

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
9.2 (50 Hz) 11.0 (60 Hz)	**FZ.68B-LA132ZMP4**							
	251	**301**	350	2.2	5.75 ★	**2KJ1303 - ■HT13 - ■■C1**		85
	302	**362**	291	2.3	4.79	**2KJ1303 - ■HT13 - ■■B1**		85
	364	**437**	241	2.4	3.97 ★	**2KJ1303 - ■HT13 - ■■A1**		85
11.0 (50 Hz) 13.2 (60 Hz)	**FD.208-LG180LA8**							
	3.0	**3.6**	35 066	0.97	242.01	**2KJ1411 - ■KM13 - ■■T1**	**P02**	1 215
	3.3	**4.0**	31 666	1.1	218.54	**2KJ1411 - ■KM13 - ■■S1**	**P02**	1 215
	3.5	**4.2**	29 676	1.1	204.81	**2KJ1411 - ■KM13 - ■■R1**	**P02**	1 215
	FD.208-LA160LB6							
	4	**4.8**	26 482	1.3	242.01	**2KJ1411 - ■JS13 - ■■T1**	**P01**	1 145
	4.4	**5.3**	23 914	1.4	218.54	**2KJ1411 - ■JS13 - ■■S1**	**P01**	1 145
	4.7	**5.6**	22 412	1.5	204.81	**2KJ1411 - ■JS13 - ■■R1**	**P01**	1 145
	5.5	**6.6**	19 250	1.8	175.92 ★	**2KJ1411 - ■JS13 - ■■Q1**	**P01**	1 145
	FD.208-LA160MB4							
	6	**7.2**	17 413	2.0	242.01	**2KJ1411 - ■JP13 - ■■T1**		1 133
	FD.188B-LA160MB4							
	4.9	**5.9**	21 528	0.93	299.20 ★	**2KJ1410 - ■JP13 - ■■Q1**		708
	5.2	**6.2**	20 137	0.99	279.86	**2KJ1410 - ■JP13 - ■■P1**		708
	5.9	**7.1**	17 905	1.1	248.85 ★	**2KJ1410 - ■JP13 - ■■N1**		708
	6.2	**7.4**	16 904	1.2	234.93	**2KJ1410 - ■JP13 - ■■M1**		708
	6.9	**8.3**	15 174	1.3	210.89 ★	**2KJ1410 - ■JP13 - ■■L1**		708
	7.5	**9**	13 927	1.4	193.56	**2KJ1410 - ■JP13 - ■■K1**		708
	8.7	**10.4**	12 018	1.7	167.03	**2KJ1410 - ■JP13 - ■■J1**		708
	10	**12**	10 513	1.9	146.11	**2KJ1410 - ■JP13 - ■■H1**		708
	11.5	**13.8**	9 143	2.2	127.07	**2KJ1410 - ■JP13 - ■■G1**		708
	FD.168B-LA160MB4							
	6.4	**7.7**	16 314	0.86	226.74 ★	**2KJ1408 - ■JP13 - ■■P1**		527
	6.8	**8.2**	15 388	0.91	213.87	**2KJ1408 - ■JP13 - ■■N1**		527
	7.6	**9.1**	13 788	1	191.63 ★	**2KJ1408 - ■JP13 - ■■M1**		527
	8.3	**10**	12 731	1.1	176.94	**2KJ1408 - ■JP13 - ■■L1**		527
	9.7	**11.6**	10 878	1.3	151.18	**2KJ1408 - ■JP13 - ■■K1**		527
	10.7	**12.8**	9 831	1.4	136.63 ★	**2KJ1408 - ■JP13 - ■■J1**		527
	11.1	**13.3**	9 472	1.5	131.64	**2KJ1408 - ■JP13 - ■■H1**		527
	12.8	**15.4**	8 192	1.7	113.86	**2KJ1408 - ■JP13 - ■■G1**		527
	14.7	**17.6**	7 146	2	99.31 ★	**2KJ1408 - ■JP13 - ■■F1**		527
	17.2	**21**	6 115	2.3	84.99 ★	**2KJ1408 - ■JP13 - ■■E1**		527
	FZ.168B-LA160MB4							
	27	**32**	3 848	2.3	53.48	**2KJ1308 - ■JP13 - ■■R1**		510
	FD.148B-LA160MB4							
	9.9	**11.9**	10 662	0.84	148.18	**2KJ1407 - ■JP13 - ■■G1**		365
	11.2	**13.4**	9 408	0.96	130.76 ★	**2KJ1407 - ■JP13 - ■■F1**		365
	13.1	**15.7**	8 008	1.1	111.29	**2KJ1407 - ■JP13 - ■■E1**		365
	15.1	**18.1**	6 938	1.3	96.43 ★	**2KJ1407 - ■JP13 - ■■D1**		365
	18	**22**	5 839	1.5	81.15 ★	**2KJ1407 - ■JP13 - ■■C1**		365
	19.9	**24**	5 268	1.7	73.22	**2KJ1407 - ■JP13 - ■■B1**		365
	23	**28**	4 528	2	62.93 ★	**2KJ1407 - ■JP13 - ■■A1**		365

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
11.0 (50 Hz) 13.2 (60 Hz)	**FZ.148B-LA160MB4**							
	23	**28**	4 632	1.4	64.37 ★	**2KJ1307 - ■JP13 - ■■U1**		357
	24	**29**	4 332	1.6	60.21	**2KJ1307 - ■JP13 - ■■T1**		357
	27	**32**	3 852	2.1	53.53 ★	**2KJ1307 - ■JP13 - ■■S1**		357
	29	**35**	3 636	2.2	50.54	**2KJ1307 - ■JP13 - ■■R1**		357
	FD.128B-LA160MB4							
	14.3	**17.2**	7 369	0.83	102.41	**2KJ1406 - ■JP13 - ■■E1**		269
	16.4	**19.7**	6 422	0.95	89.25 ★	**2KJ1406 - ■JP13 - ■■D1**		269
	19.2	**23**	5 463	1.1	75.93	**2KJ1406 - ■JP13 - ■■C1**		269
	22	**26**	4 662	1.3	64.80 ★	**2KJ1406 - ■JP13 - ■■B1**		269
	28	**34**	3 823	1.6	53.13 ★	**2KJ1406 - ■JP13 - ■■A1**		269
	FZ.128B-LA160MB4							
	29	**35**	3 577	1.4	49.71 ★	**2KJ1306 - ■JP13 - ■■W1**		265
	31	**37**	3 343	1.5	46.46	**2KJ1306 - ■JP13 - ■■V1**		265
	36	**43**	2 949	1.9	40.99 ★	**2KJ1306 - ■JP13 - ■■U1**		265
	38	**46**	2 782	2.2	38.66	**2KJ1306 - ■JP13 - ■■T1**		265
	42	**50**	2 492	2.4	34.64 ★	**2KJ1306 - ■JP13 - ■■S1**		265
	46	**55**	2 301	2.7	31.98	**2KJ1306 - ■JP13 - ■■R1**		265
	FD.108B-LA160MB4							
	25	**30**	4 188	0.81	58.20	**2KJ1405 - ■JP13 - ■■B1**		188
	30	**36**	3 471	0.98	48.24 ★	**2KJ1405 - ■JP13 - ■■A1**		188
	FZ.108B-LA160MB4							
	31	**37**	3 356	1	46.64 ★	**2KJ1305 - ■JP13 - ■■U1**		187
	34	**41**	3 133	1.1	43.54	**2KJ1305 - ■JP13 - ■■T1**		187
	38	**46**	2 803	1.2	38.95 ★	**2KJ1305 - ■JP13 - ■■S1**		187
	40	**48**	2 597	1.3	36.10	**2KJ1305 - ■JP13 - ■■R1**		187
	44	**53**	2 381	1.4	33.09 ★	**2KJ1305 - ■JP13 - ■■Q1**		187
	48	**58**	2 182	1.6	30.33	**2KJ1305 - ■JP13 - ■■P1**		187
	56	**67**	1 860	1.8	25.85	**2KJ1305 - ■JP13 - ■■N1**		187
	64	**77**	1 641	2.1	22.81 ★	**2KJ1305 - ■JP13 - ■■M1**		187
	75	**90**	1 397	2.4	19.41	**2KJ1305 - ■JP13 - ■■L1**		187
	87	**104**	1 210	2.8	16.82 ★	**2KJ1305 - ■JP13 - ■■K1**		187
	103	**124**	1 019	3.2	14.16 ★	**2KJ1305 - ■JP13 - ■■J1**		187
	114	**137**	919	3.5	12.77	**2KJ1305 - ■JP13 - ■■H1**		187
	FZ.88B-LA160MB4							
	46	**55**	2 296	0.83	31.91 ★	**2KJ1304 - ■JP13 - ■■P1**		140
	50	**60**	2 114	0.9	29.38	**2KJ1304 - ■JP13 - ■■N1**		140
	55	**66**	1 901	1	26.42 ★	**2KJ1304 - ■JP13 - ■■M1**		140
	60	**72**	1 754	1.1	24.38	**2KJ1304 - ■JP13 - ■■L1**		140
	71	**85**	1 486	1.3	20.65	**2KJ1304 - ■JP13 - ■■K1**		140
	81	**97**	1 295	1.5	18.00 ★	**2KJ1304 - ■JP13 - ■■J1**		140
	95	**114**	1 102	1.7	15.31	**2KJ1304 - ■JP13 - ■■H1**		140
	112	**134**	940	2	13.07 ★	**2KJ1304 - ■JP13 - ■■G1**		140
	136	**163**	771	2.5	10.71 ★	**2KJ1304 - ■JP13 - ■■F1**		140

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
11.0 (50 Hz) 13.2 (60 Hz)	**FZ.88B-LA160MB4**							
	159	**191**	661	2.5	9.19	**2KJ1304 - ■JP13 - ■■E1**		140
	182	**218**	576	2.7	8.01 ★	**2KJ1304 - ■JP13 - ■■D1**		140
	214	**257**	491	3	6.82	**2KJ1304 - ■JP13 - ■■C1**		140
	251	**301**	419	3.2	5.82 ★	**2KJ1304 - ■JP13 - ■■B1**		140
	306	**367**	343	3.5	4.77 ★	**2KJ1304 - ■JP13 - ■■A1**		140
15 (50 Hz) 18 (60 Hz)	**FD.208-LG200L8**							
	3.5	**4.2**	40 468	0.84	204.81	**2KJ1411 - ■LL13 - ■■R1**	**P02**	1 265
	FD.208-LG180LA6							
	4	**4.8**	35 925	0.95	242.01	**2KJ1411 - ■KM13 - ■■T1**	**P01**	1 215
	4.4	**5.3**	32 441	1	218.54	**2KJ1411 - ■KM13 - ■■S1**	**P01**	1 215
	4.7	**5.6**	30 403	1.1	204.81	**2KJ1411 - ■KM13 - ■■R1**	**P01**	1 215
	5.5	**6.6**	26 115	1.3	175.92 ★	**2KJ1411 - ■KM13 - ■■Q1**	**P01**	1 215
	FD.208-LA160L4							
	6	**7.2**	23 745	1.4	242.01	**2KJ1411 - ■JR13 - ■■T1**		1 145
	6.7	**8**	21 442	1.6	218.54	**2KJ1411 - ■JR13 - ■■S1**		1 145
	7.1	**8.5**	20 095	1.7	204.81	**2KJ1411 - ■JR13 - ■■R1**		1 145
	8.3	**10**	17 261	2	175.92 ★	**2KJ1411 - ■JR13 - ■■Q1**		1 145
	FD.188B-LA160L4							
	5.9	**7.1**	24 416	0.82	248.85 ★	**2KJ1410 - ■JR13 - ■■N1**		720
	6.2	**7.4**	23 050	0.87	234.93	**2KJ1410 - ■JR13 - ■■M1**		720
	6.9	**8.3**	20 692	0.97	210.89 ★	**2KJ1410 - ■JR13 - ■■L1**		720
	7.5	**9**	18 991	1.1	193.56	**2KJ1410 - ■JR13 - ■■K1**		720
	8.7	**10.4**	16 388	1.2	167.03	**2KJ1410 - ■JR13 - ■■J1**		720
	10	**12**	14 336	1.4	146.11	**2KJ1410 - ■JR13 - ■■H1**		720
	11.5	**13.8**	12 468	1.6	127.07	**2KJ1410 - ■JR13 - ■■G1**		720
	13.1	**15.7**	10 939	1.8	111.49 ★	**2KJ1410 - ■JR13 - ■■F1**		720
	15.5	**18.6**	9 250	2.2	94.28 ★	**2KJ1410 - ■JR13 - ■■E1**		720
	FD.168B-LA160L4							
	8.3	**10**	17 361	0.81	176.94	**2KJ1408 - ■JR13 - ■■L1**		539
	9.7	**11.6**	14 833	0.94	151.18	**2KJ1408 - ■JR13 - ■■K1**		539
	10.7	**12.8**	13 406	1	136.63 ★	**2KJ1408 - ■JR13 - ■■J1**		539
	11.1	**13.3**	12 916	1.1	131.64	**2KJ1408 - ■JR13 - ■■H1**		539
	12.8	**15.4**	11 172	1.3	113.86	**2KJ1408 - ■JR13 - ■■G1**		539
	14.7	**17.6**	9 744	1.4	99.31 ★	**2KJ1408 - ■JR13 - ■■F1**		539
	17.2	**21**	8 339	1.7	84.99 ★	**2KJ1408 - ■JR13 - ■■E1**		539
	19.2	**23**	7 469	1.9	76.12	**2KJ1408 - ■JR13 - ■■D1**		539
	23	**28**	6 326	2.2	64.47 ★	**2KJ1408 - ■JR13 - ■■C1**		539
	FZ.168B-LA160L4							
	27	**32**	5 247	1.7	53.48	**2KJ1308 - ■JR13 - ■■R1**		522
	30	**36**	4 738	2.2	48.29	**2KJ1308 - ■JR13 - ■■Q1**		522
	FD.148B-LA160L4							
	13.1	**15.7**	10 919	0.82	111.29	**2KJ1407 - ■JR13 - ■■E1**		377
	15.1	**18.1**	9 461	0.95	96.43 ★	**2KJ1407 - ■JR13 - ■■D1**		377

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
15 (50 Hz) 18 (60 Hz)	**FD.148B-LA160L4**							
	18	**22**	7 962	1.1	81.15 ★	**2KJ1407 - ■JR13 - ■■C1**		377
	19.9	**24**	7 184	1.3	73.22	**2KJ1407 - ■JR13 - ■■B1**		377
	23	**28**	6 174	1.5	62.93 ★	**2KJ1407 - ■JR13 - ■■A1**		377
	FZ.148B-LA160L4							
	23	**28**	6 316	1	64.37 ★	**2KJ1307 - ■JR13 - ■■U1**		369
	24	**29**	5 908	1.2	60.21	**2KJ1307 - ■JR13 - ■■T1**		369
	27	**32**	5 252	1.5	53.53 ★	**2KJ1307 - ■JR13 - ■■S1**		369
	29	**35**	4 959	1.6	50.54	**2KJ1307 - ■JR13 - ■■R1**		369
	32	**38**	4 452	2	45.37 ★	**2KJ1307 - ■JR13 - ■■Q1**		369
	35	**42**	4 086	2.2	41.64	**2KJ1307 - ■JR13 - ■■P1**		369
	41	**49**	3 525	2.6	35.93	**2KJ1307 - ■JR13 - ■■N1**		369
	FD.128B-LA160L4							
	19.2	**23**	7 450	0.82	75.93	**2KJ1406 - ■JR13 - ■■C1**		281
	22	**26**	6 358	0.96	64.80 ★	**2KJ1406 - ■JR13 - ■■B1**		281
	28	**34**	5 213	1.2	53.13 ★	**2KJ1406 - ■JR13 - ■■A1**		281
	FZ.128B-LA160L4							
	29	**35**	4 877	1	49.71 ★	**2KJ1306 - ■JR13 - ■■W1**		277
	31	**37**	4 558	1.1	46.46	**2KJ1306 - ■JR13 - ■■V1**		277
	36	**43**	4 022	1.4	40.99 ★	**2KJ1306 - ■JR13 - ■■U1**		277
	38	**46**	3 793	1.6	38.66	**2KJ1306 - ■JR13 - ■■T1**		277
	42	**50**	3 399	1.8	34.64 ★	**2KJ1306 - ■JR13 - ■■S1**		277
	46	**55**	3 138	1.9	31.98	**2KJ1306 - ■JR13 - ■■R1**		277
	53	**64**	2 682	2.3	27.33	**2KJ1306 - ■JR13 - ■■Q1**		277
	59	**71**	2 423	2.5	24.70 ★	**2KJ1306 - ■JR13 - ■■P1**		277
	61	**73**	2 335	2.6	23.80	**2KJ1306 - ■JR13 - ■■N1**		277
	71	**85**	2 019	3	20.58	**2KJ1306 - ■JR13 - ■■L1**		277
	FZ.108B-LA160L4							
	34	**41**	4 272	0.8	43.54	**2KJ1305 - ■JR13 - ■■T1**		199
	38	**46**	3 822	0.89	38.95 ★	**2KJ1305 - ■JR13 - ■■S1**		199
	40	**48**	3 542	0.96	36.10	**2KJ1305 - ■JR13 - ■■R1**		199
	44	**53**	3 247	1	33.09 ★	**2KJ1305 - ■JR13 - ■■Q1**		199
	48	**58**	2 976	1.1	30.33	**2KJ1305 - ■JR13 - ■■P1**		199
	56	**67**	2 536	1.3	25.85	**2KJ1305 - ■JR13 - ■■N1**		199
	64	**77**	2 238	1.5	22.81 ★	**2KJ1305 - ■JR13 - ■■M1**		199
	75	**90**	1 904	1.8	19.41	**2KJ1305 - ■JR13 - ■■L1**		199
	87	**104**	1 650	2.1	16.82 ★	**2KJ1305 - ■JR13 - ■■K1**		199
	103	**124**	1 389	2.4	14.16 ★	**2KJ1305 - ■JR13 - ■■J1**		199
	114	**137**	1 253	2.6	12.77	**2KJ1305 - ■JR13 - ■■H1**		199
	133	**160**	1 077	2.9	10.98 ★	**2KJ1305 - ■JR13 - ■■G1**		199
	145	**174**	985	3.4	10.04	**2KJ1305 - ■JR13 - ■■F1**		199
	168	**202**	854	3.6	8.70 ★	**2KJ1305 - ■JR13 - ■■E1**		199
	199	**239**	718	4	7.32 ★	**2KJ1305 - ■JR13 - ■■D1**		199
	221	**265**	648	4.1	6.60	**2KJ1305 - ■JR13 - ■■C1**		199
	257	**308**	557	4.3	5.68 ★	**2KJ1305 - ■JR13 - ■■B1**		199

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
15 (50 Hz) 18 (60 Hz)	**FZ.88B-LA160L4**							
	71	**85**	2 026	0.94	20.65	**2KJ1304 - ■JR13 - ■■K1**		152
	81	**97**	1 766	1.1	18.00 ★	**2KJ1304 - ■JR13 - ■■J1**		152
	95	**114**	1 502	1.3	15.31	**2KJ1304 - ■JR13 - ■■H1**		152
	112	**134**	1 282	1.5	13.07 ★	**2KJ1304 - ■JR13 - ■■G1**		152
	136	**163**	1 051	1.8	10.71 ★	**2KJ1304 - ■JR13 - ■■F1**		152
	159	**191**	902	1.8	9.19	**2KJ1304 - ■JR13 - ■■E1**		152
	182	**218**	786	2	8.01 ★	**2KJ1304 - ■JR13 - ■■D1**		152
	214	**257**	669	2.2	6.82	**2KJ1304 - ■JR13 - ■■C1**		152
	251	**301**	571	2.4	5.82 ★	**2KJ1304 - ■JR13 - ■■B1**		152
	306	**367**	468	2.6	4.77 ★	**2KJ1304 - ■JR13 - ■■A1**		152
18.5 (50 Hz) 22.0 (60 Hz)	**FD.208-LG200LA6**							
	4.5	**5.4**	39 601	0.86	218.54	**2KJ1411 - ■LK13 - ■■S1**	**P01**	1 265
	4.8	**5.8**	37 113	0.92	204.81	**2KJ1411 - ■LK13 - ■■R1**	**P01**	1 265
	5.5	**6.6**	31 878	1.1	175.92 ★	**2KJ1411 - ■LK13 - ■■Q1**	**P01**	1 265
	FD.208-LG180ZMB4E							
	6.1	**7.3**	29 086	1.2	242.01	**2KJ1411 - ■KL13 - ■■T1**		1 200
	6.7	**8**	26 266	1.3	218.54	**2KJ1411 - ■KL13 - ■■S1**		1 200
	7.2	**8.6**	24 616	1.4	204.81	**2KJ1411 - ■KL13 - ■■R1**		1 200
	8.4	**10.1**	21 143	1.6	175.92 ★	**2KJ1411 - ■KL13 - ■■Q1**		1 200
	9.7	**11.6**	18 267	1.9	151.99	**2KJ1411 - ■KL13 - ■■P1**		1 200
	11	**13.2**	16 124	2.1	134.16	**2KJ1411 - ■KL13 - ■■N1**		1 200
	FD.188B-LG180ZMB4E							
	7.6	**9.1**	23 263	0.86	193.56	**2KJ1410 - ■KL13 - ■■K1**		775
	8.8	**10.6**	20 075	1	167.03	**2KJ1410 - ■KL13 - ■■J1**		775
	10.1	**12.1**	17 561	1.1	146.11	**2KJ1410 - ■KL13 - ■■H1**		775
	11.6	**13.9**	15 272	1.3	127.07	**2KJ1410 - ■KL13 - ■■G1**		775
	13.2	**15.8**	13 400	1.5	111.49 ★	**2KJ1410 - ■KL13 - ■■F1**		775
	15.6	**18.7**	11 331	1.8	94.28 ★	**2KJ1410 - ■KL13 - ■■E1**		775
	17.2	**21**	10 281	1.9	85.54	**2KJ1410 - ■KL13 - ■■D1**		775
	19.7	**24**	8 964	2.2	74.58 ★	**2KJ1410 - ■KL13 - ■■C1**		775
	FD.168B-LG180ZMB4E							
	10.8	**13**	16 421	0.85	136.63 ★	**2KJ1408 - ■KL13 - ■■J1**		594
	11.2	**13.4**	15 821	0.88	131.64	**2KJ1408 - ■KL13 - ■■H1**		594
	12.9	**15.5**	13 685	1	113.86	**2KJ1408 - ■KL13 - ■■G1**		594
	14.8	**17.8**	11 936	1.2	99.31 ★	**2KJ1408 - ■KL13 - ■■F1**		594
	17.3	**21**	10 215	1.4	84.99 ★	**2KJ1408 - ■KL13 - ■■E1**		594
	19.3	**23**	9 149	1.5	76.12	**2KJ1408 - ■KL13 - ■■D1**		594
	23	**28**	7 748	1.8	64.47 ★	**2KJ1408 - ■KL13 - ■■C1**		594
	26	**31**	6 692	2.1	55.68	**2KJ1408 - ■KL13 - ■■B1**		594
	FZ.168B-LG180ZMB4E							
	28	**34**	6 428	1.4	53.48	**2KJ1308 - ■KL13 - ■■R1**		577
	30	**36**	5 804	1.8	48.29	**2KJ1308 - ■KL13 - ■■Q1**		577
	32	**38**	5 438	2.1	45.25	**2KJ1308 - ■KL13 - ■■P1**		577

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio	Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}		(No. of poles)	kg
18.5 (50 Hz) 22.0 (60 Hz)	**FD.148B-LG180ZMB4E**							
	18.1	**22**	9 753	0.92	81.15 ★	**2KJ1407 - ■KL13 - ■■C1**		432
	20	**24**	8 800	1	73.22	**2KJ1407 - ■KL13 - ■■B1**		432
	23	**28**	7 563	1.2	62.93 ★	**2KJ1407 - ■KL13 - ■■A1**		432
	FZ.148B-LG180ZMB4E							
	28	**34**	6 434	1.2	53.53 ★	**2KJ1307 - ■KL13 - ■■S1**		424
	29	**35**	6 074	1.3	50.54	**2KJ1307 - ■KL13 - ■■R1**		424
	32	**38**	5 453	1.6	45.37 ★	**2KJ1307 - ■KL13 - ■■Q1**		424
	35	**42**	5 005	1.8	41.64	**2KJ1307 - ■KL13 - ■■P1**		424
	41	**49**	4 318	2.1	35.93	**2KJ1307 - ■KL13 - ■■N1**		424
	47	**56**	3 777	2.4	31.43	**2KJ1307 - ■KL13 - ■■M1**		424
	54	**65**	3 286	2.7	27.34	**2KJ1307 - ■KL13 - ■■L1**		424
	FD.128B-LG180ZMB4E							
	28	**34**	6 386	0.96	53.13 ★	**2KJ1406 - ■KL13 - ■■A1**		336
	FZ.128B-LG180ZMB4E							
	36	**43**	4 926	1.2	40.99 ★	**2KJ1306 - ■KL13 - ■■U1**		332
	38	**46**	4 646	1.3	38.66	**2KJ1306 - ■KL13 - ■■T1**		332
	42	**50**	4 163	1.5	34.64 ★	**2KJ1306 - ■KL13 - ■■S1**		332
	46	**55**	3 844	1.6	31.98	**2KJ1306 - ■KL13 - ■■R1**		332
	54	**65**	3 285	1.9	27.33	**2KJ1306 - ■KL13 - ■■Q1**		332
	60	**72**	2 969	2.1	24.70 ★	**2KJ1306 - ■KL13 - ■■P1**		332
	62	**74**	2 860	2.1	23.80	**2KJ1306 - ■KL13 - ■■N1**		332
	71	**85**	2 473	2.5	20.58	**2KJ1306 - ■KL13 - ■■L1**		332
	82	**98**	2 157	2.8	17.95 ★	**2KJ1306 - ■KL13 - ■■K1**		332
	96	**115**	1 846	3.2	15.36 ★	**2KJ1306 - ■KL13 - ■■J1**		332
	107	**128**	1 654	3.4	13.76	**2KJ1306 - ■KL13 - ■■H1**		332
	126	**151**	1 400	3.8	11.65 ★	**2KJ1306 - ■KL13 - ■■G1**		332
	213	**256**	830	4.3	6.91	**2KJ1306 - ■KL13 - ■■D1**		332
	251	**301**	703	4.7	5.85 ★	**2KJ1306 - ■KL13 - ■■C1**		332
	FZ.108B-LG180ZMB4E							
	44	**53**	3 977	0.85	33.09 ★	**2KJ1305 - ■KL13 - ■■Q1**		254
	48	**58**	3 645	0.93	30.33	**2KJ1305 - ■KL13 - ■■P1**		254
	57	**68**	3 107	1.1	25.85	**2KJ1305 - ■KL13 - ■■N1**		254
	64	**77**	2 741	1.2	22.81 ★	**2KJ1305 - ■KL13 - ■■M1**		254
	76	**91**	2 333	1.5	19.41	**2KJ1305 - ■KL13 - ■■L1**		254
	87	**104**	2 022	1.7	16.82 ★	**2KJ1305 - ■KL13 - ■■K1**		254
	104	**125**	1 702	1.9	14.16 ★	**2KJ1305 - ■KL13 - ■■J1**		254
	115	**138**	1 535	2.1	12.77	**2KJ1305 - ■KL13 - ■■H1**		254
	134	**161**	1 320	2.4	10.98 ★	**2KJ1305 - ■KL13 - ■■G1**		254
	146	**175**	1 207	2.8	10.04	**2KJ1305 - ■KL13 - ■■F1**		254
	169	**203**	1 046	3	8.70 ★	**2KJ1305 - ■KL13 - ■■E1**		254
	201	**241**	880	3.2	7.32 ★	**2KJ1305 - ■KL13 - ■■D1**		254
	223	**268**	793	3.3	6.60	**2KJ1305 - ■KL13 - ■■C1**		254
	259	**311**	683	3.5	5.68 ★	**2KJ1305 - ■KL13 - ■■B1**		254

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
22 (50 Hz) 26 (60 Hz)	**FD.208-LG200L6**							
	5.5	**6.6**	37 909	0.9	175.92 ★	**2KJ1411 - ■LL13 - ■■Q1**	**P01**	1 265
	FD.208-LG180ZLB4E							
	6.1	**7.3**	34 589	0.98	242.01	**2KJ1411 - ■KP13 - ■■T1**		1 215
	6.7	**8**	31 235	1.1	218.54	**2KJ1411 - ■KP13 - ■■S1**		1 215
	7.2	**8.6**	29 273	1.2	204.81	**2KJ1411 - ■KP13 - ■■R1**		1 215
	8.4	**10.1**	25 143	1.4	175.92 ★	**2KJ1411 - ■KP13 - ■■Q1**		1 215
	9.7	**11.6**	21 723	1.6	151.99	**2KJ1411 - ■KP13 - ■■P1**		1 215
	11	**13.2**	19 175	1.8	134.16	**2KJ1411 - ■KP13 - ■■N1**		1 215
	12.2	**14.6**	17 261	2	120.77 ★	**2KJ1411 - ■KP13 - ■■M1**		1 215
	FD.188B-LG180ZLB4E							
	8.8	**10.6**	23 873	0.84	167.03	**2KJ1410 - ■KP13 - ■■J1**		790
	10.1	**12.1**	20 883	0.96	146.11	**2KJ1410 - ■KP13 - ■■H1**		790
	11.6	**13.9**	18 162	1.1	127.07	**2KJ1410 - ■KP13 - ■■G1**		790
	13.2	**15.8**	15 935	1.3	111.49 ★	**2KJ1410 - ■KP13 - ■■F1**		790
	15.6	**18.7**	13 475	1.5	94.28 ★	**2KJ1410 - ■KP13 - ■■E1**		790
	17.2	**21**	12 226	1.6	85.54	**2KJ1410 - ■KP13 - ■■D1**		790
	19.7	**24**	10 659	1.9	74.58 ★	**2KJ1410 - ■KP13 - ■■C1**		790
	23	**28**	9 050	2.2	63.32	**2KJ1410 - ■KP13 - ■■B1**		790
	FZ.188B-LG180ZLB4E							
	28	**34**	7 522	2.2	52.63	**2KJ1310 - ■KP13 - ■■P1**		767
	30	**36**	6 928	2.4	48.47	**2KJ1310 - ■KP13 - ■■N1**		767
	FD.168B-LG180ZLB4E							
	12.9	**15.5**	16 273	0.86	113.86	**2KJ1408 - ■KP13 - ■■G1**		609
	14.8	**17.8**	14 194	0.99	99.31 ★	**2KJ1408 - ■KP13 - ■■F1**		609
	17.3	**21**	12 147	1.2	84.99 ★	**2KJ1408 - ■KP13 - ■■E1**		609
	19.3	**23**	10 879	1.3	76.12	**2KJ1408 - ■KP13 - ■■D1**		609
	23	**28**	9 214	1.5	64.47 ★	**2KJ1408 - ■KP13 - ■■C1**		609
	26	**31**	7 958	1.8	55.68	**2KJ1408 - ■KP13 - ■■B1**		609
	35	**42**	5 981	2.3	41.85 ★	**2KJ1408 - ■KP13 - ■■A1**		609
	FZ.168B-LG180ZLB4E							
	28	**34**	7 644	1.2	53.48	**2KJ1308 - ■KP13 - ■■R1**		592
	30	**36**	6 902	1.5	48.29	**2KJ1308 - ■KP13 - ■■Q1**		592
	32	**38**	6 467	1.8	45.25	**2KJ1308 - ■KP13 - ■■P1**		592
	38	**46**	5 556	2.3	38.87 ★	**2KJ1308 - ■KP13 - ■■N1**		592
	44	**53**	4 799	2.7	33.58	**2KJ1308 - ■KP13 - ■■M1**		592
	FD.148B-LG180ZLB4E							
	20	**24**	10 465	0.86	73.22	**2KJ1407 - ■KP13 - ■■B1**		447
	23	**28**	8 994	1	62.93 ★	**2KJ1407 - ■KP13 - ■■A1**		447
	FZ.148B-LG180ZLB4E							
	28	**34**	7 651	1	53.53 ★	**2KJ1307 - ■KP13 - ■■S1**		439
	29	**35**	7 223	1.1	50.54	**2KJ1307 - ■KP13 - ■■R1**		439
	32	**38**	6 485	1.3	45.37 ★	**2KJ1307 - ■KP13 - ■■Q1**		439
	35	**42**	5 951	1.5	41.64	**2KJ1307 - ■KP13 - ■■P1**		439

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
22 (50 Hz) 26 (60 Hz)	**FZ.148B-LG180ZLB4E**							
	41	**49**	5 135	1.8	35.93	**2KJ1307 - ■KP13 - ■■N1**		439
	47	**56**	4 492	2	31.43	**2KJ1307 - ■KP13 - ■■M1**		439
	54	**65**	3 908	2.3	27.34	**2KJ1307 - ■KP13 - ■■L1**		439
	61	**73**	3 427	2.6	23.98 ★	**2KJ1307 - ■KP13 - ■■K1**		439
	72	**86**	2 899	3.1	20.28 ★	**2KJ1307 - ■KP13 - ■■J1**		439
	FD.128B-LG180ZLB4E							
	28	**34**	7 594	0.8	53.13 ★	**2KJ1406 - ■KP13 - ■■A1**		351
	FZ.128B-LG180ZLB4E							
	36	**43**	5 859	0.97	40.99 ★	**2KJ1306 - ■KP13 - ■■U1**		347
	38	**46**	5 525	1.1	38.66	**2KJ1306 - ■KP13 - ■■T1**		347
	42	**50**	4 951	1.2	34.64 ★	**2KJ1306 - ■KP13 - ■■S1**		347
	46	**55**	4 571	1.3	31.98	**2KJ1306 - ■KP13 - ■■R1**		347
	54	**65**	3 906	1.6	27.33	**2KJ1306 - ■KP13 - ■■Q1**		347
	60	**72**	3 530	1.7	24.70 ★	**2KJ1306 - ■KP13 - ■■P1**		347
	62	**74**	3 402	1.8	23.80	**2KJ1306 - ■KP13 - ■■N1**		347
	71	**85**	2 941	2.1	20.58	**2KJ1306 - ■KP13 - ■■L1**		347
	82	**98**	2 566	2.4	17.95 ★	**2KJ1306 - ■KP13 - ■■K1**		347
	96	**115**	2 195	2.7	15.36 ★	**2KJ1306 - ■KP13 - ■■J1**		347
	107	**128**	1 967	2.9	13.76	**2KJ1306 - ■KP13 - ■■H1**		347
	126	**151**	1 665	3.2	11.65 ★	**2KJ1306 - ■KP13 - ■■G1**		347
	146	**175**	1 439	3.6	10.07	**2KJ1306 - ■KP13 - ■■F1**		347
	194	**233**	1 082	4.2	7.57 ★	**2KJ1306 - ■KP13 - ■■E1**		347
	213	**256**	988	3.6	6.91	**2KJ1306 - ■KP13 - ■■D1**		347
	251	**301**	836	3.9	5.85 ★	**2KJ1306 - ■KP13 - ■■C1**		347
	291	**349**	722	4.3	5.05	**2KJ1306 - ■KP13 - ■■B1**		347
	387	**464**	543	5	3.80 ★	**2KJ1306 - ■KP13 - ■■A1**		347
	FZ.108B-LG180ZLB4E							
	57	**68**	3 695	0.92	25.85	**2KJ1305 - ■KP13 - ■■N1**		269
	64	**77**	3 260	1	22.81 ★	**2KJ1305 - ■KP13 - ■■M1**		269
	76	**91**	2 774	1.2	19.41	**2KJ1305 - ■KP13 - ■■L1**		269
	87	**104**	2 404	1.4	16.82 ★	**2KJ1305 - ■KP13 - ■■K1**		269
	104	**125**	2 024	1.6	14.16 ★	**2KJ1305 - ■KP13 - ■■J1**		269
	115	**138**	1 825	1.8	12.77	**2KJ1305 - ■KP13 - ■■H1**		269
	134	**161**	1 569	2	10.98 ★	**2KJ1305 - ■KP13 - ■■G1**		269
	FZ.108B-LG180ZLB4E							
	146	**175**	1 435	2.4	10.04	**2KJ1305 - ■KP13 - ■■F1**		269
	169	**203**	1 243	2.5	8.70 ★	**2KJ1305 - ■KP13 - ■■E1**		269
	201	**241**	1 046	2.7	7.32 ★	**2KJ1305 - ■KP13 - ■■D1**		269
	223	**268**	943	2.8	6.60	**2KJ1305 - ■KP13 - ■■C1**		269
	259	**311**	812	3	5.68 ★	**2KJ1305 - ■KP13 - ■■B1**		269
30 (50 Hz) 36 (60 Hz)	**FD.208-LG200LB4E**							
	6.7	**8**	42 593	0.8	218.54	**2KJ1411 - ■LM13 - ■■S1**		1 265
	7.2	**8.6**	39 917	0.85	204.81	**2KJ1411 - ■LM13 - ■■R1**		1 265

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
30 (50 Hz) 36 (60 Hz)	**FD.208-LG200LB4E**							
	8.4	**10.1**	34 286	0.99	175.92 ★	**2KJ1411 - ■LM13 - ■■Q1**		1 265
	9.7	**11.6**	29 623	1.1	151.99	**2KJ1411 - ■LM13 - ■■P1**		1 265
	11	**13.2**	26 148	1.3	134.16	**2KJ1411 - ■LM13 - ■■N1**		1 265
	12.2	**14.6**	23 538	1.4	120.77 ★	**2KJ1411 - ■LM13 - ■■M1**		1 265
	14.7	**17.6**	19 531	1.7	100.21 ★	**2KJ1411 - ■LM13 - ■■L1**		1 265
	16.1	**19.3**	17 810	1.9	91.38	**2KJ1411 - ■LM13 - ■■K1**		1 265
	18.3	**22**	15 625	2.2	80.17 ★	**2KJ1411 - ■LM13 - ■■J1**		1 265
	FD.188B-LG200LB4E							
	11.6	**13.9**	24 766	0.81	127.07	**2KJ1410 - ■LM13 - ■■G1**		840
	13.2	**15.8**	21 729	0.92	111.49 ★	**2KJ1410 - ■LM13 - ■■F1**		840
	15.6	**18.7**	18 375	1.1	94.28 ★	**2KJ1410 - ■LM13 - ■■E1**		840
	17.2	**21**	16 672	1.2	85.54	**2KJ1410 - ■LM13 - ■■D1**		840
	19.7	**24**	14 535	1.4	74.58 ★	**2KJ1410 - ■LM13 - ■■C1**		840
	23	**28**	12 341	1.6	63.32	**2KJ1410 - ■LM13 - ■■B1**		840
	30	**36**	9 445	2.1	48.46 ★	**2KJ1410 - ■LM13 - ■■A1**		840
	FZ.188B-LG200LB4E							
	28	**34**	10 257	1.6	52.63	**2KJ1310 - ■LM13 - ■■P1**		817
	30	**36**	9 447	1.8	48.47	**2KJ1310 - ■LM13 - ■■N1**		817
	35	**42**	8 199	2.1	42.07 ★	**2KJ1310 - ■LM13 - ■■M1**		817
	40	**48**	7 227	2.4	37.08	**2KJ1310 - ■LM13 - ■■L1**		817
	FD.168B-LG200LB4E							
	17.3	**21**	16 564	0.85	84.99 ★	**2KJ1408 - ■LM13 - ■■E1**		659
	19.3	**23**	14 836	0.94	76.12	**2KJ1408 - ■LM13 - ■■D1**		659
	23	**28**	12 565	1.1	64.47 ★	**2KJ1408 - ■LM13 - ■■C1**		659
	26	**31**	10 852	1.3	55.68	**2KJ1408 - ■LM13 - ■■B1**		659
	35	**42**	8 156	1.7	41.85 ★	**2KJ1408 - ■LM13 - ■■A1**		659
	FZ.168B-LG200LB4E							
	28	**34**	10 423	0.86	53.48	**2KJ1308 - ■LM13 - ■■R1**		642
	30	**36**	9 412	1.1	48.29	**2KJ1308 - ■LM13 - ■■Q1**		642
	32	**38**	8 819	1.3	45.25	**2KJ1308 - ■LM13 - ■■P1**		642
	38	**46**	7 576	1.7	38.87 ★	**2KJ1308 - ■LM13 - ■■N1**		642
	44	**53**	6 545	2	33.58	**2KJ1308 - ■LM13 - ■■M1**		642
	50	**60**	5 777	2.4	29.64	**2KJ1308 - ■LM13 - ■■L1**		642
	55	**66**	5 200	2.7	26.68 ★	**2KJ1308 - ■LM13 - ■■K1**		642
	FZ.148B-LG200LB4E							
	29	**35**	9 850	0.81	50.54	**2KJ1307 - ■LM13 - ■■R1**		489
	32	**38**	8 843	0.98	45.37 ★	**2KJ1307 - ■LM13 - ■■Q1**		489
	35	**42**	8 116	1.1	41.64	**2KJ1307 - ■LM13 - ■■P1**		489
	41	**49**	7 003	1.3	35.93	**2KJ1307 - ■LM13 - ■■N1**		489
	47	**56**	6 126	1.5	31.43	**2KJ1307 - ■LM13 - ■■M1**		489
	54	**65**	5 329	1.7	27.34	**2KJ1307 - ■LM13 - ■■L1**		489
	61	**73**	4 674	1.9	23.98 ★	**2KJ1307 - ■LM13 - ■■K1**		489
	72	**86**	3 953	2.3	20.28 ★	**2KJ1307 - ■LM13 - ■■J1**		489

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
30 (50 Hz) 36 (60 Hz)	**FZ.148B-LG200LB4E**							
	80	**96**	3 586	2.5	18.40	**2KJ1307 - ■LM13 - ■■H1**		489
	92	**110**	3 126	2.9	16.04 ★	**2KJ1307 - ■LM13 - ■■G1**		489
	108	**130**	2 655	3.2	13.62	**2KJ1307 - ■LM13 - ■■F1**		489
	141	**169**	2 033	3.8	10.43 ★	**2KJ1307 - ■LM13 - ■■E1**		489
	155	**186**	1 853	3.6	9.51	**2KJ1307 - ■LM13 - ■■D1**		489
	177	**212**	1 616	3.8	8.29 ★	**2KJ1307 - ■LM13 - ■■C1**		489
	209	**251**	1 372	4.2	7.04	**2KJ1307 - ■LM13 - ■■B1**		489
	273	**328**	1 050	4.9	5.39 ★	**2KJ1307 - ■LM13 - ■■A1**		489
	FZ.128B-LG200LB4E							
	38	**46**	7 535	0.8	38.66	**2KJ1306 - ■LM13 - ■■T1**		397
	42	**50**	6 751	0.9	34.64 ★	**2KJ1306 - ■LM13 - ■■S1**		397
	46	**55**	6 233	0.98	31.98	**2KJ1306 - ■LM13 - ■■R1**		397
	54	**65**	5 327	1.1	27.33	**2KJ1306 - ■LM13 - ■■Q1**		397
	60	**72**	4 814	1.3	24.70 ★	**2KJ1306 - ■LM13 - ■■P1**		397
	62	**74**	4 639	1.3	23.80	**2KJ1306 - ■LM13 - ■■N1**		397
	71	**85**	4 011	1.5	20.58	**2KJ1306 - ■LM13 - ■■L1**		397
	82	**98**	3 498	1.7	17.95 ★	**2KJ1306 - ■LM13 - ■■K1**		397
	96	**115**	2 994	2	15.36 ★	**2KJ1306 - ■LM13 - ■■J1**		397
	107	**128**	2 682	2.1	13.76	**2KJ1306 - ■LM13 - ■■H1**		397
	126	**151**	2 271	2.4	11.65 ★	**2KJ1306 - ■LM13 - ■■G1**		397
	146	**175**	1 963	2.6	10.07	**2KJ1306 - ■LM13 - ■■F1**		397
	194	**233**	1 475	3.1	7.57 ★	**2KJ1306 - ■LM13 - ■■E1**		397
	213	**256**	1 347	2.7	6.91	**2KJ1306 - ■LM13 - ■■D1**		397
	251	**301**	1 140	2.9	5.85 ★	**2KJ1306 - ■LM13 - ■■C1**		397
	291	**349**	984	3.2	5.05	**2KJ1306 - ■LM13 - ■■B1**		397
	387	**464**	741	3.7	3.80 ★	**2KJ1306 - ■LM13 - ■■A1**		397
37 (50 Hz) 44 (60 Hz)	**FD.208-LG225S4E**							
	8.4	**10.1**	42 001	0.81	175.92 ★	**2KJ1411 - ■ME13 - ■■Q1**		1 345
	9.7	**11.6**	36 288	0.94	151.99	**2KJ1411 - ■ME13 - ■■P1**		1 345
	11	**13.2**	32 031	1.1	134.16	**2KJ1411 - ■ME13 - ■■N1**		1 345
	12.3	**14.8**	28 834	1.2	120.77 ★	**2KJ1411 - ■ME13 - ■■M1**		1 345
	14.8	**17.8**	23 925	1.4	100.21 ★	**2KJ1411 - ■ME13 - ■■L1**		1 345
	16.2	**19.4**	21 817	1.6	91.38	**2KJ1411 - ■ME13 - ■■K1**		1 345
	18.5	**22**	19 141	1.8	80.17 ★	**2KJ1411 - ■ME13 - ■■J1**		1 345
	22	**26**	16 450	2.1	68.90	**2KJ1411 - ■ME13 - ■■H1**		1 345
	FD.188B-LG225S4E							
	15.7	**18.8**	22 509	0.89	94.28 ★	**2KJ1410 - ■ME13 - ■■E1**		920
	17.3	**21**	20 423	0.98	85.54	**2KJ1410 - ■ME13 - ■■D1**		920
	19.8	**24**	17 806	1.1	74.58 ★	**2KJ1410 - ■ME13 - ■■C1**		920
	23	**28**	15 118	1.3	63.32	**2KJ1410 - ■ME13 - ■■B1**		920
	30	**36**	11 570	1.7	48.46 ★	**2KJ1410 - ■ME13 - ■■A1**		920

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
37 (50 Hz) 44 (60 Hz)	**FZ.188B-LG225S4E**							
	28	**34**	12 565	1.3	52.63	**2KJ1310 - ■ME13 - ■■P1**		897
	30	**36**	11 572	1.5	48.47	**2KJ1310 - ■ME13 - ■■N1**		897
	35	**42**	10 044	1.7	42.07 ★	**2KJ1310 - ■ME13 - ■■M1**		897
	40	**48**	8 853	2	37.08	**2KJ1310 - ■ME13 - ■■L1**		897
	46	**55**	7 769	2.4	32.54	**2KJ1310 - ■ME13 - ■■K1**		897
	FD.168B-LG225S4E							
	23	**28**	15 392	0.91	64.47 ★	**2KJ1408 - ■ME13 - ■■C1**		739
	27	**32**	13 294	1.1	55.68	**2KJ1408 - ■ME13 - ■■B1**		739
	35	**42**	9 992	1.4	41.85 ★	**2KJ1408 - ■ME13 - ■■A1**		739
	FZ.168B-LG225S4E							
	31	**37**	11 529	0.91	48.29	**2KJ1308 - ■ME13 - ■■Q1**		722
	33	**40**	10 803	1.1	45.25	**2KJ1308 - ■ME13 - ■■P1**		722
	38	**46**	9 280	1.4	38.87 ★	**2KJ1308 - ■ME13 - ■■N1**		722
	44	**53**	8 017	1.6	33.58	**2KJ1308 - ■ME13 - ■■M1**		722
	50	**60**	7 077	2	29.64	**2KJ1308 - ■ME13 - ■■L1**		722
	56	**67**	6 370	2.2	26.68 ★	**2KJ1308 - ■ME13 - ■■K1**		722
	67	**80**	5 286	2.6	22.14 ★	**2KJ1308 - ■ME13 - ■■J1**		722
	73	**88**	4 820	2.9	20.19	**2KJ1308 - ■ME13 - ■■H1**		722
	84	**101**	4 228	3.3	17.71 ★	**2KJ1308 - ■ME13 - ■■G1**		722
	FZ.148B-LG225S4E							
	33	**40**	10 832	0.8	45.37 ★	**2KJ1307 - ■ME13 - ■■Q1**		569
	36	**43**	9 942	0.91	41.64	**2KJ1307 - ■ME13 - ■■P1**		569
	41	**49**	8 578	1	35.93	**2KJ1307 - ■ME13 - ■■N1**		569
	47	**56**	7 504	1.2	31.43	**2KJ1307 - ■ME13 - ■■M1**		569
	54	**65**	6 527	1.4	27.34	**2KJ1307 - ■ME13 - ■■L1**		569
	62	**74**	5 725	1.6	23.98 ★	**2KJ1307 - ■ME13 - ■■K1**		569
	73	**88**	4 842	1.9	20.28 ★	**2KJ1307 - ■ME13 - ■■J1**		569
	80	**96**	4 393	2	18.40	**2KJ1307 - ■ME13 - ■■H1**		569
	92	**110**	3 830	2.4	16.04 ★	**2KJ1307 - ■ME13 - ■■G1**		569
	109	**131**	3 252	2.6	13.62	**2KJ1307 - ■ME13 - ■■F1**		569
	142	**170**	2 490	3.1	10.43 ★	**2KJ1307 - ■ME13 - ■■E1**		569
	156	**187**	2 271	2.9	9.51	**2KJ1307 - ■ME13 - ■■D1**		569
	179	**215**	1 979	3.1	8.29 ★	**2KJ1307 - ■ME13 - ■■C1**		569
	210	**252**	1 681	3.5	7.04	**2KJ1307 - ■ME13 - ■■B1**		569
	275	**330**	1 287	4	5.39 ★	**2KJ1307 - ■ME13 - ■■A1**		569
	FZ.128B-K4-LGI225S4E							
	46	**55**	7 635	0.8	31.98	**2KJ1306 - ■ME13 - ■■R1**		477
	54	**65**	6 525	0.93	27.33	**2KJ1306 - ■ME13 - ■■Q1**		477
	60	**72**	5 897	1	24.70 ★	**2KJ1306 - ■ME13 - ■■P1**		477
	62	**74**	5 682	1.1	23.80	**2KJ1306 - ■ME13 - ■■N1**		477
	72	**86**	4 913	1.2	20.58	**2KJ1306 - ■ME13 - ■■L1**		477
	82	**98**	4 286	1.4	17.95 ★	**2KJ1306 - ■ME13 - ■■K1**		477
	96	**115**	3 667	1.6	15.36 ★	**2KJ1306 - ■ME13 - ■■J1**		477

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor}	Output speed		Output torque	Service factor	Gearbox ratio		Order No.	Order code	Weight *)
kW	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_2 Nm	f_B	i_{tot}			(No. of poles)	kg
37 (50 Hz) 44 (60 Hz)	**FZ.128B-K4-LGI225S4E**								
	108	**130**	3 285	1.7	13.76		**2KJ1306 - ■ME13 - ■■H1**		477
	127	**152**	2 781	1.9	11.65	★	**2KJ1306 - ■ME13 - ■■G1**		477
	147	**176**	2 404	2.1	10.07		**2KJ1306 - ■ME13 - ■■F1**		477
	196	**235**	1 807	2.5	7.57	★	**2KJ1306 - ■ME13 - ■■E1**		477
	214	**257**	1 650	2.2	6.91		**2KJ1306 - ■ME13 - ■■D1**		477
	253	**304**	1 397	2.4	5.85	★	**2KJ1306 - ■ME13 - ■■C1**		477
	293	**352**	1 206	2.6	5.05		**2KJ1306 - ■ME13 - ■■B1**		477
	389	**467**	907	3	3.80	★	**2KJ1306 - ■ME13 - ■■A1**		477
45 (50 Hz) 54 (60 Hz)	**FD.208-LG225ZM4E**								
	11	**13.2**	38 956	0.87	134.16		**2KJ1411 - ■MU13 - ■■N1**		1 345
	12.3	**14.8**	35 068	0.97	120.77	★	**2KJ1411 - ■MU13 - ■■M1**		1 345
	14.8	**17.8**	29 098	1.2	100.21	★	**2KJ1411 - ■MU13 - ■■L1**		1 345
	16.2	**19.4**	26 534	1.3	91.38		**2KJ1411 - ■MU13 - ■■K1**		1 345
	18.5	**22**	23 279	1.5	80.17	★	**2KJ1411 - ■MU13 - ■■J1**		1 345
	22	**26**	20 007	1.7	68.90		**2KJ1411 - ■MU13 - ■■H1**		1 345
	28	**34**	15 581	2.2	53.66		**2KJ1411 - ■MU13 - ■■G1**		1 345
	FD.188B-LG225ZM4E								
	17.3	**21**	24 838	0.81	85.54		**2KJ1410 - ■MU13 - ■■D1**		920
	19.8	**24**	21 656	0.92	74.58	★	**2KJ1410 - ■MU13 - ■■C1**		920
	23	**28**	18 386	1.1	63.32		**2KJ1410 - ■MU13 - ■■B1**		920
	30	**36**	14 071	1.4	48.46	★	**2KJ1410 - ■MU13 - ■■A1**		920
	FZ.188B-LG225ZM4E								
	28	**34**	15 282	1.1	52.63		**2KJ1310 - ■MU13 - ■■P1**		897
	30	**36**	14 074	1.2	48.47		**2KJ1310 - ■MU13 - ■■N1**		897
	35	**42**	12 216	1.4	42.07	★	**2KJ1310 - ■MU13 - ■■M1**		897
	40	**48**	10 767	1.6	37.08		**2KJ1310 - ■MU13 - ■■L1**		897
	46	**55**	9 449	2	32.54		**2KJ1310 - ■MU13 - ■■K1**		897
	50	**60**	8 517	2.3	29.33	★	**2KJ1310 - ■MU13 - ■■J1**		897
	59	**71**	7 230	2.8	24.90	★	**2KJ1310 - ■MU13 - ■■H1**		897
	64	**77**	6 716	3	23.13		**2KJ1310 - ■MU13 - ■■G1**		897
	FD.168B-LG225ZM4E								
	27	**32**	16 168	0.87	55.68		**2KJ1408 - ■MU13 - ■■B1**		739
	35	**42**	12 152	1.2	41.85	★	**2KJ1408 - ■MU13 - ■■A1**		739
	FZ.168B-LG225ZM4E								
	33	**40**	13 139	0.88	45.25		**2KJ1308 - ■MU13 - ■■P1**		722
	38	**46**	11 287	1.2	38.87	★	**2KJ1308 - ■MU13 - ■■N1**		722
	44	**53**	9 751	1.3	33.58		**2KJ1308 - ■MU13 - ■■M1**		722
	50	**60**	8 607	1.6	29.64		**2KJ1308 - ■MU13 - ■■L1**		722
	56	**67**	7 747	1.8	26.68	★	**2KJ1308 - ■MU13 - ■■K1**		722
	67	**80**	6 429	2.2	22.14	★	**2KJ1308 - ■MU13 - ■■J1**		722
	73	**88**	5 863	2.4	20.19		**2KJ1308 - ■MU13 - ■■H1**		722
	84	**101**	5 142	2.7	17.71	★	**2KJ1308 - ■MU13 - ■■G1**		722
	97	**116**	4 419	3.2	15.22		**2KJ1308 - ■MU13 - ■■F1**		722
	125	**150**	3 444	3.8	11.86	★	**2KJ1308 - ■MU13 - ■■E1**		722

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
45 (50 Hz) 54 (60 Hz)	**FZ.148B-LG225ZM4E**							
	41	**49**	10 433	0.86	35.93	**2KJ1307 - ■MU13 - ■■N1**		569
	47	**56**	9 126	0.99	31.43	**2KJ1307 - ■MU13 - ■■M1**		569
	54	**65**	7 939	1.1	27.34	**2KJ1307 - ■MU13 - ■■L1**		569
	62	**74**	6 963	1.3	23.98 ★	**2KJ1307 - ■MU13 - ■■K1**		569
	73	**88**	5 889	1.5	20.28 ★	**2KJ1307 - ■MU13 - ■■J1**		569
	80	**96**	5 343	1.7	18.40	**2KJ1307 - ■MU13 - ■■H1**		569
	92	**110**	4 658	1.9	16.04 ★	**2KJ1307 - ■MU13 - ■■G1**		569
	109	**131**	3 955	2.2	13.62	**2KJ1307 - ■MU13 - ■■F1**		569
	142	**170**	3 029	2.6	10.43 ★	**2KJ1307 - ■MU13 - ■■E1**		569
	156	**187**	2 761	2.4	9.51	**2KJ1307 - ■MU13 - ■■D1**		569
	179	**215**	2 407	2.6	8.29 ★	**2KJ1307 - ■MU13 - ■■C1**		569
	210	**252**	2 044	2.8	7.04	**2KJ1307 - ■MU13 - ■■B1**		569
	275	**330**	1 565	3.3	5.39 ★	**2KJ1307 - ■MU13 - ■■A1**		569
	FZ.128B-K4-LGI225ZM4E							
	60	**72**	7 172	0.85	24.70 ★	**2KJ1306 - ■MU13 - ■■P1**		477
	62	**74**	6 911	0.88	23.80	**2KJ1306 - ■MU13 - ■■N1**		477
	72	**86**	5 976	1	20.58	**2KJ1306 - ■MU13 - ■■L1**		477
	82	**98**	5 212	1.2	17.95 ★	**2KJ1306 - ■MU13 - ■■K1**		477
	96	**115**	4 460	1.3	15.36 ★	**2KJ1306 - ■MU13 - ■■J1**		477
	108	**130**	3 996	1.4	13.76	**2KJ1306 - ■MU13 - ■■H1**		477
	127	**152**	3 383	1.6	11.65 ★	**2KJ1306 - ■MU13 - ■■G1**		477
	147	**176**	2 924	1.7	10.07	**2KJ1306 - ■MU13 - ■■F1**		477
	196	**235**	2 198	2.1	7.57 ★	**2KJ1306 - ■MU13 - ■■E1**		477
	214	**257**	2 006	1.8	6.91	**2KJ1306 - ■MU13 - ■■D1**		477
	253	**304**	1 699	1.9	5.85 ★	**2KJ1306 - ■MU13 - ■■C1**		477
	293	**352**	1 466	2.1	5.05	**2KJ1306 - ■MU13 - ■■B1**		477
	389	**467**	1 103	2.5	3.80 ★	**2KJ1306 - ■MU13 - ■■A1**		477
55 (50 Hz) 66 (60 Hz)	**FD.208-LG250ZM4E**							
	12.3	**14.8**	42 717	0.8	120.77 ★	**2KJ1411 - ■NN13 - ■■M1**		1 435
	14.8	**17.8**	35 445	0.96	100.21 ★	**2KJ1411 - ■NN13 - ■■L1**		1 435
	16.3	**19.6**	32 321	1.1	91.38	**2KJ1411 - ■NN13 - ■■K1**		1 435
	18.5	**22**	28 356	1.2	80.17 ★	**2KJ1411 - ■NN13 - ■■J1**		1 435
	22	**26**	24 370	1.4	68.90	**2KJ1411 - ■NN13 - ■■H1**		1 435
	28	**34**	18 980	1.8	53.66	**2KJ1411 - ■NN13 - ■■G1**		1 435
	35	**42**	15 078	2.3	42.63 ★	**2KJ1411 - ■NN13 - ■■F1**		1 435
	38	**46**	13 738	2.5	38.84	**2KJ1411 - ■NN13 - ■■E1**		1 435
	FD.188B-LG250ZM4E							
	24	**29**	22 397	0.89	63.32	**2KJ1410 - ■NN13 - ■■B1**		1 010
	31	**37**	17 140	1.2	48.46 ★	**2KJ1410 - ■NN13 - ■■A1**		1 010
	FZ.188B-LG250ZM4E							
	31	**37**	17 144	0.98	48.47	**2KJ1310 - ■NN13 - ■■N1**		987
	35	**42**	14 880	1.2	42.07 ★	**2KJ1310 - ■NN13 - ■■M1**		987
	40	**48**	13 115	1.3	37.08	**2KJ1310 - ■NN13 - ■■L1**		987

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
55 (50 Hz) 66 (60 Hz)	**FZ.188B-LG250ZM4E**							
	46	**55**	11 510	1.6	32.54	**2KJ1310 - ■NN13 - ■■K1**		987
	51	**61**	10 374	1.9	29.33 ★	**2KJ1310 - ■NN13 - ■■J1**		987
	60	**72**	8 807	2.3	24.90 ★	**2KJ1310 - ■NN13 - ■■H1**		987
	64	**77**	8 181	2.4	23.13	**2KJ1310 - ■NN13 - ■■G1**		987
	75	**90**	7 028	2.8	19.87 ★	**2KJ1310 - ■NN13 - ■■F1**		987
	88	**106**	5 995	3.1	16.95	**2KJ1310 - ■NN13 - ■■E1**		987
	FD.168B-LG250ZM4E							
	36	**43**	14 802	0.95	41.85 ★	**2KJ1408 - ■NN13 - ■■A1**		829
	FZ.168B-LG250ZM4E							
	38	**46**	13 748	0.95	38.87 ★	**2KJ1308 - ■NN13 - ■■N1**		812
	44	**53**	11 877	1.1	33.58	**2KJ1308 - ■NN13 - ■■M1**		812
	50	**60**	10 484	1.3	29.64	**2KJ1308 - ■NN13 - ■■L1**		812
	56	**67**	9 437	1.5	26.68 ★	**2KJ1308 - ■NN13 - ■■K1**		812
	67	**80**	7 831	1.8	22.14 ★	**2KJ1308 - ■NN13 - ■■J1**		812
	74	**89**	7 141	2	20.19	**2KJ1308 - ■NN13 - ■■H1**		812
	84	**101**	6 264	2.2	17.71 ★	**2KJ1308 - ■NN13 - ■■G1**		812
	98	**118**	5 383	2.6	15.22	**2KJ1308 - ■NN13 - ■■F1**		812
	125	**150**	4 195	3.1	11.86 ★	**2KJ1308 - ■NN13 - ■■E1**		812
	158	**190**	3 332	3.6	9.42 ★	**2KJ1308 - ■NN13 - ■■D1**		812
	174	**209**	3 021	3.7	8.54	**2KJ1308 - ■NN13 - ■■C1**		812
	223	**268**	2 352	4.3	6.65 ★	**2KJ1308 - ■NN13 - ■■B1**		812
	281	**337**	1 868	4.6	5.28 ★	**2KJ1308 - ■NN13 - ■■A1**		812
	FZ.148B-K4-LGI250ZM4E							
	47	**56**	11 117	0.81	31.43	**2KJ1307 - ■NN13 - ■■M1**		659
	54	**65**	9 670	0.93	27.34	**2KJ1307 - ■NN13 - ■■L1**		659
	62	**74**	8 482	1.1	23.98 ★	**2KJ1307 - ■NN13 - ■■K1**		659
	73	**88**	7 173	1.3	20.28 ★	**2KJ1307 - ■NN13 - ■■J1**		659
	81	**97**	6 508	1.4	18.40	**2KJ1307 - ■NN13 - ■■H1**		659
	93	**112**	5 673	1.6	16.04 ★	**2KJ1307 - ■NN13 - ■■G1**		659
	109	**131**	4 817	1.8	13.62	**2KJ1307 - ■NN13 - ■■F1**		659
	142	**170**	3 689	2.1	10.43 ★	**2KJ1307 - ■NN13 - ■■E1**		659
	156	**187**	3 364	2	9.51	**2KJ1307 - ■NN13 - ■■D1**		659
	179	**215**	2 932	2.1	8.29 ★	**2KJ1307 - ■NN13 - ■■C1**		659
	211	**253**	2 490	2.3	7.04	**2KJ1307 - ■NN13 - ■■B1**		659
	276	**331**	1 906	2.7	5.39 ★	**2KJ1307 - ■NN13 - ■■A1**		659
75 (50 Hz) 90 (60 Hz)	**FD.208-K4-LGI280S4E**							
	18.5	**22**	38 668	0.88	80.17 ★	**2KJ1411 - ■PG13 - ■■J1**		1 560
	22	**26**	33 232	1	68.90	**2KJ1411 - ■PG13 - ■■H1**		1 560
	28	**34**	25 881	1.3	53.66	**2KJ1411 - ■PG13 - ■■G1**		1 560
	35	**42**	20 561	1.7	42.63 ★	**2KJ1411 - ■PG13 - ■■F1**		1 560
	38	**46**	18 733	1.8	38.84	**2KJ1411 - ■PG13 - ■■E1**		1 560
	49	**59**	14 590	2.2	30.25 ★	**2KJ1411 - ■PG13 - ■■D1**		1 560
	62	**74**	11 590	2.6	24.03 ★	**2KJ1411 - ■PG13 - ■■C1**		1 560

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
75 (50 Hz) 90 (60 Hz)	**FD.188B-K4-LGI280S4E**							
	31	**37**	23 373	0.86	48.46 ★	**2KJ1410 - ■PG13 - ■■A1**		1 135
	FZ.188B-K4-LGI280S4E							
	40	**48**	17 885	0.98	37.08	**2KJ1310 - ■PG13 - ■■L1**		1 112
	46	**55**	15 695	1.2	32.54	**2KJ1310 - ■PG13 - ■■K1**		1 112
	51	**61**	14 147	1.4	29.33 ★	**2KJ1310 - ■PG13 - ■■J1**		1 112
	60	**72**	12 010	1.7	24.90 ★	**2KJ1310 - ■PG13 - ■■H1**		1 112
	64	**77**	11 156	1.8	23.13	**2KJ1310 - ■PG13 - ■■G1**		1 112
	75	**90**	9 584	2.1	19.87 ★	**2KJ1310 - ■PG13 - ■■F1**		1 112
	88	**106**	8 175	2.3	16.95	**2KJ1310 - ■PG13 - ■■E1**		1 112
	111	**133**	6 439	2.7	13.35 ★	**2KJ1310 - ■PG13 - ■■D1**		1 112
	138	**166**	5 180	3.1	10.74 ★	**2KJ1310 - ■PG13 - ■■C1**		1 112
	159	**191**	4 505	3.3	9.34	**2KJ1310 - ■PG13 - ■■B1**		1 112
	178	**214**	4 023	3.5	8.34	**2KJ1310 - ■PG13 - ■■A1**		1 112
	FZ.168B-K4-LGI280S4E							
	44	**53**	16 196	0.8	33.58	**2KJ1308 - ■PG13 - ■■M1**		937
	50	**60**	14 296	0.98	29.64	**2KJ1308 - ■PG13 - ■■L1**		937
	56	**67**	12 868	1.1	26.68 ★	**2KJ1308 - ■PG13 - ■■K1**		937
	67	**80**	10 679	1.3	22.14 ★	**2KJ1308 - ■PG13 - ■■J1**		937
	74	**89**	9 738	1.4	20.19	**2KJ1308 - ■PG13 - ■■H1**		937
	84	**101**	8 542	1.6	17.71 ★	**2KJ1308 - ■PG13 - ■■G1**		937
	98	**118**	7 341	1.9	15.22	**2KJ1308 - ■PG13 - ■■F1**		937
	125	**150**	5 720	2.3	11.86 ★	**2KJ1308 - ■PG13 - ■■E1**		937
	158	**190**	4 543	2.7	9.42 ★	**2KJ1308 - ■PG13 - ■■D1**		937
	174	**209**	4 119	2.7	8.54	**2KJ1308 - ■PG13 - ■■C1**		937
	223	**268**	3 207	3.1	6.65 ★	**2KJ1308 - ■PG13 - ■■B1**		937
	281	**337**	2 547	3.4	5.28 ★	**2KJ1308 - ■PG13 - ■■A1**		937
90 (50 Hz) 108 (60 Hz)	**FD.208-K4-LGI280ZM4E**							
	22	**26**	39 878	0.85	68.90	**2KJ1411 - ■PW13 - ■■H1**		1 600
	28	**34**	31 058	1.1	53.66	**2KJ1411 - ■PW13 - ■■G1**		1 600
	35	**42**	24 674	1.4	42.63 ★	**2KJ1411 - ■PW13 - ■■F1**		1 600
	38	**46**	22 480	1.5	38.84	**2KJ1411 - ■PW13 - ■■E1**		1 600
	49	**59**	17 508	1.8	30.25 ★	**2KJ1411 - ■PW13 - ■■D1**		1 600
	62	**74**	13 908	2.1	24.03 ★	**2KJ1411 - ■PW13 - ■■C1**		1 600
	FZ.208-K4-LGI280ZM4E							
	74	**89**	11 610	2.8	20.06	**2KJ1311 - ■PW13 - ■■H1**		1 570
	93	**112**	9 272	3.3	16.02 ★	**2KJ1311 - ■PW13 - ■■G1**		1 570
	FZ.188B-K4-LGI280ZM4E							
	40	**48**	21 461	0.82	37.08	**2KJ1310 - ■PW13 - ■■L1**		1 152
	46	**55**	18 834	0.98	32.54	**2KJ1310 - ■PW13 - ■■K1**		1 152
	51	**61**	16 976	1.2	29.33 ★	**2KJ1310 - ■PW13 - ■■J1**		1 152
	60	**72**	14 412	1.4	24.90 ★	**2KJ1310 - ■PW13 - ■■H1**		1 152
	64	**77**	13 387	1.5	23.13	**2KJ1310 - ■PW13 - ■■G1**		1 152
	75	**90**	11 501	1.7	19.87 ★	**2KJ1310 - ■PW13 - ■■F1**		1 152

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
90 (50 Hz) 108 (60 Hz)	**FZ.188B-K4-LGI280ZM4E**							
	88	**106**	9 810	1.9	16.95	**2KJ1310 - ■PW13 - ■■E1**		1 152
	111	**133**	7 727	2.3	13.35 ★	**2KJ1310 - ■PW13 - ■■D1**		1 152
	138	**166**	6 216	2.6	10.74 ★	**2KJ1310 - ■PW13 - ■■C1**		1 152
	159	**191**	5 406	2.8	9.34	**2KJ1310 - ■PW13 - ■■B1**		1 152
	178	**214**	4 827	2.9	8.34	**2KJ1310 - ■PW13 - ■■A1**		1 152
	FZ.168B-K4-LGI280ZM4E							
	50	**60**	17 155	0.82	29.64	**2KJ1308 - ■PW13 - ■■L1**		977
	56	**67**	15 442	0.91	26.68 ★	**2KJ1308 - ■PW13 - ■■K1**		977
	67	**80**	12 814	1.1	22.14 ★	**2KJ1308 - ■PW13 - ■■J1**		977
	74	**89**	11 686	1.2	20.19	**2KJ1308 - ■PW13 - ■■H1**		977
	84	**101**	10 250	1.4	17.71 ★	**2KJ1308 - ■PW13 - ■■G1**		977
	98	**118**	8 809	1.6	15.22	**2KJ1308 - ■PW13 - ■■F1**		977
	125	**150**	6 864	1.9	11.86 ★	**2KJ1308 - ■PW13 - ■■E1**		977
	158	**190**	5 452	2.2	9.42 ★	**2KJ1308 - ■PW13 - ■■D1**		977
	174	**209**	4 943	2.3	8.54	**2KJ1308 - ■PW13 - ■■C1**		977
	223	**268**	3 849	2.6	6.65 ★	**2KJ1308 - ■PW13 - ■■B1**		977
	281	**337**	3 056	2.8	5.28 ★	**2KJ1308 - ■PW13 - ■■A1**		977
110 (50 Hz) 132 (60 Hz)	**FD.208-K2-LGI315S4**							
	28	**34**	37 959	0.9	53.66	**2KJ1411 - ■QQ13 - ■■G1**		1 780
	35	**42**	30 157	1.1	42.63 ★	**2KJ1411 - ■QQ13 - ■■F1**		1 780
	38	**46**	27 476	1.2	38.84	**2KJ1411 - ■QQ13 - ■■E1**		1 780
	49	**59**	21 399	1.5	30.25 ★	**2KJ1411 - ■QQ13 - ■■D1**		1 780
	62	**74**	16 999	1.8	24.03 ★	**2KJ1411 - ■QQ13 - ■■C1**		1 780
	FZ.208-K2-LGI315S4							
	74	**89**	14 191	2.3	20.06	**2KJ1311 - ■QQ13 - ■■H1**		1 750
	93	**112**	11 333	2.7	16.02 ★	**2KJ1311 - ■QQ13 - ■■G1**		1 750
	113	**136**	9 260	3.1	13.09 ★	**2KJ1311 - ■QQ13 - ■■F1**		1 750
	129	**155**	8 142	3.4	11.51	**2KJ1311 - ■QQ13 - ■■E1**		1 750
	140	**168**	7 477	3.6	10.57	**2KJ1311 - ■QQ13 - ■■D1**		1 750
	165	**198**	6 374	4	9.01	**2KJ1311 - ■QQ13 - ■■C1**		1 750
	FZ.188B-K2-LGI315S4							
	88	**106**	11 991	1.6	16.95	**2KJ1310 - ■QQ13 - ■■E1**		1 332
	111	**133**	9 444	1.9	13.35 ★	**2KJ1310 - ■QQ13 - ■■D1**		1 332
	138	**166**	7 598	2.1	10.74 ★	**2KJ1310 - ■QQ13 - ■■C1**		1 332
	159	**191**	6 607	2.3	9.34	**2KJ1310 - ■QQ13 - ■■B1**		1 332
	178	**214**	5 900	2.4	8.34	**2KJ1310 - ■QQ13 - ■■A1**		1 332
132 (50 Hz) 158 (60 Hz)	**FD.208-K2-LGI315M4**							
	35	**42**	36 188	0.94	42.63 ★	**2KJ1411 - ■QS13 - ■■F1**		1 835
	38	**46**	32 971	1	38.84	**2KJ1411 - ■QS13 - ■■E1**		1 835
	49	**59**	25 679	1.2	30.25 ★	**2KJ1411 - ■QS13 - ■■D1**		1 835
	62	**74**	20 399	1.5	24.03 ★	**2KJ1411 - ■QS13 - ■■C1**		1 835
	FZ.208-K2-LGI315M4							
	74	**89**	17 029	1.9	20.06	**2KJ1311 - ■QS13 - ■■H1**		1 805

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

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Selection and ordering data (continued)

Power rating P_{Motor} kW	Output speed n_2 (50 Hz) rpm	Output speed n_2 (60 Hz) rpm	Output torque T_2 Nm	Service factor f_B	Gearbox ratio i_{tot}	Order No.	Order code (No. of poles)	Weight *) kg
132 (50 Hz) 158 (60 Hz)	**FZ.208-K2-LGI315M4**							
	93	**112**	13 599	2.2	16.02 ★	**2KJ1311 - ■QS13 - ■■G1**		1 805
	113	**136**	11 112	2.6	13.09 ★	**2KJ1311 - ■QS13 - ■■F1**		1 805
	129	**155**	9 771	2.8	11.51	**2KJ1311 - ■QS13 - ■■E1**		1 805
	140	**168**	8 973	3	10.57	**2KJ1311 - ■QS13 - ■■D1**		1 805
	165	**198**	7 648	3.3	9.01	**2KJ1311 - ■QS13 - ■■C1**		1 805
	FZ.188B-K2-LGI315M4							
	88	**106**	14 389	1.3	16.95	**2KJ1310 - ■QS13 - ■■E1**		1 387
	111	**133**	11 333	1.5	13.35 ★	**2KJ1310 - ■QS13 - ■■D1**		1 387
	138	**166**	9 117	1.8	10.74 ★	**2KJ1310 - ■QS13 - ■■C1**		1 387
	159	**191**	7 929	1.9	9.34	**2KJ1310 - ■QS13 - ■■B1**		1 387
	178	**214**	7 080	2	8.34	**2KJ1310 - ■QS13 - ■■A1**		1 387
160 (50 Hz) 192 (60 Hz)	**FD.208-K2-LGI315L4**							
	38	**46**	39 965	0.85	38.84	**2KJ1411 - ■QU13 - ■■E1**		1 960
	49	**59**	31 126	1	30.25 ★	**2KJ1411 - ■QU13 - ■■D1**		1 960
	62	**74**	24 726	1.2	24.03 ★	**2KJ1411 - ■QU13 - ■■C1**		1 960
	FZ.208-K2-LGI315L4							
	74	**89**	20 641	1.6	20.06	**2KJ1311 - ■QU13 - ■■H1**		1 930
	93	**112**	16 484	1.8	16.02 ★	**2KJ1311 - ■QU13 - ■■G1**		1 930
	113	**136**	13 469	2.1	13.09 ★	**2KJ1311 - ■QU13 - ■■F1**		1 930
	129	**155**	11 843	2.3	11.51	**2KJ1311 - ■QU13 - ■■E1**		1 930
	140	**168**	10 876	2.5	10.57	**2KJ1311 - ■QU13 - ■■D1**		1 930
	165	**198**	9 271	2.7	9.01	**2KJ1311 - ■QU13 - ■■C1**		1 930
	FZ.188B-K2-LGI315L4							
	88	**106**	17 441	1.1	16.95	**2KJ1310 - ■QU13 - ■■E1**		1 512
	111	**133**	13 737	1.3	13.35 ★	**2KJ1310 - ■QU13 - ■■D1**		1 512
	138	**166**	11 051	1.5	10.74 ★	**2KJ1310 - ■QU13 - ■■C1**		1 512
	159	**191**	9 610	1.6	9.34	**2KJ1310 - ■QU13 - ■■B1**		1 512
	178	**214**	8 581	1.7	8.34	**2KJ1310 - ■QU13 - ■■A1**		1 512
200 (50 Hz) 240 (60 Hz)	**FD.208-K2-LGI315LB4**							
	49	**59**	38 907	0.82	30.25 ★	**2KJ1411 - ■QV13 - ■■D1**		2 075
	62	**74**	30 907	0.97	24.03 ★	**2KJ1411 - ■QV13 - ■■C1**		2 075
	FZ.208-K2-LGI315LB4							
	74	**89**	25 801	1.3	20.06	**2KJ1311 - ■QV13 - ■■H1**		2 045
	93	**112**	20 605	1.5	16.02 ★	**2KJ1311 - ■QV13 - ■■G1**		2 045
	113	**136**	16 836	1.7	13.09 ★	**2KJ1311 - ■QV13 - ■■F1**		2 045
	129	**155**	14 804	1.9	11.51	**2KJ1311 - ■QV13 - ■■E1**		2 045
	140	**168**	13 595	2	10.567	**2KJ1311 - ■QV13 - ■■D1**		2 045
	165	**198**	11 589	2.2	9.01	**2KJ1311 - ■QV13 - ■■C1**		2 045
200 (50 Hz) 240 (60 Hz)	**FZ.188B-K2-LGI315LB4**							
	88	**106**	21 801	0.86	16.95	**2KJ1310 - ■QV13 - ■■E1**		1 627
	111	**133**	17 171	1	13.35 ★	**2KJ1310 - ■QV13 - ■■D1**		1 627
	138	**166**	13 814	1.2	10.74 ★	**2KJ1310 - ■QV13 - ■■C1**		1 627
	159	**191**	12 013	1.2	9.34	**2KJ1310 - ■QV13 - ■■B1**		1 627
	178	**214**	10 727	1.3	8.34	**2KJ1310 - ■QV13 - ■■A1**		1 627

★ Preferred transmission ratio

Shaft designs, see page 3/87 — **1, 2, 3, 5, 6 or 9**

Frequency and voltage, see page 8/20 — **1 to 9**

Gearbox housing mounting position, see page 3/90 — **A, D, E, F, H or M**

*) For mounting type B5-01

Selection and ordering data

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
	15th and 16th position	i_{tot}	n_2 (50 Hz)	n_2 (60 Hz)	T_{2N} (f_B=1)	Motor size													
Nm			rpm	rpm	Nm	63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.28	**N1**	280.00	5.2	6.2	150		•												
150	**M1**	241.56 ★	6.0	7.2	150		•	•											
	L1	207.53	7.0	8.4	150		•	•											
	K1	191.06 ★	7.6	9.1	150		•	•	•										
	J1	173.69	8.3	10.0	150		•	•	•										
	H1	153.74 ★	9.4	11.3	150		•	•	•										
	G1	128.77	11.3	13.5	150		•	•	•										
	F1	109.79 ★	13.2	15.9	150		•	•	•										
	E1	93.32 ★	15.5	18.7	150		•	•	•										
	D1	81.10	17.9	21.5	150		•	•	•										
	C1	70.59 ★	21.0	25.0	150		•	•	•										
	B1	63.68	23.0	27.0	150		•	•	•										
	A1	56.20	26.0	31.0	150		•	•	•										
FZ.28	**C2**	59.65	24	29	150		•												
96 ... 150	**B2**	50.30 ★	29	35	150		•	•											
	A2	44.66	32	39	150		•	•											
	X1	39.15 ★	37	44	150		•	•	•										
	W1	35.04	41	50	150		•	•	•										
	V1	31.10 ★	47	56	150		•	•	•										
	U1	27.25	53	64	150		•	•	•										
	T1	23.96 ★	61	73	150		•	•	•										
	S1	21.64	67	80	150		•	•	•	•									
	R1	18.86 ★	77	92	150		•	•	•										
	Q1	16.94	86	103	150		•	•	•										
	P1	15.29 ★	95	114	150		•	•	•	•									
	N1	13.87	105	125	150		•	•	•	•									
	M1	12.62 ★	115	138	148		•	•	•	•									
	L1	11.16	130	156	142		•	•	•	•									
	K1	10.30 ★	141	169	138		•	•	•	•									
	J1	8.87	163	196	131		•	•	•	•									
	H1	8.06 ★	180	216	127		•	•	•	•									
	G1	7.20 ★	201	242	126		•	•	•	•									
	F1	6.53	222	267	122		•	•	•	•									
	E1	5.94 ★	244	293	118		•	•	•	•									
	D1	5.25	276	331	111		•	•	•	•									
	C1	4.85 ★	299	359	110		•	•	•	•									
	B1	4.18	347	417	99		•	•	•	•									

★ Preferred transmission ratio

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290
	15th and 16th position	i_{tot}		n_2 (50 Hz)	n_2 (60 Hz)	T_{2N} (f_B=1)	Motor size													
Nm				rpm	rpm	Nm	63	71	80	90	100	112	132	160	180	200	225	250	280	315
FZ.38B-D28	**M1**	7 591		0.18	0.22	290		•												
290	**L1**	6 548	★	0.21	0.26	290		•	•											
	K1	5 626		0.25	0.30	290		•	•											
	J1	5 179	★	0.27	0.32	290		•	•	•										
	H1	4 709		0.30	0.38	290		•	•	•										
	G1	4 168	★	0.34	0.40	290		•	•	•										
	F1	3 491		0.40	0.48	290		•	•	•										
	E1	2 976	★	0.47	0.56	290		•	•	•										
	D1	2 530	★	0.55	0.66	290		•	•	•										
	C1	2 199		0.64	0.76	290		•	•	•										
	B1	1 914	★	0.73	0.88	290		•	•	•										
	A1	1 726		0.81	0.97	290		•	•	•										
FZ.38B-Z28	**Q1**	1 617		0.87	1.0	290		•												
290	**P1**	1 364	★	1.00	1.2	290		•	•											
	N1	1 211		1.20	1.4	290		•	•											
	M1	1 061	★	1.30	1.6	290		•	•	•										
	L1	950		1.50	1.8	290		•	•	•										
	K1	843	★	1.70	2.0	290		•	•	•										
	J1	739		1.90	2.3	290		•	•	•										
	H1	650	★	2.20	2.6	290		•	•	•										
	G1	587		2.40	2.9	290		•	•	•	•									
	F1	511	★	2.70	3.3	290		•	•	•										
	E1	459		3.10	3.7	290		•	•	•										
	D1	415	★	3.40	4.1	290		•	•	•	•									
	C1	376		3.70	4.5	290		•	•	•	•									
	B1	342	★	4.10	4.9	290		•	•	•	•									
	A1	303		4.60	5.6	290		•	•	•	•									

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)												
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.38B	**N1**	280.41	5.2	6.2	290	•	•												
290	**M1**	241.91 ★	6.0	7.2	290	•	•	•											
	L1	207.83	7.0	8.4	290	•	•	•											
	K1	191.34 ★	7.6	9.1	290	•	•	•	•										
	J1	173.94	8.3	10.1	290	•	•	•	•										
	H1	153.96 ★	9.4	11.4	290	•	•	•	•										
	G1	128.95	11.2	13.6	290	•	•	•	•										
	F1	109.95 ★	13.2	15.9	290	•	•	•	•										
	E1	93.46 ★	15.5	18.7	290	•	•	•	•										
	D1	81.22	17.9	22.0	290	•	•	•	•										
	C1	70.70 ★	21.0	25.0	290	•	•	•	•										
	B1	63.77	23.0	27.0	290	•	•	•	•										
	A1	56.28	26.0	31.0	290	•	•	•	•										
FZ.38B	**B2**	56.72 ★	26	31	210	•	•	•											
210 ... 290	**A2**	50.44	29	35	230	•	•	•											
	X1	43.75 ★	33	40	250	•	•	•	•										
	W1	40.88	35	43	275	•	•	•	•										
	V1	35.96 ★	40	49	290	•	•	•	•										
	U1	31.49	46	56	290	•	•	•	•	•									
	T1	27.85 ★	52	63	290	•	•	•	•	•									
	S1	25.24	57	69	290	•	•	•	•	•									
	R1	22.28 ★	65	79	290	•	•	•	•	•									
	Q1	20.10	72	87	290	•	•	•	•	•									
	P1	18.23 ★	80	96	290	•	•	•	•	•									
	N1	16.61	87	105	290	•	•	•	•	•									
	M1	15.19 ★	95	115	290	•	•	•	•	•									
	L1	13.58	107	129	290	•	•	•	•	•									
	K1	12.47 ★	116	140	290	•	•	•	•	•									
	J1	11.24	129	156	290	•	•	•	•	•									
	H1	9.67 ★	150	181	290	•	•	•	•	•									
	G1	8.52 ★	170	205	290	•	•	•	•	•									
	F1	7.76	187	226	290	•	•	•	•	•									
	E1	7.10 ★	204	246	290	•	•	•	•	•									
	D1	6.35	228	276	275	•	•	•	•	•									
	C1	5.83 ★	249	300	275	•	•	•	•	•									
	B1	5.25	276	333	253	•	•	•	•	•									
	A1	4.52 ★	321	387	228	•	•	•	•	•									

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)														
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}		n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.48B-D28	**M1**	19 701		0.07	0.09	540		•												
540	**L1**	16 996	★	0.08	0.10	540		•	•											
	K1	14 602		0.10	0.12	540		•	•											
	J1	13 443	★	0.10	0.13	540		•	•	•										
	H1	12 221		0.11	0.14	540		•	•	•										
	G1	10 817	★	0.13	0.16	540		•	•	•										
	F1	9 060		0.15	0.19	540		•	•	•										
	E1	7 725	★	0.18	0.22	540		•	•	•										
	D1	6 566	★	0.21	0.26	540		•	•	•										
	C1	5 706		0.25	0.29	540		•	•	•										
	B1	4 967	★	0.28	0.34	540		•	•	•										
	A1	4 480		0.31	0.38	540		•	•	•										
FD.48B-Z28	**B2**	4 197		0.33	0.40	540		•												
540	**A2**	3 539	★	0.40	0.48	540		•	•											
	X1	3 142		0.45	0.54	540		•	•											
	W1	2 755	★	0.51	0.61	540		•	•	•										
	V1	2 465		0.57	0.68	540		•	•	•										
	U1	2 188	★	0.64	0.77	540		•	•	•										
	T1	1 918		0.73	0.88	540		•	•	•										
	S1	1 686	★	0.83	1.00	540		•	•	•										
	R1	1 523		0.92	1.10	540		•	•	•	•									
	Q1	1 327	★	1.10	1.30	540		•	•	•										
	P1	1 192		1.20	1.40	540		•	•	•										
	N1	1 076	★	1.30	1.60	540		•	•	•	•									
	M1	976		1.40	1.70	540		•	•	•	•									
	L1	888	★	1.60	1.90	540		•	•	•	•									
	K1	785		1.80	2.10	540		•	•	•	•									
	J1	725	★	1.90	2.30	540		•	•	•	•									
	H1	624		2.20	2.70	540		•	•	•	•									
	G1	567	★	2.50	3.00	540		•	•	•	•									
	F1	516	★	2.70	3.30	540		•	•	•	•									
	E1	468		3.00	3.60	540		•	•	•	•									
	D1	426	★	3.30	3.90	540		•	•	•	•									
	C1	376		3.70	4.50	540		•	•	•	•									
	B1	347	★	4.00	4.80	540		•	•	•	•									
	A1	299		4.70	5.60	540		•	•	•	•									

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.48B	**S1**	268.80 ★	5.4	6.5	540	•	•	•											
540	**R1**	238.65	6.1	7.3	540	•	•	•											
	Q1	209.23 ★	6.9	8.4	540	•	•	•	•										
	P1	187.24	7.7	9.3	540	•	•	•	•										
	N1	166.19 ★	8.7	10.5	540	•	•	•	•										
	M1	145.63	10.0	12.0	540	•	•	•	•										
	L1	128.04 ★	11.3	13.7	540	•	•	•	•										
	K1	115.68	12.5	15.1	540	•	•	•	•										
	J1	100.80 ★	14.4	17.4	540	•	•	•	•										
	H1	90.53	16.0	19.3	540	•	•	•	•										
	G1	81.73 ★	17.7	21.0	540	•	•	•	•	•									
	F1	74.10	19.6	24.0	540	•	•	•	•	•									
	E1	67.43 ★	22.0	26.0	540	•	•	•	•	•									
	D1	59.62	24.0	29.0	540	•	•	•	•	•									
	C1	55.06 ★	26.0	32.0	540	•	•	•	•	•									
	B1	47.40	31.0	37.0	540	•	•	•	•	•									
	A1	43.09 ★	34.0	41.0	540	•	•	•	•	•									
FZ.48B	**B2**	60.71 ★	24	29	400	•	•	•	•										
325 ... 540	**A2**	55.19	26	32	500	•	•	•	•										
	X1	49.58 ★	29	35	540	•	•	•	•										
	W1	42.50	34	41	540	•	•	•	•	•									
	V1	38.45 ★	38	46	540	•	•	•	•	•	• [1]								
	U1	35.49	41	49	540	•	•	•	•	•	• [1]								
	T1	30.86 ★	47	57	540	•	•	•	•	•	• [1]								
	S1	28.02	52	62	540	•	•	•	•	•	• [1]								
	R1	25.59 ★	57	68	540	•	•	•	•	•	• [1]								
	Q1	23.48	62	75	540	•	•	•	•	•	• [1]								
	P1	21.63 ★	67	81	540	•	•	•	•	•	• [1]								
	N1	19.64	74	89	540	•	•	•	•	•	• [1]								
	M1	17.89 ★	81	98	540	•	•	•	•	•	• [1]								
	L1	16.39	88	107	540	•	•	•	•	•	• [1]								
	K1	14.63 ★	99	120	540	•	•	•	•	•	• [1]								
	J1	13.05	111	134	540			•	•	•	• [1]								
	H1	11.09	131	158	535			•	•	•	• [1]								
	G1	9.23 ★	157	190	526			•	•	•	• [1]								
	F1	8.39 ★	173	209	510	•	•	•	•	•	• [1]								
	E1	7.68	189	228	467	•	•	•	•	•	• [1]								
	D1	6.86 ★	211	255	443	•	•	•	•	•	• [1]								
	C1	6.12	237	286	406			•	•	•	• [1]								
	B1	5.20	279	337	378			•	•	•	• [1]								
	A1	4.33 ★	335	404	325			•	•	•	• [1]								

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)																
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}		n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.68B-D28	**T1**	39 638		0.04	0.05	1 000		•												
1 000	**S1**	34 196	★	0.04	0.05	1 000		•	•											
	R1	29 378		0.05	0.06	1 000		•	•											
	Q1	27 047	★	0.05	0.06	1 000		•	•	•										
	P1	24 588		0.06	0.07	1 000		•	•	•										
	N1	21 763	★	0.06	0.07	1 000		•	•	•										
	M1	20 908		0.07	0.08	1 000		•												
	L1	18 038	★	0.08	0.09	1 000		•	•											
	K1	15 497	★	0.09	0.11	1 000		•	•											
	J1	14 267		0.10	0.12	1 000		•	•	•										
	H1	12 970	★	0.11	0.13	1 000		•	•	•										
	G1	11 480		0.12	0.15	1 000		•	•	•										
	F1	9 615		0.15	0.18	1 000		•	•	•										
	E1	8 198		0.17	0.21	1 000		•	•	•										
	D1	6 969		0.20	0.24	1 000		•	•	•										
	C1	6 056		0.23	0.28	1 000		•	•	•										
	B1	5 271		0.27	0.32	1 000		•	•	•										
	A1	4 755		0.29	0.35	1 000		•	•	•										
FD.68B-Z28	**B2**	4 454		0.31	0.38	1 000		•												
1 000	**A2**	3 756	★	0.37	0.45	1 000		•	•											
	X1	3 335		0.42	0.50	1 000		•	•											
	W1	2 924	★	0.48	0.58	1 000		•	•	•										
	V1	2 916		0.54	0.64	1 000		•	•	•										
	U1	2 322	★	0.60	0.72	1 000		•	•	•										
	T1	2 035		0.69	0.82	1 000		•	•	•										
	S1	1 789	★	0.78	0.94	1 000		•	•	•										
	R1	1 616		0.87	1.00	1 000		•	•	•	•									
	Q1	1 408	★	0.99	1.20	1 000		•	•	•										
	P1	1 265		1.10	1.30	1 000		•	•	•										
	N1	1 142	★	1.20	1.50	1 000		•	•	•	•									
	M1	1 036		1.40	1.60	1 000		•	•	•	•									
	L1	942	★	1.50	1.80	1 000		•	•	•	•									
	K1	833		1.70	2.00	1 000		•	•	•	•									
	J1	769	★	1.80	2.20	1 000		•	•	•	•									
	H1	662		2.10	2.50	1 000		•	•	•	•									
	G1	602	★	2.30	2.80	1 000		•	•	•	•									
	F1	547	★	2.60	3.10	1 000		•	•	•	•									
	E1	496		2.80	3.40	1 000		•	•	•	•									
	D1	452	★	3.10	3.70	1 000		•	•	•	•									
	C1	399		3.50	4.20	1 000		•	•	•	•									
	B1	369	★	3.80	4.60	1 000		•	•	•	•									
	A1	317		4.40	5.30	1 000		•	•	•	•									

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.68B	**S1**	296.18 ★	4.9	5.9	1 000	•	•	•											
1 000	**R1**	263.39	5.5	6.6	1 000	•	•	•											
	Q1	228.48 ★	6.3	7.7	1 000	•	•	•	•										
	P1	213.48	6.8	8.2	1 000	•	•	•	•										
	N1	187.76 ★	7.7	9.3	1 000	•	•	•	•										
	M1	164.44	8.8	10.6	1 000	•	•	•	•	•									
	L1	145.44 ★	10.0	12.0	1 000	•	•	•	•	•									
	K1	131.82	11.0	13.3	1 000	•	•	•	•	•									
	J1	116.36 ★	12.5	15.0	1 000	•	•	•	•	•									
	H1	104.96	13.8	16.7	1 000	•	•	•	•	•									
	G1	95.20 ★	15.2	18.4	1 000	•	•	•	•	•									
	F1	86.74	16.7	20.0	1 000	•	•	•	•	•									
	E1	79.33 ★	18.3	22.0	1 000	•	•	•	•	•									
	D1	70.93	20.0	25.0	1 000	•	•	•	•	•									
	C1	65.14 ★	22.0	27.0	1 000	•	•	•	•	•									
	B1	58.71	25.0	30.0	1 000	•	•	•	•	•									
	A1	50.48 ★	29.0	35.0	1 000	•	•	•	•	•									
FZ.68B	**B2**	61.17 ★	24	29	850			•	•										
589 ... 1 000	**A2**	53.50	27	33	1 000			•	•	•									
	X1	48.03 ★	30	36	1 000			•	•	•	•								
	V1	43.87	33	40	1 000			•	•	•	•								
	U1	38.93 ★	37	45	1 000			•	•	•	•	• [1]							
	T1	35.93	40	49	1 000			•	•	•	•	• [1]							
	S1	32.50 ★	45	54	1 000			•	•	•	•	• [1]							
	R1	29.93	48	58	1 000			•	•	•	•	• [1]							
	Q1	27.68 ★	52	63	1 000			•	•	•	•	• [1]							
	P1	25.69	56	68	1 000			•	•	•	•	• [1]							
	N1	22.67 ★	64	77	1 000			•	•	•	•	• [1]							
	M1	20.93	69	84	1 000			•	•	•	•	• [1]							
	L1	18.75 ★	77	93	1 000			•	•	•	•	• [1]							
	K1	17.29	84	101	1 000			•	•	•	•	• [1]							
	J1	14.51	100	121	1 000			•	•	•	•	• [1]							
	H1	12.38 ★	117	141	1 000			•	•	•	•	• [1]							
	G1	10.31	141	170	1 000					•	•	• [1]							
	F1	8.55 ★	170	205	1 000					•	•	• [1]							
	E1	8.03	181	218	897			•	•	•	•	• [1]							
	D1	6.74	215	260	835			•	•	•	•	• [1]							
	C1	5.75 ★	252	304	755			•	•	•	•	• [1]							
	B1	4.79	303	365	682					•	•	• [1]							
	A1	3.97 ★	365	441	589					•	•	• [1]							

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)																
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}		n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.88B-D28	**T1**	54 705		0.03	0.04	1 900		•												
1 900	**S1**	47 195	★	0.03	0.04	1 900		•	•											
	R1	40 546		0.03	0.04	1 900		•	•											
	Q1	37 328	★	0.04	0.05	1 900		•	•	•										
	P1	33 935		0.04	0.05	1 900		•	•	•										
	N1	30 036	★	0.05	0.06	1 900		•	•	•										
	M1	28 814		0.05	0.06	1 900		•	•											
	L1	24 755	★	0.06	0.07	1 900		•	•											
	K1	22 790	★	0.06	0.07	1 900		•	•	•										
	J1	20 718		0.07	0.08	1 900		•	•	•										
	H1	18 338	★	0.08	0.09	1 900		•	•	•										
	G1	15 360		0.09	0.11	1 900		•	•	•										
	F1	13 096	★	0.11	0.13	1 900		•	•	•										
	E1	11 132	★	0.13	0.15	1 900		•	•	•										
	D1	9 674		0.14	0.17	1 900		•	•	•										
	C1	8 420	★	0.17	0.20	1 900		•	•	•										
	B1	7 595		0.18	0.22	1 900		•	•	•										
	A1	6 703		0.21	0.25	1 900		•	•	•										
FD.88B-Z28	**B2**	6 000	★	0.23	0.28	1 900		•	•											
1 900	**A2**	5 327		0.26	0.32	1 900		•	•											
	X1	4 670	★	0.30	0.36	1 900		•	•	•										
	W1	4 179		0.33	0.40	1 900		•	•	•										
	V1	3 709	★	0.38	0.45	1 900		•	•	•										
	U1	3 251		0.43	0.52	1 900		•	•	•										
	T1	2 858	★	0.49	0.59	1 900		•	•	•										
	S1	2 582		0.54	0.65	1 900		•	•	•	•									
	R1	2 250	★	0.62	0.75	1 900		•	•	•										
	Q1	2 021		0.69	0.83	1 900		•	•	•										
	P1	1 824	★	0.77	0.92	1 900		•	•	•	•									
	N1	1 654		0.85	1.00	1 900		•	•	•	•									
	M1	1 505	★	0.93	1.10	1 900		•	•	•	•									
	L1	1 331		1.10	1.30	1 900		•	•	•	•									
	K1	1 229	★	1.10	1.40	1 900		•	•	•	•									
	J1	1 058		1.30	1.60	1 900		•	•	•	•									
	H1	962	★	1.50	1.70	1 900		•	•	•	•									
	G1	874	★	1.60	1.90	1 900		•	•	•	•									
	F1	793		1.80	2.10	1 900		•	•	•	•									
	E1	721	★	1.90	2.30	1 900		•	•	•	•									
	D1	638		2.20	2.60	1 900		•	•	•	•									
	C1	589	★	2.40	2.90	1 900		•	•	•	•									
	B1	507		2.80	3.30	1 900		•	•	•	•									
	A1	461	★	3.00	3.60	1 900		•	•	•	•									

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.88B	**V1**	404.92	3.6	4.3	1 900	•	•	•											
1 900	**U1**	358.33 ★	4.0	4.9	1 900	•	•	•	•										
	T1	325.76	4.5	5.4	1 900	•	•	•	•										
	S1	292.64 ★	5.0	6.0	1 900	•	•	•	•										
	R1	250.83	5.8	7.0	1 900	•	•	•	•	•									
	P1	226.94 ★	6.4	7.7	1 900	•	•	•	•	•	•								
	N1	209.49	6.9	8.4	1 900	•	•	•	•	•	•								
	M1	182.15 ★	8.0	9.6	1 900	•	•	•	•	•	•	•							
	L1	165.38	8.8	10.6	1 900	•	•	•	•	•	•	•							
	K1	151.01 ★	9.6	11.6	1 900	•	•	•	•	•	•	•							
	J1	138.56	10.5	12.6	1 900	•	•	•	•	•	•	•							
	H1	127.66 ★	11.4	13.7	1 900	•	•	•	•	•	•	•							
	G1	115.93	12.5	15.1	1 900	•	•	•	•	•	•	•							
	F1	105.61 ★	13.7	16.6	1 900	•	•	•	•	•	•	•							
	E1	96.75	15.0	18.1	1 900	•	•	•	•	•	•	•							
	D1	86.33 ★	16.8	20.0	1 900	•	•	•	•	•	•	•							
	C1	77.04	18.8	23.0	1 900			•	•	•	•	•							
	B1	65.43	22.0	27.0	1 900			•	•	•	•	•							
	A1	54.47 ★	27.0	32.0	1 900			•	•	•	•	•							
FZ.88B	**X1**	64.58 ★	22	27	1 900			•	•	•	•								
1 199 ... 1 900	**W1**	59.13	25	30	1 900			•	•	•	•								
	V1	52.60 ★	28	33	1 900			•	•	•	•	•							
	U1	48.03	30	36	1 900			•	•	•	•	•							
	T1	44.20 ★	33	40	1 900			•	•	•	•	•							
	S1	40.83	36	43	1 900			•	•	•	•	•							
	R1	37.89 ★	38	46	1 900			•	•	•	•	•	• [1]						
	Q1	35.29	41	50	1 900			•	•	•	•	•	• [1]						
	P1	31.91 ★	45	55	1 900			•	•	•	•	•	• [1]						
	N1	29.38	49	60	1 900			•	•	•	•	•	• [1]						
	M1	26.42 ★	55	66	1 900			•	•	•	•	•	• [1]						
	L1	24.38	59	72	1 900			•	•	•	•	•	• [1]						
	K1	20.65	70	85	1 900			•	•	•	•	•	• [1]						
	J1	18.00 ★	81	97	1 900			•	•	•	•	•	• [1]						
	H1	15.31	95	114	1 900					•	•	•	• [1]						
	G1	13.07 ★	111	134	1 900					•	•	•	• [1]						
	F1	10.71 ★	135	163	1 900					•	•	•	• [1]						
	E1	9.19	158	190	1 658			•	•	•	•	•	• [1]						
	D1	8.01 ★	181	218	1 548			•	•	•	•	•	• [1]						
	C1	6.82	213	257	1 454					•	•	•	• [1]						
	B1	5.82 ★	249	301	1 348					•	•	•	• [1]						
	A1	4.77 ★	304	367	1 199					•	•	•	• [1]						

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)															
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290
	15th and 16th position	i_{tot}		n_2 (50 Hz)	n_2 (60 Hz)	T_{2N} (f_B=1)	Motor size													
Nm				rpm	rpm	Nm	63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.108B-D38	**N1**	66 190	★	0.02	0.03	3 400	•	•	•											
3 400	**M1**	58 766		0.02	0.03	3 400	•	•	•											
	L1	51 521	★	0.03	0.03	3 400	•	•	•	•										
	K1	46 105		0.03	0.04	3 400	•	•	•	•										
	J1	40 922	★	0.04	0.04	3 400	•	•	•	•										
	H1	35 860		0.04	0.05	3 400	•	•	•	•										
	G1	31 530	★	0.05	0.06	3 400	•	•	•	•										
	F1	28 485		0.05	0.06	3 400	•	•	•	•										
	E1	24 821	★	0.06	0.07	3 400	•	•	•	•										
	D1	22 293		0.07	0.08	3 400	•	•	•	•										
	C1	20 125	★	0.07	0.09	3 400	•	•	•	•										
	B1	18 247		0.08	0.10	3 400	•	•	•	•										
	A1	16 603	★	0.09	0.11	3 400	•	•	•	•										
FD.108B-Z38	**M2**	15 230	★	0.10	0.11	3 400	•	•	•											
3 400	**L2**	13 544		0.11	0.13	3 400	•	•	•											
	K2	11 749	★	0.12	0.15	3 400	•	•	•	•										
	J2	10 977		0.13	0.16	3 400	•	•	•	•										
	H2	9 655	★	0.15	0.18	3 400	•	•	•	•										
	G2	8 456		0.17	0.21	3 400	•	•	•	•	•									
	F2	7 479	★	0.19	0.23	3 400	•	•	•	•	•									
	E2	6 778		0.21	0.26	3 400	•	•	•	•	•									
	D2	5 983	★	0.24	0.29	3 400	•	•	•	•	•									
	C2	5 397		0.27	0.32	3 400	•	•	•	•	•									
	B2	4 895	★	0.30	0.36	3 400	•	•	•	•	•									
	A2	4 460		0.33	0.39	3 400	•	•	•	•	•									
	X1	4 079	★	0.36	0.43	3 400	•	•	•	•	•									
	W1	3 648		0.40	0.48	3 400	•	•	•	•	•									
	V1	3 349	★	0.43	0.52	3 400	•	•	•	•	•									
	U1	3 019		0.48	0.58	3 400	•	•	•	•	•									
	T1	2 596	★	0.56	0.67	3 400	•	•	•	•	•									
	S1	2 315		0.63	0.76	3 400	•	•	•	•	•									
	R1	2 126	★	0.68	0.82	3 400	•	•	•	•	•									
	Q1	1 916		0.76	0.91	3 400	•	•	•	•	•									
	P1	1 647	★	0.88	1.10	3 400	•	•	•	•	•									
	N1	1 526		0.95	1.10	3 400	•	•	•	•	•									
	M1	1 384	★	1.00	1.30	3 400	•	•	•	•	•									
	L1	1 261		1.10	1.40	3 400	•	•	•	•	•									
	K1	1 153	★	1.30	1.50	3 400	•	•	•	•	•									
	J1	1 031		1.40	1.70	3 400	•	•	•	•	•									
	H1	947	★	1.50	1.80	3 400	•	•	•	•	•									
	G1	853		1.70	2.10	3 400	•	•	•	•	•									
	F1	734	★	2.00	2.40	3 400	•	•	•	•	•									
	E1	732	★	2.00	2.40	3 400	•	•	•	•	•									
	D1	654		2.20	2.70	3 400	•	•	•	•	•									
	C1	601	★	2.40	2.90	3 400	•	•	•	•	•									
	B1	541		2.70	3.20	3 400	•	•	•	•	•									
	A1	466	★	3.10	3.80	3 400	•	•	•	•	•									

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.108B	**V1**	424.49 ★	3.4	4.1	3 400			•	•										
3 400	**U1**	382.79	3.8	4.6	3 400			•	•										
	T1	345.19 ★	4.2	5.1	3 400			•	•										
	S1	301.88	4.8	5.8	3 400			•	•	•									
	R1	271.01 ★	5.4	6.5	3 400			•	•	•	•								
	Q1	247.53	5.9	7.1	3 400			•	•	•	•								
	P1	219.66 ★	6.6	8.0	3 400			•	•	•	•	•							
	N1	202.77	7.2	8.6	3 400			•	•	•	•	•							
	M1	183.39 ★	7.9	9.5	3 400			•	•	•	•	•							
	L1	168.88	8.6	10.4	3 400			•	•	•	•	•							
	K1	156.19 ★	9.3	11.2	3 400			•	•	•	•	•	•						
	J1	144.99	10.0	12.1	3 400			•	•	•	•	•	•						
	H1	127.92 ★	11.3	13.7	3 400			•	•	•	•	•	•						
	G1	118.11	12.3	14.8	3 400			•	•	•	•	•	•						
	F1	105.81 ★	13.7	16.5	3 400			•	•	•	•	•	•						
	E1	97.57	14.9	17.9	3 400			•	•	•	•	•	•						
	D1	81.86	17.7	21.0	3 400			•	•	•	•	•	•						
	C1	69.84 ★	21.0	25.0	3 400			•	•	•	•	•	•						
	B1	58.20	25.0	30.0	3 400					•	•	•	•						
	A1	48.24 ★	30.0	36.0	3 400					•	•	•	•						
FZ.108B	**A2**	64.21 ★	23	27	3 000					•	•	•							
2 422 ... 3 400	**X1**	58.80	25	30	3 000					•	•	•							
	W1	54.17 ★	27	32	3 400					•	•	•							
	V1	50.15	29	35	3 400					•	•	•							
	U1	46.64 ★	31	38	3 400					•	•	•	•						
	T1	43.54	33	40	3 400					•	•	•	•						
	S1	38.95 ★	37	45	3 400					•	•	•	•	• [1]					
	R1	36.10	40	48	3 400					•	•	•	•	• [1]					
	Q1	33.09 ★	44	53	3 400					•	•	•	•	• [1]					
	P1	30.33	48	58	3 400					•	•	•	•	• [1]					
	N1	25.85	56	68	3 400					•	•	•	•	• [1]					
	M1	22.81 ★	64	77	3 400					•	•	•	•	• [1]					
	L1	19.41	75	90	3 400					•	•	•	•	• [1]					
	K1	16.82 ★	86	104	3 400					•	•	•	•	• [1]					
	J1	14.16 ★	102	124	3 304					•	•	•	•	• [1]					
	H1	12.77	114	137	3 249							•	•	• [1]					
	G1	10.98 ★	132	159	3 153							•	•	• [1]					
	F1	10.04	144	174	3 374					•	•	•	•	• [1]					
	E1	8.70 ★	167	201	3 102					•	•	•	•	• [1]					
	D1	7.32 ★	198	239	2 853					•	•	•	•	• [1]					
	C1	6.60	220	265	2 651							•	•	• [1]					
	B1	5.68 ★	255	308	2 422							•	•	• [1]					

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)																
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290			
Nm	15th and 16th position	i_{tot}		n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315			
FD.128B-D38	**N1**	68 070	★	0.02	0.03	6 100	•	•	•														
6 100	**M1**	60 435		0.02	0.03	6 100	•	•	•														
	L1	52 984	★	0.03	0.03	6 100	•	•	•	•													
	K1	47 415		0.03	0.04	6 100	•	•	•	•													
	J1	42 084	★	0.03	0.04	6 100	•	•	•	•													
	H1	36 878		0.04	0.05	6 100	•	•	•	•													
	G1	32 425	★	0.04	0.05	6 100	•	•	•	•													
	F1	29 294		0.05	0.06	6 100	•	•	•	•													
	E1	25 526	★	0.06	0.07	6 100	•	•	•	•													
	D1	22 926		0.06	0.08	6 100	•	•	•	•													
	C1	20 697	★	0.07	0.08	6 100	•	•	•	•													
	B1	18 765		0.08	0.09	6 100	•	•	•	•													
	A1	17 075	★	0.08	0.10	6 100	•	•	•	•													
FD.128B-Z38	**W1**	15 663	★	0.09	0.11	6 100	•	•	•														
6 100	**V1**	13 928		0.10	0.13	6 100	•	•	•														
	U1	12 083	★	0.12	0.14	6 100	•	•	•	•													
	T1	11 289		0.13	0.16	6 100	•	•	•	•													
	S1	9 929	★	0.15	0.18	6 100	•	•	•	•													
	R1	8 696		0.17	0.20	6 100	•	•	•	•	•												
	Q1	7 691	★	0.19	0.23	6 100	•	•	•	•	•												
	P1	6 971		0.21	0.25	6 100	•	•	•	•	•												
	N1	6 153	★	0.24	0.28	6 100	•	•	•	•	•												
	M1	5 551		0.26	0.32	6 100	•	•	•	•	•												
	L1	5 034	★	0.29	0.35	6 100	•	•	•	•	•												
	K1	4 587		0.32	0.38	6 100	•	•	•	•	•												
	J1	4 195	★	0.35	0.42	6 100	•	•	•	•	•												
	H1	3 751		0.39	0.47	6 100	•	•	•	•	•												
	G1	3 445	★	0.42	0.51	6 100	•	•	•	•	•												
	F1	3 105		0.47	0.56	6 100	•	•	•	•	•												
	E1	2 670	★	0.54	0.66	6 100	•	•	•	•	•												
	D1	2 381		0.61	0.73	6 100	•	•	•	•	•												
	C1	2 186	★	0.66	0.80	6 100	•	•	•	•	•												
	B1	1 970		0.74	0.89	6 100	•	•	•	•	•												
	A1	1 694	★	0.86	1.00	6 100	•	•	•	•	•												
FD.128B-Z48	**L1**	1 504		0.96	1.2	6 100	•	•	•	•	•	•											
6 100	**K1**	1 370	★	1.10	1.3	6 100	•	•	•	•	•	•											
	J1	1 255		1.20	1.4	6 100	•	•	•	•	•	•											
	H1	1 120	★	1.30	1.6	6 100	•	•	•	•	•	•											
	G1	999		1.50	1.8	6 100			•	•	•	•											
	F1	849		1.70	2.1	6 100			•	•	•	•											
	E1	706	★	2.10	2.5	6 100			•	•	•	•											
	D1	695	★	2.10	2.5	6 100	•	•	•	•	•	•											
	C1	620		2.30	2.8	6 100			•	•	•	•											
	B1	527		2.80	3.3	6 100			•	•	•	•											
	A1	439	★	3.30	4.0	6 100			•	•	•	•											

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.128B	**V1**	447.96	3.2	3.9	6 100				•										
6 100	**U1**	405.47 ★	3.6	4.3	6 100				•										
	T1	354.99	4.1	4.9	6 100				•	•									
	S1	320.24 ★	4.5	5.5	6 100				•	•	•								
	R1	293.22	4.9	6.0	6 100				•	•	•								
	Q1	260.84 ★	5.6	6.7	6 100				•	•	•	•							
	P1	238.39	6.1	7.3	6 100				•	•	•	•							
	N1	219.15 ★	6.6	8.0	6 100				•	•	•	•							
	M1	202.48	7.2	8.6	6 100				•	•	•	•							
	L1	187.88 ★	7.7	9.3	6 100				•	•	•	•	•						
	K1	175.01	8.3	10.0	6 100				•	•	•	•	•						
	J1	158.22 ★	9.2	11.1	6 100				•	•	•	•	•	•	•				
	H1	145.66	10.0	12.0	6 100				•	•	•	•	•	•	•				
	G1	131.01 ★	11.1	13.4	6 100				•	•	•	•	•	•	•				
	F1	120.87	12.0	14.5	6 100				•	•	•	•	•	•	•				
	E1	102.41	14.2	17.1	6 100				•	•	•	•	•	•	•				
	D1	89.25 ★	16.2	19.6	6 100				•	•	•	•	•	•	•				
	C1	75.93	19.1	23.0	6 100					•	•	•	•	•	•				
	B1	64.80 ★	22.0	27.0	6 100					•	•	•	•	•	•				
	A1	53.13 ★	27.0	33.0	6 100					•	•	•	•	•	•				
FZ.128B	**A2**	56.42 ★	26	31	4 300						•	•							
2 703 ... 6 100	**X1**	52.29	28	33	4 600						•	•							
	W1	49.71 ★	29	35	4 900						•	•	•						
	V1	46.46	31	38	5 150						•	•	•						
	U1	40.99 ★	35	43	5 700						•	•	•	•	•				
	T1	38.66	38	45	6 000						•	•	•	•	•				
	S1	34.64 ★	42	51	6 100						•	•	•	•	•	• [1]			
	R1	31.98	45	55	6 100						•	•	•	•	•	• [1]			
	Q1	27.33	53	64	6 100						•	•	•	•	•	• [1]			
	P1	24.70 ★	59	71	6 100						•	•	•	•	•	• [1]			
	N1	23.80	61	74	6 100						•	•	•	•	•	• [1]			
	L1	20.58	70	85	6 100						•	•	•	•	•	• [1]			
	K1	17.95 ★	81	97	6 100						•	•	•	•	•	• [1]			
	J1	15.36 ★	94	114	5 847						•	•	•	•	•	• [1]			
	H1	13.76	105	127	5 640							•	•	•	•	• [1]			
	G1	11.65 ★	124	150	5 347							•	•	•	•	• [1]			
	F1	10.07	144	174	5 113								•	•	•	• [1]			
	E1	7.57 ★	192	231	4 565								•	•	•	• [1]			
	D1	6.91	210	253	3 592							•	•	•	•	• [1]			
	C1	5.85 ★	248	299	3 301							•	•	•	•	• [1]			
	B1	5.05	287	347	3 137								•	•	•	• [1]			
	A1	3.80 ★	382	461	2 708								•	•	•	• [1]			

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)																
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290			
Nm	15th and 16th position	i_{tot}		n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315			
FD.148B-D38	**N1**	70 576	★	0.02	0.02	9 000	•	•	•														
9 000	**M1**	62 660		0.02	0.03	9 000	•	•	•														
	L1	54 935	★	0.03	0.03	9 000	•	•	•	•													
	K1	49 161		0.03	0.04	9 000	•	•	•	•													
	J1	43 633	★	0.03	0.04	9 000	•	•	•	•													
	H1	38 236		0.04	0.05	9 000	•	•	•	•													
	G1	33 619	★	0.04	0.05	9 000	•	•	•	•													
	F1	30 373		0.05	0.06	9 000	•	•	•	•													
	E1	26 466	★	0.05	0.07	9 000	•	•	•	•													
	D1	23 770		0.06	0.07	9 000	•	•	•	•													
	C1	21 459	★	0.07	0.08	9 000	•	•	•	•													
	B1	19 456		0.07	0.09	9 000	•	•	•	•													
	A1	17 704	★	0.08	0.10	9 000	•	•	•	•													
FD.148B-Z38	**W1**	16 239	★	0.09	0.11	9 000	•	•	•														
9 000	**V1**	14 441		0.10	0.12	9 000	•	•	•														
	U1	12 527	★	0.12	0.14	9 000	•	•	•	•													
	T1	11 705		0.12	0.15	9 000	•	•	•	•													
	S1	10 295	★	0.14	0.17	9 000	•	•	•	•													
	R1	9 016		0.16	0.19	9 000	•	•	•	•	•												
	Q1	7 975	★	0.18	0.22	9 000	•	•	•	•	•												
	P1	7 227		0.20	0.24	9 000	•	•	•	•	•												
	N1	6 380	★	0.23	0.27	9 000	•	•	•	•	•												
	M1	5 755		0.25	0.30	9 000	•	•	•	•	•												
	L1	5 220	★	0.28	0.34	9 000	•	•	•	•	•												
	K1	4 756		0.30	0.37	9 000	•	•	•	•	•												
	J1	4 350	★	0.33	0.40	9 000	•	•	•	•	•												
	H1	3 889		0.37	0.45	9 000	•	•	•	•	•												
	G1	3 571	★	0.41	0.49	9 000	•	•	•	•	•												
	F1	3 219		0.45	0.54	9 000	•	•	•	•	•												
	E1	2 768	★	0.52	0.63	9 000	•	•	•	•	•												
	D1	2 468		0.59	0.71	9 000	•	•	•	•	•												
	C1	2 266	★	0.64	0.77	9 000	•	•	•	•	•												
	B1	2 043		0.71	0.86	9 000	•	•	•	•	•												
	A1	1 757	★	0.83	1.00	9 000	•	•	•	•	•												
FD.148B-Z48	**K1**	1 634		0.89	1.1	9 000	•	•	•	•	•	•											
9 000	**J1**	1 489	★	0.97	1.2	9 000	•	•	•	•	•	•											
	H1	1 364		1.10	1.3	9 000	•	•	•	•	•	•											
	G1	1 217	★	1.20	1.4	9 000	•	•	•	•	•	•											
	F1	1 086		1.30	1.6	9 000			•	•	•	•											
	E1	922		1.60	1.9	9 000			•	•	•	•											
	D1	768	★	1.90	2.3	9 000	•	•	•	•	•	•											
	C1	674		2.20	2.6	9 000			•	•	•	•											
	B1	573		2.50	3.1	9 000			•	•	•	•											
	A1	477	★	3.00	3.7	9 000			•	•	•	•											

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.148B	**U1**	449.21 ★	3.2	3.9	9 000					•	•								
9 000	**T1**	411.98	3.5	4.2	9 000					•	•								
	S1	368.06 ★	3.9	4.8	9 000					•	•	•							
	R1	337.07	4.3	5.2	9 000					•	•	•							
	Q1	310.51 ★	4.7	5.6	9 000					•	•	•							
	P1	287.49	5.0	6.1	9 000					•	•	•							
	N1	267.35 ★	5.4	6.5	9 000					•	•	•	•						
	M1	249.58	5.8	7.0	9 000					•	•	•	•						
	L1	223.31 ★	6.5	7.8	9 000					•	•	•	•	•	•				
	K1	206.93	7.0	8.5	9 000					•	•	•	•	•	•				
	J1	189.69 ★	7.6	9.2	9 000					•	•	•	•	•	•	•			
	H1	173.89	8.3	10.1	9 000					•	•	•	•	•	•	•			
	G1	148.18	9.8	11.8	9 000					•	•	•	•	•	•	•			
	F1	130.76 ★	11.1	13.4	9 000					•	•	•	•	•	•	•			
	E1	111.29	13.0	15.7	9 000					•	•	•	•	•	•	•			
	D1	96.43 ★	15.0	18.1	9 000					•	•	•	•	•	•	•			
	C1	81.15 ★	17.9	22.0	9 000					•	•	•	•	•	•	•			
	B1	73.22	19.8	24.0	9 000							•	•	•	•	•			
	A1	62.93 ★	23.0	28.0	9 000							•	•	•	•	•			
FZ.148B	**V1**	68.23	21	26	5 600							•							
5 124 ... 9 000	**U1**	64.37 ★	23	27	6 500							•	•						
	T1	60.21	24	29	7 000							•	•						
	S1	53.53 ★	27	33	8 000							•	•	•	•				
	R1	50.54	29	35	8 000							•	•	•	•				
	Q1	45.37 ★	32	39	8 700							•	•	•	•	•			
	P1	41.64	35	42	9 000							•	•	•	•	•			
	N1	35.93	40	49	9 000							•	•	•	•	•	• [1)]		
	M1	31.43	46	56	9 000							•	•	•	•	•	• [1)]		
	L1	27.34	53	64	9 000							•	•	•	•	•	• [1)]		
	K1	23.98 ★	60	73	9 000							•	•	•	•	•	• [1)]		
	J1	20.28 ★	71	86	9 000							•	•	•	•	•	• [1)]		
	H1	18.40	79	95	9 000							•	•	•	•	•	• [1)]		
	G1	16.04 ★	90	109	9 000							•	•	•	•	•	• [1)]		
	F1	13.62	106	128	8 519								•	•	•	•	• [1)]		
	E1	10.43 ★	139	168	7 822								•	•	•	•	• [1)]		
	D1	9.51	152	184	6 581							•	•	•	•	•	• [1)]		
	C1	8.29 ★	175	211	6 204							•	•	•	•	•	• [1)]		
	B1	7.04	206	249	5 820								•	•	•	•	• [1)]		
	A1	5.39 ★	269	325	5 124								•	•	•	•	• [1)]		

★ Preferred transmission ratio

[1)] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)														
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290
	15th and 16th position	i_{tot}		n_2 (50 Hz)	n_2 (60 Hz)	T_{2N} (f_B=1)	Motor size													
Nm				rpm	rpm	Nm	63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.168B-D48	**N1**	65 160	★	0.02	0.03	14 000	•	•	•											
14 000	**M1**	57 946		0.03	0.03	14 000	•	•	•											
	L1	50 267	★	0.03	0.03	14 000	•	•	•	•										
	K1	46 966		0.03	0.04	14 000	•	•	•	•										
	J1	41 307	★	0.04	0.04	14 000	•	•	•	•										
	H1	36 177		0.04	0.05	14 000	•	•	•	•	•									
	G1	31 998	★	0.05	0.05	14 000	•	•	•	•	•									
	F1	29 000		0.05	0.06	14 000	•	•	•	•	•									
	E1	25 599	★	0.06	0.07	14 000	•	•	•	•	•									
	D1	23 093		0.06	0.08	14 000	•	•	•	•	•									
	C1	20 944	★	0.07	0.08	14 000	•	•	•	•	•									
	B1	19 083		0.08	0.09	14 000	•	•	•	•	•									
	A1	17 454	★	0.08	0.10	14 000	•	•	•	•	•									
FD.168B-Z48	**A2**	16 007		0.09	0.11	14 000	•	•	•											
14 000	**X1**	14 165	★	0.10	0.12	14 000	•	•	•	•										
	W1	12 878		0.11	0.14	14 000	•	•	•	•										
	V1	11 568	★	0.13	0.15	14 000	•	•	•	•										
	U1	9 916		0.15	0.18	14 000	•	•	•	•	•									
	T1	8 971	★	0.16	0.20	14 000	•	•	•	•	•	•								
	S1	8 281		0.18	0.21	14 000	•	•	•	•	•	•								
	R1	7 201	★	0.20	0.24	14 000	•	•	•	•	•	•								
	Q1	6 538		0.22	0.27	14 000	•	•	•	•	•	•								
	P1	5 970	★	0.24	0.29	14 000	•	•	•	•	•	•								
	N1	5 477		0.26	0.32	14 000	•	•	•	•	•	•								
	M1	5 046	★	0.29	0.35	14 000	•	•	•	•	•	•								
	L1	4 583		0.32	0.38	14 000	•	•	•	•	•	•								
	K1	4 175	★	0.35	0.42	14 000	•	•	•	•	•	•								
	J1	3 825		0.38	0.46	14 000	•	•	•	•	•	•								
	H1	3 413	★	0.42	0.51	14 000	•	•	•	•	•	•								
	G1	3 046		0.48	0.57	14 000			•	•	•	•								
	F1	2 587		0.56	0.68	14 000			•	•	•	•								
	E1	2 153	★	0.67	0.81	14 000			•	•	•	•								
	D1	2 119	★	0.68	0.83	14 000	•	•	•	•	•	•								
	C1	1 891		0.77	0.93	14 000			•	•	•	•								
	B1	1 606		0.90	1.10	14 000			•	•	•	•								
	A1	1 337	★	1.10	1.30	14 000			•	•	•	•								
FD.168B-Z68	**H1**	1 298		1.1	1.3	14 000			•	•	•	•	•							
14 000	**G1**	1 108	★	1.3	1.6	14 000			•	•	•	•	•							
	F1	923		1.6	1.9	14 000					•	•	•							
	E1	765	★	1.9	2.3	14 000					•	•	•							
	D1	675		2.1	2.6	14 000			•	•	•	•	•							
	C1	576	★	2.5	3.0	14 000			•	•	•	•	•							
	B1	480		3.0	3.6	14 000					•	•	•							
	A1	398	★	3.6	4.4	14 000					•	•	•							

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.168B	**V1**	369.26 ★	3.9	4.7	14 000							•							
14 000	**U1**	338.49	4.3	5.2	14 000							•							
	T1	312.12 ★	4.6	5.6	14 000							•							
	S1	289.26	5.0	6.0	14 000							•							
	R1	275.03 ★	5.3	6.4	14 000							•	•						
	Q1	257.04	5.6	6.8	14 000							•	•						
	P1	226.74 ★	6.4	7.7	14 000							•	•	•	•				
	N1	213.87	6.8	8.2	14 000							•	•	•	•				
	M1	191.63 ★	7.6	9.1	14 000							•	•	•	•	•			
	L1	176.94	8.2	9.9	14 000							•	•	•	•	•			
	K1	151.18	9.6	11.6	14 000							•	•	•	•	•			
	J1	136.63 ★	10.6	12.8	14 000							•	•	•	•	•			
	H1	131.64	11.0	13.3	14 000							•	•	•	•	•	•		
	G1	113.86	12.7	15.4	14 000							•	•	•	•	•	•		
	F1	99.31 ★	14.6	17.6	14 000							•	•	•	•	•	•		
	E1	84.99 ★	17.1	21.0	14 000							•	•	•	•	•	•		
	D1	76.12	19.0	23.0	14 000							•	•	•	•	•	•		
	C1	64.47 ★	22.0	27.0	14 000							•	•	•	•	•	•		
	B1	55.68	26.0	31.0	14 000								•	•	•	•	•		
	A1	41.85 ★	35.0	42.0	14 000								•	•	•	•	•		
FZ.168B	**R1**	53.48	27	33	9 000							•	•	•	•				
8683 ... 14000	**Q1**	48.29	30	36	10 500							•	•	•	•	•			
	P1	45.25	32	39	11 500							•	•	•	•	•	•		
	N1	38.87 ★	37	45	13 000							•	•	•	•	•	•		
	M1	33.58	43	52	13 000							•	•	•	•	•	•	•	
	L1	29.64	49	59	14 000							•	•	•	•	•	•	•	
	K1	26.68 ★	54	66	14 000							•	•	•	•	•	•	•	
	J1	22.14 ★	65	79	14 000							•	•	•	•	•	•	•	
	H1	20.19	72	87	14 000							•	•	•	•	•	•	•	
	G1	17.71 ★	82	99	14 000							•	•	•	•	•	•	•	
	F1	15.22	95	115	14 000								•	•	•	•	•	•	
	E1	11.86 ★	122	148	13 076								•	•	•	•	•	•	
	D1	9.42 ★	154	186	12 147									•	•	•	•	•	
	C1	8.54	170	205	11 257								•	•	•	•	•	•	
	B1	6.65 ★	218	263	10 011								•	•	•	•	•	•	
	A1	5.28 ★	275	331	8 682									•	•	•	•	•	

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio		Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)																
Max. gearbox torque	Order No.						3	3	5	10	20	26	61	98	198	198	291	356	580	1290			
	15th and 16th position	i_{tot}		n_2 (50 Hz)	n_2 (60 Hz)	T_{2N} (f_B=1)	Motor size																
Nm				rpm	rpm	Nm	63	71	80	90	100	112	132	160	180	200	225	250	280	315			
FD.188B-D48	**N1**	71 388	★	0.02	0.02	20 000	•	•	•														
20 000	**M1**	63 484		0.02	0.03	20 000	•	•	•														
	L1	55 070	★	0.03	0.03	20 000	•	•	•	•													
	K1	51 455		0.03	0.03	20 000	•	•	•	•													
	J1	45 255	★	0.03	0.04	20 000	•	•	•	•													
	H1	39 634		0.04	0.04	20 000	•	•	•	•	•												
	G1	35 056	★	0.04	0.05	20 000	•	•	•	•	•												
	F1	31 771		0.05	0.06	20 000	•	•	•	•	•												
	E1	28 045	★	0.05	0.06	20 000	•	•	•	•	•												
	D1	25 299		0.06	0.07	20 000	•	•	•	•	•												
	C1	22 946	★	0.06	0.08	20 000	•	•	•	•	•												
	B1	20 906		0.07	0.08	20 000	•	•	•	•	•												
	A1	19 122	★	0.08	0.09	20 000	•	•	•	•	•												
FD.188B-Z48	**A2**	17 537		0.08	0.10	20 000	•	•	•														
20 000	**X1**	15 519	★	0.09	0.11	20 000	•	•	•	•													
	W1	14 108		0.10	0.12	20 000	•	•	•	•													
	V1	12 674	★	0.11	0.14	20 000	•	•	•	•													
	U1	10 863		0.13	0.16	20 000	•	•	•	•	•												
	T1	9 829	★	0.15	0.18	20 000	•	•	•	•	•	•											
	S1	9 073		0.16	0.19	20 000	•	•	•	•	•	•											
	R1	7 889	★	0.18	0.22	20 000	•	•	•	•	•	•											
	Q1	7 163		0.20	0.24	20 000	•	•	•	•	•	•											
	P1	6 540	★	0.22	0.27	20 000	•	•	•	•	•	•											
	N1	6 001		0.24	0.29	20 000	•	•	•	•	•	•											
	M1	5 529	★	0.26	0.32	20 000	•	•	•	•	•	•											
	L1	5 021		0.29	0.35	20 000	•	•	•	•	•	•											
	K1	4 574	★	0.32	0.38	20 000	•	•	•	•	•	•											
	J1	4 190		0.35	0.42	20 000	•	•	•	•	•	•											
	H1	3 739	★	0.39	0.47	20 000	•	•	•	•	•	•											
	G1	3 337		0.43	0.52	20 000			•	•	•	•											
	F1	2 834		0.51	0.62	20 000			•	•	•	•											
	E1	2 359	★	0.61	0.74	20 000			•	•	•	•											
	D1	2 322	★	0.62	0.75	20 000	•	•	•	•	•	•											
	C1	2 072		0.70	0.84	20 000			•	•	•	•											
	B1	1 760		0.82	0.99	20 000			•	•	•	•											
	A1	1 465	★	0.99	1.20	20 000			•	•	•	•											
FD.188B-Z68	**H1**	1 449		1.0	1.2	20 000			•	•	•	•	•										
20 000	**G1**	1 236	★	1.2	1.4	20 000			•	•	•	•	•										
	F1	1 030		1.4	1.7	20 000					•	•	•										
	E1	854	★	1.7	2.0	20 000					•	•	•										
	D1	754		1.9	2.3	20 000			•	•	•	•	•										
	C1	643	★	2.3	2.7	20 000			•	•	•	•	•										
	B1	536		2.7	3.3	20 000					•	•	•										
	A1	444	★	3.3	3.9	20 000					•	•	•										

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
Nm	15th and 16th position	i_{tot}	n_2 (50 Hz) rpm	n_2 (60 Hz) rpm	T_{2N} (f_B=1) Nm	Motor size 63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.188B	**U1**	403.86 ★	3.6	4.3	20 000							•							
20 000	**T1**	370.52	3.9	4.7	20 000							•							
	S1	341.94 ★	4.2	5.1	20 000							•							
	R1	317.18	4.6	5.5	20 000							•							
	Q1	299.20 ★	4.8	5.8	20 000							•	•						
	P1	279.86	5.2	6.3	20 000							•	•						
	N1	248.85 ★	5.8	7.0	20 000							•	•	•	•				
	M1	234.93	6.2	7.4	20 000							•	•	•	•				
	L1	210.89 ★	6.9	8.3	20 000							•	•	•	•	•			
	K1	193.56	7.5	9.0	20 000							•	•	•	•	•			
	J1	167.03	8.7	10.5	20 000							•	•	•	•	•	•		
	H1	146.11	9.9	12.0	20 000							•	•	•	•	•	•		
	G1	127.07	11.4	13.8	20 000							•	•	•	•	•	•	•	
	F1	111.49 ★	13.0	15.7	20 000							•	•	•	•	•	•	•	
	E1	94.28 ★	15.4	18.6	20 000							•	•	•	•	•	•	•	
	D1	85.54	17.0	20.0	20 000							•	•	•	•	•	•	•	
	C1	74.58 ★	19.4	23.0	20 000							•	•	•	•	•	•	•	
	B1	63.32	23.0	28.0	20 000								•	•	•	•	•	•	
	A1	48.46 ★	30.0	36.0	20 000								•	•	•	•	•	•	
FZ.188B	**P1**	52.63	28	33	16 580								•	•	•	•			
14 190 ...	**N1**	48.47	30	36	16 870								•	•	•	•	•		
20 000	**M1**	42.07 ★	34	42	17 500								•	•	•	•	•		
	L1	37.08	39	47	17 510								•	•	•	•	•	•	
	K1	32.54	45	54	18 550								•	•	•	•	•	•	
	J1	29.33 ★	49	60	20 000								•	•	•	•	•	•	
	H1	24.90 ★	58	70	20 000								•	•	•	•	•	•	
	G1	23.13	63	76	20 000								•	•	•	•	•	•	
	F1	19.87 ★	73	88	19 790								•	•	•	•	•	•	
	E1	16.95	86	103	18 870								•	•	•	•	•	•	•
	D1	13.35 ★	109	131	17 560								•	•	•	•	•	•	•
	C1	10.74 ★	135	163	16 070									•	•	•	•	•	•
	B1	9.34	155	187	14 990											•	•	•	•
	A1	8.34	174	210	14 190												•	•	•

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Transmission ratios and maximum torques

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
	15th and 16th position	i_{tot}	n_2 (50 Hz)	n_2 (60 Hz)	T_{2N} (f_B=1)	Motor size													
Nm			rpm	rpm	Nm	63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.208-D68	**V1**	61 412	0.02		34 000		•	•											
34 000	**U1**	54 347	0.03		34 000		•	•	•										
	T1	49 406	0.03		34 000		•	•	•										
	S1	44 383	0.03		34 000		•	•	•										
	R1	38 043	0.04		34 000		•	•	•	•									
	Q1	34 420	0.04		34 000		•	•	•	•									
	P1	31 772	0.04		34 000		•	•	•	•									
	N1	27 626	0.05		34 000		•	•	•	•									
	M1	25 083	0.06		34 000		•	•	•	•									
	L1	22 903	0.06		34 000		•	•	•	•									
	K1	21 014	0.07		34 000		•	•	•	•									
	J1	19 361	0.07		34 000		•	•	•	•									
	H1	17 583	0.08		34 000		•	•	•	•									
	G1	16 018	0.09		34 000		•	•	•	•									
	F1	14 674	0.10		34 000		•	•	•	•									
	E1	13 093	0.11		34 000		•	•	•	•									
	D1	11 685	0.12		34 000			•	•	•									
	C1	9 924	0.14		34 000			•	•	•									
FD.208-Z68	**X1**	8 251	0.17		34 000			•	•	•	•								
34 000	**W1**	7 536	0.19		34 000			•	•	•	•								
	V1	6 688	0.21		34 000			•	•	•	•	•							
	U1	6 173	0.23		34 000			•	•	•	•	•							
	T1	5 584	0.25		34 000			•	•	•	•	•							
	S1	5 142	0.27		34 000			•	•	•	•	•							
	R1	4 755	0.29		34 000			•	•	•	•	•	•						
	Q1	4 414	0.32		34 000			•	•	•	•	•	•						
	P1	3 895	0.36		34 000			•	•	•	•	•	•						
	N1	3 596	0.39		34 000			•	•	•	•	•	•						
	M1	3 222	0.43		34 000			•	•	•	•	•	•						
	L1	2 970	0.47		34 000				•	•	•	•	•						
	K1	2 492	0.56		34 000				•	•	•	•	•						
	J1	2 126	0.66		34 000				•	•	•	•	•						
	H1	1 772	0.79		34 000					•	•	•	•						
	G1	1 469	0.95		34 000					•	•	•	•						
	F1	1 296	1.08		34 000				•	•	•	•	•						
	E1	1 106	1.27		34 000				•	•	•	•	•						
	D1	921	1.52		34 000					•	•	•	•						
	C1	764	1.83		34 000					•	•	•	•						
FD.208-Z88	**J1**	694	2.02		34 000					•	•	•	•	•	•				
34 000	**H1**	636	2.20		34 000					•	•	•	•	•	•				
	G1	543	2.58		34 000					•	•	•	•	•	•				
	F1	445	3.15		34 000					•	•	•	•	•	•				
	E1	406	3.45		34 000					•	•	•	•	•	•				
	D1	347	4.04		34 000					•	•	•	•	•	•				
	C1	284	4.92		34 000					•	•	•	•	•	•				

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Selection and ordering data (continued)

Gearbox size	Ratio code	Transmission ratio	Output speed		Nominal torque	Permissible input torque T_1 [Nm] 2.5x the value is permissible for a brief period (e.g. motor starting torque)													
Max. gearbox torque	Order No.					3	3	5	10	20	26	61	98	198	198	291	356	580	1290
	15th and 16th position	i_{tot}	n_2 (50 Hz)	n_2 (60 Hz)	T_{2N} (f_B=1)	Motor size													
Nm			rpm	rpm	Nm	63	71	80	90	100	112	132	160	180	200	225	250	280	315
FD.208	**T1**	242.01	6.1		34 000							•	•	•	•				
29 901 ... 34 000	**S1**	218.54	6.8		34 000							•	•	•	•	•			
	R1	204.81	7.2		34 000							•	•	•	•	•	•	•	
	Q1	175.92	8.4		34 000							•	•	•	•	•	•	•	
	P1	151.99	9.7		34 000							•	•	•	•	•	•	•	
	N1	134.16	11		34 000							•	•	•	•	•	•	•	
	M1	120.77	12		34 000							•	•	•	•	•	•	•	
	L1	100.21	15		34 000							•	•	•	•	•	•	•	
	K1	91.38	16		34 000							•	•	•	•	•	•	•	
	J1	80.17	18		34 000							•	•	•	•	•	•	•	
	H1	68.90	21		34 000								•	•	•	•	•	•	•
	G1	53.66	28		34 000								•	•	•	•	•	•	•
	F1	42.63	35		34 000									•	•	•	•	•	•
	E1	38.84	38		34 000								•	•	•	•	•	•	•
	D1	30.25	49		32 038								•	•	•	•	•	•	•
	C1	24.03	62		29 901									•	•	•	•	•	•
FZ.208	**H1**	20.06	74		32 681								•	•	•	•	•	•	•
25 469 ... 32 681	**G1**	16.02	92		30 487								•	•	•	•	•	•	•
	F1	13.09	113		28 634									•	•	•	•	•	•
	E1	11.51	129		27 499											•	•	•	•
	D1	10.57	140		26 785												•	•	•
	C1	9.01	164		25 469													•	•

★ Preferred transmission ratio

[1] Only possible with integrated motor.

In the case of gearboxes of size 28, only possible with integrated motor or input unit KQ and KQS.

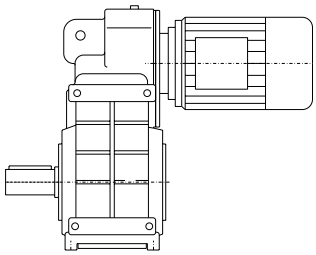
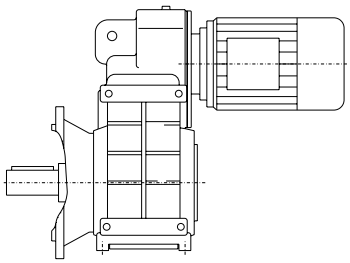
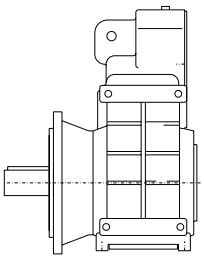
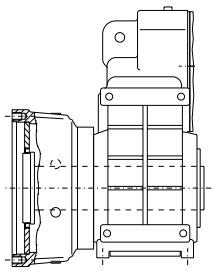
Calculation of maximum output torque T_{2max} for gearboxes with input units:

$T_{2max} = T_1 \times i_{tot}$, if $T_{2max} \leq T_{2N}$

If $T_{2max} \geq T_{2N}$, the max. output torque T_{2N} of the unit is the decisive factor.

Mounting types

Selection and ordering data

Mounting type	Order No. 14th position	Code in type designation 3rd position for solid shaft, 4th position for hollow shaft	Representation
Foot-mounted design	**A**	–	
Housing flange (C-type)	**H**	Z	
Design with torque arm	**D**	D	
Flange-mounted design (A-type)	**F**	F	
Mixer flange	**M**	M	
Extruder flange	**E**	E	

Selection and ordering data (continued)

Parallel shaft gearbox with torque arm

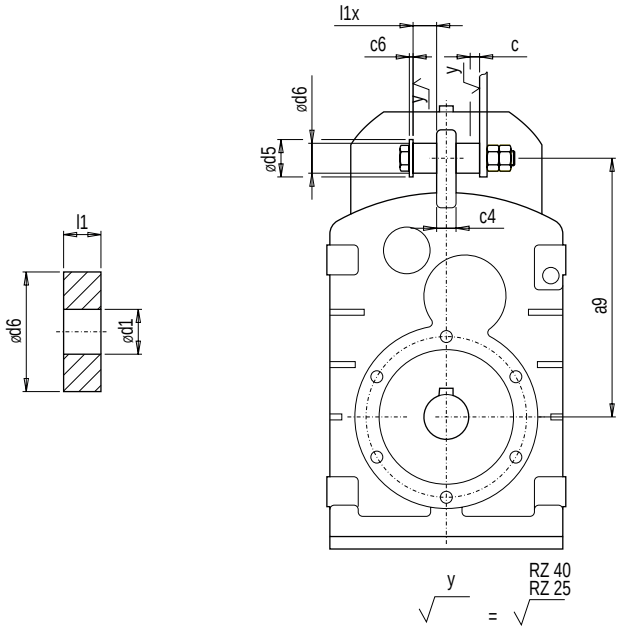
The rubber buffers (supplied loose) are used to flexibly support the gearbox on the housing plate provided. The rubber buffers are suitable for all mounting positions and can withstand temperatures of between –40 °C and +80 °C.

The rubber buffer must be stretched to the dimesnion l1 during installation.

Material: Natural rubber, hardness 70 ± 5, Shore A

Order No.: **D** in **14th position**

The shafts, mounting positions, and dimensions correspond to the design featuring a housing flange.



Gearbox type	a9	l1	l1x	d6	d1	d5	c6 min	c4	c*)
F.28	140	15	14.0	30	10.5 + 0.5	40	2.0	10	1.8
F.38B	140	15	13.1	30	10.5 + 0.5	40	2.5	12	3.8
F.48B	185	20	18.2	40	12.5 + 0.5	50	3.0	12	3.7
F.68B	218	20	17.0	40	12.5 + 0.5	50	3.0	16	5.6
F.88B	278	30	27.2	60	21.0 + 0.5	75	4.0	20	5.0
F.108B	346	30	26.0	60	21.0 + 0.5	75	4.0	26	7.3
F.128B	395	40	35.8	80	25.0 + 0.5	100	6.0	30	8.0
F.148B	485	40	34.8	80	25.0 + 0.5	100	6.0	36	9.4
F.168B	550	50	46.2	120	31.0 + 0.5	140	8.0	50	6.2
F.188B	620	50	45.1	120	31.0 + 0.5	140	8.0	50	8.3

*) Spring compression at max. torque

Mounting types

Selection and ordering data (continued)

Parallel shaft gearbox with mixer flange, sizes 88 to 168

Heavy-duty design

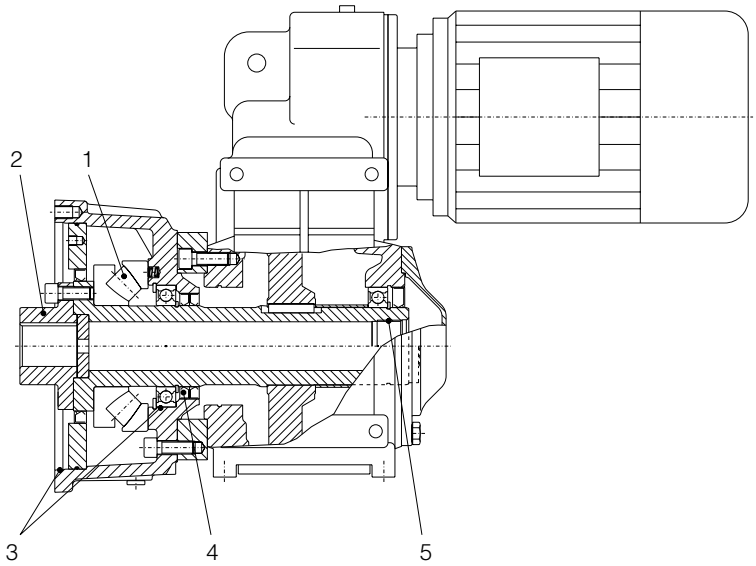
The mixer flange is fitted with a heavy-duty output bearing with a sizable bearing span for absorbing large radial and axial forces.

The optimized design ensures that no axial forces are transferred to the gearbox housing.

Bearing life can be calculated on request or using the MOTOX Configurator calculation program.

Parallel shaft gearbox with extruder flange, sizes 68 to 168

Gearboxes with an extruder flange are ideal for use in the extrusion industry, particularly in the low to medium performance range.



1. Large axial spherical roller bearing

294 series spherical roller bearing for heavy axial loads.

2. Simple, low-cost design

Flange hub supplied by customer, no grinding processes. Standard shaft-hub connection with feather key in acc. with DIN 6885/1.

3. Good radial eccentricity

Radial bearing hole and center hole created in one clamping operation and direction.

4. Optimum lubrication

Extruder oil chamber separate from gearbox oil chamber.

5. Standard connection

Metric thread for supporting the extruder worm (worm pulled out from rear).

Area of application

Parallel shaft gearbox		F.AE 68B	F.AE 88B	F.AE 108B	F.AE 128B	F.AE 148B	F.AE 168B
Max. power	[kW]	9.2	15	30	45	55	90
Transmission ratio min./max.	[2-stage]	3.97 / 61.17	4.77 / 64.58	5.60 / 64.21	3.8 / 56.42	5.39 / 68.23	5.28 / 53.48
Max. torque	[Nm]	1 000	1 900	3 400	6 100	9 000	14 000
Max. axial forces	[kN]	65	105	180	260	400	580
Spherical roller bearing	[.]	29414E	29417E	29420E	29424E	29426E	29432E

Selection and ordering data

Shaft design	Order No. 8th position	Order No. suffix	Shaft dimensions					
Parallel shaft gearbox FZ, 2-stage and FD, 3-stage, foot-mounted design								
Size			**F.28**	**F.38B**	**F.48B**	**F.68B**	**F.88B**	
Hollow shaft	**5**		H25 x 104 *)	H30 x 120 *)	H35 x 150 *)	H40 x 180 *)	H50 x 210 *)	
	6				H40 x 150	H45 x 180	H60 x 210	
Hollow shaft with shrink disk	**9**	**H3A**	H25 x 126 *)	H30 x 146 *)	H40 x 177	H50 x 209	H60 x 241	
	9	**H3B**		H30/31 x 146	H40/41 x 177	H50/51 x 209	H60/61 x 241	
	9	**H3C**			H35 x 177 *)	H40 x 209 *)	H50 x 241 *)	
	9	**H3D**				H40/42 x 209	H50/52 x 241	
Hollow shaft with splined shaft	**9**	**H4A**	N25x1.25x30x 18x9H x 104	N35x1.25x30x 26x9H x 120	N40x2x30x18x 9H x 150	N50x2x30x24x 9H x 180	N60x2x30x28x 9H x 210	
Size			**F.108B**	**F.128B**	**F.148B**	**F.168B**	**F.188B**	**F.208**
Hollow shaft	**5**		H60 x 240 *)	H70 x 300 *)	H80 x 350	H100 x 410 *)	H120 x 500 *)	
	6		H70 x 240	H80 x 300	H90 x 350 *)	H110 x 410		
Hollow shaft with shrink disk	**9**	**H3A**	H70 x 280	H80 x 345	H95 x 404 *)	H105 x 483 *)	H125 x 580 *)	
	9	**H3B**	H70/71 x 280	H80/81 x 345	H95/96 x 404	H105/106 x483		H145/146 x 728
	9	**H3C**	H65 x 280 *)	H75 x 345 *)				
	9	**H3D**	H65/66 x 280	H75/76 x 345				
Hollow shaft with splined shaft	**9**	**H4A**	N70x2x30x34x 9H x240	N80x3x30x25x 9H x300	N90x3x30x28x 9H x350	N110x3x30x35x 9Hx410	N130x5x30x24x 9H x 500	
Parallel shaft gearbox FZ.Z, 2-stage and FD.Z, 3-stage with housing flange								
Size			**F..Z28**	**F..Z38B**	**F..Z48B**	**F..Z68B**	**F..Z88B**	
Solid shaft with feather key	**1**		V25 x 50 *)	V25 x 50 *)	V30 x 60 *)	V40 x 80 *)	V50 x 100 *)	
	3			V35 x 70	V40 x 80	V50 x 100	V70 x 140	
	4					V35 x 70		
Hollow shaft	**5**		H25 x 104 *)	H30 x 120 *)	H35 x 150 *)	H40 x 180 *)	H50 x 210 *)	
	6				H40 x 150	H45 x 180	H60 x 210	
Hollow shaft with shrink disk	**9**	**H3A**	H25 x 126 *)	H30 x 146 *)	H40 x 177	H50 x 209	H60 x 241	
	9	**H3B**		H30/31 x 146	H40/41 x 177	H50/51 x 209	H60/61 x 241	
	9	**H3C**			H35 x 177 *)	H40 x 209 *)	H50 x 241 *)	
	9	**H3D**				H40/42 x 209	H50/52 x 241	
Hollow shaft with splined shaft	**9**	**H4A**	N25x1.25x30x 18x9H x 104	N35x1.25x30x 26x9H x 120	N40x2x30x18x 9H x 150	N50x2x30x24x 9H x 180	N60x2x30x28x 9H x 210	
Size			**F..Z108B**	**F..Z128B**	**F..Z148B**	**F..Z168B**	**F..Z188B**	**F.208**
Solid shaft with feather key	**1**		V60 x 120 *)	V70 x 140 *)	V90 x 170 *)	V110 x 210 *)	V120 x 210 *)	V160 x 250 *)
	3		V80 x 170	V90 x 170	V100 x 210	V120 x 210	V140 x 250	
Hollow shaft	**5**		H60 x 240 *)	H70 x 300 *)	H80 x 350	H100 x 410	H120 x 500 *)	
	6		H70 x 240	H80 x 300	H90 x 350 *)	H110 x 410 *)		
Hollow shaft with shrink disk	**9**	**H3A**	H70 x 280	H80 x 345	H95 x 404 *)	H105 x 483 *)	H125 x 580 *)	
	9	**H3B**	H70/71 x 280	H80/81 x 345	H95/96 x 404	H105/106 x483		H145/146 x 728
	9	**H3C**	H65 x 280 *)	H75 x 345 *)				
	9	**H3D**	H65/66 x 280	H75/76 x 345				
Hollow shaft with splined shaft	**9**	**H4A**	N70x2x30x34x 9H x 240	N80x3x30x25x 9H x 300	N90x3x30x28x 9H x 350	N110x3x30x35x 9H x 410	N130x5x30x24x 9H x 500	

*) Preferred series

Shaft designs

Selection and ordering data (continued)

Shaft design	Order No. 8th position	Order No. suffix	Shaft dimensions				
Parallel shaft gearbox FZ.F, 2-stage and FD.F, 3-stage, flange-mounted design (A-type)							
Size			**F..F28**	**F..F38B**	**F..F48B**	**F..F68B**	**F..F88B**
Solid shaft with feather key	**2**		V25 x 50 (i2=I) *)	V25 x 50 (i2=I) *)	V30 x 60 (i2=I) *)	V40 x 80 (i2=I) *)	V50 x 100 (i2=I) *)
Hollow shaft	**5**		H25 x 104 *)	H30 x 120 *)	H35 x 150 *)	H40 x 180 *)	H50 x 210 *)
	6				H40 x 150	H45 x 180	H60 x 210
Hollow shaft with shrink disk	**9**	**H3A**	H25 x 126 *)	H30 x 146 *)	H40 x 177	H50 x 209	H60 x 241
	9	**H3B**		H30/31 x 146	H40/41 x 177	H50/51 x 209	H60/61 x 241
	9	**H3C**			H35 x 177 *)	H40 x 209 *)	H50 x 241 *)
	9	**H3D**				H40/42 x 209	H50/52 x 241
Hollow shaft with splined shaft	**9**	**H4A**	N25x1.25x30x18 x9H x 104	N35x1.25x30x26 x9H x 120	N40x2x30x18x9H x 150	N50x2x30x24x9H x 180	N60x2x30x28x9H x 210
Size			**F..F108B**	**F..F128B**	**F..F148B**	**F..F168B**	**F..F188B**
Solid shaft with feather key	**2**		V60 x 120 (i2=I) *)	V70 x 140 (i2=I) *)	V90 x 170 (i2=I) *)	V110 x 210 (i2=I) *)	V120 x 210 (i2=I) *)
Hollow shaft	**5**		H60 x 240 *)	H70 x 300 *)	H80 x 350	H100 x 410 *)	H120 x 500 *)
	6		H70 x 240	H80 x 300	H90 x 350 *)	H110 x 410	
Hollow shaft with shrink disk	**9**	**H3A**	H70 x 280	H80 x 345	H95 x 404 *)	H105 x 483 *)	H125 x 580 *)
	9	**H3B**	H70/71 x 280	H80/81 x 345	H95/96 x 404	H105/106 x483	
	9	**H3C**	H65 x 280 *)	H75 x 345 *)			
	9	**H3D**	H65/66 x 280	H75/76 x 345			
Hollow shaft with splined shaft	**9**	**H4A**	N70x2x30x34x9H x 240	N80x3x30x25x9H x 300	N90x3x30x28x9H x 350	N110x3x30x35x9H x 410	N130x5x30x24x9 H x 500

*) Preferred series

Shaft designs for parallel shaft gearbox with mixer flange

Shaft design	Order No. 8th position	Order No. suffix	Shaft dimensions				
Parallel shaft gearbox F..M, 2-stage and 3-stage							
Size			**F..M88B**	**F..M108B**	**F..M128B**	**F..M148B**	**F.M168B**
Solid shaft with feather key	**3**		V70 x 140	V80 x 170	V90 x 170	V100 x 210	V120 x 210
Hollow shaft	**9**	**H2F**	H60 x 321	H70 x 366	H80 x 456	H90 x 524	H110 x 609

Shaft designs for parallel shaft gearbox with extruder flange

Shaft design	Order No. 8th position	Order No. suffix	Shaft dimensions					
Parallel shaft gearbox F..E, 2-stage and 3-stage								
Size			**F.AE68**	**F.AE88**	**F.AE108**	**F.AE128**	**F.AE148**	**F.AE168**
Hollow shaft	**9**	**H2A**	H20 x 48	H30 x 58	H40 x 71	H45 x 87	H60 x 95	H70 x 105
	9	**H2B**	H25 x 48	H35 x 58	H45 x 71	H50 x 87	H70 x 95	H80 x 105
	9	**H2C**	H30 x 48 *)	H40 x 58 *)	H50 x 71 *)	H60 x 87 *)	H75 x 95 *)	H90 x 105 *)

*) Preferred series

Selection and ordering data

Order code	Flange diameter									
Parallel shaft gearbox FZ.F, 2-stage										
Size	**FZ.F28**	**FZ.F38B**	**FZ.F48B**	**FZ.F68B**	**FZ.F88B**	**FZ.F108B**	**FZ.F128B**	**FZ.F148B**	**FZ.F168B**	**FZ.F188B**
H02	120	160	200	250	300	350		450		660
H03	160						450		550	
Parallel shaft gearbox FD.F, 3-stage										
Size	**FD.F28**	**FD.F38B**	**FD.F48B**	**FD.F68B**	**FD.F88B**	**FD.F108B**	**FD.F128B**	**FD.F148B**	**FD.F168B**	**FD.F188B**
H02	120	160	200	250	300	350		450		660
H03	160						450		550	

Mounting types and mounting positions

Selection and ordering data

The mounting type / mounting position must be specified when you place your order to ensure that the gearbox is supplied with the correct quantity of oil.

Please contact customer service to discuss the oil quantity if you wish to use a mounting position which is not shown here.

Position of the terminal box

The terminal box of the motor can be mounted in four different positions. See Chapter 8 for an accurate representation of the terminal box position and the corresponding order codes.

2-stage and 3-stage parallel shaft gearbox, foot-mounted design, flange-mounted design, and with housing flange

Oil control valves:

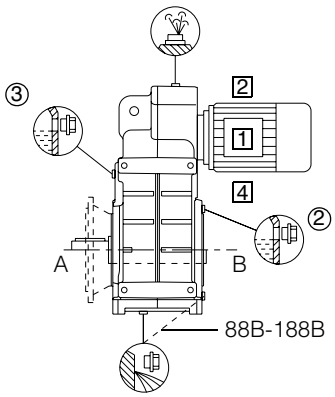
- Size 28: These types are lubricated for life. No ventilation, oil level, or drain plugs are present.
- Size 38B: V Oil inlet
- From size 48B up: Oil level, Ventilation, Oil drain, Oil dipstick, - - - - alternative

② 2-stage gearbox ③ 3-stage gearbox * On opposite side A,B position of the customer's solid/plug-in shaft

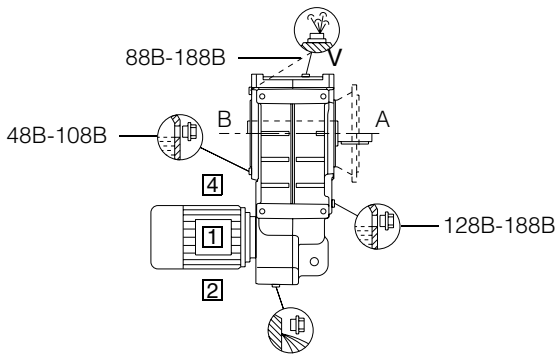
1 ... 4 Position of the terminal box, see Chapter 8.

1) Standard mounting type

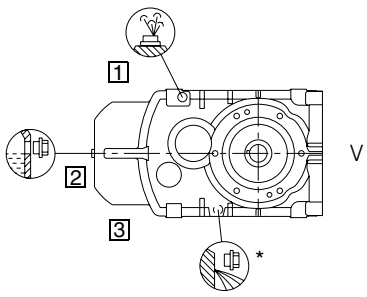
F.Z, F.F: B5-01 (IM B5-01) 1)
Order code (output side A): **D22**
F.AZ, F. AF: H-01 1)
Order code (output side A): **D76**



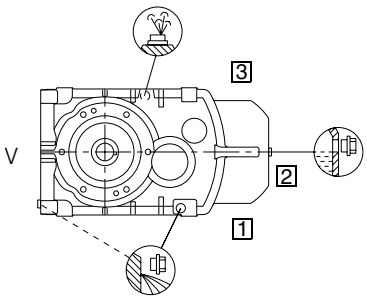
F.Z, F.F: B5-03 (IM B5-03)
Order code (output side A): **D32**
F.AZ, F. AF: H-02
Order code (output side A): **D78**



F.Z, F.F: B5-02 (IM B5-02)
Order code (output side A): **D27**
F.AZ, F. AF: H-03
Order code (output side A): **D80**



F.Z, F.F: B5-00 (IM B5-00)
Order code (output side A): **D18**
F.AZ, F. AF: H-04
Order code (output side A): **D82**



Selection and ordering data (continued)

2-stage and 3-stage parallel shaft gearbox, foot-mounted design, flange-mounted design, and with housing flange

Oil control valves:

- Size 28: These types are lubricated for life. No ventilation, oil level, or drain plugs are present.
- Size 38B: V Oil inlet
- From size 48B up: Oil level, Ventilation, Oil drain, Oil dipstick, - - - - Alternative

② 2-stage gearbox ③ 3-stage gearbox * On opposite side A,B position of the customer's solid/plug-in shaft

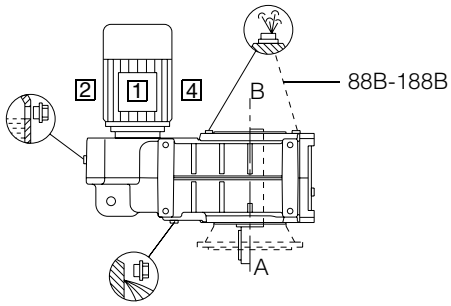
1 ... 4 Position of the terminal box, see Chapter 8.

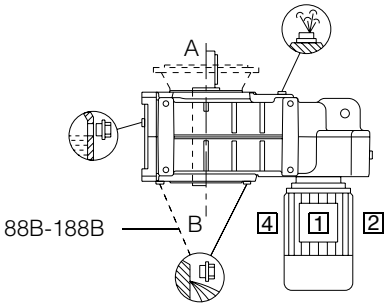
F.Z, F.F: V1-00 (IM V1-00)
Order code (output side A): **D90**

F.AZ, F. AF: H -05
Order code (output side A): **D84**

F.Z, F.F: V3-00 (IM V3-00)
Order code (output side A): **D98**

F.AZ, F. AF: H -06
Order code (output side A): **D86**





2-stage and 3-stage parallel shaft gearbox with mixer flange (FZ.M/FD.M)

Mounting positions correspond to those of standard gearboxes.

2-stage and 3-stage parallel shaft gearbox with extruder flange (FZAE/FDAE)

Mounting positions correspond to those of standard gearboxes with hollow shaft.

Mounting types and mounting positions

Selection and ordering data (continued)

2-stage and 3-stage parallel shaft gearbox, foot-mounted design, flange-mounted design, and with housing flange for size 208

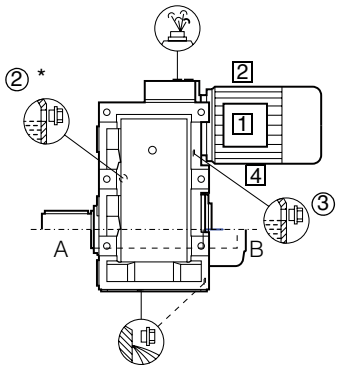
Oil control valves:

Oil level | Ventilation | Oil drain | Oil dipstick | - - - - Alternative

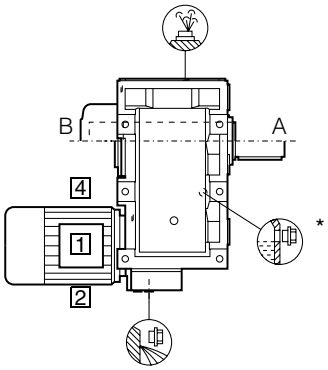
② 2-stage gearbox ③ 3-stage gearbox ④ Tandem gearbox * On opposite side A,B position of the customer's solid/plug-in shaft

1 ... 4 Position of the terminal box, see Chapter 8.

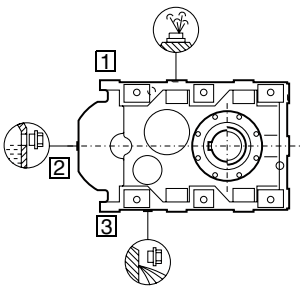
F.Z: B5-01 (IM B5-01) [1)]
Order code (output side A): **D22**
F.A.: H-01 [1)]
Order code (output side A): **D76**



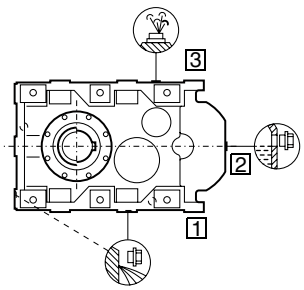
F.Z: B5-03 (IM B5-03)
Order code (output side A): **D32**
F.A.: H-02
Order code (output side A): **D78**



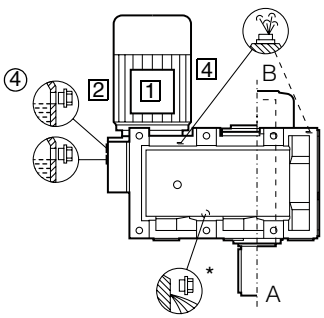
F.Z: B5-02 (IM B5-02)
Order code (output side A): **D27**
F.A.: H-03
Order code (output side A): **D80**



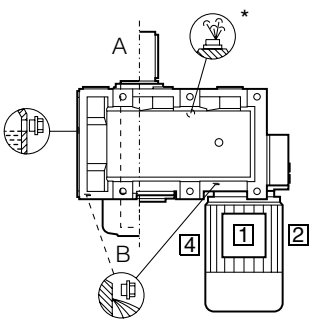
F.Z: B5-00 (IM B5-00)
Order code (output side A): **D18**
F.A.: H-04
Order code (output side A): **D82**



F.Z: V1-00 (IM V1-00)
Order code (output side A): **D90**
F.A.: H-05
Order code (output side A): **D84**



F.Z: V3-00 (IM V3-00)
Order code (output side A): **D98**
F.A.: H-06
Order code (output side A): **D86**



Selection and ordering data (continued)

Parallel shaft tandem gearbox

The mounting type / mounting position of the tandem gearbox corresponds to that of the main gearbox.
The figures below are only designed to show the position of the oil control valves of the 2nd gearbox.

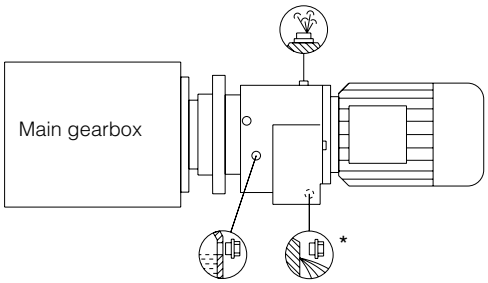
Note:

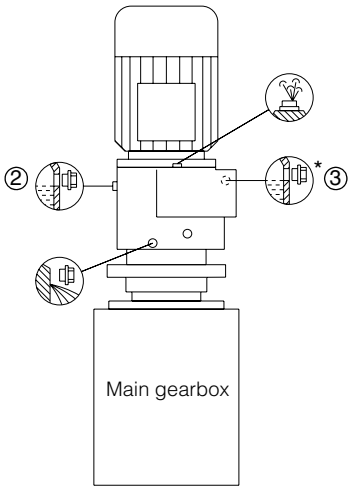
In a horizontal operating position the bulging part of the housing of the 2nd gearbox generally faces vertically downwards.

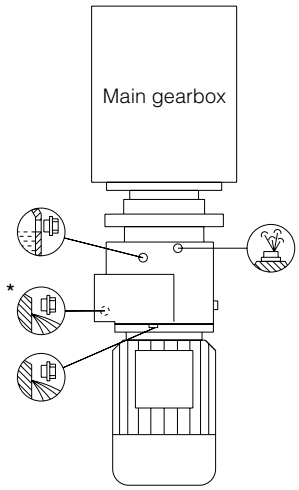
Oil control valves:

- Size 28/38 (2nd gearbox): These types are lubricated for life. No ventilation, oil level, or drain plugs are present.
- From size 48B up: Oil level Ventilation Oil drain * On opposite side

② 2-stage gearbox ③ 3-stage gearbox







Special versions

Lubricants

Parallel shaft gearboxes are filled with mineral oil as standard.

If the gearbox is to be used in an application with special requirements, the lubricants listed in the table below can be used.

Area of application	Ambient temperature [1]	DIN ISO designation	Order code
Standard oils			
Standard temperature	-10 … +40 °C	CLP ISO VG220	**K06**
Improved oil service life	-20 … +50 °C	CLP ISO PG VG220	**K07**
High temperature usage	0 … +60 °C	CLP ISO PG VG460	**K08**
Low temperature usage	-40 … +40 °C	CLP ISO PAO VG220	[2]
Lowest temperature usage	-40 … +10 °C	CLP ISO PAO VG68	[2]
Physiologically safe oils (for use in the food industry) in acc. with NSF (USDA)-H1			
Standard temperature	-30 … +40 °C	CLP ISO H1 VG460	**K11**
Biologically degradable oils			
Standard temperature	-20 … +40 °C	CLP ISO E VG220	**K10**

[1] Recommendation
[2] On request

Size 28 does not feature any ventilation, oil level, or drain plugs. The lubricant does not need to be changed, due to the low thermal load the gearbox is subjected to.

Parallel shaft gearboxes of size 38B have an oil screw; these gearboxes do not require ventilation or ventilation elements.

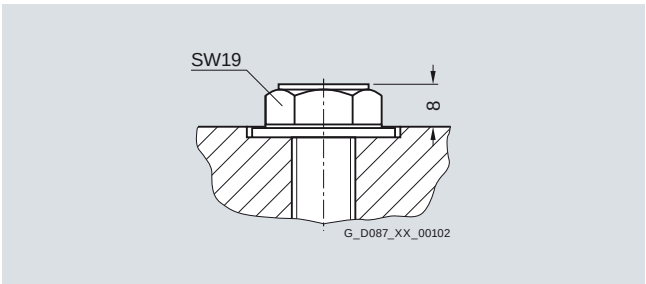
Gearboxes of sizes 48B to 188B are fitted with filler, oil level, and drain plugs as standard. The ventilation and vent filter, which is delivered loose, must be attached in place of the filler plug prior to startup.

Oil level control

Oil sight glass

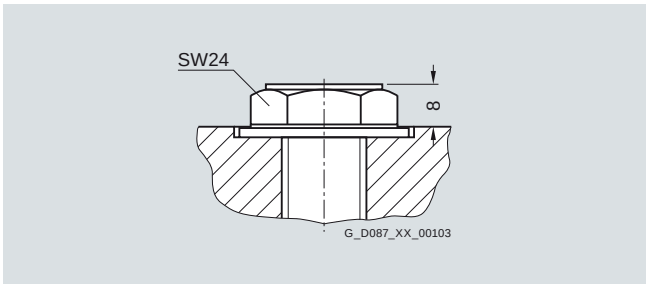
For size 48B and above, gearboxes can be equipped with a visual oil level indicator (oil sight glass) for most mounting types and mounting positions.

Order code:
Oil sight glass **G34**



SW = Wrench width

Gearbox	Size
Parallel shaft gearbox	FD./FZ.48B … FD./FZ.128B



SW = Wrench width

Gearbox	Size
Parallel shaft gearbox	FD./FZ.148B … FD./FZ.188B

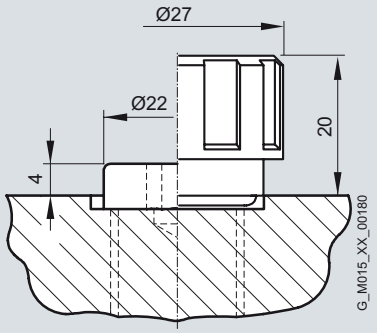
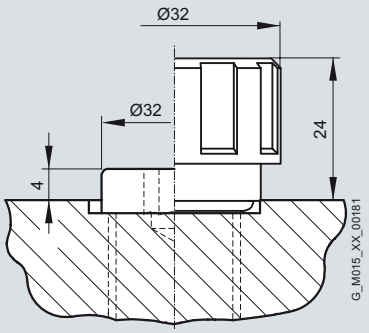
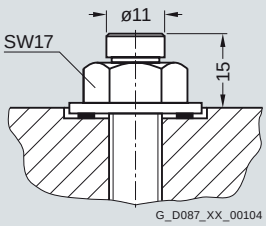
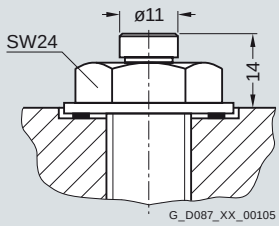
Electrical oil level monitoring system

If required, the gearbox can be supplied with an electrical oil level monitoring system, which enables the oil level of the gearbox to be monitored remotely. The oil level is monitored by a capacitive sensor only when the gearbox starts up; it is not measured continuously.

Gearbox ventilation

The positions of the ventilation and ventilation elements can be seen on the mounting position diagrams.

If required, a pressure ventilation valve can be usedfor size 48B and above.

Order code	FD./FZ.48B … FD./FZ.128B	FD./FZ.148B … FD./FZ.188B
Vent filter Order code: **G44**		
Pressure ventilation valve Order code: **G45**		

SW = Wrench width

Oil drain

Magnetic oil drain plug

A magnetic oil drain plug for inserting in the oil drainage hole is available on request for parallel shaft gearboxes of size 48B and above. This serves to collect any grit contained in the gear lubricant.

Order code:
Magnetic oil drain plug **G53**

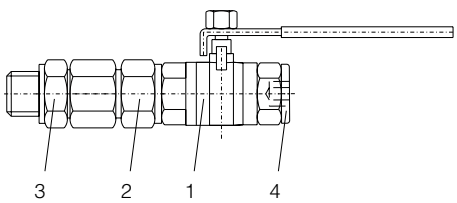
Oil drain valve

An oil drain valve is available on request for parallel shaft gearboxes of size 48B and above.

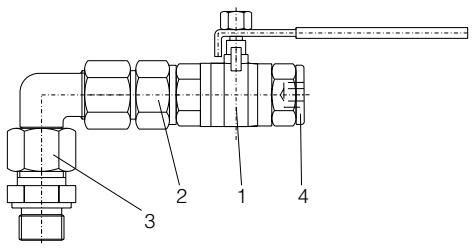
The oil drain valve may be designed as a complete unit featuring a screw plug, depending on the corresponding mounting position.

Order code:
Oil drain valve, straight **G54**

An angled oil drain valve is also available on request.



Item 3 Screwed connection GE
Item 2 Screwed connection EGE
Item 1 Oil drain valve
Item 4 Screw plug

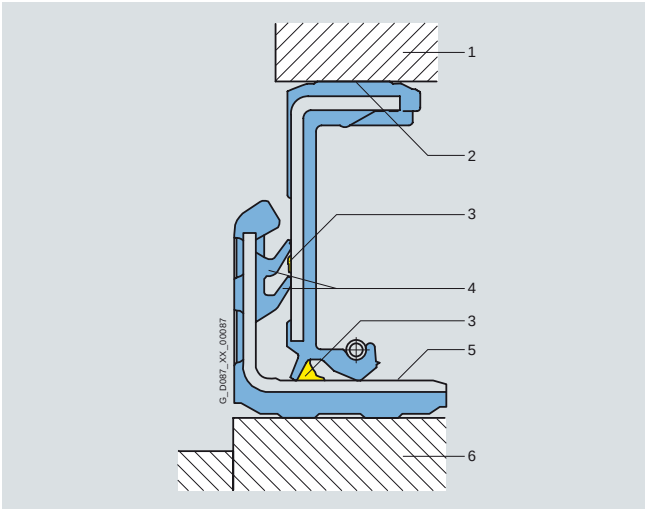


Item 3 Screwed connection GE
Item 2 Screwed connection EGE
Item 1 Oil drain valve
Item 4 Screw plug

Sealing

Combination shaft sealing

A combination shaft sealing, which helps to prevent oil from leaking, is available for parallel shaft gearboxes of sizes 38B to 168B.



1 • Housi ng

2 • Rubberized inner and outer diameter

3 • Grease filling prevents dry running of the sealing lips

4 • Additional sealing lips to protect against dirt
• Decoupled sealing system prevents scoring of the shaft as a result of corrosion or dirt

5 • Protected running surface for radial shaft sealing ring
• No damage when mounting

6 • Shaft

A combination shaft sealing is particularly well suited to external use.

Order code:
Combination shaft sealing **G24**

Double sealing

Double sealing is possible for parallel shaft gearboxes of sizes 28 and 188B. Double sealing is particularly well suited to external use.

Order code:
Double sealing MSS1 (size 28) **G23**
Double radial shaft seal (sizes 188B) **G22+ G31**

High temperature resistant sealing

High temperature resistant sealings (Viton/fluorinated rubber) for high operating and ambient temperatures of +60 °C and above are available for parallel shaft gearboxes.

Order code:
High temperature resistant sealing **G25**

Hollow shaft cover (protection cover)

Gearboxes with hollow shaft are delivered with a plastic sealing cap as standard.

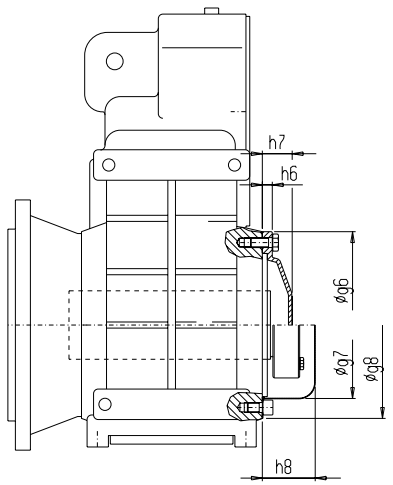
If required, they can be fitted with a fixed protection cover. Gearboxes of size 28 are fitted with a steel protection cover as standard.

The steel protection cover can only be used for gearboxes with hollow shaft and shrink disk.

For outdoor applications we recommend the ATEX versions.

Order codes:

Protection cover	**G62**
Protection cover (ATEX)	**G63**
Steel protection cover	**G60**
Steel protection cover (ATEX)	**G61**



F.A, F.AF, F.AZ, F. AS [1], F.AFS [1], F.AZS [1], F.AT, F.AFT, F.AZT

Gearbox type	Steel protection cover			Protection cover		
	g7	g8	h8	g6	h6	h7
F.28	58.0	102	33.5	–	–	–
F.38B	82.2	115	40.0	120	10	33
F.48B	99.0	130	44.0	132	10	33
F.68B	115.0	150	62.5	150	10	37
F.88B	137.0	190	70.0	190	13	50
F.108B	187.0	240	80.0	245	13	55
F.128B	233.0	292	85.0	295	16	48
F.148B	257.5	334	100.0	335	13	50
F.168B	309.5	390	129.5	400	13	50
F.188B	309.5	390	129.5	400	13	50
F..208	373.0	373	179.0	–	–	–

[1] Only a steel protection cover is available for F.AS, F.ADS, F.AFS, and F.AZS

Radially reinforced output shaft bearings

The bearings of the MOTOX gearboxes are dimensioned such that they are strong enough to withstand most application cases.

However, the gearboxes can be fitted with a reinforced output shaft bearing arrangement for applications with particularly high radial forces.

Order code:
Radially reinforced output shaft bearings **G20**

Special versions

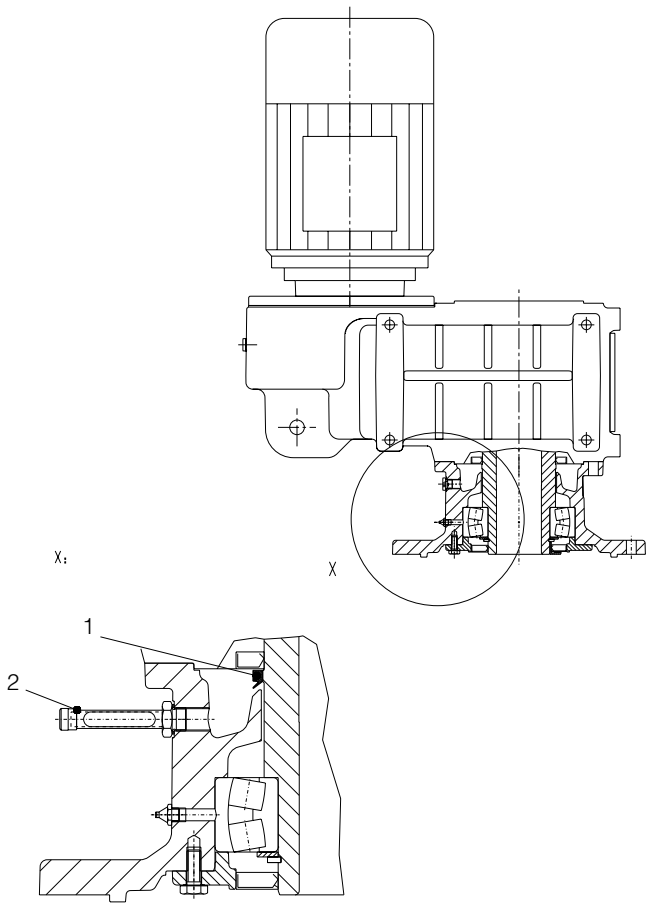
Mixer flange in dry-well design

The agitator flange can be fitted with an additional "V" ring (1) in mounting position V1-00 in order to drain off any leak oil to a safety chamber and protect the equipment against the effects of leakages.

The oil can either be viewed through a sight glass, or its presence indicated by an electrical sensor (2).

Order codes:

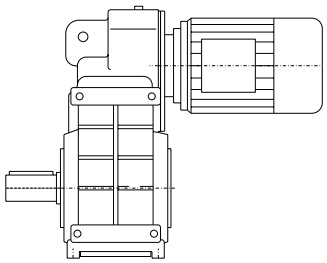
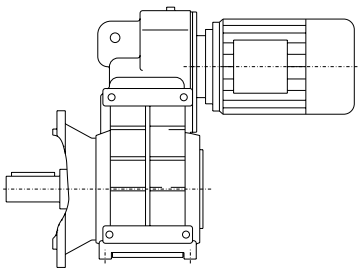
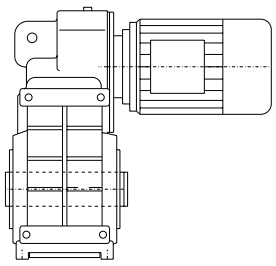
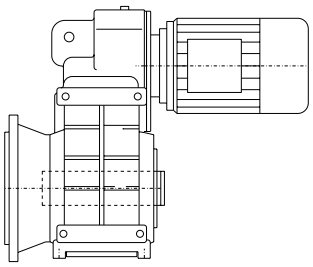
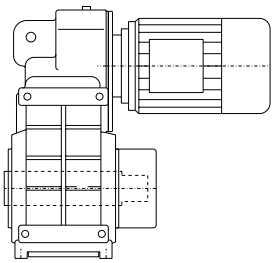
Dry-well design with sight glass	**G89**
Dry-well design with sensor	**G90**



Regreasing device for the mixer flange

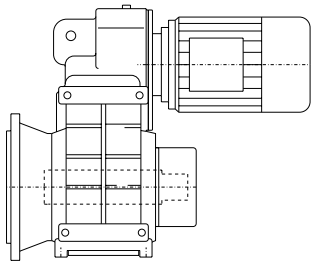
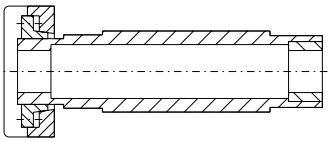
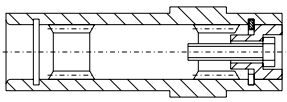
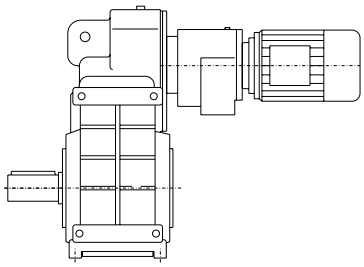
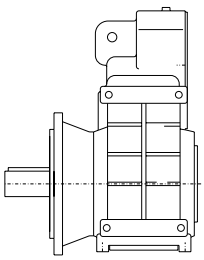
The mixer gearbox can be fitted with a regreasing device on request.

Dimension drawing overview

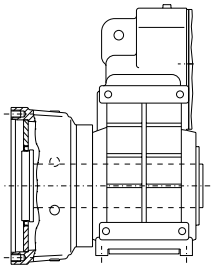
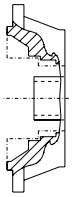
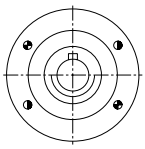
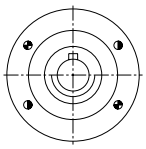
Representation	Gearbox type	Dimension drawing on page
	F.Z28	3/102
	F.Z38B	3/108
	F.Z48B	3/114
	F.Z68B	3/120
	F.Z88B	3/126
	F.Z108B	3/132
	F.Z128B	3/138
	F.Z148B	3/144
	F.Z168B	3/150
	F.Z188B	3/156
	F.Z208	3/168
	F.F28	3/103
	F.F38B	3/109
	F.F48B	3/115
	F.F68B	3/121
	F.F88B	3/127
	F.F108B	3/133
	F.F128B	3/139
	F.F148B	3/145
	F.F168B	3/151
	F.F188B	3/158
	F.A28 / F.AZ28	3/104
	F.A38B / F.AZ38B	3/110
	F.A48B / F.AZ48B	3/116
	F.A68B / F.AZ68B	3/122
	F.A88B / F.AZ88B	3/128
	F.A108B/ F.AZ108B	3/134
	F.A128B/ F.AZ128B	3/140
	F.A148B/ F.AZ148B	3/146
	F.A168B/ F.AZ168B	3/152
	F.A188B/ F.AZ188B	3/160
	F.AF28	3/105
	F.AF38B	3/111
	F.AF48B	3/117
	F.AF68B	3/123
	F.AF88B	3/129
	F.AF108B	3/135
	F.AF128B	3/141
	F.AF148B	3/147
	F.AF168B	3/153
	F.AF188B	3/162
	F.AS28 / F.AZS28	3/106
	F.AS38B / F.AZS38B	3/112
	F.AS48B / F.AZS48B	3/118
	F.AS68B / F.AZS68B	3/124
	F.AS88B / F.AZS88B	3/130
	F.AS108B / F.AZS108B	3/136
	F.AS128B / F.AZS128B	3/142
	F.AS148B / F.AZS148B	3/148
	F.AS168B / F.AZS168B	3/154
	F.AS188B / F.AZS188B	3/164
	F.AS1208 / F.AZS208	3/170

Dimensions

Dimension drawing overview (continued)

Representation	Gearbox type	Dimension drawing on page
	F.AFS28	3/107
	F.AFS38B	3/113
	F.AFS48B	3/119
	F.AFS68B	3/125
	F.AFS88B	3/131
	F.AFS108B	3/137
	F.AFS128B	3/143
	F.AFS148B	3/149
	F.AFS168B	3/155
	F.AFS188B	3/166
	F.A.S38B ... F.A.S188B	3/174
	F.A.T38B ... F.A.T188B	3/175
	F.38B-Z28 ... F.188B-Z68	3/176
	F.M88B ... F.M168B	3/179

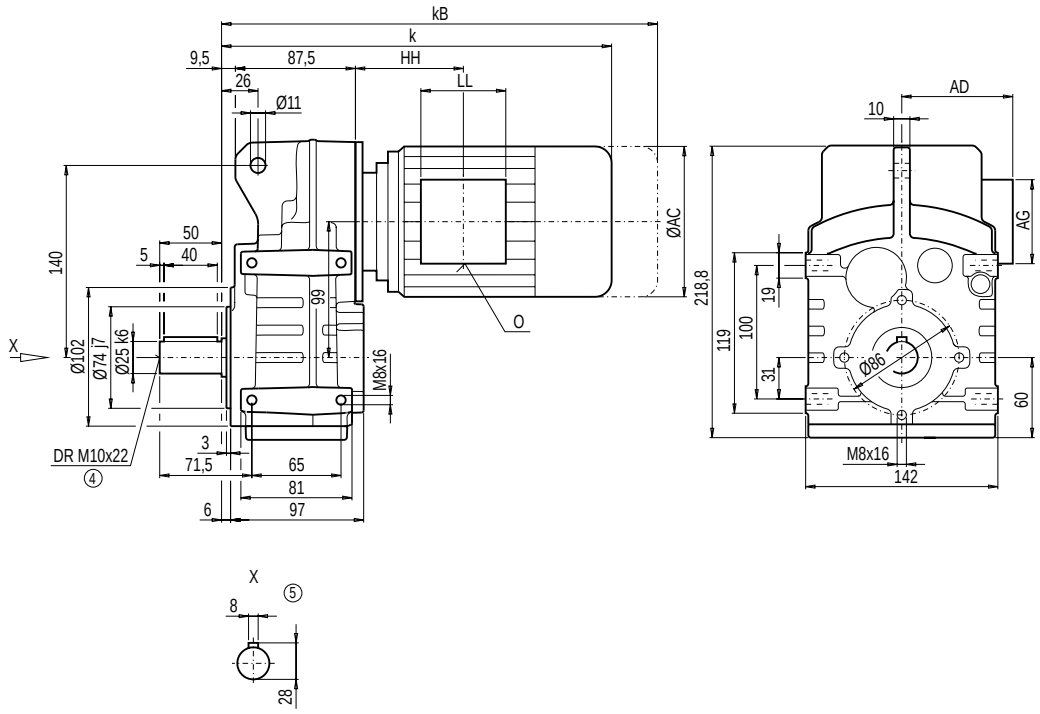
Dimension drawing overview (continued)

Representation	Gearbox type	Dimension drawing on page
	F.E88B ... F.E168B	3/181
	Additional flange-mounted design	3/183
 	Pin holes	3/184

Dimensions

Gearbox FDZ/FZZ28 (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



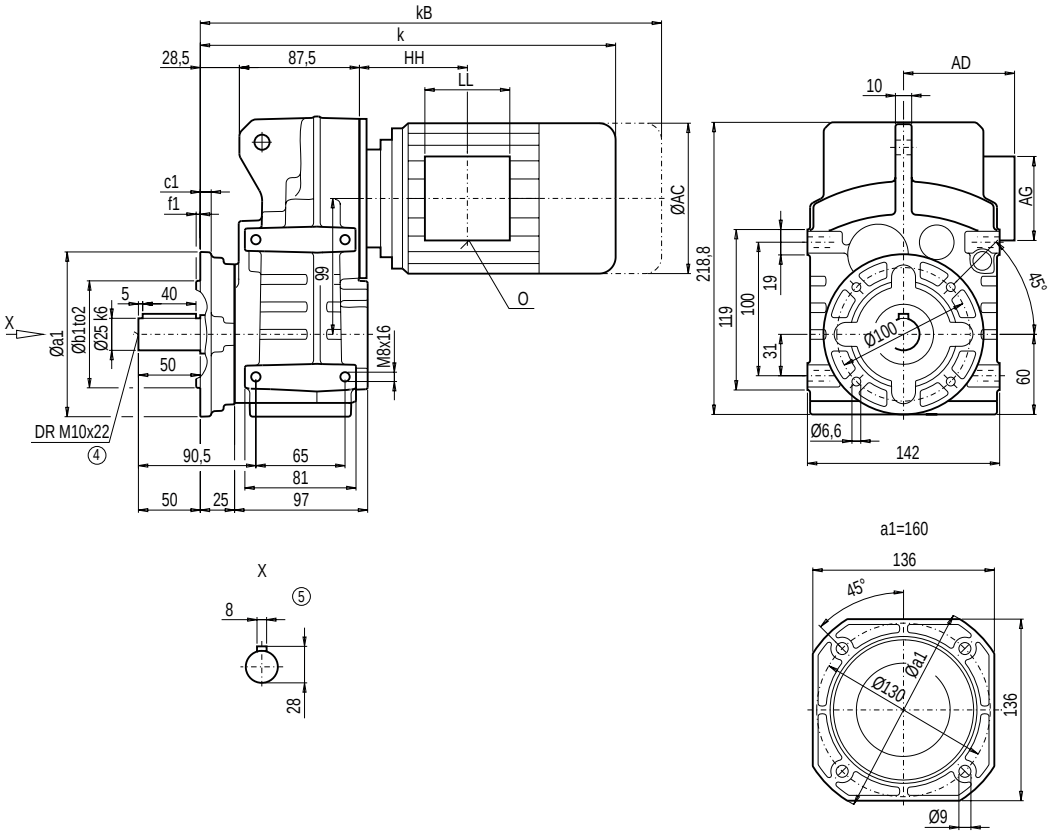
Motor	F.Z28 k	kB	AC	AD	AG	LL	HH	O	Weight FDZ28	FZZ28
LA71	299.5	354.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	10
LA71Z	318.5	373.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	10
LA90S	396.5	467.5	174	185	90	90	87.0	M20x1.5/M25x1.5	20	19
LA90L	396.5	467.5	174	185	90	90	87.0	M20x1.5/M25x1.5	20	19
LA90ZL	441.5	512.5	174	185	90	90	87.0	M20x1.5/M25x1.5	23	22
LA100L	478.5	559.5	195	168	120	120	163.5	2xM32x1.5	–	29

④ DIN 332

⑤ Feather key / keyway DIN 6885

Gearbox FDF/FZF28 (3- / 2-stage), flange-mounted design (A-type)

FF012



Flange	a1	b1	to2	c1	f1
A120	120	80	j6	8	3.0
A160	160	110	j6	9	3.5

	F.F28								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDF28**	**FZF28**
LA71	318.5	373.5	139	146	90	90	58.5	M20x1.5/M25x1.5	11	10
LA71Z	337.5	392.5	139	146	90	90	58.5	M20x1.5/M25x1.5	11	10
LA90S	415.5	486.5	174	185	90	90	87.0	M20x1.5/M25x1.5	20	20
LA90L	415.5	486.5	174	185	90	90	87.0	M20x1.5/M25x1.5	20	20
LA90ZL	460.5	531.5	174	185	90	90	87.0	M20x1.5/M25x1.5	23	23
LA100L	497.5	578.5	195	168	120	120	163.5	2xM32x1.5	–	29

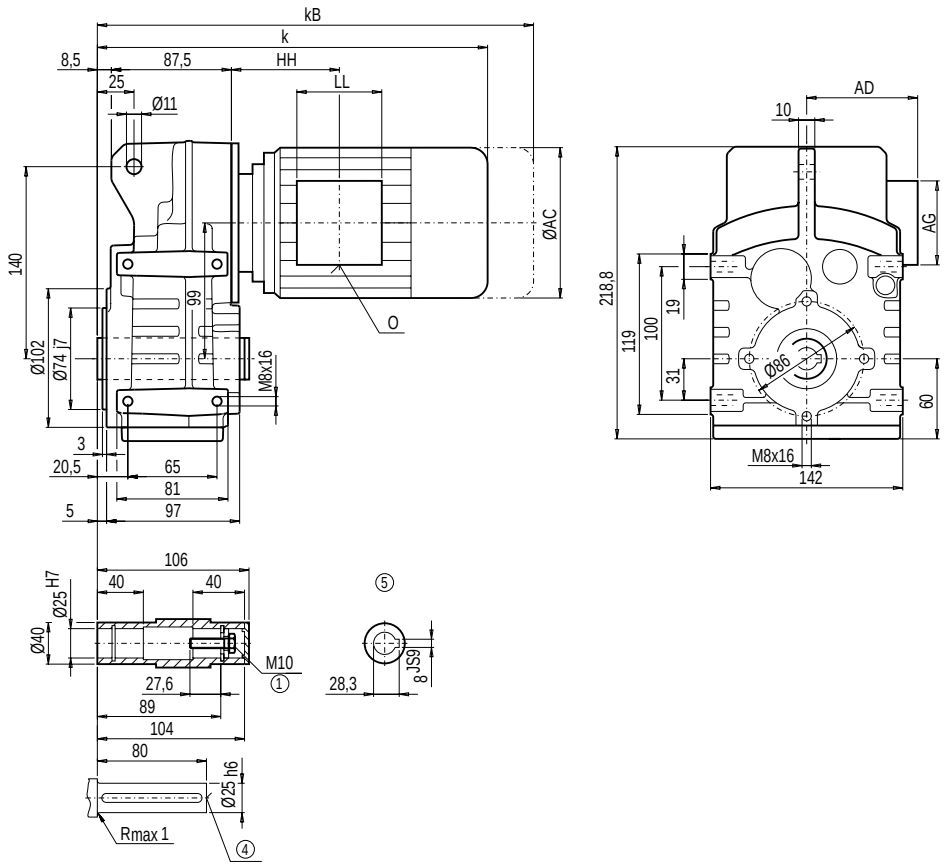
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA28, FDAZ/FZAZ28 (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012

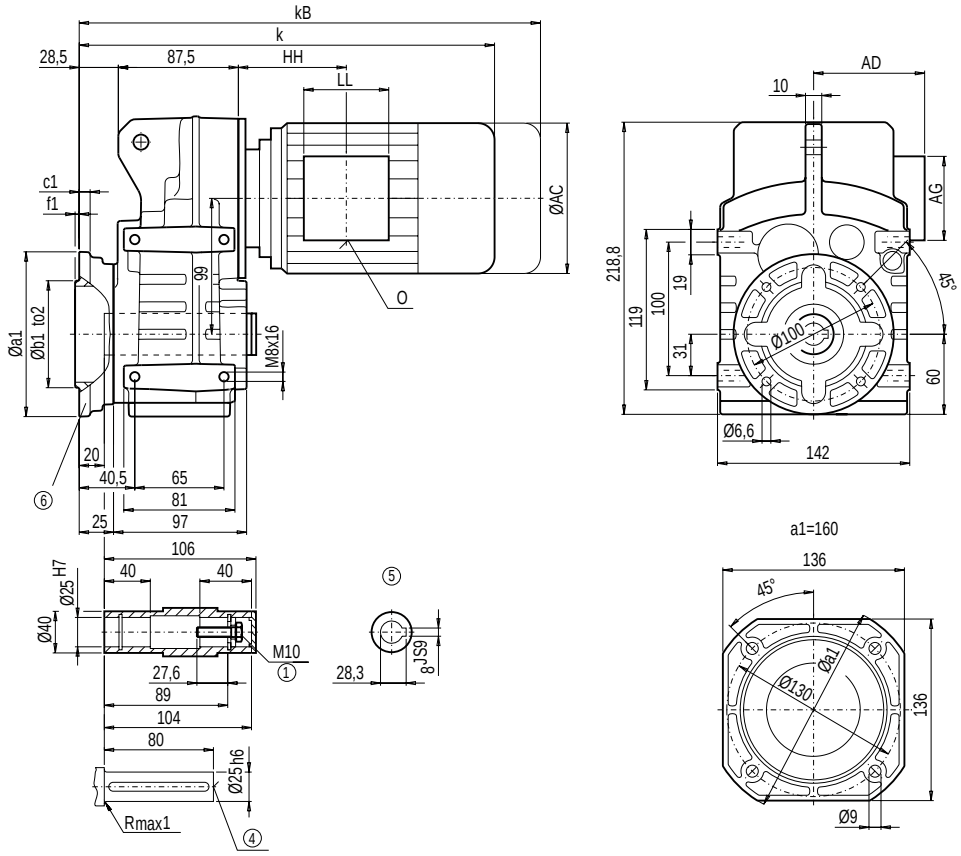


Motor	F.A.28 k	kB	AC	AD	AG	LL	HH	O	Weight FDA.28	FZA.28
LA71	299.5	354.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	9
LA71Z	318.5	373.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	9
LA90S	396.5	467.5	174	185	90	90	87.0	M20x1.5/M25x1.5	19	19
LA90L	396.5	467.5	174	185	90	90	87.0	M20x1.5/M25x1.5	19	19
LA90ZL	441.5	512.5	174	185	90	90	87.0	M20x1.5/M25x1.5	22	22
LA100L	478.5	559.5	195	168	120	120	163.5	2xM32x1.5	–	28

① DIN EN ISO 4017 ④ DIN 332 ⑤ Feather key / keyway DIN 6885

Gearbox FDAF/FZAF28 (3- / 2-stage), shaft-mounted design with flange

FAF012



Flange	a1	b1	to2	c1	f1
A120	120	80	j6	8	3.0
A160	160	110	j6	9	3.5

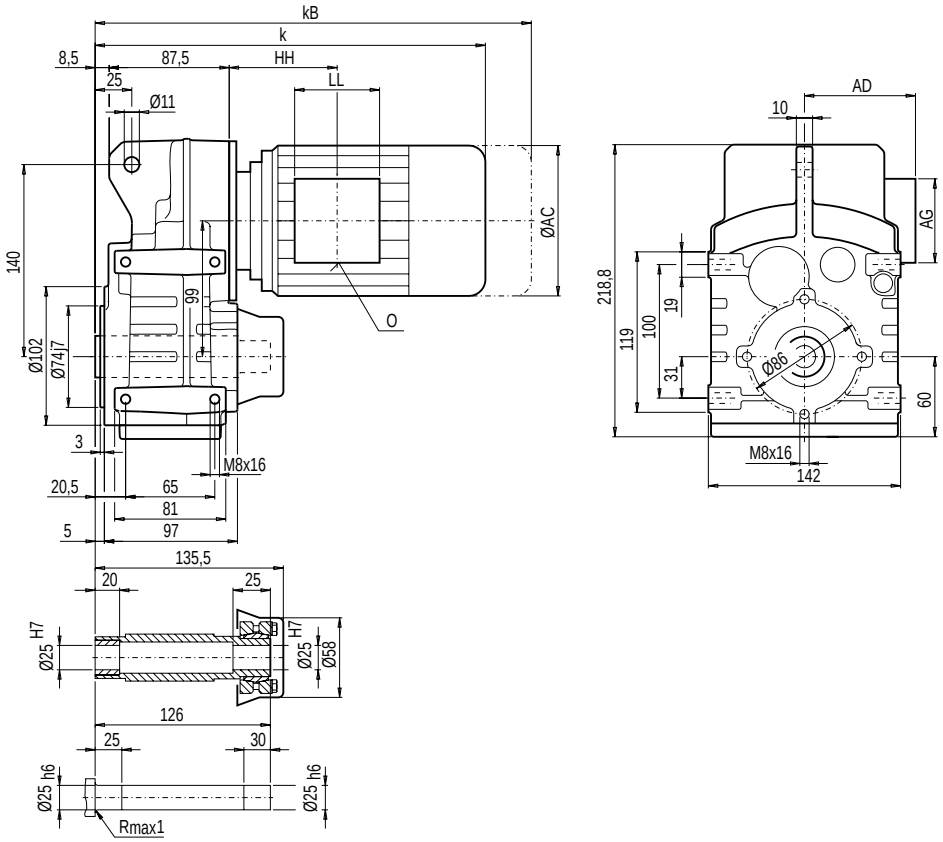
	F.AF28								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF28**	**FZAF28**
LA71	318.5	373.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	9
LA71Z	337.5	392.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	9
LA90S	415.5	486.5	174	185	90	90	87.0	M20x1.5/M25x1.5	19	19
LA90L	415.5	486.5	174	185	90	90	87.0	M20x1.5/M25x1.5	19	19
LA90ZL	460.5	531.5	174	185	90	90	87.0	M20x1.5/M25x1.5	22	22
LA100L	497.5	578.5	195	168	120	120	163.5	2xM32x1.5	–	28

① DIN EN ISO 4017 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS28, FDAZS/FZAZS28 (3- / 2-stage), shaft-mounted design with shrink disk

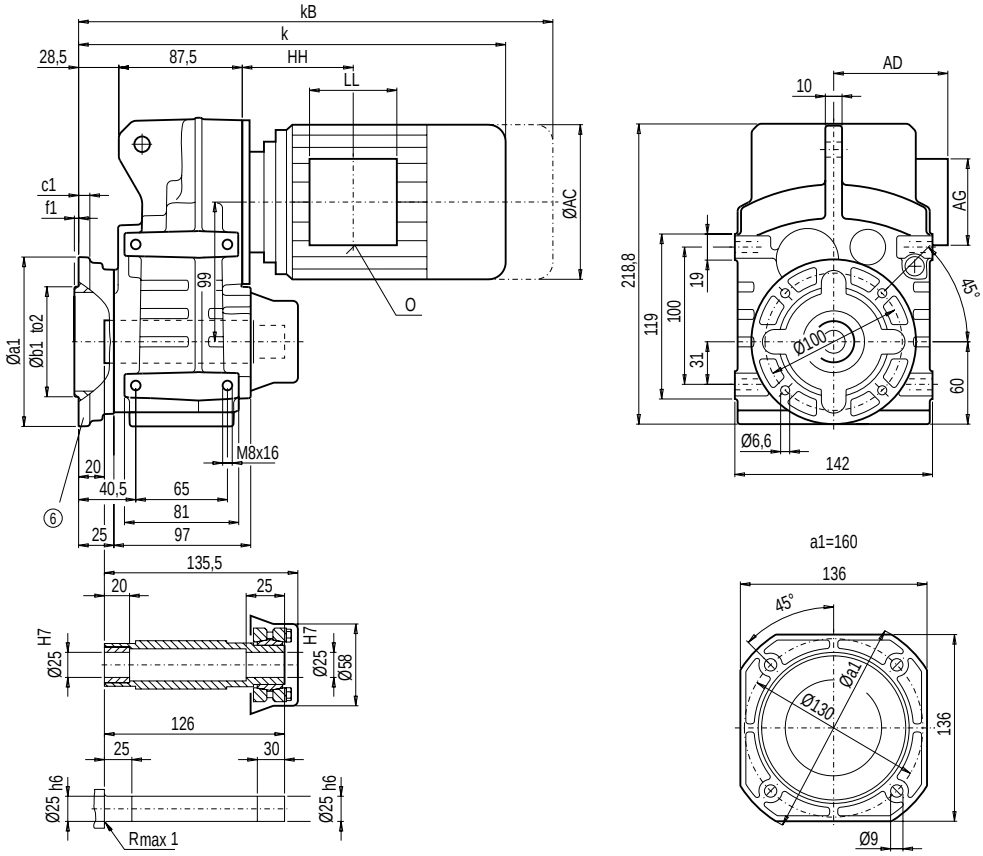
FAS012
FAZS012



Motor	F.A.S28 k	kB	AC	AD	AG	LL	HH	O	Weight FDA.S28	FZA.S28
LA71	299.5	354.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	9
LA71Z	318.5	373.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	9
LA90S	396.5	467.5	174	185	90	90	87.0	M20x1.5/M25x1.5	19	19
LA90L	396.5	467.5	174	185	90	90	87.0	M20x1.5/M25x1.5	19	19
LA90ZL	441.5	512.5	174	185	90	90	87.0	M20x1.5/M25x1.5	22	22
LA100L	478.5	559.5	195	168	120	120	163.5	2xM32x1.5	–	28

Gearbox FDAFS/FZAFS28 (3- / 2-stage), shaft-mounted design with flange

FAFS012



Flange	a1	b1	to2	c1	f1
A120	120	80	j6	8	3.0
A160	160	110	j6	9	3.5

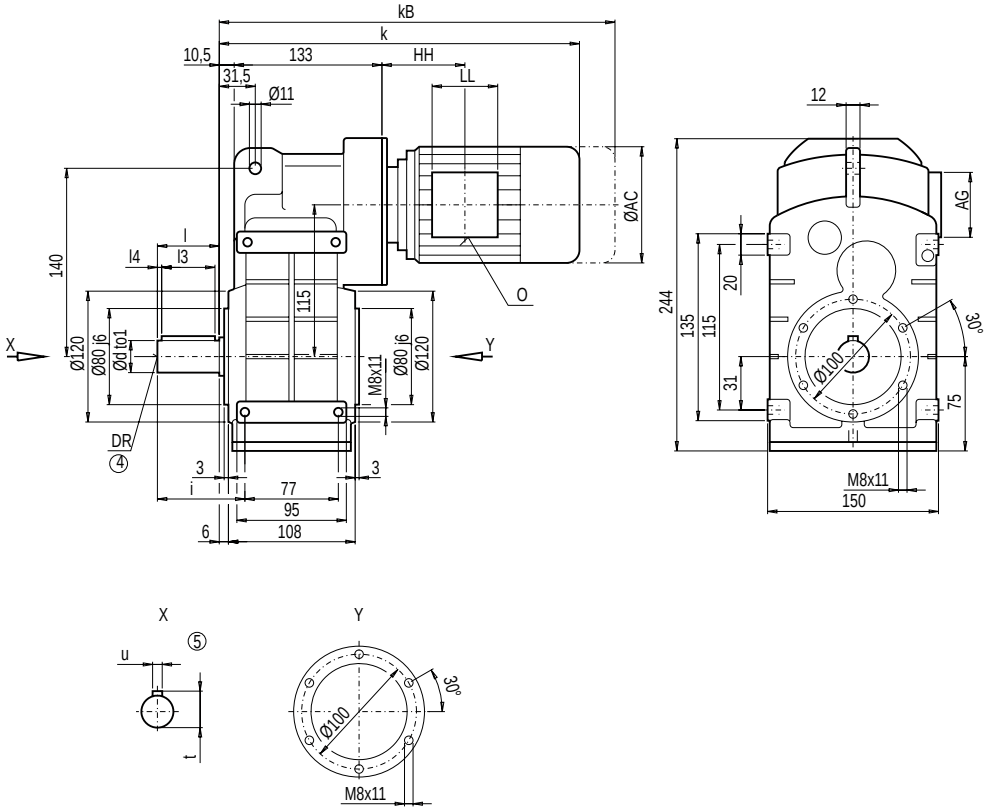
	F.AFS28								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAFS28**	**FZAFS28**
LA71	318.5	373.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	10
LA71Z	337.5	392.5	139	146	90	90	58.5	M20x1.5/M25x1.5	10	10
LA90S	415.5	486.5	174	185	90	90	87.0	M20x1.5/M25x1.5	20	19
LA90L	415.5	486.5	174	185	90	90	87.0	M20x1.5/M25x1.5	20	19
LA90ZL	460.5	531.5	174	185	90	90	87.0	M20x1.5/M25x1.5	23	22
LA100L	497.5	578.5	195	168	120	120	163.5	2xM32x1.5	–	29

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ38B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	DR
25 *)	k6	50	40	5	28	8	71.5	M10x22
35	k6	70	56	5	38	10	91.5	M12x28

*) Preferred series

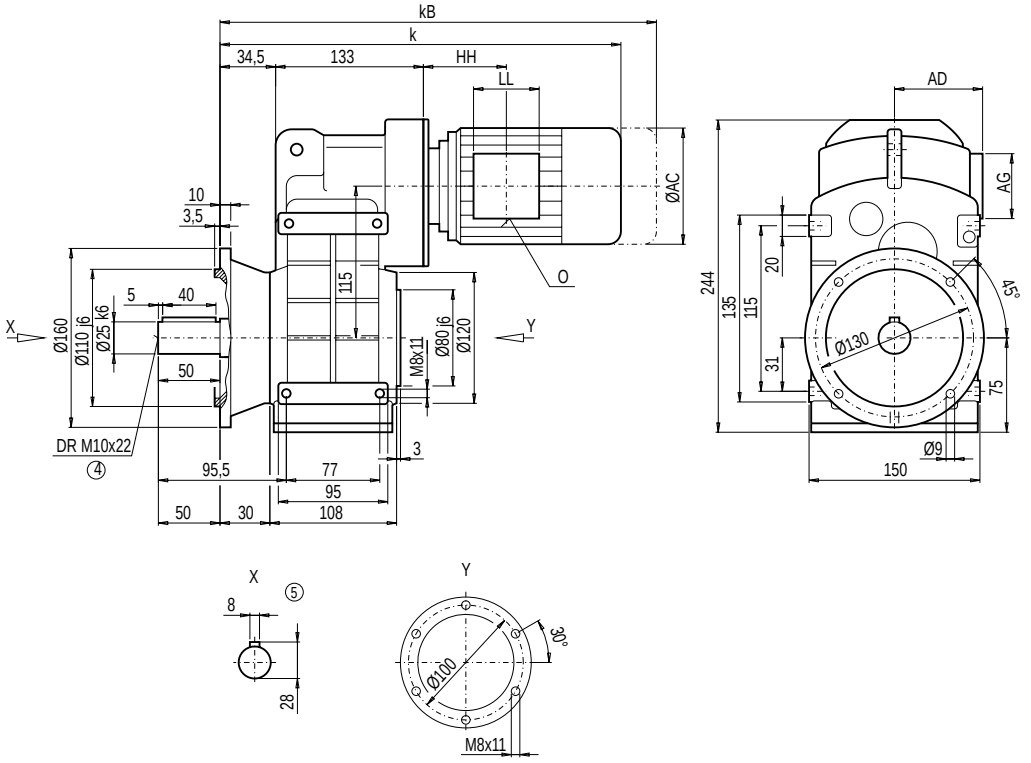
	F.Z38B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ38B**	**FZZ38B**
LA71	377	432.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	18	17
LA71Z	396	451.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	18	17
LA80	414	477.5	156.5	155	90	90	89.0	M20x1.5/M25x1.5	23	22
LA90S	445	516.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	27	27
LA90L	445	516.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	27	27
LA100L	491	572.0	195.0	168	120	120	129.5	2xM32x1.5	–	36

④ DIN 332

⑤ Feather key / keyway DIN 6885

Gearbox FDF/FZF38B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F38B k	kB	AC	AD	AG	LL	HH	O	Weight FDF38B	FZF38B
LA71	401	456.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	20	19
LA71Z	420	475.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	20	19
LA80	438	501.5	156.5	155	90	90	89.0	M20x1.5/M25x1.5	25	24
LA90S	469	540.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	29	29
LA90L	469	540.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	29	29
LA100L	515	596.0	195.0	168	120	120	129.5	2xM32x1.5	–	38

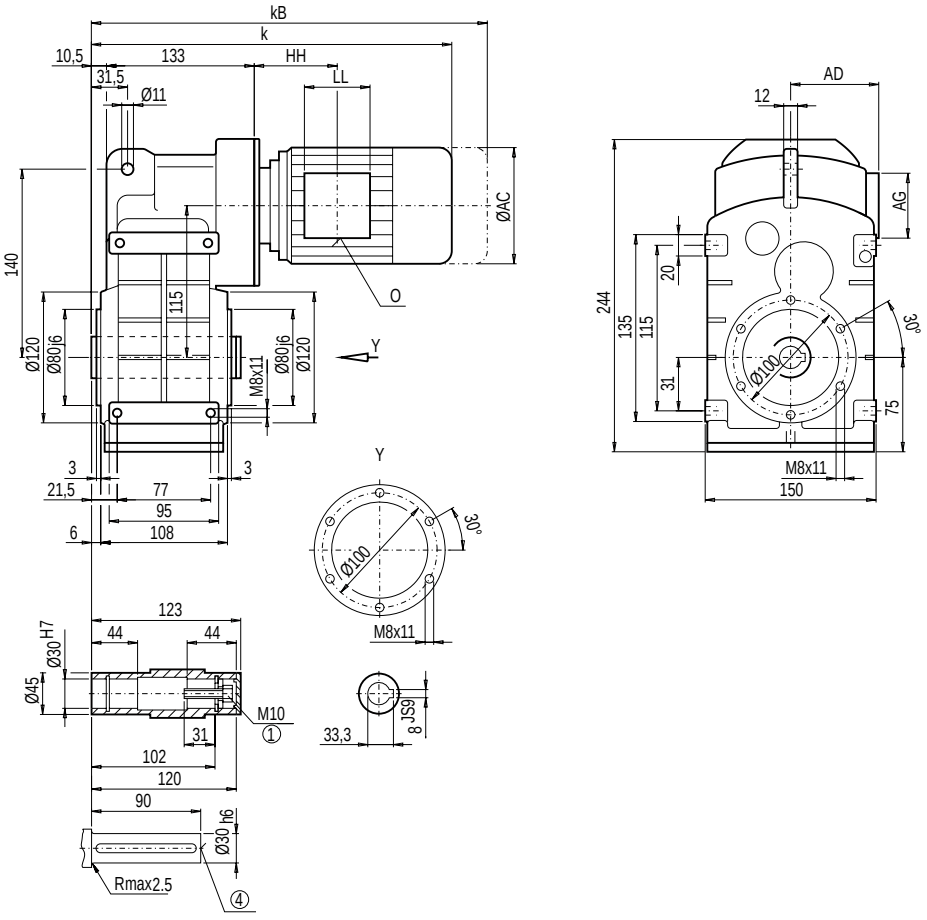
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA38B, FDAZ/FZAZ38B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012

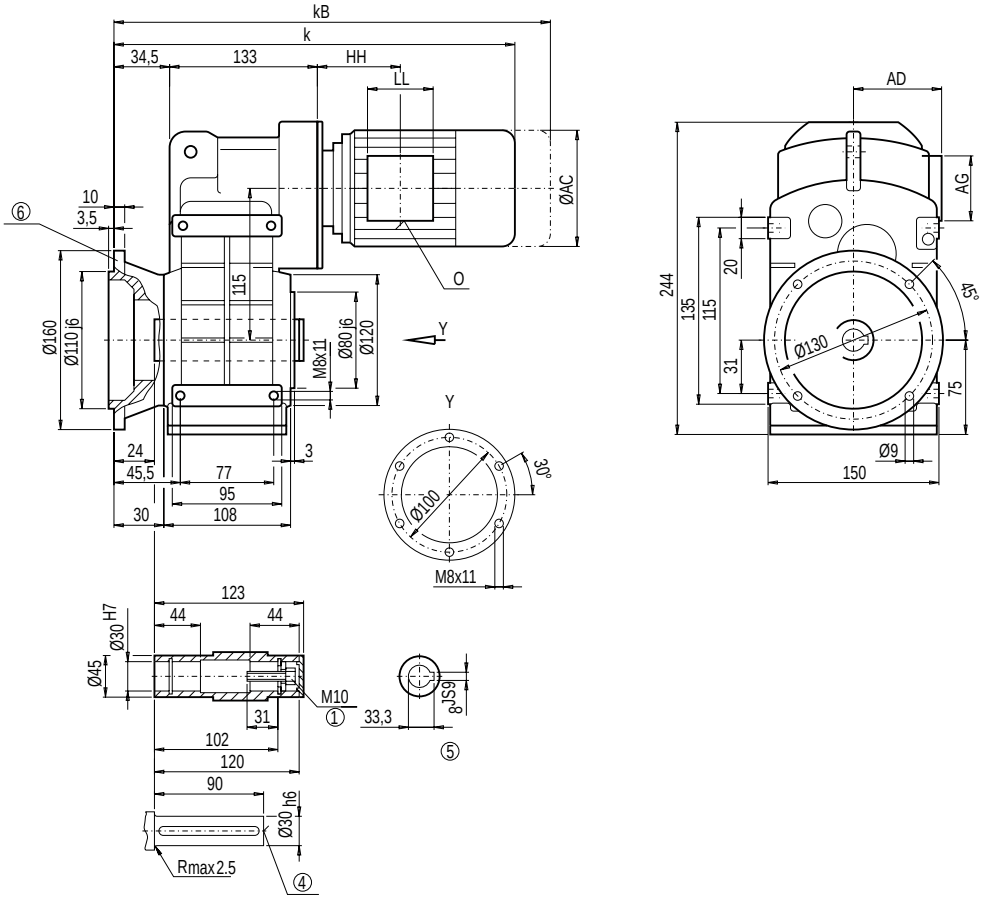


Motor	F.A.38B k	kB	AC	AD	AG	LL	HH	O	Weight FDA.38B	FZA.38B
LA71	377	432.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	16	16
LA71Z	396	451.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	16	16
LA80	414	477.5	156.5	155	90	90	89.0	M20x1.5/M25x1.5	21	21
LA90S	445	516.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	26	26
LA90L	445	516.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	26	26
LA100L	491	572.0	195.0	168	120	120	129.5	2xM32x1.5	–	35

① DIN 6912 ④ DIN 332 ⑤ Feather key / keyway DIN 6885

Gearbox FDAF/FZAF38B (3- / 2-stage), shaft-mounted design with flange

FAF012



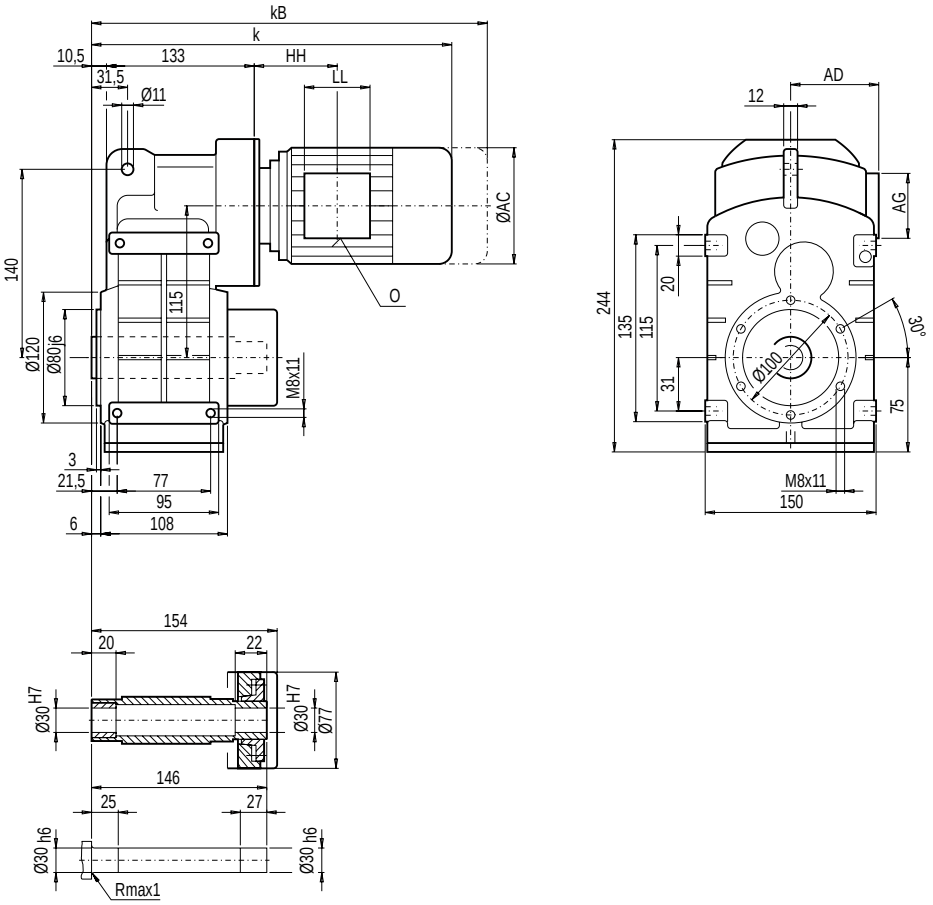
Motor	F.AF38B k	kB	AC	AD	AG	LL	HH	O	Weight FDAF38B	FZAF38B
LA71	401	456.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	18	18
LA71Z	420	475.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	18	18
LA80	438	501.5	156.5	155	90	90	89.0	M20x1.5/M25x1.5	23	23
LA90S	469	540.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	28	28
LA90L	469	540.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	28	28
LA100L	515	596.0	195.0	168	120	120	129.5	2xM32x1.5	–	37

① DIN 6912 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS38B, FDAZS/FZAZS38B (3- / 2-stage), shaft-mounted design with shrink disk

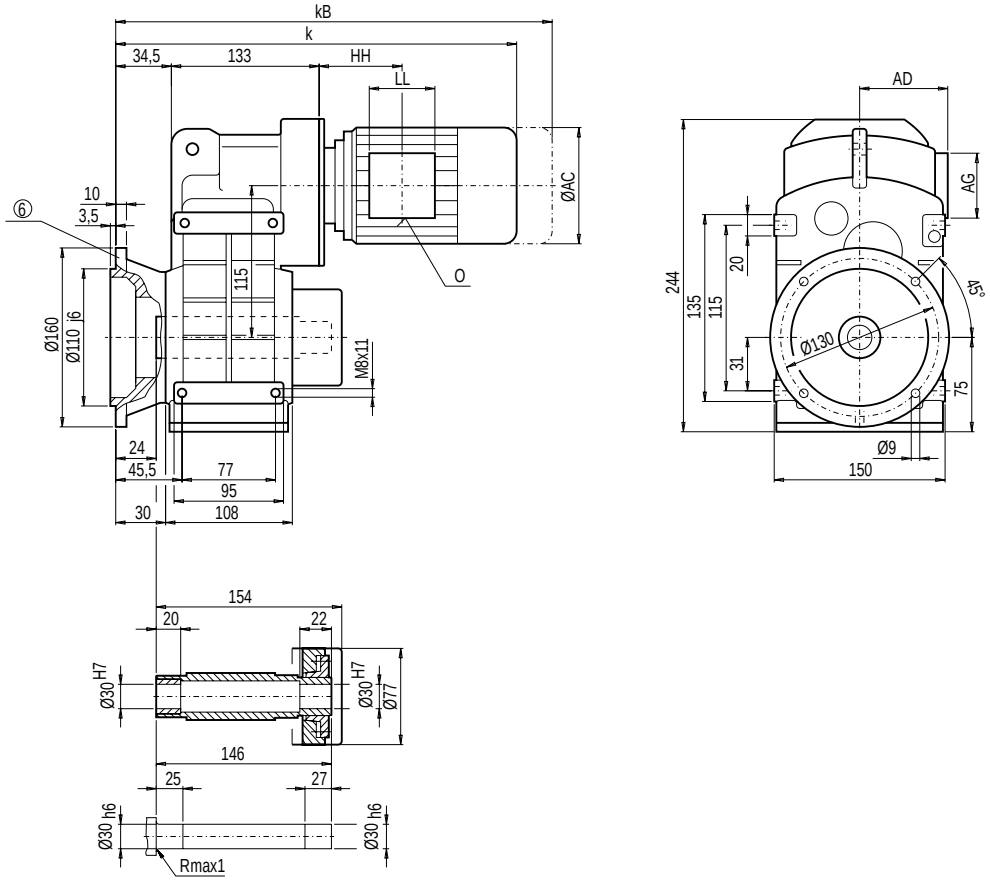
FAS012
FAZS012



Motor	F.A.S38B k	kB	AC	AD	AG	LL	HH	O	Weight FDA.S38B	FZA.S38B
LA71	377	432.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	17	17
LA71Z	396	451.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	17	17
LA80	414	477.5	156.5	155	90	90	89.0	M20x1.5/M25x1.5	22	22
LA90S	445	516.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	27	26
LA90L	445	516.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	27	26
LA100L	491	572.0	195.0	168	120	120	129.5	2xM32x1.5	–	35

Gearbox FDAFS/FZAFS38B (3- / 2-stage), shaft-mounted design with flange

FAFS012



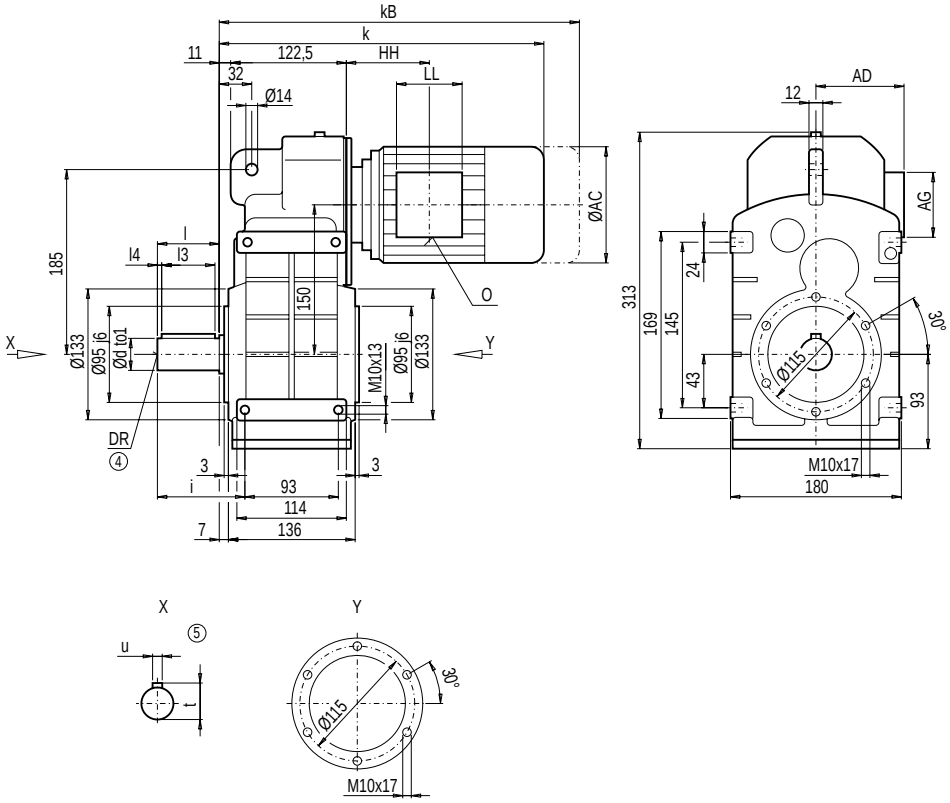
Motor	F.AFS38B k	kB	AC	AD	AG	LL	HH	O	Weight FDAFS38B	FZAFS38B
LA71	401	456.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	19	19
LA71Z	420	475.0	139.0	146	90	90	89.5	M20x1.5/M25x1.5	19	19
LA80	438	501.5	156.5	155	90	90	89.0	M20x1.5/M25x1.5	24	24
LA90S	469	540.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	29	28
LA90L	469	540.0	174.0	163	90	90	89.0	M20x1.5/M25x1.5	29	28
LA100L	515	596.0	195.0	168	120	120	129.5	2xM32x1.5	–	37

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ48B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	DR
30 *)	k6	60	50	3.5	33	8	88.5	M10x22
40	k6	80	70	5.0	43	12	108.5	M16x36

*) Preferred series

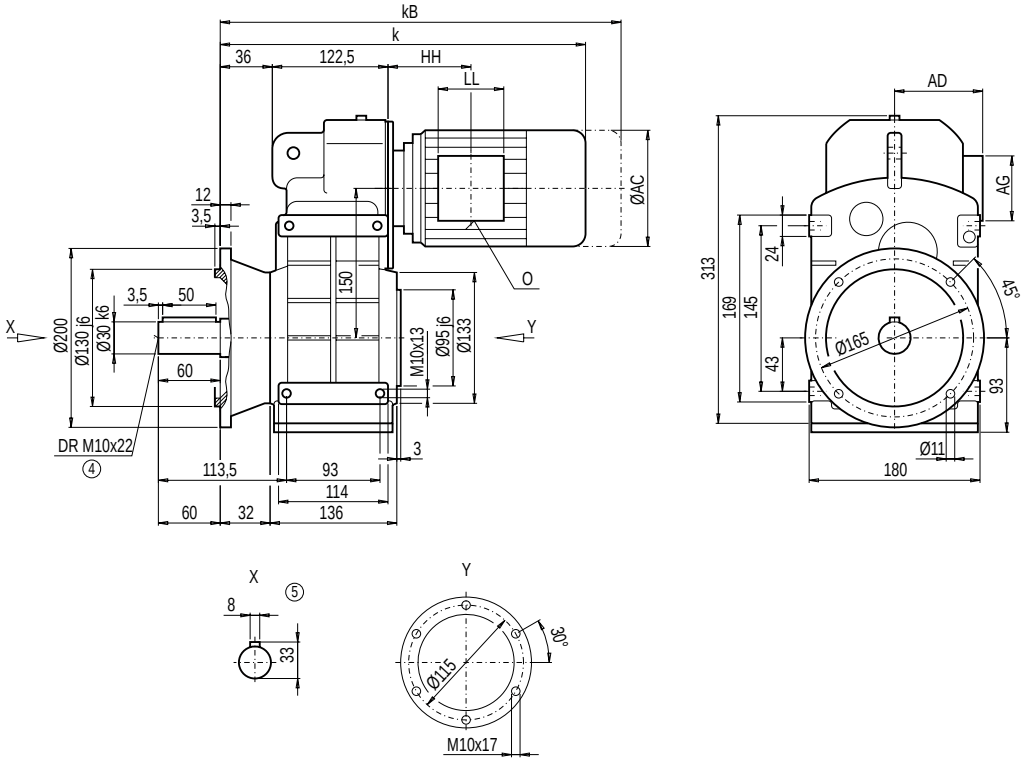
	F.Z48B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ48B**	**FZZ48B**
LA71	392.0	447.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	25	25
LA71Z	411.0	466.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	25	25
LA80	429.0	492.5	156.5	155	90	90	114.0	M20x1.5/M25x1.5	30	30
LA90S	460.0	531.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	35	35
LA90L	460.0	531.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	35	35
LA100L	506.0	587.0	195.0	168	120	120	154.5	2xM32x1.5	44	44
LA112M	535.5	616.5	219.0	181	120	120	160.0	2xM32x1.5	–	54

④ DIN 332

⑤ Feather key / keyway DIN 6885

Gearbox FDF/FZF48B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F48B k	kB	AC	AD	AG	LL	HH	O	Weight FDF48B	Weight FZF48B
LA71	417.0	472.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	28	28
LA71Z	436.0	491.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	28	28
LA80	454.0	517.5	156.5	155	90	90	114.0	M20x1.5/M25x1.5	33	33
LA90S	485.0	556.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	38	38
LA90L	485.0	556.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	38	38
LA100L	531.0	612.0	195.0	168	120	120	154.5	2xM32x1.5	47	47
LA112M	560.5	641.5	219.0	181	120	120	160.0	2xM32x1.5	–	57

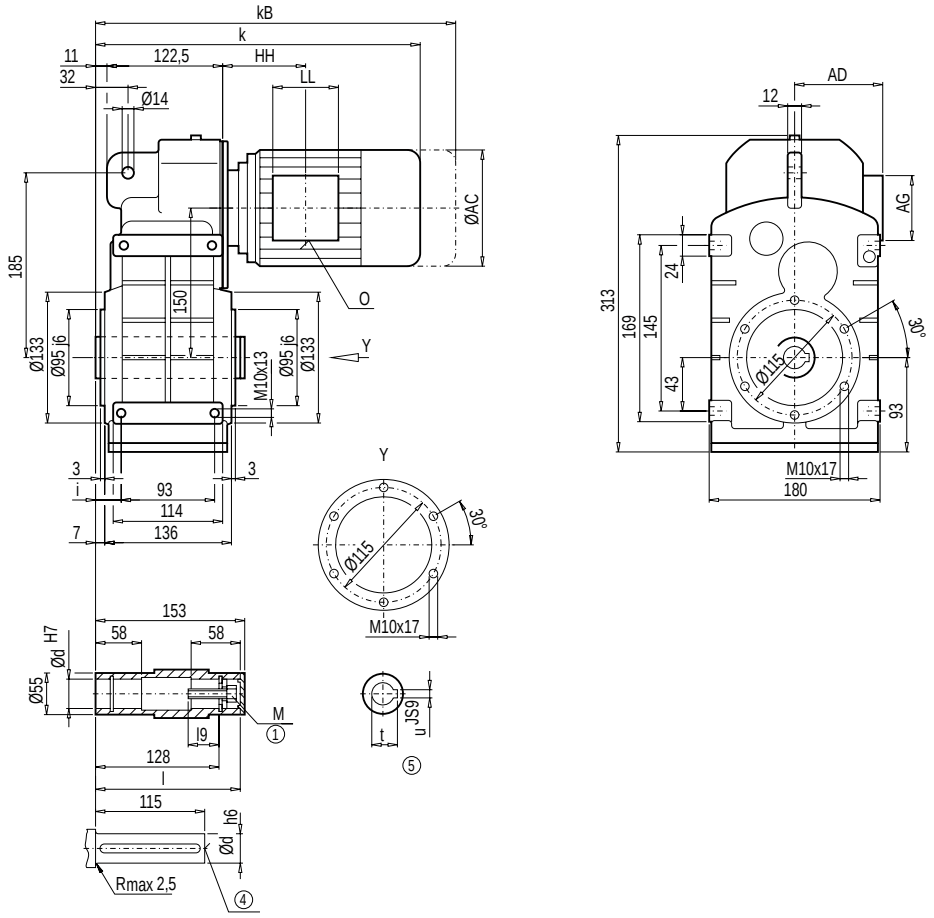
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA48B, FDAZ/FZAZ48B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



d	l	l9	M	t	u	i
35 *)	150	40	M12	38.3	10	28.5
40	150	48	M16	43.3	12	28.5

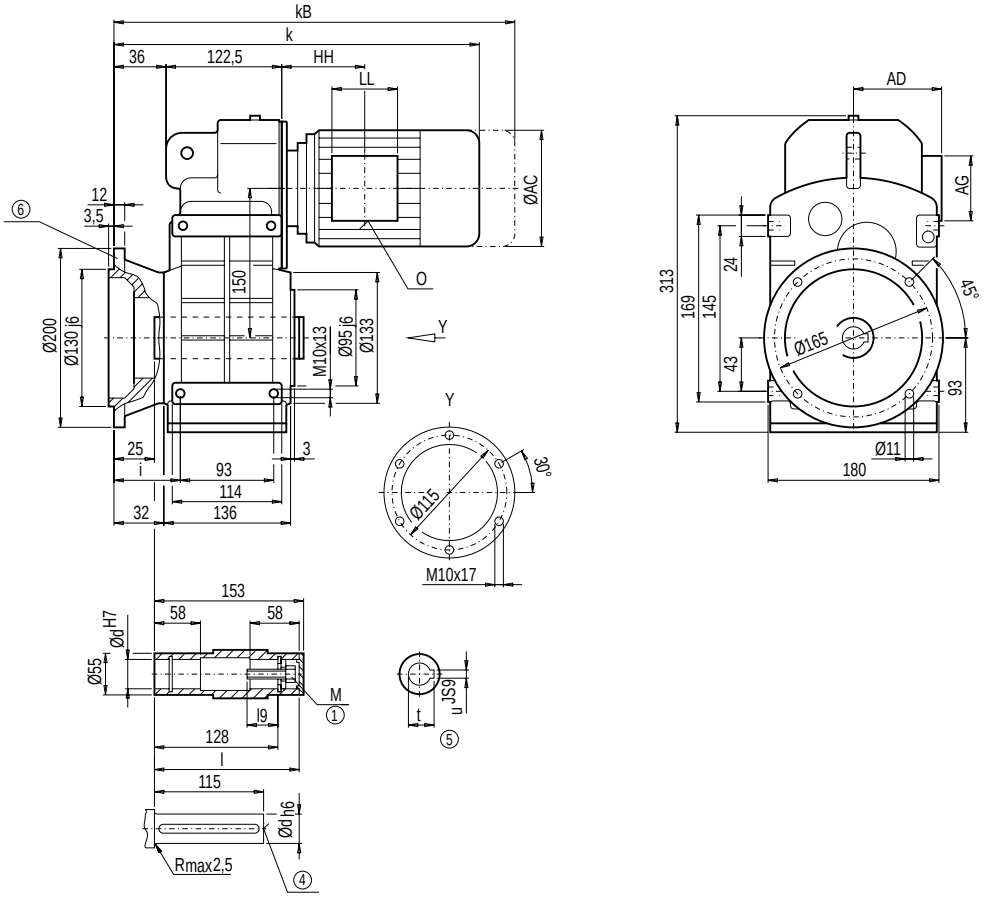
*) Preferred series

	F.A.48B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.48B**	**FZA.48B**
LA71	392.0	447.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	24	24
LA71Z	411.0	466.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	24	24
LA80	429.0	492.5	156.5	155	90	90	114.0	M20x1.5/M25x1.5	29	29
LA90S	460.0	531.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	34	33
LA90L	460.0	531.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	34	33
LA100L	506.0	587.0	195.0	168	120	120	154.5	2xM32x1.5	43	42
LA112M	535.5	616.5	219.0	181	120	120	160.0	2xM32x1.5	–	53

① DIN 6912 ④ DIN 332 ⑤ Feather key / keyway DIN 6885

Gearbox FDAF/FZAF48B (3- / 2-stage), shaft-mounted design with flange

FAF012



d	l	l9	M	t	u	i
35 *)	150	40	M12	38.3	10	53.5
40	150	48	M16	43.3	12	53.5

*) Preferred series

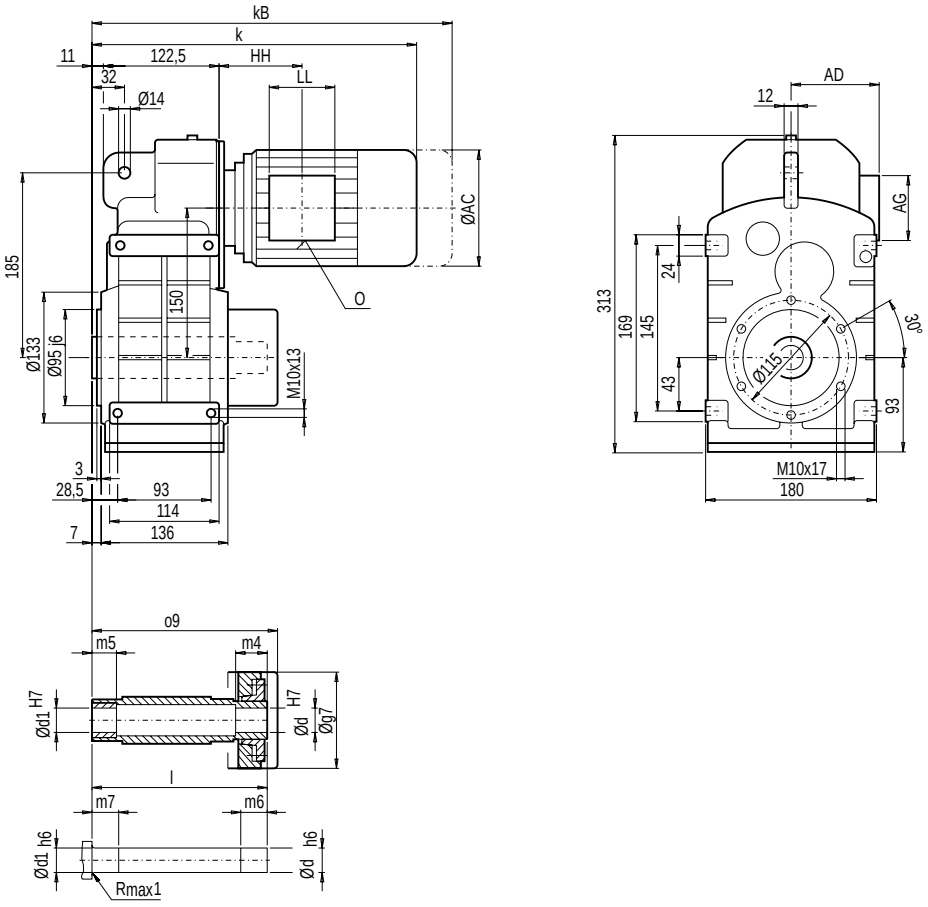
	F.AF48B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF48B**	**FZAF48B**
LA71	417.0	472.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	27	27
LA71Z	436.0	491.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	27	27
LA80	454.0	517.5	156.5	155	90	90	114.0	M20x1.5/M25x1.5	32	32
LA90S	485.0	556.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	37	36
LA90L	485.0	556.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	37	36
LA100L	531.0	612.0	195.0	168	120	120	154.5	2xM32x1.5	46	45
LA112M	560.5	641.5	219.0	181	120	120	160.0	2xM32x1.5	–	56

① DIN 6912 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS48B, FDAZS/FZAZS48B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012



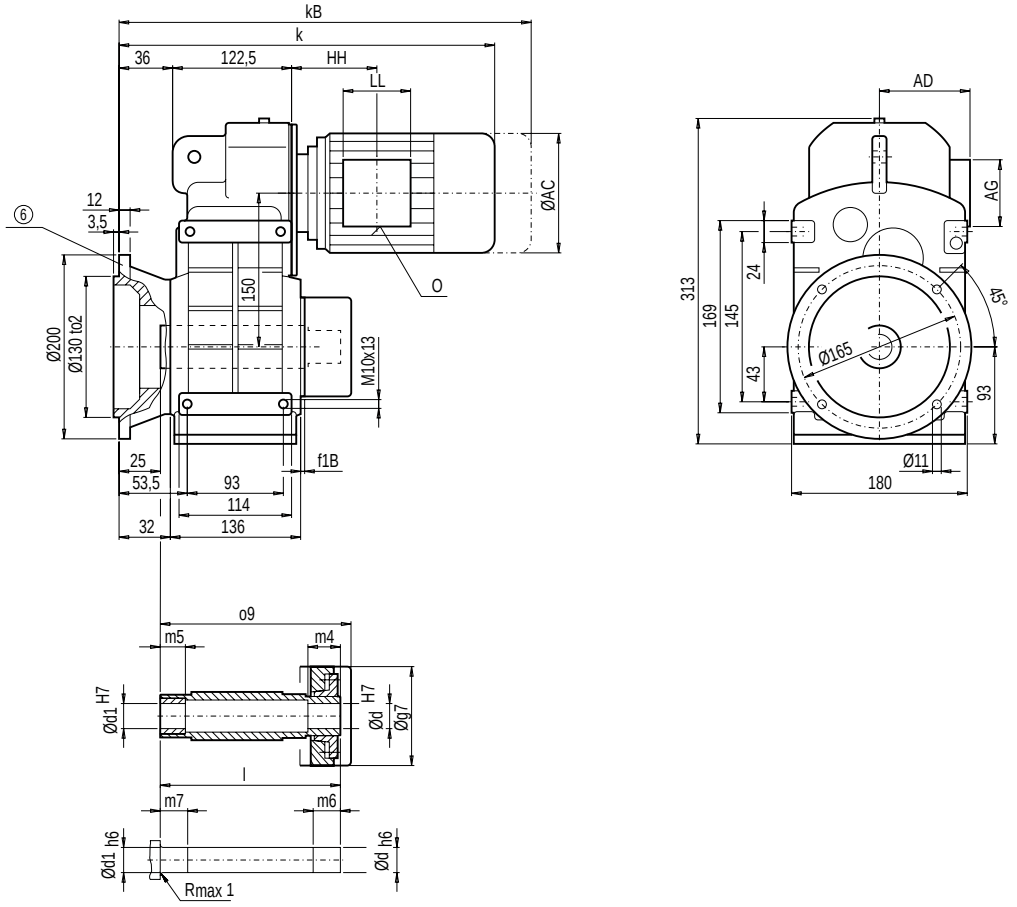
d	d1	l	o9	m4	m5	m6	m7	g7
35 *)	35	177	184	32	20	37	25	93
40	50	177	184	25	20	30	25	93

*) Preferred series

	F.A.S48B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.S48B**	**FZA.S48B**
LA71	392.0	447.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	25	25
LA71Z	411.0	466.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	25	25
LA80	429.0	492.5	156.5	155	90	90	114.0	M20x1.5/M25x1.5	30	30
LA90S	460.0	531.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	34	34
LA90L	460.0	531.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	34	34
LA100L	506.0	587.0	195.0	168	120	120	154.5	2xM32x1.5	43	43
LA112M	535.5	616.5	219.0	181	120	120	160.0	2xM32x1.5	–	54

Gearbox FDAFS/FZAFS48B (3- / 2-stage), shaft-mounted design with flange

FAFS012



d	d1	l	o9	m4	m5	m6	m7	g7
35 *)	35	177	184	32	20	37	25	93
40	40	177	184	25	20	30	25	93

*) Preferred series

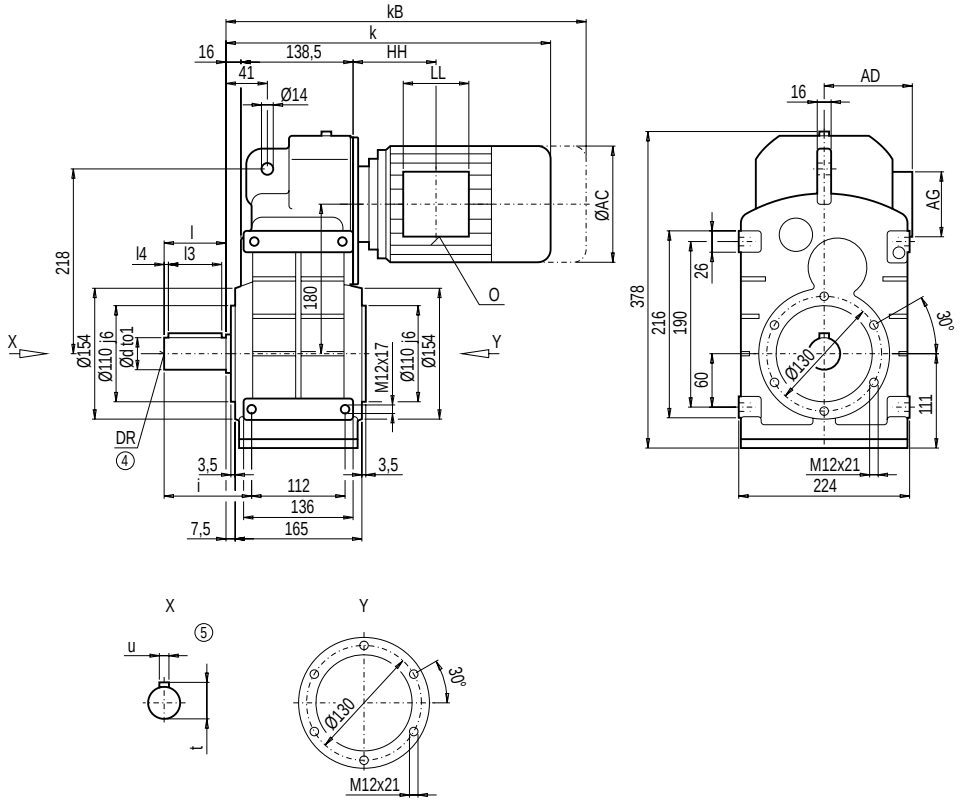
	F.AFS48B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAFS48B**	**FZAFS48B**
LA71	417.0	472.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	28	28
LA71Z	436.0	491.0	139.0	146	90	90	114.5	M20x1.5/M25x1.5	28	28
LA80	454.0	517.5	156.5	155	90	90	114.0	M20x1.5/M25x1.5	33	33
LA90S	485.0	556.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	37	37
LA90L	485.0	556.0	174.0	163	90	90	114.0	M20x1.5/M25x1.5	37	37
LA100L	531.0	612.0	195.0	168	120	120	154.5	2xM32x1.5	46	46
LA112M	560.5	641.5	219.0	181	120	120	160.0	2xM32x1.5	–	57

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ68B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	DR
35	k6	70	56	5	38.0	10	104	M12x28
40 *)	k6	80	70	5	43.0	12	114	M16x36
50	k6	100	80	10	53.5	14	134	M16x36

*) Preferred series

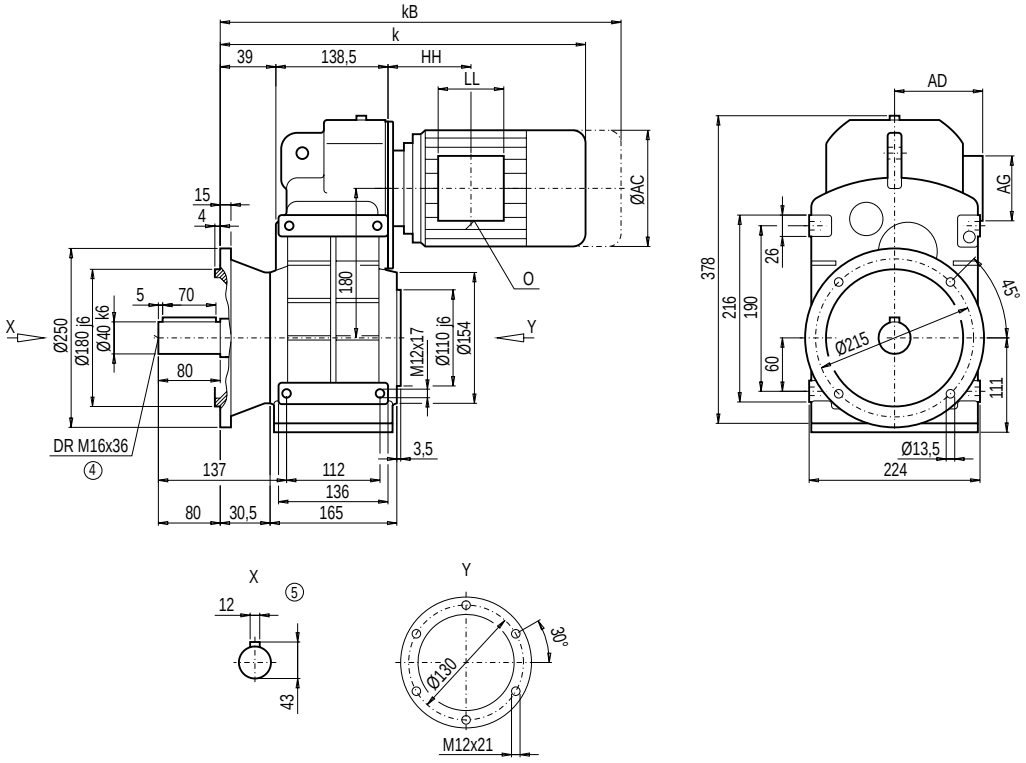
	F.Z68B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ68B**	**FZZ68B**
LA71	407.5	462.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	40	–
LA71Z	426.5	481.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	40	–
LA80	444.5	508.0	156.5	155	90	90	108.5	M20x1.5/M25x1.5	45	45
LA90S	475.5	546.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	50	50
LA90L	475.5	546.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	50	50
LA100L	521.5	602.5	195.0	168	120	120	149.0	2xM32x1.5	59	59
LA112M	550.5	631.5	219.0	181	120	120	154.0	2xM32x1.5	–	70
LA132S	612.5	714.5	259.0	195	140	140	196.5	2xM32x1.5	–	80
LA132M	612.5	714.5	259.0	195	140	140	196.5	2xM32x1.5	–	80
LA132ZM	658.5	760.5	259.0	195	140	140	196.5	2xM32x1.5	–	89

④ DIN 332

⑤ Feather key / keyway DIN 6885

Gearbox FDF/FZF68B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F68B k	kB	AC	AD	AG	LL	HH	O	Weight FDF68B	FZF68B
LA71	430.5	485.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	48	–
LA71Z	449.5	504.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	48	–
LA80	467.5	531.0	156.5	155	90	90	108.5	M20x1.5/M25x1.5	53	53
LA90S	498.5	569.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	57	57
LA90L	498.5	569.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	57	57
LA100L	544.5	625.5	195.0	168	120	120	149.0	2xM32x1.5	67	67
LA112M	573.5	654.5	219.0	181	120	120	154.0	2xM32x1.5	–	78
LA132S	635.5	737.5	259.0	195	140	140	196.5	2xM32x1.5	–	88
LA132M	635.5	737.5	259.0	195	140	140	196.5	2xM32x1.5	–	88
LA132ZM	681.5	783.5	259.0	195	140	140	196.5	2xM32x1.5	–	97

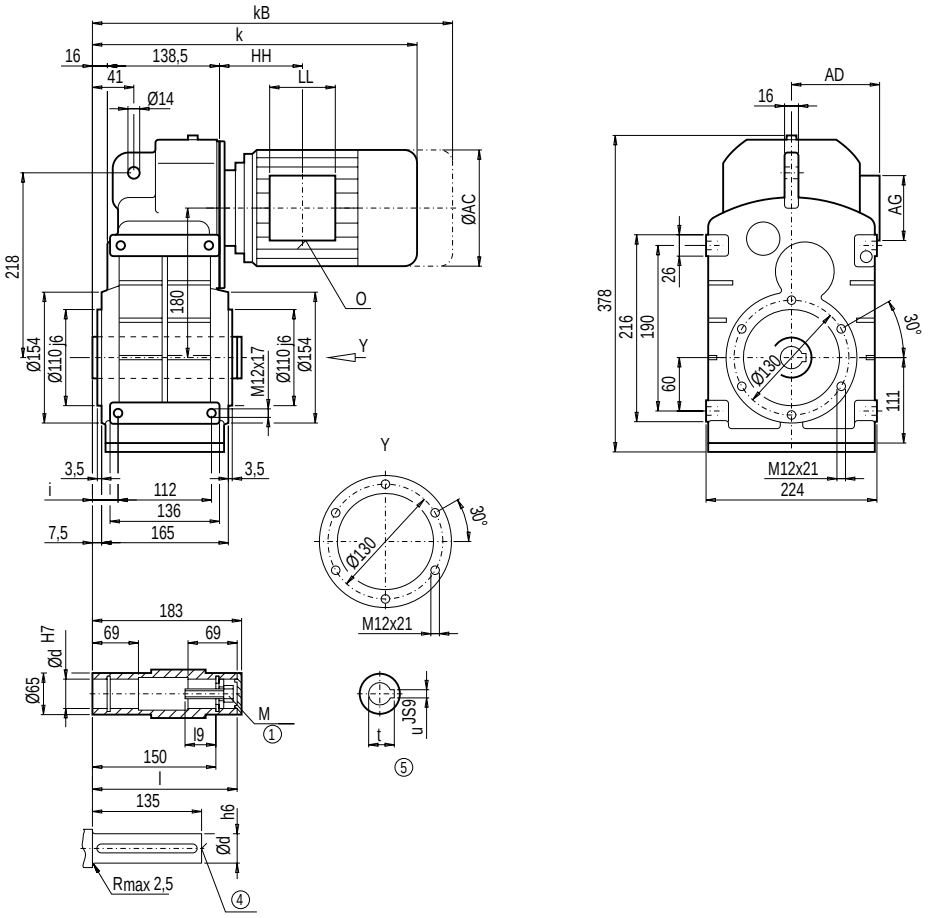
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA68B, FDAZ/FZAZ68B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



d	l	l9	M	t	u	i
40 *)	180	48	M16	43.3	12	34
45	180	47	M16	48.8	14	34

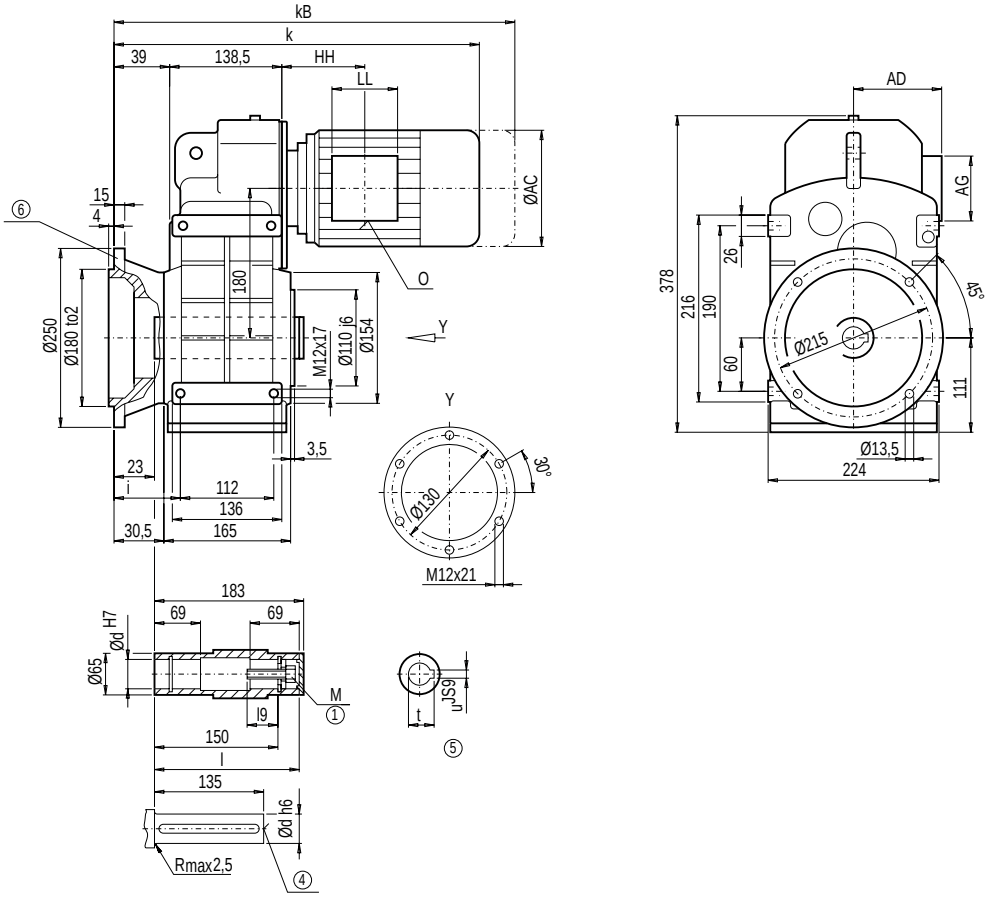
*) Preferred series

Motor	F.A.68B k	kB	AC	AD	AG	LL	HH	O	Weight FDA.68B	FZA.68B
LA71	407.5	462.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	37	–
LA71Z	426.5	481.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	37	–
LA80	444.5	508.0	156.5	155	90	90	108.5	M20x1.5/M25x1.5	42	42
LA90S	475.5	546.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	46	46
LA90L	475.5	546.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	46	46
LA100L	521.5	602.5	195.0	168	120	120	149.0	2xM32x1.5	55	55
LA112M	550.5	631.5	219.0	181	120	120	154.0	2xM32x1.5	–	67
LA132S	612.5	714.5	259.0	195	140	140	196.5	2xM32x1.5	–	77
LA132M	612.5	714.5	259.0	195	140	140	196.5	2xM32x1.5	–	77
LA132ZM	658.5	760.5	259.0	195	140	140	196.5	2xM32x1.5	–	86

① DIN 6912 ④ DIN 332 ⑤ Feather key / keyway DIN 6885

Gearbox FDAF/FZAF68B (3- / 2-stage), shaft-mounted design with flange

FAF012



d	l	l9	M	t	u	i
40 *)	180	48	M16	43.3	12	57
45	180	47	M16	48.8	14	57

*) Preferred series

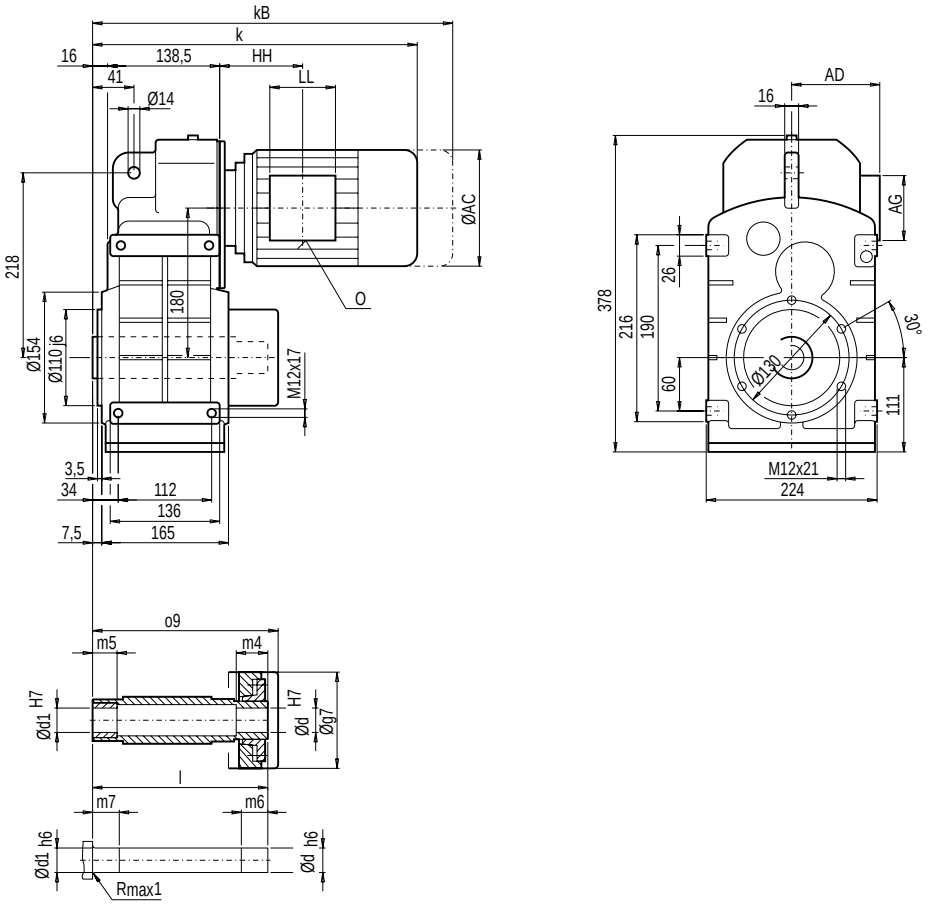
	F.AF68B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF68B**	**FZAF68B**
LA71	430.5	485.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	45	–
LA71Z	449.5	504.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	45	–
LA80	467.5	531.0	156.5	155	90	90	108.5	M20x1.5/M25x1.5	50	50
LA90S	498.5	569.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	54	54
LA90L	498.5	569.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	54	54
LA100L	544.5	625.5	195.0	168	120	120	149.0	2xM32x1.5	63	63
LA112M	573.5	654.5	219.0	181	120	120	154.0	2xM32x1.5	–	75
LA132S	635.5	737.5	259.0	195	140	140	196.5	2xM32x1.5	–	85
LA132M	635.5	737.5	259.0	195	140	140	196.5	2xM32x1.5	–	85
LA132ZM	681.5	783.5	259.0	195	140	140	196.5	2xM32x1.5	–	94

① DIN 6912 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS68B, FDAZS/FZAZS68B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012



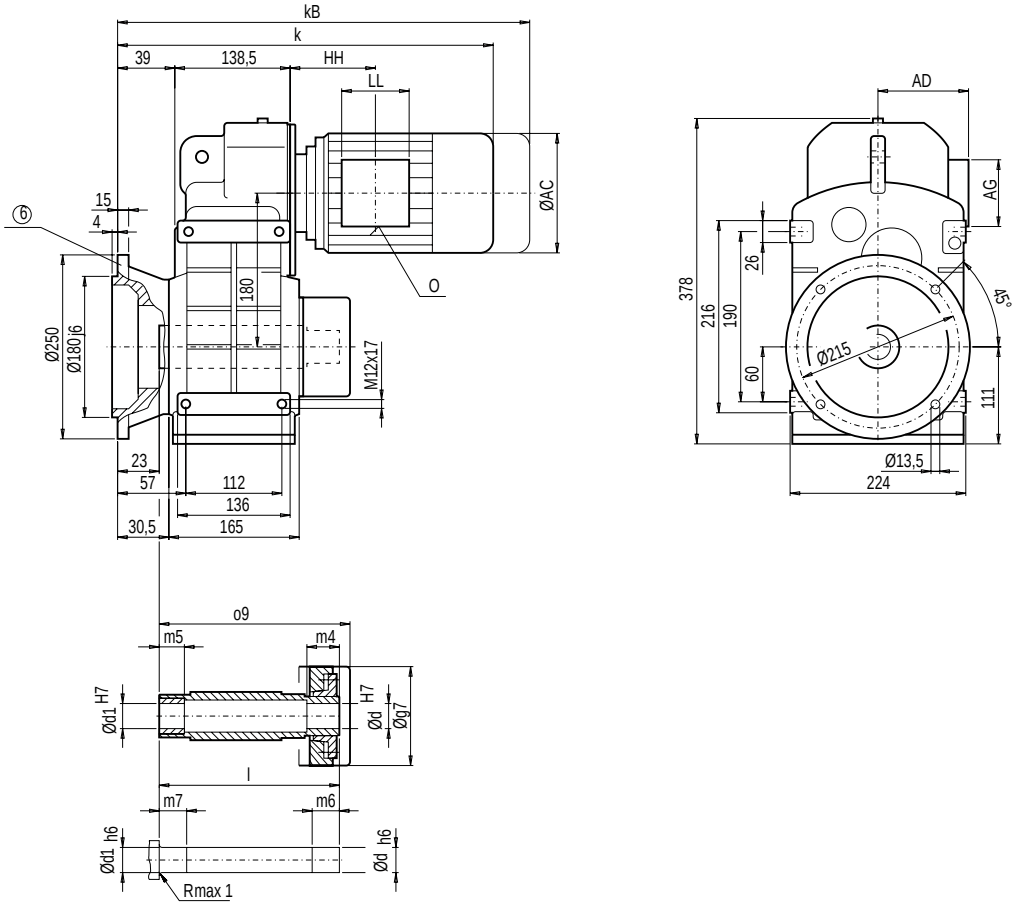
d	d1	l	o9	m4	m5	m6	m7	g7
40 *)	40	209	216	35	20	40	25	112
50	50	209	216	27	20	32	25	112

*) Preferred series

	F.A.S68B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.S68B**	**FZA.S68B**
LA71	407.5	462.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	38	–
LA71Z	426.5	481.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	38	–
LA80	444.5	508.0	156.5	155	90	90	108.5	M20x1.5/M25x1.5	43	43
LA90S	475.5	546.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	48	48
LA90L	475.5	546.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	48	48
LA100L	521.5	602.5	195.0	168	120	120	149.0	2xM32x1.5	57	57
LA112M	550.5	631.5	219.0	181	120	120	154.0	2xM32x1.5	–	68
LA132S	612.5	714.5	259.0	195	140	140	196.5	2xM32x1.5	–	78
LA132M	612.5	714.5	259.0	195	140	140	196.5	2xM32x1.5	–	78
LA132ZM	658.5	760.5	259.0	195	140	140	196.5	2xM32x1.5	–	87

Gearbox FDAFS/FZAFS68B (3- / 2-stage), shaft-mounted design with flange

FAFS012



d	d1	l	o9	m4	m5	m6	m7	g7
40 *)	40	209	216	35	20	40	25	112
50	50	209	216	27	20	32	25	112

*) Preferred series

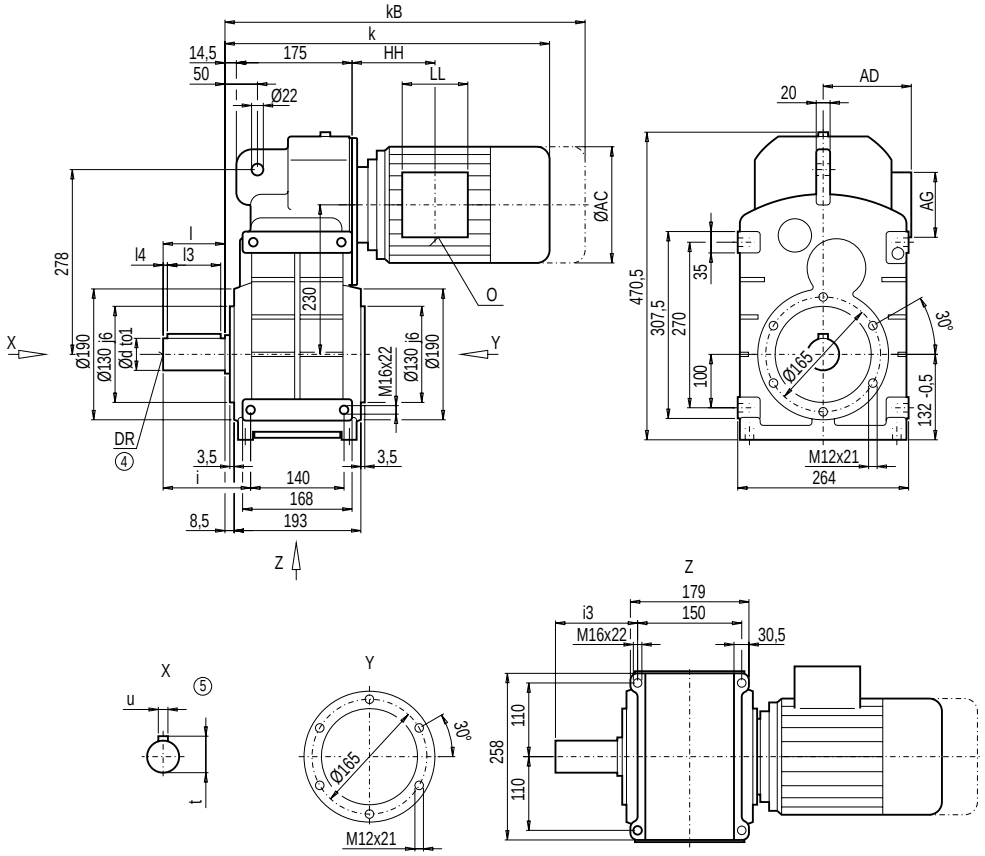
	F.AFS68B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAFS68B**	**FZAFS68B**
LA71	430.5	485.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	46	–
LA71Z	449.5	504.5	139.0	146	90	90	109.0	M20x1.5/M25x1.5	46	–
LA80	467.5	531.0	156.5	155	90	90	108.5	M20x1.5/M25x1.5	51	51
LA90S	498.5	569.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	55	55
LA90L	498.5	569.5	174.0	163	90	90	108.5	M20x1.5/M25x1.5	55	55
LA100L	544.5	625.5	195.0	168	120	120	149.0	2xM32x1.5	65	65
LA112M	573.5	654.5	219.0	181	120	120	154.0	2xM32x1.5	–	76
LA132S	635.5	737.5	259.0	195	140	140	196.5	2xM32x1.5	–	86
LA132M	635.5	737.5	259.0	195	140	140	196.5	2xM32x1.5	–	86
LA132ZM	681.5	783.5	259.0	195	140	140	196.5	2xM32x1.5	–	95

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ88B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	i3	DR
50 *)	k6	100	80	10	53.5	14	135	130	M16x36
70	m6	140	110	15	74.5	20	175	170	M20x42

*) Preferred series

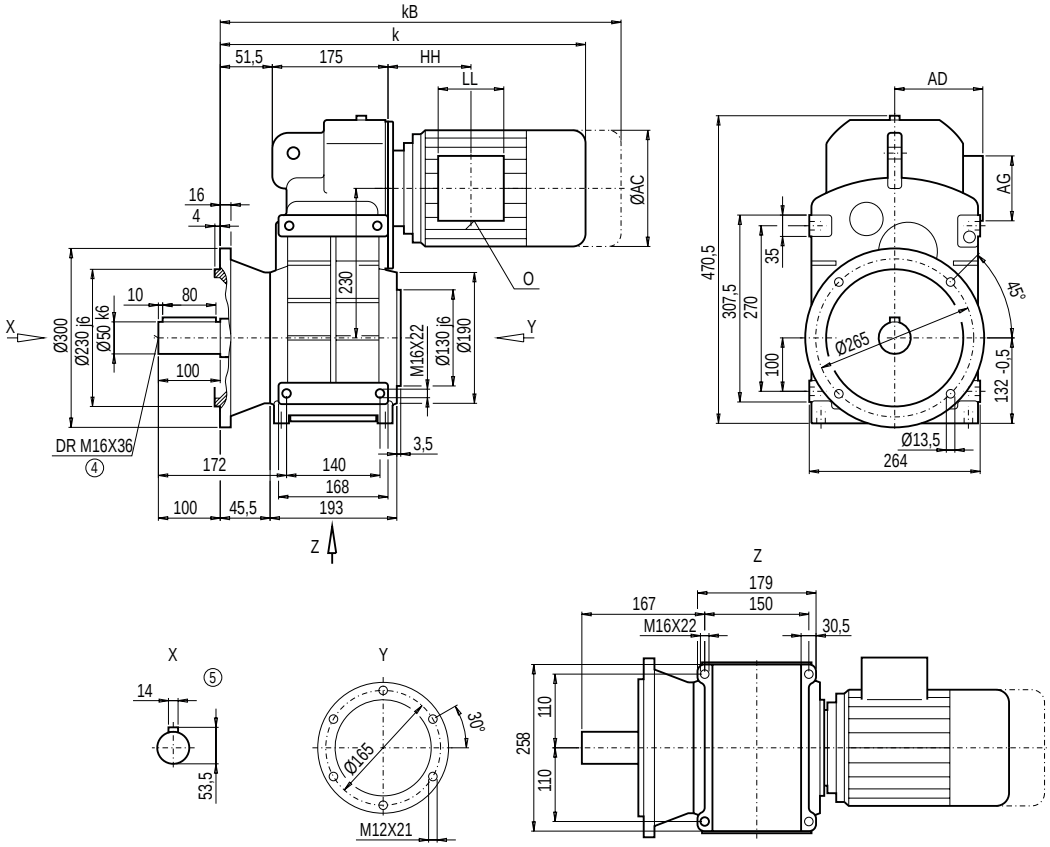
	F.Z88B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ88B**	**FZZ88B**
LA71	436.5	491.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	70	–
LA71Z	455.5	510.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	70	–
LA80	473.5	537.0	156.5	155	90	90	102.5	M20x1.5/M25x1.5	75	75
LA90S	504.5	575.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	80	80
LA90L	504.5	575.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	80	80
LA100L	550.5	631.5	195.0	168	120	120	143.0	2xM32x1.5	89	89
LA112M	577.5	658.5	219.0	181	120	120	146.0	2xM32x1.5	100	101
LA132S	637.5	739.5	259.0	195	140	140	186.5	2xM32x1.5	113	114
LA132M	637.5	739.5	259.0	195	140	140	186.5	2xM32x1.5	113	114
LA132ZM	683.5	785.5	259.0	195	140	140	186.5	2xM32x1.5	123	123
LA160M	740.0	858.5	313.5	227	165	165	212.0	2xM40x1.5	–	147
LA160L	740.0	858.5	313.5	227	165	165	212.0	2xM40x1.5	–	147

④ DIN 332

⑤ Feather key / keyway DIN 6885

Gearbox FDF/FZF88B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F88B k	kB	AC	AD	AG	LL	HH	O	Weight FDF88B	Weight FZF88B
LA71	473.5	528.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	81	–
LA71Z	492.5	547.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	81	–
LA80	510.5	574.0	156.5	155	90	90	102.5	M20x1.5/M25x1.5	86	86
LA90S	541.5	612.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	91	91
LA90L	541.5	612.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	91	91
LA100L	587.5	668.5	195.0	168	120	120	143.0	2xM32x1.5	100	100
LA112M	614.5	695.5	219.0	181	120	120	146.0	2xM32x1.5	111	112
LA132S	674.5	776.5	259.0	195	140	140	186.5	2xM32x1.5	124	125
LA132M	674.5	776.5	259.0	195	140	140	186.5	2xM32x1.5	124	125
LA132ZM	720.5	822.5	259.0	195	140	140	186.5	2xM32x1.5	134	134
LA160M	777.0	895.5	313.5	227	165	165	212.0	2xM40x1.5	–	158
LA160L	777.0	895.5	313.5	227	165	165	212.0	2xM40x1.5	–	158

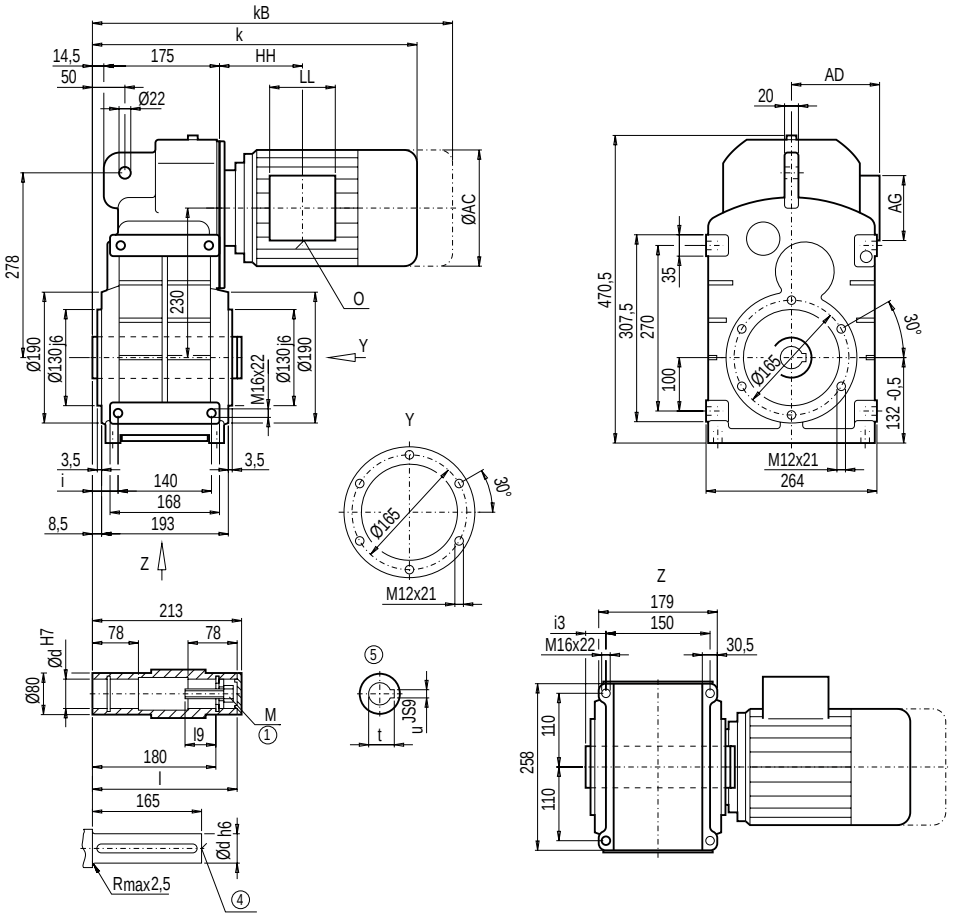
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA88B, FDAZ/FZAZ88B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



d	l	l9	M	t	u	i	i3
50 *)	210	44.5	M16	53.8	14	35	30
60	210	54.0	M20	64.4	18	35	30

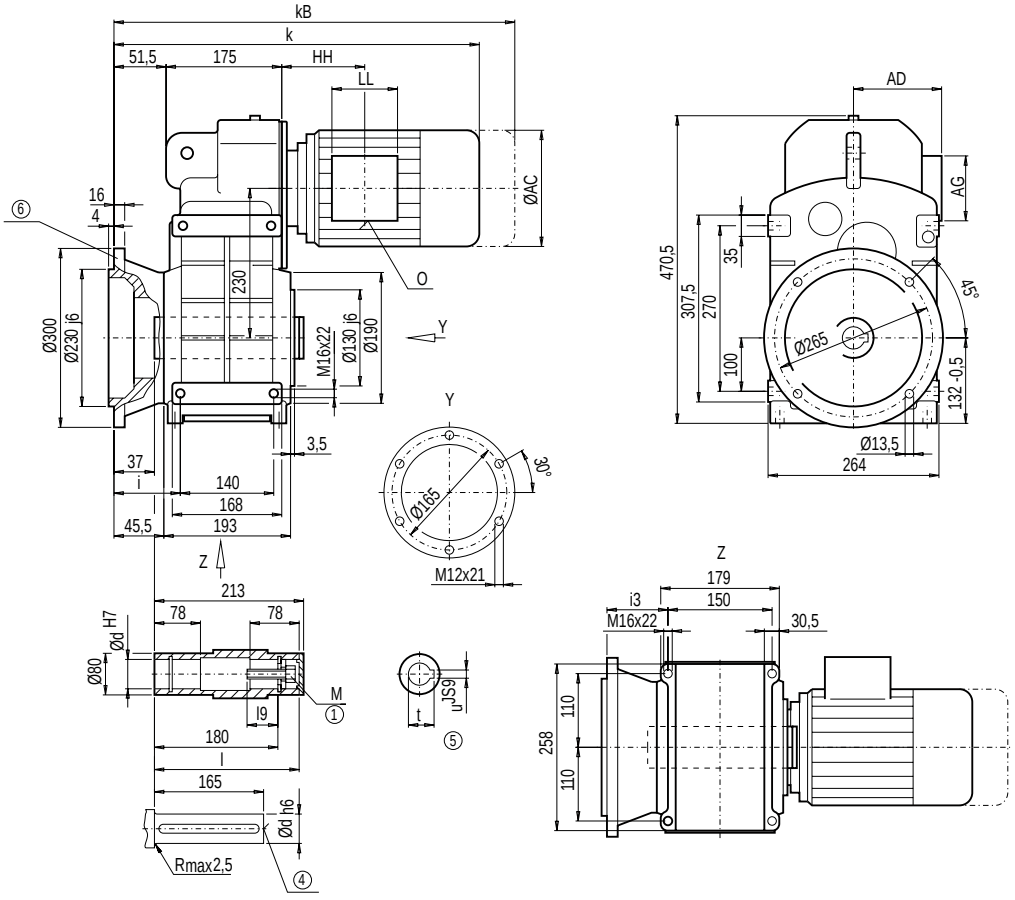
*) Preferred series

	F.A.88B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.88B**	**FZA.88B**
LA71	436.5	491.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	62	–
LA71Z	455.5	510.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	62	–
LA80	473.5	537.0	156.5	155	90	90	102.5	M20x1.5/M25x1.5	67	67
LA90S	504.5	575.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	71	72
LA90L	504.5	575.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	71	72
LA100L	550.5	631.5	195.0	168	120	120	143.0	2xM32x1.5	81	81
LA112M	577.5	658.5	219.0	181	120	120	146.0	2xM32x1.5	92	93
LA132S	637.5	739.5	259.0	195	140	140	186.5	2xM32x1.5	105	106
LA132M	637.5	739.5	259.0	195	140	140	186.5	2xM32x1.5	105	106
LA132ZM	683.5	785.5	259.0	195	140	140	186.5	2xM32x1.5	114	115
LA160M	740.0	858.5	313.5	227	165	165	212.0	2xM40x1.5	–	139
LA160L	740.0	858.5	313.5	227	165	165	212.0	2xM40x1.5	–	139

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885

Gearbox FDAF/FZAF88B (3- / 2-stage), shaft-mounted design with flange

FAF012



d	l	l9	M	t	u	i	i3
50 *)	210	44.5	M16	53.8	14	72	67
60	210	54.0	M20	64.4	18	72	67

*) Preferred series

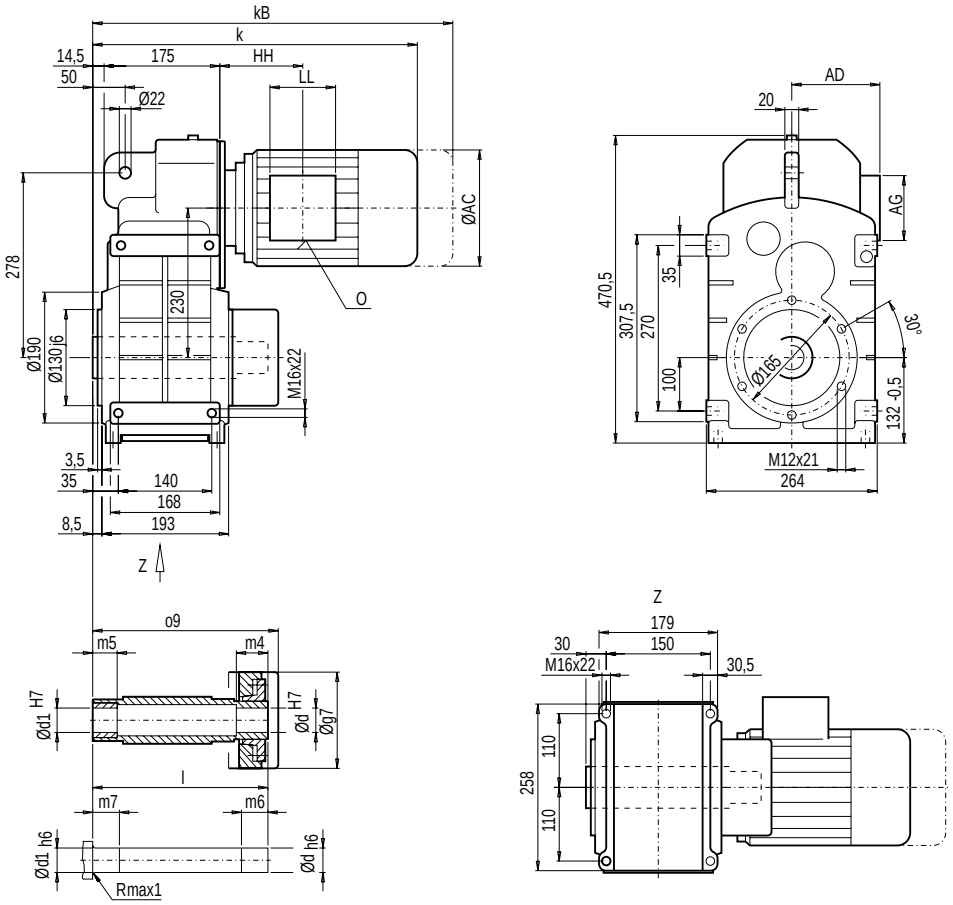
	F.AF88B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF88B**	**FZAF88B**
LA71	473.5	528.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	73	–
LA71Z	492.5	547.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	73	–
LA80	510.5	574.0	156.5	155	90	90	102.5	M20x1.5/M25x1.5	78	78
LA90S	541.5	612.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	82	83
LA90L	541.5	612.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	82	83
LA100L	587.5	668.5	195.0	168	120	120	143.0	2xM32x1.5	92	92
LA112M	614.5	695.5	219.0	181	120	120	146.0	2xM32x1.5	103	104
LA132S	674.5	776.5	259.0	195	140	140	186.5	2xM32x1.5	116	117
LA132M	674.5	776.5	259.0	195	140	140	186.5	2xM32x1.5	116	117
LA132ZM	720.5	822.5	259.0	195	140	140	186.5	2xM32x1.5	125	126
LA160M	777.0	895.5	313.5	227	165	165	212.0	2xM40x1.5	–	150
LA160L	777.0	895.5	313.5	227	165	165	212.0	2xM40x1.5	–	150

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS88B, FDAZS/FZAZS88B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012



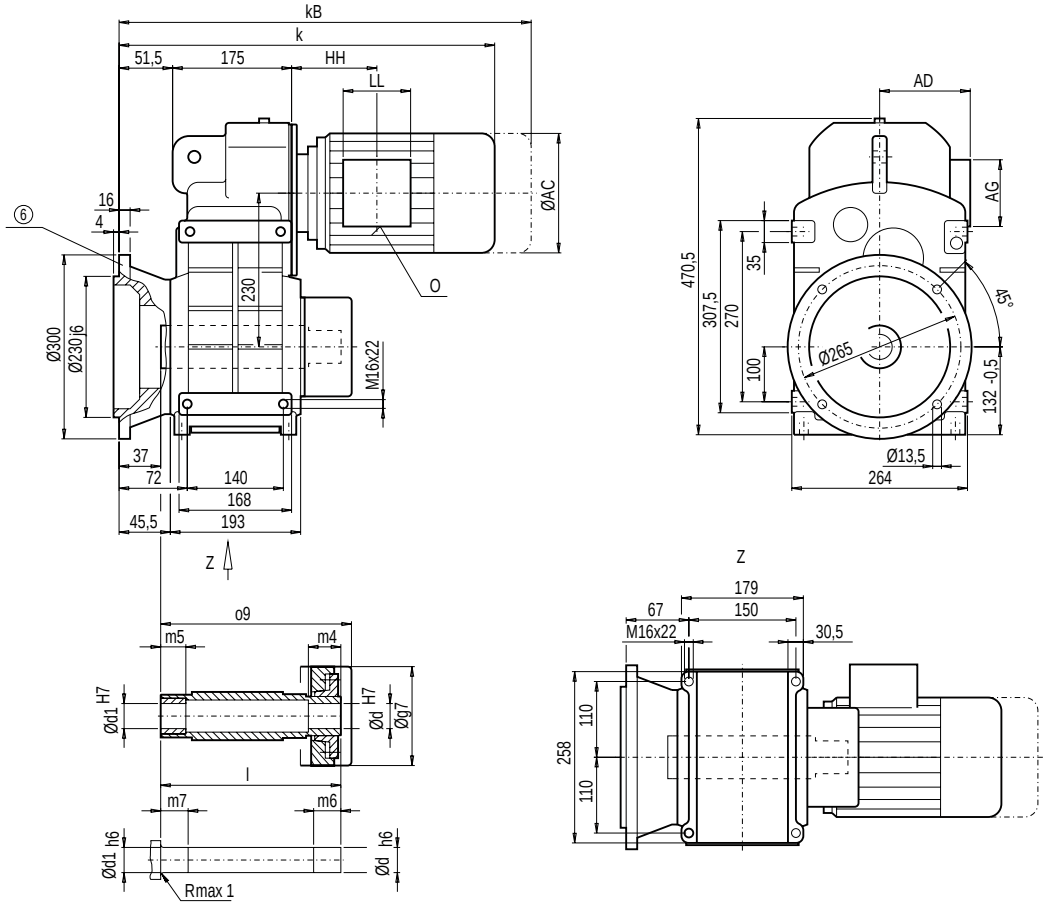
d	d1	l	o9	m4	m5	m6	m7	g7
50 *)	50	241	249	29	30	34	35	132
60	60	241	249	29	30	34	35	132

*) Preferred series

	F.A.S88B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.S88B**	**FZA.S88B**
LA71	436.5	491.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	64	–
LA71Z	455.5	510.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	64	–
LA80	473.5	537.0	156.5	155	90	90	102.5	M20x1.5/M25x1.5	69	69
LA90S	504.5	575.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	73	74
LA90L	504.5	575.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	73	74
LA100L	550.5	631.5	195.0	168	120	120	143.0	2xM32x1.5	82	83
LA112M	577.5	658.5	219.0	181	120	120	146.0	2xM32x1.5	94	95
LA132S	637.5	739.5	259.0	195	140	140	186.5	2xM32x1.5	107	108
LA132M	637.5	739.5	259.0	195	140	140	186.5	2xM32x1.5	107	108
LA132ZM	683.5	785.5	259.0	195	140	140	186.5	2xM32x1.5	116	117
LA160M	740.0	858.5	313.5	227	165	165	212.0	2xM40x1.5	–	140
LA160L	740.0	858.5	313.5	227	165	165	212.0	2xM40x1.5	–	140

Gearbox FDAFS/FZAFS88B (3- / 2-stage), shaft-mounted design with flange

FAFS012



d	d1	l	o9	m4	m5	m6	m7	g7
50 *)	50	241	249	29	30	34	35	132
60	60	241	249	29	30	34	35	132

*) Preferred series

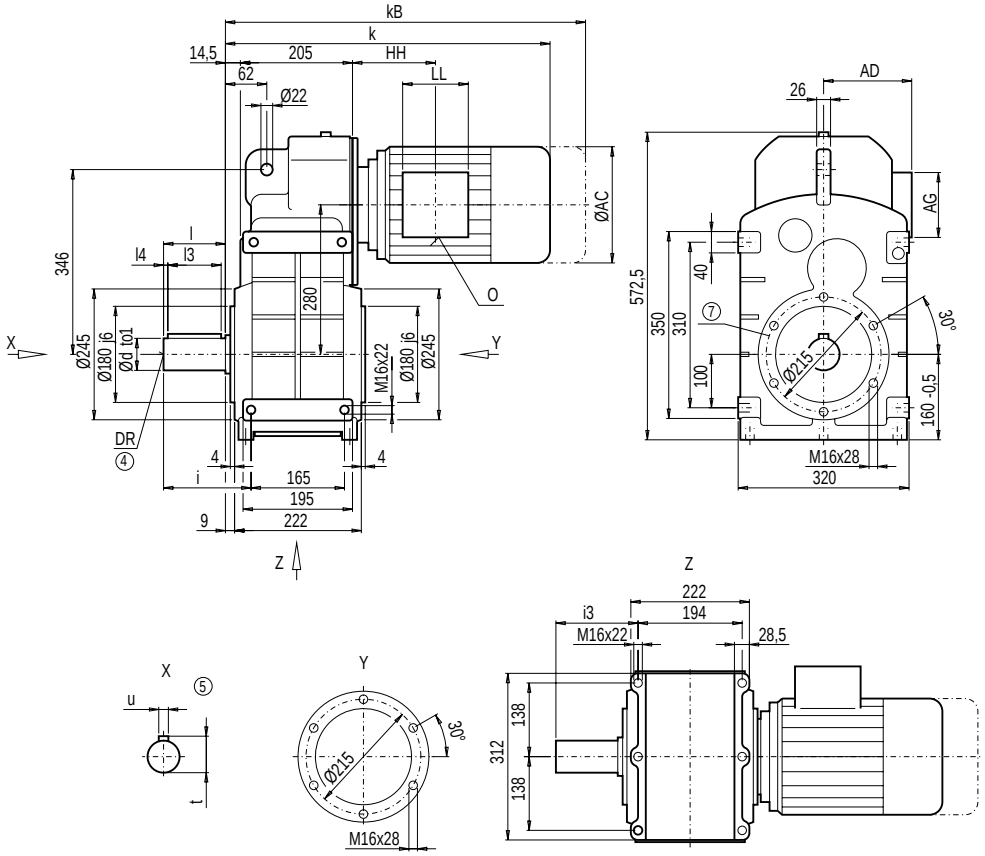
	F.AFS88B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAFS88B**	**FZAFS88B**
LA71	473.5	528.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	75	–
LA71Z	492.5	547.5	139.0	146	90	90	103.0	M20x1.5/M25x1.5	75	–
LA80	510.5	574.0	156.5	155	90	90	102.5	M20x1.5/M25x1.5	80	80
LA90S	541.5	612.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	84	85
LA90L	541.5	612.5	174.0	163	90	90	102.5	M20x1.5/M25x1.5	84	85
LA100L	587.5	668.5	195.0	168	120	120	143.0	2xM32x1.5	93	94
LA112M	614.5	695.5	219.0	181	120	120	146.0	2xM32x1.5	105	106
LA132S	674.5	776.5	259.0	195	140	140	186.5	2xM32x1.5	118	119
LA132M	674.5	776.5	259.0	195	140	140	186.5	2xM32x1.5	118	119
LA132ZM	720.5	822.5	259.0	195	140	140	186.5	2xM32x1.5	127	128
LA160M	777.0	895.5	313.5	227	165	165	212.0	2xM40x1.5	–	151
LA160L	777.0	895.5	313.5	227	165	165	212.0	2xM40x1.5	–	151

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ108B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	i3	DR
60 *)	m6	120	110	5	64	18	157.5	143	M20x42
80	m6	170	125	20	85	22	207.5	193	M20x42

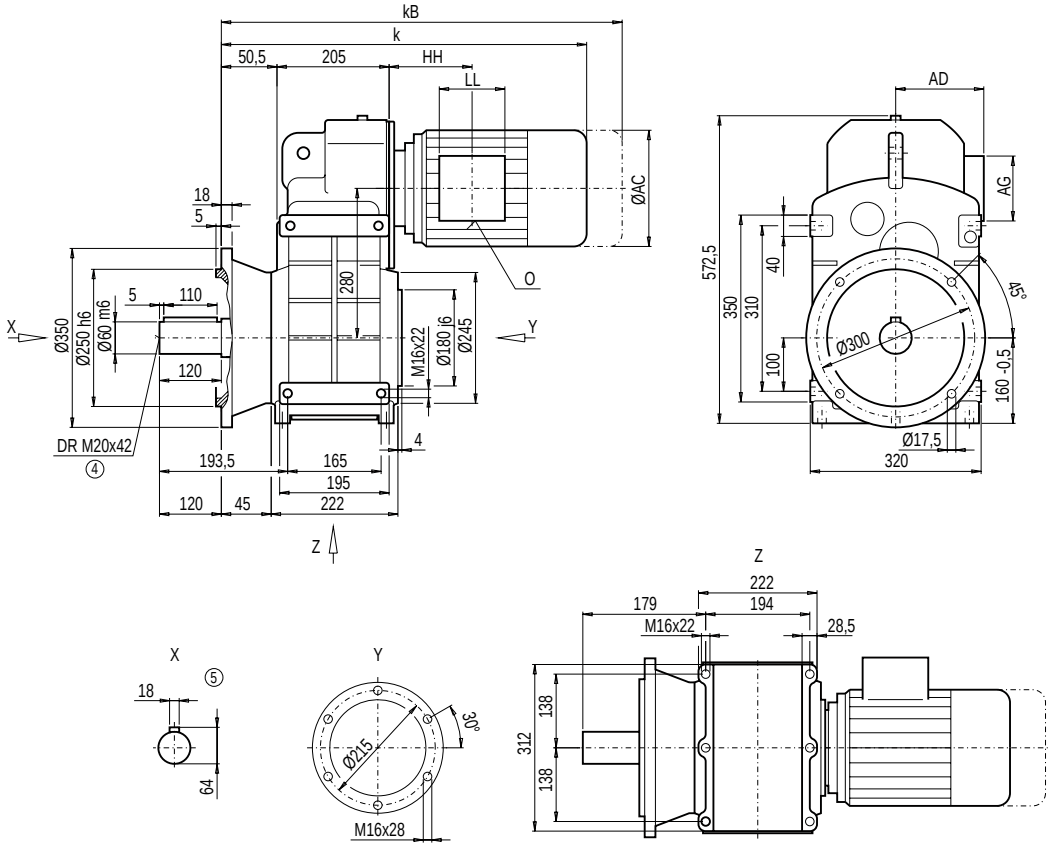
*) Preferred series

	F.Z108B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ108B**	**FZZ108B**
LA80	488.5	552.0	156.5	155.0	90	90	87.5	M20x1.5/M25x1.5	121	–
LA90S	519.5	590.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	126	–
LA90L	519.5	590.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	126	–
LA100L	563.0	644.0	195.0	168.0	120	120	125.5	2xM32x1.5	134	134
LA112M	589.0	670.0	219.0	181.0	120	120	127.5	2xM32x1.5	146	146
LA132S	649.0	751.0	259.0	195.0	140	140	168.0	2xM32x1.5	157	158
LA132M	649.0	751.0	259.0	195.0	140	140	168.0	2xM32x1.5	157	158
LA132ZM	695.0	797.0	259.0	195.0	140	140	168.0	2xM32x1.5	167	167
LA160M	753.5	872.0	313.5	227.0	165	165	195.5	2xM40x1.5	192	193
LA160L	753.5	872.0	313.5	227.0	165	165	195.5	2xM40x1.5	192	193
LG180M	813.0	935.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	285
LG180ZM	864.0	986.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	315
LG180L	813.0	935.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	285
LG180ZL	864.0	986.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	315

④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDF/FZF108B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F108B k	kB	AC	AD	AG	LL	HH	O	Weight FDF108B	FZF108B
LA80	524.5	588.0	156.5	155.0	90	90	87.5	M20x1.5/M25x1.5	134	–
LA90S	555.5	626.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	139	–
LA90L	555.5	626.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	139	–
LA100L	599.0	680.0	195.0	168.0	120	120	125.5	2xM32x1.5	147	147
LA112M	625.0	706.0	219.0	181.0	120	120	127.5	2xM32x1.5	159	159
LA132S	685.0	787.0	259.0	195.0	140	140	168.0	2xM32x1.5	170	171
LA132M	685.0	787.0	259.0	195.0	140	140	168.0	2xM32x1.5	170	171
LA132ZM	731.0	833.0	259.0	195.0	140	140	168.0	2xM32x1.5	180	180
LA160M	789.5	908.0	313.5	227.0	165	165	195.5	2xM40x1.5	205	206
LA160L	789.5	908.0	313.5	227.0	165	165	195.5	2xM40x1.5	205	206
LG180M	849.0	971.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	298
LG180ZM	900.0	1 022.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	328
LG180L	849.0	971.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	298
LG180ZL	900.0	1 022.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	328

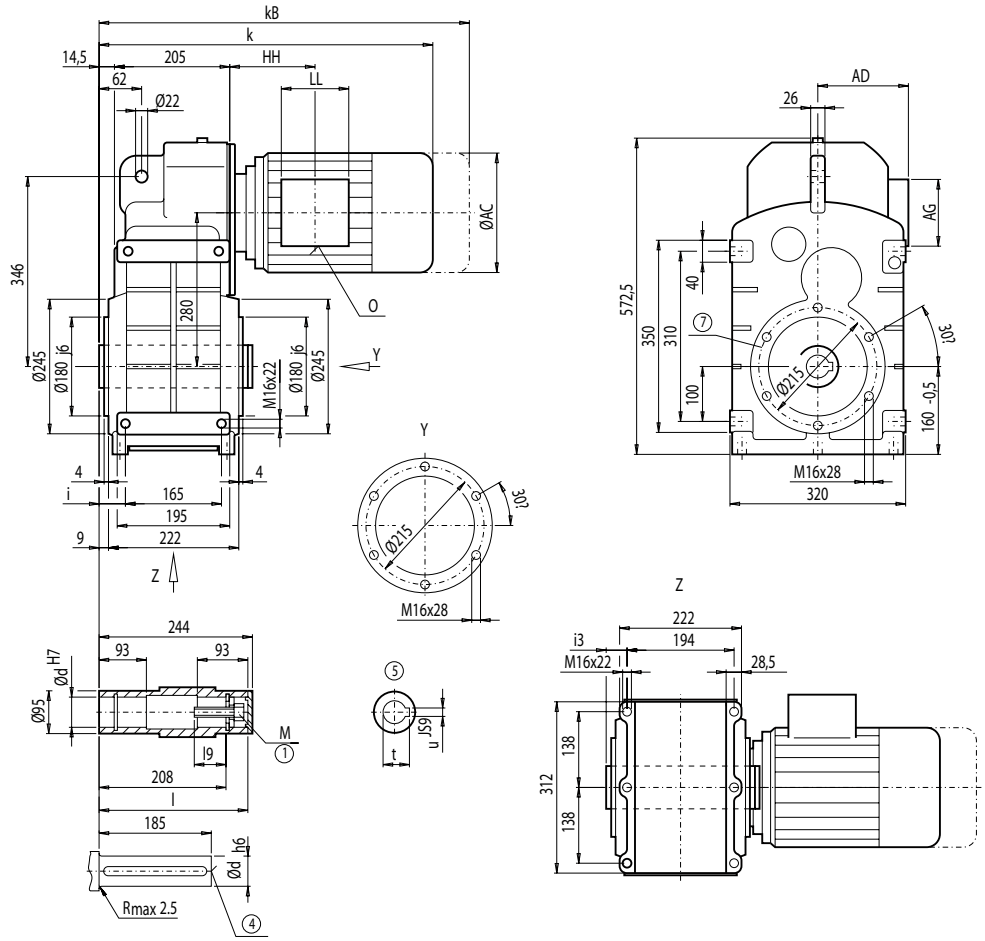
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA108B, FDAZ/FZAZ108B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



d	l	l9	M	t	u	i	i3
60 *)	240	63.5	M20	64.4	18	37.5	23
70	240	63.5	M20	74.9	20	37.5	23

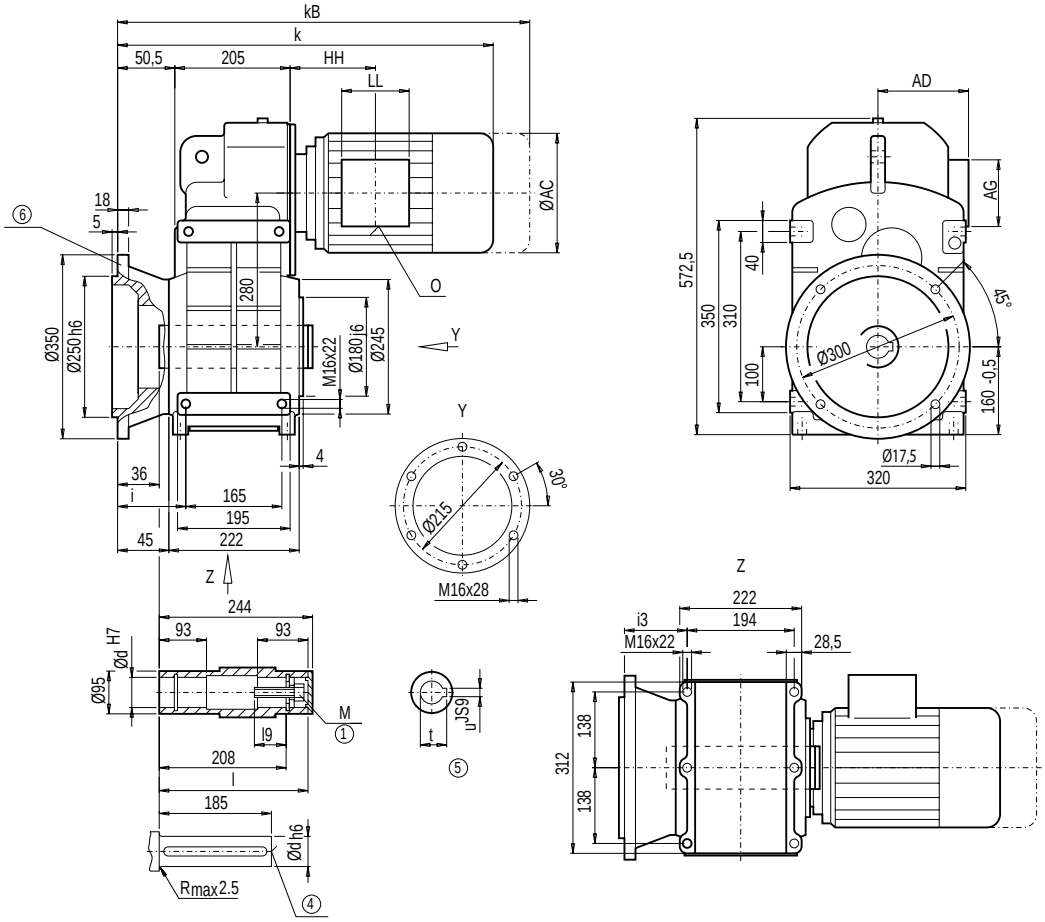
*) Preferred series

	F.A.108B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.108B**	**FZA.108B**
LA80	488.5	552.0	156.5	155.0	90	90	87.5	M20x1.5/M25x1.5	108	–
LA90S	519.5	590.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	113	–
LA90L	519.5	590.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	113	–
LA100L	563.0	644.0	195.0	168.0	120	120	125.5	2xM32x1.5	121	121
LA112M	589.0	670.0	219.0	181.0	120	120	127.5	2xM32x1.5	133	134
LA132S	649.0	751.0	259.0	195.0	140	140	168.0	2xM32x1.5	145	145
LA132M	649.0	751.0	259.0	195.0	140	140	168.0	2xM32x1.5	145	145
LA132ZM	695.0	797.0	259.0	195.0	140	140	168.0	2xM32x1.5	154	154
LA160M	753.5	872.0	313.5	227.0	165	165	195.5	2xM40x1.5	179	180
LA160L	753.5	872.0	313.5	227.0	165	165	195.5	2xM40x1.5	179	180
LG180M	813.0	935.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	272
LG180ZM	864.0	986.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	302
LG180L	813.0	935.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	272
LG180ZL	864.0	986.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	302

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDAF/FZAF108B (3- / 2-stage), shaft-mounted design with flange

FAF012



d	l	l9	M	t	u	i	i3
60 *)	240	63.5	M20	64.4	18	73.5	59
70	240	63.5	M20	74.9	20	73.5	59

*) Preferred series

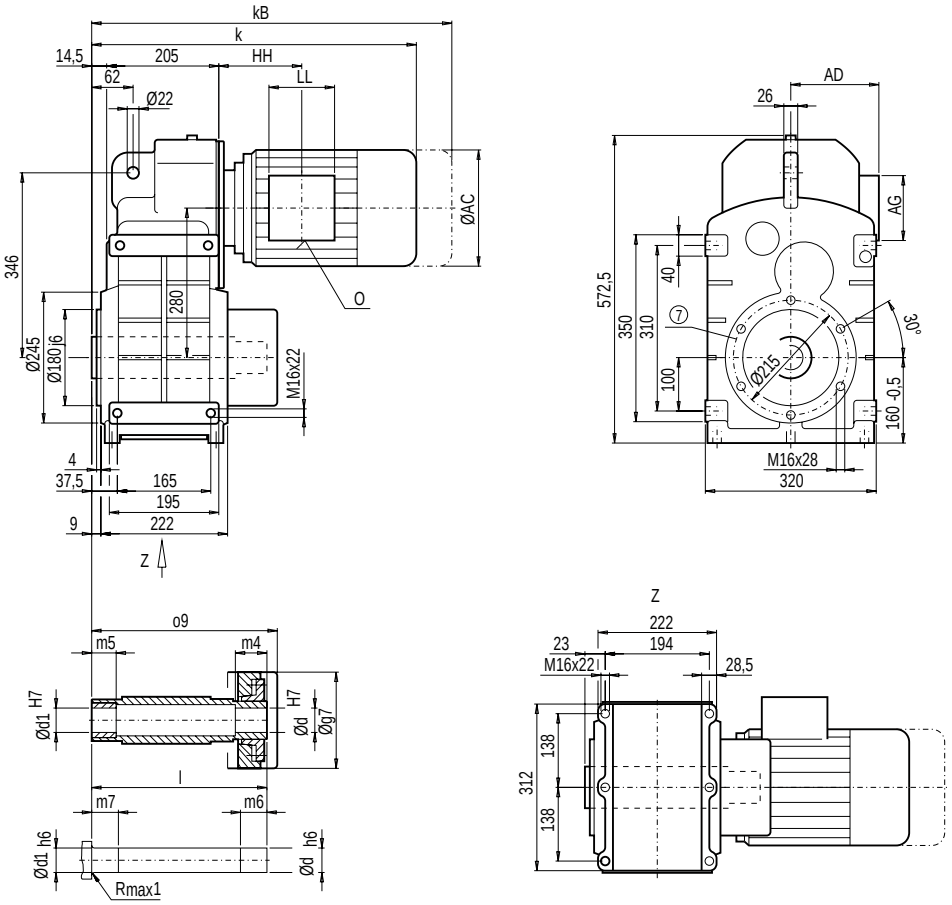
	F.AF108B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF108B**	**FZAF108B**
LA80	524.5	588.0	156.5	155.0	90	90	87.5	M20x1.5/M25x1.5	121	–
LA90S	555.5	626.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	126	–
LA90L	555.5	626.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	126	–
LA100L	599.0	680.0	195.0	168.0	120	120	125.5	2xM32x1.5	134	134
LA112M	625.0	706.0	219.0	181.0	120	120	127.5	2xM32x1.5	146	147
LA132S	685.0	787.0	259.0	195.0	140	140	168.0	2xM32x1.5	158	158
LA132M	685.0	787.0	259.0	195.0	140	140	168.0	2xM32x1.5	158	158
LA132ZM	731.0	833.0	259.0	195.0	140	140	168.0	2xM32x1.5	167	167
LA160M	789.5	908.0	313.5	227.0	165	165	195.5	2xM40x1.5	192	193
LA160L	789.5	908.0	313.5	227.0	165	165	195.5	2xM40x1.5	192	193
LG180M	849.0	971.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	285
LG180ZM	900.0	1 022.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	315
LG180L	849.0	971.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	285
LG180ZL	900.0	1 022.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	315

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS108B, FDAZS/FZAZS108B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012



d	d1	l	o9	m4	m5	m6	m7	g7
65 *)	65	280	288	30	40	35	45	144
70	70	280	288	30	40	35	45	144

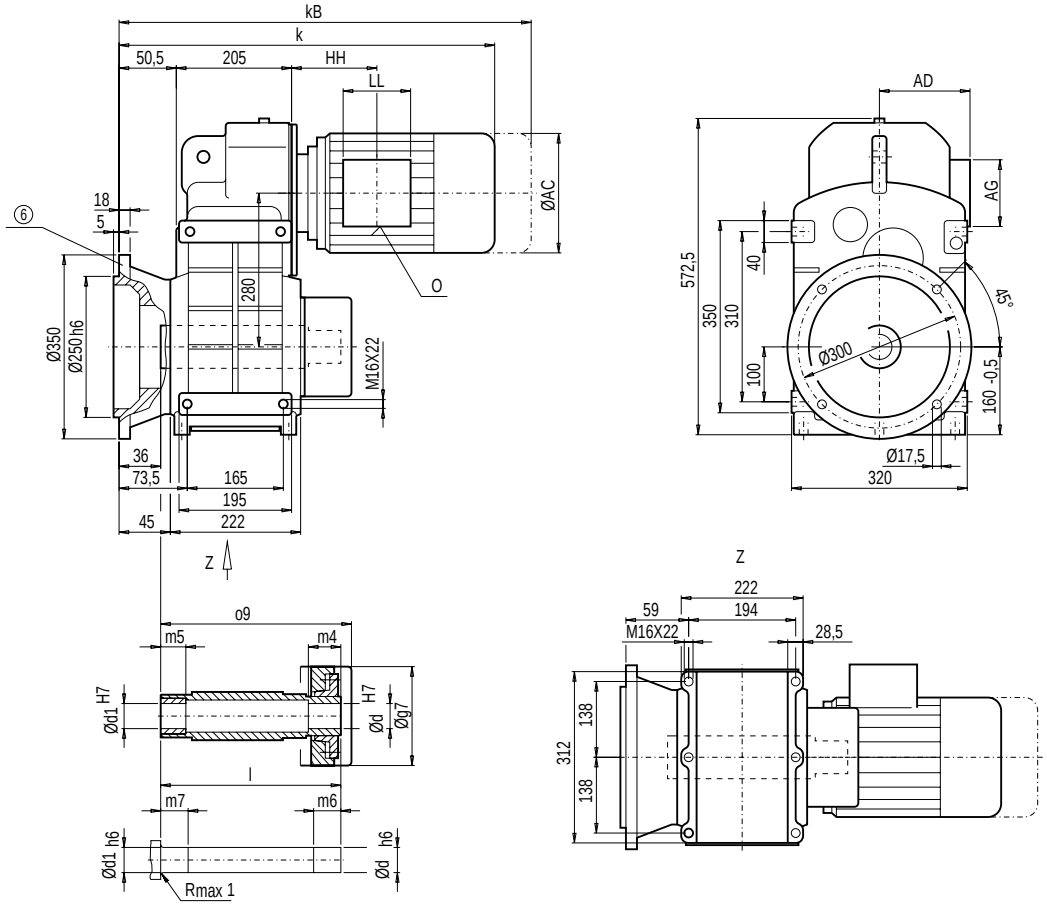
*) Preferred series

	F.A.S108B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.S108B**	**FZA.S108B**
LA80	488.5	552.0	156.5	155.0	90	90	87.5	M20x1.5/M25x1.5	115	–
LA90S	519.5	590.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	120	–
LA90L	519.5	590.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	120	–
LA100L	563.0	644.0	195.0	168.0	120	120	125.5	2xM32x1.5	128	128
LA112M	589.0	670.0	219.0	181.0	120	120	127.5	2xM32x1.5	140	140
LA132S	649.0	751.0	259.0	195.0	140	140	168.0	2xM32x1.5	151	152
LA132M	649.0	751.0	259.0	195.0	140	140	168.0	2xM32x1.5	151	152
LA132ZM	695.0	797.0	259.0	195.0	140	140	168.0	2xM32x1.5	161	161
LA160M	753.5	872.0	313.5	227.0	165	165	195.5	2xM40x1.5	186	187
LA160L	753.5	872.0	313.5	227.0	165	165	195.5	2xM40x1.5	186	187
LG180M	813.0	935.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	279
LG180ZM	864.0	986.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	309
LG180L	813.0	935.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	279
LG180ZL	864.0	986.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	309

⑦ For note, see page 3/184

Gearbox FDAFS/FZAFS108B (3- / 2-stage), shaft-mounted design with flange

FAFS012



d	d1	l	o9	m4	m5	m6	m7	g7
65 *)	65	280	288	30	40	35	45	144
70	70	280	288	30	40	35	45	144

*) Preferred series

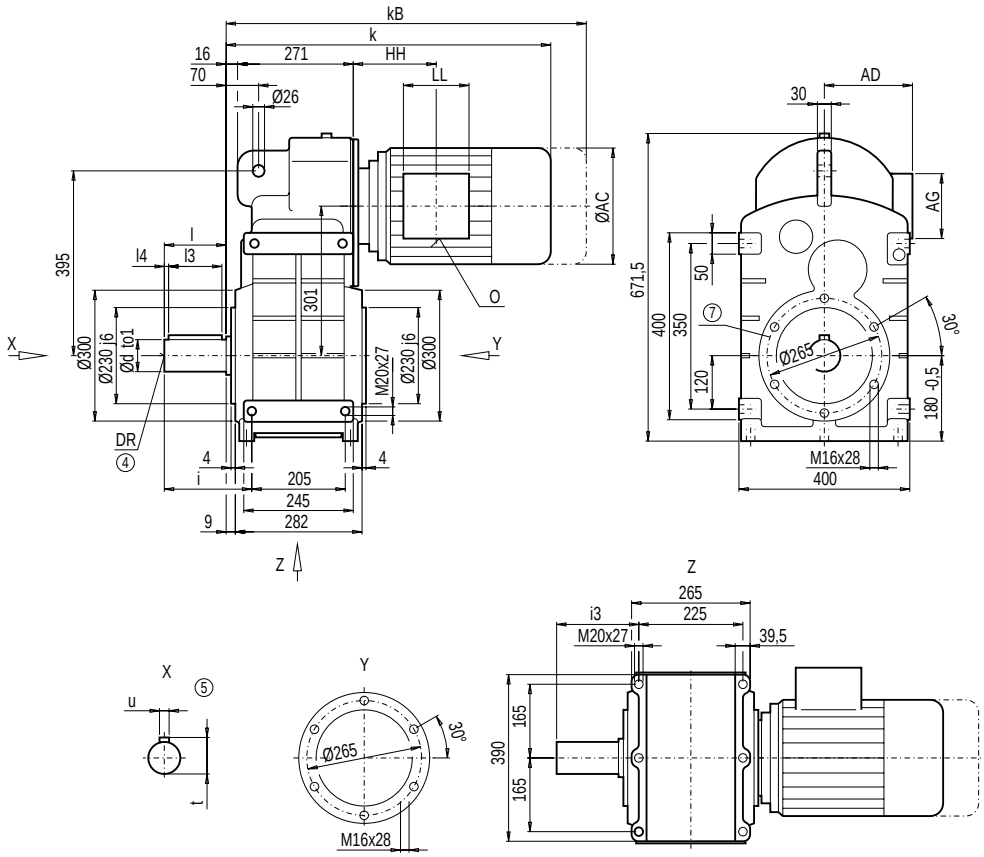
	F.AFS108B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAFS108B**	**FZAFS108B**
LA80	524.5	588.0	156.5	155.0	90	90	87.5	M20x1.5/M25x1.5	128	–
LA90S	555.5	626.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	133	–
LA90L	555.5	626.5	174.0	163.0	90	90	87.5	M20x1.5/M25x1.5	133	–
LA100L	599.0	680.0	195.0	168.0	120	120	125.5	2xM32x1.5	141	141
LA112M	625.0	706.0	219.0	181.0	120	120	127.5	2xM32x1.5	153	153
LA132S	685.0	787.0	259.0	195.0	140	140	168.0	2xM32x1.5	164	165
LA132M	685.0	787.0	259.0	195.0	140	140	168.0	2xM32x1.5	164	165
LA132ZM	731.0	833.0	259.0	195.0	140	140	168.0	2xM32x1.5	174	174
LA160M	789.5	908.0	313.5	227.0	165	165	195.5	2xM40x1.5	199	200
LA160L	789.5	908.0	313.5	227.0	165	165	195.5	2xM40x1.5	199	200
LG180M	849.0	971.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	292
LG180ZM	900.0	1 022.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	322
LG180L	849.0	971.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	292
LG180ZL	900.0	1 022.0	348.0	322.5	260	192	212.5	2xM40x1.5	–	322

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ128B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	i3	DR
70 *)	m6	140	125	7.5	74.5	20	187.5	177.5	M20x42
90	m6	170	140	15.0	95.0	25	217.5	207.5	M24x50

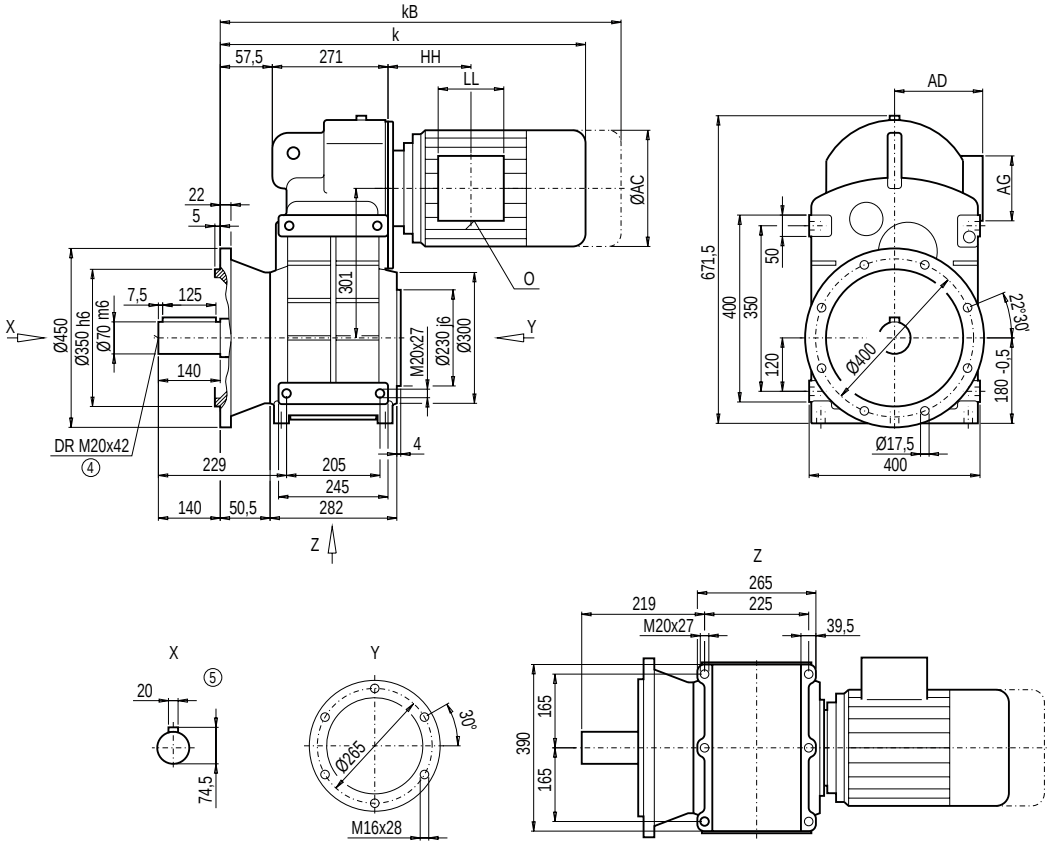
*) Preferred series

	F.Z128B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ128B**	**FZZ128B**
LA90S	575.5	646.5	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	206	–
LA90L	575.5	646.5	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	206	–
LA100L	618.5	699.5	195.0	168.0	120	120	113.5	2xM32x1.5	214	–
LA112M	645.0	726.0	219.0	181.0	120	120	116.0	2xM32x1.5	226	224
LA132S	704.0	806.0	259.0	195.0	140	140	155.5	2xM32x1.5	236	235
LA132M	704.0	806.0	259.0	195.0	140	140	155.5	2xM32x1.5	236	235
LA132ZM	750.0	852.0	259.0	195.0	140	140	155.5	2xM32x1.5	246	244
LA160M	809.5	928.0	313.5	227.0	165	165	184.0	2xM40x1.5	271	269
LA160L	809.5	928.0	313.5	227.0	165	165	184.0	2xM40x1.5	271	269
LG180M	866.0	988.0	348.0	322.5	260	192	198.0	2xM40x1.5	367	366
LG180ZM	917.0	1 039.0	348.0	322.5	260	192	198.0	2xM40x1.5	397	396
LG180L	866.0	988.0	348.0	322.5	260	192	198.0	2xM40x1.5	367	366
LG180ZL	917.0	1 039.0	348.0	322.5	260	192	198.0	2xM40x1.5	397	396
LG200L	922.0	1 048.0	385.0	301.0	260	192	228.0	2xM50x1.5	447	446
K4-LGI225S	1 182.5	1 421.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	601
K4-LGI225M	1 182.5	1 421.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	589
K4-LGI225ZM	1 242.5	1 481.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	647

④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDF/FZF128B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F128B k	kB	AC	AD	AG	LL	HH	O	Weight FDF128B	FZF128B
LA90S	617.0	688.0	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	226	–
LA90L	617.0	688.0	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	226	–
LA100L	660.0	741.0	195.0	168.0	120	120	113.5	2xM32x1.5	234	–
LA112M	686.5	767.5	219.0	181.0	120	120	116.0	2xM32x1.5	246	244
LA132S	745.5	847.5	259.0	195.0	140	140	155.5	2xM32x1.5	256	255
LA132M	745.5	847.5	259.0	195.0	140	140	155.5	2xM32x1.5	256	255
LA132ZM	791.5	893.5	259.0	195.0	140	140	155.5	2xM32x1.5	266	264
LA160M	851.0	969.5	313.5	227.0	165	165	184.0	2xM40x1.5	291	289
LA160L	851.0	969.5	313.5	227.0	165	165	184.0	2xM40x1.5	291	289
LG180M	907.5	1 029.5	348.0	322.5	260	192	198.0	2xM40x1.5	387	386
LG180ZM	958.5	1 080.5	348.0	322.5	260	192	198.0	2xM40x1.5	417	416
LG180L	907.5	1 029.5	348.0	322.5	260	192	198.0	2xM40x1.5	387	386
LG180ZL	958.5	1 080.5	348.0	322.5	260	192	198.0	2xM40x1.5	417	416
LG200L	963.5	1 089.5	385.0	301.0	260	192	228.0	2xM50x1.5	467	466
K4-LGI225S	1 224.0	1 463.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	621
K4-LGI225M	1 224.0	1 463.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	609
K4-LGI225ZM	1 284.0	1 523.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	667

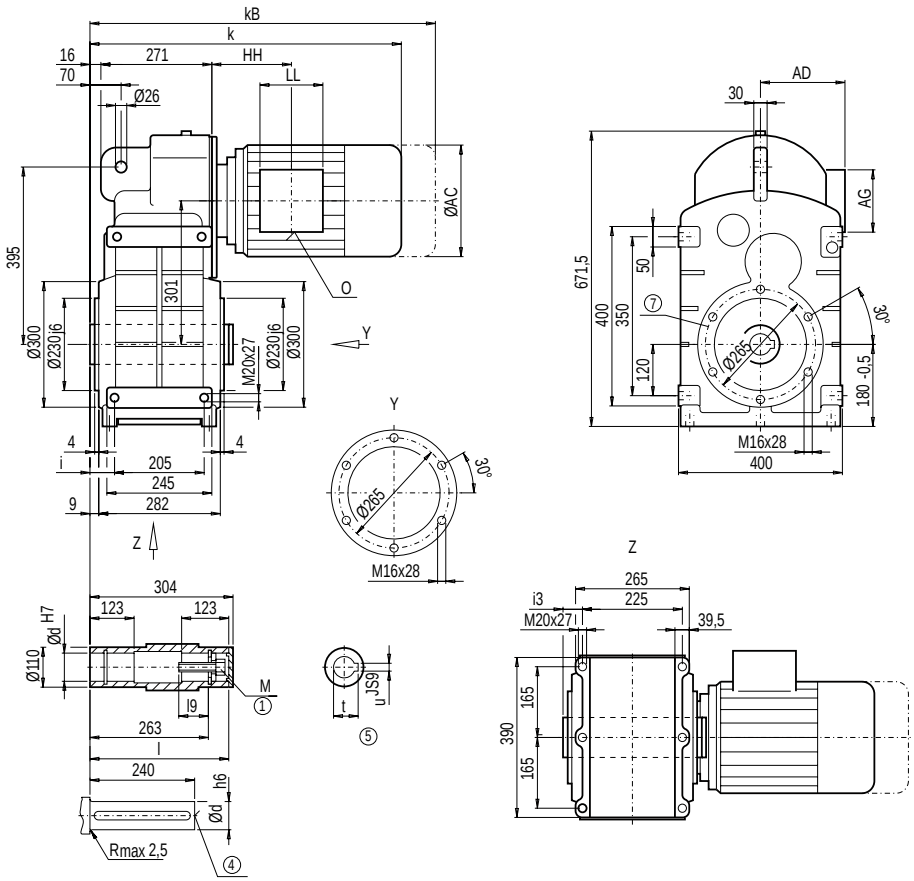
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA128B, FDAZ/FZAZ128B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



d	l	l9	M	t	u	i	i3
70 *)	300	63.5	M20	74.9	20	47.5	37.5
80	300	63.5	M20	85.4	22	47.5	37.5

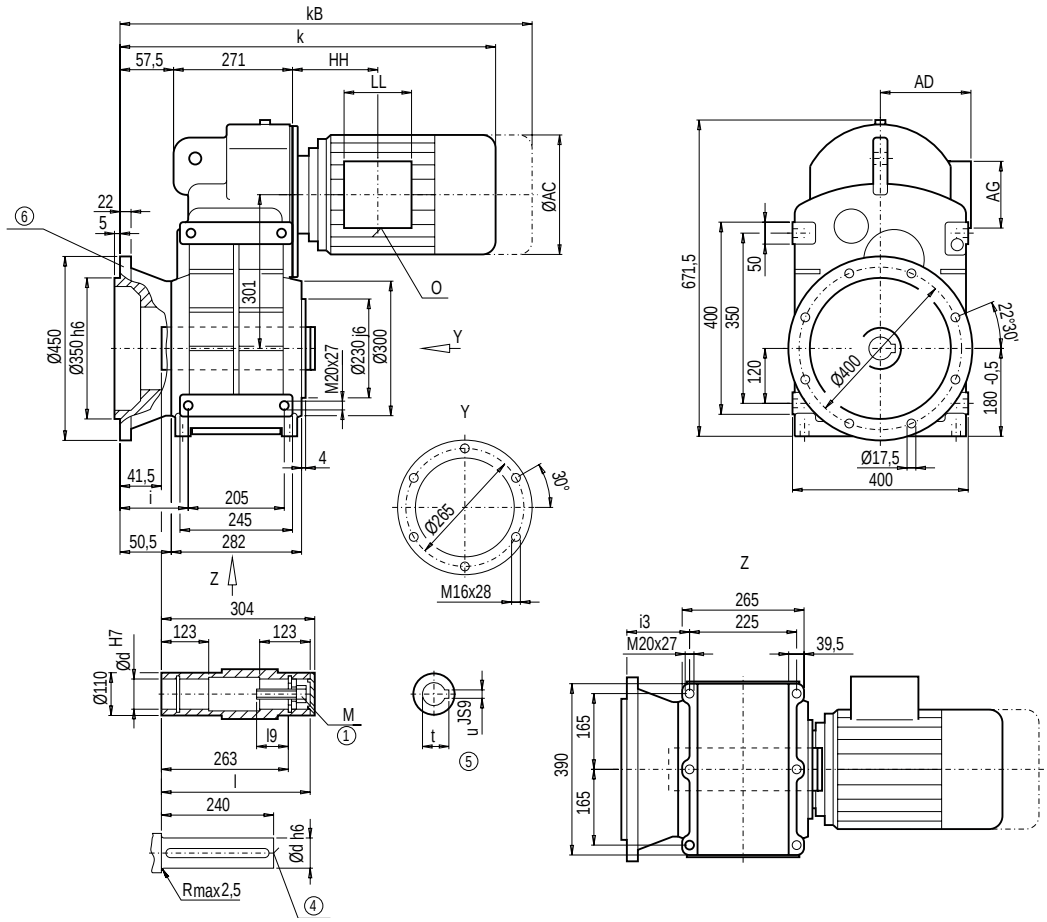
*) Preferred series

	F.A.128B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.128B**	**FZA.128B**
LA90S	575.5	646.5	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	186	–
LA90L	575.5	646.5	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	186	–
LA100L	618.5	699.5	195.0	168.0	120	120	113.5	2xM32x1.5	194	–
LA112M	645.0	726.0	219.0	181.0	120	120	116.0	2xM32x1.5	206	204
LA132S	704.0	806.0	259.0	195.0	140	140	155.5	2xM32x1.5	217	215
LA132M	704.0	806.0	259.0	195.0	140	140	155.5	2xM32x1.5	217	215
LA132ZM	750.0	852.0	259.0	195.0	140	140	155.5	2xM32x1.5	226	224
LA160M	809.5	928.0	313.5	227.0	165	165	184.0	2xM40x1.5	251	249
LA160L	809.5	928.0	313.5	227.0	165	165	184.0	2xM40x1.5	251	249
LG180M	866.0	988.0	348.0	322.5	260	192	198.0	2xM40x1.5	348	346
LG180ZM	917.0	1 039.0	348.0	322.5	260	192	198.0	2xM40x1.5	378	376
LG180L	866.0	988.0	348.0	322.5	260	192	198.0	2xM40x1.5	348	346
LG180ZL	917.0	1 039.0	348.0	322.5	260	192	198.0	2xM40x1.5	378	376
LG200L	922.0	1 048.0	385.0	301.0	260	192	228.0	2xM50x1.5	428	426
K4-LGI225S	1 182.5	1 421.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	581
K4-LGI225M	1 182.5	1 421.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	568
K4-LGI225ZM	1 242.5	1 481.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	627

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDAF/FZAF128B (3- / 2-stage), shaft-mounted design with flange

FAF012



d	l	l9	M	t	u	i	i3
70 *)	300	63.5	M20	74.9	20	89	79
80	300	63.5	M20	85.4	22	89	79

*) Preferred series

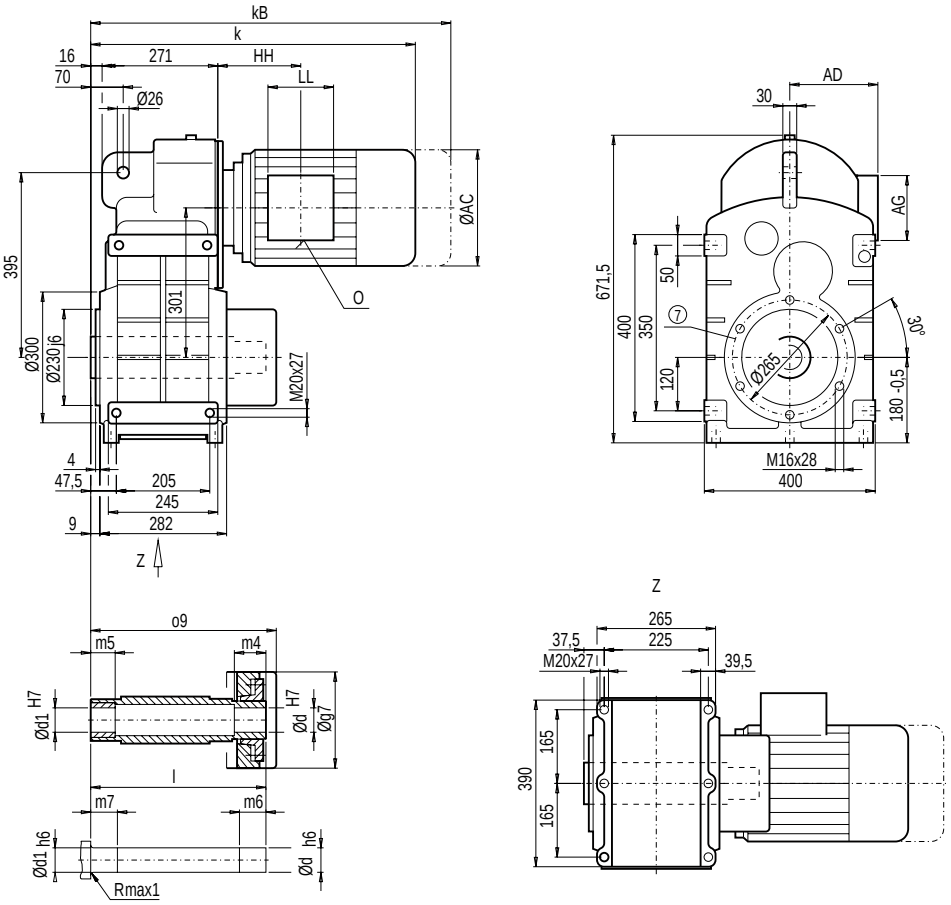
	F.AF128B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF128B**	**FZAF128B**
LA90S	617.0	688.0	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	206	–
LA90L	617.0	688.0	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	206	–
LA100L	660.0	741.0	195.0	168.0	120	120	113.5	2xM32x1.5	214	–
LA112M	686.5	767.5	219.0	181.0	120	120	116.0	2xM32x1.5	226	224
LA132S	745.5	847.5	259.0	195.0	140	140	155.5	2xM32x1.5	237	235
LA132M	745.5	847.5	259.0	195.0	140	140	155.5	2xM32x1.5	237	235
LA132ZM	791.5	893.5	259.0	195.0	140	140	155.5	2xM32x1.5	246	244
LA160M	851.0	969.5	313.5	227.0	165	165	184.0	2xM40x1.5	271	269
LA160L	851.0	969.5	313.5	227.0	165	165	184.0	2xM40x1.5	271	269
LG180M	907.5	1 029.5	348.0	322.5	260	192	198.0	2xM40x1.5	368	366
LG180ZM	958.5	1 080.5	348.0	322.5	260	192	198.0	2xM40x1.5	398	396
LG180L	907.5	1 029.5	348.0	322.5	260	192	198.0	2xM40x1.5	368	366
LG180ZL	958.5	1 080.5	348.0	322.5	260	192	198.0	2xM40x1.5	398	396
LG200L	963.5	1 089.5	385.0	301.0	260	192	228.0	2xM50x1.5	448	446
K4-LGI225S	1 224.0	1 463.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	601
K4-LGI225M	1 224.0	1 463.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	589
K4-LGI225ZM	1 284.0	1 523.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	647

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS128B, FDAZS/FZAZS128B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012



d	d1	l	o9	m4	m5	m6	m7	g7
75 *)	75	345	357	44	50	49	55	180
80	80	345	357	40	50	45	55	180

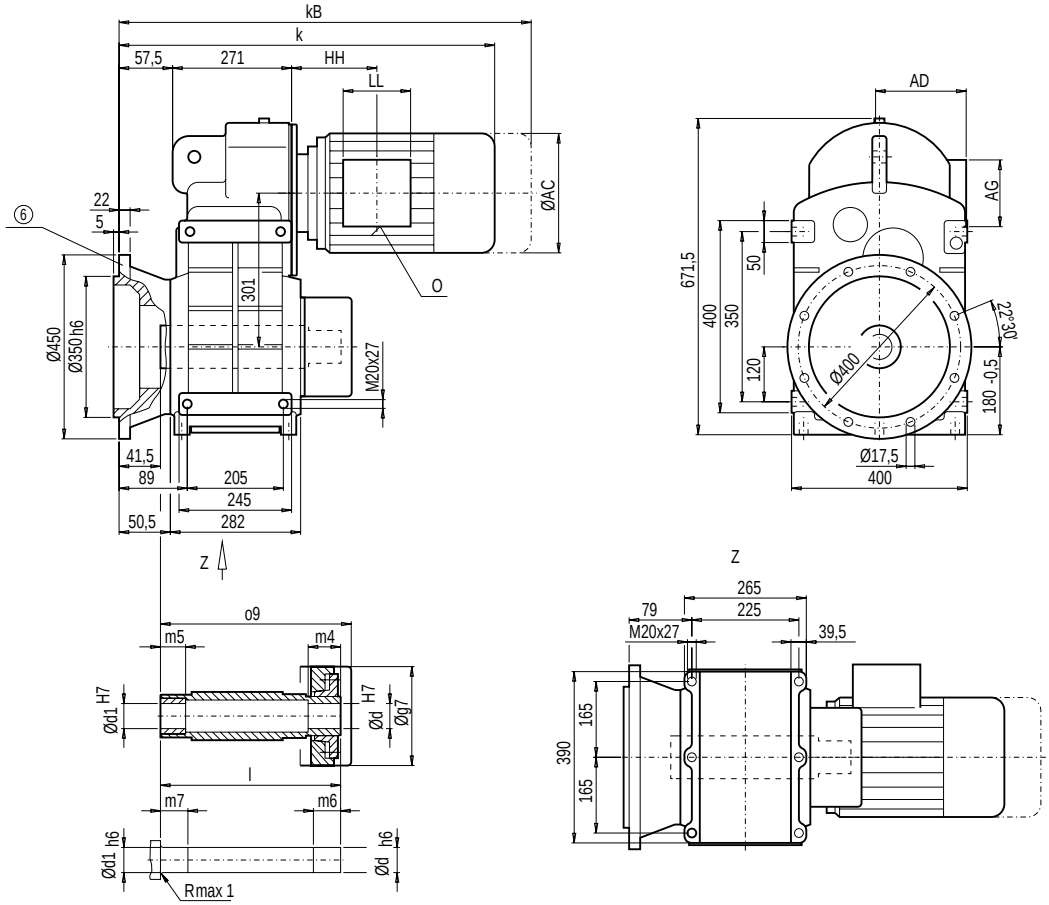
*) Preferred series

	F.A.S128B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.S128B**	**FZA.S128B**
LA90S	575.5	646.5	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	191	–
LA90L	575.5	646.5	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	191	–
LA100L	618.5	699.5	195.0	168.0	120	120	113.5	2xM32x1.5	199	–
LA112M	645.0	726.0	219.0	181.0	120	120	116.0	2xM32x1.5	210	209
LA132S	704.0	806.0	259.0	195.0	140	140	155.5	2xM32x1.5	221	219
LA132M	704.0	806.0	259.0	195.0	140	140	155.5	2xM32x1.5	221	219
LA132ZM	750.0	852.0	259.0	195.0	140	140	155.5	2xM32x1.5	230	228
LA160M	809.5	928.0	313.5	227.0	165	165	184.0	2xM40x1.5	256	254
LA160L	809.5	928.0	313.5	227.0	165	165	184.0	2xM40x1.5	256	254
LG180M	866.0	988.0	348.0	322.5	260	192	198.0	2xM40x1.5	352	350
LG180ZM	917.0	1 039.0	348.0	322.5	260	192	198.0	2xM40x1.5	382	380
LG180L	866.0	988.0	348.0	322.5	260	192	198.0	2xM40x1.5	352	350
LG180ZL	917.0	1 039.0	348.0	322.5	260	192	198.0	2xM40x1.5	382	380
LG200L	922.0	1 048.0	385.0	301.0	260	192	228.0	2xM50x1.5	432	430
K4-LGI225S	1 182.5	1 421.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	585
K4-LGI225M	1 182.5	1 421.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	573
K4-LGI225ZM	1 242.5	1 481.5	442.0	325.0	260	192	196.5	2xM50x1.5	–	631

⑦ For note, see page 3/184

Gearbox FDAFS/FZAFS128B (3- / 2-stage), shaft-mounted design with flange

FAFS012



d	d1	l	o9	m4	m5	m6	m7	g7
75 *)	75	345	357	44	50	49	55	180
80	80	345	357	40	50	45	55	180

*) Preferred series

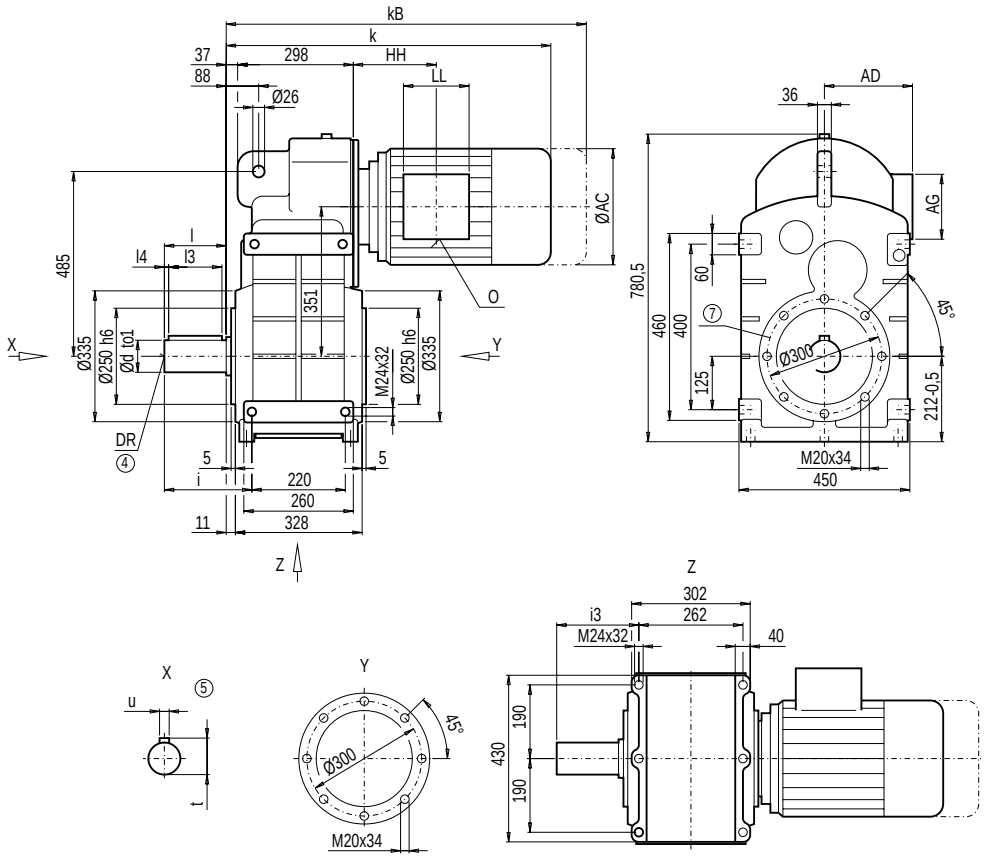
	F.AFS128B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAFS128B**	**FZAFS128B**
LA90S	617.0	688.0	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	210	–
LA90L	617.0	688.0	174.0	163.0	90	90	76.0	M20x1.5/M25x1.5	210	–
LA100L	660.0	741.0	195.0	168.0	120	120	113.5	2xM32x1.5	218	–
LA112M	686.5	767.5	219.0	181.0	120	120	116.0	2xM32x1.5	230	228
LA132S	745.5	847.5	259.0	195.0	140	140	155.5	2xM32x1.5	241	239
LA132M	745.5	847.5	259.0	195.0	140	140	155.5	2xM32x1.5	241	239
LA132ZM	791.5	893.5	259.0	195.0	140	140	155.5	2xM32x1.5	250	248
LA160M	851.0	969.5	313.5	227.0	165	165	184.0	2xM40x1.5	275	274
LA160L	851.0	969.5	313.5	227.0	165	165	184.0	2xM40x1.5	275	274
LG180M	907.5	1 029.5	348.0	322.5	260	192	198.0	2xM40x1.5	372	370
LG180ZM	958.5	1 080.5	348.0	322.5	260	192	198.0	2xM40x1.5	402	400
LG180L	907.5	1 029.5	348.0	322.5	260	192	198.0	2xM40x1.5	372	370
LG180ZL	958.5	1 080.5	348.0	322.5	260	192	198.0	2xM40x1.5	402	400
LG200L	963.5	1 089.5	385.0	301.0	260	192	228.0	2xM50x1.5	452	450
K4-LGI225S	1 224.0	1 463.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	615
K4-LGI225M	1 224.0	1 463.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	593
K4-LGI225ZM	1 284.0	1 523.0	442.0	325.0	260	192	196.5	2xM50x1.5	–	651

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ148B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	i3	DR
90 *)	m6	170	140	15	95	25	235	214	M24x50
100	m6	210	180	15	106	28	275	254	M24x50

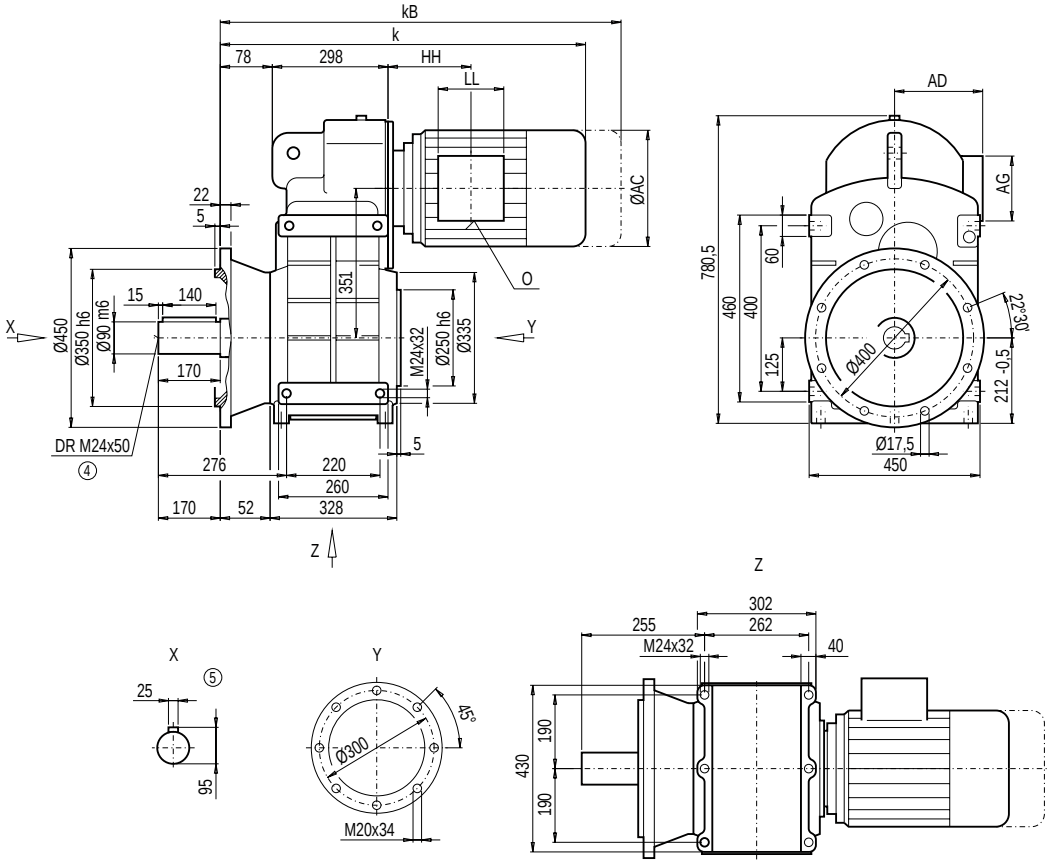
*) Preferred series

	F.Z148B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ148B**	**FZZ148B**
LA100L	657.0	738.0	195.0	168.0	120	120	104.0	2xM32x1.5	311	–
LA112M	682.5	763.5	219.0	181.0	120	120	105.5	2xM32x1.5	322	–
LA132S	741.5	843.5	259.0	195.0	140	140	145.0	2xM32x1.5	331	327
LA132M	741.5	843.5	259.0	195.0	140	140	145.0	2xM32x1.5	331	327
LA132ZM	787.5	889.5	259.0	195.0	140	140	145.0	2xM32x1.5	340	336
LA160M	841.0	959.5	313.5	227.0	165	165	167.5	2xM40x1.5	371	366
LA160L	841.0	959.5	313.5	227.0	165	165	167.5	2xM40x1.5	371	366
LG180M	900.5	1 022.5	348.0	322.5	260	192	184.5	2xM40x1.5	462	457
LG180ZM	951.5	1 073.5	348.0	322.5	260	192	184.5	2xM40x1.5	492	487
LG180L	900.5	1 022.5	348.0	322.5	260	192	184.5	2xM40x1.5	462	457
LG180ZL	951.5	1 073.5	348.0	322.5	260	192	184.5	2xM40x1.5	492	487
LG200L	956.5	1 082.5	385.0	301.0	260	192	214.5	2xM50x1.5	542	537
LG225S	1 027.5	1 266.5	442.0	325.0	260	192	250.5	2xM50x1.5	618	614
LG225M	1 027.5	1 266.5	442.0	325.0	260	192	250.5	2xM50x1.5	606	602
LG225ZM	1 087.5	1 326.5	442.0	325.0	260	192	250.5	2xM50x1.5	664	660
K4-LGI250M	1 314.5	1 539.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	781
K4-LGI250ZM	1 384.5	1 609.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	884

④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDF/FZF148B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F148B k	kB	AC	AD	AG	LL	HH	O	Weight FDF148B	FZF148B
LA100L	698.0	779.0	195.0	168.0	120	120	104.0	2xM32x1.5	333	–
LA112M	723.5	804.5	219.0	181.0	120	120	105.5	2xM32x1.5	345	–
LA132S	782.5	884.5	259.0	195.0	140	140	145.0	2xM32x1.5	354	350
LA132M	782.5	884.5	259.0	195.0	140	140	145.0	2xM32x1.5	354	350
LA132ZM	828.5	930.5	259.0	195.0	140	140	145.0	2xM32x1.5	363	359
LA160M	882.0	1 000.5	313.5	227.0	165	165	167.5	2xM40x1.5	393	389
LA160L	882.0	1 000.5	313.5	227.0	165	165	167.5	2xM40x1.5	393	389
LG180M	941.5	1 063.5	348.0	322.5	260	192	184.5	2xM40x1.5	484	480
LG180ZM	992.5	1 114.5	348.0	322.5	260	192	184.5	2xM40x1.5	514	510
LG180L	941.5	1 063.5	348.0	322.5	260	192	184.5	2xM40x1.5	484	480
LG180ZL	992.5	1 114.5	348.0	322.5	260	192	184.5	2xM40x1.5	514	510
LG200L	997.5	1 123.5	385.0	301.0	260	192	214.5	2xM50x1.5	564	560
LG225S	1 068.5	1 307.5	442.0	325.0	260	192	250.5	2xM50x1.5	638	637
LG225M	1 068.5	1 307.5	442.0	325.0	260	192	250.5	2xM50x1.5	626	625
LG225ZM	1 128.5	1 367.5	442.0	325.0	260	192	250.5	2xM50x1.5	684	683
K4-LGI250M	1 355.5	1 580.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	804
K4-LGI250ZM	1 425.5	1 650.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	907

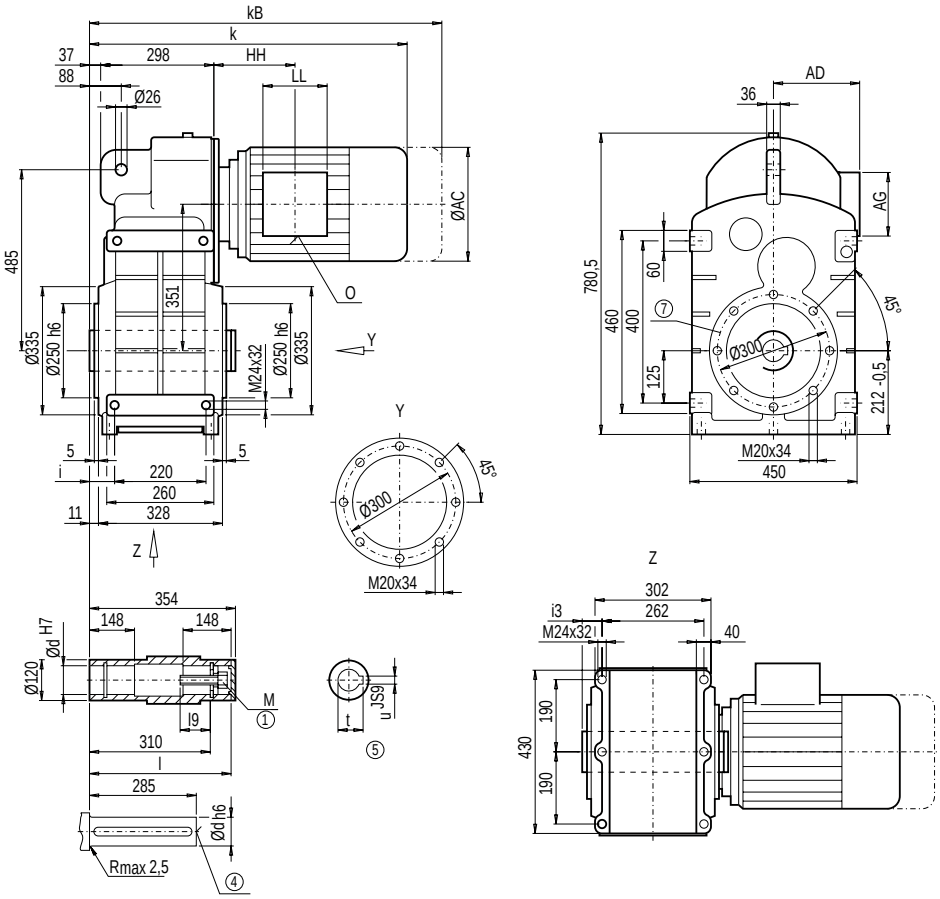
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA148B, FDAZ/FZAZ148B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



d	l	l9	M	t	u	i	i3
80 *)	350	63.5	M20	85.4	22	65	44
90	350	72.0	M24	95.4	25	65	44

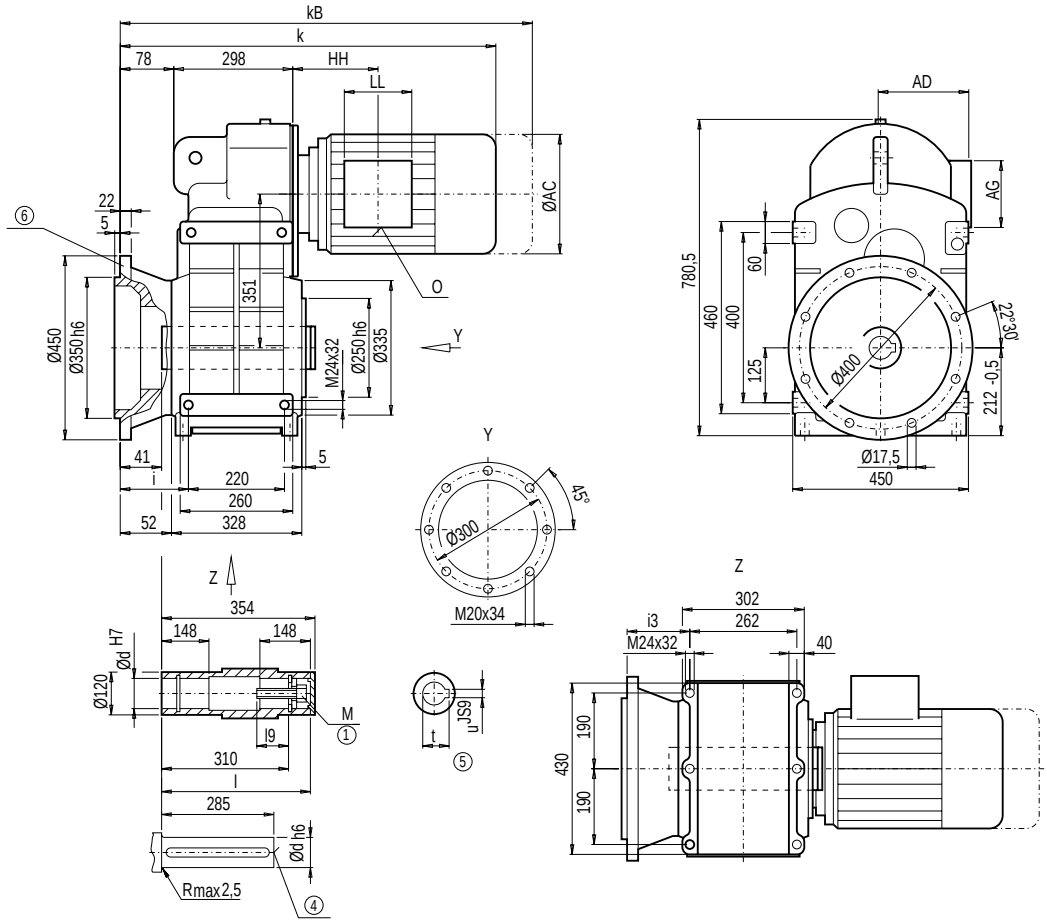
*) Preferred series

	F.A.148B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.148B**	**FZA.148B**
LA100L	657.0	738.0	195.0	168.0	120	120	104.0	2xM32x1.5	283	–
LA112M	682.5	763.5	219.0	181.0	120	120	105.5	2xM32x1.5	294	–
LA132S	741.5	843.5	259.0	195.0	140	140	145.0	2xM32x1.5	303	299
LA132M	741.5	843.5	259.0	195.0	140	140	145.0	2xM32x1.5	303	299
LA132ZM	787.5	889.5	259.0	195.0	140	140	145.0	2xM32x1.5	313	308
LA160M	841.0	959.5	313.5	227.0	165	165	167.5	2xM40x1.5	343	339
LA160L	841.0	959.5	313.5	227.0	165	165	167.5	2xM40x1.5	343	339
LG180M	900.5	1 022.5	348.0	322.5	260	192	184.5	2xM40x1.5	434	430
LG180ZM	951.5	1 073.5	348.0	322.5	260	192	184.5	2xM40x1.5	464	460
LG180L	900.5	1 022.5	348.0	322.5	260	192	184.5	2xM40x1.5	434	430
LG180ZL	951.5	1 073.5	348.0	322.5	260	192	184.5	2xM40x1.5	464	460
LG200L	956.5	1 082.5	385.0	301.0	260	192	214.5	2xM50x1.5	514	510
LG225S	1 027.5	1 266.5	442.0	325.0	260	192	250.5	2xM50x1.5	590	587
LG225M	1 027.5	1 266.5	442.0	325.0	260	192	250.5	2xM50x1.5	578	574
LG225ZM	1 087.5	1 326.5	442.0	325.0	260	192	250.5	2xM50x1.5	636	633
K4-LGI250	1 314.5	1 539.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	754
K4-LGI250ZM	1 384.5	1 609.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	857

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDAF/FZAF148B (3- / 2-stage), shaft-mounted design with flange

FAF012



d	l	l9	M	t	u	i	i3
80 *)	350	63.5	M20	85.4	22	106	85
90	350	72.0	M24	95.4	25	106	85

*) Preferred series

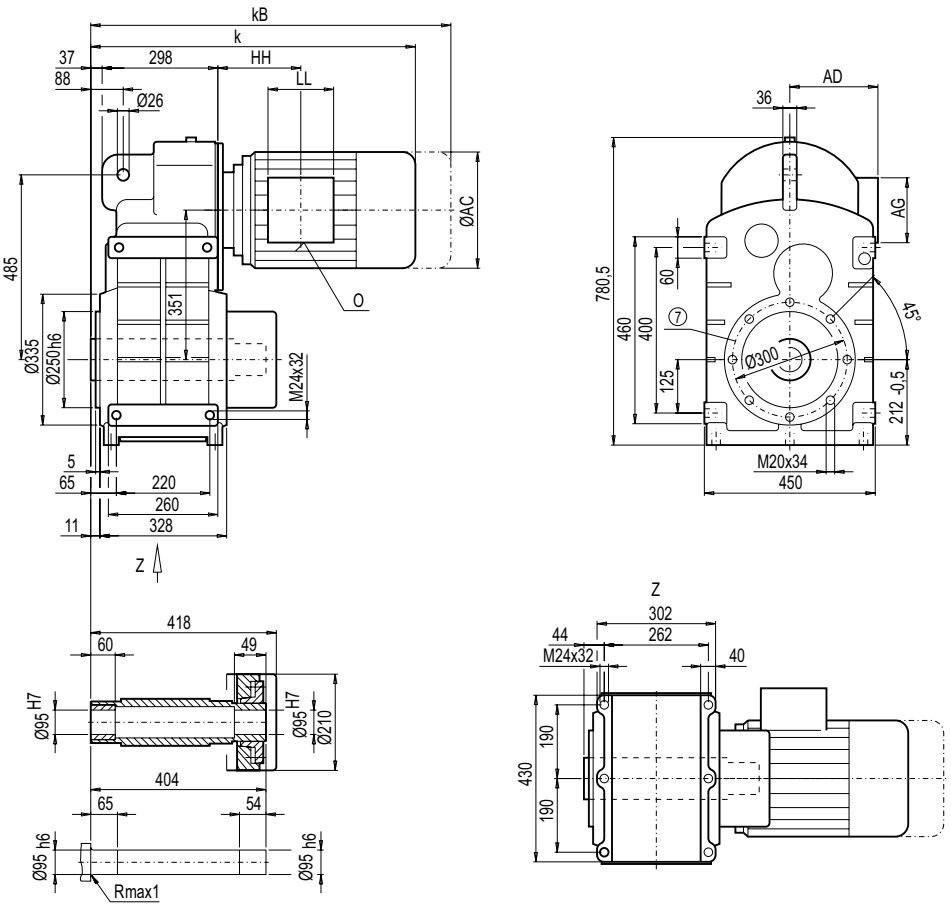
	F.AF148B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF148B**	**FZAF148B**
LA100L	698.0	779.0	195.0	168.0	120	120	104.0	2xM32x1.5	305	–
LA112M	723.5	804.5	219.0	181.0	120	120	105.5	2xM32x1.5	317	–
LA132S	782.5	884.5	259.0	195.0	140	140	145.0	2xM32x1.5	326	322
LA132M	782.5	884.5	259.0	195.0	140	140	145.0	2xM32x1.5	326	322
LA132ZM	828.5	930.5	259.0	195.0	140	140	145.0	2xM32x1.5	335	331
LA160M	882.0	1 000.5	313.5	227.0	165	165	167.5	2xM40x1.5	365	361
LA160L	882.0	1 000.5	313.5	227.0	165	165	167.5	2xM40x1.5	365	361
LG180M	941.5	1 063.5	348.0	322.5	260	192	184.5	2xM40x1.5	456	452
LG180ZM	992.5	1 114.5	348.0	322.5	260	192	184.5	2xM40x1.5	486	482
LG180L	941.5	1 063.5	348.0	322.5	260	192	184.5	2xM40x1.5	456	452
LG180ZL	992.5	1 114.5	348.0	322.5	260	192	184.5	2xM40x1.5	486	482
LG200L	997.5	1 123.5	385.0	301.0	260	192	214.5	2xM50x1.5	536	532
LG225S	1 068.5	1 307.5	442.0	325.0	260	192	250.5	2xM50x1.5	610	609
LG225M	1 068.5	1 307.5	442.0	325.0	260	192	250.5	2xM50x1.5	598	597
LG225ZM	1 128.5	1 367.5	442.0	325.0	260	192	250.5	2xM50x1.5	656	655
K4-LGI250M	1 355.5	1 580.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	776
K4-LGI250ZM	1 425.5	1 650.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	879

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS148B, FDAZS/FZAZS148B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012

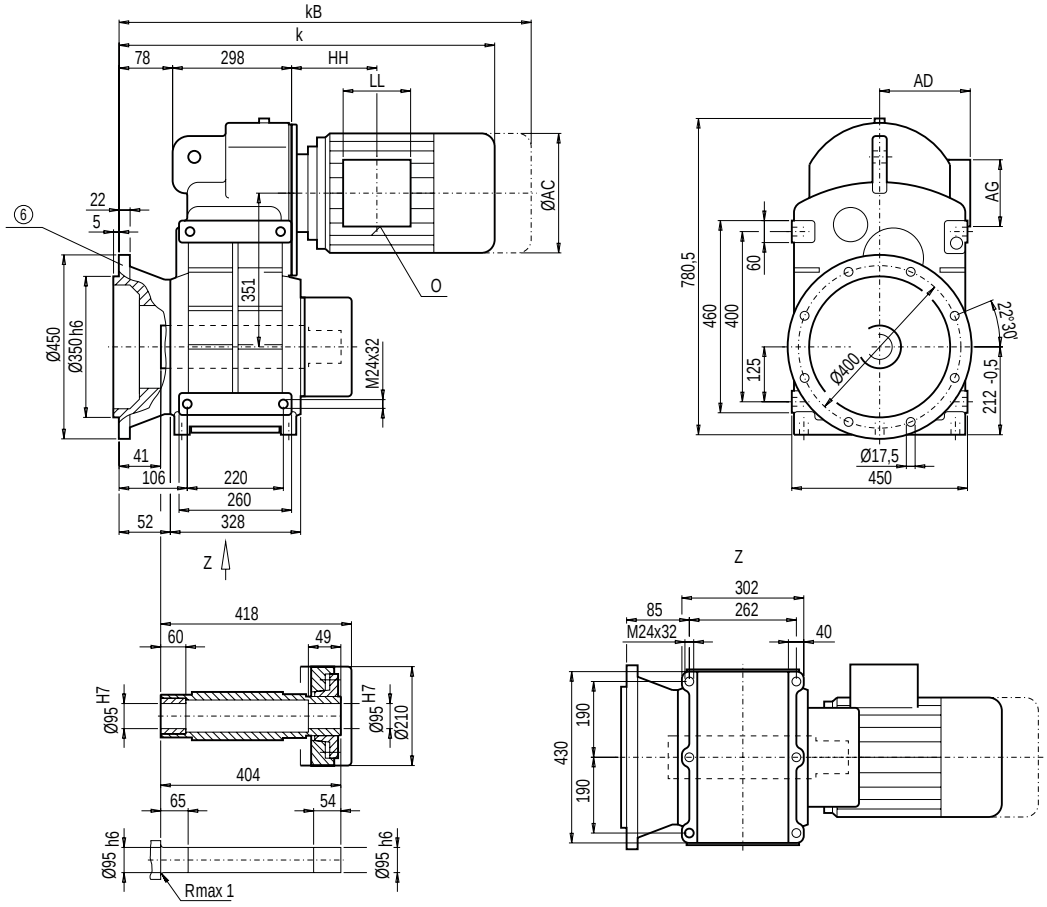


Motor	F.A.S148B k	kB	AC	AD	AG	LL	HH	O	Weight FDA.S148B	FZA.S148B
LA100L	657.0	738.0	195.0	168.0	120	120	104.0	2xM32x1.5	290	–
LA112M	682.5	763.5	219.0	181.0	120	120	105.5	2xM32x1.5	301	–
LA132S	741.5	843.5	259.0	195.0	140	140	145.0	2xM32x1.5	310	306
LA132M	741.5	843.5	259.0	195.0	140	140	145.0	2xM32x1.5	310	306
LA132ZM	787.5	889.5	259.0	195.0	140	140	145.0	2xM32x1.5	319	315
LA160M	841.0	959.5	313.5	227.0	165	165	167.5	2xM40x1.5	350	345
LA160L	841.0	959.5	313.5	227.0	165	165	167.5	2xM40x1.5	350	345
LG180M	900.5	1 022.5	348.0	322.5	260	192	184.5	2xM40x1.5	441	436
LG180ZM	951.5	1 073.5	348.0	322.5	260	192	184.5	2xM40x1.5	471	466
LG180L	900.5	1 022.5	348.0	322.5	260	192	184.5	2xM40x1.5	441	436
LG180ZL	951.5	1 073.5	348.0	322.5	260	192	184.5	2xM40x1.5	471	466
LG200L	956.5	1 082.5	385.0	301.0	260	192	214.5	2xM50x1.5	521	516
LG225S	1 027.5	1 266.5	442.0	325.0	260	192	250.5	2xM50x1.5	597	593
LG225M	1 027.5	1 266.5	442.0	325.0	260	192	250.5	2xM50x1.5	585	581
LG225ZM	1 087.5	1 326.5	442.0	325.0	260	192	250.5	2xM50x1.5	643	639
K4-LGI250M	1 314.5	1 539.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	760
K4-LGI250ZM	1 384.5	1 609.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	863

⑦ For note, see page 3/184

Gearbox FDAFS/FZAFS148B (3- / 2-stage), shaft-mounted design with flange

FAFS012



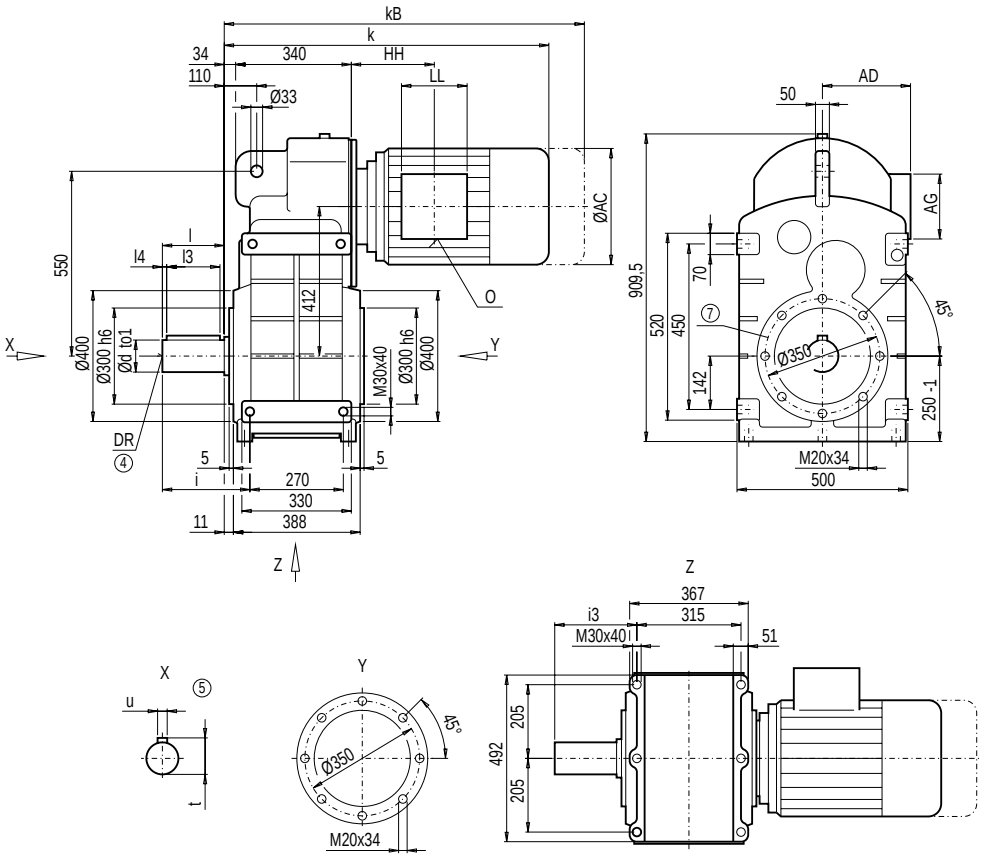
Motor	F.AFS148B k	kB	AC	AD	AG	LL	HH	O	Weight FDAFS148B	FZAFS148B
LA100L	698.0	779.0	195.0	168.0	120	120	104.0	2xM32x1.5	312	–
LA112M	723.5	804.5	219.0	181.0	120	120	105.5	2xM32x1.5	324	–
LA132S	782.5	884.5	259.0	195.0	140	140	145.0	2xM32x1.5	333	329
LA132M	782.5	884.5	259.0	195.0	140	140	145.0	2xM32x1.5	333	329
LA132ZM	828.5	930.5	259.0	195.0	140	140	145.0	2xM32x1.5	342	338
LA160M	882.0	1 000.5	313.5	227.0	165	165	167.5	2xM40x1.5	372	368
LA160L	882.0	1 000.5	313.5	227.0	165	165	167.5	2xM40x1.5	372	368
LG180M	941.5	1 063.5	348.0	322.5	260	192	184.5	2xM40x1.5	463	459
LG180ZM	992.5	1 114.5	348.0	322.5	260	192	184.5	2xM40x1.5	493	489
LG180L	941.5	1 063.5	348.0	322.5	260	192	184.5	2xM40x1.5	463	459
LG180ZL	992.5	1 114.5	348.0	322.5	260	192	184.5	2xM40x1.5	493	489
LG200L	997.5	1 123.5	385.0	301.0	260	192	214.5	2xM50x1.5	543	539
LG225S	1 068.5	1 307.5	442.0	325.0	260	192	250.5	2xM50x1.5	617	616
LG225M	1 068.5	1 307.5	442.0	325.0	260	192	250.5	2xM50x1.5	605	604
LG225ZM	1 128.5	1 367.5	442.0	325.0	260	192	250.5	2xM50x1.5	663	662
K4-LGI250M	1 355.5	1 580.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	783
K4-LGI250ZM	1 425.5	1 650.5	495.0	392.0	300	236	237.5	2xM63x1.5	–	886

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ168B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	i3	DR
110 *)	m6	210	180	15	116	28	280	252	M24x50
120	m6	210	180	15	127	32	280	252	M24x50

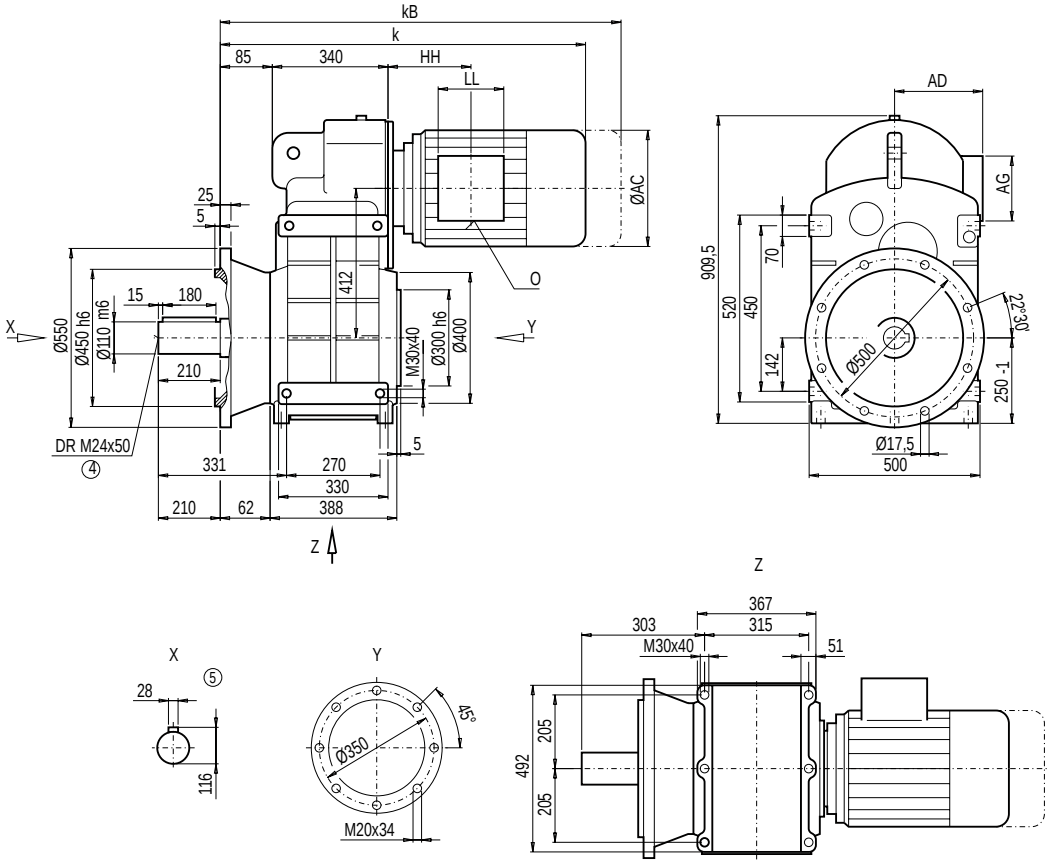
*) Preferred series

	F.Z168B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDZ168B**	**FZZ168B**
LA132S	772.5	874.5	259.0	195.0	140	140	137.0	2xM32x1.5	496	485
LA132M	772.5	874.5	259.0	195.0	140	140	137.0	2xM32x1.5	496	485
LA132ZM	818.5	920.5	259.0	195.0	140	140	137.0	2xM32x1.5	505	494
LA160M	872.5	991.0	313.5	227.0	165	165	160.0	2xM40x1.5	530	519
LA160L	872.5	991.0	313.5	227.0	165	165	160.0	2xM40x1.5	530	519
LG180M	932.0	1 054.0	348.0	322.5	260	192	177.0	2xM40x1.5	626	614
LG180ZM	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	656	644
LG180L	932.0	1 054.0	348.0	322.5	260	192	177.0	2xM40x1.5	626	614
LG180ZL	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	656	644
LG200L	988.0	1 114.0	385.0	301.0	260	192	207.0	2xM50x1.5	706	694
LG225S	1 059.0	1 298.0	442.0	325.0	260	192	243.0	2xM50x1.5	779	768
LG225M	1 059.0	1 298.0	442.0	325.0	260	192	243.0	2xM50x1.5	767	756
LG225ZM	1 119.0	1 358.0	442.0	325.0	260	192	243.0	2xM50x1.5	825	814
LG250M	1 152.5	1 377.5	495.0	392.0	300	236	278.5	2xM63x1.5	869	858
LG250ZM	1 222.5	1 448.0	495.0	392.0	300	236	278.5	2xM63x1.5	972	961
K4-LGI280S	1 431.5	1 658.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 089
K4-LGI280M	1 431.5	1 658.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 101
K4-LGI280ZM	1 541.5	1 768.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 189

④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDF/FZF168B (3- / 2-stage), flange-mounted design (A-type)

FF012



Motor	F.F168B k	kB	AC	AD	AG	LL	HH	O	Weight FDF168B	Weight FZF168B
LA132S	823.5	925.5	259.0	195.0	140	140	137.0	2xM32x1.5	533	522
LA132M	823.5	925.5	259.0	195.0	140	140	137.0	2xM32x1.5	533	522
LA132ZM	869.5	971.5	259.0	195.0	140	140	137.0	2xM32x1.5	542	531
LA160M	923.5	1 042.0	313.5	227.0	165	165	160.0	2xM40x1.5	567	556
LA160L	923.5	1 042.0	313.5	227.0	165	165	160.0	2xM40x1.5	567	556
LG180M	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	663	651
LG180ZM	1 034.0	1 156.0	348.0	322.5	260	192	177.0	2xM40x1.5	693	681
LG180L	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	663	651
LG180ZL	1 034.0	1 156.0	348.0	322.5	260	192	177.0	2xM40x1.5	693	681
LG200L	1 039.0	1 165.0	385.0	301.0	260	192	207.0	2xM50x1.5	743	731
LG225S	1 110.0	1 349.0	442.0	325.0	260	192	243.0	2xM50x1.5	816	805
LG225M	1 110.0	1 349.0	442.0	325.0	260	192	243.0	2xM50x1.5	804	793
LG225ZM	1 170.0	1 409.0	442.0	325.0	260	192	243.0	2xM50x1.5	862	851
LG250M	1 203.5	1 428.5	495.0	392.0	300	236	278.5	2xM63x1.5	906	895
LG250ZM	1 273.5	1 499.0	495.0	392.0	300	236	278.5	2xM63x1.5	1 009	998
K4-LGI280S	1 482.5	1 709.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 125
K4-LGI280M	1 482.5	1 709.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 138
K4-LGI280ZM	1 592.5	1 819.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 226

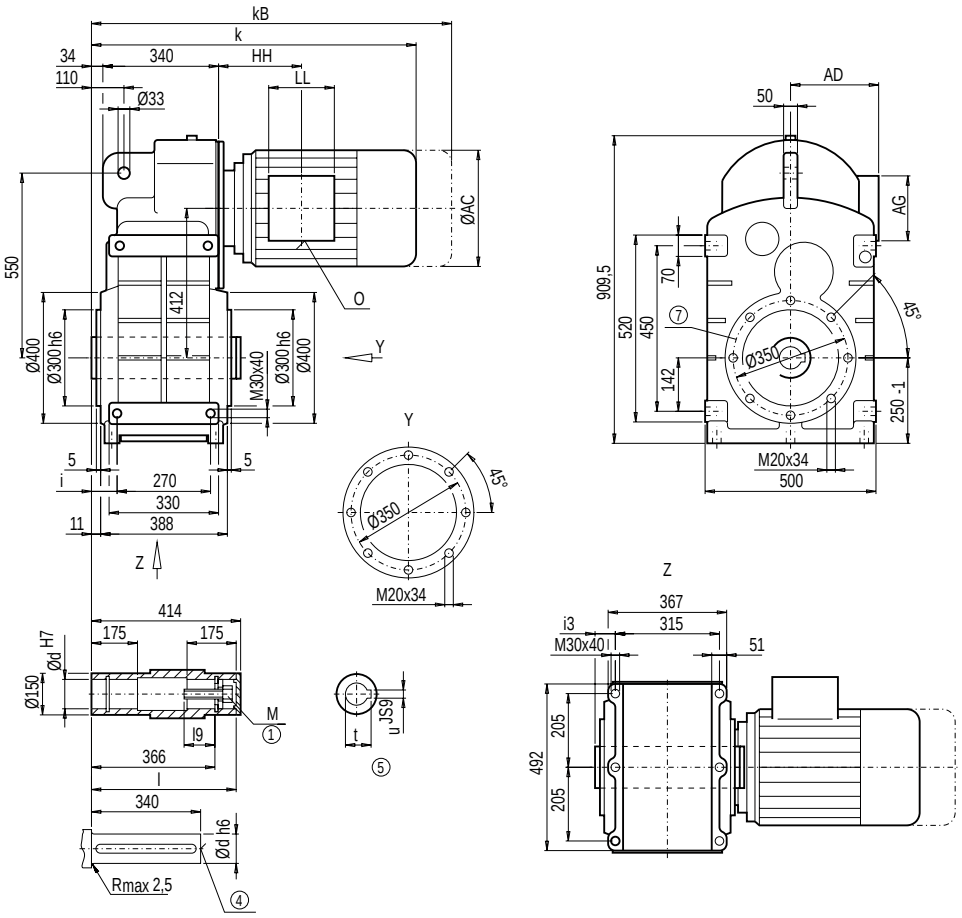
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA168B, FDAZ/FZAZ168B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



d	l	l9	M	t	u	i	i3
100 *)	410	72	M24	106.4	28	70	42
110	410	73	M24	116.4	28	70	42

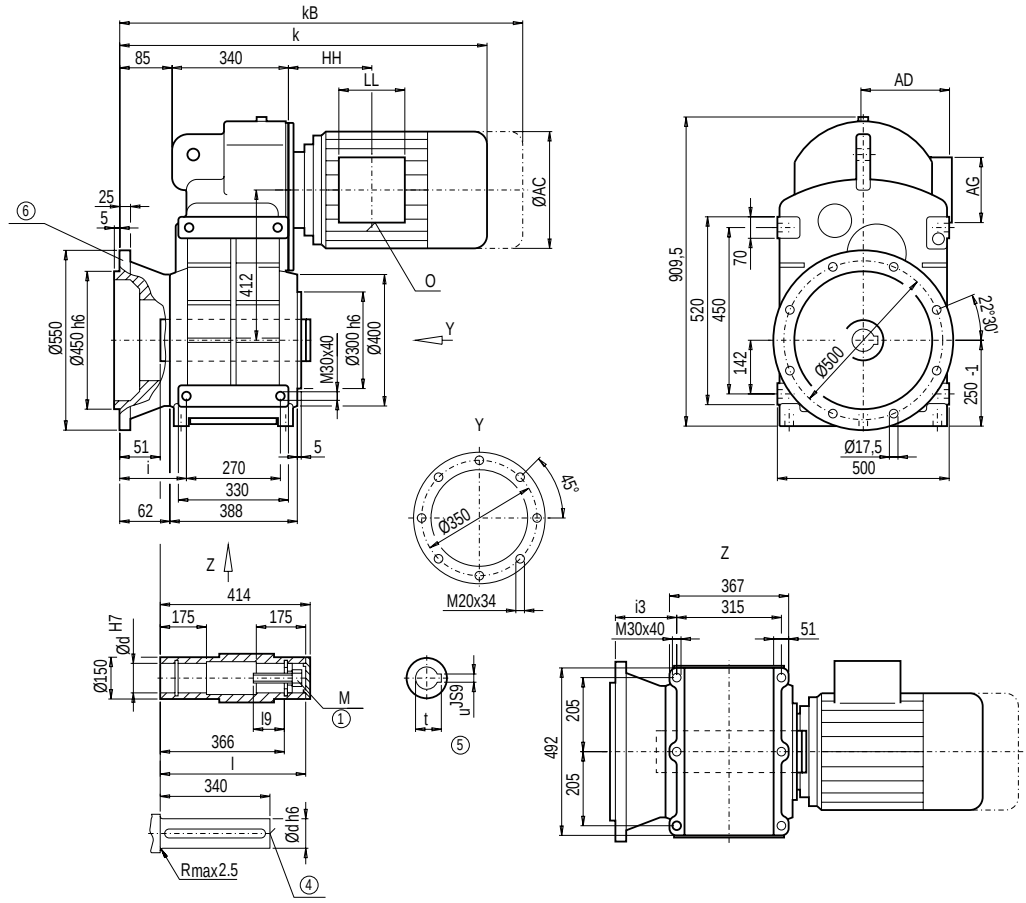
*) Preferred series

	F.A.168B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.168B**	**FZA.168B**
LA132S	772.5	874.5	259.0	195.0	140	140	137.0	2xM32x1.5	451	440
LA132M	772.5	874.5	259.0	195.0	140	140	137.0	2xM32x1.5	451	440
LA132ZM	818.5	920.5	259.0	195.0	140	140	137.0	2xM32x1.5	460	449
LA160M	872.5	991.0	313.5	227.0	165	165	160.0	2xM40x1.5	485	474
LA160L	872.5	991.0	313.5	227.0	165	165	160.0	2xM40x1.5	485	474
LG180M	932.0	1 054.0	348.0	322.5	260	192	177.0	2xM40x1.5	581	569
LG180ZM	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	611	599
LG180L	932.0	1 054.0	348.0	322.5	260	192	177.0	2xM40x1.5	581	569
LG180ZL	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	611	599
LG200L	988.0	1 114.0	385.0	301.0	260	192	207.0	2xM50x1.5	661	649
LG225S	1 060.5	on request	442.0	325.0	260	192	243.0	2xM50x1.5	734	723
LG225M	1 060.5		442.0	325.0	260	192	243.0	2xM50x1.5	722	711
LG225ZM	1 120.5		442.0	325.0	260	192	243.0	2xM50x1.5	780	769
LG250M	1 155.5		495.0	392.0	300	236	278.5	2xM63x1.5	824	813
LG250ZM	1 225.5		495.0	392.0	300	236	278.5	2xM63x1.5	927	916
K4-LGI280S	1 431.5		555.0	432.0	300	236	252.5	2xM63x1.5	–	1 044
K4-LGI280M	1 431.5		555.0	432.0	300	236	252.5	2xM63x1.5	–	1 056
K4-LGI280ZM	1 541.5		555.0	432.0	300	236	252.5	2xM63x1.5	–	1 144

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Gearbox FDAF/FZAF168B (3- / 2-stage), shaft-mounted design with flange

FAF012



d	l	l9	M	t	u	i	i3
100 *)	410	72	M24	106.4	28	121	93
110	410	73	M24	116.4	28	121	93

*) Preferred series

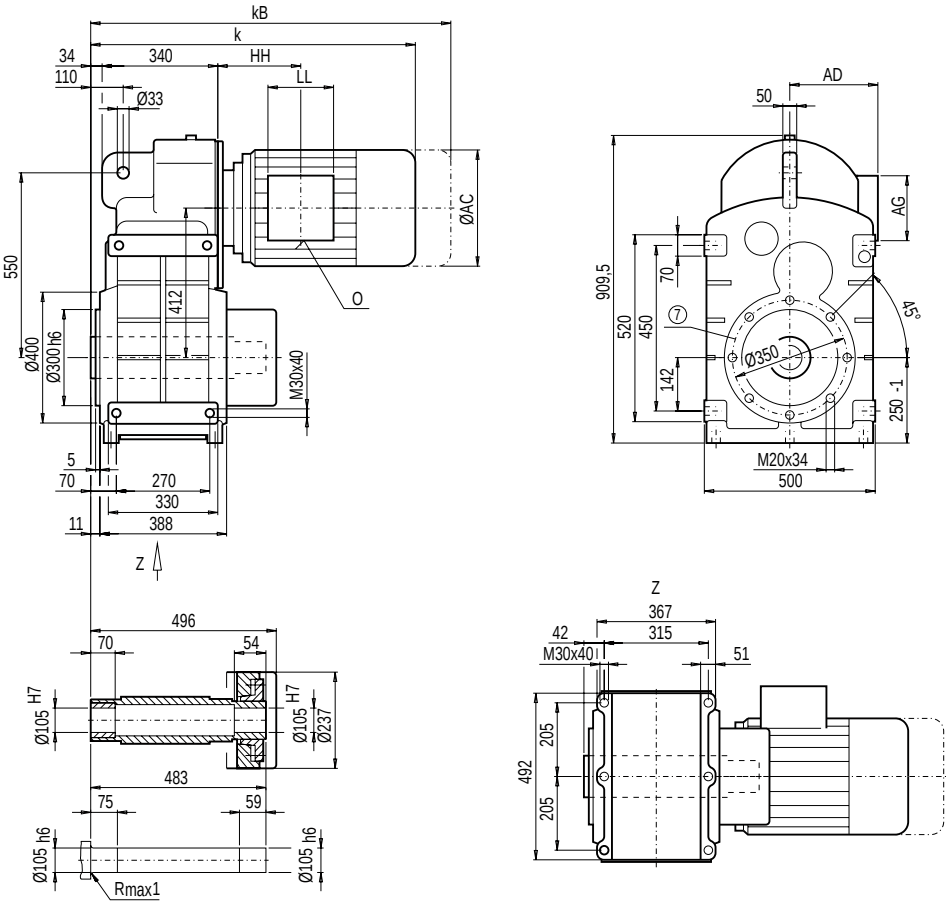
	F.AF168B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDAF168B**	**FZAF168B**
LA132S	823.5	925.5	259.0	195.0	140	140	137.0	2xM32x1.5	488	477
LA132M	823.5	925.5	259.0	195.0	140	140	137.0	2xM32x1.5	488	477
LA132ZM	869.5	971.5	259.0	195.0	140	140	137.0	2xM32x1.5	497	486
LA160M	923.5	1 042.0	313.5	227.0	165	165	160.0	2xM40x1.5	522	511
LA160L	923.5	1 042.0	313.5	227.0	165	165	160.0	2xM40x1.5	522	511
LG180M	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	618	606
LG180ZM	1 034.0	1 156.0	348.0	322.5	260	192	177.0	2xM40x1.5	648	636
LG180L	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	618	606
LG180ZL	1 034.0	1 156.0	348.0	322.5	260	192	177.0	2xM40x1.5	648	636
LG200L	1 039.0	1 165.0	385.0	301.0	260	192	207.0	2xM50x1.5	698	686
LG225S	1 110.0	1 349.0	442.0	325.0	260	192	243.0	2xM50x1.5	771	760
LG225M	1 110.0	1 349.0	442.0	325.0	260	192	243.0	2xM50x1.5	759	748
LG225ZM	1 170.0	1 409.0	442.0	325.0	260	192	243.0	2xM50x1.5	817	806
LG250M	1 203.5	1 428.5	495.0	392.0	300	236	278.5	2xM63x1.5	861	850
LG250ZM	1 273.5	1 499.0	495.0	392.0	300	236	278.5	2xM63x1.5	964	953
K4-LGI280S	1 482.5	1 709.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 081
K4-LGI280M	1 482.5	1 709.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 093
K4-LGI280ZM	1 592.5	1 819.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 181

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS168B, FDAZS/FZAZS168B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012

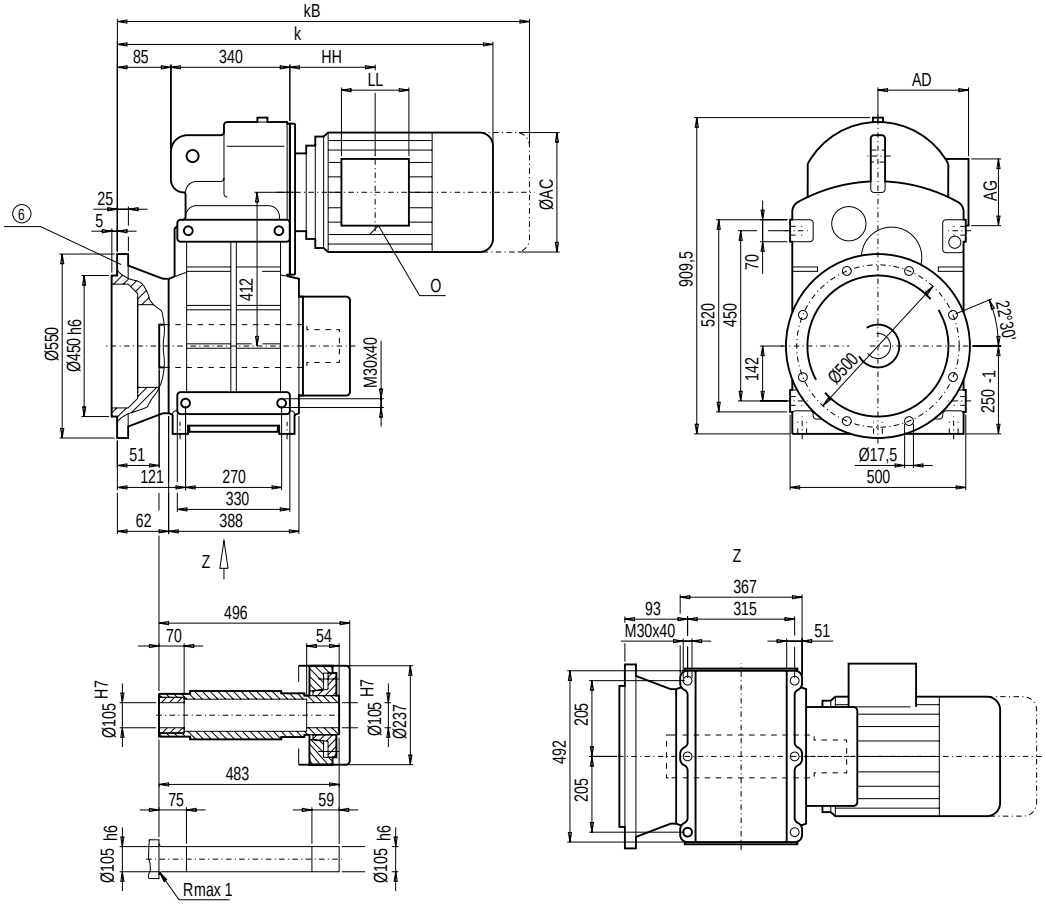


Motor	F.A.S168B k	kB	AC	AD	AG	LL	HH	O	Weight FDA.S168B	FZA.S168B
LA132S	772.5	874.5	259.0	195.0	140	140	137.0	2xM32x1.5	461	450
LA132M	772.5	874.5	259.0	195.0	140	140	137.0	2xM32x1.5	461	450
LA132ZM	818.5	920.5	259.0	195.0	140	140	137.0	2xM32x1.5	471	459
LA160M	872.5	991.0	313.5	227.0	165	165	160.0	2xM40x1.5	495	484
LA160L	872.5	991.0	313.5	227.0	165	165	160.0	2xM40x1.5	495	484
LG180M	932.0	1 054.0	348.0	322.5	260	192	177.0	2xM40x1.5	591	580
LG180ZM	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	621	610
LG180L	932.0	1 054.0	348.0	322.5	260	192	177.0	2xM40x1.5	591	580
LG180ZL	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	621	610
LG200L	988.0	1 114.0	385.0	301.0	260	192	207.0	2xM50x1.5	671	660
LG225S	1 059.0	1 298.0	442.0	325.0	260	192	243.0	2xM50x1.5	744	733
LG225M	1 059.0	1 298.0	442.0	325.0	260	192	243.0	2xM50x1.5	732	721
LG225ZM	1 119.0	1 358.0	442.0	325.0	260	192	243.0	2xM50x1.5	790	779
LG250M	1 152.5	1 377.5	495.0	392.0	300	236	278.5	2xM63x1.5	834	823
LG250ZM	1 222.5	1 448.0	495.0	392.0	300	236	278.5	2xM63x1.5	937	926
K4-LGI280S	1 431.5	1 658.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 054
K4-LGI280M	1 431.5	1 658.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 066
K4-LGI280ZM	1 541.5	1 768.5	555.0	432.0	300	236	252.5	2xM63x1.5	–	1 154

⑦ For note, see page 3/184

Gearbox FDAFS/FZAFS168B (3- / 2-stage), shaft-mounted design with flange

FAFS012



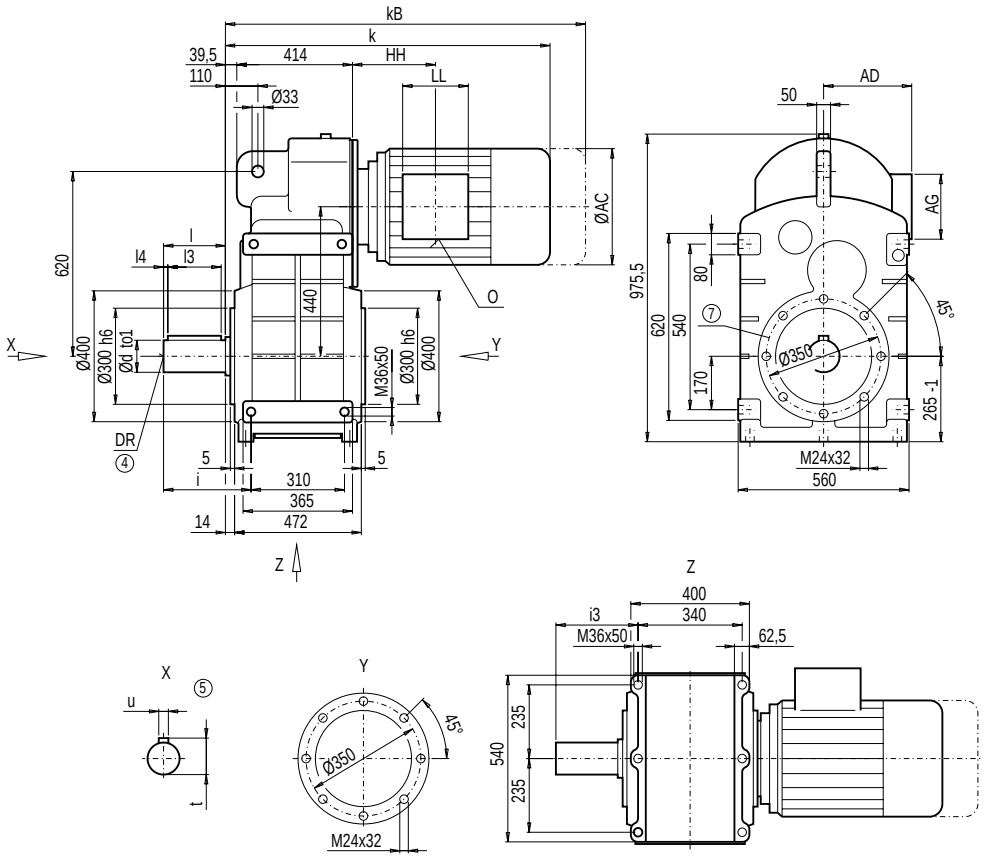
Motor	F.AFS168B k	kB	AC	AD	AG	LL	HH	O	Weight FDAFS168B	FZAFS168B
LA132S	823.5	925.5	259.0	195.0	140	140	137.0	2xM32x1.5	498	487
LA132M	823.5	925.5	259.0	195.0	140	140	137.0	2xM32x1.5	498	487
LA132ZM	869.5	971.5	259.0	195.0	140	140	137.0	2xM32x1.5	507	496
LA160M	923.5	1 042.0	313.5	227.0	165	165	160.0	2xM40x1.5	532	521
LA160L	923.5	1 042.0	313.5	227.0	165	165	160.0	2xM40x1.5	532	521
LG180M	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	628	616
LG180ZM	1 034.0	1 156.0	348.0	322.5	260	192	177.0	2xM40x1.5	658	646
LG180L	983.0	1 105.0	348.0	322.5	260	192	177.0	2xM40x1.5	628	616
LG180ZL	1 034.0	1 156.0	348.0	322.5	260	192	177.0	2xM40x1.5	658	646
LG200L	1 039.0	1 165.0	385.0	301.0	260	192	207.0	2xM50x1.5	708	696
LG225S	1 110.0	1 349.0	442.0	325.0	260	192	243.0	2xM50x1.5	781	770
LG225M	1 110.0	1 349.0	442.0	325.0	260	192	243.0	2xM50x1.5	769	758
LG225ZM	1 170.0	1 409.0	442.0	325.0	260	192	243.0	2xM50x1.5	827	816
LG250M	1 203.5	1 428.5	495.0	392.0	300	236	278.5	2xM63x1.5	871	860
LG250ZM	1 273.5	1 499.0	495.0	392.0	300	236	278.5	2xM63x1.5	974	963
K4-LGI280S	1 482.5	1 709.5	540.0	432.0	300	236	252.5	2xM63x1.5	–	1 091
K4-LGI280M	1 482.5	1 709.5	540.0	432.0	300	236	252.5	2xM63x1.5	–	1 103
K4-LGI280ZM	1 592.5	1 819.5	540.0	432.0	300	236	252.5	2xM63x1.5	–	1 191

⑥ For note, see page 3/183

Dimensions

Gearbox FDZ/FZZ188B (3- / 2-stage), housing-flange-mounted design (C-type)

FZ012



d	to1	l	l3	l4	t	u	i	i3	DR
120 *)	m6	210	180	15	127	32	305	290	M24x50
140	m6	250	220	10	148	36	345	330	M24x50

*) Preferred series

Gearbox FDZ/FZZ188B (3- / 2-stage), housing-flange-mounted design (C-type) (continued)

FZ012

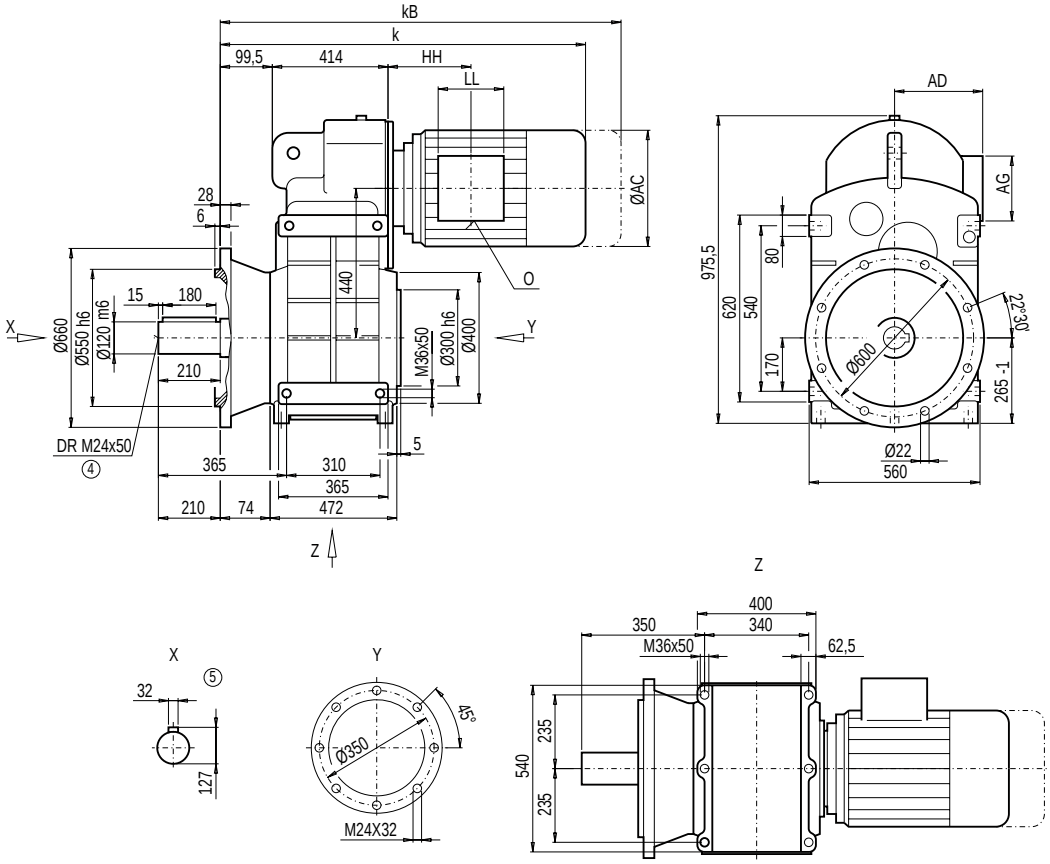
	F.Z188B								Weight	
Motor	k	kB	AC	AD	AG	LL	HH	O	FDZ188B	FZZ188B
LA132S	837.5	939.5	259.0	195.0	140	140	122.5	2xM32x1.5	685	–
LA132M	837.5	939.5	259.0	195.0	140	140	122.5	2xM32x1.5	685	–
LA132ZM	883.5	985.5	259.0	195.0	140	140	122.5	2xM32x1.5	694	–
LA160M	937.5	1 056.0	313.5	227.0	165	165	145.5	2xM40x1.5	718	704
LA160L	937.5	1 056.0	313.5	227.0	165	165	145.5	2xM40x1.5	718	704
LG180M	997.0	1 119.0	348.0	322.5	260	192	162.5	2xM40x1.5	814	799
LG180ZM	1 048.0	1 170.0	348.0	322.5	260	192	162.5	2xM40x1.5	844	829
LG180L	997.0	1 119.0	348.0	322.5	260	192	162.5	2xM40x1.5	814	799
LG180ZL	1 048.0	1 170.0	348.0	322.5	260	192	162.5	2xM40x1.5	844	829
LG200L	1 053.0	1 179.0	385.0	301.0	260	192	192.5	2xM50x1.5	894	879
LG225S	1 124.0	1 363.0	442.0	325.0	260	192	228.5	2xM50x1.5	967	952
LG225M	1 124.0	1 363.0	442.0	325.0	260	192	228.5	2xM50x1.5	955	940
LG225ZM	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 013	998
LG250M	1 217.5	1 442.5	495.0	392.0	300	236	264.0	2xM63x1.5	1 057	1 042
LG250ZM	1 287.5	1 513.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 160	1 145
K4-LGI280S	1 497.0	1 724.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 185	1 171
K4-LGI280M	1 497.0	1 724.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 291	1 276
K4-LGI280ZM	1 607.0	1 834.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 379	1 364
K2-LGI315S	1 685.0	1 950.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 471
K2-LGI315M	1 685.0	1 950.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 551
K2-LGI315L	1 845.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 696
K2-LGI315ZL	1 985.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	2 098

④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Dimensions

Gearbox FDF/FZF188B (3- / 2-stage), flange-mounted design (A-type)

FF012



Gearbox FDF/FZF188B (3- / 2-stage), flange-mounted design (A-type) (continued)

FF012

	F.F188B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDF188B**	**FZF188B**
LA132S	897.5	999.5	259.0	195.0	140	140	122.5	2xM32x1.5	740	–
LA132M	897.5	999.5	259.0	195.0	140	140	122.5	2xM32x1.5	740	–
LA132ZM	943.5	1 045.5	259.0	195.0	140	140	122.5	2xM32x1.5	749	–
LA160M	997.5	1 116.0	313.5	227.0	165	165	145.5	2xM40x1.5	773	759
LA160L	997.5	1 116.0	313.5	227.0	165	165	145.5	2xM40x1.5	773	759
LG180M	1 057.0	1 179.0	348.0	322.5	260	192	162.5	2xM40x1.5	869	854
LG180ZM	1 108.0	1 230.0	348.0	322.5	260	192	162.5	2xM40x1.5	899	884
LG180L	1 057.0	1 179.0	348.0	322.5	260	192	162.5	2xM40x1.5	869	854
LG180ZL	1 108.0	1 230.0	348.0	322.5	260	192	162.5	2xM40x1.5	899	884
LG200L	1 113.0	1 239.0	385.0	301.0	260	192	192.5	2xM50x1.5	949	934
LG225S	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 022	1 007
LG225M	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 010	995
LG225ZM	1 244.0	1 483.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 068	1 053
LG250M	1 277.5	1 502.5	495.0	392.0	300	236	264.0	2xM63x1.5	1 112	1 097
LG250ZM	1 347.5	1 573.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 215	1 200
K4-LGI280S	1 557.0	1 784.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 240	1 226
K4-LGI280M	1 557.0	1 784.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 346	1 331
K4-LGI280ZM	1 667.0	1 894.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 434	1 419
K2-LGI315S	1 745.0	2 010.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 526
K2-LGI315M	1 745.0	2 010.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 606
K2-LGI315L	1 905.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 751
K2-LGI315ZL	2 045.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	2 153

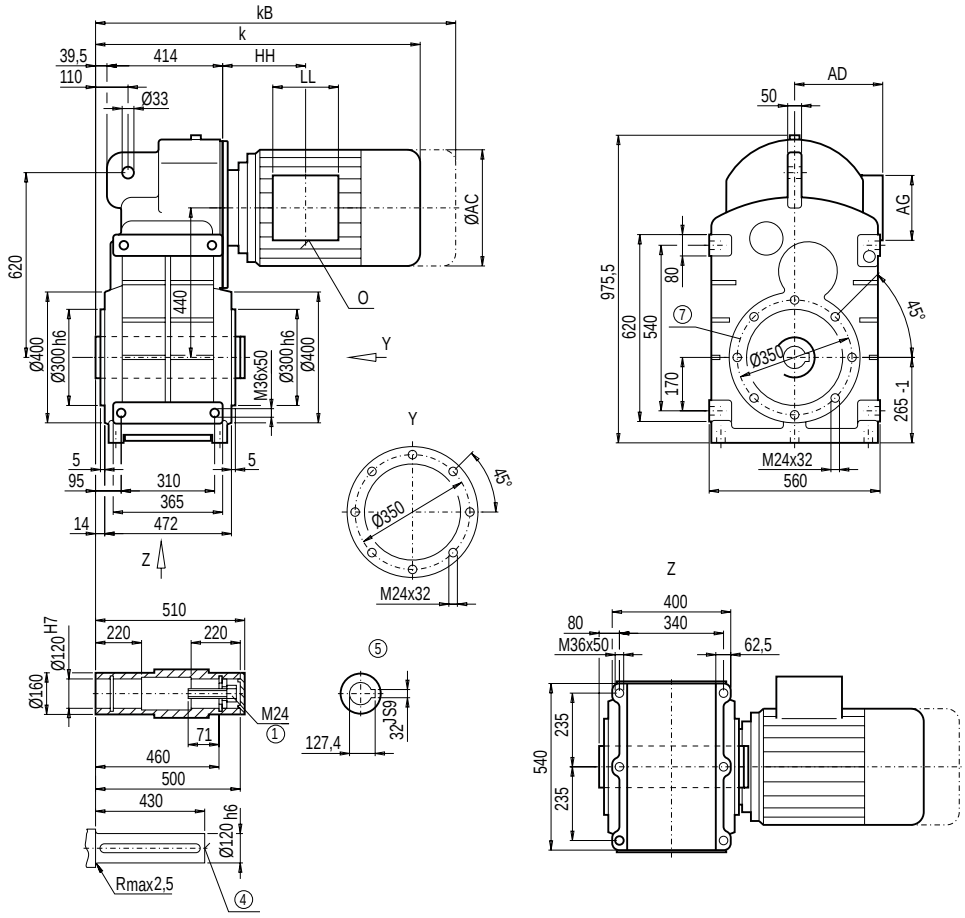
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDA/FZA188B, FDAZ/FZAZ188B (3- / 2-stage), housing-flange-mounted design (C-type)

FA012
FAZ012



Gearbox FDA/FZA188B, FDAZ/FZAZ188B (3- / 2-stage), housing-flange-mounted design (C-type) (continued)

FA012
FAZ012

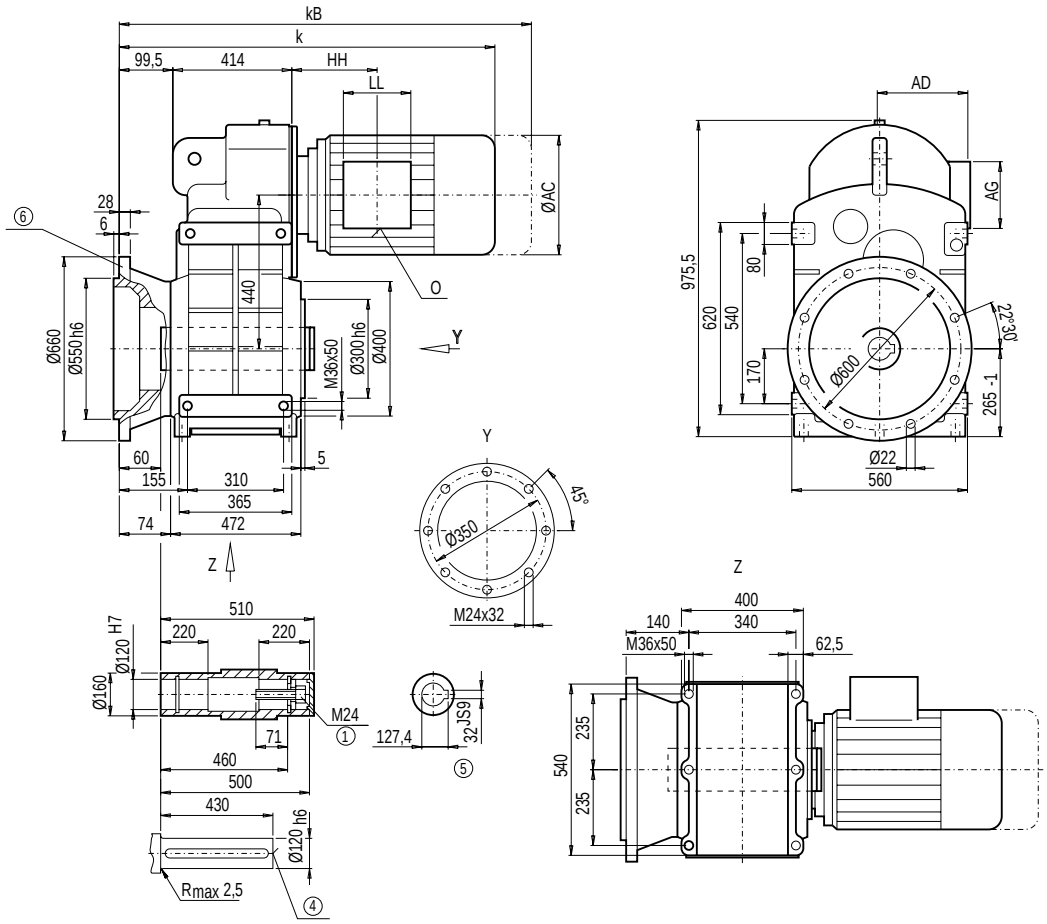
	F.A.188B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.188B**	**FZA.188B**
LA132S	837.5	939.5	259.0	195.0	140	140	122.5	2xM32x1.5	622	–
LA132M	837.5	939.5	259.0	195.0	140	140	122.5	2xM32x1.5	622	–
LA132ZM	883.5	985.5	259.0	195.0	140	140	122.5	2xM32x1.5	631	–
LA160M	937.5	1 056.0	313.5	227.0	165	165	145.5	2xM40x1.5	655	641
LA160L	937.5	1 056.0	313.5	227.0	165	165	145.5	2xM40x1.5	655	641
LG180M	997.0	1 119.0	348.0	322.5	260	192	162.5	2xM40x1.5	751	736
LG180ZM	1 048.0	1 170.0	348.0	322.5	260	192	162.5	2xM40x1.5	781	766
LG180L	997.0	1 119.0	348.0	322.5	260	192	162.5	2xM40x1.5	751	736
LG180ZL	1 048.0	1 170.0	348.0	322.5	260	192	162.5	2xM40x1.5	781	766
LG200L	1 053.0	1 179.0	385.0	301.0	260	192	192.5	2xM50x1.5	831	816
LG225S	1 124.0	1 363.0	442.0	325.0	260	192	228.5	2xM50x1.5	904	889
LG225M	1 124.0	1 363.0	442.0	325.0	260	192	228.5	2xM50x1.5	892	877
LG225ZM	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	950	935
LG250M	1 217.5	1 442.5	495.0	392.0	300	236	264.0	2xM63x1.5	994	979
LG250ZM	1 287.5	1 513.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 097	1 082
K4-LGI280S	1 497.0	1 724.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 122	1 108
K4-LGI280M	1 497.0	1 724.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 228	1 213
K4-LGI280ZM	1 607.0	1 834.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 316	1 301
K2-LGI315S	1 685.0	1 950.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 408
K2-LGI315M	1 685.0	1 950.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 488
K2-LGI315L	1 845.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 633
K2-LGI315ZL	1 985.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	2 035

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑦ For note, see page 3/184

Dimensions

Gearbox FDAF/FZAF188B (3- / 2-stage), shaft-mounted design with flange

FAF012



Gearbox FDAF/FZAF188B (3- / 2-stage), shaft-mounted design with flange (continued)

FAF012

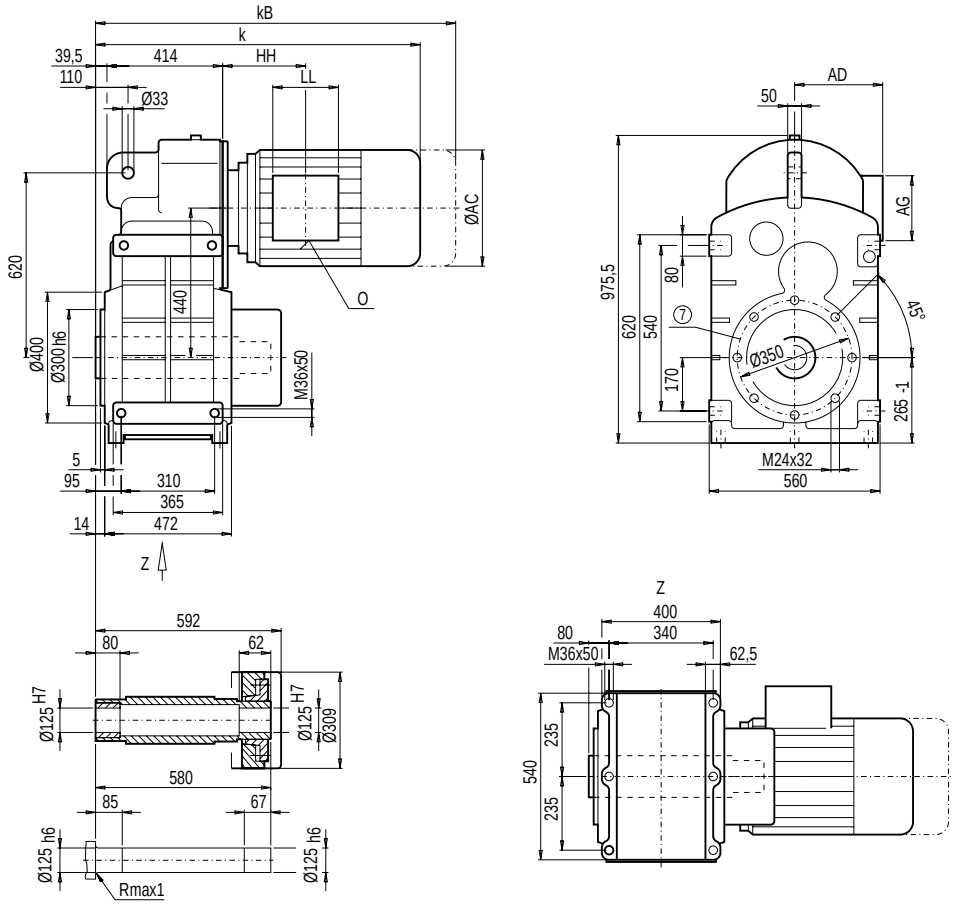
	F.AF188B								Weight	
Motor	k	kB	AC	AD	AG	LL	HH	O	FDAF188B	FZAF188B
LA132S	897.5	999.5	259.0	195.0	140	140	122.5	2xM32x1.5	677	–
LA132M	897.5	999.5	259.0	195.0	140	140	122.5	2xM32x1.5	677	–
LA132ZM	943.5	1 045.5	259.0	195.0	140	140	122.5	2xM32x1.5	686	–
LA160M	997.5	1 116.0	313.5	227.0	165	165	145.5	2xM40x1.5	710	696
LA160L	997.5	1 116.0	313.5	227.0	165	165	145.5	2xM40x1.5	710	696
LG180M	1 057.0	1 179.0	348.0	322.5	260	192	162.5	2xM40x1.5	806	791
LG180ZM	1 108.0	1 230.0	348.0	322.5	260	192	162.5	2xM40x1.5	836	821
LG180L	1 057.0	1 179.0	348.0	322.5	260	192	162.5	2xM40x1.5	806	791
LG180ZL	1 108.0	1 230.0	348.0	322.5	260	192	162.5	2xM40x1.5	836	821
LG200L	1 113.0	1 239.0	385.0	301.0	260	192	192.5	2xM50x1.5	886	871
LG225S	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	959	944
LG225M	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	947	932
LG225ZM	1 244.0	1 483.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 005	990
LG250M	1 277.5	1 502.5	495.0	392.0	300	236	264.0	2xM63x1.5	1 051	1 034
LG250ZM	1 347.5	1 573.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 152	1 137
K4-LGI280S	1 557.0	1 784.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 177	1 163
K4-LGI280M	1 557.0	1 784.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 283	1 268
K4-LGI280ZM	1 667.0	1 894.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 371	1 356
K2-LGI315S	1 745.0	2 010.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 463
K2-LGI315M	1 745.0	2 010.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 543
K2-LGI315L	1 905.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 688
K2-LGI315ZL	2 045.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	2 090

① DIN EN ISO 4014 ④ DIN 332 ⑤ Feather key / keyway DIN 6885 ⑥ For note, see page 3/183

Dimensions

Gearbox FDAS/FZAS188B, FDAZS/FZAZS188B (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012



Gearbox FDAS/FZAS188B, FDAZS/FZAZS188B (3- / 2-stage), shaft-mounted design with shrink disk (continued)

FAS012
FAZS012

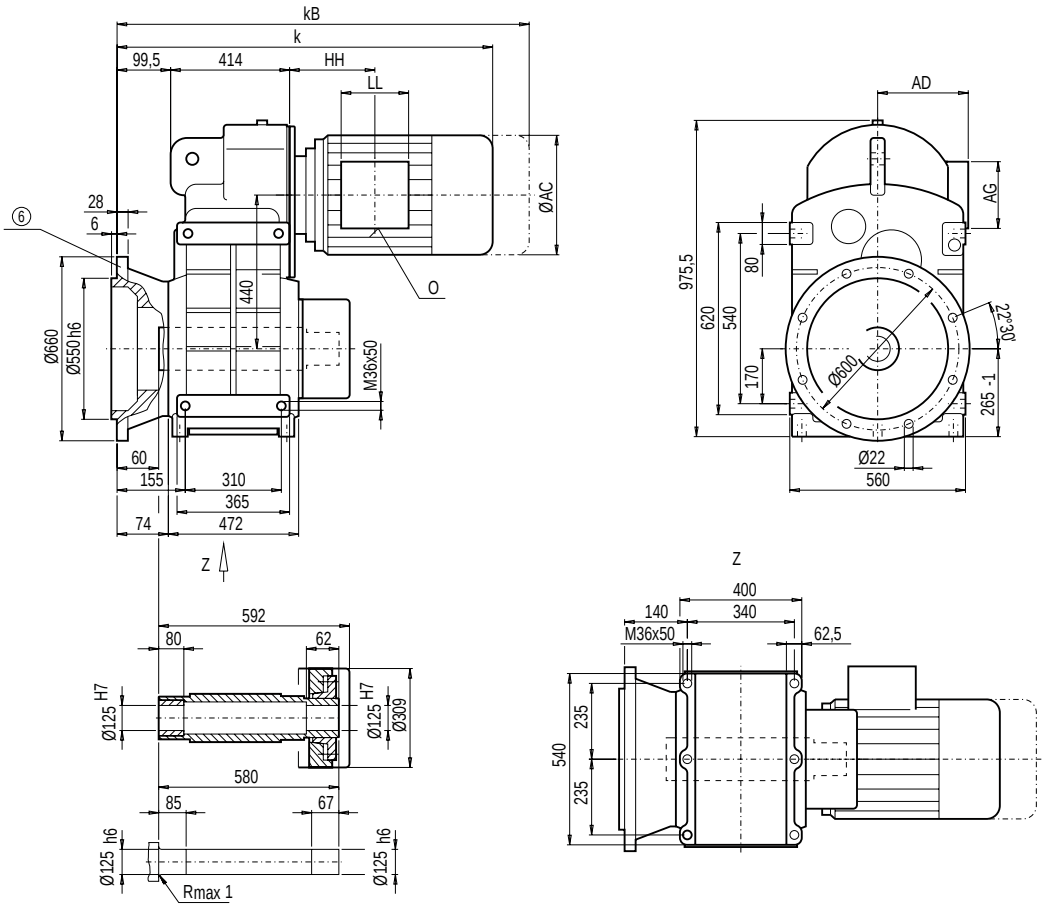
	F.A.S188B								Weight	
Motor	**k**	**kB**	**AC**	**AD**	**AG**	**LL**	**HH**	**O**	**FDA.S188B**	**FZA.S188B**
LA132S	837.5	939.5	259.0	195.0	140	140	122.5	2xM32x1.5	738	–
LA132M	837.5	939.5	259.0	195.0	140	140	122.5	2xM32x1.5	738	–
LA132ZM	883.5	985.5	259.0	195.0	140	140	122.5	2xM32x1.5	747	–
LA160M	937.5	1 056.0	313.5	227.0	165	165	145.5	2xM40x1.5	771	757
LA160L	937.5	1 056.0	313.5	227.0	165	165	145.5	2xM40x1.5	771	757
LG180M	997.0	1 119.0	348.0	322.5	260	192	162.5	2xM40x1.5	867	852
LG180ZM	1 048.0	1 170.0	348.0	322.5	260	192	162.5	2xM40x1.5	897	882
LG180L	997.0	1 119.0	348.0	322.5	260	192	162.5	2xM40x1.5	867	852
LG180ZL	1 048.0	1 170.0	348.0	322.5	260	192	162.5	2xM40x1.5	897	882
LG200L	1 053.0	1 179.0	385.0	301.0	260	192	192.5	2xM50x1.5	947	932
LG225S	1 124.0	1 363.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 020	1 005
LG225M	1 124.0	1 363.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 008	993
LG225ZM	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 066	1 051
LG250M	1 217.5	1 442.5	495.0	392.0	300	236	264.0	2xM63x1.5	1 110	1 095
LG250ZM	1 287.5	1 513.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 213	1 198
K4-LGI280S	1 497.0	1 724.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 238	1 224
K4-LGI280M	1 497.0	1 724.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 344	1 329
K4-LGI280ZM	1 607.0	1 834.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 432	1 417
K2-LGI315S	1 685.0	1 950.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 524
K2-LGI315M	1 685.0	1 950.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 604
K2-LGI315L	1 845.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 749
K2-LGI315ZL	1 985.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	2 151

⑦ For note, see page 3/184

Dimensions

Gearbox FDAFS/FZAFS188B (3- / 2-stage), shaft-mounted design with flange

FAFS012



Gearbox FDAFS/FZAFS188B (3- / 2-stage), shaft-mounted design with flange (continued)

FAFS012

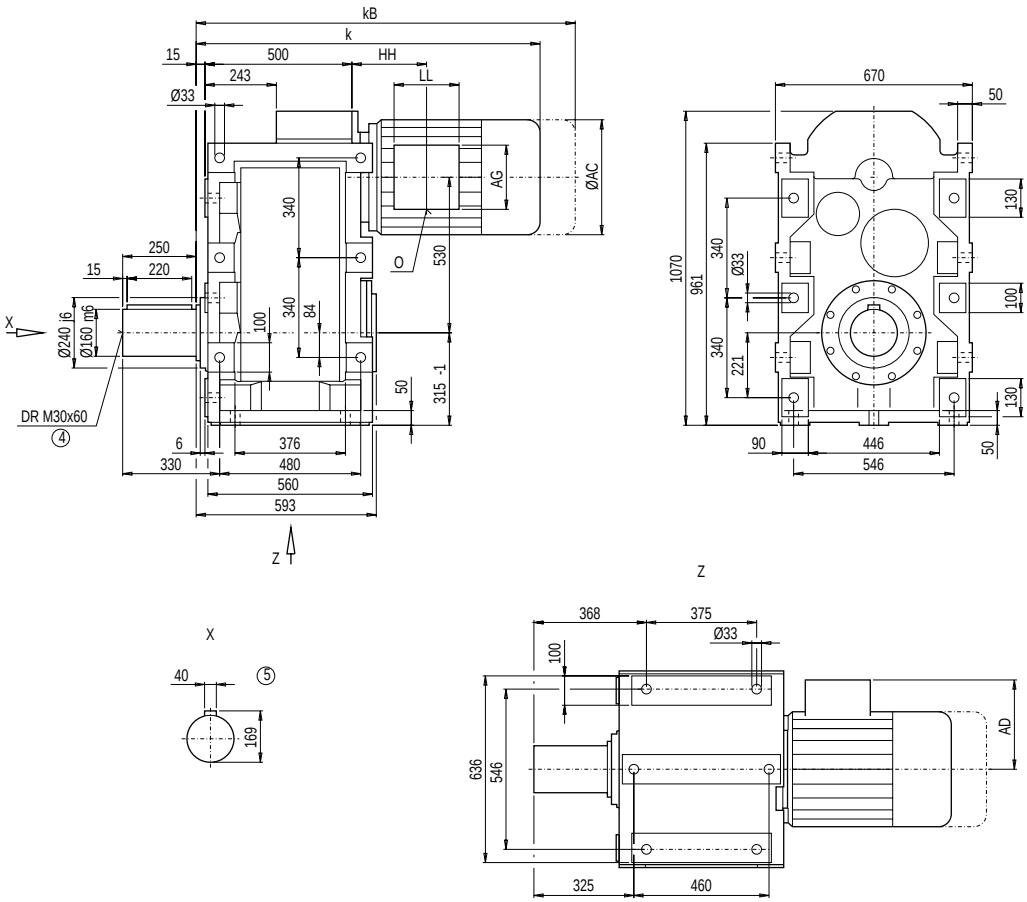
	F.AFS188B								Weight	
Motor	k	kB	AC	AD	AG	LL	HH	O	FDAFS188B	FZAFS188B
LA132S	897.5	999.5	259.0	195.0	140	140	122.5	2xM32x1.5	687	–
LA132M	897.5	999.5	259.0	195.0	140	140	122.5	2xM32x1.5	687	–
LA132ZM	943.5	1 045.5	259.0	195.0	140	140	122.5	2xM32x1.5	696	–
LA160M	997.5	1 116.0	313.5	227.0	165	165	145.5	2xM40x1.5	721	706
LA160L	997.5	1 116.0	313.5	227.0	165	165	145.5	2xM40x1.5	721	706
LG180M	1 057.0	1 179.0	348.0	322.5	260	192	162.5	2xM40x1.5	816	802
LG180ZM	1 108.0	1 230.0	348.0	322.5	260	192	162.5	2xM40x1.5	846	832
LG180L	1 057.0	1 179.0	348.0	322.5	260	192	162.5	2xM40x1.5	816	802
LG180ZL	1 108.0	1 230.0	348.0	322.5	260	192	162.5	2xM40x1.5	846	832
LG200L	1 113.0	1 239.0	385.0	301.0	260	192	192.5	2xM50x1.5	896	882
LG225S	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	969	954
LG225M	1 184.0	1 423.0	442.0	325.0	260	192	228.5	2xM50x1.5	957	942
LG225ZM	1 244.0	1 483.0	442.0	325.0	260	192	228.5	2xM50x1.5	1 015	1 000
LG250M	1 277.5	1 502.5	495.0	392.0	300	236	264.0	2xM63x1.5	1 059	1 044
LG250ZM	1 347.5	1 573.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 162	1 147
K4-LGI280S	1 557.0	1 784.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 187	1 173
K4-LGI280M	1 557.0	1 784.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 293	1 278
K4-LGI280ZM	1 667.0	1 894.0	555.0	432.0	300	236	252.5	2xM63x1.5	1 381	1 366
K2-LGI315S	1 745.0	2 010.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 473
K2-LGI315M	1 745.0	2 010.0	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 553
K2-LGI315L	1 905.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	1 698
K2-LGI315ZL	2 045.0	-	610.0	500.0	380	307	285.5	2xM63x1.5	–	2 100

⑥ For note, see page 3/183

Dimensions

Gearbox FD/FZ208, FDZ/FZZ208 (3- / 2-stage), housing-flange-mounted design (C-type)

F012
FZ012



Gearbox FD/FZ208, FDZ/FZZ208 (3- / 2-stage), housing-flange-mounted design (C-type) (continued)

F012
FZ012

	F..208								Weight	
Motor	k	kB	AC	AD	AG	LL	HH	O	FD.208	FZ.208
LA132S	899.0	1 001.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 124	1 094
LA132M	899.0	1 001.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 124	1 094
LA132ZM	945.0	1 047.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 133	1 103
LA160M	999.0	1 118.0	313.5	227.0	165	165	145.5	2xM40x1.5	1 158	1 128
LA160L	999.0	1 118.0	313.5	227.0	165	165	145.5	2xM40x1.5	1 158	1 128
LG180M	1 058.5	1 180.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 253	1 223
LG180ZM	1 108.5	1 230.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 283	1 253
LG180L	1 058.5	1 180.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 253	1 223
LG180ZL	1 108.5	1 230.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 283	1 253
LG200L	1 114.5	1 240.5	385.0	301.0	260	192	192.5	2xM50x1.5	1 333	1 303
LG225S	1 185.5	1 424.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 406	1 376
LG225M	1 185.5	1 424.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 394	1 364
LG225ZM	1 245.5	1 484.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 452	1 422
LG225YM	1 295.5	1 534.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 477	1 447
LG250M	1 279.0	1 504.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 496	1 466
LG250ZM	1 349.0	1 574.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 599	1 569
K4-LGI280S	1 558.0	1 785.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 625	1 595
K4-LGI280M	1 558.0	1 785.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 730	1 700
K4-LGI280ZM	1 668.0	1 895.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 818	1 788
K2-LGI315S	1 746.0	2 011.0	610.0	500.0	380	307	585.0	2xM63x1.5	1 925	1 895
K2-LGI315M	1 746.0	2 011.0	610.0	500.0	380	307	585.0	2xM63x1.5	2 005	1 975
K2-LGI315L	1 906.0	-	610.0	500.0	380	307	585.0	2xM63x1.5	2 150	2 120
K2-LGI315ZL	2 046.0	-	610.0	500.0	380	307	585.0	2xM63x1.5	2 552	2 522

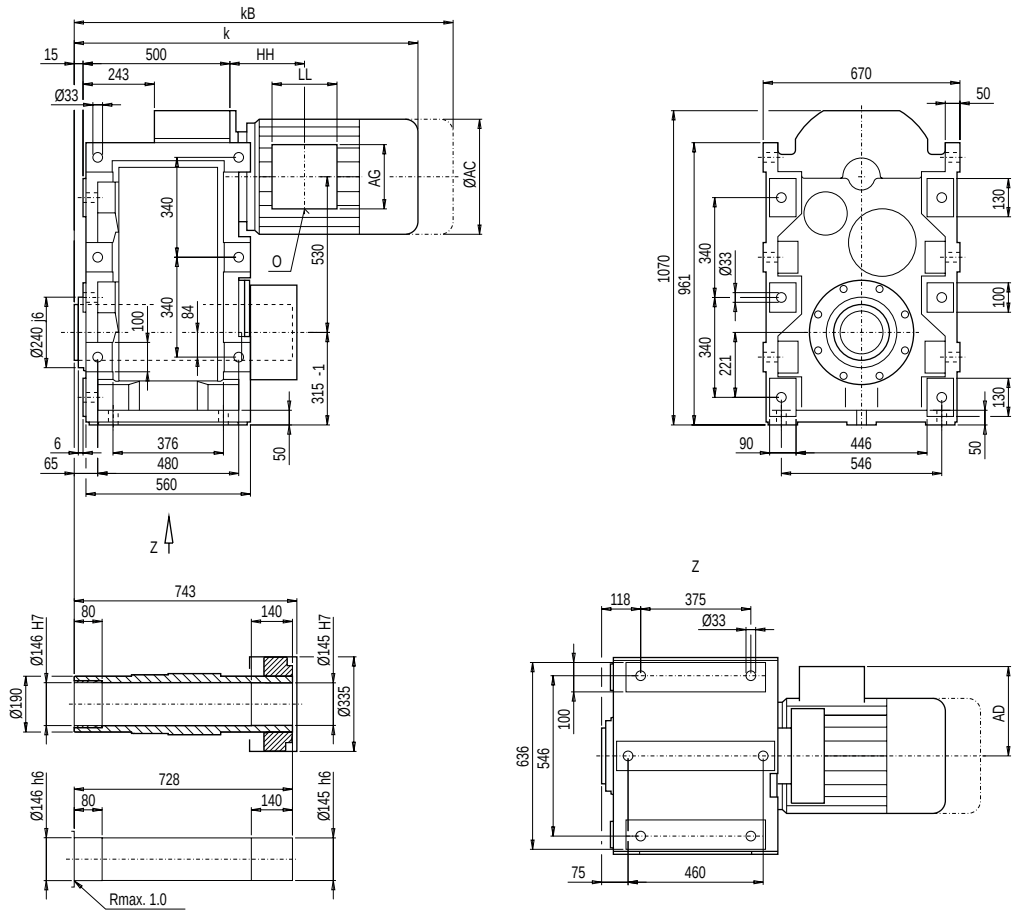
④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Gearbox FDAS/FZAS208, FDAZS/FZAZS208 (3- / 2-stage), shaft-mounted design with shrink disk

FAS012
FAZS012



Gearbox FDAS/FZAS208, FDAZS/FZAZS208 (3- / 2-stage), shaft-mounted design with shrink disk (continued)

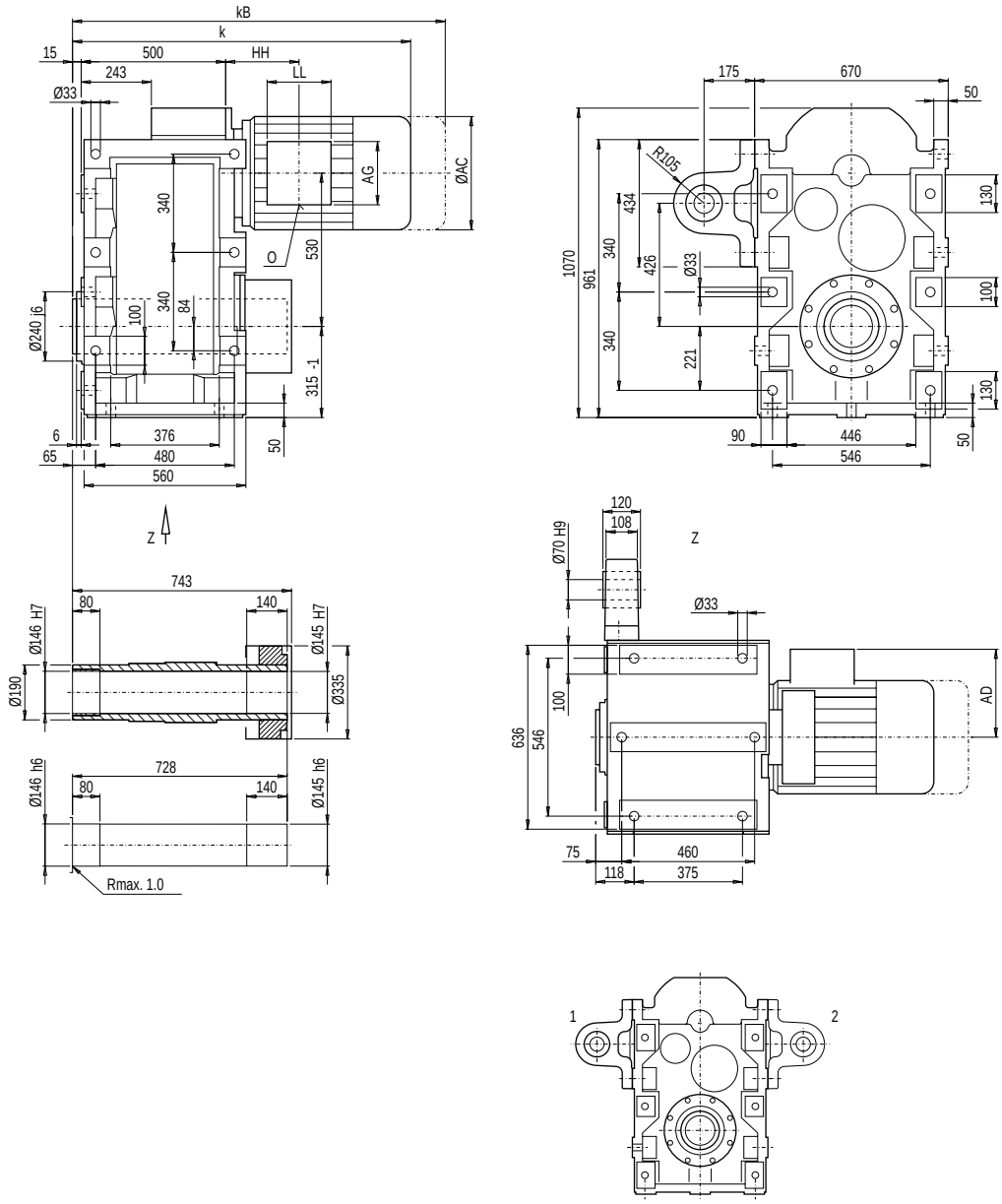
FAS012
FAZS012

	F.A.S208B								Weight	
Motor	k	kB	AC	AD	AG	LL	HH	O	FDA.S208	FZA.S208
LA132S	899.0	1 001.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 054	1 026
LA132M	899.0	1 001.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 054	1 026
LA132ZM	945.0	1 047.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 063	1 035
LA160M	999.0	1 118.0	313.5	227.0	165	165	145.5	2xM40x1.5	1 088	1 060
LA160L	999.0	1 118.0	313.5	227.0	165	165	145.5	2xM40x1.5	1 088	1 060
LG180M	1 058.5	1 180.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 183	1 155
LG180ZM	1 108.5	1 230.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 213	1 185
LG180L	1 058.5	1 180.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 183	1 155
LG180ZL	1 108.5	1 230.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 213	1 185
LG200L	1 114.5	1 240.5	385.0	301.0	260	192	192.5	2xM50x1.5	1 263	1 235
LG225S	1 185.5	1 424.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 336	1 308
LG225M	1 185.5	1 424.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 324	1 296
LG225ZM	1 245.5	1 484.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 382	1 354
LG225YM	1 295.5	1 534.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 407	1 379
LG250M	1 279.0	1 504.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 426	1 398
LG250ZM	1 349.0	1 574.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 529	1 501
K4-LGI280S	1 558.0	1 785.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 555	1 527
K4-LGI280M	1 558.0	1 785.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 660	1 632
K4-LGI280ZM	1 668.0	1 895.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 748	1 720
K2-LGI315S	1 746.0	2 011.0	610.0	500.0	380	307	585.0	2xM63x1.5	1 855	1 827
K2-LGI315M	1 746.0	2 011.0	610.0	500.0	380	307	585.0	2xM63x1.5	1 935	1 907
K2-LGI315L	1 906.0	-	610.0	500.0	380	307	585.0	2xM63x1.5	2 080	2 052
K2-LGI315ZL	2 046.0	-	610.0	500.0	380	307	585.0	2xM63x1.5	2 482	2 454

Dimensions

Gearbox FDADS/FZADS208 (3- / 2-stage), shaft-mounted design with torque arm

FADS012



Gearbox FDADS/FZADS208 (3- / 2-stage), shaft-mounted design with torque arm (continued)

FADS012

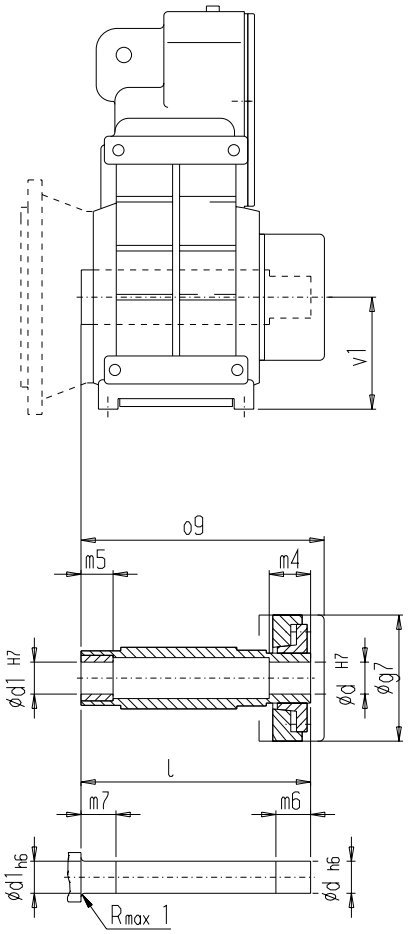
	F.ADS208								Weight	
Motor	k	kB	AC	AD	AG	LL	HH	O	FDADS208	FZADS208
LA132S	899.0	1 001.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 077	1 049
LA132M	899.0	1 001.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 077	1 049
LA132ZM	945.0	1 047.0	259.0	195.0	140	140	122.5	2xM32x1.5	1 086	1 058
LA160M	999.0	1 118.0	313.5	227.0	165	165	145.5	2xM40x1.5	1 111	1 083
LA160L	999.0	1 118.0	313.5	227.0	165	165	145.5	2xM40x1.5	1 111	1 083
LG180M	1 058.5	1 180.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 206	1 178
LG180ZM	1 108.5	1 230.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 236	1 208
LG180L	1 058.5	1 180.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 206	1 178
LG180ZL	1 108.5	1 230.5	348.0	322.5	260	192	162.5	2xM40x1.5	1 236	1 208
LG200L	1 114.5	1 240.5	385.0	301.0	260	192	192.5	2xM50x1.5	1 286	1 258
LG225S	1 185.5	1 424.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 359	1 331
LG225M	1 185.5	1 424.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 348	1 319
LG225ZM	1 245.5	1 484.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 405	1 377
LG225YM	1 295.5	1 534.5	442.0	325.0	260	192	228.5	2xM50x1.5	1 430	1 402
LG250M	1 279.0	1 504.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 449	1 421
LG250ZM	1 349.0	1 574.0	495.0	392.0	300	236	264.0	2xM63x1.5	1 552	1 524
K4-LGI280S	1 558.0	1 785.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 578	1 550
K4-LGI280M	1 558.0	1 785.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 683	1 655
K4-LGI280ZM	1 668.0	1 895.0	555.0	432.0	300	236	476.0	2xM63x1.5	1 771	1 743
K2-LGI315S	1 746.0	2 011.0	610.0	500.0	380	307	585.0	2xM63x1.5	1 878	1 850
K2-LGI315M	1 746.0	2 011.0	610.0	500.0	380	307	585.0	2xM63x1.5	1 958	1 930
K2-LGI315L	1 906.0	-	610.0	500.0	380	307	585.0	2xM63x1.5	2 103	2 075
K2-LGI315ZL	2 046.0	-	610.0	500.0	380	307	585.0	2xM63x1.5	2 505	2 477

Dimensions

Offset hollow shafts with shrink disk

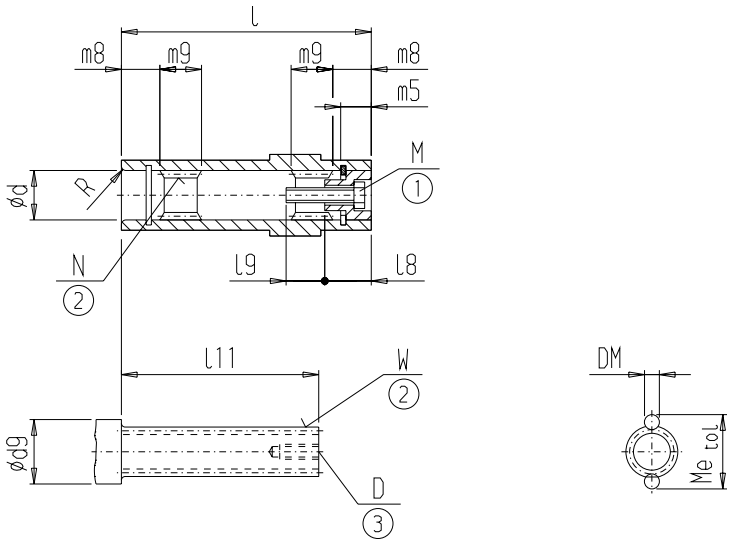
Optional hollow shafts for parallel shaft gearbox with shrink disk.

FA.S



Gearbox	d	d1	l	o9	m4	m5	m6	m7	g7	v1
F.AS/F.AFS38B	30	31	146	154	22	20	27	25	77	75
F.AS/F.AFS48B	40	41	177	184	25	20	30	25	93	93
F.AS/F.AFS68B	40	42	209	216	35	20	40	25	112	111
	50	51	209	216	27	20	32	25	112	111
F.AS/F.AFS88B	50	52	214	249	29	30	34	35	132	132
	60	61	241	249	29	30	34	35	132	132
F.AS/F.AFS108B	65	66	280	288	30	40	35	45	144	160
	70	71	280	288	30	40	35	45	144	160
F.AS/F.AFS128B	75	76	345	357	44	50	49	55	180	180
	80	81	345	357	40	50	45	55	180	180
F.AS/F.AFS148B	95	96	404	418	49	60	54	65	210	212
F.AS/F.AFS168B	105	106	483	496	54	70	59	75	237	250
F.AS/F.AFS188B	125	126	580	592	61	80	67	85	263	265

Shaft-mounted design with splined shaft in acc. with DIN 5480



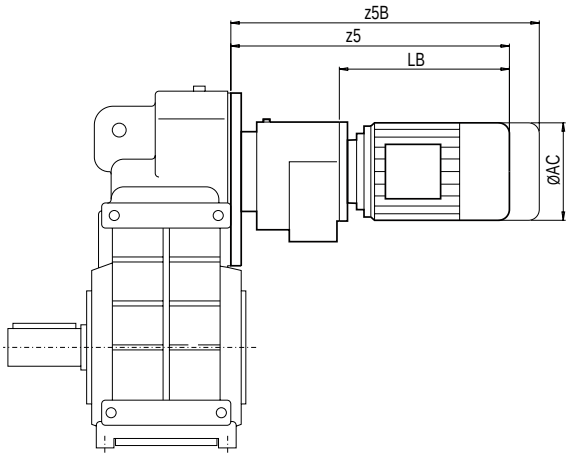
Gearbox	d	l	d9 min.	l11	W	D	R	m8	m9
F.A.T28	30	104	36	72	W25x1.25x30x18 8f	M10	R1.6	17.0	25
F.A.T38B	35	120	45	95	W35x1.25x30x26 8f	M10	R2	17.0	27
F.A.T48B	40	150	52	120	W40x2x30x18 8f	M12	R3	22.0	34
F.A.T68B	55	180	65	142	W50x2x30x24 8f	M16	R2	21.0	40
F.A.T88B	65	210	80	172	W60x2x30x28 8f	M16	R2	22.5	49
F.A.T108B	72	240	85	201	W70x2x30x34 8f	M20	R2	22.5	56
F.A.T128B	90	300	105	257	W80x3x30x25 8f	M20	R2	24.0	71
F.A.T148B	90	350	110	306	W90x3x30x28 8f	M20	R3	25.0	88
F.A.T168B	110	410	130	350	W110x3x30x35 8f	M24	R3	32.0	99
F.A.T188B	135	500	145	445	W130x5x30x24 8f	M24	R4	42.0	120

Gearbox	N	m5	l8	l9	M	DM	Me	tol
F.A.T28	N25x1.25x30x18 9H	9.0	17	31.8	M10x40	2.75	28.023	-0.049
F.A.T38B	N35x1.25x30x26 9H	12.0	18	27.0	M10x35	2.50	37.423	-0.041
F.A.T48B	N40x2x30x18 9H	14.0	20	37.0	M12x45	4.50	45.083	-0.043
F.A.T68B	N50x2x30x24 9H	16.0	23	49.5	M16x55	4.00	54.156	-0.049
F.A.T88B	N60x2x30x28 9H	16.5	26	46.5	M16x55	4.00	63.918	-0.053
F.A.T108B	N70x2x30x34 9H	16.5	28	51.0	M20x60	4.00	74.181	-0.057
F.A.T128B	N80x3x30x25 9H	17.0	31	46.0	M20x60	6.00	85.856	-0.053
F.A.T148B	N90x3x30x28 9H	17.0	31	51.0	M20x60	6.00	95.911	-0.053
F.A.T168B	N110x3x30x35 9H	20.0	41	65.5	M24x80	6.00	115.998	-0.061
F.A.T188B	N130x5x30x24 9H	20.0	50	35.5	M24x60	10.00	139.848	-0.061

① DIN 912 ② DIN 5480 ③ DIN 332-D

Dimensions

Parallel shaft tandem gearbox

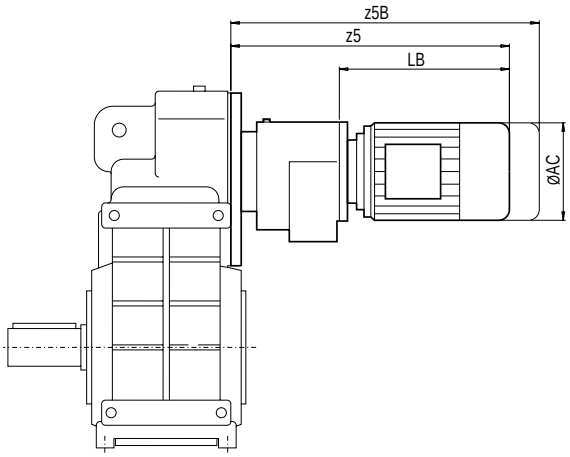


Gearbox	Motor	AC	z5	zB5	LB
FZ.38B-Z28	LA71	139	338.0	393.0	202.5
	LA71Z	139	357.0	412.0	221.5
	LA90S	174	435.0	506.0	299.5
	LA90L	174	435.0	506.0	299.5
	LA90ZL	174	480.0	551.0	344.5
	LA100L	195	517.0	598.0	381.5
FZ.38B-D28	LA71	139	338.0	393.0	202.5
	LA71Z	139	357.0	412.0	221.5
	LA90S	174	435.0	506.0	299.5
	LA90L	174	435.0	506.0	299.5
	LA90ZL	174	480.0	551.0	344.5
FD.48B-Z28	LA71	139	363.0	418.0	202.5
	LA71Z	139	382.0	437.0	221.5
	LA90S	174	460.0	531.0	299.5
	LA90L	174	460.0	531.0	299.5
	LA90ZL	174	505.0	576.0	344.5
	LA100L	195	542.0	623.0	381.5
FD.48B-D28	LA71	139	363.0	418.0	202.5
	LA71Z	139	382.0	437.0	221.5
	LA90S	174	460.0	531.0	299.5
	LA90L	174	460.0	531.0	299.5
	LA90ZL	174	505.0	576.0	344.5
FD.68B-Z28	LA71	139	357.5	412.5	202.5
	LA71Z	139	376.5	431.5	221.5
	LA90S	174	454.5	525.5	299.5
	LA90L	174	454.5	525.5	299.5
	LA90ZL	174	499.5	570.5	344.5
	LA100L	195	536.5	617.5	381.5
FD.68B-D28	LA71	139.0	357.5	412.5	202.5
	LA71Z	139.0	376.5	431.5	221.5
	LA90S	174.0	454.5	525.5	299.5
	LA90L	174.0	454.5	525.5	299.5
	LA90ZL	174.0	499.5	570.5	344.5
FD.88B-Z28	LA71	139.0	351.5	406.5	202.5
	LA71Z	139.0	370.5	425.5	221.5
	LA90S	174.0	448.5	519.5	299.5

Gearbox	Motor	AC	z5	zB5	LB
FD.88B-Z28	LA90L	174.0	448.5	519.5	299.5
	LA90ZL	174.0	493.5	564.5	344.5
	LA100L	195.0	530.5	611.5	381.5
FD.88B-D28	LA71	139.0	351.5	406.5	202.5
	LA71Z	139.0	370.5	425.5	221.5
	LA90S	174.0	448.5	519.5	299.5
	LA90L	174.0	448.5	519.5	299.5
	LA90ZL	174.0	493.5	564.5	344.5
FD.108B-Z38	LA71 [1]	139.0	465.5	520.5	258.5
	LA71Z [1]	139.0	484.5	539.5	277.5
	LA80 [1]	156.5	502.5	566.0	295.5
	LA90S [1]	174.0	533.5	604.5	326.5
	LA90L [1]	174.0	533.5	604.5	326.5
	LA100L [1]	195.0	579.5	660.5	372.5
	LA112M [1]	219.0	609.0	690.0	402.0
	LA71 [2]	139.0	476.0	531.0	258.5
	LA71Z [2]	139.0	495.0	550.0	277.5
	LA80 [2]	156.5	513.0	576.5	295.5
	LA90S [2]	174.0	544.0	615.0	326.5
	LA90L [2]	174.0	544.0	615.0	326.5
	LA100L [2]	195.0	590.0	671.0	372.5
	LA112M [2]	219.0	619.5	700.5	402.0
FD.108B-D38	LA71	139.0	480.5	535.5	273.5
	LA71Z	139.0	499.5	554.5	292.5
	LA80	156.5	517.5	581.0	310.5
	LA90S	174.0	548.5	619.5	341.5
	LA90L	174.0	548.5	619.5	341.5
FD.128B-Z38	LA71	139.0	458.5	513.5	258.5
	LA71Z	139.0	477.5	532.5	277.5
	LA80	156.5	495.5	559.0	295.5
	LA90S	174.0	526.5	597.5	326.5
	LA90L	174.0	526.5	597.5	326.5
	LA100L	195.0	572.5	653.5	372.5
	LA112M	219.0	602.0	683.0	402.0
FD.128B-D38	LA71	139.0	473.5	528.5	273.5
	LA71Z	139.0	492.5	547.5	292.5

1) $i_{tot} \geq 1647$ 2) $i_{tot} < 1647$

Parallel shaft tandem gearbox (continued)

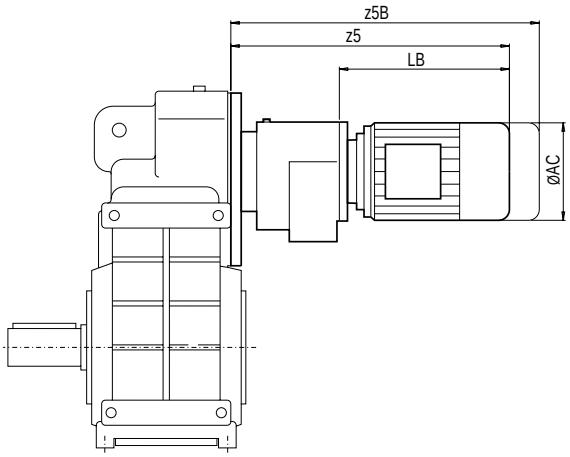


Gearbox	Motor	AC	z5	zB5	LB
FD.128B-D38	LA80	156.5	510.5	574.0	310.5
	LA90S	174.0	541.5	612.5	341.5
	LA90L	174.0	541.5	612.5	341.5
FD.128B-Z48	LA71	139.0	532.0	587.0	253.0
	LA71Z	139.0	551.0	606.0	272.0
	LA80	156.5	569.0	632.5	290.0
	LA90S	174.0	600.0	671.0	321.0
	LA90L	174.0	600.0	671.0	321.0
	LA100L	195.0	646.0	727.0	367.0
	LA112M	219.0	675.0	756.0	396.0
	LA132S	259.0	737.0	839.0	458.0
	LA132M	259.0	737.0	839.0	458.0
	LA132ZM	259.0	783.0	885.0	504.0
FD.148B-Z38	LA71	139.0	454.0	509.0	258.5
	LA71Z	139.0	473.0	528.0	277.5
	LA80	156.5	491.0	554.5	295.5
	LA90S	174.0	522.0	593.0	326.5
	LA90L	174.0	522.0	593.0	326.5
	LA100L	195.0	568.0	649.0	372.5
	LA112M	219.0	597.5	678.5	402.0
FD.148B-D38	LA71	139.0	469.0	524.0	273.5
	LA71Z	139.0	488.0	543.0	292.5
	LA80	156.5	506.0	569.5	310.5
	LA90S	174.0	537.0	608.0	341.5
	LA90L	174.0	537.0	608.0	341.5
FD.148B-Z48	LA71	139.0	521.5	576.5	253.0
	LA71Z	139.0	540.5	595.5	272.0
	LA80	156.5	558.5	622.0	290.0
	LA90S	174.0	589.5	660.5	321.0
	LA90L	174.0	589.5	660.5	321.0
	LA100L	195.0	635.5	716.5	367.0
	LA112M	219.0	664.5	745.5	396.0
	LA132S	259.0	726.5	828.5	458.0
	LA132M	259.0	726.5	828.5	458.0
	LA132ZM	259.0	764.5	866.5	504.0

Gearbox	Motor	AC	z5	zB5	LB
FD.168B-Z48	LA71	139.0	513.5	568.5	253.0
	LA71Z	139.0	532.5	587.5	272.0
	LA80	156.5	550.5	614.0	290.0
	LA90S	174.0	581.5	652.5	321.0
	LA90L	174.0	581.5	652.5	321.0
	LA100L	195.0	627.5	708.5	367.0
	LA112M	219.0	656.5	737.5	396.0
	LA132S	259.0	718.5	820.5	458.0
	LA132M	259.0	718.5	820.5	458.0
	LA132ZM	259.0	764.5	866.5	504.0
FD.168B-D48	LA71	139.0	530.5	585.5	270.0
	LA71Z	139.0	549.5	604.5	289.0
	LA80	156.5	567.5	631.0	307.0
	LA90S	174.0	598.5	669.5	338.0
	LA90L	174.0	598.5	669.5	338.0
	LA100L	195.0	644.5	725.5	384.0
FD.168B-Z68	LA71	139.0	583.0	638.0	247.0
	LA71Z	139.0	602.0	657.0	266.0
	LA80	156.5	620.0	683.5	284.0
	LA90S	174.0	651.0	722.0	315.0
	LA90L	174.0	651.0	722.0	315.0
	LA100L	195.0	697.0	778.0	361.0
	LA112M	219.0	724.0	805.0	388.0
	LA132S	259.0	784.0	886.0	448.0
	LA132M	259.0	784.0	886.0	448.0
	LA132ZM	259.0	830.0	932.0	494.0
	LA160M	313.5	886.5	1 005.0	550.5
	LA160L	313.5	886.5	1 005.0	550.5
FD.188B-Z48	LA71	139.0	499.0	554.0	253.0
	LA71Z	139.0	518.0	573.0	272.0
	LA80	156.5	536.0	599.5	290.0
	LA90S	174.0	567.0	638.0	321.0
	LA90L	174.0	567.0	638.0	321.0
	LA100L	195.0	613.0	694.0	367.0
	LA112M	219.0	642.0	723.0	396.0
	LA132S	259.0	704.0	806.0	458.0

Dimensions

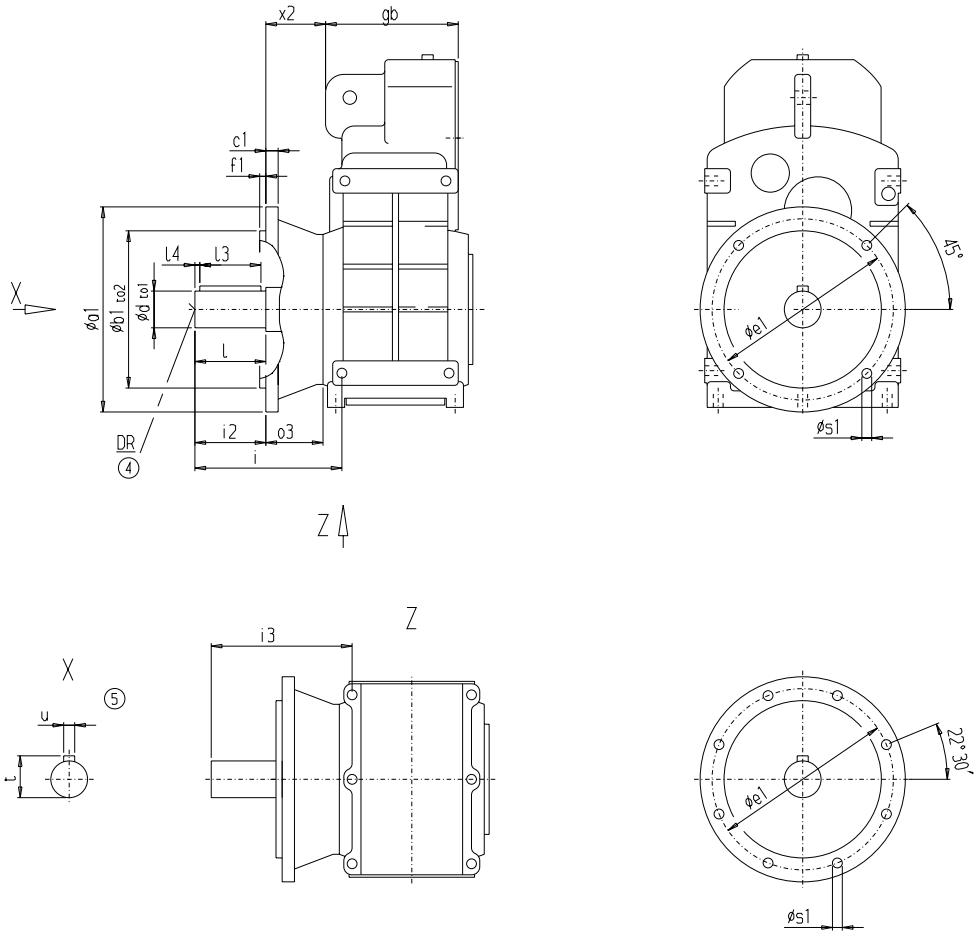
Parallel shaft tandem gearbox (continued)



Gearbox	Motor	AC	z5	zB5	LB
FD.188B-Z48	LA132M	259.0	704.0	806.0	458.0
	LA132ZM	259.0	750.0	852.0	504.0
FD.188B-D48	LA71	139.0	516.0	571.0	270.0
	LA71Z	139.0	535.0	590.0	289.0
	LA80	156.5	553.0	616.5	307.0
	LA90S	174.0	584.0	655.0	338.0
	LA90L	174.0	584.0	655.0	338.0
	LA100L	195.0	630.0	711.0	384.0
FD.188B-Z68	LA71	139.0	585.0	640.0	247.0
	LA71Z	139.0	604.0	659.0	266.0
	LA80	156.5	622.0	685.5	284.0
	LA90S	174.0	653.0	724.0	315.0
	LA90L	174.0	653.0	724.0	315.0
	LA100L	195.0	699.0	780.0	361.0
	LA112M	219.0	726.0	807.0	388.0
	LA132S	259.0	786.0	888.0	448.0
	LA132M	259.0	786.0	888.0	448.0
	LA132ZM	259.0	832.0	934.0	494.0
	LA160M	313.5	888.5	1 007.0	550.5
	LA160L	313.5	888.5	1 007.0	550.5
FD.208-Z68	LA71	139.0	585.0	640.0	247.0
	LA71Z	139.0	604.0	659.0	266.0
	LA80	156.5	622.0	685.5	284.0
	LA90S	174.0	653.0	724.0	315.0
	LA90L	174.0	653.0	724.0	315.0
	LA100L	195.0	699.0	780.0	361.0
	LA112M	219.0	726.0	807.0	388.0
	LA132S	259.0	786.0	888.0	448.0
	LA132M	259.0	786.0	888.0	448.0
	LA132ZM	259.0	832.0	934.0	494.0
	LA160M	313.5	888.5	1 007.0	550.5
	LA160L	313.5	888.5	1 007.0	550.5

Gearbox	Motor	AC	z5	zB5	LB
FD.208-D68	LA71	139.0	603.5	658.5	265.5
	LA71Z	139.0	622.5	677.5	284.5
	LA80	156.5	640.5	704.0	302.5
	LA90S	174.0	671.5	742.5	333.5
	LA90L	174.0	671.5	742.5	333.5
	LA100L	195.0	717.5	798.5	379.5
FD.208-Z88	LA90S	174.0	776.5	847.5	300.0
	LA90L	174.0	776.5	847.5	300.0
	LA100L	195.0	820.0	901.0	343.5
	LA112M	219.0	846.0	927.0	369.5
	LA132S	259.0	906.0	1 008.0	429.5
	LA132M	259.0	906.0	1 008.0	429.5
	LA132ZM	259.0	952.0	1 054.0	475.5
	LA160M	313.5	1 010.5	1 129.0	534.0
	LA160L	313.5	1 010.5	1 129.0	534.0

Flange design for mixers



Gearbox	a1	b1	to2	c1	e1	f1	s1	o3	i	i2	i3
FDM88B FZM88B	300	230	j6	20	265	4	13.5	120	286.5	140	281.5
FDM108B FZM108B	350	250	h6	20	300	5	17.5	135	333.5	170	319.0
FDM128B FZM128B	450	350	h6	25	400	5	17.5	165	373.5	170	363.5
FDM148B FZM148B	450	350	h6	25	400	5	17.5	185	449.0	210	428.0
FDM168B FZM168B	550	450	h6	28	500	5	17.5	210	479.0	210	451.0

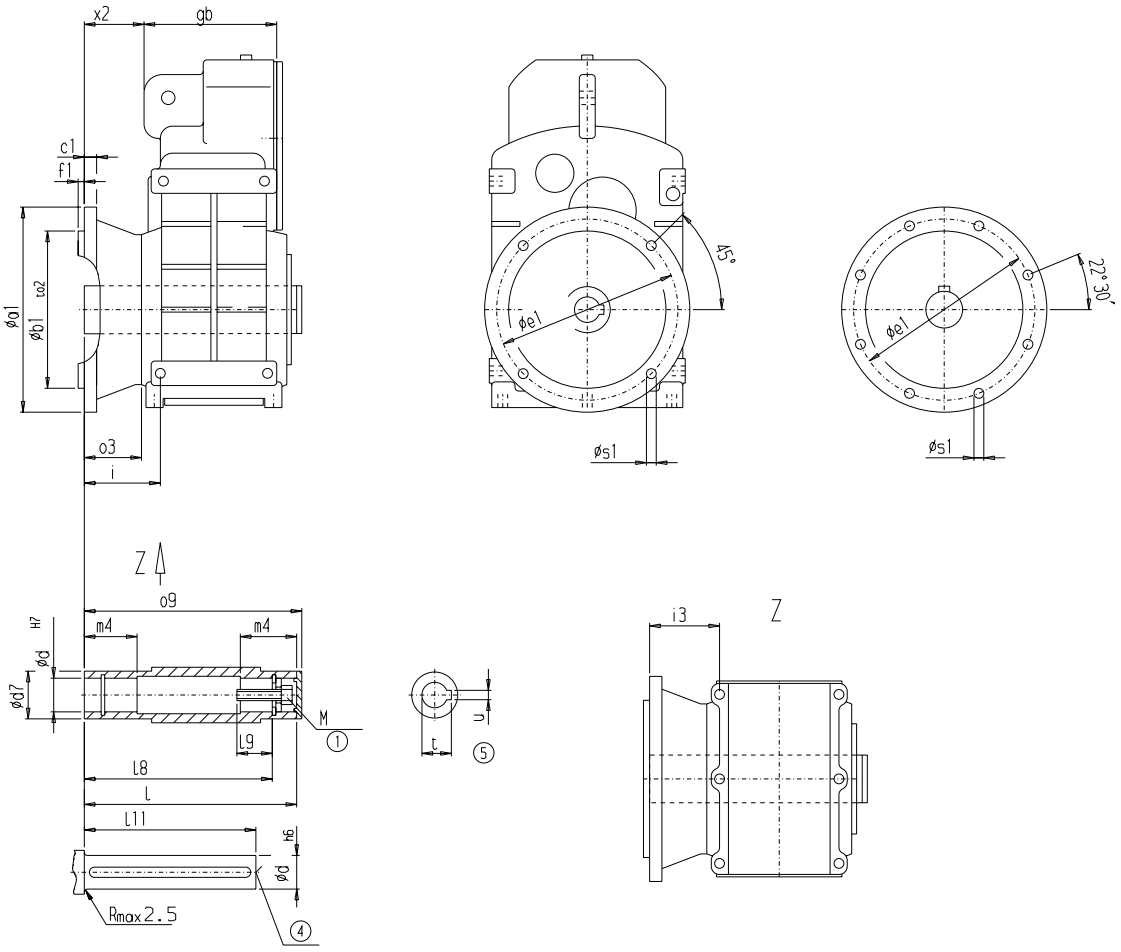
Gearbox	x2	gb	d	to1	l	l3	l4	t	u	DR	Weights	
											FDM	FZM
FDM88B FZM88B	126.0	175	70	m6	140	110	15	74.5	20	M20x42	80	81
FDM108B FZM108B	140.5	205	80	m6	170	125	20	85.0	22	M20x42	135	135
FDM128B FZM128B	172.0	271	90	m6	170	140	15	95.0	25	M24x50	236	234
FDM148B FZM148B	211.0	298	100	m6	210	180	15	106.0	28	M24x50	337	333
FDM168B FZM168B	237.0	336	120	m6	210	180	15	127.0	32	M24x50	540	529

④ DIN 332

⑤ Feather key / keyway DIN 6885

Dimensions

Shaft-mounted design with mixer flanges



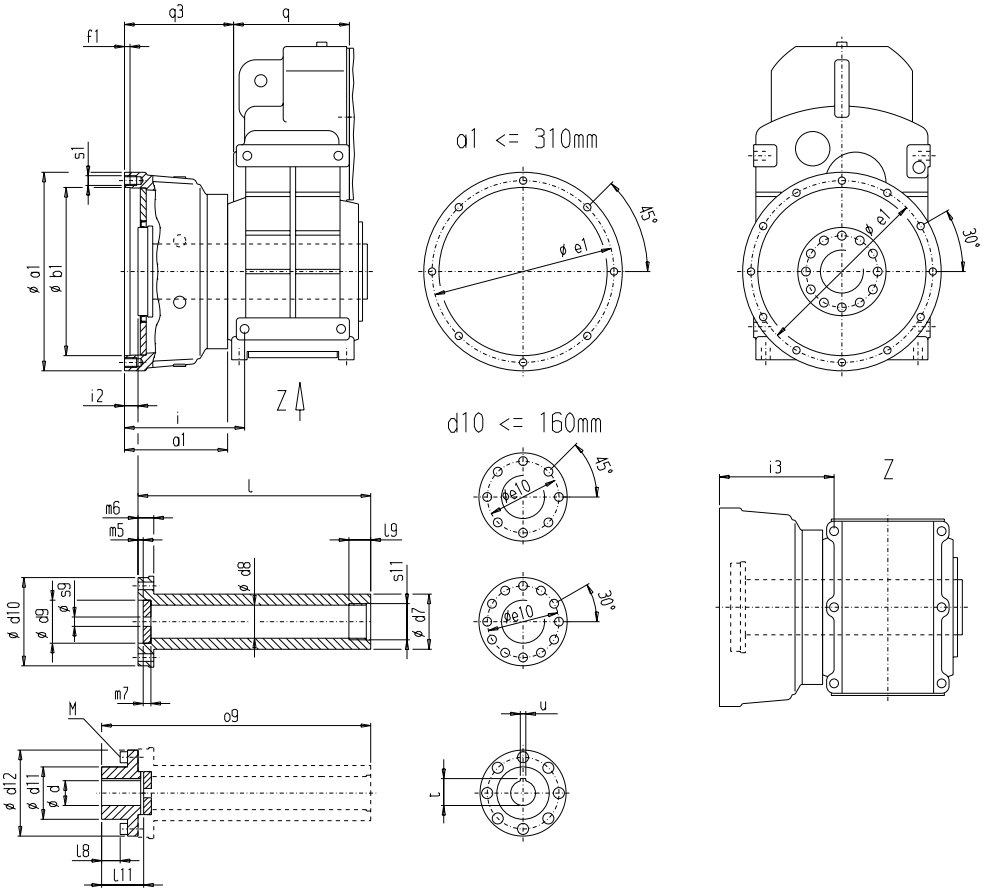
Gearbox	a1	b1	to2	c1	e1	f1	s1	o3	i	i3	x2	gb
FDAM88B FZAM88B	300	230	j6	20	265	4	13.5	120	146.5	141.5	126.0	175
FDAM108B FZAM108B	350	250	h6	20	300	5	17.5	135	163.5	149.0	140.5	205
FDAM128B FZAM128B	450	350	h6	25	400	5	17.5	165	203.5	193.5	172.0	271
FDAM148B FZAM148B	450	350	h6	25	400	5	17.5	185	239.0	218.0	211.0	298
FDAM168B FZAM168B	550	450	h6	28	500	5	17.5	210	269.0	241.0	237.0	336

Gearbox	o9	d	d7	l	m4	l8	l9	l11	t	u	M	Weights	
												FDAM	FZAM
FDAM88B FZAM88B	324.0	60	80	321	78	291	54.0	275	64.4	18	M20	72	73
FDAM108B FZAM108B	369.5	70	95	366	93	334	63.5	310	74.9	20	M20	122	122
FDAM128B FZAM128B	458.0	80	110	456	123	419	63.5	395	85.4	22	M20	216	214
FDAM148B FZAM148B	526.0	90	120	524	148	484	72.0	460	95.4	25	M24	309	305
FDAM168B FZAM168B	611.0	110	150	609	175	565	73.0	540	116.4	28	M24	495	484

④ DIN 332

⑤ Feather key / keyway DIN 6885

Flange design for extruder drives



Gearbox	a1	b1		e1	f1	s1	q1	i	i3	i2	q3	q
FDAE/FZAE68B	260	220	+0.046 / 0	236	10	M12x17	147.5	174.0	–	15.0	156.0	138.5
FDAE/FZAE88B	310	255	+0.052 / 0	280	10	M16x22	171.0	197.5	192.5	15.5	177.0	175.0
FDAE/FZAE108B	360	305	+0.052 / 0	330	10	M16x22	188.0	216.5	202.0	23.0	193.5	205.0
FDAE/FZAE128B	420	345	+0.057 / 0	380	10	M20x27	206.0	244.5	234.5	25.0	213.0	271.0
FDAE/FZAE148B	450	360	+0.057 / 0	400	10	M24x32	225.0	279.0	258.0	27.0	251.0	298.0
FDAE/FZAE168B	510	420	+0.063 / 0	460	15	M24x32	262.0	321.0	293.0	38.0	285.0	340.0

Dimensions

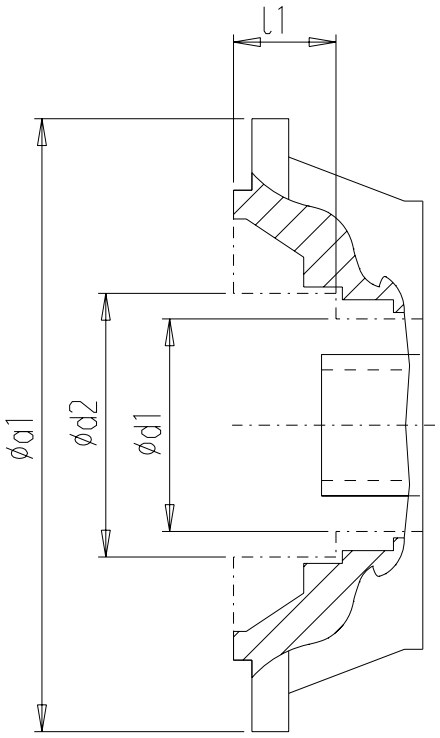
Flange design for extruder drives (continued)

Gearbox	d	l11	d7	d8	l9	s11	o9 l	d10 d12	m6	e10
FDAE/FZAE68B	20	48	65	38	30	M42x2	349.0	105	14	88
	25									
	30						305.0	104		
FDAE/FZAE88B	30	58	80	49	39	M56x2	410.5	130	23	110
	35									
	40						357.0	129		
FDAE/FZAE108B	40	71	95	60	39	M64x2	462.0	160	25	130
	45									
	50						396.0	156		
FDAE/FZAE128B	45	87	110	71	49	M80x3	554.0	175	31	150
	50									
	60						472.0	174		
FDAE/FZAE148B	60	95	120	88	52	M95x3	626.0	190	33	160
	70									
	75						537.0	189		
FDAE/FZAE168B	70	105	150	104	57	M110x3	722.0	230	42	195
	80									
	90						623.0	229		

Gearbox	d	d9		s9	m7	d11	m5	l8	M	t	u
FDAE/FZAE68B	20	48	+0.025 / 0	11	11	65	4.0	20.0	M10x25	22.8	6
	25									28.3	8
	30									33.3	8
FDAE/FZAE88B	30	63	+0.030 / 0	17	12	80	4.5	23.5	M12x35	33.3	8
	35									38.3	10
	40									43.3	12
FDAE/FZAE108B	40	78	+0.030 / 0	17	14	95	5.0	31.0	M16x40	43.3	12
	45									48.8	14
	50									53.8	14
FDAE/FZAE128B	45	88	+0.035 / 0	22	17	110	5.0	42.0	M16x45	48.8	14
	50									53.8	14
	60									64.4	18
FDAE/FZAE148B	60	105	+0.035 / 0	22	20	120	6.0	45.0	M16x55	64.4	18
	70									74.9	20
	75									79.9	20
FDAE/FZAE168B	70	125	+0.040 / 0	25	22	150	6.0	49.0	M20x55	74.9	20
	80									85.4	22
	90									95.4	25

Inside contour of the flange-mounted design (A-type)

Design notes for the customer's interface, e.g. plug-in shaft for hollow shaft design.



Gearbox	a1	d1	d2	l1
F.F.28	120	70	72	24.0
F.F.28	160	70	103	8.5
F.F.38B	160	70	77	20.0
F.F.48B	200	84	90	22.5
F.F.68B	250	96	96	–
F.F.88B	300	126	138	31.0
F.F.108B	350	176	185	32.0
F.F.128B	450	226	234	38.5
F.F.148B	450	246	262	34.0
F.F.168B	550	296	313	39.0
F.F.188B	660	296	296	–

Dimensions

Pin holes

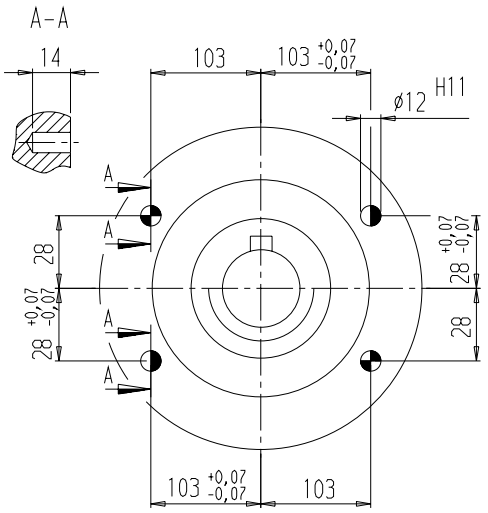
In the case of sizes F.Z.108B to 188B, the customer's interface can be pinned on the housing flange (C-type).

The output flanges have been designed to ensure the reliable transmission of the permissible torques and radial forces by the bolt connections.

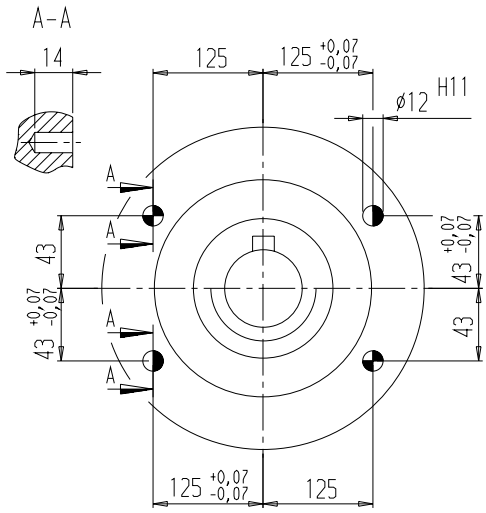
If an additional fuse, e. g. for high shock loads, is required, the existing pin holes can be used.

The gearbox and the machine can be drilled and pinned together. To do so, the provided dimensions must be observed.

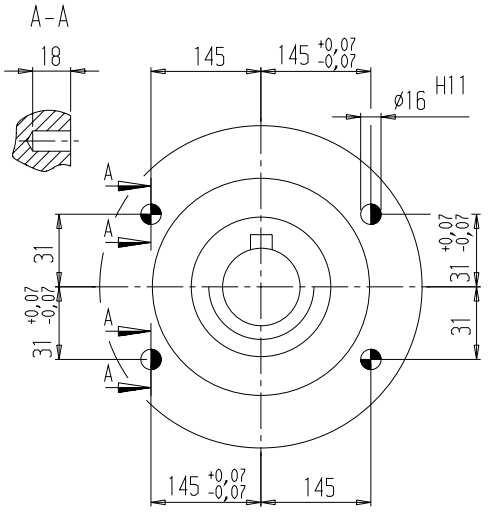
F.Z.108B



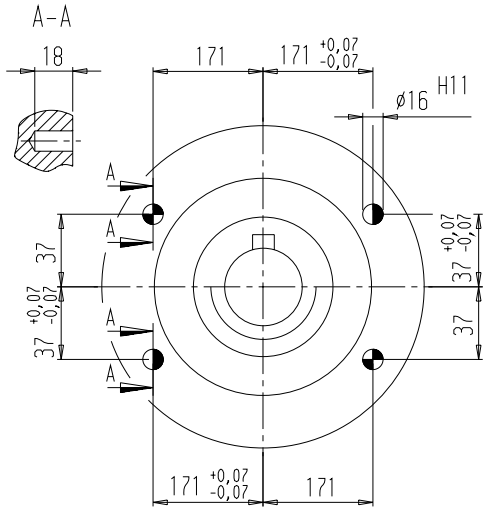
F.Z.128B



F.Z.148B



F.Z.168B, F.Z.188B



◑ Spring pins, heavy-duty design, to DIN 1481: Use pin holes provided in the housing flange.

◒ Grooved cylindrical pins with chamfer to DIN EN 28740/ISO 8740: Drill connecting component together with housing.