Worm geared motors

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Orientation

SIMOGEAR worm geared motors S

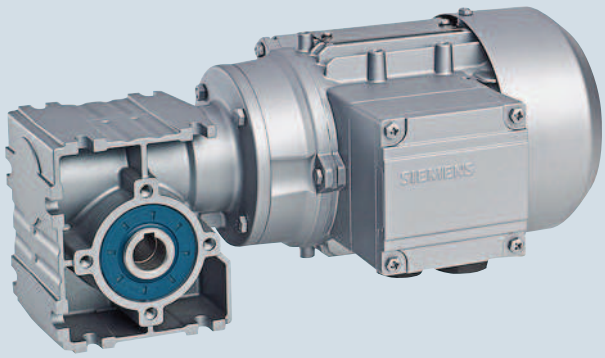


Fig. 7/1 Worm gearbox S

Gearbox designation	Number of frame sizes	Maximum output torque	Transmission ratio	Maximum motor power
		T_{2N}	i	P_1
		Nm	-	kW
S09 … S29 (1-stage)	3	33 … 116	5.0 … 100	0.55

SIMOGEAR worm geared motors are available in the following versions for mounting in any position:

- 1 stage
- Shaft-mounted design with torque arm SAD
- Flange-mounted design SF
- Design with integrated housing flange SZ
- Foot-mounted design S
- Solid shaft design with feather key (at one end or both ends) S
- Hollow shaft design with feather key SA
- Hollow shaft design with plug-in shaft SE

For worm gearboxes, the torque arm is supplied loose to enable it to be mounted as required on site. The position of the torque arm can be freely selected.

Selection and ordering data

P_{rated}	n_2	T_2	i	f_B	m	Article No.	Order code
kW	rpm	Nm	-	-	kg	(Article No. supplement ➞ below)	No. of poles
0.09	**S.29-LAI63MF6**						
	8.5	46.2	100	1.6	8	**2KJ3732 - ■ BD11 - ■ ■ A1**	**P01**
	10.6	41.0	80	2.1	8	**2KJ3732 - ■ BD11 - ■ ■ B1**	**P01**
	14.2	34.5	60	2.8	8	**2KJ3732 - ■ BD11 - ■ ■ C1**	**P01**
	S.19-LAI63MF6						
	10.6	39.6	80	0.9	6	**2KJ3731 - ■ BD11 - ■ ■ B1**	**P01**
	14.2	33.8	60	1.4	6	**2KJ3731 - ■ BD11 - ■ ■ C1**	**P01**
	17	30.0	50	1.7	6	**2KJ3731 - ■ BD11 - ■ ■ D1**	**P01**
	S.09-LAI63MF6						
	14.2	29.9	60	0.8	5	**2KJ3730 - ■ BD11 - ■ ■ C1**	**P01**
	17.0	26.8	50	1	5	**2KJ3730 - ■ BD11 - ■ ■ D1**	**P01**
	21.2	23.5	40	1.3	5	**2KJ3730 - ■ BD11 - ■ ■ E1**	**P01**
0.12	**S.29-LAI63ME4**						
	13.5	40.3	100	1.7	8	**2KJ3732 - ■ BC11 - ■ ■ A1**	
	16.9	35.7	80	2.3	8	**2KJ3732 - ■ BC11 - ■ ■ B1**	
	22.5	29.9	60	2.7	8	**2KJ3732 - ■ BC11 - ■ ■ C1**	
	27	26.5	50	3	8	**2KJ3732 - ■ BC11 - ■ ■ D1**	
	33.8	22.9	40	3.4	8	**2KJ3732 - ■ BC11 - ■ ■ E1**	
	45	18.5	30	4.1	8	**2KJ3732 - ■ BC11 - ■ ■ F1**	
	S.19-LAI63ME4						
	16.9	34.8	80	1	6	**2KJ3731 - ■ BC11 - ■ ■ B1**	
	22.5	29.5	60	1.5	6	**2KJ3731 - ■ BC11 - ■ ■ C1**	
	27	26.2	50	1.7	6	**2KJ3731 - ■ BC11 - ■ ■ D1**	
	33.8	22.6	40	2	6	**2KJ3731 - ■ BC11 - ■ ■ E1**	
	45	18.2	30	2.4	6	**2KJ3731 - ■ BC11 - ■ ■ F1**	
	54	15.9	25	2.5	6	**2KJ3731 - ■ BC11 - ■ ■ G1**	
	67.5	13.5	20	3.2	6	**2KJ3731 - ■ BC11 - ■ ■ H1**	
	90	10.6	15	4.1	6	**2KJ3731 - ■ BC11 - ■ ■ J1**	
	135	7.4	10	5.7	6	**2KJ3731 - ■ BC11 - ■ ■ K1**	
	193	5.4	7	7.6	6	**2KJ3731 - ■ BC11 - ■ ■ L1**	
	270	3.9	5	10	6	**2KJ3731 - ■ BC11 - ■ ■ M1**	
	S.09-LAI63ME4						
	22.5	26.4	60	0.88	5	**2KJ3730 - ■ BC11 - ■ ■ C1**	
	27.0	23.5	50	1.1	5	**2KJ3730 - ■ BC11 - ■ ■ D1**	
	33.8	20.5	40	1.4	5	**2KJ3730 - ■ BC11 - ■ ■ E1**	
	45.0	16.9	30	1.7	5	**2KJ3730 - ■ BC11 - ■ ■ F1**	
	54.0	14.8	25	1.9	5	**2KJ3730 - ■ BC11 - ■ ■ G1**	
	67.5	12.7	20	2.2	5	**2KJ3730 - ■ BC11 - ■ ■ H1**	
	90	10.1	15	2.7	5	**2KJ3730 - ■ BC11 - ■ ■ J1**	
	135	7.2	10	3.9	5	**2KJ3730 - ■ BC11 - ■ ■ K1**	
	193	5.2	7	5.3	5	**2KJ3730 - ■ BC11 - ■ ■ L1**	
	270	3.8	5	6.7	5	**2KJ3730 - ■ BC11 - ■ ■ M1**	
0.18	**S.29-LAI71MG6**						
	10.6	82	80	1.1	10	**2KJ3732 - ■ CD11 - ■ ■ B1**	**P01**
	14.2	69.1	60	1.4	10	**2KJ3732 - ■ CD11 - ■ ■ C1**	**P01**
	17	61.5	50	1.5	10	**2KJ3732 - ■ CD11 - ■ ■ D1**	**P01**
	21.2	53.2	40	1.8	10	**2KJ3732 - ■ CD11 - ■ ■ E1**	**P01**
	28.3	43.3	30	2.1	10	**2KJ3732 - ■ CD11 - ■ ■ F1**	**P01**

Article No. supplement		
Shaft design	**1, 5, 6, 7 or 9**	➞ page 10/44
Frequency and voltage	**2 or 9**	➞ page 11/2
Gearbox mounting type	**A, D, F or H**	➞ page 10/37

Selection and ordering data

P_{rated}	n_2	T_2	i	f_B	m	Article No.	Order code
kW	rpm	Nm	-	-	kg	(Article No. supplement ➞ below)	No. of poles
0.18	**S.29-LAI63MF4**						
	13.5	60.4	100	1.2	8	**2KJ3732 - ■ BD11 - ■ ■ A1**	
	16.9	53.5	80	1.5	8	**2KJ3732 - ■ BD11 - ■ ■ B1**	
	22.5	44.8	60	1.8	8	**2KJ3732 - ■ BD11 - ■ ■ C1**	
	27	39.8	50	2.0	8	**2KJ3732 - ■ BD11 - ■ ■ D1**	
	33.8	34.3	40	2.3	8	**2KJ3732 - ■ BD11 - ■ ■ E1**	
	45	27.7	30	2.8	8	**2KJ3732 - ■ BD11 - ■ ■ F1**	
	54	24.0	25	3.1	8	**2KJ3732 - ■ BD11 - ■ ■ G1**	
	67.5	20.4	20	3.7	8	**2KJ3732 - ■ BD11 - ■ ■ H1**	
	S.29-LAI63ME2						
	282	5.4	10	9.9	8	**2KJ3732 - ■ BC11 - ■ ■ K1**	**P00**
	403	3.9	7	13.4	8	**2KJ3732 - ■ BC11 - ■ ■ L1**	**P00**
	564	2.8	5	18.1	8	**2KJ3732 - ■ BC11 - ■ ■ M1**	**P00**
	S.19-LAI71MG6						
	17.0	60.1	50	0.86	8	**2KJ3731 - ■ CD11 - ■ ■ D1**	**P01**
	21.2	52.4	40	1.0	8	**2KJ3731 - ■ CD11 - ■ ■ E1**	**P01**
	S.19-LAI63MF4						
	22.5	44.3	60	1.0	6	**2KJ3731 - ■ BD11 - ■ ■ C1**	
	27.0	39.2	50	1.1	6	**2KJ3731 - ■ BD11 - ■ ■ D1**	
	33.8	34.0	40	1.3	6	**2KJ3731 - ■ BD11 - ■ ■ E1**	
	45	27.4	30	1.6	6	**2KJ3731 - ■ BD11 - ■ ■ F1**	
	54	23.8	25	1.6	6	**2KJ3731 - ■ BD11 - ■ ■ G1**	
	67.5	20.3	20	2.2	6	**2KJ3731 - ■ BD11 - ■ ■ H1**	
	90	15.9	15	2.7	6	**2KJ3731 - ■ BD11 - ■ ■ J1**	
	135	11.1	10	3.8	6	**2KJ3731 - ■ BD11 - ■ ■ K1**	
	193	8.0	7	5.1	6	**2KJ3731 - ■ BD11 - ■ ■ L1**	
	270	5.8	5	6.7	6	**2KJ3731 - ■ BD11 - ■ ■ M1**	
	S.19-LAI63ME2						
	282	5.4	10	5.6	6	**2KJ3731 - ■ BC11 - ■ ■ K1**	**P00**
	403	3.9	7	7.5	6	**2KJ3731 - ■ BC11 - ■ ■ L1**	**P00**
	564	2.8	5	9.9	6	**2KJ3731 - ■ BC11 - ■ ■ M1**	**P00**
	S.09-LAI63MF4						
	33.8	30.7	40	0.91	5	**2KJ3730 - ■ BD11 - ■ ■ E1**	
	45.0	25.3	30	1.1	5	**2KJ3730 - ■ BD11 - ■ ■ F1**	
	54.0	22.2	25	1.3	5	**2KJ3730 - ■ BD11 - ■ ■ G1**	
	67.5	19.1	20	1.4	5	**2KJ3730 - ■ BD11 - ■ ■ H1**	
	90	15.2	15	1.8	5	**2KJ3730 - ■ BD11 - ■ ■ J1**	
	135	10.8	10	2.6	5	**2KJ3730 - ■ BD11 - ■ ■ K1**	
	193	7.8	7	3.5	5	**2KJ3730 - ■ BD11 - ■ ■ L1**	
	270	5.8	5	4.5	5	**2KJ3730 - ■ BD11 - ■ ■ M1**	
	S.09-LAI63ME2						
	282	5.2	10	3.9	5	**2KJ3730 - ■ BC11 - ■ ■ K1**	**P00**
	403	3.8	7	5.3	5	**2KJ3730 - ■ BC11 - ■ ■ L1**	**P00**
	564	2.8	5	7	5	**2KJ3730 - ■ BC11 - ■ ■ M1**	**P00**
0.25	**S.29-LAI71MH6**						
	14.3	94.9	60	1	10	**2KJ3732 - ■ CE11 - ■ ■ C1**	**P01**
	17.2	84.5	50	1.1	10	**2KJ3732 - ■ CE11 - ■ ■ D1**	**P01**
	S.29-LAI71MG4						
	16.9	74.3	80	1.1	10	**2KJ3732 - ■ CD11 - ■ ■ B1**	

Article No. supplement		
Shaft design	**1, 5, 6, 7 or 9**	➞ page 10/44
Frequency and voltage	**2 or 9**	➞ page 11/2
Gearbox mounting type	**A, D, F or H**	➞ page 10/37

Selection and ordering data

P_{rated}	n_2	T_2	i	f_B	m	Article No.	Order code
kW	rpm	Nm	-	-	kg	(Article No. supplement ➞ below)	No. of poles
0.25	**S.29-LAI71MG4**						
	22.5	62.3	60	1.3	10	**2KJ3732 - ■ CD11 - ■ ■ C1**	
	27	55.3	50	1.4	10	**2KJ3732 - ■ CD11 - ■ ■ D1**	
	33.8	47.6	40	1.7	10	**2KJ3732 - ■ CD11 - ■ ■ E1**	
	45	38.5	30	2	10	**2KJ3732 - ■ CD11 - ■ ■ F1**	
	54	33.4	25	2.3	10	**2KJ3732 - ■ CD11 - ■ ■ G1**	
	S.29-LAI63MF2						
	283	7.4	10	7.1	8	**2KJ3732 - ■ BD11 - ■ ■ K1**	**P00**
	404	5.4	7	9.7	8	**2KJ3732 - ■ BD11 - ■ ■ L1**	**P00**
	566	3.9	5	13.1	8	**2KJ3732 - ■ BD11 - ■ ■ M1**	**P00**
	S.19-LAI71MG4						
	27	54.5	50	0.82	8	**2KJ3731 - ■ CD11 - ■ ■ D1**	
	33.8	47.2	40	0.95	8	**2KJ3731 - ■ CD11 - ■ ■ E1**	
	45	38	30	1.2	8	**2KJ3731 - ■ CD11 - ■ ■ F1**	
	54	33.1	25	1.2	8	**2KJ3731 - ■ CD11 - ■ ■ G1**	
	67.5	28.1	20	1.5	8	**2KJ3731 - ■ CD11 - ■ ■ H1**	
	90	22.1	15	2	8	**2KJ3731 - ■ CD11 - ■ ■ J1**	
	135	15.5	10	2.8	8	**2KJ3731 - ■ CD11 - ■ ■ K1**	
	193	11.2	7	3.7	8	**2KJ3731 - ■ CD11 - ■ ■ L1**	
	270	8.1	5	4.8	8	**2KJ3731 - ■ CD11 - ■ ■ M1**	
	S.19-LAI63MF2						
	283	7.4	10	4	6	**2KJ3731 - ■ BD11 - ■ ■ K1**	**P00**
	404	5.4	7	5.4	6	**2KJ3731 - ■ BD11 - ■ ■ L1**	**P00**
	566	3.9	5	7.1	6	**2KJ3731 - ■ BD11 - ■ ■ M1**	**P00**
	S.09-LAI63MF2						
	70.8	21.3	40	1	5	**2KJ3730 - ■ BD11 - ■ ■ E1**	**P00**
	94.3	17.2	30	1.2	5	**2KJ3730 - ■ BD11 - ■ ■ F1**	**P00**
	113	15.2	25	1.4	5	**2KJ3730 - ■ BD11 - ■ ■ G1**	**P00**
	142	13	20	1.6	5	**2KJ3730 - ■ BD11 - ■ ■ H1**	**P00**
	189	10.3	15	2	5	**2KJ3730 - ■ BD11 - ■ ■ J1**	**P00**
	283	7.3	10	2.8	5	**2KJ3730 - ■ BD11 - ■ ■ K1**	**P00**
	404	5.3	7	3.8	5	**2KJ3730 - ■ BD11 - ■ ■ L1**	**P00**
	566	3.8	5	5	5	**2KJ3730 - ■ BD11 - ■ ■ M1**	**P00**
0.37	**S.29-LAI71MH4**						
	22.8	90.9	60	0.89	10	**2KJ3732 - ■ CE11 - ■ ■ C1**	
	27.4	80.7	50	0.98	10	**2KJ3732 - ■ CE11 - ■ ■ D1**	
	34.2	69.5	40	1.1	10	**2KJ3732 - ■ CE11 - ■ ■ E1**	
	45.7	56.2	30	1.4	10	**2KJ3732 - ■ CE11 - ■ ■ F1**	
	54.8	48.7	25	1.5	10	**2KJ3732 - ■ CE11 - ■ ■ G1**	
	68.5	41.3	20	1.8	10	**2KJ3732 - ■ CE11 - ■ ■ H1**	
	S.29-LAI71MG2						
	274	11.4	10	4.8	10	**2KJ3732 - ■ CD11 - ■ ■ K1**	**P00**
	391	8.2	7	6.5	10	**2KJ3732 - ■ CD11 - ■ ■ L1**	**P00**
	548	6	5	8.7	10	**2KJ3732 - ■ CD11 - ■ ■ M1**	**P00**
	S.19-LAI71MH4						
	54.8	48.3	25	0.81	8	**2KJ3731 - ■ CE11 - ■ ■ G1**	
	68.5	41.1	20	1.1	8	**2KJ3731 - ■ CE11 - ■ ■ H1**	
	91.3	32.2	15	1.3	8	**2KJ3731 - ■ CE11 - ■ ■ J1**	

Article No. supplement		
Shaft design	**1, 5, 6, 7 or 9**	➞ page 10/44
Frequency and voltage	**2 or 9**	➞ page 11/2
Gearbox mounting type	**A, D, F or H**	➞ page 10/37

Selection and ordering data

P_{rated}	n_2	T_2	i	f_B	m	Article No.	Order code
kW	rpm	Nm	-	-	kg	(Article No. supplement ➞ below)	No. of poles
0.37	**S.19-LAI71MH4**						
	137	22.6	10	1.9	8	**2KJ3731 - ■ CE11 - ■ ■ K1**	
	196	16.3	7	2.5	8	**2KJ3731 - ■ CE11 - ■ ■ L1**	
	274	11.8	5	3.3	8	**2KJ3731 - ■ CE11 - ■ ■ M1**	
	S.19-LAI71MG2						
	274	11.4	10	2.7	8	**2KJ3731 - ■ CD11 - ■ ■ K1**	**P00**
	391	8.2	7	3.6	8	**2KJ3731 - ■ CD11 - ■ ■ L1**	**P00**
	548	5.9	5	4.7	8	**2KJ3731 - ■ CD11 - ■ ■ M1**	**P00**
0.55	**S.29-LAI71MH2**						
	280	16.5	10	3.2	10	**2KJ3732 - ■ CE11 - ■ ■ K1**	**P00**
	400	11.9	7	4.4	10	**2KJ3732 - ■ CE11 - ■ ■ L1**	**P00**
	560	8.7	5	5.9	10	**2KJ3732 - ■ CE11 - ■ ■ M1**	**P00**
	S.19-LAI71MH2						
	112	35.8	25	0.83	8	**2KJ3731 - ■ CE11 - ■ ■ G1**	**P00**
	140	30.4	20	1	8	**2KJ3731 - ■ CE11 - ■ ■ H1**	**P00**
	S.19-LAI71MH2						
	187	23.7	15	1.3	8	**2KJ3731 - ■ CE11 - ■ ■ J1**	**P00**
	280	16.5	10	1.8	8	**2KJ3731 - ■ CE11 - ■ ■ K1**	**P00**
	400	11.9	7	2.4	8	**2KJ3731 - ■ CE11 - ■ ■ L1**	**P00**
	560	8.6	5	3.2	8	**2KJ3731 - ■ CE11 - ■ ■ M1**	**P00**

Article No. supplement		
Shaft design	**1, 5, 6, 7 or 9**	➞ page 10/44
Frequency and voltage	**2 or 9**	➞ page 11/2
Gearbox mounting type	**A, D, F or H**	➞ page 10/37

Selection and ordering data

	Lead angle of the worm	n_{mot} = 2 800 rpm				n_{mot} = 1 400 rpm				Motor frame size		Article No.
i		n_2	T_{2N}	P_{mot}	η	n_2	T_{2N}	P_{mot}	η			
-	γ_m	rpm	Nm	kW	%	rpm	Nm	kW	%	**63**	**71**	
S.09												
80	2.1	35.0	18	0.14	48	17.5	19	0.07	47	✓		**2KJ3730 - ■■■■■ - ■■ B1**
60	2.7	46.7	22	0.20	55	23.3	24	0.11	52	✓		**2KJ3730 - ■■■■■ - ■■ C1**
50	3.2	56.0	21	0.21	58	28.0	27	0.14	56	✓		**2KJ3730 - ■■■■■ - ■■ D1**
40	3.8	70.0	21	0.24	63	35.0	28	0.17	61	✓		**2KJ3730 - ■■■■■ - ■■ E1**
30	4.6	93.3	20	0.29	68	46.7	28	0.20	67	✓		**2KJ3730 - ■■■■■ - ■■ F1**
25	5.2	112.0	20	0.33	72	56.0	27	0.23	70	✓		**2KJ3730 - ■■■■■ - ■■ G1**
20	7.4	140.0	21	0.40	77	70.0	27	0.26	75	✓		**2KJ3730 - ■■■■■ - ■■ H1**
15	9.2	186.7	20	0.48	81	93.3	27	0.33	80	✓		**2KJ3730 - ■■■■■ - ■■ J1**
10	14.0	280.0	20	0.68	86	140.0	27	0.47	85	✓		**2KJ3730 - ■■■■■ - ■■ K1**
7	19.0	400.0	19	0.89	89	200.0	26	0.62	88	✓		**2KJ3730 - ■■■■■ - ■■ L1**
5	25.0	560.0	19	1.22	91	280.0	25	0.81	91	✓		**2KJ3730 - ■■■■■ - ■■ M1**
S.19												
80	3.5	35.0	33	0.22	55	17.5	35	0.12	54	✓		**2KJ3731 - ■■■■■ - ■■ B1**
60	3.5	46.7	33	0.26	61	23.3	44	0.18	59	✓		**2KJ3731 - ■■■■■ - ■■ C1**
50	4.0	56.0	33	0.30	64	28.0	44	0.20	63	✓	✓	**2KJ3731 - ■■■■■ - ■■ D1**
40	4.5	70.0	31	0.33	68	35.0	43	0.24	67	✓	✓	**2KJ3731 - ■■■■■ - ■■ E1**
30	5.5	93.3	31	0.42	73	46.7	41	0.28	72	✓	✓	**2KJ3731 - ■■■■■ - ■■ F1**
25	6.5	112.0	31	0.48	76	56.0	41	0.32	75	✓	✓	**2KJ3731 - ■■■■■ - ■■ G1**
20	9.5	140.0	31	0.56	81	70.0	41	0.38	80	✓	✓	**2KJ3731 - ■■■■■ - ■■ H1**
15	11.0	186.7	30	0.70	84	93.3	41	0.48	84	✓	✓	**2KJ3731 - ■■■■■ - ■■ J1**
10	17.0	280.0	30	1.00	88	140.0	40	0.67	88	✓	✓	**2KJ3731 - ■■■■■ - ■■ K1**
7	17.0	400.0	29	1.33	91	200.0	39	0.91	90	✓	✓	**2KJ3731 - ■■■■■ - ■■ L1**
5	23.0	560.0	28	1.78	92	280.0	37	1.18	92	✓	✓	**2KJ3731 - ■■■■■ - ■■ M1**
S.29												
100	2.0	28.0	57	0.33	50	14.0	72	0.22	49	✓		**2KJ3732 - ■■■■■ - ■■ A1**
80	2.5	35.0	57	0.39	54	17.5	80	0.27	54	✓	✓	**2KJ3732 - ■■■■■ - ■■ B1**
60	3.0	46.7	57	0.46	60	23.3	78	0.32	59	✓	✓	**2KJ3732 - ■■■■■ - ■■ C1**
50	3.5	56.0	55	0.50	64	28.0	75	0.35	63	✓	✓	**2KJ3732 - ■■■■■ - ■■ D1**
40	4.5	70.0	55	0.59	68	35.0	74	0.40	68	✓	✓	**2KJ3732 - ■■■■■ - ■■ E1**
30	5.0	93.3	53	0.71	73	46.7	73	0.49	73	✓	✓	**2KJ3732 - ■■■■■ - ■■ F1**
25	6.0	112.0	53	0.82	76	56.0	73	0.56	76	✓	✓	**2KJ3732 - ■■■■■ - ■■ G1**
20	8.5	140.0	53	0.96	81	70.0	73	0.67	80	✓	✓	**2KJ3732 - ■■■■■ - ■■ H1**
15	10.0	186.7	53	1.23	84	93.3	72	0.84	84	✓	✓	**2KJ3732 - ■■■■■ - ■■ J1**
10	15.0	280.0	53	1.77	88	140.0	72	1.20	88	✓	✓	**2KJ3732 - ■■■■■ - ■■ K1**
7	15.0	400.0	53	2.44	91	200.0	71	1.63	91	✓	✓	**2KJ3732 - ■■■■■ - ■■ L1**
5	21.0	560.0	51	3.22	93	280.0	69	2.18	93	✓	✓	**2KJ3732 - ■■■■■ - ■■ M1**

Selection and ordering data

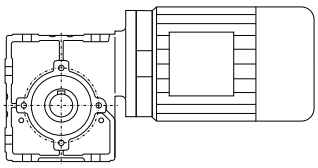
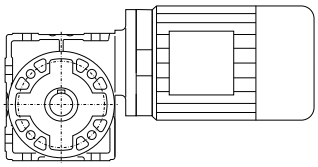
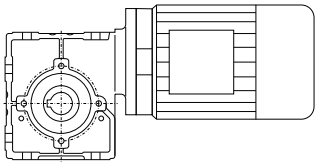
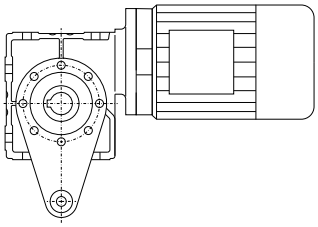
	Lead angle of the worm	n_{mot} = 900 rpm				n_{mot} = 500 rpm				Motor frame size		Article No.
i		n_2	T_{2N}	P_{mot}	η	n_2	T_{2N}	P_{mot}	η			
-	γ_m	rpm	Nm	kW	%	rpm	Nm	kW	%	63	71	
S.09												
80	2.1	11.3	19	0.05	44	6.3	20	0.03	40	✓		2KJ3730 - ■■■■■ - ■■ B1
60	2.7	15.0	24	0.08	50	8.3	24	0.05	45	✓		2KJ3730 - ■■■■■ - ■■ C1
50	3.2	18.0	27	0.10	53	10.0	28	0.06	49	✓		2KJ3730 - ■■■■■ - ■■ D1
40	3.8	22.5	31	0.13	58	12.5	31	0.08	54	✓		2KJ3730 - ■■■■■ - ■■ E1
30	4.6	30.0	32	0.16	64	16.7	33	0.10	60	✓		2KJ3730 - ■■■■■ - ■■ F1
25	5.2	36.0	32	0.18	68	20.0	32	0.10	64	✓		2KJ3730 - ■■■■■ - ■■ G1
20	7.4	45.0	31	0.20	73	25.0	31	0.12	70	✓		2KJ3730 - ■■■■■ - ■■ H1
15	9.2	60.0	33	0.27	78	33.3	33	0.15	75	✓		2KJ3730 - ■■■■■ - ■■ J1
10	14.0	90.0	32	0.36	84	50.0	33	0.21	81	✓		2KJ3730 - ■■■■■ - ■■ K1
7	19.0	128.6	31	0.48	87	71.4	33	0.29	85	✓		2KJ3730 - ■■■■■ - ■■ L1
5	25.0	180.0	30	0.63	90	100.0	33	0.39	88	✓		2KJ3730 - ■■■■■ - ■■ M1
S.19												
80	3.5	11.3	35	0.08	51	6.3	36	0.05	47	✓		2KJ3731 - ■■■■■ - ■■ B1
60	3.5	15.0	49	0.14	57	8.3	51	0.09	52	✓		2KJ3731 - ■■■■■ - ■■ C1
50	4.0	18.0	51	0.16	61	10.0	59	0.11	56	✓	✓	2KJ3731 - ■■■■■ - ■■ D1
40	4.5	22.5	51	0.18	65	12.5	64	0.14	61	✓	✓	2KJ3731 - ■■■■■ - ■■ E1
30	5.5	30.0	50	0.22	70	16.7	63	0.17	66	✓	✓	2KJ3731 - ■■■■■ - ■■ F1
25	6.5	36.0	49	0.25	74	20.0	62	0.19	70	✓	✓	2KJ3731 - ■■■■■ - ■■ G1
20	9.5	45.0	50	0.30	78	25.0	62	0.22	75	✓	✓	2KJ3731 - ■■■■■ - ■■ H1
15	11.0	60.0	50	0.38	82	33.3	62	0.27	79	✓	✓	2KJ3731 - ■■■■■ - ■■ J1
10	17.0	90.0	49	0.53	87	50.0	61	0.38	85	✓	✓	2KJ3731 - ■■■■■ - ■■ K1
7	17.0	128.6	47	0.70	90	71.4	58	0.49	88	✓	✓	2KJ3731 - ■■■■■ - ■■ L1
5	23.0	180.0	44	0.91	91	100.0	56	0.65	90	✓	✓	2KJ3731 - ■■■■■ - ■■ M1
S.29												
100	2.0	9.0	72	0.14	47	5.0	72	0.09	43	✓		2KJ3732 - ■■■■■ - ■■ A1
80	2.5	11.3	92	0.21	52	6.3	93	0.13	48	✓	✓	2KJ3732 - ■■■■■ - ■■ B1
60	3.0	15.0	93	0.26	57	8.3	116	0.19	53	✓	✓	2KJ3732 - ■■■■■ - ■■ C1
50	3.5	18.0	90	0.28	61	10.0	115	0.21	57	✓	✓	2KJ3732 - ■■■■■ - ■■ D1
40	4.5	22.5	90	0.32	66	12.5	113	0.24	62	✓	✓	2KJ3732 - ■■■■■ - ■■ E1
30	5.0	30.0	86	0.38	72	16.7	110	0.28	68	✓	✓	2KJ3732 - ■■■■■ - ■■ F1
25	6.0	36.0	85	0.43	75	20.0	109	0.32	71	✓	✓	2KJ3732 - ■■■■■ - ■■ G1
20	8.5	45.0	85	0.51	79	25.0	109	0.38	76	✓	✓	2KJ3732 - ■■■■■ - ■■ H1
15	10.0	60.0	85	0.64	83	33.3	109	0.47	81	✓	✓	2KJ3732 - ■■■■■ - ■■ J1
10	15.0	90.0	85	0.92	87	50.0	109	0.66	86	✓	✓	2KJ3732 - ■■■■■ - ■■ K1
7	15.0	128.6	84	1.26	90	71.4	107	0.90	89	✓	✓	2KJ3732 - ■■■■■ - ■■ L1
5	21.0	180.0	82	1.68	92	100.0	105	1.21	91	✓	✓	2KJ3732 - ■■■■■ - ■■ M1

Permissible radial force F_{Rperm}

Gearbox type	d mm	l mm	y mm	z mm	a kNmm	F_{Rperm} in N with x = l/2 for output speeds n_2 in rpm ≤ 16	≤ 25	≤ 40	≤ 63	≤ 100	≤ 160	≤ 250	≤ 400
S09	16	40	83.5	63.5	36 000	1 800	1 800	1 800	1 800	1 800	1 690	1 400	1 120
SF09			106.0	86.0		1 800	1 800	1 800	1 800	1 620	1 330	1 100	880
S19	20	40	98.0	78.0	76 000	3 800	3 800	3 800	3 200	2 650	2 180	1 780	1 420
SF19			128.0	108.0		3 200	3 120	2 920	2 450	2 030	1 670	1 360	1 090
S29	20	40	120.5	100.5	72 000	3 600	3 600	3 600	3 600	3 600	3 290	2 680	2 120
SF29			153.5	133.5		3 600	3 600	3 600	3 600	3 150	2 580	2 110	1 660

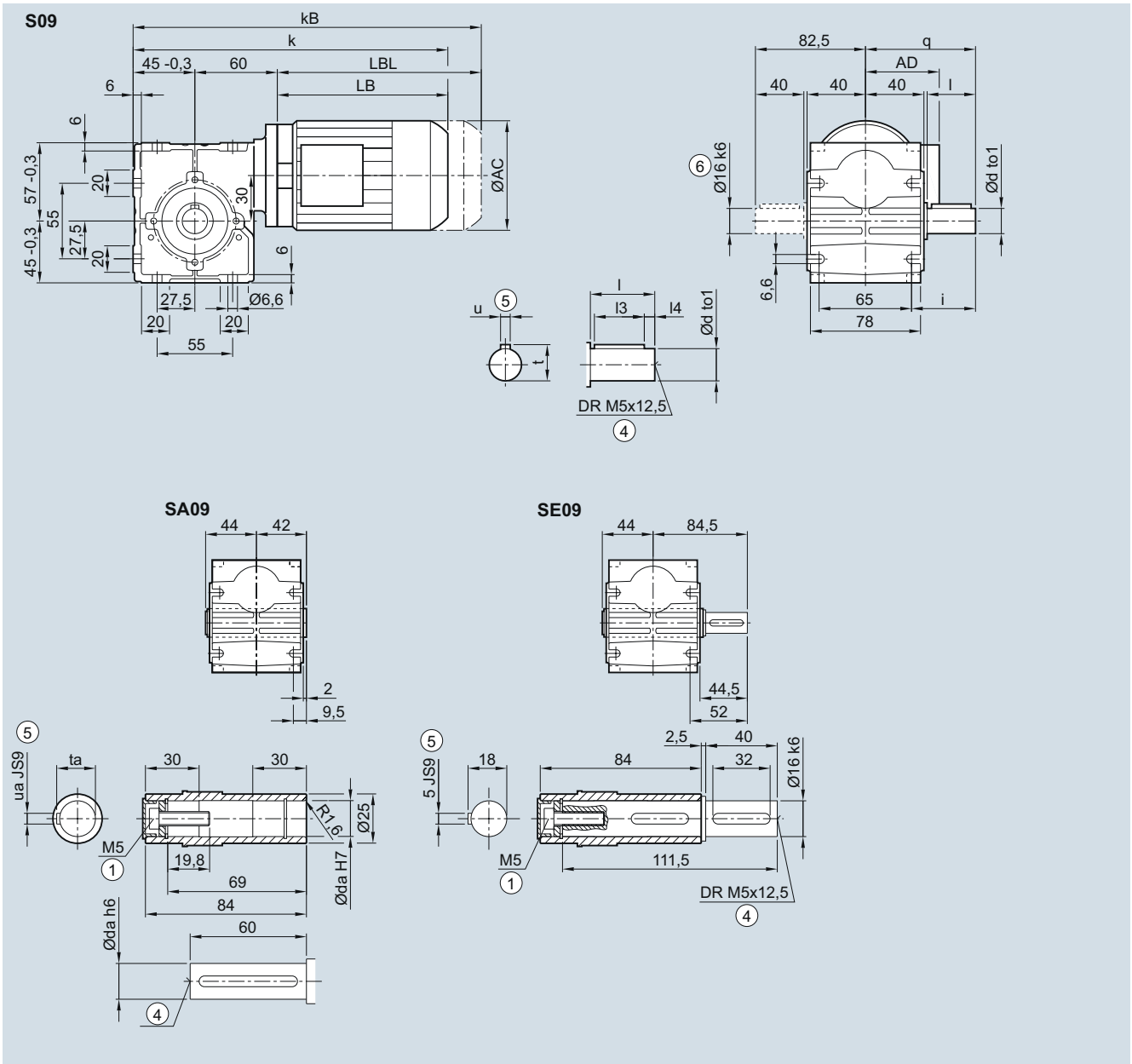
Dimensional drawing overview

Information about dimensional drawings can be found in chapter Introduction on page 1/21.

Design	Frame size	Dimensional drawing on page
Foot-mounted design		
	S.09	7/10
	S.19	7/14
	S.29	7/18
Flange-mounted design		
	S.F09	7/11
	S.F19	7/15
	S.F29	7/19
Housing flange design		
	S.Z09	7/12
	S.Z19	7/16
	S.Z29	7/20
Shaft-mounted design		
	SAD09	7/13
	SAD19	7/17
	SAD29	7/21
Additional versions and options		
	Protection cover for hollow shafts	7/22

S.09 gearbox in a foot-mounted design

S030, SA030, SE030



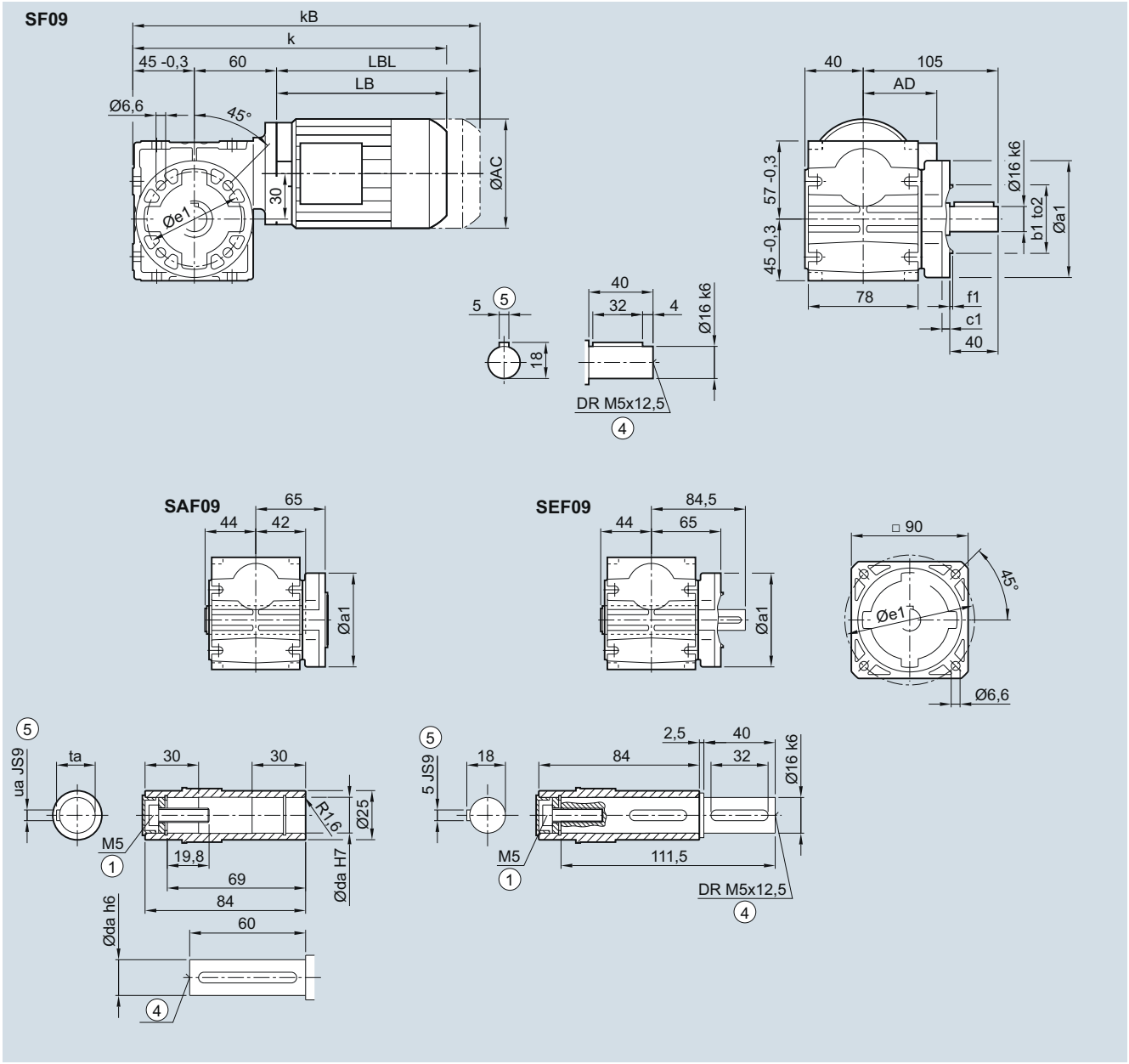
Solid shaft	d	to1	l	l3	l4	u	t	q	i	Hollow shaft	da	ua	ta
	14	k6	30	22	4	5	16	72.5	40		14	5	16.3
	16	k6	40	32	4	5	18	82.5	50		16	5	18.3

Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	284.5	335.5	179.5	230.5

① ISO 4014
④ DIN 332
⑤ Feather key/keyway DIN 6885-1
⑥ Solid shaft with 2nd shaft extension only d16
[1] AD depends on the motor options, for other dimensions, see page 8/48.

S.F09 gearbox in a flange-mounted design

SF030, SAF030, SEF030



Hollow shaft	da	ua	ta
	14	5	16.3
	16	5	18.3

Flange	a1	e1	b_1	to2	c1	f_1
	80	65	50	j6	7	2.5
	120	100	80	j6	7	3.0

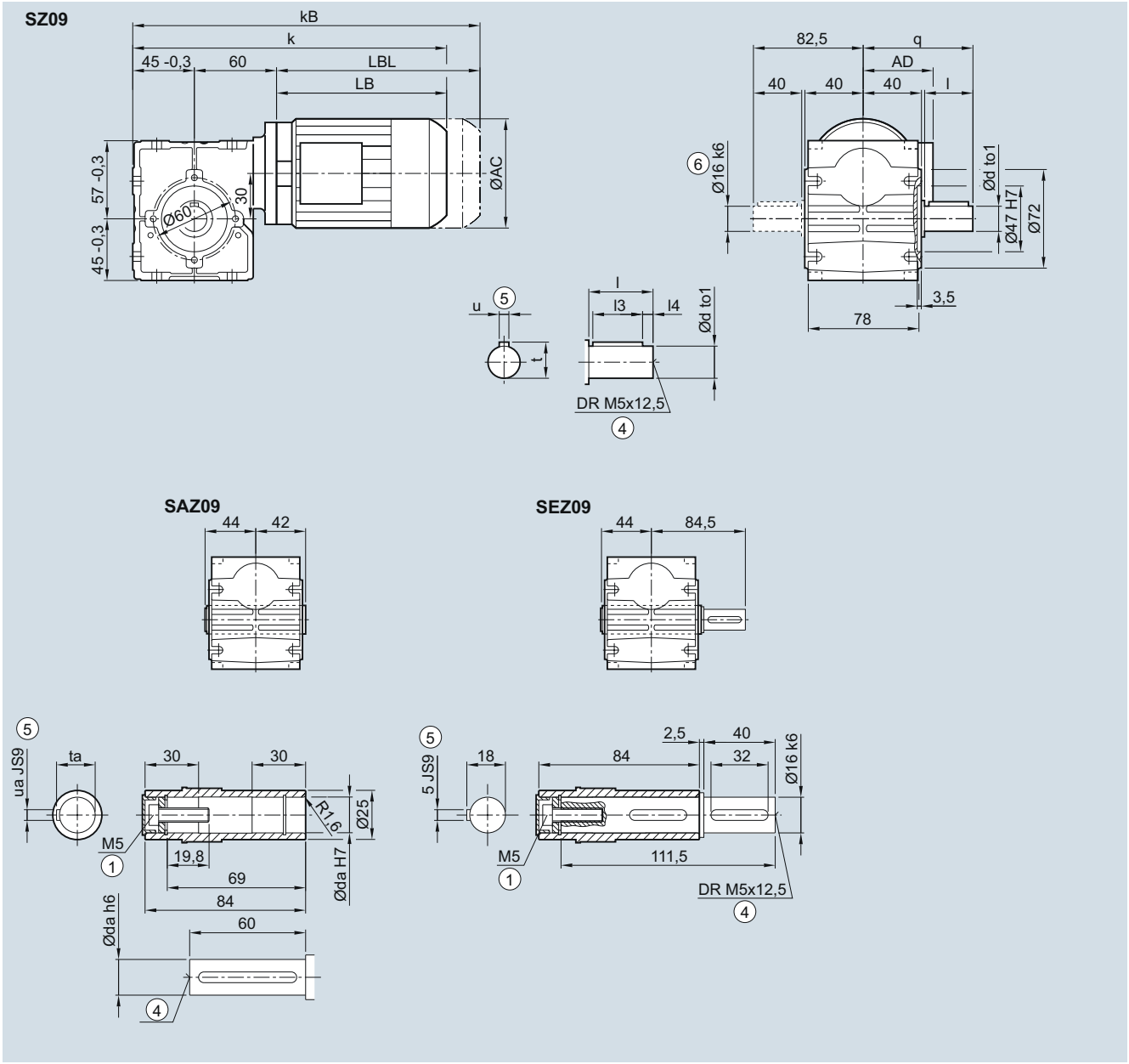
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	284.5	335.5	179.5	230.5

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

1) AD depends on the motor options, for other dimensions, see page 8/48.

S.Z09 gearbox in a housing flange design

SZ030, SAZ030, SEZ030



Solid shaft	d	to1	l	l3	l4	u	t	q
	14	k6	30	22	4	5	16	72.5
	16	k6	40	32	4	5	18	82.5

Hollow shaft	da	ua	ta
	14	5	16.3
	16	5	18.3

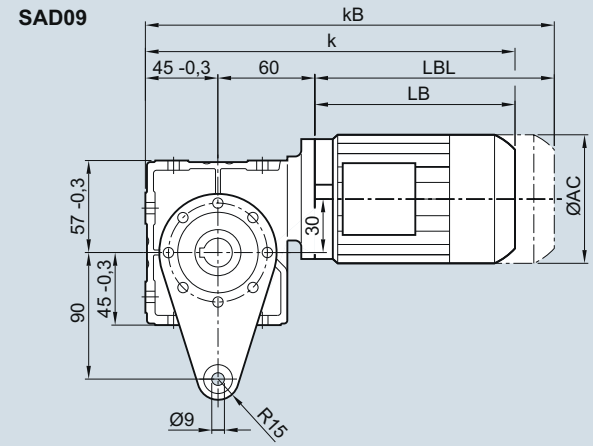
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	284.5	335.5	179.5	230.5

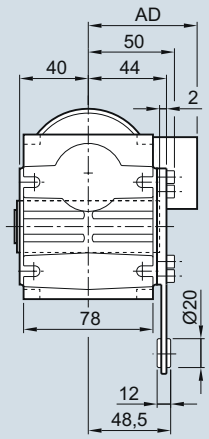
① ISO 4014
④ DIN 332
⑤ Feather key/keyway DIN 6885-1
⑥ Solid shaft with 2nd shaft extension only d16
[1] AD depends on the motor options, for other dimensions, see page 8/48.

SAD09 gearbox in a shaft-mounted design

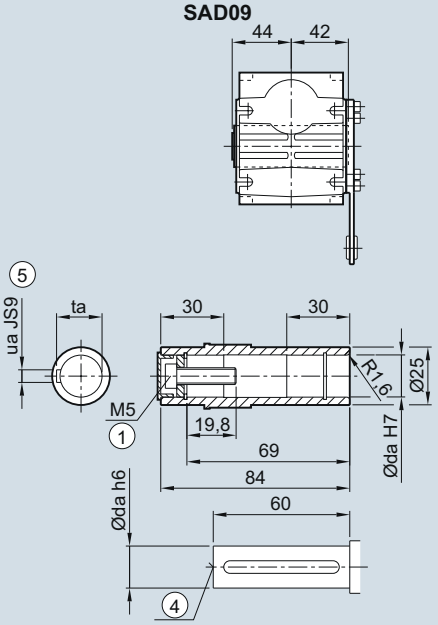
SAD030

SAD09





SAD09



Hollow shaft	da	ua	ta
	14	5	16.3
	16	5	18.3

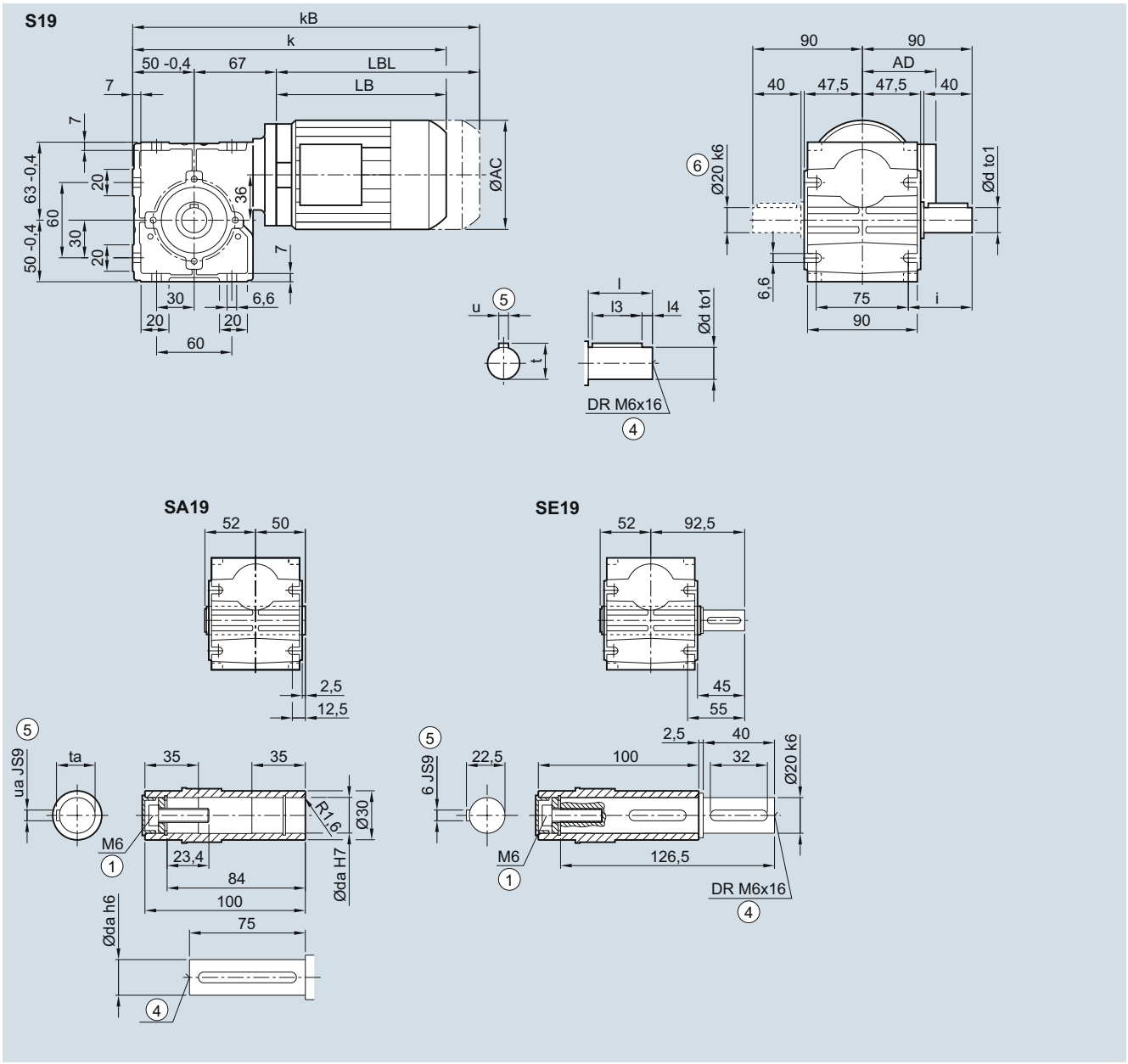
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	284.5	335.5	179.5	230.5

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

[1] AD depends on the motor options, for other dimensions, see page 8/48.

S.19 gearbox in a foot-mounted design

S030, SA030, SE030



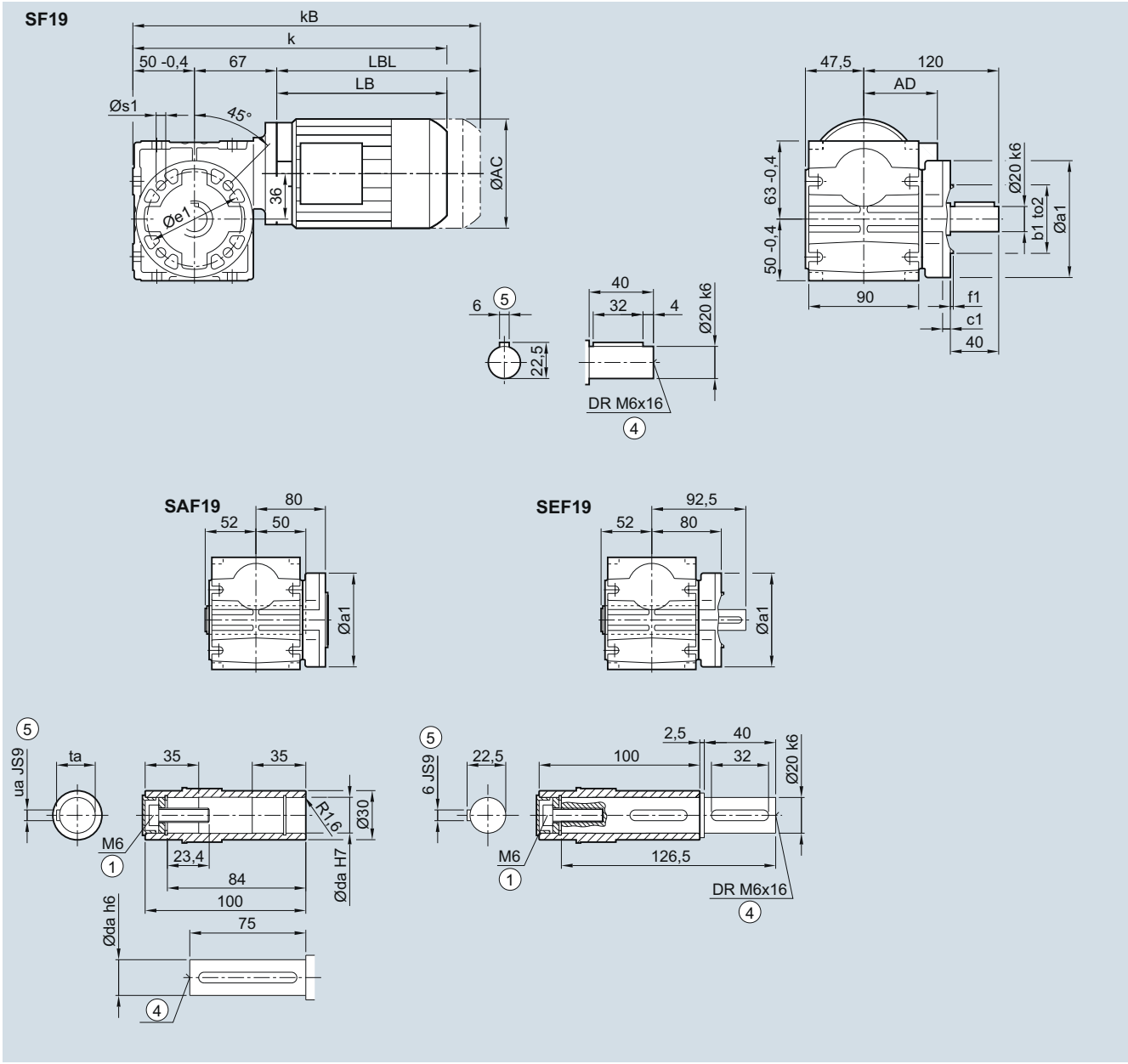
Solid shaft	d	to1	l	l3	l4	i	u	t	Hollow shaft	da	ua	ta
	18	k6	40	32	4	52.5	6	20.5		18	6	20.8
	20	k6	40	32	4	52.5	6	22.5		20	6	22.8

Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	296.5	347.5	179.5	230.5
LAI 71	139	111	327.0	378.5	210	261.5

① ISO 4014
④ DIN 332
⑤ Feather key/keyway DIN 6885-1
⑥ Solid shaft with 2nd shaft extension only d20
[1] AD depends on the motor options, for other dimensions, see page 8/48.

S.F19 gearbox in a flange-mounted design

SF030, SAF030, SEF030



Hollow shaft	da	ua	ta
	18	6	20.8
	20	6	22.8

Flange	a1	e1	b_1	to2	c1	f_1	s1
	110	87	60	H8	8	4.0	9
	120	100	80	j6	8	3.0	6.6

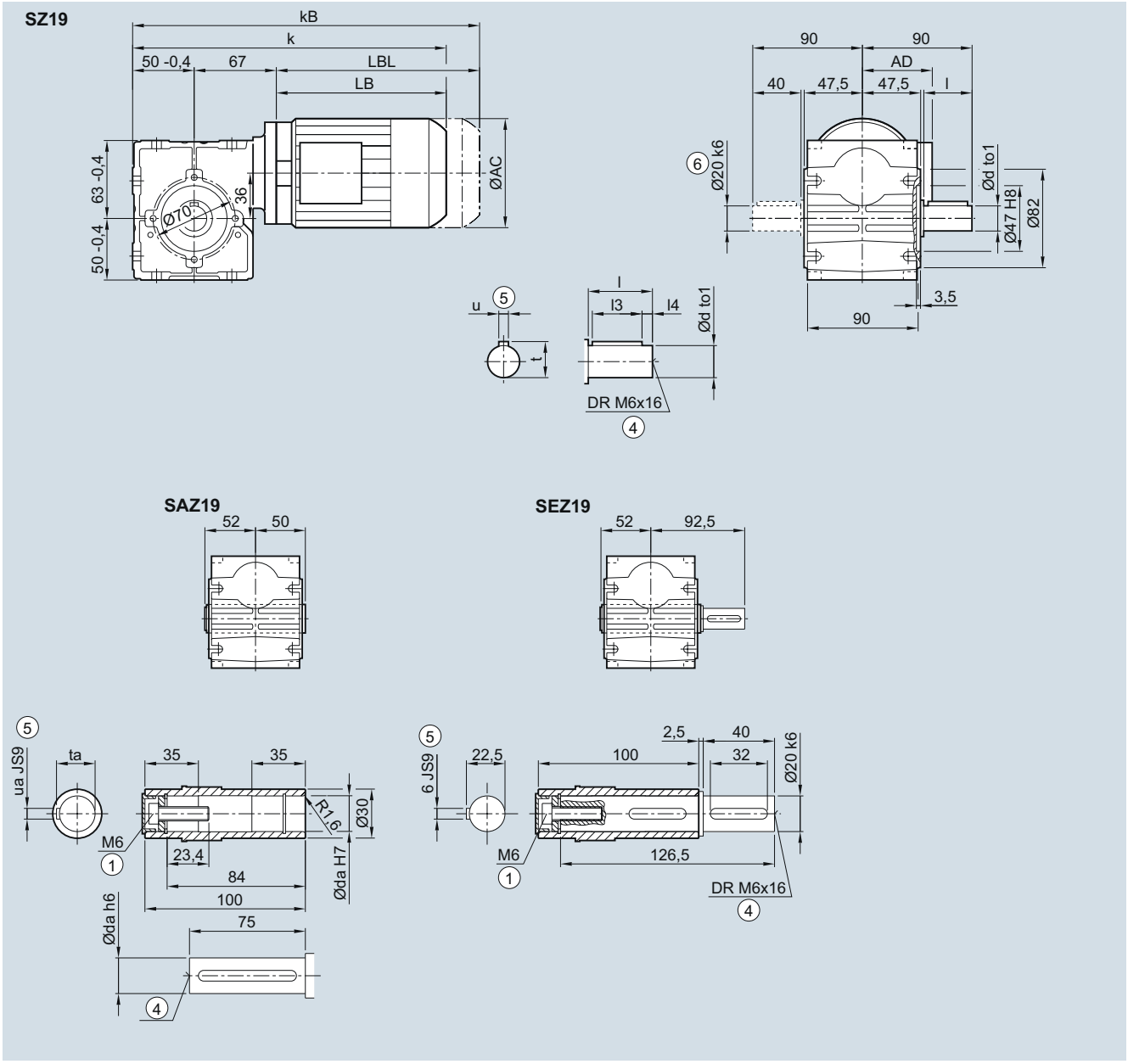
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	296.5	347.5	179.5	230.5
LAI 71	139	111	327.0	378.5	210	261.5

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

[1] AD depends on the motor options, for other dimensions, see page 8/48.

S.Z19 gearbox in a housing flange design

SZ030, SAZ030, SEZ030



Solid shaft	d	to1	l	l3	l4	u	t	Hollow shaft	da	ua	ta
	18	k6	40	31	4	6	20.5		18	6	20.8
	20	k6	40	32	4	6	22.5		20	6	22.8

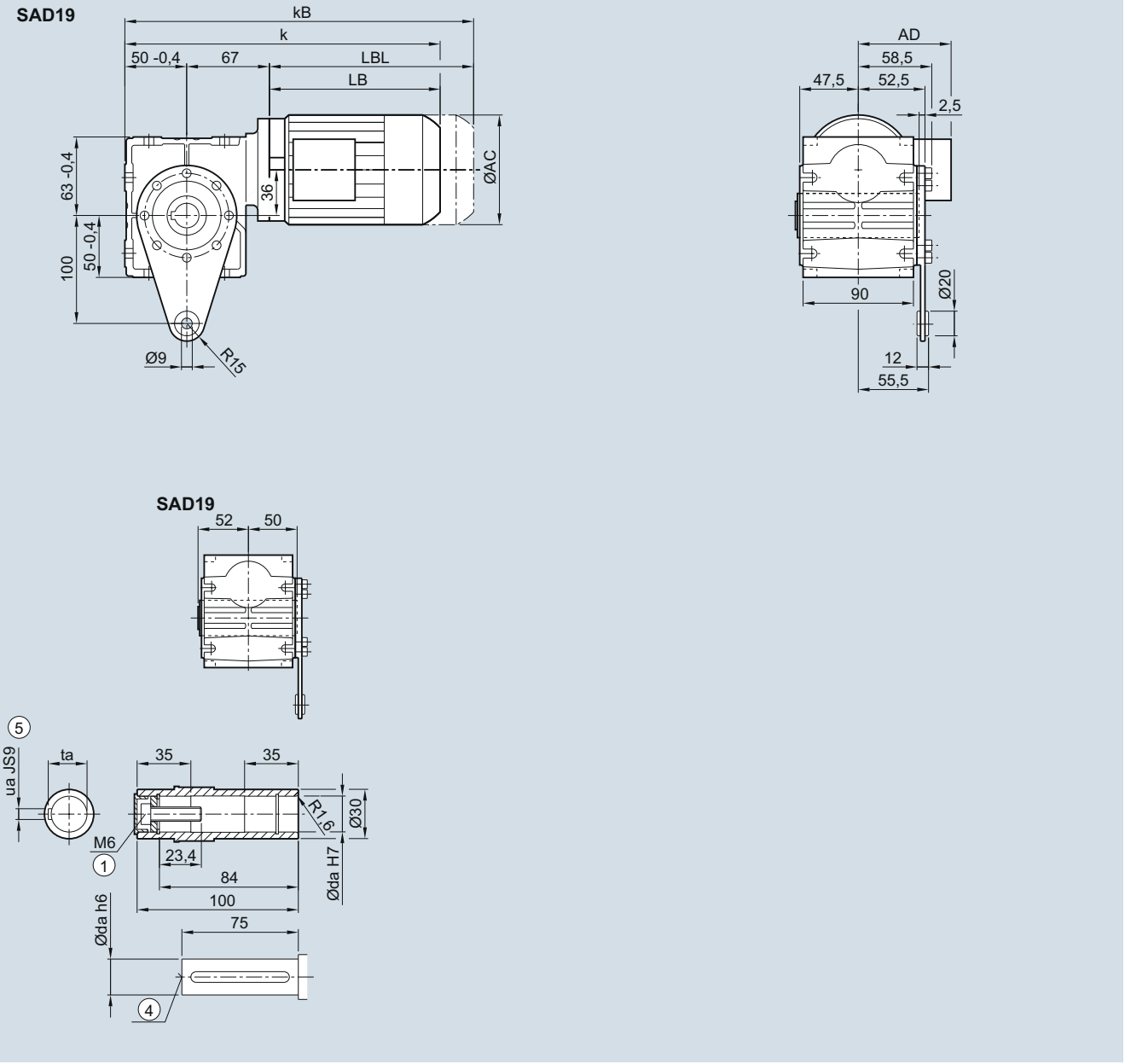
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	296.5	347.5	179.5	230.5
LAI 71	139	111	327.0	378.5	210	261.5

① ISO 4014
④ DIN 332
⑤ Feather key/keyway DIN 6885-1
⑥ Solid shaft with 2nd shaft extension only d20

[1] AD depends on the motor options, for other dimensions, see page 8/48.

SAD19 gearbox in a shaft-mounted design

SAD030



Hollow shaft	da	ua	ta
	18	6	20.8
	20	6	22.8

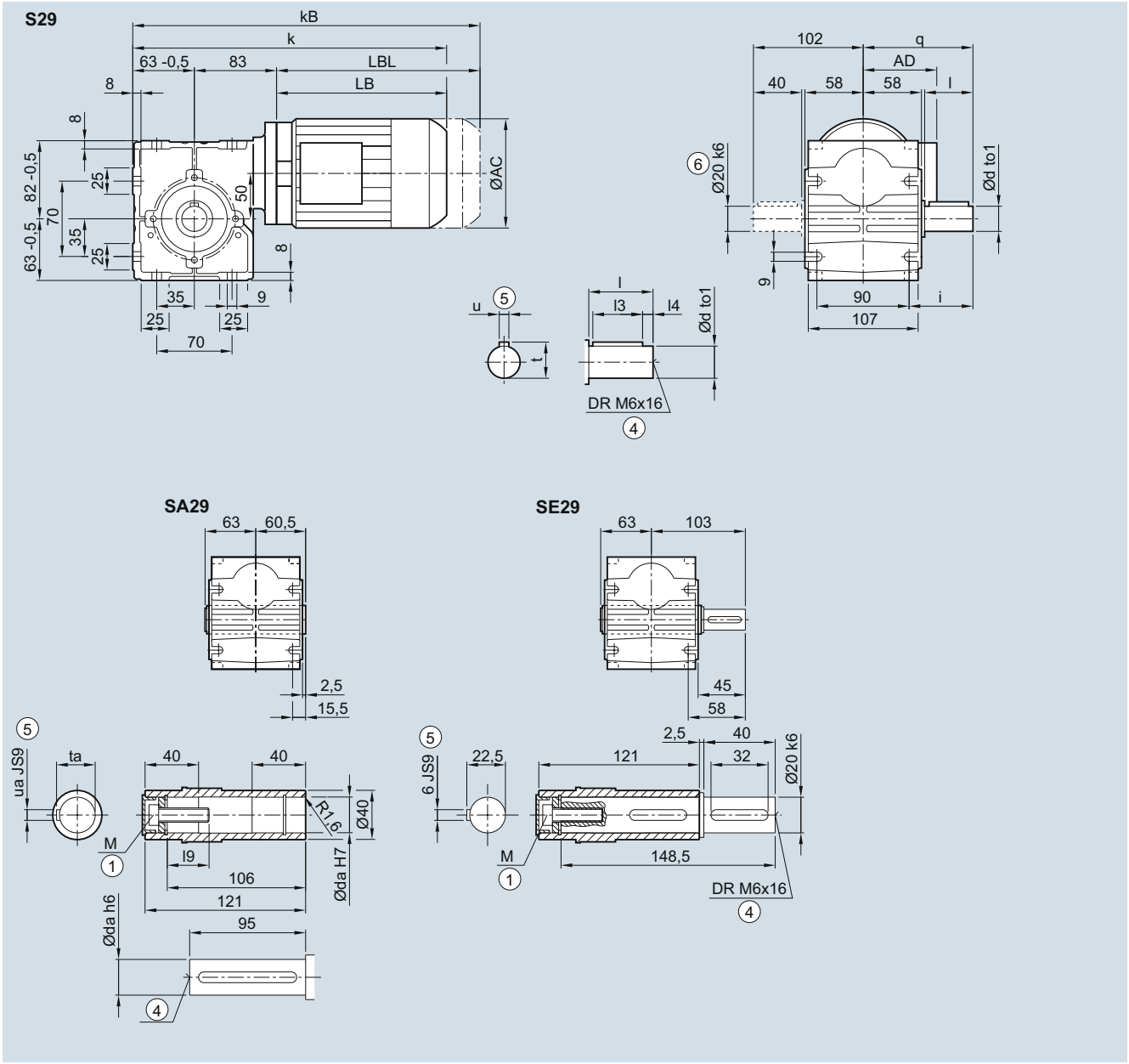
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	296.5	347.5	179.5	230.5
LAI 71	139	111	327.0	378.5	210.0	261.5

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

[1] AD depends on the motor options, for other dimensions, see page 8/48.

S.29 gearbox in a foot-mounted design

S030, SA030, SE030



Solid shaft	d	to1	l	l3	l4	u	t	q	i
	20	k6	40	32	4	6	22.5	102	57
	25	k6	50	40	5	8	28.0	112	67

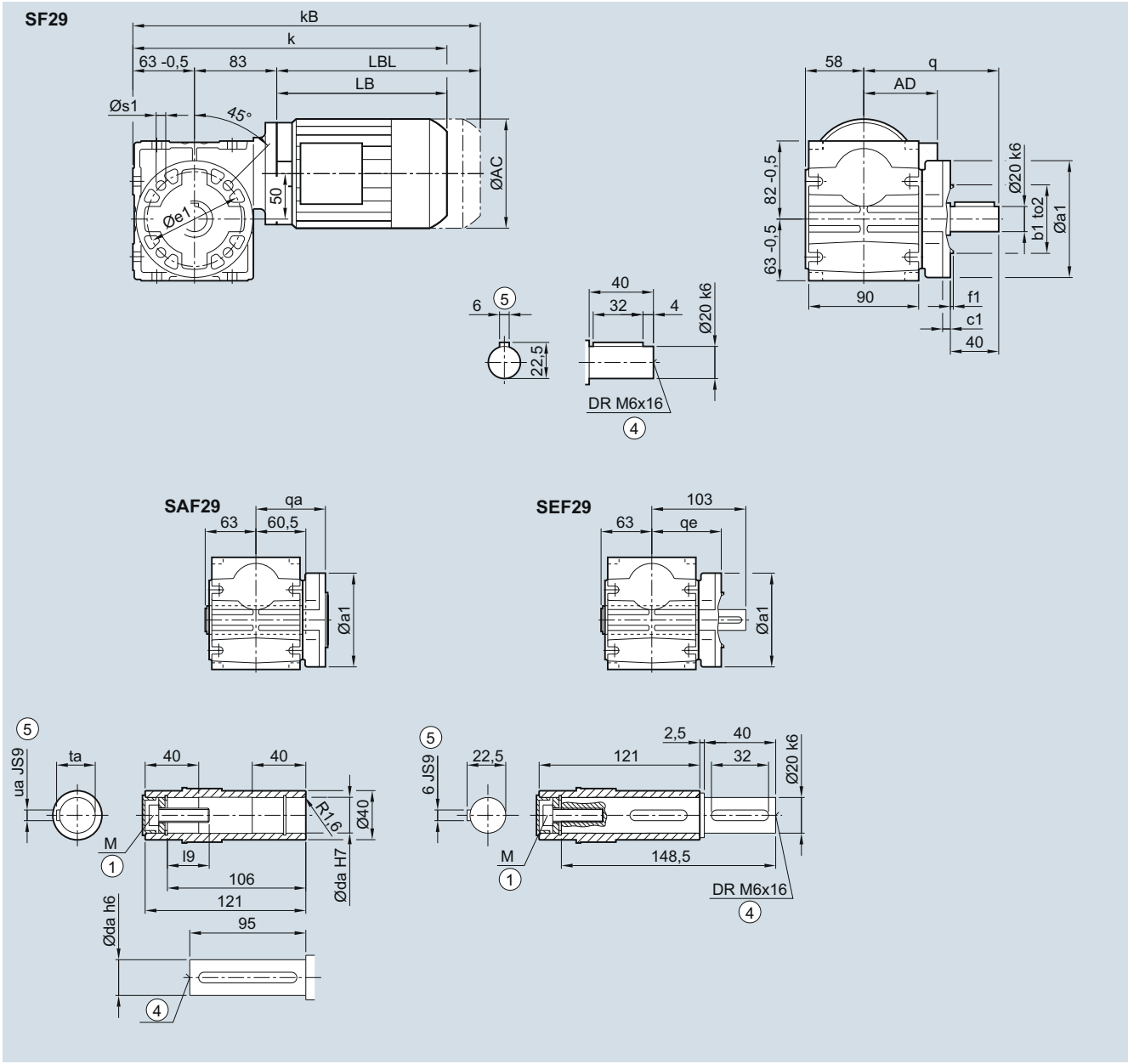
Hollow shaft	da	ua	ta	l9	M
	20	6	22.8	23.4	M6
	25	8	28.3	32.6	M10

Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	325.5	376.5	179.5	230.5
LAI 71	139	111	356.5	407.5	210.5	261.5

① ISO 4014
④ DIN 332
⑤ Feather key/keyway DIN 6885-1
⑥ Solid shaft with 2nd shaft extension only d20
[1] AD depends on the motor options, for other dimensions, see page 8/48.

S.F29 gearbox in a flange-mounted design

SF030, SAF030, SEF030



Hollow shaft	da	ua	ta	l9	M
	20	6	22.8	23.4	M6
	25	8	28.3	32.6	M10

Flange	a1	e1	b_1	to2	c1	f_1	s1	q	qa / qe
	120	100	80	j6	8	3.0	6.6	120	80
	160	130	110	j6	8	3.5	9.0	135	85

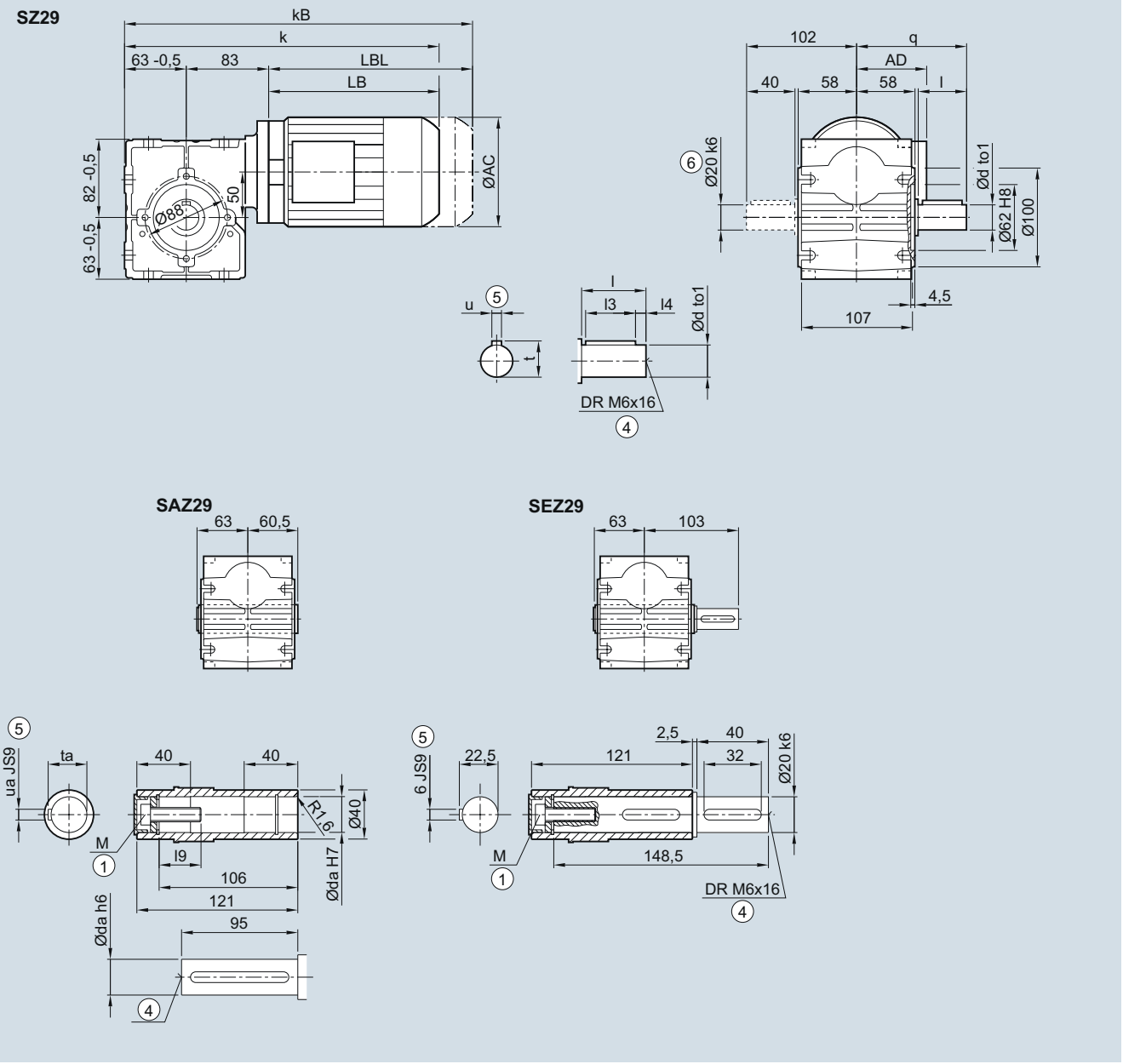
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	325.5	376.5	179.5	230.5
LAI 71	139	111	356.5	407.5	210.5	261.5

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

[1] AD depends on the motor options, for other dimensions, see page 8/48.

S.Z29 gearbox in a housing flange design

SZ030, SAZ030, SEZ030



Solid shaft	d	to1	l	l3	l4	u	t	q
	20	k6	40	32	4	6	22.5	102
	25	k6	50	40	5	8	28.0	112

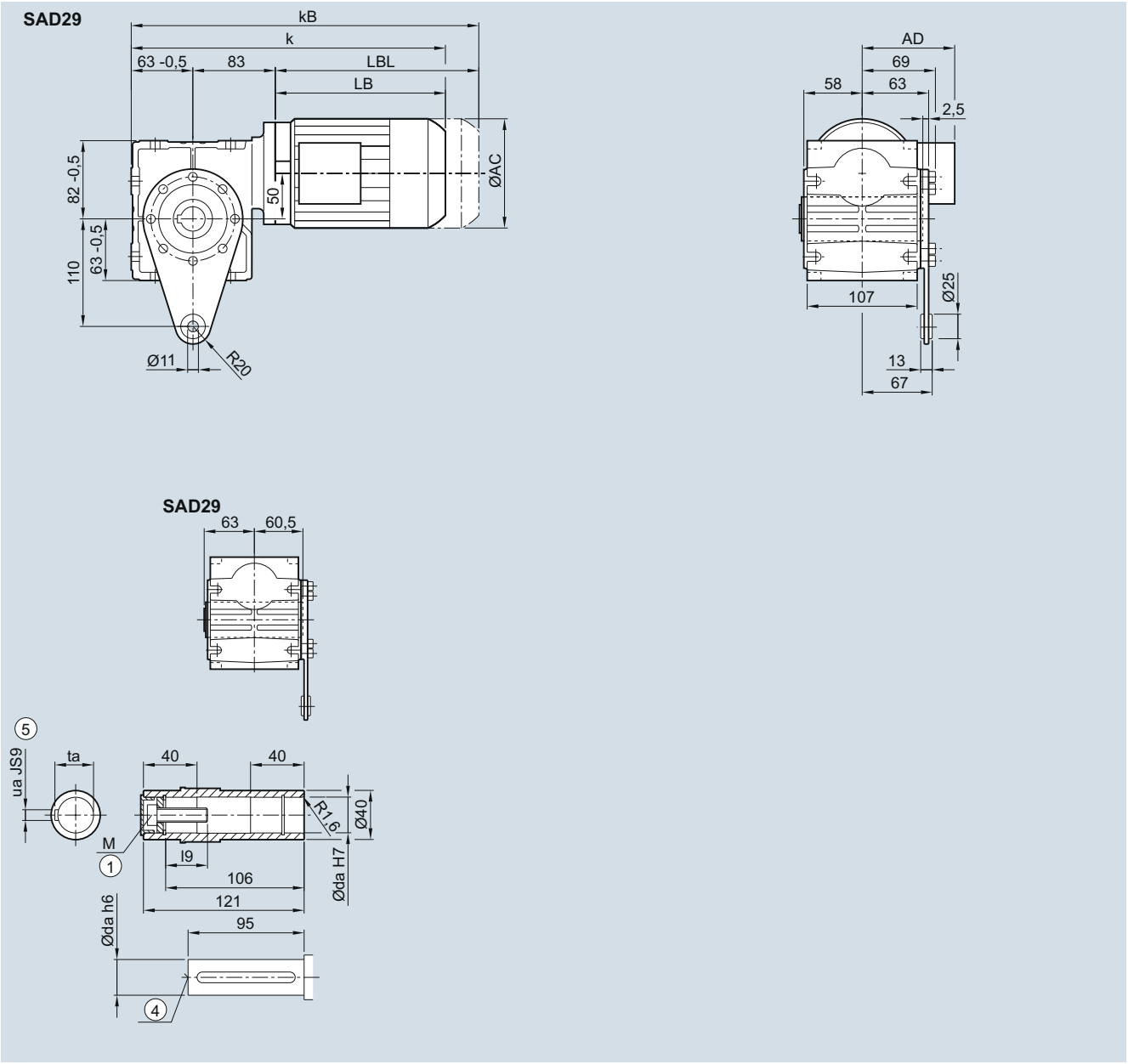
Hollow shaft	da	ua	ta	l9	M
	20	6	22.8	23.4	M6
	25	8	28.3	32.6	M10

Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	325.5	376.5	179.5	230.5
LAI 71	139	111	356.5	407.5	210.5	261.5

① ISO 4014
④ DIN 332
⑤ Feather key/keyway DIN 6885-1
⑥ Solid shaft with 2nd shaft extension only d20
[1] AD depends on the motor options, for other dimensions, see page 8/48.

SAD29 gearbox in a shaft-mounted design

SAD030



Hollow shaft	da	ua	ta	l9	M
	20	6	22.8	23.4	M6
	25	8	28.3	32.6	M10

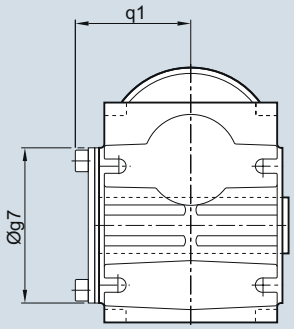
Motor	AC	AD [1]	k	kB	LB	LBL
LAI 63	118	101	325.5	376.5	179.5	230.5
LAI 71	139	111	356.5	407.5	210.5	261.5

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

[1] AD depends on the motor options, for other dimensions, see page 8/48.

Protection cover for hollow shaft

SA, SAZ, SAF, SE, SEZ



Gearbox type	S.09	S.19	S.29
Protection cover			
g7	72	82	100
q1	51	59.5	70