

4

Helical bevel geared motors

K

4.1 Overview

Highly rigid helical-gear right-angle geared motor

Features

- Power density ★★★★★
- Backlash ★★★★★
- Price category €€
- Shaft load ★★★★★
- Smooth operation ★★★★★
- Torsional stiffness ★★★★★
- Mass moment of inertia ★★★★★
- Helical gearing ✓
- Maintenance-free (K1 – K4) ✓
- FKM seal ring at the input ✓
- Reinforced output bearing (K5 – K8) ✓ (on request)

Key: ★☆☆☆☆ good | ★★★★★ excellent
 € Economy | €€€€€ Premium

Technical data

P_N	0.12 – 45 kW
i	4 – 381
M_{2N}	6.7 – 13970 Nm
η_{get}	≤ 97 %

4.2 Selection tables

The technical data specified in the selection tables applies to:

- Installation altitudes up to 1000 m above sea level
- Surrounding temperatures from 0 °C to 40 °C
- Drives with self-ventilated motors
- Weight specification for mounting position EL1, housing design G

Calculate the technical data for geared motors with low output speed at <http://products.stoeber.de>.

Asynchronous geared motors are ideal for operation on a drive controller (87 Hz). More information can be found in Chapter [▶ 6.6](#)

An explanation of the formula symbols can be found in the Chapter [▶ 14.1](#).

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 0,12 kW, P_N (87 Hz) = 0,21 kW									
20	1.2	34	1.2	57	K102_0700 D063K04	14.5	70.03	2451/35	1.9
24	1.9	42	1.9	46	K102_0560 D063K04	14.5	56.10	1178/21	1.9
27	1.2	47	1.2	41	K102_0500 D063K04	14.5	50.31	5031/100	1.9
29	2.1	51	2.1	38	K102_0470 D063K04	14.5	46.92	2299/49	1.9
34	1.9	59	1.9	33	K102_0400 D063K04	14.5	40.30	403/10	1.9
39	2.4	68	2.4	29	K102_0350 D063K04	14.5	35.11	3686/105	1.9
41	2.1	70	2.1	27	K102_0340 D063K04	14.5	33.71	4719/140	1.9
49	2.8	85	2.8	23	K102_0280 D063K04	14.5	28.05	589/21	2.0
54	2.4	94	2.4	21	K102_0250 D063K04	14.5	25.22	1261/50	1.9
59	3.2	102	3.2	19	K102_0230 D063K04	14.5	23.27	1140/49	2.0
68	2.8	118	2.8	16	K102_0200 D063K04	14.5	20.15	403/20	2.0
78	3.3	135	3.3	14	K102_0175 D063K04	14.5	17.56	2090/119	2.0
82	3.2	142	3.2	14	K102_0165 D063K04	14.5	16.71	117/7	2.0
P_N (50 Hz) = 0,18 kW, P_N (87 Hz) = 0,31 kW									
6.2	1.0	11	1.0	263	K303_2180 D063M04	32.3	218.2	38399/176	2.5
7.5	0.92	13	0.92	218	K203_1810 D063M04	25.3	181.0	86903/480	2.5
7.5	1.6	13	1.6	218	K303_1810 D063M04	32.3	181.0	86903/480	2.5
10	2.0	17	2.0	164	K303_1360 D063M04	32.3	136.0	14147/104	2.5
10	1.2	17	1.2	163	K203_1350 D063M04	25.3	135.3	30315/224	2.5
12	1.5	22	1.5	132	K203_1090 D063M04	25.3	109.5	26273/240	2.5
12	2.0	22	2.0	132	K303_1090 D063M04	32.3	109.2	167743/1536	2.5
15	1.8	26	1.8	109	K203_0910 D063M04	25.3	90.79	46483/512	2.5
15	2.0	26	2.0	110	K303_0910 D063M04	32.3	91.23	26273/288	2.5
17	2.0	30	2.0	96	K203_0800 D063M04	25.3	79.62	26273/330	2.5
17	2.0	30	2.0	96	K303_0790 D063M04	32.3	79.42	167743/2112	2.5
19	0.81	34	0.81	86	K102_0700 D063M04	14.9	70.03	2451/35	2.4
20	2.0	34	2.0	82	K203_0680 D063M04	25.3	68.42	26273/384	2.5
21	2.0	36	2.0	80	K203_0660 D063M04	25.3	66.03	46483/704	2.5
24	1.2	42	1.2	69	K102_0560 D063M04	14.9	56.10	1178/21	2.4
25	2.0	43	2.0	66	K303_0550 D063M04	32.3	54.58	70735/1296	2.5
25	2.0	43	2.0	65	K203_0540 D063M04	25.3	54.25	135407/2496	2.5
27	0.81	47	0.81	61	K102_0500 D063M04	14.9	50.31	5031/100	2.4
27	2.0	47	2.0	60	K203_0500 D063M04	25.3	49.76	26273/528	2.5
28	2.0	48	2.0	59	K303_0490 D063M04	32.3	49.26	74777/1518	2.5
29	1.4	50	1.4	57	K102_0470 D063M04	14.9	46.92	2299/49	2.4
29	1.6	51	1.6	56	K202_0460 D063M04	22.4	46.23	1849/40	2.5
30	2.0	52	2.0	54	K203_0450 D063M04	25.3	45.22	58609/1296	2.5
34	1.2	58	1.2	49	K102_0400 D063M04	14.9	40.30	403/10	2.4
34	2.0	60	2.0	48	K203_0390 D063M04	25.3	39.45	135407/3432	2.5
39	1.6	67	1.6	43	K102_0350 D063M04	14.9	35.11	3686/105	2.4
40	1.4	70	1.4	41	K102_0340 D063M04	14.9	33.71	4719/140	2.4
40	1.6	70	1.6	41	K202_0340 D063M04	22.4	33.62	1849/55	2.5
48	1.9	84	1.9	34	K102_0280 D063M04	14.9	28.05	589/21	2.5
54	1.6	93	1.6	31	K102_0250 D063M04	14.9	25.22	1261/50	2.4
58	2.2	101	2.2	28	K102_0230 D063M04	14.9	23.27	1140/49	2.5
67	1.9	117	1.9	25	K102_0200 D063M04	14.9	20.15	403/20	2.5
77	2.2	134	2.2	21	K102_0175 D063M04	14.9	17.56	2090/119	2.5
81	2.2	141	2.2	20	K102_0165 D063M04	14.9	16.71	117/7	2.5
96	2.2	167	2.2	17	K102_0140 D063M04	14.9	14.11	494/35	2.6
108	2.2	187	2.2	15	K102_0125 D063M04	14.9	12.62	429/34	2.6

4.2 Selection tables 4 K helical bevel geared motors

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 0,18 kW, P_N (87 Hz) = 0,31 kW									
134	2.2	232	2.2	12	K102_0100 D063M04	14.9	10.14	507/50	2.6
147	2.2	255	2.2	11	K102_0092 D063M04	14.9	9.249	1748/189	2.7
205	2.2	355	2.2	8.1	K102_0066 D063M04	14.9	6.644	299/45	2.8
P_N (50 Hz) = 0,25 kW, P_N (87 Hz) = 0,43 kW									
5.1	0.83	8.8	0.83	447	K403_2720 D071K04	46.7	271.6	86903/320	4.1
6.3	1.2	11	1.2	359	K403_2180 D071K04	46.7	218.2	38399/176	4.1
7.7	1.2	13	1.2	298	K303_1810 D071K04	33.9	181.0	86903/480	4.1
7.6	1.8	13	1.8	298	K403_1810 D071K04	46.7	181.4	14147/78	4.1
10	1.6	18	1.6	224	K303_1360 D071K04	33.9	136.0	14147/104	4.1
10	2.5	18	2.2	224	K403_1360 D071K04	46.7	136.1	196037/1440	4.1
10	0.90	18	0.90	223	K203_1350 D071K04	26.9	135.3	30315/224	4.1
13	1.1	22	1.1	180	K203_1090 D071K04	26.9	109.5	26273/240	4.1
13	1.9	22	1.9	180	K303_1090 D071K04	33.9	109.2	167743/1536	4.1
13	3.1	22	2.7	179	K403_1090 D071K04	46.7	108.8	62651/576	4.1
15	1.3	26	1.3	149	K203_0910 D071K04	26.9	90.79	46483/512	4.1
15	2.3	26	2.3	150	K303_0910 D071K04	33.9	91.23	26273/288	4.1
17	1.5	30	1.5	131	K203_0800 D071K04	26.9	79.62	26273/330	4.1
17	2.7	30	2.4	131	K303_0790 D071K04	33.9	79.42	167743/2112	4.1
20	1.1	35	1.1	116	K202_0690 D071K04	24.0	69.43	6665/96	4.0
20	1.8	35	1.8	116	K302_0690 D071K04	29.0	69.43	6665/96	4.1
20	1.8	35	1.8	113	K203_0680 D071K04	26.9	68.42	26273/384	4.1
20	3.1	35	3.1	111	K303_0680 D071K04	33.9	67.73	74777/1104	4.1
21	1.8	36	1.8	109	K203_0660 D071K04	26.9	66.03	46483/704	4.1
21	3.1	36	2.7	109	K303_0660 D071K04	33.9	66.35	26273/396	4.1
25	0.91	43	0.91	94	K102_0560 D071K04	16.5	56.10	1178/21	4.0
25	1.7	43	1.7	93	K202_0560 D071K04	24.0	55.54	1333/24	4.1
25	3.1	44	3.1	90	K303_0550 D071K04	33.9	54.58	70735/1296	4.1
26	2.2	44	2.2	89	K203_0540 D071K04	26.9	54.25	135407/2496	4.1
27	1.1	48	1.1	84	K202_0500 D071K04	24.0	50.49	6665/132	4.0
28	2.4	48	2.4	82	K203_0500 D071K04	26.9	49.76	26273/528	4.1
28	3.1	49	3.1	81	K303_0490 D071K04	33.9	49.26	74777/1518	4.1
30	1.3	51	1.3	78	K102_0470 D071K04	16.5	46.92	2299/49	4.0
30	2.6	52	2.6	77	K202_0460 D071K04	24.0	46.23	1849/40	4.1
31	2.7	53	2.7	74	K203_0450 D071K04	26.9	45.22	58609/1296	4.1
34	0.91	60	0.91	67	K102_0400 D071K04	16.5	40.30	403/10	4.0
34	1.7	59	1.7	67	K202_0400 D071K04	24.0	40.39	1333/33	4.1
35	3.1	61	3.1	65	K203_0390 D071K04	26.9	39.45	135407/3432	4.1
39	2.0	68	2.0	59	K102_0350 D071K04	16.5	35.11	3686/105	4.0
41	1.3	71	1.3	56	K102_0340 D071K04	16.5	33.71	4719/140	4.0
41	2.7	71	2.7	56	K202_0340 D071K04	24.0	33.62	1849/55	4.1
49	2.6	86	2.3	47	K102_0280 D071K04	16.5	28.05	589/21	4.1
55	2.3	95	2.3	42	K102_0250 D071K04	16.5	25.22	1261/50	4.0
60	3.0	103	2.6	39	K102_0230 D071K04	16.5	23.27	1140/49	4.1
69	2.9	119	2.8	34	K102_0200 D071K04	16.5	20.15	403/20	4.1
79	3.5	137	3.1	29	K102_0175 D071K04	16.5	17.56	2090/119	4.1
82	3.5	142	3.5	28	K202_0170 D071K04	24.0	16.86	2967/176	4.3
83	3.3	144	3.2	28	K102_0165 D071K04	16.5	16.71	1177	4.1
98	3.5	170	3.5	24	K102_0140 D071K04	16.5	14.11	494/35	4.2
110	3.5	190	3.5	21	K102_0125 D071K04	16.5	12.62	429/34	4.2
120	3.5	207	3.5	19	K102_0115 D071K04	16.5	11.57	266/23	4.2
137	3.5	237	3.5	17	K102_0100 D071K04	16.5	10.14	507/50	4.2
150	3.5	259	3.5	15	K102_0092 D071K04	16.5	9.249	1748/189	4.3
165	3.5	286	3.5	14	K202_0084 D071K04	24.0	8.397	2494/297	4.8
167	3.5	289	3.5	14	K102_0083 D071K04	16.5	8.309	1911/230	4.3
208	3.5	361	3.5	11	K102_0066 D071K04	16.5	6.644	299/45	4.4
249	3.5	431	3.5	9.3	K102_0056 D071K04	16.5	5.568	1520/273	4.7
346	3.5	600	3.5	6.7	K102_0040 D071K04	16.5	4.000	4/1	4.9
P_N (50 Hz) = 0,37 kW, P_N (87 Hz) = 0,64 kW									
7.6	1.2	13	1.2	447	K403_1810 D071L04	47.7	181.4	14147/78	5.1
10	1.0	17	1.0	336	K303_1360 D071L04	34.9	136.0	14147/104	5.1
10	1.6	17	1.5	336	K403_1360 D071L04	47.7	136.1	196037/1440	5.1
13	1.3	22	1.3	269	K303_1090 D071L04	34.9	109.2	167743/1536	5.1
13	2.1	22	1.8	268	K403_1090 D071L04	47.7	108.8	62651/576	5.1
15	0.89	26	0.89	224	K203_0910 D071L04	27.9	90.79	46483/512	5.1
15	1.6	26	1.6	225	K303_0910 D071L04	34.9	91.23	26273/288	5.1

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 0,37 kW, P_N (87 Hz) = 0,64 kW									
15	2.1	26	2.0	225	K403_0910 D071L04	47.7	91.23	26273/288	5.1
17	1.0	30	1.0	196	K203_0800 D071L04	27.9	79.62	26273/330	5.1
17	1.8	30	1.6	196	K303_0790 D071L04	34.9	79.42	167743/2112	5.1
17	2.1	30	1.8	195	K403_0790 D071L04	47.7	79.11	62651/792	5.1
20	1.2	34	1.2	174	K302_0690 D071L04	30.0	69.43	6665/96	5.1
20	1.2	35	1.2	169	K203_0680 D071L04	27.9	68.42	26273/384	5.1
20	2.1	35	2.1	167	K303_0680 D071L04	34.9	67.73	74777/1104	5.1
21	1.2	36	1.2	163	K203_0660 D071L04	27.9	66.03	46483/704	5.1
21	2.1	36	1.8	164	K303_0660 D071L04	34.9	66.35	26273/396	5.1
25	1.1	43	1.1	139	K202_0560 D071L04	25.0	55.54	1333/24	5.1
25	2.1	43	2.1	135	K303_0550 D071L04	34.9	54.58	70735/1296	5.1
25	1.5	44	1.5	134	K203_0540 D071L04	27.9	54.25	135407/2496	5.1
28	1.6	48	1.6	123	K203_0500 D071L04	27.9	49.76	26273/528	5.1
28	2.1	48	2.1	121	K303_0490 D071L04	34.9	49.26	74777/1518	5.1
29	0.87	51	0.87	117	K102_0470 D071L04	17.5	46.92	2299/49	5.0
30	1.7	51	1.7	116	K202_0460 D071L04	25.0	46.23	1849/40	5.1
30	1.8	52	1.8	112	K203_0450 D071L04	27.9	45.22	58609/1296	5.1
34	1.1	59	1.1	101	K202_0400 D071L04	25.0	40.39	1333/33	5.1
35	2.1	60	2.1	97	K203_0390 D071L04	27.9	39.45	135407/3432	5.1
39	1.4	68	1.3	88	K102_0350 D071L04	17.5	35.11	3686/105	5.0
40	2.0	69	2.0	86	K202_0350 D071L04	25.0	34.55	1935/56	5.1
41	0.87	70	0.87	84	K102_0340 D071L04	17.5	33.71	4719/140	5.0
41	1.8	71	1.8	84	K202_0340 D071L04	25.0	33.62	1849/55	5.1
49	1.7	85	1.5	70	K102_0280 D071L04	17.5	28.05	589/21	5.1
54	1.5	94	1.5	63	K102_0250 D071L04	17.5	25.22	1261/50	5.0
55	2.0	94	2.0	63	K202_0250 D071L04	25.0	25.13	1935/77	5.1
59	2.0	102	1.7	58	K102_0230 D071L04	17.5	23.27	1140/49	5.1
68	1.9	118	1.9	50	K102_0200 D071L04	17.5	20.15	403/20	5.1
78	2.3	135	2.1	44	K102_0175 D071L04	17.5	17.56	2090/119	5.1
81	2.3	141	2.3	42	K202_0170 D071L04	25.0	16.86	2967/176	5.3
82	2.2	142	2.2	42	K102_0165 D071L04	17.5	16.71	1177	5.1
97	2.3	168	2.3	35	K102_0140 D071L04	17.5	14.11	494/35	5.2
109	2.3	188	2.3	32	K102_0125 D071L04	17.5	12.62	429/34	5.2
118	2.3	205	2.3	29	K102_0115 D071L04	17.5	11.57	266/23	5.2
135	2.3	234	2.3	25	K102_0100 D071L04	17.5	10.14	507/50	5.2
148	2.3	257	2.3	23	K102_0092 D071L04	17.5	9.249	1748/189	5.3
163	2.3	283	2.3	21	K202_0084 D071L04	25.0	8.397	2494/297	5.8
165	2.3	286	2.3	21	K102_0083 D071L04	17.5	8.309	1911/230	5.3
206	2.3	357	2.3	17	K102_0066 D071L04	17.5	6.644	299/45	5.4
246	2.3	426	2.3	14	K102_0056 D071L04	17.5	5.568	1520/273	5.7
343	2.3	593	2.3	10	K102_0040 D071L04	17.5	4.000	4/1	5.9
418	4.7	-	-	8.2	K102_0066 D071K02	16.4	6.644	299/45	2.9
P_N (50 Hz) = 0,55 kW, P_N (87 Hz) = 0,95 kW									
3.7	1.4	6.4	1.4	1345	K714_3810 D080K04	110.3	381.0	195083/512	8.9
3.8	0.83	6.6	0.83	1302	K614_3690 D080K04	77.5	368.9	1700009/4608	8.9
4.1	1.4	7.0	1.4	1214	K714_3440 D080K04	110.3	344.1	44051/128	8.9
4.2	0.83	7.3	0.83	1176	K614_3330 D080K04	77.5	333.2	383873/1152	8.9
4.6	2.2	8.0	2.0	1076	K714_3050 D080K04	110.3	304.8	195083/640	9.0
4.7	0.85	8.1	0.85	1059	K514_3000 D080K04	56.6	300.0	756059/2520	8.9
4.8	1.4	8.2	1.4	1039	K614_2940 D080K04	77.5	294.4	3674213/12480	8.9
5.1	2.2	8.8	2.0	972	K714_2750 D080K04	110.3	275.3	44051/160	9.0
5.2	0.86	8.9	0.86	956	K514_2710 D080K04	56.6	271.0	24389/90	8.9
5.3	1.4	9.1	1.4	938	K614_2660 D080K04	77.5	265.9	829661/3120	8.9
5.6	2.3	9.7	2.3	885	K714_2510 D080K04	110.3	250.7	320943/1280	9.0
5.6	1.0	9.7	1.0	881	K514_2500 D080K04	56.6	249.6	729988/2925	8.9
5.7	1.7	9.8	1.7	869	K614_2460 D080K04	77.5	246.3	1261297/5120	8.9
6.2	2.3	11	2.3	799	K714_2260 D080K04	110.3	226.5	72471/320	9.0
6.2	1.1	11	1.1	795	K514_2250 D080K04	56.6	225.4	659344/2925	8.9
6.3	1.8	11	1.8	785	K614_2230 D080K04	77.5	222.5	284809/1280	8.9
7.3	2.3	13	2.3	681	K714_1930 D080K04	110.3	192.9	320943/1664	9.1
7.5	1.4	13	1.4	657	K514_1860 D080K04	56.6	186.2	26071/140	8.9
7.6	2.2	13	2.2	651	K614_1850 D080K04	77.5	184.6	383873/2080	9.0
7.8	0.83	14	0.83	642	K403_1790 D080K04	50.5	179.1	34916/195	8.9
8.0	2.3	14	2.3	615	K714_1740 D080K04	110.3	174.2	72471/416	9.1
8.3	1.5	14	1.5	594	K514_1680 D080K04	56.6	168.2	841/5	8.9

4.2 Selection tables 4 K helical bevel geared motors

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 0,55 kW, P_N (87 Hz) = 0,95 kW									
8.4	2.3	15	2.3	588	K614_1670 D080K04	77.5	166.7	86681/520	9.0
9.2	2.3	16	2.3	535	K714_1520 D080K04	110.3	151.7	24273/160	9.3
9.4	1.7	16	1.7	526	K514_1490 D080K04	56.6	149.0	26071/175	9.0
9.4	2.3	16	2.3	523	K614_1480 D080K04	77.5	148.2	4551637/30720	9.0
10	2.3	18	2.3	484	K714_1370 D080K04	110.3	137.0	5481/40	9.3
10	1.9	18	1.9	475	K514_1350 D080K04	56.6	134.6	3364/25	9.0
10	1.1	18	1.1	482	K403_1340 D080K04	50.5	134.4	120959/900	8.9
10	2.3	18	2.3	472	K614_1340 D080K04	77.5	133.8	1027789/7680	9.0
11	2.0	19	2.0	441	K514_1250 D080K04	56.6	124.9	599633/4800	9.0
11	2.3	20	2.3	435	K614_1230 D080K04	77.5	123.2	1261297/10240	9.1
12	2.3	21	2.3	398	K514_1130 D080K04	56.6	112.8	135401/1200	9.0
13	2.3	22	2.3	393	K614_1110 D080K04	77.5	111.3	284809/2560	9.1
13	0.91	22	0.91	387	K303_1080 D080K04	37.7	107.8	103501/960	8.9
13	1.4	23	1.4	385	K403_1070 D080K04	50.5	107.4	38657/360	8.9
15	2.3	26	2.3	332	K514_0940 D080K04	56.6	94.15	338923/3600	9.1
16	1.1	27	1.1	323	K303_0900 D080K04	37.7	90.06	16211/180	8.9
16	1.7	27	1.7	323	K403_0900 D080K04	50.5	90.06	16211/180	8.9
16	2.3	29	2.3	300	K514_0850 D080K04	56.6	85.03	76531/900	9.1
18	1.2	31	1.2	281	K303_0780 D080K04	37.7	78.41	103501/1320	8.9
18	2.0	31	2.0	280	K403_0780 D080K04	50.5	78.10	38657/495	8.9
20	1.5	35	1.5	252	K402_0690 D080K04	46.3	69.34	5547/80	8.8
21	1.5	36	1.5	240	K303_0670 D080K04	37.7	66.87	46139/690	8.9
21	2.3	36	2.3	241	K403_0670 D080K04	50.5	67.30	21199/315	8.9
21	1.5	37	1.5	235	K303_0650 D080K04	37.7	65.50	32422/495	8.9
21	2.3	37	2.3	235	K403_0650 D080K04	50.5	65.50	32422/495	8.9
25	1.3	44	1.3	203	K302_0560 D080K04	32.8	55.71	2451/44	8.8
26	1.8	45	1.8	193	K303_0540 D080K04	37.7	53.88	8729/162	8.9
26	2.3	45	2.3	192	K403_0540 D080K04	50.5	53.69	38657/720	9.0
28	1.5	48	1.5	183	K402_0500 D080K04	46.3	50.43	5547/110	8.8
29	2.0	50	2.0	174	K303_0490 D080K04	37.7	48.63	184556/3795	8.9
30	1.2	52	1.2	168	K202_0460 D080K04	27.8	46.23	1849/40	8.8
30	2.0	52	2.0	168	K302_0460 D080K04	32.8	46.23	1849/40	8.9
31	2.2	54	2.2	161	K303_0450 D080K04	37.7	44.89	11223/250	8.9
35	1.3	60	1.3	147	K302_0410 D080K04	32.8	40.51	4902/121	8.8
36	2.3	62	2.3	140	K303_0390 D080K04	37.7	39.19	34916/891	8.9
39	2.3	68	2.3	128	K303_0360 D080K04	37.7	35.83	215/6	9.0
40	0.94	69	0.90	128	K102_0350 D080K04	20.3	35.11	3686/105	8.7
41	1.6	70	1.6	126	K202_0350 D080K04	27.8	34.55	1935/56	8.8
40	2.7	70	2.7	126	K302_0350 D080K04	32.8	34.73	903/26	9.0
42	1.3	72	1.3	122	K202_0340 D080K04	27.8	33.62	1849/55	8.8
42	2.0	72	2.0	122	K302_0340 D080K04	32.8	33.62	1849/55	8.9
43	2.3	74	2.3	117	K303_0330 D080K04	37.7	32.65	44892/1375	8.9
43	2.3	75	2.3	116	K403_0320 D080K04	50.5	32.39	2494/77	9.0
50	1.2	86	1.0	102	K102_0280 D080K04	20.3	28.05	589/21	8.8
50	2.0	87	1.9	102	K202_0280 D080K04	27.8	27.95	559/20	8.9
50	3.2	87	3.2	101	K302_0280 D080K04	32.8	27.88	3569/128	9.1
56	1.0	96	1.0	92	K102_0250 D080K04	20.3	25.22	1261/50	8.7
56	2.2	96	2.0	91	K202_0250 D080K04	27.8	25.13	1935/77	8.8
60	1.4	104	1.2	85	K102_0230 D080K04	20.3	23.27	1140/49	8.8
60	2.4	105	2.1	84	K202_0230 D080K04	27.8	23.18	2967/128	8.9
69	1.5	120	1.3	73	K102_0200 D080K04	20.3	20.15	403/20	8.8
69	2.7	119	2.3	74	K202_0200 D080K04	27.8	20.33	1118/55	8.9
80	1.7	138	1.4	64	K102_0175 D080K04	20.3	17.56	2090/119	8.8
80	3.0	139	2.6	64	K202_0175 D080K04	27.8	17.47	559/32	9.1
83	3.1	144	2.6	61	K202_0170 D080K04	27.8	16.86	2967/176	9.0
84	1.7	145	1.5	61	K102_0165 D080K04	20.3	16.71	117/7	8.8
99	1.9	172	1.6	51	K102_0140 D080K04	20.3	14.11	494/35	8.9
101	3.2	175	3.0	50	K202_0140 D080K04	27.8	13.85	2881/208	9.2
111	2.1	192	1.8	46	K102_0125 D080K04	20.3	12.62	429/34	8.9
121	2.2	210	1.9	42	K102_0115 D080K04	20.3	11.57	266/23	8.9
138	2.4	239	2.1	37	K102_0100 D080K04	20.3	10.14	507/50	8.9
151	2.6	262	2.2	34	K102_0092 D080K04	20.3	9.249	1748/189	9.0
167	3.2	289	3.2	31	K202_0084 D080K04	27.8	8.397	2494/297	9.5
168	2.8	292	2.3	30	K102_0083 D080K04	20.3	8.309	1911/230	9.0
209	3.2	363	3.2	24	K202_0067 D080K04	27.8	6.683	2279/341	9.8

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 0,55 kW, P_N (87 Hz) = 0,95 kW									
211	3.2	365	2.7	24	K102_0066 D080K04	20.3	6.644	299/45	9.1
233	3.2	404	2.9	22	K102_0060 D080K04	20.3	6.000	6/1	9.2
251	3.2	436	3.1	20	K102_0056 D080K04	20.3	5.568	1520/273	9.4
350	3.2	606	3.2	15	K102_0040 D080K04	20.3	4.000	4/1	9.6
418	3.2	–	–	12	K102_0066 D071L02	17.3	6.644	299/45	3.6
498	3.2	–	–	10	K102_0056 D071L02	17.3	5.568	1520/273	3.9
694	3.2	–	–	7.3	K102_0040 D071L02	17.3	4.000	4/1	4.1
P_N (50 Hz) = 0,75 kW, P_N (87 Hz) = 1,30 kW									
3.8	1.0	6.6	1.0	1793	K714_3810 IE3D080L04	116.7	381.0	195083/512	26
4.2	1.0	7.3	1.0	1619	K714_3440 IE3D080L04	116.7	344.1	44051/128	26
4.7	1.7	8.2	1.5	1434	K714_3050 IE3D080L04	116.7	304.8	195083/640	26
4.9	1.0	8.5	1.0	1385	K614_2940 IE3D080L04	83.9	294.4	3674213/12480	26
5.2	1.7	9.1	1.5	1295	K714_2750 IE3D080L04	116.7	275.3	44051/160	26
5.4	1.1	9.4	1.1	1251	K614_2660 IE3D080L04	83.9	265.9	829661/3120	26
5.8	1.9	10	1.8	1180	K714_2510 IE3D080L04	116.7	250.7	320943/1280	26
5.9	1.3	10	1.3	1159	K614_2460 IE3D080L04	83.9	246.3	1261297/5120	26
6.4	1.9	11	1.8	1066	K714_2260 IE3D080L04	116.7	226.5	72471/320	26
6.4	0.85	11	0.85	1061	K514_2250 IE3D080L04	63.0	225.4	659344/2925	26
6.5	1.4	11	1.4	1047	K614_2230 IE3D080L04	83.9	222.5	284809/1280	26
7.5	2.1	13	2.1	907	K714_1930 IE3D080L04	116.7	192.9	320943/1664	26
7.8	1.0	13	1.0	876	K514_1860 IE3D080L04	63.0	186.2	26071/140	26
7.8	1.7	14	1.7	868	K614_1850 IE3D080L04	83.9	184.6	383873/2080	26
8.3	2.1	14	2.1	820	K714_1740 IE3D080L04	116.7	174.2	72471/416	26
8.6	1.1	15	1.1	791	K514_1680 IE3D080L04	63.0	168.2	841/5	26
8.7	1.8	15	1.8	784	K614_1670 IE3D080L04	83.9	166.7	86681/520	26
9.5	2.5	16	2.5	714	K714_1520 IE3D080L04	116.7	151.7	24273/160	27
9.7	1.3	17	1.3	701	K514_1490 IE3D080L04	63.0	149.0	26071/175	26
9.8	2.1	17	2.1	697	K614_1480 IE3D080L04	83.9	148.2	4551637/30720	26
11	2.5	18	2.5	645	K714_1370 IE3D080L04	116.7	137.0	5481/40	27
11	1.4	19	1.4	633	K514_1350 IE3D080L04	63.0	134.6	3364/25	26
11	0.86	19	0.86	642	K403_1340 IE3D080L04	56.9	134.4	120959/900	26
11	2.3	19	2.3	630	K614_1340 IE3D080L04	83.9	133.8	1027789/7680	26
12	1.5	20	1.5	588	K514_1250 IE3D080L04	63.0	124.9	599633/4800	26
12	2.5	20	2.5	580	K614_1230 IE3D080L04	83.9	123.2	1261297/10240	26
13	1.7	22	1.7	531	K514_1130 IE3D080L04	63.0	112.8	135401/1200	26
13	2.8	22	2.7	523	K614_1110 IE3D080L04	83.9	111.3	284809/2560	26
13	1.1	23	1.1	513	K403_1070 IE3D080L04	56.9	107.4	38657/360	26
15	1.7	26	1.7	462	K513_0970 IE3D080L04	58.5	96.64	38657/400	26
15	2.4	26	2.4	456	K613_0950 IE3D080L04	80.0	95.41	293105/3072	27
15	2.0	27	2.0	443	K514_0940 IE3D080L04	63.0	94.15	338923/3600	26
16	0.81	28	0.81	430	K303_0900 IE3D080L04	44.1	90.06	16211/180	26
16	1.3	28	1.3	430	K403_0900 IE3D080L04	56.9	90.06	16211/180	26
17	1.7	29	1.7	417	K513_0870 IE3D080L04	58.5	87.29	8729/100	26
17	2.4	29	2.4	412	K613_0860 IE3D080L04	80.0	86.18	66185/768	27
17	2.3	29	2.3	400	K514_0850 IE3D080L04	63.0	85.03	76531/900	26
18	0.93	32	0.93	375	K303_0780 IE3D080L04	44.1	78.41	103501/1320	26
19	1.5	32	1.5	373	K403_0780 IE3D080L04	56.9	78.10	38657/495	26
19	2.4	32	2.4	371	K513_0780 IE3D080L04	58.5	77.59	26071/336	26
19	3.3	33	3.3	364	K613_0760 IE3D080L04	80.0	76.14	126697/1664	27
21	2.4	36	2.4	335	K513_0700 IE3D080L04	58.5	70.08	841/12	26
21	1.1	36	1.1	336	K402_0690 IE3D080L04	52.7	69.34	5547/80	26
21	3.3	36	3.3	329	K613_0690 IE3D080L04	80.0	68.77	28609/416	27
22	1.1	37	1.1	320	K303_0670 IE3D080L04	44.1	66.87	46139/690	26
21	1.7	37	1.7	322	K403_0670 IE3D080L04	56.9	67.30	21199/315	26
22	1.1	38	1.1	313	K303_0650 IE3D080L04	44.1	65.50	32422/495	26
22	1.8	38	1.8	313	K403_0650 IE3D080L04	56.9	65.50	32422/495	26
22	2.9	39	2.9	309	K513_0650 IE3D080L04	58.5	64.54	12586/195	27
25	3.2	43	3.2	279	K513_0580 IE3D080L04	58.5	58.30	11368/195	27
26	0.98	45	0.98	270	K302_0560 IE3D080L04	39.2	55.71	2451/44	26
26	1.6	45	1.6	270	K402_0560 IE3D080L04	52.7	55.71	2451/44	26
27	1.4	46	1.4	258	K303_0540 IE3D080L04	44.1	53.88	8729/162	26
27	2.1	47	2.1	257	K403_0540 IE3D080L04	56.9	53.69	38657/720	26
29	1.1	50	1.1	245	K402_0500 IE3D080L04	52.7	50.43	5547/110	26
30	1.5	51	1.5	232	K303_0490 IE3D080L04	44.1	48.63	184556/3795	26
30	2.4	51	2.4	234	K403_0490 IE3D080L04	56.9	48.94	169592/3465	26

4.2 Selection tables 4 K helical bevel geared motors

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 0,75 kW, P_N (87 Hz) = 1,30 kW									
30	3.8	52	3.8	230	K513_0480 IE3D080L04	58.5	48.16	2697/56	27
31	0.89	54	0.89	224	K202_0460 IE3D080L04	34.2	46.23	1849/40	26
31	1.5	54	1.5	224	K302_0460 IE3D080L04	39.2	46.23	1849/40	26
31	2.4	54	2.4	225	K402_0460 IE3D080L04	52.7	46.31	602/13	26
32	1.6	56	1.6	215	K303_0450 IE3D080L04	44.1	44.89	11223/250	26
32	2.6	56	2.6	213	K403_0450 IE3D080L04	56.9	44.54	1247/28	26
33	3.8	58	3.8	208	K513_0440 IE3D080L04	58.5	43.50	87/2	27
36	0.98	62	0.98	196	K302_0410 IE3D080L04	39.2	40.51	4902/121	26
36	1.6	62	1.6	196	K402_0410 IE3D080L04	52.7	40.51	4902/121	26
37	1.9	64	1.9	187	K303_0390 IE3D080L04	44.1	39.19	34916/891	26
37	2.9	64	2.9	187	K403_0390 IE3D080L04	56.9	39.05	38657/990	26
40	2.0	70	2.0	171	K303_0360 IE3D080L04	44.1	35.83	215/6	26
42	1.2	72	1.2	168	K202_0350 IE3D080L04	34.2	34.55	1935/56	26
42	2.1	72	2.1	168	K302_0350 IE3D080L04	39.2	34.73	903/26	26
43	0.95	74	0.95	163	K202_0340 IE3D080L04	34.2	33.62	1849/55	26
43	1.5	74	1.5	163	K302_0340 IE3D080L04	39.2	33.62	1849/55	26
43	2.4	74	2.4	163	K402_0340 IE3D080L04	52.7	33.68	4816/143	26
44	2.2	77	2.2	156	K303_0330 IE3D080L04	44.1	32.65	44892/1375	26
45	3.0	77	3.0	155	K403_0320 IE3D080L04	56.9	32.39	2494/77	26
52	0.88	-	-	136	K102_0280 IE3D080L04	26.7	28.05	589/21	26
52	1.5	90	1.4	136	K202_0280 IE3D080L04	34.2	27.95	559/20	26
52	2.6	90	2.4	135	K302_0280 IE3D080L04	39.2	27.88	3569/128	26
58	1.6	100	1.5	122	K202_0250 IE3D080L04	34.2	25.13	1935/77	26
57	2.8	99	2.6	123	K302_0250 IE3D080L04	39.2	25.26	3612/143	26
62	1.0	108	0.88	113	K102_0230 IE3D080L04	26.7	23.27	1140/49	26
62	1.8	108	1.6	112	K202_0230 IE3D080L04	34.2	23.18	2967/128	26
62	3.1	107	2.7	113	K302_0230 IE3D080L04	39.2	23.29	559/24	26
72	1.1	124	0.96	98	K102_0200 IE3D080L04	26.7	20.15	403/20	26
71	2.0	123	1.7	99	K202_0200 IE3D080L04	34.2	20.33	1118/55	26
82	1.3	143	1.1	85	K102_0175 IE3D080L04	26.7	17.56	2090/119	26
83	2.2	143	1.9	85	K202_0175 IE3D080L04	34.2	17.47	559/32	26
86	2.3	148	1.9	82	K202_0170 IE3D080L04	34.2	16.86	2967/176	26
86	1.3	150	1.1	81	K102_0165 IE3D080L04	26.7	16.71	1177	26
102	1.4	177	1.2	68	K102_0140 IE3D080L04	26.7	14.11	494/35	26
104	2.6	181	2.2	67	K202_0140 IE3D080L04	34.2	13.85	2881/208	27
115	1.6	198	1.3	61	K102_0125 IE3D080L04	26.7	12.62	429/34	26
114	2.8	197	2.3	62	K202_0125 IE3D080L04	34.2	12.71	559/44	26
125	1.7	216	1.4	56	K102_0115 IE3D080L04	26.7	11.57	266/23	26
125	3.0	217	2.5	56	K202_0115 IE3D080L04	34.2	11.55	1247/108	27
143	1.8	247	1.5	49	K102_0100 IE3D080L04	26.7	10.14	507/50	26
143	3.2	248	2.7	49	K202_0100 IE3D080L04	34.2	10.07	2881/286	27
156	1.9	271	1.6	45	K102_0092 IE3D080L04	26.7	9.249	1748/189	26
157	3.4	272	2.9	45	K202_0092 IE3D080L04	34.2	9.190	2279/248	27
172	3.7	298	3.1	41	K202_0084 IE3D080L04	34.2	8.397	2494/297	27
174	2.1	301	1.7	40	K102_0083 IE3D080L04	26.7	8.309	1911/230	26
216	4.3	375	3.6	32	K202_0067 IE3D080L04	34.2	6.683	2279/341	27
217	2.4	377	2.0	32	K102_0066 IE3D080L04	26.7	6.644	299/45	26
241	2.6	417	2.2	29	K102_0060 IE3D080L04	26.7	6.000	6/1	26
260	2.7	450	2.3	27	K102_0056 IE3D080L04	26.7	5.568	1520/273	27
331	4.8	574	4.8	21	K202_0044 IE3D080L04	34.2	4.364	48/11	28
361	3.4	626	2.8	19	K102_0040 IE3D080L04	26.7	4.000	4/1	27
429	6.9	-	-	16	K202_0067 IE3D080K02	28.7	6.683	2279/341	8.3
432	3.9	-	-	16	K102_0066 IE3D080K02	21.2	6.644	299/45	7.6
478	4.1	-	-	15	K102_0060 IE3D080K02	21.2	6.000	6/1	7.7
515	4.3	-	-	14	K102_0056 IE3D080K02	21.2	5.568	1520/273	7.9
658	9.1	-	-	11	K202_0044 IE3D080K02	28.7	4.364	48/11	9.3
718	5.4	-	-	9.7	K102_0040 IE3D080K02	21.2	4.000	4/1	8.1
P_N (50 Hz) = 1,10 kW, P_N (87 Hz) = 1,91 kW									
4.7	1.1	8.2	1.0	2094	K714_3050 IE3D090S04	122.2	304.8	195083/640	40
5.2	1.1	9.1	1.0	1891	K714_2750 IE3D090S04	122.2	275.3	44051/160	40
5.7	1.3	9.9	1.2	1722	K714_2510 IE3D090S04	122.2	250.7	320943/1280	40
5.8	0.86	10	0.86	1692	K614_2460 IE3D090S04	89.4	246.3	1261297/5120	40
6.4	1.3	11	1.2	1556	K714_2260 IE3D090S04	122.2	226.5	72471/320	40
6.5	0.95	11	0.95	1528	K614_2230 IE3D090S04	89.4	222.5	284809/1280	40
7.5	1.5	13	1.5	1325	K714_1930 IE3D090S04	122.2	192.9	320943/1664	40

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 1,10 kW, P_N (87 Hz) = 1,91 kW									
7.8	1.1	14	1.1	1268	K614_1850 IE3D090S04	89.4	184.6	383873/2080	40
8.3	1.5	14	1.5	1197	K714_1740 IE3D090S04	122.2	174.2	72471/416	40
8.6	1.3	15	1.3	1145	K614_1670 IE3D090S04	89.4	166.7	86681/520	40
9.5	1.7	16	1.7	1042	K714_1520 IE3D090S04	122.2	151.7	24273/160	41
9.7	0.88	17	0.88	1023	K514_1490 IE3D090S04	68.5	149.0	26071/175	40
9.7	1.4	17	1.4	1018	K614_1480 IE3D090S04	89.4	148.2	4551637/30720	40
11	1.7	18	1.7	941	K714_1370 IE3D090S04	122.2	137.0	5481/40	41
11	0.97	19	0.97	924	K514_1350 IE3D090S04	68.5	134.6	3364/25	40
11	1.6	19	1.6	919	K614_1340 IE3D090S04	89.4	133.8	1027789/7680	40
12	1.0	20	1.0	858	K514_1250 IE3D090S04	68.5	124.9	599633/4800	40
12	1.7	20	1.7	846	K614_1230 IE3D090S04	89.4	123.2	1261297/10240	40
13	1.2	22	1.2	775	K514_1130 IE3D090S04	68.5	112.8	135401/1200	40
13	1.9	22	1.9	764	K614_1110 IE3D090S04	89.4	111.3	284809/2560	40
15	1.1	26	1.1	674	K513_0970 IE3D090S04	64.0	96.64	38657/400	40
15	1.6	26	1.6	666	K613_0950 IE3D090S04	85.5	95.41	293105/3072	41
15	1.4	26	1.4	647	K514_0940 IE3D090S04	68.5	94.15	338923/3600	40
16	0.88	28	0.88	629	K403_0900 IE3D090S04	62.4	90.06	16211/180	40
16	1.1	29	1.1	609	K513_0870 IE3D090S04	64.0	87.29	8729/100	40
17	1.6	29	1.6	601	K613_0860 IE3D090S04	85.5	86.18	66185/768	41
17	1.5	29	1.5	584	K514_0850 IE3D090S04	68.5	85.03	76531/900	40
18	1.0	32	1.0	545	K403_0780 IE3D090S04	62.4	78.10	38657/495	40
19	1.7	32	1.7	541	K513_0780 IE3D090S04	64.0	77.59	26071/336	40
19	2.3	33	2.3	531	K613_0760 IE3D090S04	85.5	76.14	126697/1664	41
21	1.7	36	1.7	489	K513_0700 IE3D090S04	64.0	70.08	841/12	40
21	2.3	36	2.3	480	K613_0690 IE3D090S04	85.5	68.77	28609/416	41
21	1.2	37	1.2	470	K403_0670 IE3D090S04	62.4	67.30	21199/315	40
22	1.2	38	1.2	457	K403_0650 IE3D090S04	62.4	65.50	32422/495	40
22	2.0	39	2.0	450	K513_0650 IE3D090S04	64.0	64.54	12586/195	41
25	2.2	43	2.2	407	K513_0580 IE3D090S04	64.0	58.30	11368/195	41
26	1.1	45	1.1	394	K402_0560 IE3D090S04	58.2	55.71	2451/44	40
27	0.93	46	0.93	376	K303_0540 IE3D090S04	49.6	53.88	8729/162	40
27	1.5	46	1.5	375	K403_0540 IE3D090S04	62.4	53.69	38657/720	40
30	1.0	51	1.0	339	K303_0490 IE3D090S04	49.6	48.63	184556/3795	40
29	1.6	51	1.6	342	K403_0490 IE3D090S04	62.4	48.94	169592/3465	40
30	2.6	52	2.6	336	K513_0480 IE3D090S04	64.0	48.16	2697/56	41
31	1.1	54	1.1	327	K302_0460 IE3D090S04	44.7	46.23	1849/40	40
31	1.6	54	1.6	328	K402_0460 IE3D090S04	58.2	46.31	602/13	40
32	1.1	56	1.1	313	K303_0450 IE3D090S04	49.6	44.89	11223/250	40
32	1.8	56	1.8	311	K403_0450 IE3D090S04	62.4	44.54	1247/28	40
33	2.6	57	2.6	304	K513_0440 IE3D090S04	64.0	43.50	87/2	41
36	1.1	62	1.1	287	K402_0410 IE3D090S04	58.2	40.51	4902/121	40
37	1.3	64	1.3	273	K303_0390 IE3D090S04	49.6	39.19	34916/891	40
37	2.0	64	2.0	273	K403_0390 IE3D090S04	62.4	39.05	38657/990	40
40	1.4	70	1.4	250	K303_0360 IE3D090S04	49.6	35.83	215/6	40
40	2.0	70	2.0	249	K403_0360 IE3D090S04	62.4	35.72	13717/384	40
42	0.82	72	0.82	245	K202_0350 IE3D090S04	39.7	34.55	1935/56	40
41	1.4	72	1.4	246	K302_0350 IE3D090S04	44.7	34.73	903/26	40
41	2.2	72	2.2	246	K402_0350 IE3D090S04	58.2	34.76	4171/120	40
43	1.1	74	1.1	238	K302_0340 IE3D090S04	44.7	33.62	1849/55	40
43	1.6	74	1.6	238	K402_0340 IE3D090S04	58.2	33.68	4816/143	40
44	1.5	76	1.5	228	K303_0330 IE3D090S04	49.6	32.65	44892/1375	40
44	2.0	77	2.0	226	K403_0320 IE3D090S04	62.4	32.39	2494/77	40
52	1.0	89	0.95	198	K202_0280 IE3D090S04	39.7	27.95	559/20	40
52	1.8	89	1.7	197	K302_0280 IE3D090S04	44.7	27.88	3569/128	40
52	2.8	90	2.5	197	K402_0280 IE3D090S04	58.2	27.77	1333/48	41
57	1.1	99	1.0	178	K202_0250 IE3D090S04	39.7	25.13	1935/77	40
57	1.9	99	1.8	179	K302_0250 IE3D090S04	44.7	25.26	3612/143	40
57	2.6	99	2.6	179	K402_0250 IE3D090S04	58.2	25.28	4171/165	41
62	1.2	108	1.1	164	K202_0230 IE3D090S04	39.7	23.18	2967/128	40
62	2.1	107	1.9	165	K302_0230 IE3D090S04	44.7	23.29	559/24	40
71	1.4	123	1.2	144	K202_0200 IE3D090S04	39.7	20.33	1118/55	40
71	2.4	123	2.1	144	K302_0200 IE3D090S04	44.7	20.28	3569/176	40
82	0.86	–	–	124	K102_0175 IE3D090S04	32.2	17.56	2090/119	40
82	1.5	143	1.3	124	K202_0175 IE3D090S04	39.7	17.47	559/32	40
83	2.7	144	2.3	122	K302_0175 IE3D090S04	44.7	17.29	1591/92	41

4.2 Selection tables 4 K helical bevel geared motors

n ₂ 50 Hz [rpm]	S 50 Hz	n ₂ 87 Hz [rpm]	S 87 Hz	M _{2N} [Nm]	Type	m [kg]	i	i _{exakt}	J ₁ [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 1,10 kW, P_N (87 Hz) = 1,91 kW									
85	1.6	148	1.3	119	K202_0170 IE3D090S04	39.7	16.86	2967/176	40
85	2.7	147	2.3	120	K302_0170 IE3D090S04	44.7	16.94	559/33	41
86	0.89	–	–	118	K102_0165 IE3D090S04	32.2	16.71	117/7	40
102	0.99	177	0.84	100	K102_0140 IE3D090S04	32.2	14.11	494/35	40
104	1.8	180	1.5	98	K202_0140 IE3D090S04	39.7	13.85	2881/208	41
103	3.1	179	2.6	99	K302_0140 IE3D090S04	44.7	13.94	1505/108	41
114	1.1	198	0.90	89	K102_0125 IE3D090S04	32.2	12.62	429/34	40
113	1.9	196	1.6	90	K202_0125 IE3D090S04	39.7	12.71	559/44	40
114	3.3	198	2.8	89	K302_0125 IE3D090S04	44.7	12.58	3182/253	41
125	1.1	216	0.96	82	K102_0115 IE3D090S04	32.2	11.57	266/23	40
125	2.0	216	1.7	82	K202_0115 IE3D090S04	39.7	11.55	1247/108	41
142	1.2	246	1.0	72	K102_0100 IE3D090S04	32.2	10.14	507/50	40
143	2.2	248	1.9	71	K202_0100 IE3D090S04	39.7	10.07	2881/286	41
156	1.3	270	1.1	65	K102_0092 IE3D090S04	32.2	9.249	1748/189	40
157	2.4	271	2.0	65	K202_0092 IE3D090S04	39.7	9.190	2279/248	41
171	2.5	297	2.1	59	K202_0084 IE3D090S04	39.7	8.397	2494/297	41
173	1.4	300	1.2	59	K102_0083 IE3D090S04	32.2	8.309	1911/230	40
215	2.9	373	2.5	47	K202_0067 IE3D090S04	39.7	6.683	2279/341	41
217	1.6	375	1.4	47	K102_0066 IE3D090S04	32.2	6.644	299/45	40
240	1.8	416	1.5	42	K102_0060 IE3D090S04	32.2	6.000	6/1	40
240	3.1	416	2.6	42	K202_0060 IE3D090S04	39.7	6.000	6/1	42
259	1.8	448	1.6	39	K102_0056 IE3D090S04	32.2	5.568	1520/273	41
330	3.3	572	3.3	31	K202_0044 IE3D090S04	39.7	4.364	48/11	42
360	2.3	624	1.9	28	K102_0040 IE3D090S04	32.2	4.000	4/1	41
429	4.6	–	–	24	K202_0067 IE3D080L02	32.2	6.683	2279/341	14
432	2.6	–	–	24	K102_0066 IE3D080L02	24.7	6.644	299/45	14
478	2.8	–	–	22	K102_0060 IE3D080L02	24.7	6.000	6/1	14
515	2.9	–	–	20	K102_0056 IE3D080L02	24.7	5.568	1520/273	14
658	6.2	–	–	16	K202_0044 IE3D080L02	32.2	4.364	48/11	15
718	3.7	–	–	14	K102_0040 IE3D080L02	24.7	4.000	4/1	14
P_N (50 Hz) = 1,50 kW, P_N (87 Hz) = 2,60 kW									
4.7	0.85	–	–	2840	K714_3050 IE3D090L04	127.7	304.8	195083/640	45
5.2	0.85	–	–	2565	K714_2750 IE3D090L04	127.7	275.3	44051/160	45
5.8	0.97	10	0.90	2336	K714_2510 IE3D090L04	127.7	250.7	320943/1280	45
6.4	0.97	11	0.90	2110	K714_2260 IE3D090L04	127.7	226.5	72471/320	45
7.5	1.1	13	1.1	1797	K714_1930 IE3D090L04	127.7	192.9	320943/1664	45
7.8	0.84	14	0.84	1719	K614_1850 IE3D090L04	94.9	184.6	383873/2080	45
8.3	1.1	14	1.1	1623	K714_1740 IE3D090L04	127.7	174.2	72471/416	45
8.7	0.93	15	0.93	1553	K614_1670 IE3D090L04	94.9	166.7	86681/520	45
9.5	1.3	16	1.3	1413	K714_1520 IE3D090L04	127.7	151.7	24273/160	46
9.8	1.1	17	1.1	1380	K614_1480 IE3D090L04	94.9	148.2	4551637/30720	45
11	1.3	18	1.3	1277	K714_1370 IE3D090L04	127.7	137.0	5481/40	46
11	1.2	19	1.2	1247	K614_1340 IE3D090L04	94.9	133.8	1027789/7680	45
12	1.3	20	1.3	1147	K614_1230 IE3D090L04	94.9	123.2	1261297/10240	45
13	0.86	22	0.86	1051	K514_1130 IE3D090L04	74.0	112.8	135401/1200	45
13	1.4	22	1.4	1036	K614_1110 IE3D090L04	94.9	111.3	284809/2560	45
15	0.83	26	0.83	915	K513_0970 IE3D090L04	69.5	96.64	38657/400	45
15	1.2	26	1.2	903	K613_0950 IE3D090L04	91.0	95.41	293105/3072	46
15	1.0	27	1.0	877	K514_0940 IE3D090L04	74.0	94.15	338923/3600	45
17	0.83	29	0.83	826	K513_0870 IE3D090L04	69.5	87.29	8729/100	45
17	1.2	29	1.2	816	K613_0860 IE3D090L04	91.0	86.18	66185/768	46
17	1.1	29	1.1	792	K514_0850 IE3D090L04	74.0	85.03	76531/900	45
19	1.2	32	1.2	734	K513_0780 IE3D090L04	69.5	77.59	26071/336	45
19	1.7	33	1.7	721	K613_0760 IE3D090L04	91.0	76.14	126697/1664	46
21	1.2	36	1.2	663	K513_0700 IE3D090L04	69.5	70.08	841/12	45
21	1.7	36	1.7	651	K613_0690 IE3D090L04	91.0	68.77	28609/416	46
21	0.86	37	0.86	637	K403_0670 IE3D090L04	67.9	67.30	21199/315	45
22	0.89	38	0.89	620	K403_0650 IE3D090L04	67.9	65.50	32422/495	45
22	1.5	39	1.5	611	K513_0650 IE3D090L04	69.5	64.54	12586/195	46
25	1.6	43	1.6	552	K513_0580 IE3D090L04	69.5	58.30	11368/195	46
27	1.1	47	1.1	508	K403_0540 IE3D090L04	67.9	53.69	38657/720	45
30	1.2	51	1.2	463	K403_0490 IE3D090L04	67.9	48.94	169592/3465	45
30	1.9	52	1.9	456	K513_0480 IE3D090L04	69.5	48.16	2697/56	46
31	1.2	54	1.2	445	K402_0460 IE3D090L04	63.7	46.31	602/13	45
32	0.82	56	0.82	425	K303_0450 IE3D090L04	55.1	44.89	11223/250	45

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 1,50 kW, P_N (87 Hz) = 2,60 kW									
32	1.3	56	1.3	422	K403_0450 IE3D090L04	67.9	44.54	1247/28	45
33	1.9	58	1.9	412	K513_0440 IE3D090L04	69.5	43.50	87/2	46
37	0.94	64	0.94	371	K303_0390 IE3D090L04	55.1	39.19	34916/891	45
37	1.5	64	1.4	370	K403_0390 IE3D090L04	67.9	39.05	38657/990	45
40	1.0	70	1.0	339	K303_0360 IE3D090L04	55.1	35.83	215/6	45
40	1.5	70	1.5	338	K403_0360 IE3D090L04	67.9	35.72	13717/384	45
42	1.0	72	1.0	334	K302_0350 IE3D090L04	50.2	34.73	903/26	45
42	1.6	72	1.6	334	K402_0350 IE3D090L04	63.7	34.76	4171/120	45
43	1.2	74	1.2	323	K402_0340 IE3D090L04	63.7	33.68	4816/143	45
44	1.1	77	1.1	309	K303_0330 IE3D090L04	55.1	32.65	44892/1375	45
45	1.5	77	1.5	307	K403_0320 IE3D090L04	67.9	32.39	2494/77	45
52	1.3	90	1.2	268	K302_0280 IE3D090L04	50.2	27.88	3569/128	45
52	2.1	90	1.8	267	K402_0280 IE3D090L04	63.7	27.77	1333/48	46
58	0.83	–	–	241	K202_0250 IE3D090L04	45.2	25.13	1935/77	45
57	1.4	99	1.3	243	K302_0250 IE3D090L04	50.2	25.26	3612/143	45
57	1.9	99	1.9	243	K402_0250 IE3D090L04	63.7	25.28	4171/165	46
62	0.90	–	–	223	K202_0230 IE3D090L04	45.2	23.18	2967/128	45
62	1.6	107	1.4	224	K302_0230 IE3D090L04	50.2	23.29	559/24	45
62	2.4	107	2.1	224	K402_0230 IE3D090L04	63.7	23.29	559/24	46
71	1.0	123	0.86	195	K202_0200 IE3D090L04	45.2	20.33	1118/55	45
71	1.8	123	1.5	195	K302_0200 IE3D090L04	50.2	20.28	3569/176	45
72	2.2	124	2.2	194	K402_0200 IE3D090L04	63.7	20.20	1333/66	46
83	1.1	143	0.96	168	K202_0175 IE3D090L04	45.2	17.47	559/32	45
84	2.0	145	1.7	166	K302_0175 IE3D090L04	50.2	17.29	1591/92	46
86	1.2	148	0.98	162	K202_0170 IE3D090L04	45.2	16.86	2967/176	45
85	2.0	148	1.7	163	K302_0170 IE3D090L04	50.2	16.94	559/33	46
104	1.3	181	1.1	133	K202_0140 IE3D090L04	45.2	13.85	2881/208	46
104	2.3	180	1.9	134	K302_0140 IE3D090L04	50.2	13.94	1505/108	46
114	1.4	197	1.2	122	K202_0125 IE3D090L04	45.2	12.71	559/44	45
115	2.4	199	2.1	121	K302_0125 IE3D090L04	50.2	12.58	3182/253	46
125	0.84	–	–	111	K102_0115 IE3D090L04	37.7	11.57	266/23	45
125	1.5	217	1.3	111	K202_0115 IE3D090L04	45.2	11.55	1247/108	46
124	2.4	216	2.2	111	K302_0115 IE3D090L04	50.2	11.61	1161/100	46
143	0.91	–	–	97	K102_0100 IE3D090L04	37.7	10.14	507/50	45
143	1.6	248	1.4	97	K202_0100 IE3D090L04	45.2	10.07	2881/286	46
143	2.4	247	2.4	97	K302_0100 IE3D090L04	50.2	10.14	3010/297	46
156	0.97	271	0.82	89	K102_0092 IE3D090L04	37.7	9.249	1748/189	45
157	1.7	272	1.5	88	K202_0092 IE3D090L04	45.2	9.190	2279/248	46
172	1.8	298	1.6	81	K202_0084 IE3D090L04	45.2	8.397	2494/297	46
171	2.4	296	2.4	81	K302_0084 IE3D090L04	50.2	8.444	2322/275	47
174	1.0	301	0.88	80	K102_0083 IE3D090L04	37.7	8.309	1911/230	45
216	2.2	375	1.8	64	K202_0067 IE3D090L04	45.2	6.683	2279/341	46
217	1.2	377	1.0	64	K102_0066 IE3D090L04	37.7	6.644	299/45	45
241	1.3	417	1.1	58	K102_0060 IE3D090L04	37.7	6.000	6/1	45
241	2.3	417	1.9	58	K202_0060 IE3D090L04	45.2	6.000	6/1	47
260	1.4	450	1.1	53	K102_0056 IE3D090L04	37.7	5.568	1520/273	46
331	2.4	574	2.4	42	K202_0044 IE3D090L04	45.2	4.364	48/11	47
361	1.7	626	1.4	38	K102_0040 IE3D090L04	37.7	4.000	4/1	46
434	3.5	–	–	32	K202_0067 IE3D090S02	36.2	6.683	2279/341	18
436	2.0	–	–	32	K102_0066 IE3D090S02	28.7	6.644	299/45	17
483	2.1	–	–	29	K102_0060 IE3D090S02	28.7	6.000	6/1	17
521	2.2	–	–	26	K102_0056 IE3D090S02	28.7	5.568	1520/273	18
665	4.6	–	–	21	K202_0044 IE3D090S02	36.2	4.364	48/11	19
725	2.8	–	–	19	K102_0040 IE3D090S02	28.7	4.000	4/1	18
P_N (50 Hz) = 2,20 kW, P_N (87 Hz) = 3,81 kW									
3.9	1.1	6.7	0.99	5064	K914_3740 IE3D100K04	308.0	373.7	13775935/36864	91
4.7	0.95	8.1	0.95	4213	K814_3110 IE3D100K04	193.8	310.9	2149075/6912	91
5.0	1.4	8.6	1.2	3981	K914_2940 IE3D100K04	308.0	293.8	977647/3328	91
5.2	0.95	9.0	0.95	3805	K814_2810 IE3D100K04	193.8	280.8	485275/1728	91
5.7	1.2	9.8	1.2	3472	K814_2560 IE3D100K04	193.8	256.2	8854189/34560	91
5.9	1.6	10	1.4	3347	K914_2470 IE3D100K04	308.0	247.0	3288449/13312	91
6.3	1.3	11	1.2	3136	K814_2310 IE3D100K04	193.8	231.4	1999333/8640	91
7.4	0.91	13	0.91	2647	K714_1950 IE3D100K04	135.7	195.4	2600745/13312	91
7.6	1.6	13	1.5	2600	K814_1920 IE3D100K04	193.8	191.9	85963/448	91
7.6	2.0	13	1.7	2597	K914_1920 IE3D100K04	308.0	191.7	4710481/24576	92

4.2 Selection tables 4 K helical bevel geared motors

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P _N (50 Hz) = 2,20 kW, P _N (87 Hz) = 3,81 kW									
8.2	1.0	14	1.0	2391	K714_1760 IE3D100K04	135.7	176.5	587265/3328	91
8.4	1.7	15	1.5	2348	K814_1730 IE3D100K04	193.8	173.3	2773/16	91
9.3	2.0	16	1.7	2123	K814_1570 IE3D100K04	193.8	156.7	601741/3840	91
9.5	1.2	16	1.2	2082	K714_1540 IE3D100K04	135.7	153.7	39339/256	91
9.8	2.3	17	2.1	2019	K914_1490 IE3D100K04	308.0	149.0	9154331/61440	92
10	2.0	18	1.7	1918	K814_1420 IE3D100K04	193.8	141.5	135877/960	91
10	1.3	18	1.3	1881	K714_1390 IE3D100K04	135.7	138.8	8883/64	91
11	1.4	20	1.4	1721	K714_1270 IE3D100K04	135.7	127.0	520149/4096	91
11	2.3	20	2.0	1719	K814_1270 IE3D100K04	193.8	126.9	1461371/11520	92
12	2.3	20	2.3	1704	K914_1260 IE3D100K04	308.0	125.8	2221925/17664	93
13	1.5	22	1.5	1554	K714_1150 IE3D100K04	135.7	114.7	117453/1024	91
13	2.3	22	2.0	1553	K814_1150 IE3D100K04	193.8	114.6	329987/2880	92
15	1.4	26	1.4	1357	K713_0990 IE3D100K04	127.3	98.54	100905/1024	91
15	1.8	26	1.8	1336	K714_0990 IE3D100K04	135.7	98.60	1009701/10240	91
15	2.2	26	2.2	1338	K813_0970 IE3D100K04	180.7	97.17	31093/320	93
16	2.3	27	2.3	1271	K914_0940 IE3D100K04	308.0	93.78	4177219/44544	94
16	1.4	28	1.4	1225	K713_0890 IE3D100K04	127.3	89.00	22785/256	91
16	2.0	28	2.0	1207	K714_0890 IE3D100K04	135.7	89.06	227997/2560	91
17	2.2	29	2.2	1208	K813_0880 IE3D100K04	180.7	87.76	7021/80	93
18	2.2	32	2.2	1085	K713_0790 IE3D100K04	127.3	78.83	20181/256	92
19	1.4	33	1.4	1048	K613_0760 IE3D100K04	99.0	76.14	126697/1664	91
20	2.4	35	2.4	987	K813_0720 IE3D100K04	180.7	71.70	10325/144	94
20	2.2	35	2.2	980	K713_0710 IE3D100K04	127.3	71.20	4557/64	92
21	1.4	37	1.4	947	K613_0690 IE3D100K04	99.0	68.77	28609/416	91
23	1.0	39	1.0	889	K513_0650 IE3D100K04	77.5	64.54	12586/195	91
22	2.5	39	2.5	893	K713_0650 IE3D100K04	127.3	64.85	33201/512	92
23	1.7	40	1.7	877	K613_0640 IE3D100K04	99.0	63.71	130479/2048	91
25	2.5	43	2.5	806	K713_0590 IE3D100K04	127.3	58.57	7497/128	93
25	1.1	43	1.1	803	K513_0580 IE3D100K04	77.5	58.30	11368/195	91
25	1.8	44	1.8	792	K613_0580 IE3D100K04	99.0	57.55	29463/512	91
29	2.8	51	2.8	687	K713_0500 IE3D100K04	127.3	49.88	166005/3328	94
30	3.2	51	3.2	674	K813_0490 IE3D100K04	180.7	48.99	5487/112	99
30	1.4	52	1.4	663	K513_0480 IE3D100K04	77.5	48.16	2697/56	91
30	2.2	53	2.2	657	K613_0480 IE3D100K04	99.0	47.73	39711/832	92
32	2.8	56	2.8	620	K713_0450 IE3D100K04	127.3	45.05	37485/832	94
33	1.5	58	1.5	599	K513_0440 IE3D100K04	77.5	43.50	87/2	91
33	3.2	57	3.2	609	K813_0440 IE3D100K04	180.7	44.25	177/4	99
34	2.4	58	2.3	593	K613_0430 IE3D100K04	99.0	43.11	8967/208	92
38	1.7	65	1.7	530	K513_0390 IE3D100K04	77.5	38.53	2697/70	91
37	3.3	64	3.3	540	K713_0390 IE3D100K04	127.3	39.23	2511/64	96
38	2.7	66	2.5	528	K613_0380 IE3D100K04	99.0	38.32	156953/4096	93
42	1.1	73	1.1	486	K402_0350 IE3D100K04	71.7	34.76	4171/120	90
42	1.9	72	1.9	479	K513_0350 IE3D100K04	77.5	34.80	174/5	92
42	3.0	73	2.7	476	K613_0350 IE3D100K04	99.0	34.61	35441/1024	93
45	2.0	78	2.0	445	K513_0320 IE3D100K04	77.5	32.31	20677/640	92
50	2.2	86	2.2	402	K513_0290 IE3D100K04	77.5	29.18	4669/160	92
52	0.90	90	0.84	389	K302_0280 IE3D100K04	58.2	27.88	3569/128	90
52	1.4	91	1.3	388	K402_0280 IE3D100K04	71.7	27.77	1333/48	91
58	1.4	100	1.3	353	K402_0250 IE3D100K04	71.7	25.28	4171/165	91
60	2.7	104	2.6	335	K513_0240 IE3D100K04	77.5	24.35	11687/480	93
62	1.1	108	0.95	325	K302_0230 IE3D100K04	58.2	23.29	559/24	90
62	1.7	108	1.4	325	K402_0230 IE3D100K04	71.7	23.29	559/24	91
66	3.0	115	2.8	303	K513_0220 IE3D100K04	77.5	21.99	2639/120	93
72	1.2	124	1.0	283	K302_0200 IE3D100K04	58.2	20.28	3569/176	90
72	1.9	125	1.6	282	K402_0200 IE3D100K04	71.7	20.20	1333/66	91
75	3.4	130	3.0	266	K513_0195 IE3D100K04	77.5	19.35	27869/1440	94
77	4.2	133	4.1	261	K613_0190 IE3D100K04	99.0	18.99	17019/896	98
84	1.4	146	1.2	242	K302_0175 IE3D100K04	58.2	17.29	1591/92	91
84	2.1	145	1.7	243	K402_0175 IE3D100K04	71.7	17.41	731/42	91
86	1.4	149	1.2	237	K302_0170 IE3D100K04	58.2	16.94	559/33	91
86	2.1	149	1.8	237	K402_0170 IE3D100K04	71.7	16.94	559/33	91
90	4.1	-	-	222	K513_0160 IE3D100K04	77.5	16.09	26071/1620	95
100	4.2	-	-	200	K513_0145 IE3D100K04	77.5	14.54	5887/405	96
105	0.91	-	-	193	K202_0140 IE3D100K04	53.2	13.85	2881/208	91
104	1.6	181	1.3	195	K302_0140 IE3D100K04	58.2	13.94	1505/108	91

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 2,20 kW, P_N (87 Hz) = 3,81 kW									
105	2.4	182	2.0	194	K402_0140 IE3D100K04	71.7	13.89	1333/96	92
115	0.96	198	0.81	177	K202_0125 IE3D100K04	53.2	12.71	559/44	90
116	1.7	200	1.4	176	K302_0125 IE3D100K04	58.2	12.58	3182/253	91
115	2.5	199	2.1	177	K402_0125 IE3D100K04	71.7	12.66	2924/231	92
126	1.0	218	0.86	161	K202_0115 IE3D100K04	53.2	11.55	1247/108	91
125	1.8	217	1.5	162	K302_0115 IE3D100K04	58.2	11.61	1161/100	91
126	2.7	219	2.3	161	K402_0115 IE3D100K04	71.7	11.52	645/56	93
144	1.1	250	0.95	141	K202_0100 IE3D100K04	53.2	10.07	2881/286	91
144	2.0	249	1.7	142	K302_0100 IE3D100K04	58.2	10.14	3010/297	91
144	3.0	250	2.5	141	K402_0100 IE3D100K04	71.7	10.10	1333/132	92
157	2.1	272	1.8	129	K302_0093 IE3D100K04	58.2	9.267	1075/116	92
158	1.2	274	1.0	128	K202_0092 IE3D100K04	53.2	9.190	2279/248	91
158	3.1	273	2.6	129	K402_0092 IE3D100K04	71.7	9.238	2365/256	94
173	1.3	300	1.1	117	K202_0084 IE3D100K04	53.2	8.397	2494/297	91
172	2.2	298	1.9	118	K302_0084 IE3D100K04	58.2	8.444	2322/275	92
197	2.4	341	2.0	103	K302_0074 IE3D100K04	58.2	7.391	473/64	93
204	1.4	354	1.2	99	K202_0071 IE3D100K04	53.2	7.118	2107/296	91
218	1.5	377	1.2	93	K202_0067 IE3D100K04	53.2	6.683	2279/341	91
216	2.6	374	2.2	94	K302_0067 IE3D100K04	58.2	6.740	2150/319	92
243	1.6	420	1.3	84	K202_0060 IE3D100K04	53.2	6.000	6/1	92
243	2.8	420	2.3	84	K302_0060 IE3D100K04	58.2	6.000	6/1	93
271	3.0	469	2.5	75	K302_0054 IE3D100K04	58.2	5.375	43/8	93
281	1.8	487	1.5	72	K202_0052 IE3D100K04	53.2	5.177	2107/407	92
333	2.0	577	1.7	61	K202_0044 IE3D100K04	53.2	4.364	48/11	92
333	3.4	577	2.9	61	K302_0044 IE3D100K04	58.2	4.364	48/11	94
364	2.1	630	1.8	56	K202_0040 IE3D100K04	53.2	4.000	4/1	92
431	2.3	–	–	47	K202_0067 IE3D090L02	40.7	6.683	2279/341	29
433	1.3	–	–	47	K102_0066 IE3D090L02	33.2	6.644	299/45	28
480	1.4	–	–	42	K102_0060 IE3D090L02	33.2	6.000	6/1	28
480	2.5	–	–	42	K202_0060 IE3D090L02	40.7	6.000	6/1	29
517	1.5	–	–	39	K102_0056 IE3D090L02	33.2	5.568	1520/273	28
660	3.1	–	–	31	K202_0044 IE3D090L02	40.7	4.364	48/11	30
720	1.9	–	–	28	K102_0040 IE3D090L02	33.2	4.000	4/1	28
P_N (50 Hz) = 3,00 kW, P_N (87 Hz) = 5,20 kW									
5.0	1.0	8.6	0.88	5446	K914_2940 IE3D100L04	317.0	293.8	977647/3328	111
5.7	0.88	9.8	0.84	4749	K814_2560 IE3D100L04	202.8	256.2	8854189/34560	111
5.9	1.2	10	1.0	4579	K914_2470 IE3D100L04	317.0	247.0	3288449/13312	111
6.3	0.98	11	0.84	4290	K814_2310 IE3D100L04	202.8	231.4	1999333/8640	111
7.6	1.2	13	1.1	3557	K814_1920 IE3D100L04	202.8	191.9	85963/448	111
7.6	1.4	13	1.2	3553	K914_1920 IE3D100L04	317.0	191.7	4710481/24576	112
8.4	1.3	15	1.1	3213	K814_1730 IE3D100L04	202.8	173.3	2773/16	111
9.3	1.4	16	1.2	2905	K814_1570 IE3D100L04	202.8	156.7	601741/3840	111
9.5	0.84	16	0.84	2849	K714_1540 IE3D100L04	144.7	153.7	39339/256	111
9.8	1.6	17	1.5	2762	K914_1490 IE3D100L04	317.0	149.0	9154331/61440	112
10	1.5	18	1.2	2624	K814_1420 IE3D100L04	202.8	141.5	135877/960	111
10	0.93	18	0.93	2573	K714_1390 IE3D100L04	144.7	138.8	8883/64	111
11	1.0	20	1.0	2354	K714_1270 IE3D100L04	144.7	127.0	520149/4096	111
11	1.6	20	1.5	2352	K814_1270 IE3D100L04	202.8	126.9	1461371/11520	112
12	1.6	20	1.6	2332	K914_1260 IE3D100L04	317.0	125.8	2221925/17664	113
13	1.1	22	1.1	2126	K714_1150 IE3D100L04	144.7	114.7	117453/1024	111
13	1.6	22	1.5	2124	K814_1150 IE3D100L04	202.8	114.6	329987/2880	112
15	1.0	26	1.0	1856	K713_0990 IE3D100L04	136.3	98.54	100905/1024	111
15	1.3	26	1.3	1828	K714_0990 IE3D100L04	144.7	98.60	1009701/10240	111
15	1.6	26	1.6	1830	K813_0970 IE3D100L04	189.7	97.17	31093/320	113
16	1.6	27	1.6	1738	K914_0940 IE3D100L04	317.0	93.78	4177219/44544	114
16	1.0	28	1.0	1676	K713_0890 IE3D100L04	136.3	89.00	22785/256	111
16	1.5	28	1.5	1651	K714_0890 IE3D100L04	144.7	89.06	227997/2560	111
17	1.6	29	1.6	1653	K813_0880 IE3D100L04	189.7	87.76	7021/80	113
18	1.6	32	1.6	1485	K713_0790 IE3D100L04	136.3	78.83	20181/256	112
18	1.8	32	1.8	1495	K813_0790 IE3D100L04	189.7	79.38	45725/576	114
19	1.0	33	1.0	1434	K613_0760 IE3D100L04	108.0	76.14	126697/1664	111
20	1.8	35	1.8	1350	K813_0720 IE3D100L04	189.7	71.70	10325/144	114
20	1.6	35	1.6	1341	K713_0710 IE3D100L04	136.3	71.20	4557/64	112
21	1.0	37	1.0	1295	K613_0690 IE3D100L04	108.0	68.77	28609/416	111
22	1.9	39	1.9	1221	K713_0650 IE3D100L04	136.3	64.85	33201/512	112

4.2 Selection tables 4 K helical bevel geared motors

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 3,00 kW, P_N (87 Hz) = 5,20 kW									
23	1.2	40	1.2	1200	K613_0640 IE3D100L04	108.0	63.71	130479/2048	111
25	1.9	43	1.9	1103	K713_0590 IE3D100L04	136.3	58.57	7497/128	113
25	0.82	43	0.82	1098	K513_0580 IE3D100L04	86.5	58.30	11368/195	111
25	1.3	44	1.3	1084	K613_0580 IE3D100L04	108.0	57.55	29463/512	111
29	2.1	51	2.1	939	K713_0500 IE3D100L04	136.3	49.88	166005/3328	114
30	2.3	51	2.3	923	K813_0490 IE3D100L04	189.7	48.99	5487/112	119
30	0.99	52	0.99	907	K513_0480 IE3D100L04	86.5	48.16	2697/56	111
30	1.6	53	1.6	899	K613_0480 IE3D100L04	108.0	47.73	39711/832	112
32	2.1	56	2.1	849	K713_0450 IE3D100L04	136.3	45.05	37485/832	114
33	1.1	58	1.1	819	K513_0440 IE3D100L04	86.5	43.50	87/2	111
33	2.3	57	2.3	833	K813_0440 IE3D100L04	189.7	44.25	177/4	119
34	1.8	58	1.7	812	K613_0430 IE3D100L04	108.0	43.11	8967/208	112
38	1.2	65	1.2	726	K513_0390 IE3D100L04	86.5	38.53	2697/70	111
37	2.4	64	2.4	739	K713_0390 IE3D100L04	136.3	39.23	2511/64	116
38	2.0	66	1.9	722	K613_0380 IE3D100L04	108.0	38.32	156953/4096	113
42	0.83	–	–	664	K402_0350 IE3D100L04	80.7	34.76	4171/120	110
42	1.4	72	1.4	655	K513_0350 IE3D100L04	86.5	34.80	174/5	112
42	2.2	73	2.0	652	K613_0350 IE3D100L04	108.0	34.61	35441/1024	113
45	1.5	78	1.5	608	K513_0320 IE3D100L04	86.5	32.31	20677/640	112
46	2.4	79	2.1	600	K613_0320 IE3D100L04	108.0	31.86	130479/4096	114
50	1.6	86	1.6	550	K513_0290 IE3D100L04	86.5	29.18	4669/160	112
51	2.7	88	2.2	542	K613_0290 IE3D100L04	108.0	28.77	29463/1024	114
52	1.0	91	0.92	531	K402_0280 IE3D100L04	80.7	27.77	1333/48	111
58	1.0	100	0.98	483	K402_0250 IE3D100L04	80.7	25.28	4171/165	111
60	2.0	104	1.9	459	K513_0240 IE3D100L04	86.5	24.35	11687/480	113
62	1.2	108	1.0	445	K402_0230 IE3D100L04	80.7	23.29	559/24	111
66	2.2	115	2.0	414	K513_0220 IE3D100L04	86.5	21.99	2639/120	113
72	0.90	–	–	387	K302_0200 IE3D100L04	67.2	20.28	3569/176	110
72	1.4	125	1.1	386	K402_0200 IE3D100L04	80.7	20.20	1333/66	111
75	2.5	130	2.2	364	K513_0195 IE3D100L04	86.5	19.35	27869/1440	114
77	3.0	133	3.0	358	K613_0190 IE3D100L04	108.0	18.99	17019/896	118
84	1.0	146	0.85	330	K302_0175 IE3D100L04	67.2	17.29	1591/92	111
84	1.5	145	1.3	333	K402_0175 IE3D100L04	80.7	17.41	731/42	111
83	2.7	144	2.4	329	K513_0175 IE3D100L04	86.5	17.48	6293/360	114
86	1.0	149	0.86	324	K302_0170 IE3D100L04	67.2	16.94	559/33	111
86	1.5	149	1.3	324	K402_0170 IE3D100L04	80.7	16.94	559/33	111
85	3.0	147	3.0	323	K613_0170 IE3D100L04	108.0	17.16	549/32	118
90	3.0	–	–	303	K513_0160 IE3D100L04	86.5	16.09	26071/1620	115
100	3.0	–	–	274	K513_0145 IE3D100L04	86.5	14.54	5887/405	116
104	1.2	181	0.98	266	K302_0140 IE3D100L04	67.2	13.94	1505/108	111
105	1.7	182	1.5	265	K402_0140 IE3D100L04	80.7	13.89	1333/96	112
116	1.2	200	1.0	240	K302_0125 IE3D100L04	67.2	12.58	3182/253	111
115	1.9	199	1.6	242	K402_0125 IE3D100L04	80.7	12.66	2924/231	112
125	1.3	217	1.1	222	K302_0115 IE3D100L04	67.2	11.61	1161/100	111
126	2.0	219	1.7	220	K402_0115 IE3D100L04	80.7	11.52	645/56	113
144	0.82	–	–	192	K202_0100 IE3D100L04	62.2	10.07	2881/286	111
144	1.4	249	1.2	194	K302_0100 IE3D100L04	67.2	10.14	3010/297	111
144	2.2	250	1.8	193	K402_0100 IE3D100L04	80.7	10.10	1333/132	112
157	1.5	272	1.3	177	K302_0093 IE3D100L04	67.2	9.267	1075/116	112
158	0.87	–	–	176	K202_0092 IE3D100L04	62.2	9.190	2279/248	111
158	2.3	273	1.9	177	K402_0092 IE3D100L04	80.7	9.238	2365/256	114
173	0.93	–	–	160	K202_0084 IE3D100L04	62.2	8.397	2494/297	111
172	1.6	298	1.4	161	K302_0084 IE3D100L04	67.2	8.444	2322/275	112
174	2.4	301	2.1	160	K402_0084 IE3D100L04	80.7	8.377	645/77	113
197	1.8	341	1.5	141	K302_0074 IE3D100L04	67.2	7.391	473/64	113
204	1.0	354	0.87	136	K202_0071 IE3D100L04	62.2	7.118	2107/296	111
218	1.1	377	0.91	128	K202_0067 IE3D100L04	62.2	6.683	2279/341	111
216	1.9	374	1.6	129	K302_0067 IE3D100L04	67.2	6.740	2150/319	112
217	2.8	375	2.4	128	K402_0067 IE3D100L04	80.7	6.719	215/32	114
243	1.2	420	0.98	115	K202_0060 IE3D100L04	62.2	6.000	6/1	112
243	2.0	420	1.7	115	K302_0060 IE3D100L04	67.2	6.000	6/1	113
271	2.2	469	1.8	103	K302_0054 IE3D100L04	67.2	5.375	43/8	113
281	1.3	487	1.1	99	K202_0052 IE3D100L04	62.2	5.177	2107/407	112
333	1.4	577	1.2	83	K202_0044 IE3D100L04	62.2	4.364	48/11	112
333	2.5	577	2.1	83	K302_0044 IE3D100L04	67.2	4.364	48/11	114

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 3,00 kW, P_N (87 Hz) = 5,20 kW									
364	1.5	630	1.3	76	K202_0040 IE3D100L04	62.2	4.000	4/1	112
364	2.7	630	2.2	76	K302_0040 IE3D100L04	67.2	4.000	4/1	115
410	1.7	–	–	68	K202_0071 IE3D100L02	48.2	7.118	2107/296	46
437	1.7	–	–	64	K202_0067 IE3D100L02	48.2	6.683	2279/341	46
433	3.0	–	–	64	K302_0067 IE3D100L02	53.2	6.740	2150/319	47
487	1.9	–	–	57	K202_0060 IE3D100L02	48.2	6.000	6/1	47
564	2.1	–	–	49	K202_0052 IE3D100L02	48.2	5.177	2107/407	47
669	2.3	–	–	41	K202_0044 IE3D100L02	48.2	4.364	48/11	47
730	2.5	–	–	38	K202_0040 IE3D100L02	48.2	4.000	4/1	47
P_N (50 Hz) = 4,00 kW, P_N (87 Hz) = 6,93 kW									
5.9	0.90	–	–	6090	K914_2470 IE3D112M04	328.0	247.0	3288449/13312	171
7.6	0.89	–	–	4731	K814_1920 IE3D112M04	213.8	191.9	85963/448	171
7.6	1.1	13	0.92	4725	K914_1920 IE3D112M04	328.0	191.7	4710481/24576	172
8.4	0.95	–	–	4273	K814_1730 IE3D112M04	213.8	173.3	2773/16	171
9.3	1.1	16	0.92	3863	K814_1570 IE3D112M04	213.8	156.7	601741/3840	171
9.8	1.2	17	1.1	3673	K914_1490 IE3D112M04	328.0	149.0	9154331/61440	172
10	1.1	18	0.92	3490	K814_1420 IE3D112M04	213.8	141.5	135877/960	171
12	1.2	20	1.1	3128	K814_1270 IE3D112M04	213.8	126.9	1461371/11520	172
12	1.2	20	1.2	3101	K914_1260 IE3D112M04	328.0	125.8	2221925/17664	173
13	0.85	22	0.85	2828	K714_1150 IE3D112M04	155.7	114.7	117453/1024	171
13	1.2	22	1.1	2825	K814_1150 IE3D112M04	213.8	114.6	329987/2880	172
15	0.99	26	0.99	2431	K714_0990 IE3D112M04	155.7	98.60	1009701/10240	171
15	1.2	26	1.2	2434	K813_0970 IE3D112M04	200.7	97.17	31093/320	173
16	1.2	27	1.2	2312	K914_0940 IE3D112M04	328.0	93.78	4177219/44544	174
16	1.1	28	1.1	2196	K714_0890 IE3D112M04	155.7	89.06	227997/2560	171
17	1.2	29	1.2	2198	K813_0880 IE3D112M04	200.7	87.76	7021/80	173
19	1.2	32	1.2	1975	K713_0790 IE3D112M04	147.3	78.83	20181/256	172
18	1.3	32	1.3	1988	K813_0790 IE3D112M04	200.7	79.38	45725/576	174
20	1.3	35	1.3	1796	K813_0720 IE3D112M04	200.7	71.70	10325/144	174
21	1.2	36	1.2	1783	K713_0710 IE3D112M04	147.3	71.20	4557/64	172
23	1.4	39	1.4	1624	K713_0650 IE3D112M04	147.3	64.85	33201/512	172
23	0.91	40	0.91	1596	K613_0640 IE3D112M04	119.0	63.71	130479/2048	171
25	1.4	43	1.4	1467	K713_0590 IE3D112M04	147.3	58.57	7497/128	173
25	1.0	44	1.0	1441	K613_0580 IE3D112M04	119.0	57.55	29463/512	171
29	1.6	51	1.6	1249	K713_0500 IE3D112M04	147.3	49.88	166005/3328	174
30	1.8	52	1.8	1227	K813_0490 IE3D112M04	200.7	48.99	5487/112	179
31	1.2	53	1.2	1196	K613_0480 IE3D112M04	119.0	47.73	39711/832	172
32	1.6	56	1.6	1128	K713_0450 IE3D112M04	147.3	45.05	37485/832	174
34	0.83	58	0.83	1090	K513_0440 IE3D112M04	97.5	43.50	87/2	171
33	1.8	57	1.8	1108	K813_0440 IE3D112M04	200.7	44.25	177/4	179
34	1.3	59	1.3	1080	K613_0430 IE3D112M04	119.0	43.11	8967/208	172
38	0.93	66	0.93	965	K513_0390 IE3D112M04	97.5	38.53	2697/70	171
37	1.8	64	1.8	983	K713_0390 IE3D112M04	147.3	39.23	2511/64	176
38	1.5	66	1.4	960	K613_0380 IE3D112M04	119.0	38.32	156953/4096	173
42	1.0	73	1.0	872	K513_0350 IE3D112M04	97.5	34.80	174/5	172
42	1.7	73	1.5	867	K613_0350 IE3D112M04	119.0	34.61	35441/1024	173
41	1.8	71	1.8	888	K713_0350 IE3D112M04	147.3	35.44	567/16	176
45	1.1	78	1.1	809	K513_0320 IE3D112M04	97.5	32.31	20677/640	172
46	1.8	79	1.6	798	K613_0320 IE3D112M04	119.0	31.86	130479/4096	174
50	1.2	87	1.2	731	K513_0290 IE3D112M04	97.5	29.18	4669/160	172
51	2.0	88	1.7	721	K613_0290 IE3D112M04	119.0	28.77	29463/1024	174
60	1.5	104	1.4	610	K513_0240 IE3D112M04	97.5	24.35	11687/480	173
63	0.93	–	–	592	K402_0230 IE3D112M04	91.7	23.29	559/24	171
66	1.6	115	1.5	551	K513_0220 IE3D112M04	97.5	21.99	2639/120	173
72	1.0	125	0.86	513	K402_0200 IE3D112M04	91.7	20.20	1333/66	171
75	1.9	131	1.7	485	K513_0195 IE3D112M04	97.5	19.35	27869/1440	174
77	2.3	133	2.2	476	K613_0190 IE3D112M04	119.0	18.99	17019/896	178
84	1.1	145	0.95	442	K402_0175 IE3D112M04	91.7	17.41	731/42	171
84	2.1	145	1.8	438	K513_0175 IE3D112M04	97.5	17.48	6293/360	174
86	1.1	149	0.97	430	K402_0170 IE3D112M04	91.7	16.94	559/33	171
85	2.3	147	2.3	430	K613_0170 IE3D112M04	119.0	17.16	549/32	178
91	2.2	–	–	403	K513_0160 IE3D112M04	97.5	16.09	26071/1620	175
100	2.3	–	–	364	K513_0145 IE3D112M04	97.5	14.54	5887/405	176
105	0.87	–	–	354	K302_0140 IE3D112M04	78.2	13.94	1505/108	171
105	1.3	182	1.1	353	K402_0140 IE3D112M04	91.7	13.89	1333/96	172

4.2 Selection tables 4 K helical bevel geared motors

n ₂ 50 Hz [rpm]	S 50 Hz	n ₂ 87 Hz [rpm]	S 87 Hz	M _{2N} [Nm]	Type	m [kg]	i	i _{exakt}	J ₁ [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 4,00 kW, P_N (87 Hz) = 6,93 kW									
116	0.93	–	–	320	K302_0125 IE3D112M04	78.2	12.58	3182/253	171
115	1.4	200	1.2	322	K402_0125 IE3D112M04	91.7	12.66	2924/231	172
126	0.99	218	0.83	295	K302_0115 IE3D112M04	78.2	11.61	1161/100	171
127	1.5	220	1.2	293	K402_0115 IE3D112M04	91.7	11.52	645/56	173
144	1.1	250	0.91	258	K302_0100 IE3D112M04	78.2	10.14	3010/297	171
145	1.6	250	1.4	257	K402_0100 IE3D112M04	91.7	10.10	1333/132	172
158	1.1	273	0.96	236	K302_0093 IE3D112M04	78.2	9.267	1075/116	172
158	1.7	274	1.4	235	K402_0092 IE3D112M04	91.7	9.238	2365/256	174
173	1.2	299	1.0	215	K302_0084 IE3D112M04	78.2	8.444	2322/275	172
174	1.8	302	1.5	213	K402_0084 IE3D112M04	91.7	8.377	645/77	173
198	1.3	342	1.1	188	K302_0074 IE3D112M04	78.2	7.391	473/64	173
218	0.81	–	–	170	K202_0067 IE3D112M04	73.2	6.683	2279/341	171
217	1.4	375	1.2	171	K302_0067 IE3D112M04	78.2	6.740	2150/319	172
217	2.1	376	1.8	171	K402_0067 IE3D112M04	91.7	6.719	215/32	174
243	0.87	–	–	152	K202_0060 IE3D112M04	73.2	6.000	6/1	172
243	1.5	421	1.3	152	K302_0060 IE3D112M04	78.2	6.000	6/1	173
272	1.6	470	1.4	137	K302_0054 IE3D112M04	78.2	5.375	43/8	173
282	0.96	488	0.81	132	K202_0052 IE3D112M04	73.2	5.177	2107/407	172
335	1.1	579	0.91	111	K202_0044 IE3D112M04	73.2	4.364	48/11	172
335	1.9	579	1.6	111	K302_0044 IE3D112M04	78.2	4.364	48/11	174
365	1.1	632	0.96	102	K202_0040 IE3D112M04	73.2	4.000	4/1	172
365	2.0	632	1.7	102	K302_0040 IE3D112M04	78.2	4.000	4/1	175
410	1.2	–	–	90	K202_0071 IE3D112M02	55.2	7.118	2107/296	56
437	1.3	–	–	85	K202_0067 IE3D112M02	55.2	6.683	2279/341	56
433	2.3	–	–	86	K302_0067 IE3D112M02	60.2	6.740	2150/319	57
487	1.4	–	–	76	K202_0060 IE3D112M02	55.2	6.000	6/1	57
564	1.5	–	–	66	K202_0052 IE3D112M02	55.2	5.177	2107/407	57
669	1.7	–	–	55	K202_0044 IE3D112M02	55.2	4.364	48/11	57
730	1.8	–	–	51	K202_0040 IE3D112M02	55.2	4.000	4/1	57
P_N (50 Hz) = 5,50 kW, P_N (87 Hz) = 9,93 kW									
5.1	1.1	–	–	9563	K1014_2900 IE3D132S04	571.0	290.4	392553/1352	353
6.1	0.87	11	0.87	8012	K914_2430 IE3D132S04	362.0	243.3	5667327/23296	353
6.2	1.3	–	–	7819	K1014_2370 IE3D132S04	571.0	237.4	49383/208	354
7.8	1.1	14	1.1	6217	K914_1890 IE3D132S04	362.0	188.8	2706021/14336	353
9.6	0.83	17	0.83	5083	K814_1540 IE3D132S04	247.8	154.3	49383/320	352
9.9	1.9	–	–	4904	K1014_1490 IE3D132S04	571.0	148.9	30969/208	356
10	1.4	17	1.4	4833	K914_1470 IE3D132S04	362.0	146.7	5258871/35840	354
11	0.92	18	0.92	4591	K814_1390 IE3D132S04	247.8	139.4	11151/80	352
12	1.0	21	1.0	4114	K814_1250 IE3D132S04	247.8	124.9	279837/2240	353
12	1.7	21	1.6	4080	K914_1240 IE3D132S04	362.0	123.9	1276425/10304	354
13	1.1	23	1.1	3716	K814_1130 IE3D132S04	247.8	112.8	9027/80	353
15	1.3	26	1.3	3241	K814_0980 IE3D132S04	247.8	98.41	181071/1840	353
16	1.7	27	1.7	3192	K913_0950 IE3D132S04	349.5	95.41	293105/3072	356
16	2.3	28	2.0	3042	K914_0920 IE3D132S04	362.0	92.35	2399679/25984	356
17	1.4	29	1.4	2927	K814_0890 IE3D132S04	247.8	88.89	40887/460	353
19	1.5	32	1.5	2656	K813_0790 IE3D132S04	234.7	79.38	45725/576	354
20	2.7	34	2.7	2510	K913_0750 IE3D132S04	349.5	75.00	62403/832	360
20	1.7	35	1.7	2437	K814_0740 IE3D132S04	247.8	73.99	1201653/16240	354
21	1.5	36	1.5	2399	K813_0720 IE3D132S04	234.7	71.70	10325/144	354
22	1.9	38	1.9	2201	K814_0670 IE3D132S04	247.8	66.83	38763/580	354
23	1.1	40	1.1	2170	K713_0650 IE3D132S04	181.3	64.85	33201/512	352
23	1.9	39	1.9	2189	K813_0650 IE3D132S04	234.7	65.41	188387/2880	355
23	2.7	41	2.7	2110	K913_0630 IE3D132S04	349.5	63.07	209901/3328	363
25	1.2	44	1.2	1960	K713_0590 IE3D132S04	181.3	58.57	7497/128	353
25	2.1	43	2.1	1977	K813_0590 IE3D132S04	234.7	59.08	42539/720	356
30	1.4	51	1.4	1669	K713_0500 IE3D132S04	181.3	49.88	166005/3328	354
30	2.6	52	2.5	1639	K813_0490 IE3D132S04	234.7	48.99	5487/112	359
33	1.6	57	1.5	1508	K713_0450 IE3D132S04	181.3	45.05	37485/832	354
33	2.8	58	2.7	1481	K813_0440 IE3D132S04	234.7	44.25	177/4	359
37	3.1	64	2.9	1339	K813_0400 IE3D132S04	234.7	40.01	12803/320	362
38	1.8	65	1.7	1313	K713_0390 IE3D132S04	181.3	39.23	2511/64	356
39	1.1	67	1.0	1282	K613_0380 IE3D132S04	153.0	38.32	156953/4096	353
39	3.6	67	3.6	1273	K913_0380 IE3D132S04	349.5	38.04	194773/5120	380
41	3.2	71	3.1	1209	K813_0360 IE3D132S04	234.7	36.14	2891/80	363
43	1.3	74	1.1	1158	K613_0350 IE3D132S04	153.0	34.61	35441/1024	353

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 5,50 kW, P_N (87 Hz) = 9,53 kW									
42	2.0	72	1.8	1186	K713_0350 IE3D132S04	181.3	35.44	567/16	356
46	0.83	79	0.83	1081	K513_0320 IE3D132S04	131.5	32.31	20677/640	352
46	1.4	80	1.2	1066	K613_0320 IE3D132S04	153.0	31.86	130479/4096	354
46	2.2	79	1.9	1085	K713_0320 IE3D132S04	181.3	32.42	33201/1024	358
51	0.92	88	0.92	976	K513_0290 IE3D132S04	131.5	29.18	4669/160	352
51	1.5	89	1.3	963	K613_0290 IE3D132S04	153.0	28.77	29463/1024	354
51	2.4	88	2.0	980	K713_0290 IE3D132S04	181.3	29.29	7497/256	358
58	4.1	–	–	854	K813_0260 IE3D132S04	234.7	25.51	140833/5520	375
59	2.7	–	–	842	K713_0250 IE3D132S04	181.3	25.18	64449/2560	362
61	1.1	105	1.1	815	K513_0240 IE3D132S04	131.5	24.35	11687/480	353
62	1.7	107	1.4	803	K613_0240 IE3D132S04	153.0	24.01	24583/1024	356
62	4.5	–	–	801	K913_0240 IE3D132S04	349.5	23.94	88877/3712	411
65	2.9	–	–	761	K713_0230 IE3D132S04	181.3	22.74	14553/640	362
67	1.2	117	1.1	736	K513_0220 IE3D132S04	131.5	21.99	2639/120	353
68	1.8	118	1.5	726	K613_0220 IE3D132S04	153.0	21.68	5551/256	356
73	3.1	–	–	677	K713_0200 IE3D132S04	181.3	20.23	119133/5888	366
76	1.4	132	1.2	648	K513_0195 IE3D132S04	131.5	19.35	27869/1440	354
78	2.0	135	1.7	636	K613_0190 IE3D132S04	153.0	18.99	17019/896	358
77	4.6	–	–	642	K813_0190 IE3D132S04	234.7	19.18	133517/6960	388
81	3.3	–	–	611	K713_0185 IE3D132S04	181.3	18.28	26901/1472	367
85	0.85	–	–	591	K402_0175 IE3D132S04	125.7	17.41	731/42	351
85	1.5	147	1.3	585	K513_0175 IE3D132S04	131.5	17.48	6293/360	354
85	4.6	–	–	580	K813_0175 IE3D132S04	234.7	17.33	30149/1740	390
87	0.86	–	–	575	K402_0170 IE3D132S04	125.7	16.94	559/33	351
86	2.1	149	1.8	574	K613_0170 IE3D132S04	153.0	17.16	549/32	358
90	3.6	–	–	548	K713_0165 IE3D132S04	181.3	16.39	6293/384	371
92	1.7	–	–	538	K513_0160 IE3D132S04	131.5	16.09	26071/1620	355
93	2.2	–	–	531	K613_0160 IE3D132S04	153.0	15.87	54839/3456	360
100	3.8	–	–	495	K713_0150 IE3D132S04	181.3	14.80	1421/96	372
102	1.8	–	–	486	K513_0145 IE3D132S04	131.5	14.54	5887/405	356
103	2.4	–	–	480	K613_0145 IE3D132S04	153.0	14.33	12383/864	361
107	0.98	185	0.82	471	K402_0140 IE3D132S04	125.7	13.89	1333/96	352
116	2.0	–	–	429	K513_0130 IE3D132S04	131.5	12.81	1537/120	357
113	4.2	–	–	436	K713_0130 IE3D132S04	181.3	13.04	3339/256	379
117	1.0	203	0.87	430	K402_0125 IE3D132S04	125.7	12.66	2924/231	352
117	2.6	–	–	423	K613_0125 IE3D132S04	153.0	12.63	3233/256	364
126	4.5	–	–	394	K713_0120 IE3D132S04	181.3	11.78	23373/1984	381
128	1.1	223	0.93	391	K402_0115 IE3D132S04	125.7	11.52	645/56	353
128	2.1	–	–	387	K513_0115 IE3D132S04	131.5	11.57	10759/930	358
147	1.2	254	1.0	343	K402_0100 IE3D132S04	125.7	10.10	1333/132	352
146	2.3	–	–	340	K513_0100 IE3D132S04	131.5	10.15	203/20	360
160	1.3	277	1.1	314	K402_0092 IE3D132S04	125.7	9.238	2365/256	354
161	2.4	–	–	307	K513_0092 IE3D132S04	131.5	9.168	1421/155	361
177	1.4	306	1.2	284	K402_0084 IE3D132S04	125.7	8.377	645/77	353
182	2.6	–	–	272	K513_0081 IE3D132S04	131.5	8.134	17081/2100	364
198	1.5	344	1.2	253	K402_0075 IE3D132S04	125.7	7.456	1849/248	355
201	2.8	–	–	246	K513_0073 IE3D132S04	131.5	7.347	551/75	366
220	1.6	382	1.3	228	K402_0067 IE3D132S04	125.7	6.719	215/32	354
247	1.7	427	1.4	204	K402_0060 IE3D132S04	125.7	6.000	6/1	357
273	1.8	473	1.5	184	K402_0054 IE3D132S04	125.7	5.422	1849/341	356
339	2.1	587	1.8	148	K402_0044 IE3D132S04	125.7	4.364	48/11	358
370	2.3	641	1.9	136	K402_0040 IE3D132S04	125.7	4.000	4/1	360
P_N (50 Hz) = 7,50 kW, P_N (87 Hz) = 12,99 kW									
5.1	0.80	–	–	13388	K1014_2900 IE3D132M04	581.0	290.4	392553/1352	433
6.2	0.95	–	–	10947	K1014_2370 IE3D132M04	581.0	237.4	49383/208	434
7.8	0.80	14	0.80	8703	K914_1890 IE3D132M04	372.0	188.8	2706021/14336	433
9.9	1.4	–	–	6865	K1014_1490 IE3D132M04	581.0	148.9	30969/208	436
10	1.0	17	1.0	6766	K914_1470 IE3D132M04	372.0	146.7	5258871/35840	434
12	1.2	21	1.1	5712	K914_1240 IE3D132M04	372.0	123.9	1276425/10304	434
13	0.81	23	0.81	5203	K814_1130 IE3D132M04	257.8	112.8	9027/80	433
15	0.93	26	0.93	4537	K814_0980 IE3D132M04	257.8	98.41	181071/1840	433
15	1.2	27	1.2	4469	K913_0950 IE3D132M04	359.5	95.41	293105/3072	436
16	1.6	28	1.4	4258	K914_0920 IE3D132M04	372.0	92.35	2399679/25984	436
17	1.0	29	1.0	4098	K814_0890 IE3D132M04	257.8	88.89	40887/460	433
19	1.1	32	1.1	3719	K813_0790 IE3D132M04	244.7	79.38	45725/576	434

4.2 Selection tables 4 K helical bevel geared motors

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P _N (50 Hz) = 7,50 kW, P _N (87 Hz) = 12,99 kW									
20	1.9	34	1.9	3513	K913_0750 IE3D132M04	359.5	75.00	62403/832	440
20	1.2	35	1.2	3412	K814_0740 IE3D132M04	257.8	73.99	1201653/16240	434
21	1.1	36	1.1	3359	K813_0720 IE3D132M04	244.7	71.70	10325/144	434
22	1.4	38	1.4	3082	K814_0670 IE3D132M04	257.8	66.83	38763/580	434
23	1.4	39	1.4	3064	K813_0650 IE3D132M04	244.7	65.41	188387/2880	435
23	1.9	41	1.9	2954	K913_0630 IE3D132M04	359.5	63.07	209901/3328	443
25	0.88	44	0.88	2744	K713_0590 IE3D132M04	191.3	58.57	7497/128	433
25	1.5	43	1.5	2768	K813_0590 IE3D132M04	244.7	59.08	42539/720	436
30	1.0	51	1.0	2337	K713_0500 IE3D132M04	191.3	49.88	166005/3328	434
30	1.8	52	1.8	2295	K813_0490 IE3D132M04	244.7	48.99	5487/112	439
30	2.2	52	2.2	2292	K913_0490 IE3D132M04	359.5	48.94	100223/2048	450
33	1.1	57	1.1	2111	K713_0450 IE3D132M04	191.3	45.05	37485/832	434
33	2.0	58	1.9	2073	K813_0440 IE3D132M04	244.7	44.25	177/4	439
37	2.2	64	2.0	1874	K813_0400 IE3D132M04	244.7	40.01	12803/320	442
38	1.3	65	1.2	1838	K713_0390 IE3D132M04	191.3	39.23	2511/64	436
38	0.81	–	–	1795	K613_0380 IE3D132M04	163.0	38.32	156953/4096	433
39	2.6	67	2.6	1782	K913_0380 IE3D132M04	359.5	38.04	194773/5120	460
41	2.3	71	2.2	1693	K813_0360 IE3D132M04	244.7	36.14	2891/80	443
43	0.89	–	–	1621	K613_0350 IE3D132M04	163.0	34.61	35441/1024	433
42	1.4	72	1.3	1660	K713_0350 IE3D132M04	191.3	35.44	567/16	436
46	0.97	80	0.84	1492	K613_0320 IE3D132M04	163.0	31.86	130479/4096	434
45	1.6	79	1.4	1519	K713_0320 IE3D132M04	191.3	32.42	33201/1024	438
46	2.7	79	2.4	1517	K813_0320 IE3D132M04	244.7	32.39	31093/960	447
51	1.1	89	0.90	1348	K613_0290 IE3D132M04	163.0	28.77	29463/1024	434
50	1.7	87	1.5	1372	K713_0290 IE3D132M04	191.3	29.29	7497/256	438
50	2.7	87	2.5	1370	K813_0290 IE3D132M04	244.7	29.25	7021/240	448
58	2.9	–	–	1195	K813_0260 IE3D132M04	244.7	25.51	140833/5520	455
59	1.9	–	–	1179	K713_0250 IE3D132M04	191.3	25.18	64449/2560	442
61	1.2	106	1.0	1125	K613_0240 IE3D132M04	163.0	24.01	24583/1024	436
62	3.2	–	–	1122	K913_0240 IE3D132M04	359.5	23.94	88877/3712	491
65	2.1	–	–	1065	K713_0230 IE3D132M04	191.3	22.74	14553/640	442
67	0.87	116	0.81	1030	K513_0220 IE3D132M04	141.5	21.99	2639/120	433
68	1.3	118	1.1	1016	K613_0220 IE3D132M04	163.0	21.68	5551/256	436
73	2.2	–	–	948	K713_0200 IE3D132M04	191.3	20.23	119133/5888	446
76	0.99	132	0.89	907	K513_0195 IE3D132M04	141.5	19.35	27869/1440	434
78	1.4	135	1.2	890	K613_0190 IE3D132M04	163.0	18.99	17019/896	438
77	3.3	–	–	899	K813_0190 IE3D132M04	244.7	19.18	133517/6960	468
81	2.4	–	–	856	K713_0185 IE3D132M04	191.3	18.28	26901/1472	447
84	1.1	146	0.95	819	K513_0175 IE3D132M04	141.5	17.48	6293/360	434
85	3.3	–	–	812	K813_0175 IE3D132M04	244.7	17.33	30149/1740	470
86	1.5	149	1.3	804	K613_0170 IE3D132M04	163.0	17.16	549/32	438
90	2.6	–	–	768	K713_0165 IE3D132M04	191.3	16.39	6293/384	451
92	1.2	–	–	754	K513_0160 IE3D132M04	141.5	16.09	26071/1620	435
93	1.6	–	–	743	K613_0160 IE3D132M04	163.0	15.87	54839/3456	440
100	2.7	–	–	693	K713_0150 IE3D132M04	191.3	14.80	1421/96	452
101	1.3	–	–	681	K513_0145 IE3D132M04	141.5	14.54	5887/405	436
103	1.7	–	–	671	K613_0145 IE3D132M04	163.0	14.33	12383/864	441
115	1.4	–	–	600	K513_0130 IE3D132M04	141.5	12.81	1537/120	437
113	3.0	–	–	611	K713_0130 IE3D132M04	191.3	13.04	3339/256	459
117	1.9	–	–	592	K613_0125 IE3D132M04	163.0	12.63	3233/256	444
125	3.2	–	–	552	K713_0120 IE3D132M04	191.3	11.78	23373/1984	461
127	1.5	–	–	542	K513_0115 IE3D132M04	141.5	11.57	10759/930	438
129	2.0	–	–	534	K613_0115 IE3D132M04	163.0	11.41	22631/1984	445
146	0.87	–	–	480	K402_0100 IE3D132M04	135.7	10.10	1333/132	432
145	1.6	–	–	475	K513_0100 IE3D132M04	141.5	10.15	203/20	440
160	0.92	–	–	439	K402_0092 IE3D132M04	135.7	9.238	2365/256	434
161	1.7	–	–	429	K513_0092 IE3D132M04	141.5	9.168	1421/155	441
176	0.98	305	0.82	398	K402_0084 IE3D132M04	135.7	8.377	645/77	433
181	1.9	–	–	381	K513_0081 IE3D132M04	141.5	8.134	17081/2100	444
182	2.5	–	–	380	K613_0081 IE3D132M04	163.0	8.107	85095/10496	457
198	1.1	343	0.89	354	K402_0075 IE3D132M04	135.7	7.456	1849/248	435
201	2.0	–	–	344	K513_0073 IE3D132M04	141.5	7.347	551/75	446
220	1.1	380	0.95	319	K402_0067 IE3D132M04	135.7	6.719	215/32	434
246	1.2	426	1.0	285	K402_0060 IE3D132M04	135.7	6.000	6/1	437
272	1.3	471	1.1	258	K402_0054 IE3D132M04	135.7	5.422	1849/341	436

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 7,50 kW, P_N (87 Hz) = 12,99 kW									
338	1.5	585	1.3	207	K402_0044 IE3D132M04	135.7	4.364	48/11	438
369	1.6	639	1.3	190	K402_0040 IE3D132M04	135.7	4.000	4/1	440
P_N (50 Hz) = 11,00 kW, P_N (87 Hz) = 19,05 kW									
7.7	0.94	–	–	12723	K1014_1900 IE3D160M04	606.0	190.4	514941/2704	786
9.7	1.2	–	–	10118	K1014_1510 IE3D160M04	606.0	151.4	409479/2704	787
12	1.5	–	–	8266	K1014_1240 IE3D160M04	606.0	123.7	7359555/59488	789
15	0.83	27	0.83	6476	K913_0950 IE3D160M04	384.5	95.41	293105/3072	786
16	1.1	–	–	6403	K1013_0940 IE3D160M04	577.1	94.33	235445/2496	794
16	1.7	–	–	6236	K1014_0930 IE3D160M04	606.0	93.34	252399/2704	792
20	1.3	34	1.3	5091	K913_0750 IE3D160M04	384.5	75.00	62403/832	790
23	0.95	39	0.95	4440	K813_0650 IE3D160M04	269.7	65.41	188387/2880	785
23	1.3	41	1.3	4281	K913_0630 IE3D160M04	384.5	63.07	209901/3328	793
25	1.0	43	1.0	4010	K813_0590 IE3D160M04	269.7	59.08	42539/720	786
30	1.3	52	1.2	3325	K813_0490 IE3D160M04	269.7	48.99	5487/112	789
30	1.5	52	1.5	3322	K913_0490 IE3D160M04	384.5	48.94	100223/2048	800
33	1.4	58	1.3	3004	K813_0440 IE3D160M04	269.7	44.25	177/4	789
37	1.5	64	1.4	2716	K813_0400 IE3D160M04	269.7	40.01	12803/320	792
38	0.90	65	0.83	2663	K713_0390 IE3D160M04	216.3	39.23	2511/64	786
39	1.8	67	1.8	2582	K913_0380 IE3D160M04	384.5	38.04	194773/5120	810
41	1.6	71	1.5	2453	K813_0360 IE3D160M04	269.7	36.14	2891/80	793
42	1.0	72	0.88	2405	K713_0350 IE3D160M04	216.3	35.44	567/16	786
45	1.1	79	0.94	2201	K713_0320 IE3D160M04	216.3	32.42	33201/1024	788
46	1.9	79	1.6	2198	K813_0320 IE3D160M04	269.7	32.39	31093/960	797
46	1.9	80	1.9	2180	K913_0320 IE3D160M04	384.5	32.12	47275/1472	819
50	1.2	87	1.0	1988	K713_0290 IE3D160M04	216.3	29.29	7497/256	788
50	1.9	87	1.7	1986	K813_0290 IE3D160M04	269.7	29.25	7021/240	798
58	2.0	–	–	1732	K813_0260 IE3D160M04	269.7	25.51	140833/5520	805
59	1.3	–	–	1709	K713_0250 IE3D160M04	216.3	25.18	64449/2560	792
61	0.84	–	–	1629	K613_0240 IE3D160M04	188.0	24.01	24583/1024	786
62	2.2	–	–	1625	K913_0240 IE3D160M04	384.5	23.94	88877/3712	841
65	1.4	–	–	1543	K713_0230 IE3D160M04	216.3	22.74	14553/640	792
64	2.0	–	–	1564	K813_0230 IE3D160M04	269.7	23.04	31801/1380	806
68	0.89	–	–	1472	K613_0220 IE3D160M04	188.0	21.68	5551/256	786
73	1.5	–	–	1373	K713_0200 IE3D160M04	216.3	20.23	119133/5888	796
78	0.98	135	0.82	1289	K613_0190 IE3D160M04	188.0	18.99	17019/896	788
77	2.3	–	–	1302	K813_0190 IE3D160M04	269.7	19.18	133517/6960	818
81	1.6	–	–	1240	K713_0185 IE3D160M04	216.3	18.28	26901/1472	797
85	2.3	–	–	1176	K813_0175 IE3D160M04	269.7	17.33	30149/1740	820
86	1.0	149	0.88	1164	K613_0170 IE3D160M04	188.0	17.16	549/32	788
90	1.8	–	–	1112	K713_0165 IE3D160M04	216.3	16.39	6293/384	801
93	1.1	–	–	1077	K613_0160 IE3D160M04	188.0	15.87	54839/3456	790
100	1.9	–	–	1005	K713_0150 IE3D160M04	216.3	14.80	1421/96	802
103	1.2	–	–	973	K613_0145 IE3D160M04	188.0	14.33	12383/864	791
113	2.1	–	–	885	K713_0130 IE3D160M04	216.3	13.04	3339/256	809
117	1.3	–	–	857	K613_0125 IE3D160M04	188.0	12.63	3233/256	794
125	2.2	–	–	800	K713_0120 IE3D160M04	216.3	11.78	23373/1984	811
129	1.4	–	–	774	K613_0115 IE3D160M04	188.0	11.41	22631/1984	795
182	1.7	–	–	550	K613_0081 IE3D160M04	188.0	8.107	85095/10496	807
201	1.8	–	–	497	K613_0073 IE3D160M04	188.0	7.323	19215/2624	809
P_N (50 Hz) = 15,00 kW, P_N (87 Hz) = 25,98 kW									
9.8	0.88	–	–	13680	K1014_1510 IE3D160L04	656.0	151.4	409479/2704	1574
12	1.1	–	–	11176	K1014_1240 IE3D160L04	656.0	123.7	7359555/59488	1576
16	0.85	–	–	8657	K1013_0940 IE3D160L04	627.1	94.33	235445/2496	1581
16	1.3	–	–	8432	K1014_0930 IE3D160L04	656.0	93.34	252399/2704	1579
20	0.99	34	0.99	6884	K913_0750 IE3D160L04	434.5	75.00	62403/832	1577
24	0.99	41	0.99	5788	K913_0630 IE3D160L04	434.5	63.07	209901/3328	1580
30	0.93	53	0.91	4496	K813_0490 IE3D160L04	319.7	48.99	5487/112	1576
30	1.1	53	1.1	4491	K913_0490 IE3D160L04	434.5	48.94	100223/2048	1587
34	1.0	58	0.97	4061	K813_0440 IE3D160L04	319.7	44.25	177/4	1576
37	1.1	65	1.0	3672	K813_0400 IE3D160L04	319.7	40.01	12803/320	1579
39	1.3	68	1.3	3491	K913_0380 IE3D160L04	434.5	38.04	194773/5120	1597
41	1.2	71	1.1	3317	K813_0360 IE3D160L04	319.7	36.14	2891/80	1580
46	0.81	–	–	2976	K713_0320 IE3D160L04	266.3	32.42	33201/1024	1575
46	1.4	80	1.2	2973	K813_0320 IE3D160L04	319.7	32.39	31093/960	1584
46	1.4	80	1.4	2947	K913_0320 IE3D160L04	434.5	32.12	47275/1472	1606

4.2 Selection tables 4 K helical bevel geared motors

n ₂ 50 Hz [rpm]	S 50 Hz	n ₂ 87 Hz [rpm]	S 87 Hz	M _{2N} [Nm]	Type	m [kg]	i	i _{exakt}	J ₁ [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 15,00 kW, P_N (87 Hz) = 25,98 kW									
51	0.89	–	–	2688	K713_0290 IE3D160L04	266.3	29.29	7497/256	1575
51	1.4	88	1.3	2685	K813_0290 IE3D160L04	319.7	29.25	7021/240	1585
58	1.5	–	–	2341	K813_0260 IE3D160L04	319.7	25.51	140833/5520	1592
59	0.98	–	–	2310	K713_0250 IE3D160L04	266.3	25.18	64449/2560	1579
62	1.6	–	–	2197	K913_0240 IE3D160L04	434.5	23.94	88877/3712	1628
66	1.0	–	–	2087	K713_0230 IE3D160L04	266.3	22.74	14553/640	1579
65	1.5	–	–	2115	K813_0230 IE3D160L04	319.7	23.04	31801/1380	1593
74	1.1	–	–	1857	K713_0200 IE3D160L04	266.3	20.23	119133/5888	1583
78	1.7	–	–	1761	K813_0190 IE3D160L04	319.7	19.18	133517/6960	1605
82	1.2	–	–	1677	K713_0185 IE3D160L04	266.3	18.28	26901/1472	1584
86	1.7	–	–	1590	K813_0175 IE3D160L04	319.7	17.33	30149/1740	1607
91	1.3	–	–	1504	K713_0165 IE3D160L04	266.3	16.39	6293/384	1588
94	0.81	–	–	1456	K613_0160 IE3D160L04	238.0	15.87	54839/3456	1577
101	1.4	–	–	1358	K713_0150 IE3D160L04	266.3	14.80	1421/96	1589
104	0.87	–	–	1315	K613_0145 IE3D160L04	238.0	14.33	12383/864	1578
114	1.5	–	–	1197	K713_0130 IE3D160L04	266.3	13.04	3339/256	1596
118	0.95	–	–	1159	K613_0125 IE3D160L04	238.0	12.63	3233/256	1581
126	1.6	–	–	1081	K713_0120 IE3D160L04	266.3	11.78	23373/1984	1598
131	1.0	–	–	1047	K613_0115 IE3D160L04	238.0	11.41	22631/1984	1582
184	1.3	–	–	744	K613_0081 IE3D160L04	238.0	8.107	85095/10496	1594
203	1.4	–	–	672	K613_0073 IE3D160L04	238.0	7.323	19215/2624	1596
P_N (50 Hz) = 18,50 kW, P_N (87 Hz) = 32,04 kW									
12	0.86	–	–	13970	K1014_1240 IE3D180M04	691.0	123.7	7359555/59488	1689
16	1.0	–	–	10540	K1014_0930 IE3D180M04	691.0	93.34	252399/2704	1692
20	1.3	–	–	8636	K1013_0750 IE3D180M04	662.1	75.28	101773/1352	1702
23	0.97	41	0.97	7236	K913_0630 IE3D180M04	469.5	63.07	209901/3328	1693
24	1.7	–	–	7061	K1013_0620 IE3D180M04	662.1	61.55	12803/208	1711
30	1.2	52	1.2	5614	K913_0490 IE3D180M04	469.5	48.94	100223/2048	1700
37	0.92	64	0.83	4590	K813_0400 IE3D180M04	354.7	40.01	12803/320	1692
38	2.4	–	–	4428	K1013_0390 IE3D180M04	662.1	38.60	8029/208	1746
39	1.6	67	1.6	4364	K913_0380 IE3D180M04	469.5	38.04	194773/5120	1710
41	1.0	71	0.89	4146	K813_0360 IE3D180M04	354.7	36.14	2891/80	1693
46	1.1	79	0.96	3716	K813_0320 IE3D180M04	354.7	32.39	31093/960	1697
46	1.9	80	1.8	3684	K913_0320 IE3D180M04	469.5	32.12	47275/1472	1719
50	1.2	87	1.0	3356	K813_0290 IE3D180M04	354.7	29.25	7021/240	1698
58	1.3	–	–	2927	K813_0260 IE3D180M04	354.7	25.51	140833/5520	1705
62	2.5	–	–	2747	K913_0240 IE3D180M04	469.5	23.94	88877/3712	1741
65	0.84	–	–	2609	K713_0230 IE3D180M04	301.3	22.74	14553/640	1692
64	1.4	–	–	2644	K813_0230 IE3D180M04	354.7	23.04	31801/1380	1706
73	0.91	–	–	2321	K713_0200 IE3D180M04	301.3	20.23	119133/5888	1696
77	1.6	–	–	2201	K813_0190 IE3D180M04	354.7	19.18	133517/6960	1718
77	2.5	–	–	2187	K913_0190 IE3D180M04	469.5	19.06	305/16	1765
81	0.97	–	–	2097	K713_0185 IE3D180M04	301.3	18.28	26901/1472	1697
85	1.7	–	–	1988	K813_0175 IE3D180M04	354.7	17.33	30149/1740	1720
90	1.0	–	–	1880	K713_0165 IE3D180M04	301.3	16.39	6293/384	1701
90	1.8	–	–	1885	K813_0165 IE3D180M04	354.7	16.43	42067/2560	1726
100	1.1	–	–	1698	K713_0150 IE3D180M04	301.3	14.80	1421/96	1702
99	1.9	–	–	1703	K813_0150 IE3D180M04	354.7	14.84	9499/640	1730
113	1.2	–	–	1496	K713_0130 IE3D180M04	301.3	13.04	3339/256	1709
118	2.5	–	–	1437	K913_0125 IE3D180M04	469.5	12.53	73749/5888	1838
125	1.3	–	–	1352	K713_0120 IE3D180M04	301.3	11.78	23373/1984	1711
143	2.5	–	–	1179	K813_0105 IE3D180M04	354.7	10.28	53041/5160	1772
145	1.4	–	–	1167	K713_0100 IE3D180M04	301.3	10.17	651/64	1722
159	2.5	–	–	1065	K813_0093 IE3D180M04	354.7	9.284	11977/1290	1781
161	1.5	–	–	1054	K713_0092 IE3D180M04	301.3	9.188	147/16	1724
176	1.6	–	–	961	K713_0084 IE3D180M04	301.3	8.373	87885/10496	1735
179	2.5	–	–	946	K813_0082 IE3D180M04	354.7	8.243	96937/11760	1809
182	1.0	–	–	930	K613_0081 IE3D180M04	273.0	8.107	85095/10496	1707
195	1.7	–	–	868	K713_0076 IE3D180M04	301.3	7.563	19845/2624	1739
198	2.5	–	–	854	K813_0074 IE3D180M04	354.7	7.445	3127/420	1822
201	1.1	–	–	840	K613_0073 IE3D180M04	273.0	7.323	19215/2624	1709
P_N (50 Hz) = 22,00 kW, P_N (87 Hz) = 38,11 kW									
16	0.87	–	–	12473	K1014_0930 IE3D180L04	721.0	93.34	252399/2704	2042
20	1.1	–	–	10219	K1013_0750 IE3D180L04	692.1	75.28	101773/1352	2052
23	0.82	41	0.82	8562	K913_0630 IE3D180L04	499.5	63.07	209901/3328	2043

n_2 50 Hz [rpm]	S 50 Hz	n_2 87 Hz [rpm]	S 87 Hz	M_{2N} [Nm]	Type	m [kg]	i	i_{exakt}	J_1 [10 ⁻⁴ kgm ²]
P_N (50 Hz) = 22,00 kW, P_N (87 Hz) = 38,11 kW									
24	1.4	–	–	8356	K1013_0620 IE3D180L04	692.1	61.55	12803/208	2061
30	1.1	52	1.1	6643	K913_0490 IE3D180L04	499.5	48.94	100223/2048	2050
38	2.0	–	–	5240	K1013_0390 IE3D180L04	692.1	38.60	8029/208	2096
39	1.4	67	1.3	5164	K913_0380 IE3D180L04	499.5	38.04	194773/5120	2060
41	0.86	–	–	4906	K813_0360 IE3D180L04	384.7	36.14	2891/80	2043
46	0.96	79	0.81	4397	K813_0320 IE3D180L04	384.7	32.39	31093/960	2047
46	1.6	80	1.5	4360	K913_0320 IE3D180L04	499.5	32.12	47275/1472	2069
51	1.0	88	0.87	3971	K813_0290 IE3D180L04	384.7	29.25	7021/240	2048
58	1.1	–	–	3463	K813_0260 IE3D180L04	384.7	25.51	140833/5520	2055
62	2.1	–	–	3250	K913_0240 IE3D180L04	499.5	23.94	88877/3712	2091
64	1.2	–	–	3128	K813_0230 IE3D180L04	384.7	23.04	31801/1380	2056
77	1.4	–	–	2604	K813_0190 IE3D180L04	384.7	19.18	133517/6960	2068
78	2.1	–	–	2588	K913_0190 IE3D180L04	499.5	19.06	305/16	2115
81	0.82	–	–	2481	K713_0185 IE3D180L04	331.3	18.28	26901/1472	2047
85	1.5	–	–	2352	K813_0175 IE3D180L04	384.7	17.33	30149/1740	2070
90	0.88	–	–	2225	K713_0165 IE3D180L04	331.3	16.39	6293/384	2051
90	1.5	–	–	2231	K813_0165 IE3D180L04	384.7	16.43	42067/2560	2076
100	0.94	–	–	2009	K713_0150 IE3D180L04	331.3	14.80	1421/96	2052
100	1.6	–	–	2015	K813_0150 IE3D180L04	384.7	14.84	9499/640	2080
113	1.0	–	–	1771	K713_0130 IE3D180L04	331.3	13.04	3339/256	2059
118	2.1	–	–	1700	K913_0125 IE3D180L04	499.5	12.53	73749/5888	2188
126	1.1	–	–	1599	K713_0120 IE3D180L04	331.3	11.78	23373/1984	2061
144	2.1	–	–	1395	K813_0105 IE3D180L04	384.7	10.28	53041/5160	2122
145	1.2	–	–	1381	K713_0100 IE3D180L04	331.3	10.17	651/64	2072
159	2.1	–	–	1260	K813_0093 IE3D180L04	384.7	9.284	11977/1290	2131
161	1.3	–	–	1247	K713_0092 IE3D180L04	331.3	9.188	147/16	2074
177	1.4	–	–	1137	K713_0084 IE3D180L04	331.3	8.373	87885/10496	2085
180	2.1	–	–	1119	K813_0082 IE3D180L04	384.7	8.243	96937/11760	2159
183	0.86	–	–	1101	K613_0081 IE3D180L04	303.0	8.107	85095/10496	2057
196	1.5	–	–	1027	K713_0076 IE3D180L04	331.3	7.563	19845/2624	2089
199	2.1	–	–	1011	K813_0074 IE3D180L04	384.7	7.445	3127/420	2172
202	0.92	–	–	994	K613_0073 IE3D180L04	303.0	7.323	19215/2624	2059
P_N (50 Hz) = 30,00 kW, P_N (87 Hz) = 51,96 kW									
24	1.1	–	–	11357	K1013_0620 IE3D200L04	779.1	61.55	12803/208	4141
31	1.3	–	–	8957	K1013_0490 IE3D200L04	779.1	48.54	171647/3536	4156
38	1.7	–	–	7122	K1013_0390 IE3D200L04	779.1	38.60	8029/208	4176
47	2.1	–	–	5818	K1013_0320 IE3D200L04	779.1	31.54	144305/4576	4202
62	2.7	–	–	4390	K1013_0240 IE3D200L04	779.1	23.79	4949/208	4250
78	1.8	–	–	3517	K913_0190 IE3D200L04	586.5	19.06	305/16	4195
94	3.3	–	–	2929	K1013_0160 IE3D200L04	779.1	15.88	37975/2392	4362
119	2.4	–	–	2311	K913_0125 IE3D200L04	586.5	12.53	73749/5888	4268
187	3.3	–	–	1464	K913_0079 IE3D200L04	586.5	7.934	54839/6912	4419
P_N (50 Hz) = 37,00 kW, P_N (87 Hz) = 64,09 kW									
24	0.86	–	–	13946	K1013_0620 IE3D225S04	819.1	61.55	12803/208	4706
31	1.1	–	–	10998	K1013_0490 IE3D225S04	819.1	48.54	171647/3536	4721
39	1.4	–	–	8746	K1013_0390 IE3D225S04	819.1	38.60	8029/208	4741
47	1.7	–	–	7145	K1013_0320 IE3D225S04	819.1	31.54	144305/4576	4767
63	2.2	–	–	5391	K1013_0240 IE3D225S04	819.1	23.79	4949/208	4815
94	2.7	–	–	3597	K1013_0160 IE3D225S04	819.1	15.88	37975/2392	4927
P_N (50 Hz) = 45,00 kW, P_N (87 Hz) = 77,94 kW									
31	0.89	–	–	13458	K1013_0490 IE3D225M04	902.1	48.54	171647/3536	6236
38	1.1	–	–	10702	K1013_0390 IE3D225M04	902.1	38.60	8029/208	6256
47	1.4	–	–	8743	K1013_0320 IE3D225M04	902.1	31.54	144305/4576	6282
62	1.8	–	–	6596	K1013_0240 IE3D225M04	902.1	23.79	4949/208	6330
93	2.2	–	–	4401	K1013_0160 IE3D225M04	902.1	15.88	37975/2392	6442

4.3 Dimensional drawings

In this chapter you can find the dimensions of the geared motors.

There is a dimensional drawing for every possible shaft/housing design, each with the tables for gear unit dimensions, motor dimensions and geared motor dimensions.

Dimensions can exceed the specifications of ISO 2768-mK due to casting tolerances or accumulation of individual tolerances.

We reserve the right to make dimensional changes due to ongoing technical development.

You can download CAD models of our standard drives at <http://cad.stoeber.de>.

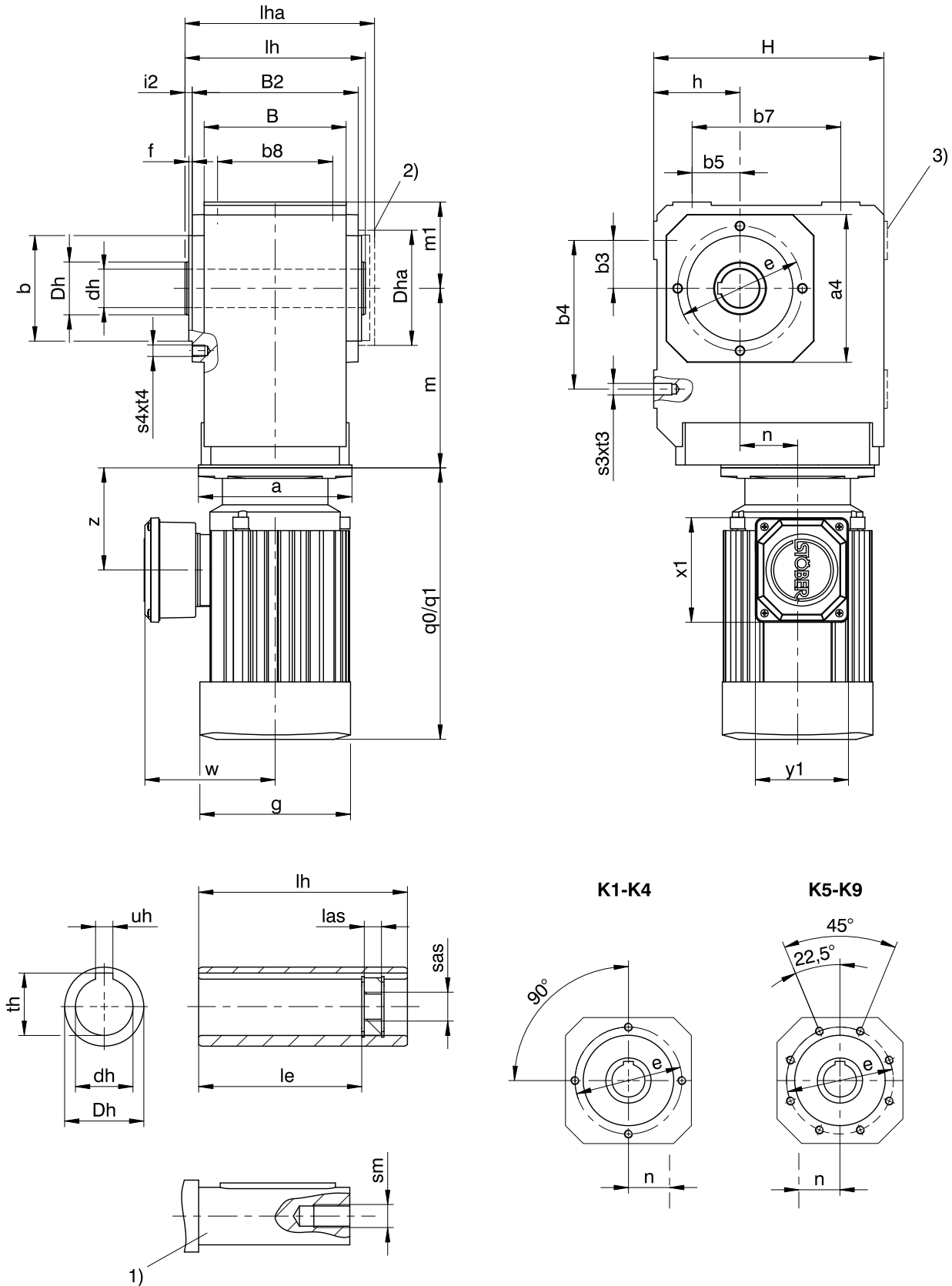
Tolerances

Axis height in accordance with DIN 747	Tolerance
Up to 50 mm	-0.4 mm
Up to 250 mm	-0.5 mm
Up to 630 mm	-0.6 mm
Solid shaft	Tolerance
Shaft \varnothing fit \leq 50 mm	DIN 748-1, ISO k6
Shaft \varnothing fit $>$ 50 mm	DIN 748-1, ISO m6
Feather keys	DIN 6885-1, high form A
Hollow shaft	Tolerance
Hollow shaft hole fit	ISO H7
Feather keys	DIN 6885-1, high form S1/K1 \varnothing 30: DIN 6885-3, low form
Flange	Pilot tolerance
Up to 300 mm	ISO j6
Starting at 350 mm	ISO h6

Centering holes in solid shafts in accordance with DIN 332-2, DR shape

Thread size	M4	M5	M6	M8	M10	M12	M16	M20	M24
Thread depth [mm]	10	12.5	16	19	22	28	36	42	50

4.3.1 A shaft design (hollow shaft), G housing design (pitch circle diameter)



q_0 Applies to motors without brake.

q_1 Applies to motors with brake.

1) The length of the machine shaft must be at least $2.2 \times \varnothing d_h$ and the length of the feather key must be at least $2 \times \varnothing d_h$.

2) Cover (optional)

3) Only for K1 (other sizes on request)

Dimensions of gear units

Type	□a4	∅b	b3	b4	b5	b7	b8	B	B2	∅dh	∅Dh	Dha	∅e	f	h	H	i2	le	lh	las	lha	m1	s3	s4	sm	sas	t3	t4	th	uh
K1	105	75 _{js}	30	90	30	90	70	90	106	20 ^{H7}	40	□105	90	3.0	60	160	7.0	98.0	120	12	127.0	60	M8	M8	M6	M8	13	13	22.8	6 ^{JS9}
K1	105	75 _{js}	30	90	30	90	70	90	106	25 ^{H7}	40	□105	90	3.0	60	160	7.0	98.0	120	12	127.0	60	M8	M8	M10	M12	13	13	28.3	8 ^{JS9}
K1	105	75 _{js}	30	90	30	90	70	90	106	30 ^{H7}	40	□105	90	3.0	60	160	7.0	93.5	120	12	127.0	60	M8	M8	M10	M12	13	13	32.0	8 ^{JS9}
K2	116	82 _{js}	35	115	35	115	90	115	134	30 ^{H7}	45	□116	100	3.0	65	190	7.0	121.5	148	12	156.0	65	M10	M8	M10	M12	16	13	33.3	8 ^{JS9}
K3	132	95 _{js}	40	130	40	130	105	130	146	35 ^{H7}	50	□132	115	3.0	75	213	7.0	125.0	160	12	168.0	75	M10	M8	M12	M16	16	13	38.3	10 ^{JS9}
K4	152	110 _{js}	50	155	50	155	120	148	173	40 ^{H7}	55	□152	130	3.5	90	240	7.5	157.0	188	12	197.5	90	M12	M10	M16	M20	19	16	43.3	12 ^{JS9}
K5	145	110 _{js}	40	140	100	140	125	160	185	50 ^{H7}	65	□145	130	3.5	160	260	7.5	164.0	200	12	209.5	100	M16	M10	M16	M20	26	16	53.8	14 ^{JS9}
K6	180	140 _{js}	50	160	110	160	130	168	200	50 ^{H7}	70	∅183	165	3.5	190	310	7.5	179.0	215	12	224.5	120	M16	M10	M16	M20	26	16	53.8	14 ^{JS9}
K7	195	155 _{js}	55	180	125	180	145	190	226	60 ^{H7}	85	∅205	185	3.5	212	342	8.0	214.0	242	12	252.0	125	M20	M12	M20	M24	33	19	64.4	18 ^{JS9}
K8	226	185 _{js}	75	240	165	240	185	235	282	70 ^{H7}	100	∅184	215	4.0	265	410	9.0	263.0	300	20	311.0	145	M24	M12	M20	M24	38	19	74.9	20 ^{JS9}
K9	280	230 _{js}	95	280	185	280	225	285	330	90 ^{H7}	120	∅230	265	5.0	315	495	10.0	302.0	350	26	361.0	180	M30	M16	M24	M30	48	26	95.4	25 ^{JS9}

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

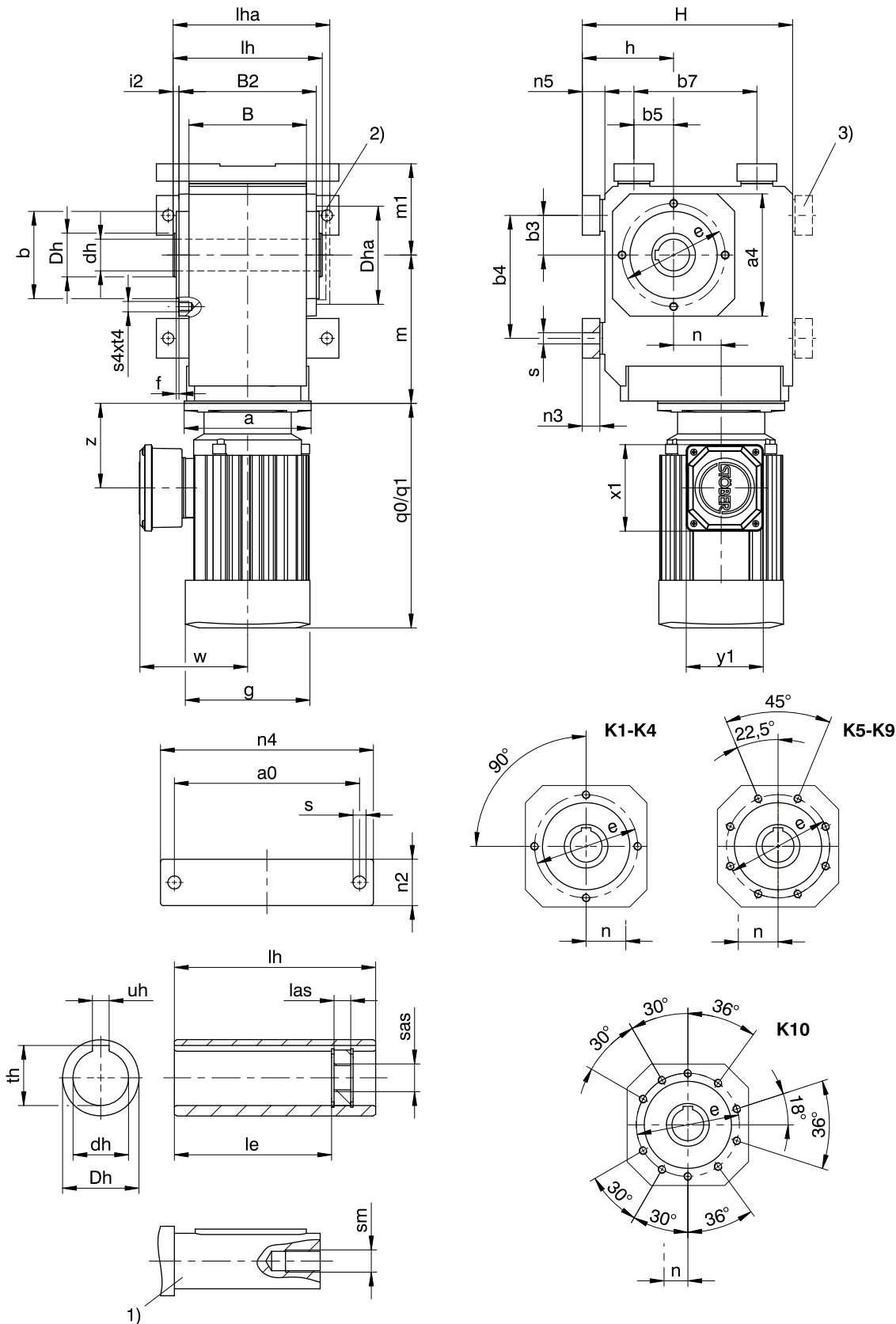
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-

4.3.2 A shaft design (hollow shaft), NG housing design (base + pitch circle diameter)



- q_0 Applies to motors without brake. q_1 Applies to motors with brake.
- 1) The length of the machine shaft must be at least $2.2 \times \varnothing dh$ and the length of the feather key must be at least $2 \times \varnothing dh$.
- 2) Cover (optional)
- 3) Only for K1 (other sizes on request)

Dimensions of gear units

Type	a0	□a4	Øb	b3	b4	b5	b7	B	B2	Ødh	ØDh	Dha	Øe	f	h	H
K1	115	105	75 ₆	30	90	30	90	90	106	20 ^{H7}	40	□105	90	3.0	75	175
K1	115	105	75 ₆	30	90	30	90	90	106	25 ^{H7}	40	□105	90	3.0	75	175
K1	115	105	75 ₆	30	90	30	90	90	106	30 ^{H7}	40	□105	90	3.0	75	175
K2	155	116	82 ₆	35	115	35	115	115	134	30 ^{H7}	45	□116	100	3.0	88	213
K3	170	132	95 ₆	40	130	40	130	130	146	35 ^{H7}	50	□132	115	3.0	98	236
K4	200	152	110 ₆	50	155	50	155	148	173	40 ^{H7}	55	□152	130	3.5	115	265
K5	200	145	110 ₆	40	140	100	140	160	185	50 ^{H7}	65	□145	130	3.5	190	290
K6	210	180	140 ₆	50	160	110	160	168	200	50 ^{H7}	70	Ø183	165	3.5	220	340
K7	241	195	155 ₆	55	180	125	180	190	226	60 ^{H7}	85	Ø205	185	3.5	250	380
K8	300	226	185 ₆	75	240	165	240	235	282	70 ^{H7}	100	Ø184	215	4.0	310	455
K9	360	280	230 ₆	95	280	185	280	285	330	90 ^{H7}	120	Ø230	265	5.0	365	545
K10	330	340	250 ₆	115	350	265	420	400	356	100 ^{H7}	130	Ø200	300	20.0	420	636

Type	i2	le	lh	las	lha	m1	n2	n3	n4	n5	Øs	s4	sm	sas	t4	th	uh
K1	7.0	98.0	120	12	127.0	75	30	13	140	15	9.0	M8	M10	M12	13	28.3	8 ^{JS9}
K1	7.0	98.0	120	12	127.0	75	30	13	140	15	9.0	M8	M6	M8	13	22.8	6 ^{JS9}
K1	7.0	93.5	120	12	127.0	75	30	13	140	15	9.0	M8	M10	M12	13	32.0	8 ^{JS9}
K2	7.0	121.5	148	12	156.0	88	40	20	185	23	11.0	M8	M10	M12	13	33.3	8 ^{JS9}
K3	7.0	125.0	160	12	168.0	98	45	20	200	23	11.0	M8	M12	M16	13	38.3	10 ^{JS9}
K4	7.5	157.0	188	12	197.5	115	50	22	230	25	14.0	M10	M16	M20	16	43.3	12 ^{JS9}
K5	7.5	164.0	200	12	209.5	130	60	27	240	30	18.0	M10	M16	M20	16	53.8	14 ^{JS9}
K6	7.5	179.0	215	12	224.5	150	65	27	250	30	18.5	M10	M16	M20	16	53.8	14 ^{JS9}
K7	8.0	214.0	242	12	252.0	163	70	35	290	38	23.0	M12	M20	M24	19	64.4	18 ^{JS9}
K8	9.0	263.0	300	20	311.0	190	85	41	360	45	27.0	M12	M20	M24	19	74.9	20 ^{JS9}
K9	10.0	302.0	350	26	361.0	230	95	46	430	50	31.0	M16	M24	M30	26	95.4	25 ^{JS9}
K10	27.0	361.0	410	26	441.0	270	120	–	400	45	39.0	M20	M24	M30	33	106.4	28 ^{JS9}

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0

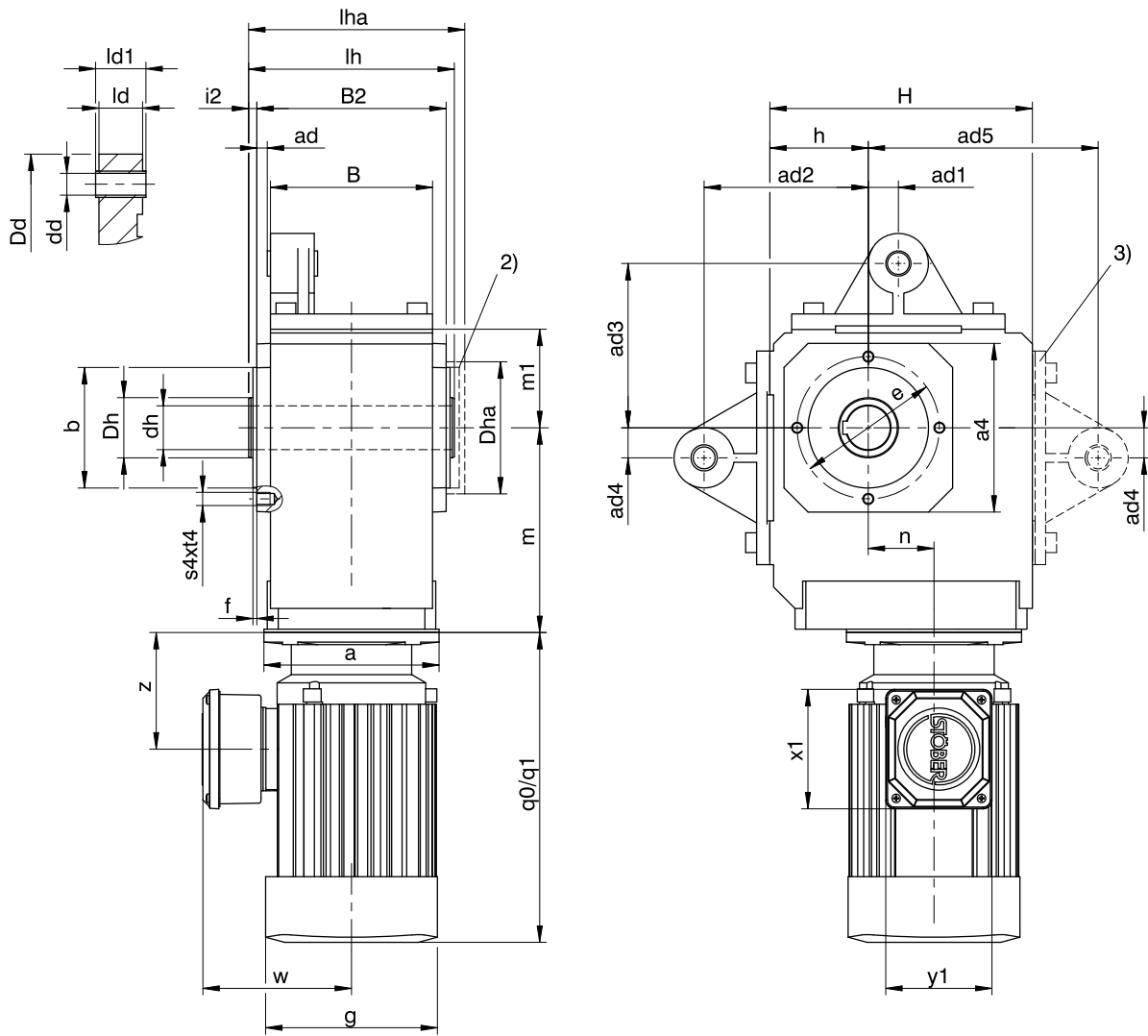
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200			IE3D225				
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n		
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-	-	-	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-	-	-	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-	-	-	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0	-	-	-	-	-
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	∅300	392	28.0	∅300	392	28.0	∅350	415	28.0	∅400	415	28.0	-	
K1014	-	-	-	-	-	-	-	-	-	-	-	-	∅250	450	28.0	∅300	475	28.0	∅300	475	28.0	-	-	-	-	-	-	-	

4.3.3 A shaft design (hollow shaft), GD housing design (pitch circle diameter + torque arm)



K1-K4

K5-K9

- q0 Applies to motors without brake.
- 1) The length of the machine shaft must be at least $2.2 \times \varnothing dh$ and the length of the feather key must be at least $2 \times \varnothing dh$.
- 3) Only for K1 (other sizes on request)

- q1 Applies to motors with brake.
- 2) Cover (optional)
- If you brace the gear units without the factory-adjusted torque arms provided for this purpose, the dimensions for ad_2 and ad_3 must meet the specified value.

Dimensions of gear units

Type	□a4	ad	ad1	ad2	ad3	ad4	ad5	Øb	B	B2	Ødd	Ødh	ØDd	ØDh	Dha	Øe	f
K1	105	6.0	15.0	90	90	15.0	130	75 _{j6}	90	106	12 ^{H9}	20 ^{H7}	43	40	□105	90	3.0
K1	105	6.0	15.0	90	90	15.0	130	75 _{j6}	90	106	12 ^{H9}	25 ^{H7}	43	40	□105	90	3.0
K1	105	6.0	15.0	90	90	15.0	130	75 _{j6}	90	106	12 ^{H9}	30 ^{H7}	43	40	□105	90	3.0
K2	116	6.5	22.5	100	100	22.5	–	82 _{j6}	115	134	16 ^{H9}	30 ^{H7}	45	45	□116	100	3.0
K3	132	5.0	25.0	120	120	25.0	–	95 _{j6}	130	146	16 ^{H9}	35 ^{H7}	45	50	□132	115	3.0
K4	152	9.5	27.5	150	150	27.5	–	110 _{j6}	148	173	20 ^{H9}	40 ^{H7}	55	55	□152	130	3.5
K5	145	9.5	30.0	250	190	30.0	–	110 _{j6}	160	185	20 ^{H9}	50 ^{H7}	58	65	□145	130	3.5
K6	180	13.0	30.0	250	180	30.0	–	140 _{j6}	168	200	20 ^{H9}	50 ^{H7}	58	70	Ø183	165	3.5
K7	195	15.0	35.0	300	213	35.0	–	155 _{j6}	190	226	20 ^{H9}	60 ^{H7}	68	85	Ø205	185	3.5
K8	226	17.0	45.0	350	230	45.0	–	185 _{j6}	235	282	24 ^{H9}	70 ^{H7}	72	100	Ø184	215	4.0
K9	280	16.0	45.0	450	315	45.0	–	230 _{j6}	285	330	24 ^{H9}	90 ^{H7}	75	120	Ø230	265	5.0

Dimensions of gear units

Type	h	H	i2	ld	ld1	le	lh	las	lha	m1	s4	sm	sas	t4	th	uh
K1	60	160	7.0	24	28	98.0	120	12	127.0	60	M8	M6	M8	13	22.8	6 ^{JS9}
K1	60	160	7.0	24	28	98.0	120	12	127.0	60	M8	M10	M12	13	28.3	8 ^{JS9}
K1	60	160	7.0	24	28	93.5	120	12	127.0	60	M8	M10	M12	13	32.0	8 ^{JS9}
K2	65	190	7.0	32	38	121.5	148	12	156.0	65	M8	M10	M12	13	33.3	8 ^{JS9}
K3	75	213	7.0	32	38	125.0	160	12	168.0	75	M8	M12	M16	13	38.3	10 ^{JS9}
K4	90	240	7.5	40	46	157.0	188	12	197.5	90	M10	M16	M20	16	43.3	12 ^{JS9}
K5	160	260	7.5	40	46	164.0	200	12	209.5	100	M10	M16	M20	16	53.8	14 ^{JS9}
K6	190	310	7.5	40	46	179.0	215	12	224.5	120	M10	M16	M20	16	53.8	14 ^{JS9}
K7	212	342	8.0	64	70	214.0	242	12	252.0	125	M12	M20	M24	19	64.4	18 ^{JS9}
K8	265	410	9.0	102	115	263.0	300	20	311.0	145	M12	M20	M24	19	74.9	20 ^{JS9}
K9	315	495	10.0	102	115	302.0	350	26	361.0	180	M16	M24	M30	26	95.4	25 ^{JS9}

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

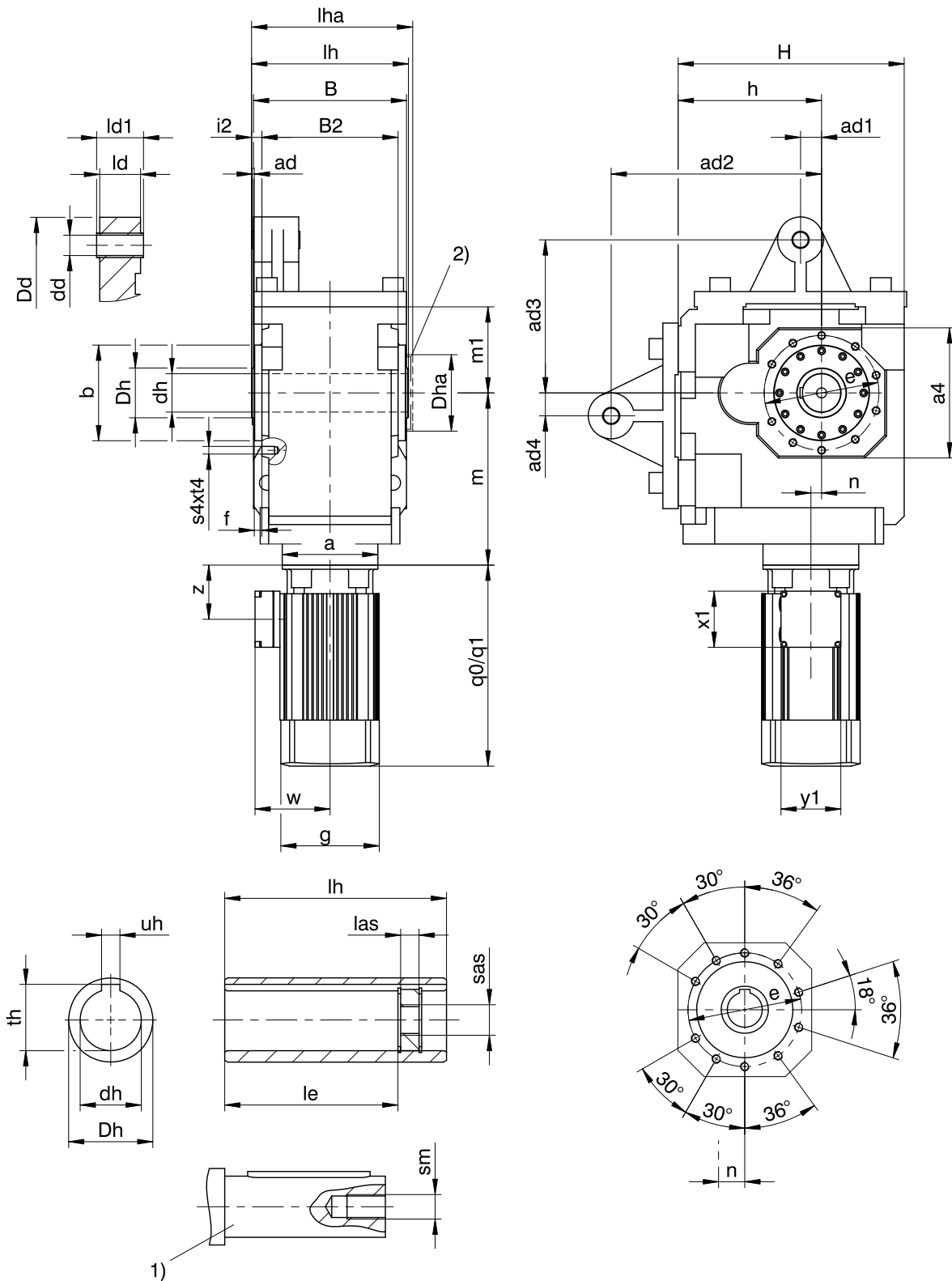
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200			
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0	-
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-	-

4.3.4 A shaft design (hollow shaft), NGD housing design (base + pitch circle diameter + torque arm)



q0 Applies to motors without brake.

q1 Applies to motors with brake.

1) The length of the machine shaft must be at least 2.2 x $\varnothing dh$ and the length of the feather key must be at least 2 x $\varnothing dh$.

2) Cover (optional)

- If you brace the gear units without the factory-adjusted torque arms provided for this purpose, the dimensions for $ad2$ and $ad3$ must meet the specified value.

Dimensions of gear units

Type	$\square a_4$	ad	ad1	ad2	ad3	ad4	$\varnothing b$	B	B2	$\varnothing dd$	$\varnothing dh$	$\varnothing Dd$	$\varnothing Dh$	Dha	$\varnothing e$	f
K10	340	5	60	550	400	55	250 _{h6}	400	356	40 ^{H9}	100 ^{H7}	120	130	$\varnothing 200$	300	20

Dimensions of gear units

Type	h	H	i2	ld	ld1	le	lh	las	lha	m1	s4	sm	sas	t4	th	uh
K10	375	591	27	118	124	361	410	26	441	225	M20	M24	M30	33	106.4	28 ^{JS9}

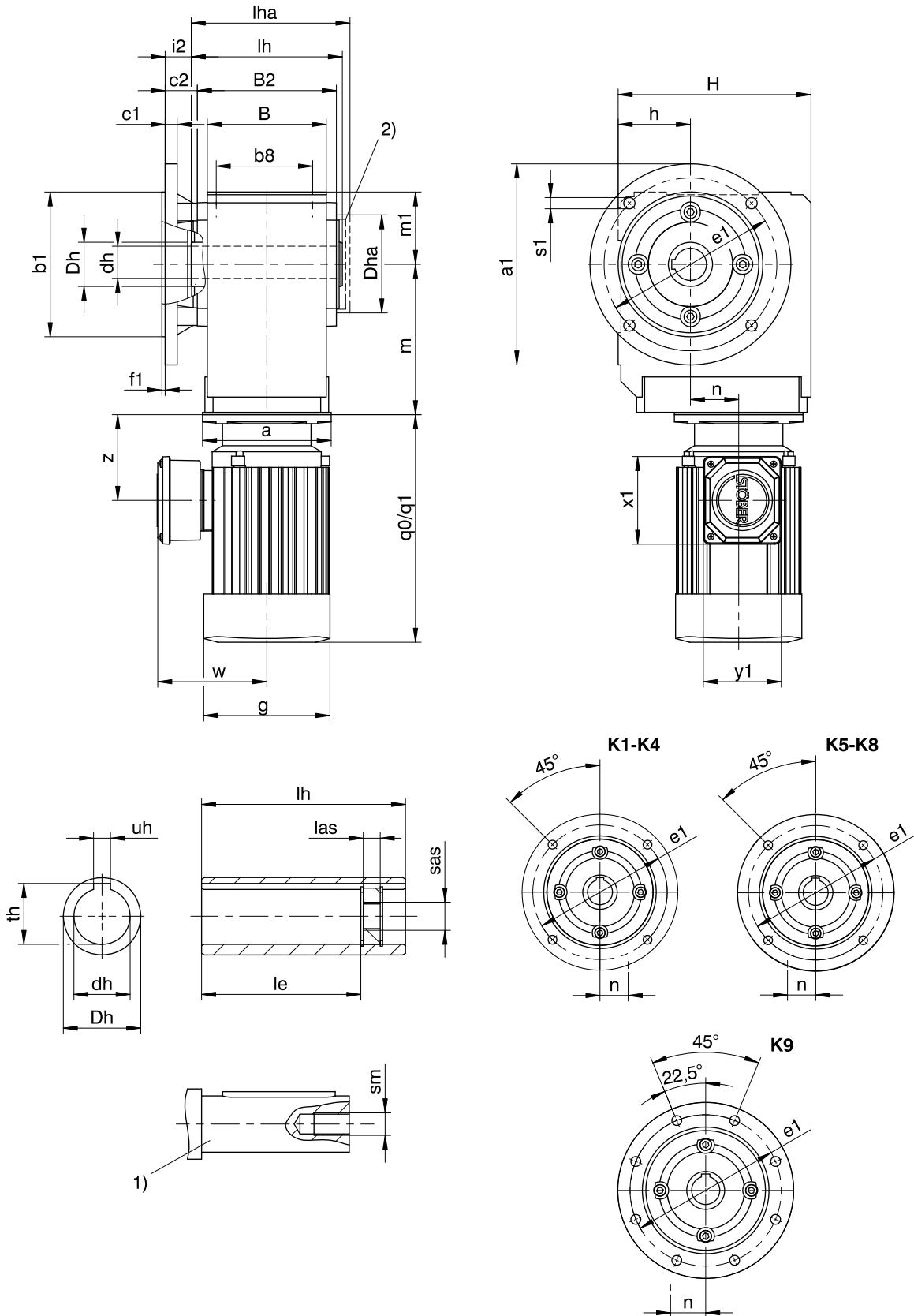
Dimensions of motors

Type	$\square g$	q0	q1	w	x1	y1	z
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0

Dimensions of geared motors

Type	IE3D132			IE3D160			IE3D180			IE3D200			IE3D225		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K1013	–	–	–	$\varnothing 300$	392	28.0	$\varnothing 300$	392	28.0	$\varnothing 350$	415	28.0	$\varnothing 400$	415	28.0
K1014	$\varnothing 250$	450	28.0	$\varnothing 300$	475	28.0	$\varnothing 300$	475	28.0	–	–	–	–	–	–

4.3.5 A shaft design (hollow shaft), F housing design (round flange)



q_0 Applies to motors without brake.

q_1 Applies to motors with brake.

1) The length of the machine shaft must be at least 2.2 x $\varnothing d_h$ and the length of the feather key must be at least 2 x $\varnothing d_h$.

2) Cover (optional)

Dimensions of gear units

Type	Øa1	Øb1	b8	B	B2	c1	c2	Ødh	ØDh	Dha	Øe1	f1	h	H	i2	le	lh	las	lha	m1	Øs1	sm	sas	th	uh
K1	160	110 _{js}	70	90	106	10	32.0	20 ^{H7}	40	□105	130	3.5	60	160	25.0	98.0	120	12	127.0	60	9	M6	M8	22.8	6 ^{JS9}
K1	160	110 _{js}	70	90	106	10	32.0	25 ^{H7}	40	□105	130	3.5	60	160	25.0	98.0	120	12	127.0	60	9	M10	M12	28.3	8 ^{JS9}
K1	160	110 _{js}	70	90	106	10	32.0	30 ^{H7}	40	□105	130	3.5	60	160	25.0	93.5	120	12	127.0	60	9	M10	M12	32.0	8 ^{JS9}
K2	200	130 _{js}	90	115	134	12	32.0	30 ^{H7}	45	□116	165	3.5	65	190	25.0	121.5	148	12	156.0	65	11	M10	M12	33.3	8 ^{JS9}
K3	200	130 _{js}	105	130	146	14	38.0	35 ^{H7}	50	□132	165	3.5	75	213	31.0	125.0	160	12	168.0	75	11	M12	M16	38.3	10 ^{JS9}
K4	250	180 _{js}	120	148	173	15	40.0	40 ^{H7}	55	□152	215	4.0	90	240	32.5	157.0	188	12	197.5	90	14	M16	M20	43.3	12 ^{JS9}
K5	250	180 _{js}	125	160	185	15	39.5	50 ^{H7}	65	□145	215	4.0	160	260	32.0	164.0	200	12	209.5	100	14	M16	M20	53.8	14 ^{JS9}
K6	300	230 _{js}	130	168	200	17	36.0	50 ^{H7}	70	Ø183	265	4.0	190	310	28.5	179.0	215	12	224.5	120	14	M16	M20	53.8	14 ^{JS9}
K7	350	250 _{h6}	145	190	226	18	44.0	60 ^{H7}	85	Ø205	300	5.0	212	342	36.0	214.0	242	12	252.0	125	18	M20	M24	64.4	18 ^{JS9}
K8	400	300 _{h6}	185	235	282	20	45.0	70 ^{H7}	100	Ø184	350	5.0	265	410	36.0	263.0	300	20	311.0	145	18	M20	M24	74.9	20 ^{JS9}
K9	450	350 _{h6}	225	285	330	23	50.0	90 ^{H7}	120	Ø230	400	5.0	315	495	40.0	302.0	350	26	361.0	180	18	M24	M30	95.4	25 ^{JS9}

Dimensions of additional round flanges

Type	Øa1	Øb1	c1	Øe1	f1	Øs1
K1	140	95 _{js}	10	115	3.0	9
K2	160	110 _{js}	12	130	3.5	9
K3	160	110 _{js}	14	130	3.5	9
K3	250	180 _{js}	14	215	4.0	14
K8	350	250 _{h6}	18	300	5.0	18
K8	450	350 _{h6}	20	400	5.0	18

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

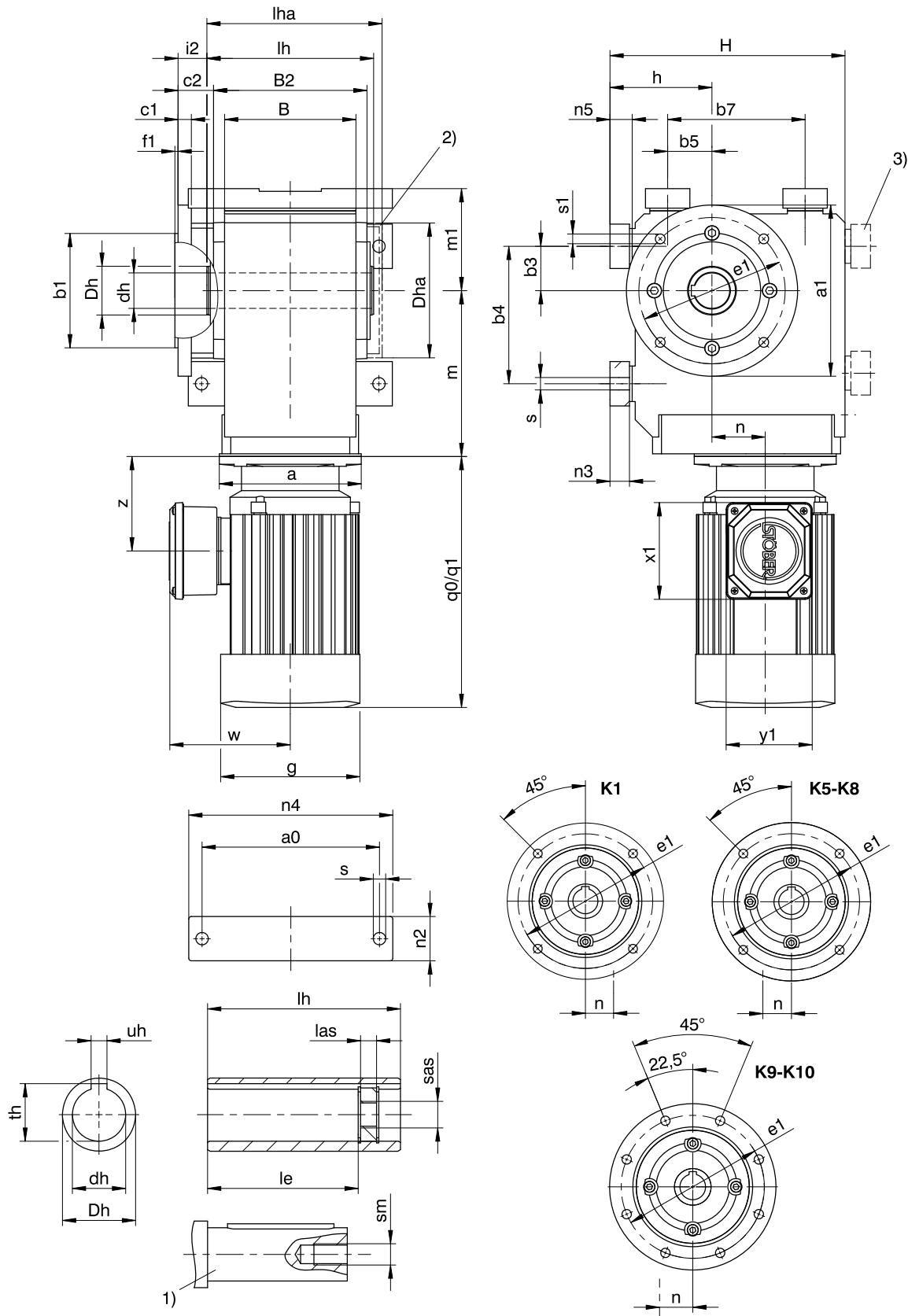
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-

4.3.6 A shaft design (hollow shaft), NF housing design (base + round flange)



- | | | | |
|-------|---|-------|-------------------------------|
| q_0 | Applies to motors without brake. | q_1 | Applies to motors with brake. |
| 1) | The length of the machine shaft must be at least $2.2 \times \varnothing d_h$ and the length of the feather key must be at least $2 \times \varnothing d_h$. | 2) | Cover (optional) |
| 3) | Only for K1 (other sizes on request) | | |

Dimensions of gear units

Type	a0	Øa1	Øb1	b3	b4	b5	b7	B	B2	c1	c2	Ødh	ØDh	Dha	Øe1	f1	h
K1	115	160	110 _β	30	90	30	90	90	106	10	32.0	20 ^{H7}	40	□105	130	3.5	75
K1	115	160	110 _β	30	90	30	90	90	106	10	32.0	25 ^{H7}	40	□105	130	3.5	75
K1	115	160	110 _β	30	90	30	90	90	106	10	32.0	30 ^{H7}	40	□105	130	3.5	75
K3	170	160	110 _β	40	130	40	130	130	146	14	38.0	35 ^{H7}	50	□132	130	3.5	98
K5	200	250	180 _β	40	140	100	140	160	185	15	39.5	50 ^{H7}	65	□145	215	4.0	190
K6	210	300	230 _β	50	160	110	160	168	200	17	36.0	50 ^{H7}	70	Ø183	265	4.0	220
K7	241	350	250 _{h6}	55	180	125	180	190	226	18	44.0	60 ^{H7}	85	Ø205	300	5.0	250
K8	300	400	300 _{h6}	75	240	165	240	235	282	20	45.0	70 ^{H7}	100	Ø184	350	5.0	310
K9	360	450	350 _{h6}	95	280	185	280	285	330	23	50.0	90 ^{H7}	120	Ø230	400	5.0	365
K10	330	550	450 _{h6}	115	350	265	420	400	356	25	78.0	100 ^{H7}	130	Ø200	500	5.0	420

Dimensions of gear units

Type	H	i2	las	le	lh	lha	m1	n2	n3	n4	n5	Øs	Øs1	sm	sas	th	uh
K1	175	25.0	12	98.0	120	127.0	75	30	13	140	15	9.0	9	M10	M12	28.3	8 ^{JS9}
K1	175	25.0	12	98.0	120	127.0	75	30	13	140	15	9.0	9	M6	M8	22.8	6 ^{JS9}
K1	175	25.0	12	93.5	120	127.0	75	30	13	140	15	9.0	9	M10	M12	32.0	8 ^{JS9}
K3	236	31.0	12	125.0	160	168.0	98	45	20	200	23	11.0	9	M12	M16	38.3	10 ^{JS9}
K5	290	32.0	12	164.0	200	209.5	130	60	27	240	30	18.0	14	M16	M20	53.8	14 ^{JS9}
K6	340	28.5	12	179.0	215	224.5	150	65	27	250	30	18.5	14	M16	M20	53.8	14 ^{JS9}
K7	380	36.0	12	214.0	242	252.0	163	70	35	290	38	23.0	18	M20	M24	64.4	18 ^{JS9}
K8	455	36.0	20	263.0	300	311.0	190	85	41	360	45	27.0	18	M20	M24	74.9	20 ^{JS9}
K9	545	40.0	26	302.0	350	361.0	230	95	46	430	50	31.0	18	M24	M30	95.4	25 ^{JS9}
K10	636	51.0	26	361.0	410	441.0	270	120	–	400	45	39.0	18	M24	M30	106.4	28 ^{JS9}

Dimensions of additional round flanges

Type	Øa1	Øb1	c1	Øe1	f1	Øs1
K1	140	95 _β	10	115	3	9
K8	350	250 _{h6}	18	300	5	18
K8	450	350 _{h6}	20	400	5	18

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

All other dimensions can be found on the next page.

4.3 Dimensional drawings 4 K helical bevel geared motors

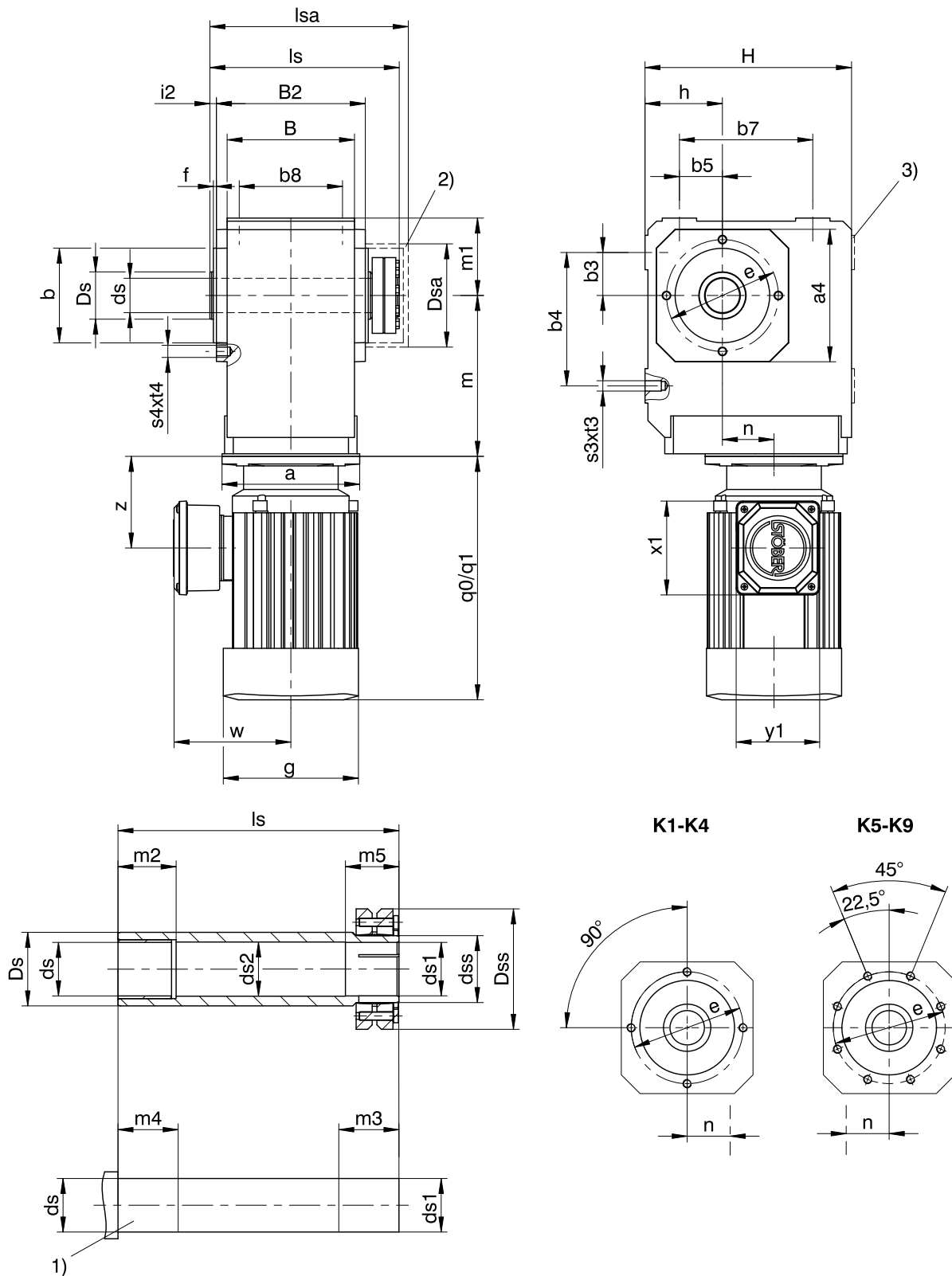
Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200			IE3D225		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0	-	-	-
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-	-	-	-
K1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	∅300	392	28.0	∅300	392	28.0	∅350	415	28.0	∅400	415	28.0	-
K1014	-	-	-	-	-	-	-	-	-	-	-	-	∅250	450	28.0	∅300	475	28.0	∅300	475	28.0	-	-	-	-	-	-

4.3.7 S shaft design (hollow shaft with shrink disk), G housing design (pitch circle diameter)



- q0 Applies to motors without brake.
- q1 Applies to motors with brake.
- 1) Machine shaft: The dimension l_s must meet or exceed the specified value.
- 2) Cover (optional)
- 3) Only for K1 (other sizes on request)

Dimensions of gear units

Type	□a4	∅b	b3	b4	b5	b7	b8	B	B2	∅ds	∅ds1	∅ds2	∅dss	∅Ds	∅Dsa	∅Dss	∅e	f	h	H	i2	ls	lsa	m1	m2	m3	m4	m5	s3	s4	t3	t4
K1	105	75 _{f6}	30	90	30	90	70	90	106	25 _{h9}	25 _{h7}	25.5	30	40	80	60	90	3.0	60	160	7.0	149	163	60	20	34	25	29	M8	M8	13	13
K2	116	82 _{f6}	35	115	35	115	90	115	134	30 _{h9}	30 _{h7}	30.5	36	45	88	72	100	3.0	65	190	7.0	178	193	65	25	39	30	34	M10	M8	16	13
K3	132	95 _{f6}	40	130	40	130	105	130	146	35 _{h9}	35 _{h7}	35.5	44	50	101	80	115	3.0	75	213	7.0	190	206	75	30	39	35	34	M10	M8	16	13
K4	152	110 _{f6}	50	155	50	155	120	148	173	40 _{h9}	40 _{h7}	40.5	50	55	114	88	130	3.5	90	240	7.5	220	243	90	40	39	45	34	M12	M10	19	16
K5	145	110 _{f6}	40	140	100	140	125	160	185	50 _{h9}	50 _{h7}	50.5	62	65	116	106	130	3.5	160	260	7.5	237	254	100	40	44	45	39	M16	M10	26	16
K6	180	140 _{f6}	50	160	110	160	130	168	200	50 _{h9}	50 _{h7}	50.5	62	70	128	106	165	3.5	190	310	7.5	254	276	120	40	45	45	40	M16	M10	26	16
K7	195	155 _{h6}	55	180	125	180	145	190	226	60 _{h6}	60 _{h7}	62.0	75	85	161.5	138	185	3.5	212	342	8.0	278	314	125	40	45	45	40	M20	M12	33	19
K8	226	185 _{h6}	75	240	165	240	185	235	282	70 _{h6}	70 _{h7}	72.0	90	100	193	155	215	4.0	265	410	9.0	352	378	145	50	60	60	50	M24	M12	38	19
K9	280	230 _{h6}	95	280	185	280	225	285	330	90 _{h6}	90 _{h7}	92.0	120	120	244	200	265	5.0	315	495	10.0	418	428	180	60	70	70	60	M30	M16	48	26

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-

Dimensions of gear units

Type	a0	a4	Øb	b3	b4	b5	b7	B	B2	Øds	Øds1	Øds2	Ødss	ØDs	ØDsa
K1	115	105	75 _{f6}	30	90	30	90	90	106	25 _{h9}	25 _{h7}	25.5	30	40	80
K2	155	116	82 _{f6}	35	115	35	115	115	134	30 _{h9}	30 _{h7}	30.5	36	45	88
K3	170	132	95 _{f6}	40	130	40	130	130	146	35 _{h9}	35 _{h7}	35.5	44	50	101
K4	200	152	110 _{f6}	50	155	50	155	148	173	40 _{h9}	40 _{h7}	40.5	50	55	114
K5	200	145	110 _{f6}	40	140	100	140	160	185	50 _{h9}	50 _{h7}	50.5	62	65	116
K6	210	180	140 _{f6}	50	160	110	160	168	200	50 _{h9}	50 _{h7}	50.5	62	70	128
K7	241	195	155 _{f6}	55	180	125	180	190	226	60 _{h6}	60 _{h7}	62.0	75	85	161.5
K8	300	226	185 _{f6}	75	240	165	240	235	282	70 _{h6}	70 _{h7}	72.0	90	100	193
K9	360	280	230 _{f6}	95	280	185	280	285	330	90 _{h6}	90 _{h7}	92.0	120	120	244
K10	330	340	250 _{h6}	115	350	265	420	400	356	100 _{h6}	100 _{h7}	102.0	130	130	274

Dimensions of gear units

Type	ØDss	Øe	f	h	H	i2	ls	lsa	m1	m2	m3	m4	m5	n2	n3	n4	n5	Øs	s4	t4
K1	60	90	3.0	75	175	7.0	149	163	75	20	34	25	29	30	13	140	15	9.0	M8	13
K2	72	100	3.0	88	213	7.0	178	193	88	25	39	30	34	40	20	185	23	11.0	M8	13
K3	80	115	3.0	98	236	7.0	190	206	98	30	39	35	34	45	20	200	23	11.0	M8	13
K4	88	130	3.5	115	265	7.5	220	243	115	40	39	45	34	50	22	230	25	14.0	M10	16
K5	106	130	3.5	190	290	7.5	237	254	130	40	44	45	39	60	27	240	30	18.0	M10	16
K6	106	165	3.5	220	340	7.5	254	276	150	40	45	45	40	65	27	250	30	18.5	M10	16
K7	138	185	3.5	250	380	8.0	278	314	163	40	45	45	40	70	35	290	38	23.0	M12	19
K8	155	215	4.0	310	455	9.0	352	378	190	50	60	60	50	85	41	360	45	27.0	M12	19
K9	200	265	5.0	365	545	10.0	418	428	230	60	70	70	60	95	46	430	50	31.0	M16	26
K10	215	300	20.0	420	636	27.0	483	497	270	60	80	70	70	120	–	400	45	39.0	M20	33

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0

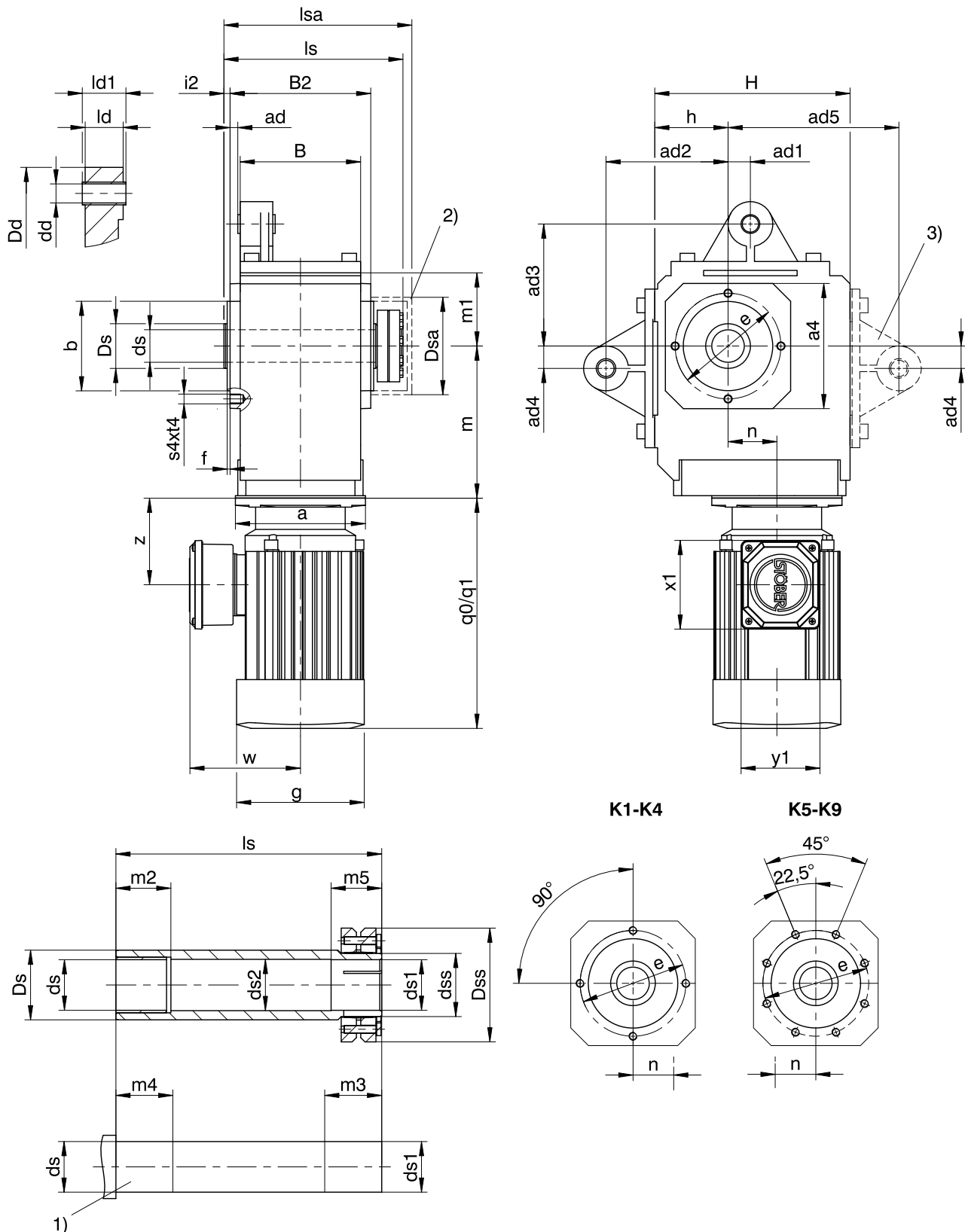
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200			IE3D225				
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n		
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-	-	-	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-	-	-	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-	-	-	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0	-	-	-	-	-
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	∅300	392	28.0	∅300	392	28.0	∅350	415	28.0	∅400	415	28.0	-	
K1014	-	-	-	-	-	-	-	-	-	-	-	-	∅250	450	28.0	∅300	475	28.0	∅300	475	28.0	-	-	-	-	-	-	-	

4.3.9 S shaft design (hollow shaft with shrink disk), GD housing design (pitch circle diameter + torque arm)



K1-K4

K5-K9

$q0$ Applies to motors without brake.

$q1$ Applies to motors with brake.

1) Machine shaft: The dimension l_s must meet or exceed the specified value.

2) Cover (optional)

3) Only for K1 (other sizes on request)

- If you brace the gear units without the factory-adjusted torque arms provided for this purpose, the dimensions for $ad2$ and $ad3$ must meet the specified value.

Dimensions of gear units

Type	□a4	ad	ad1	ad2	ad3	ad4	ad5	Øb	B	B2	Ødd	Øds	Øds1	Øds2	Ødss	ØDd	ØDs	ØDsa
K1	105	6.0	15.0	90	90	15.0	130	75 _{f6}	90	106	12 ^{H9}	25 _{h9}	25 _{h9} ^{H7}	25.5	30	43	40	80
K2	116	6.5	22.5	100	100	22.5	–	82 _{f6}	115	134	16 ^{H9}	30 _{h9}	30 _{h9} ^{H7}	30.5	36	45	45	88
K3	132	5.0	25.0	120	120	25.0	–	95 _{f6}	130	146	16 ^{H9}	35 _{h9}	35 _{h9} ^{H7}	35.5	44	45	50	101
K4	152	9.5	27.5	150	150	27.5	–	110 _{f6}	148	173	20 ^{H9}	40 _{h9}	40 _{h9} ^{H7}	40.5	50	55	55	114
K5	145	9.5	30.0	250	190	30.0	–	110 _{f6}	160	185	20 ^{H9}	50 _{h9}	50 _{h9} ^{H7}	50.5	62	58	65	116
K6	180	13.0	30.0	250	180	30.0	–	140 _{f6}	168	200	20 ^{H9}	50 _{h9}	50 _{h9} ^{H7}	50.5	62	58	70	128
K7	195	15.0	35.0	300	213	35.0	–	155 _{h6}	190	226	20 ^{H9}	60 _{h6}	60 _{h6} ^{H7}	62.0	75	68	85	161.5
K8	226	17.0	45.0	350	230	45.0	–	185 _{h6}	235	282	24 ^{H9}	70 _{h6}	70 _{h6} ^{H7}	72.0	90	72	100	193
K9	280	16.0	45.0	450	315	45.0	–	230 _{h6}	285	330	24 ^{H9}	90 _{h6}	90 _{h6} ^{H7}	92.0	120	75	120	244

Dimensions of gear units

Type	ØDss	Øe	f	h	H	i2	ld	ld1	ls	lsa	m1	m2	m3	m4	m5	s4	t4
K1	60	90	3.0	60	160	7.0	24	28	149	163	60	20	34	25	29	M8	13
K2	72	100	3.0	65	190	7.0	32	38	178	193	65	25	39	30	34	M8	13
K3	80	115	3.0	75	213	7.0	32	38	190	206	75	30	39	35	34	M8	13
K4	88	130	3.5	90	240	7.5	40	46	220	243	90	40	39	45	34	M10	16
K5	106	130	3.5	160	260	7.5	40	46	237	254	100	40	44	45	39	M10	16
K6	106	165	3.5	190	310	7.5	40	46	254	276	120	40	45	45	40	M10	16
K7	138	185	3.5	212	342	8.0	64	70	278	314	125	40	45	45	40	M12	19
K8	155	215	4.0	265	410	9.0	102	115	352	378	145	50	60	60	50	M12	19
K9	200	265	5.0	315	495	10.0	102	115	418	428	180	60	70	70	60	M16	26

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

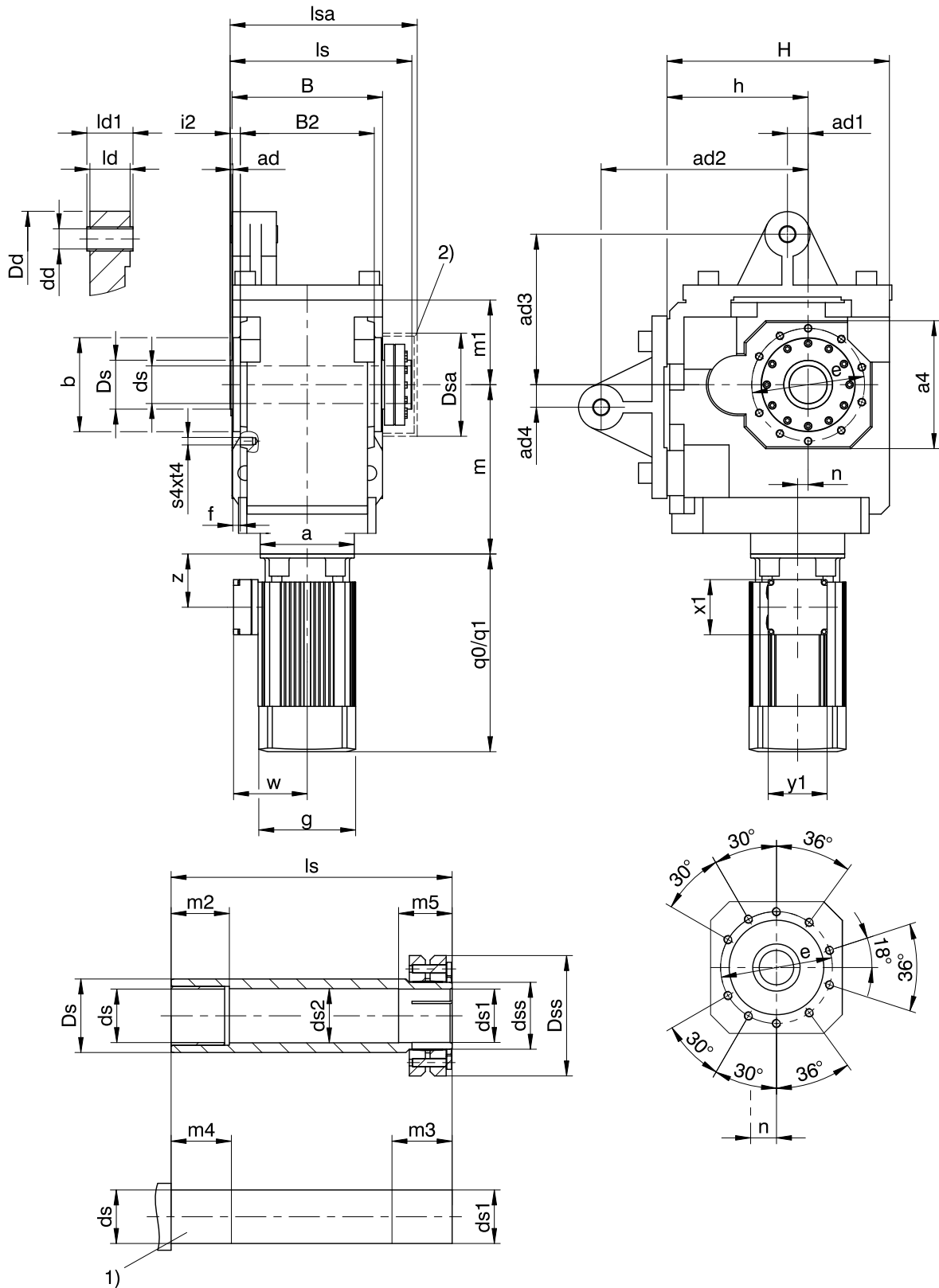
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-

4.3.10 S shaft design (hollow shaft with shrink disk), NGD housing design (base + pitch circle diameter + torque arm)



- q0 Applies to motors without brake.
- q1 Applies to motors with brake.
- 1) Machine shaft: The dimension ls must meet or exceed the specified value.
- 2) Cover (optional)
- If you brace the gear units without the factory-adjusted torque arms provided for this purpose, the dimensions for ad2 and ad3 must meet the specified value.

Dimensions of gear units

Type	□a4	ad	ad1	ad2	ad3	ad4	Øb	B	B2	Ødd	Øds	Øds1	Øds2	Ødss	ØDd	ØDs	ØDsa
K10	340	5	55	550	400	60	250 _{h6}	400	356	40 ^{H9}	100 _{h6}	100 _{h6} ^{H7}	102	130	120	130	274

Dimensions of gear units

Type	ØDss	Øe	f	h	H	i2	ld	ld1	ls	lsa	m1	m2	m3	m4	m5	s4	t4
K10	215	300	20	375	591	27	118	124	483	497	225	60	80	70	70	M20	33

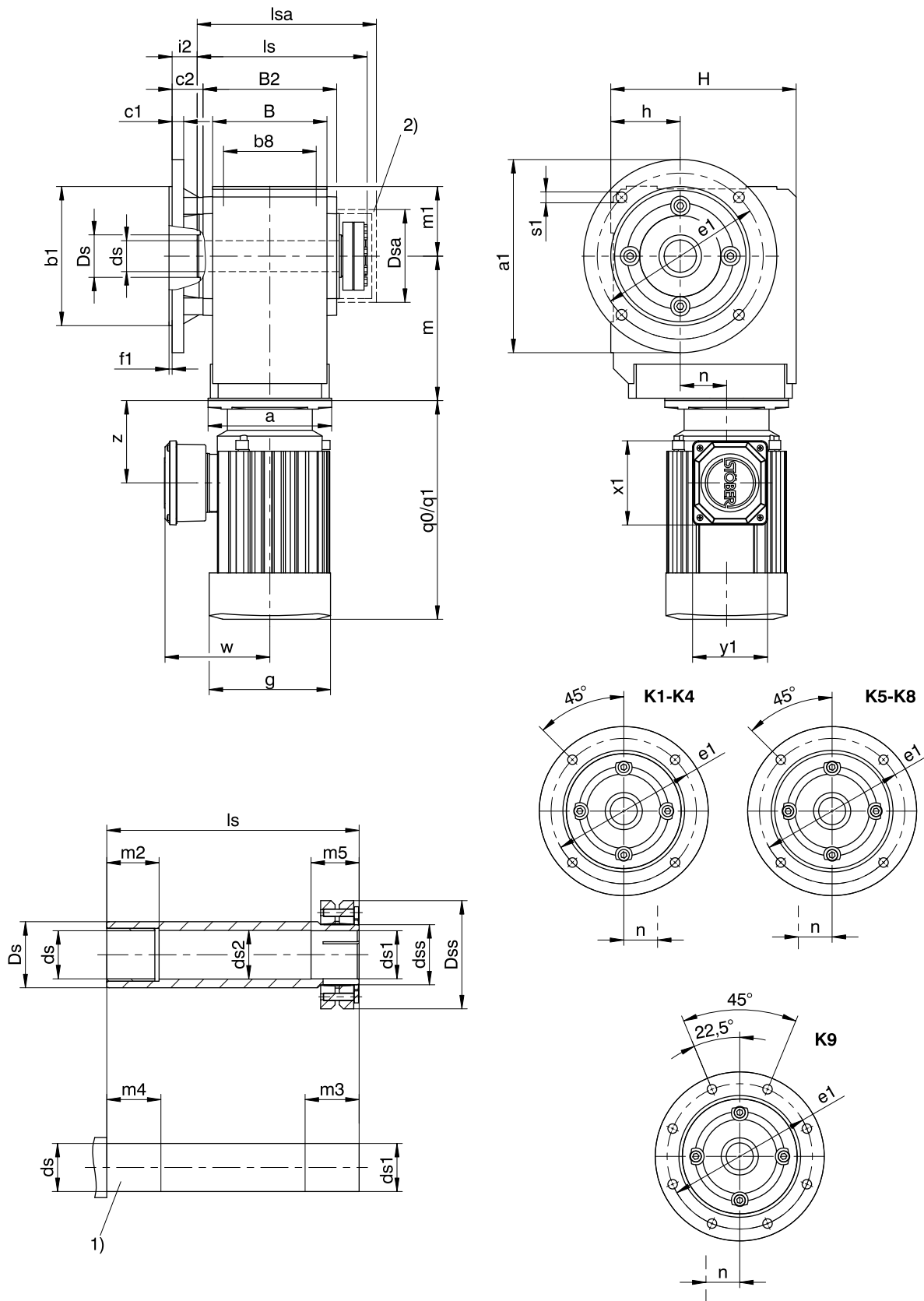
Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0

Dimensions of geared motors

Type	IE3D132			IE3D160			IE3D180			IE3D200			IE3D225		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K1013	–	–	–	Ø300	392	28.0	Ø300	392	28.0	Ø350	415	28.0	Ø400	415	28.0
K1014	Ø250	450	28.0	Ø300	475	28.0	Ø300	475	28.0	–	–	–	–	–	–

4.3.11 S shaft design (hollow shaft with shrink disk), F housing design (round flange)



q_0 Applies to motors without brake.

q_1 Applies to motors with brake.

1) Machine shaft: The dimension l_s must meet or exceed the specified value.

2) Cover (optional)

Dimensions of gear units

Type	Øa1	Øb1	b8	B	B2	c1	c2	Øds	Øds1	Øds2	Ødss	ØDs	ØDsa	ØDss	Øe1	f1	h	H	i2	ls	lsa	m1	m2	m3	m4	m5	Øs1
K1	160	110 _{js}	70	90	106	10	32.0	25 _{h9}	25 _{h9} ^{H7}	25.5	30	40	80	60	130	3.5	60	160	25.0	149	163	60	20	34	25	29	9
K2	200	130 _{js}	90	115	134	12	32.0	30 _{h9}	30 _{h9} ^{H7}	30.5	36	45	88	72	165	3.5	65	190	25.0	178	193	65	25	39	30	34	11
K3	200	130 _{js}	105	130	146	14	38.0	35 _{h9}	35 _{h9} ^{H7}	35.5	44	50	101	80	165	3.5	75	213	31.0	190	206	75	30	39	35	34	11
K4	250	180 _{js}	120	148	173	15	40.0	40 _{h9}	40 _{h9} ^{H7}	40.5	50	55	114	88	215	4.0	90	240	32.5	220	243	90	40	39	45	34	14
K5	250	180 _{js}	125	160	185	15	39.5	50 _{h9}	50 _{h9} ^{H7}	50.5	62	65	116	106	215	4.0	160	260	32.0	237	254	100	40	44	45	39	14
K6	300	230 _{js}	130	168	200	17	36.0	50 _{h9}	50 _{h9} ^{H7}	50.5	62	70	128	106	265	4.0	190	310	28.5	254	276	120	40	45	45	40	14
K7	350	250 _{h6}	145	190	226	18	44.0	60 _{h6}	60 _{h6} ^{H7}	62.0	75	85	161.5	138	300	5.0	212	342	36.0	278	314	125	40	45	45	40	18
K8	400	300 _{h6}	185	235	282	20	45.0	70 _{h6}	70 _{h6} ^{H7}	72.0	90	100	193	155	350	5.0	265	410	36.0	352	378	145	50	60	60	50	18
K9	450	350 _{h6}	225	285	330	23	50.0	90 _{h6}	90 _{h6} ^{H7}	92.0	120	120	244	200	400	5.0	315	495	40.0	418	428	180	60	70	70	60	18

Dimensions of additional round flanges

Type	Øa1	Øb1	c1	Øe1	f1	Øs1
K1	140	95 _{js}	10	115	3.0	9
K2	160	110 _{js}	12	130	3.5	9
K3	160	110 _{js}	14	130	3.5	9
K3	250	180 _{js}	14	215	4.0	14
K8	350	250 _{h6}	18	300	5.0	18
K8	450	350 _{h6}	20	400	5.0	18

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

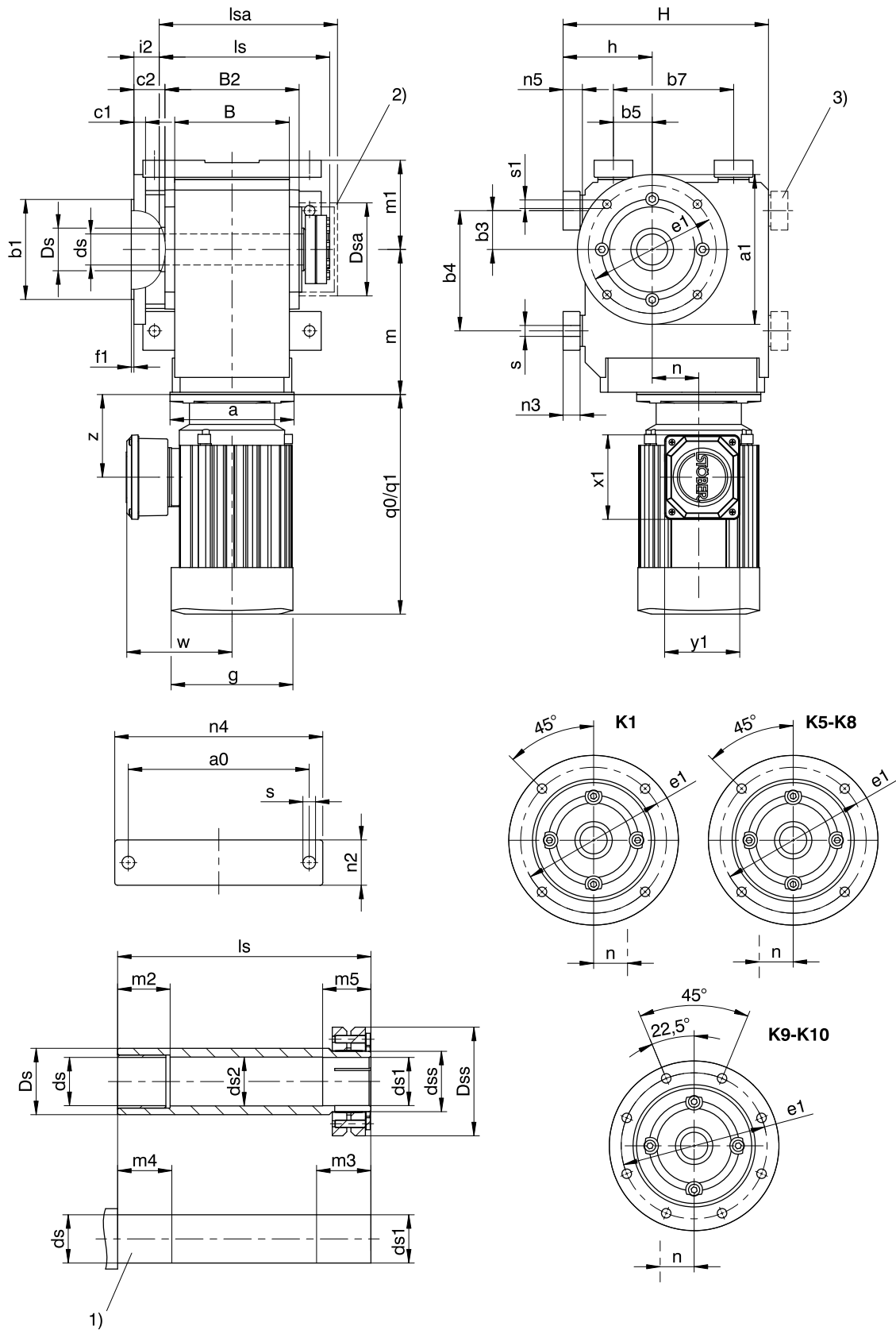
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-

4.3.12 S shaft design (hollow shaft with shrink disk), NF housing design (base + round flange)



- q_0 Applies to motors without brake.
- q_1 Applies to motors with brake.
- 1) Machine shaft: The dimension l_s must meet or exceed the specified value.
- 2) Cover (optional)
- 3) Only for K1 (other sizes on request)

Dimensions of gear units

Type	a0	Øa1	Øb1	b3	b4	b5	b7	B	B2	c1	c2	Øds	Øds1	Øds2	Ødss	ØDs	ØDsa	ØDss
K1	115	160	110 _{js}	30	90	30	90	90	106	10	32.0	25 _{h9}	25 _{h9} ^{H7}	25.5	30	40	80.0	60
K3	170	160	110 _{js}	40	130	40	130	130	146	14	38.0	35 _{h9}	35 _{h9} ^{H7}	35.5	44	50	101.0	80
K5	200	250	180 _{js}	40	140	100	140	160	185	15	39.5	50 _{h9}	50 _{h9} ^{H7}	50.5	62	65	116.0	106
K6	210	300	230 _{js}	50	160	110	160	168	200	17	36.0	50 _{h9}	50 _{h9} ^{H7}	50.5	62	70	128.0	106
K7	241	350	250 _{h6}	55	180	125	180	190	226	18	44.0	60 _{h6}	60 _{h6} ^{H7}	62.0	75	85	161.5	138
K8	300	400	300 _{h6}	75	240	165	240	235	282	20	45.0	70 _{h6}	70 _{h6} ^{H7}	72.0	90	100	193.0	155
K9	360	450	350 _{h6}	95	280	185	280	285	330	23	50.0	90 _{h6}	90 _{h6} ^{H7}	92.0	120	120	244.0	200
K10	330	550	450 _{h6}	115	350	265	420	400	356	25	78.0	100 _{h6}	100 _{h6} ^{H7}	102.0	130	130	274.0	215

Dimensions of gear units

Type	Øe1	f1	h	H	i2	ls	lsa	m1	m2	m3	m4	m5	n2	n3	n4	n5	Øs	Øs1
K1	130	3.5	75	175	25.0	149	163	75	20	34	25	29	30	13	140	15	9.0	9
K3	130	3.5	98	236	31.0	190	206	98	30	39	35	34	45	20	200	23	11.0	9
K5	215	4.0	190	290	32.0	237	254	130	40	44	45	39	60	27	240	30	18.0	14
K6	265	4.0	220	340	28.5	254	276	150	40	45	45	40	65	27	250	30	18.5	14
K7	300	5.0	250	380	36.0	278	314	163	40	45	45	40	70	35	290	38	23.0	18
K8	350	5.0	310	455	36.0	352	378	190	50	60	60	50	85	41	360	45	27.0	18
K9	400	5.0	365	545	40.0	418	428	230	60	70	70	60	95	46	430	50	31.0	18
K10	500	5.0	420	636	51.0	483	497	270	60	80	70	70	120	-	400	45	39.0	18

Dimensions of additional round flanges

Type	Øa1	Øb1	c1	Øe1	f1	Øs1
K1	140	95 _{js}	10	115	3	9
K8	350	250 _{h6}	18	300	5	18
K8	450	350 _{h6}	20	400	5	18

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0

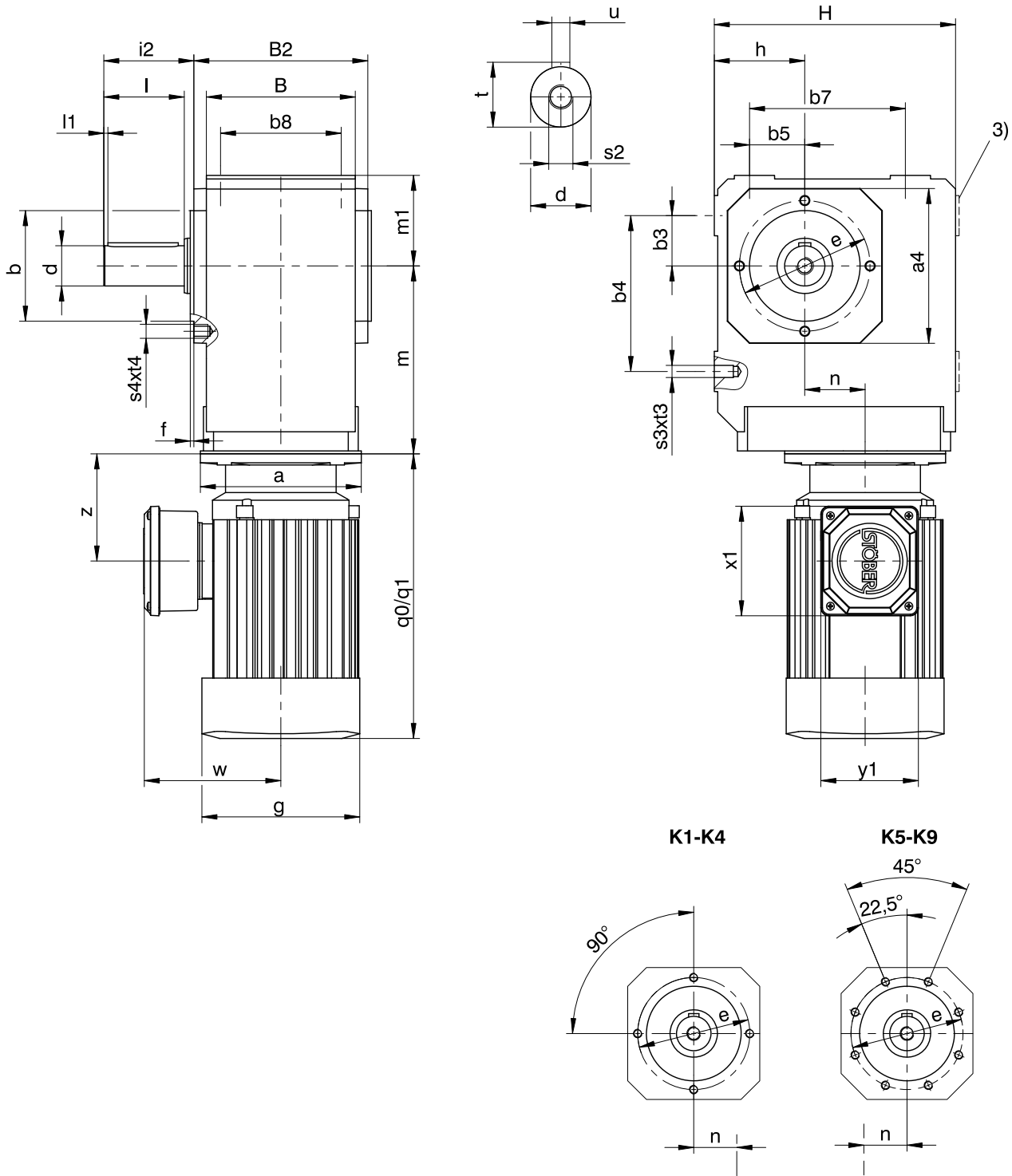
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200			IE3D225				
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n		
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-	-	-	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-	-	-	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-	-	-	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0	-	-	-	-	-
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	∅300	392	28.0	∅300	392	28.0	∅350	415	28.0	∅400	415	28.0	-	-
K1014	-	-	-	-	-	-	-	-	-	-	-	-	∅250	450	28.0	∅300	475	28.0	∅300	475	28.0	-	-	-	-	-	-	-	-

4.3.13 A shaft design (solid shaft), G housing design (pitch circle diameter)



q0 Applies to motors without brake.

3) Only for K1 (other sizes on request)

- K1 – K9: Solid shaft on both sides available.

q1 Applies to motors with brake.

- K1 – K4: solid shaft without feather key available, on request starting at K5.

Dimensions of gear units

Type	□a4	∅b	b3	b4	b5	b7	b8	B	B2	∅d	∅e	f	h	H	i2	l	l1	m1	s2	s3	s4	t	t3	t4	u
K1	105	75 _{je}	30	90	30	90	70	90	106	25 _{ke}	90	3.0	60	160	62.0	50	4	60	M10	M8	M8	28.0	13	13	A8×7×40
K2	116	82 _{je}	35	115	35	115	90	115	134	30 _{ke}	100	3.0	65	190	68.0	60	4	65	M10	M10	M8	33.0	16	13	A8×7×50
K3	132	95 _{je}	40	130	40	130	105	130	146	30 _{ke}	115	3.0	75	213	69.0	60	4	75	M10	M10	M8	33.0	16	13	A8×7×50
K4	152	110 _{je}	50	155	50	155	120	148	173	40 _{ke}	130	3.5	90	240	89.5	80	4	90	M16	M12	M10	43.0	19	16	A12×8×70
K5	145	110 _{je}	40	140	100	140	125	160	185	45 _{ke}	130	3.5	160	260	129.5	90	4	100	M16	M16	M10	48.5	26	16	A14×9×80
K6	180	140 _{je}	50	160	110	160	130	168	200	50 _{ke}	165	3.5	190	310	136.0	100	4	120	M16	M16	M10	53.5	26	16	A14×9×90
K7	195	155 _{je}	55	180	125	180	145	190	226	60 _{me}	185	3.5	212	342	164.0	120	4	125	M20	M20	M12	64.0	33	19	A18×11×110
K8	226	185 _{je}	75	240	165	240	185	235	282	70 _{me}	215	4.0	265	410	185.0	140	5	145	M20	M24	M12	74.5	38	19	A20×12×125
K9	280	230 _{je}	95	280	185	280	225	285	330	90 _{me}	265	5.0	315	495	220.0	170	8	180	M24	M30	M16	95.0	48	26	A25×14×140

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

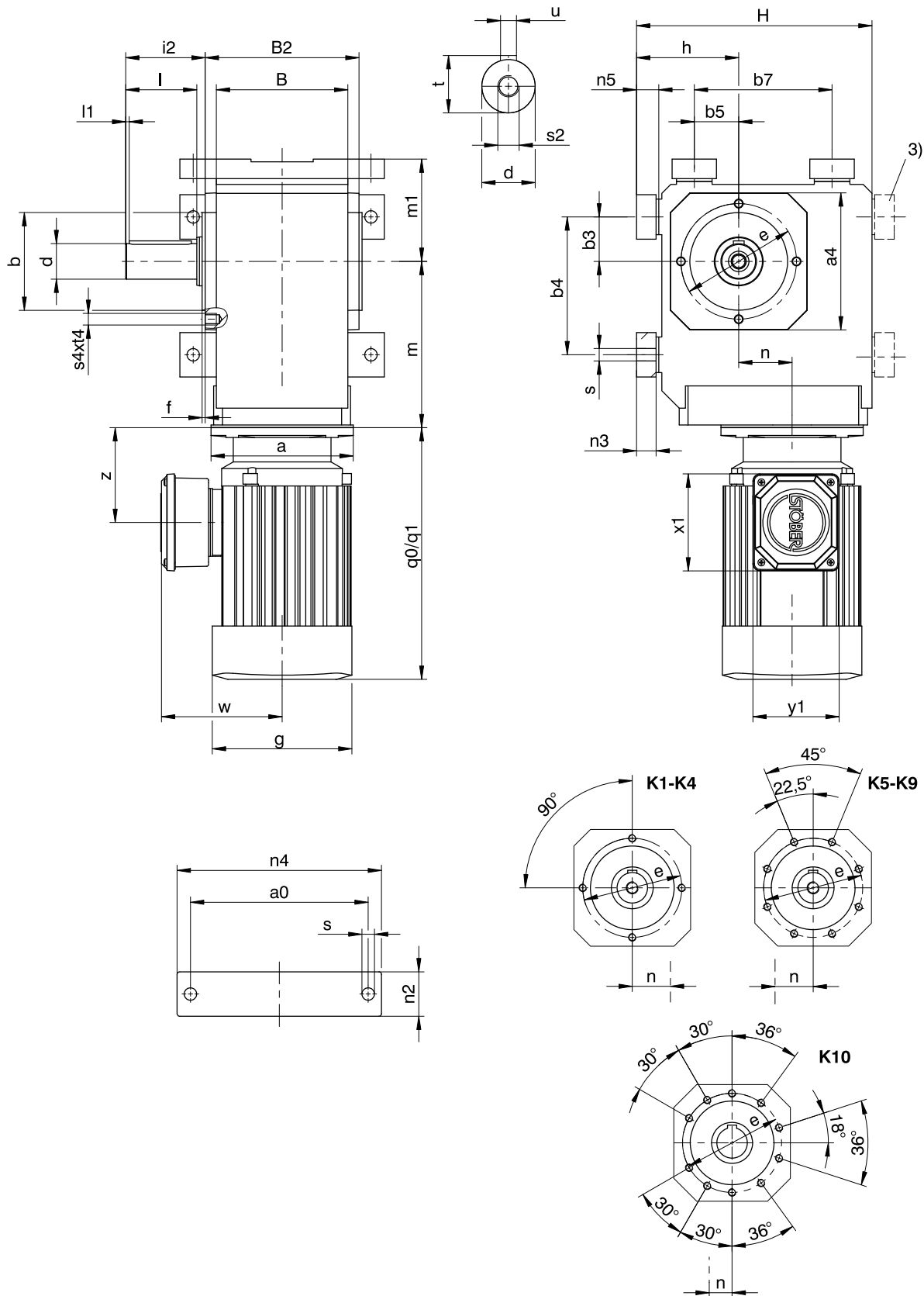
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-

4.3.14 V shaft design (solid shaft), NG housing design (base + pitch circle diameter)



q0 Applies to motors without brake.

3) Only for K1 (other sizes on request)

- K1 - K9: Solid shaft on both sides available.

q1 Applies to motors with brake.

- K1 - K4: solid shaft without feather key available, on request starting at K5.

Dimensions of gear units

Type	a0	□a4	∅b	b3	b4	b5	b7	B	B2	∅d	∅e	f	h	H	i2	l	l1	m1	n2	n3	n4	n5	∅s	s2	s4	t	t4	u
K1	115	105	75 _{js}	30	90	30	90	90	106	25 _{ks}	90	3.0	75	175	62.0	50	4	75	30	13	140	15	9.0	M10	M8	28.0	13	A8×7×40
K2	155	116	82 _{js}	35	115	35	115	115	134	30 _{ks}	100	3.0	88	213	68.0	60	4	88	40	20	185	23	11.0	M10	M8	33.0	13	A8×7×50
K3	170	132	95 _{js}	40	130	40	130	130	146	30 _{ks}	115	3.0	98	236	69.0	60	4	98	45	20	200	23	11.0	M10	M8	33.0	13	A8×7×50
K4	200	152	110 _{js}	50	155	50	155	148	173	40 _{ks}	130	3.5	115	265	89.5	80	4	115	50	22	230	25	14.0	M16	M10	43.0	16	A12×8×70
K5	200	145	110 _{js}	40	140	100	140	160	185	45 _{ks}	130	3.5	190	290	129.5	90	4	130	60	27	240	30	18.0	M16	M10	48.5	16	A14×9×80
K6	210	180	140 _{js}	50	160	110	160	168	200	50 _{ks}	165	3.5	220	340	136.0	100	4	150	65	27	250	30	18.5	M16	M10	53.5	16	A14×9×90
K7	241	195	155 _{js}	55	180	125	180	190	226	60 _{ms}	185	3.5	250	380	164.0	120	4	163	70	35	290	38	23.0	M20	M12	64.0	19	A18×11×110
K8	300	226	185 _{js}	75	240	165	240	235	282	70 _{ms}	215	4.0	310	455	185.0	140	5	190	85	41	360	45	27.0	M20	M12	74.5	19	A20×12×125
K9	360	280	230 _{js}	95	280	185	280	285	330	90 _{ms}	265	5.0	365	545	220.0	170	8	230	95	46	430	50	31.0	M24	M16	95.0	26	A25×14×140
K10	330	340	250 _{ms}	115	350	265	420	400	356	110 _{ms}	300	20.0	420	636	240.0	210	15	270	120	–	400	45	39.0	M24	M20	116.0	33	A28×16×180

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0

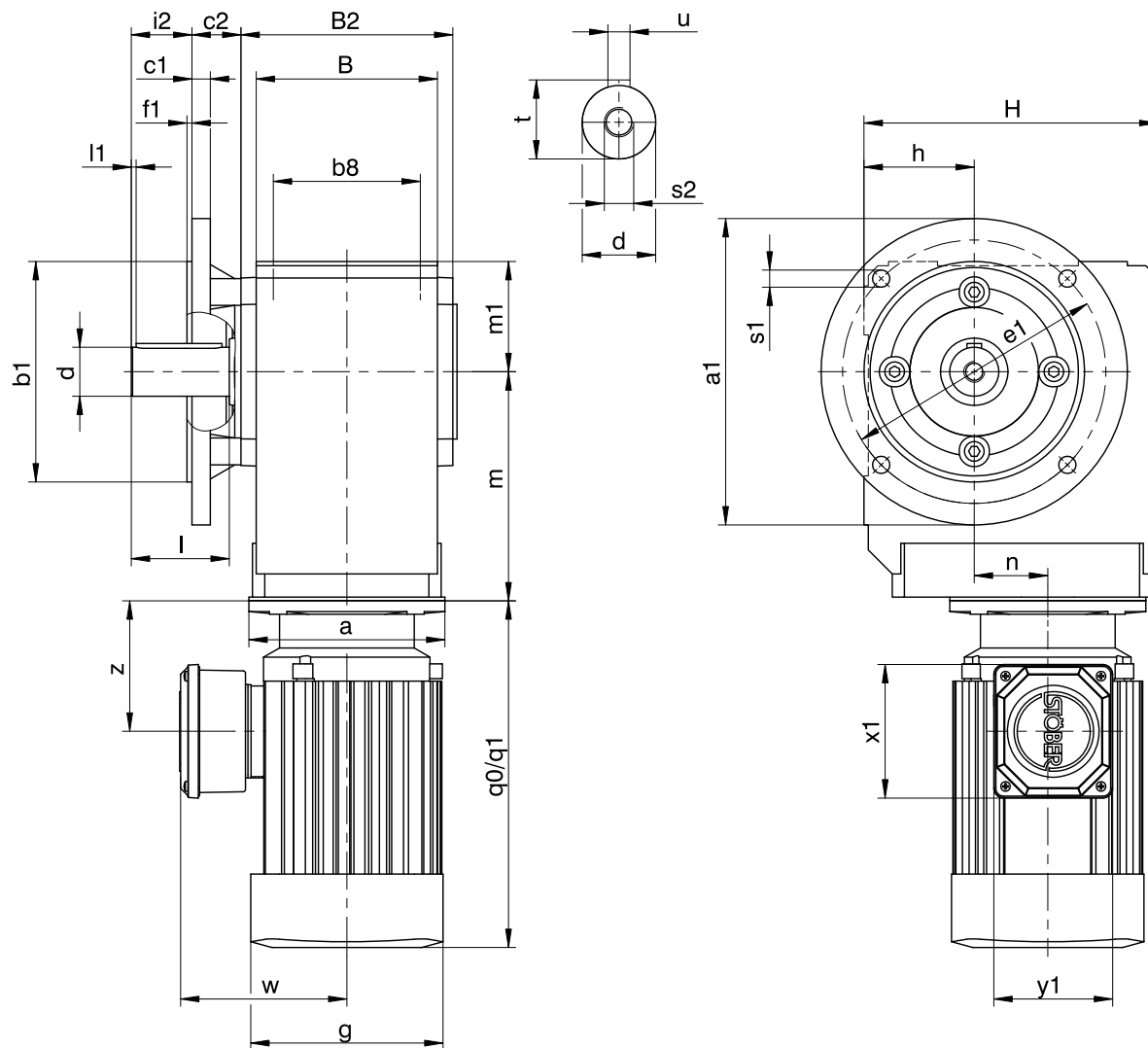
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

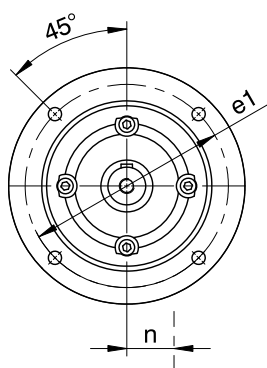
Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200			IE3D225			
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-	-	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-	-	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-	-	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0	-	-	-	-
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-
K1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	∅300	392	28.0	∅300	392	28.0	∅350	415	28.0	∅400	415	28.0	-
K1014	-	-	-	-	-	-	-	-	-	-	-	-	∅250	450	28.0	∅300	475	28.0	∅300	475	28.0	-	-	-	-	-	-	-

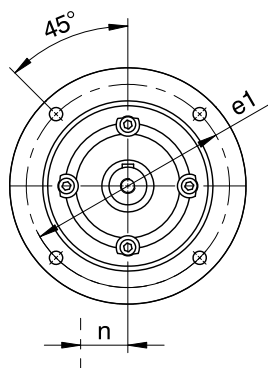
4.3.15 V shaft design (solid shaft), F housing design (round flange)



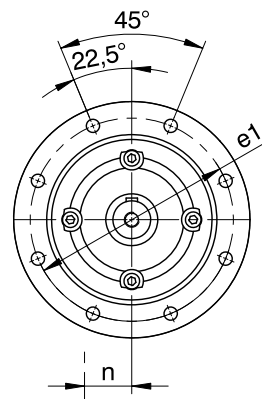
K1-K4



K5-K8



K9



q_0 Applies to motors without brake.

q_1 Applies to motors with brake.

- K1 – K4: solid shaft without feather key available, on request starting at K5.

- K1 – K9: Solid shaft on both sides available.

Dimensions of gear units

Type	Øa1	Øb1	b8	B	B2	c1	c2	Ød	Øe1	f1	h	H	i2	l	l1	m1	Øs1	s2	t	u
K1	160	110 _{js}	70	90	106	10	32.0	25 _{ks}	130	3.5	60	160	30.0	50	4	60	9	M10	28.0	A8×7×40
K2	200	130 _{js}	90	115	134	12	32.0	30 _{ks}	165	3.5	65	190	36.0	60	4	65	11	M10	33.0	A8×7×50
K3	200	130 _{js}	105	130	146	14	38.0	30 _{ks}	165	3.5	75	213	31.0	60	4	75	11	M10	33.0	A8×7×50
K4	250	180 _{js}	120	148	173	15	40.0	40 _{ks}	215	4.0	90	240	49.5	80	4	90	14	M16	43.0	A12×8×70
K5	250	180 _{js}	125	160	185	15	39.5	45 _{ks}	215	4.0	160	260	90.0	90	4	100	14	M16	48.5	A14×9×80
K6	300	230 _{js}	130	168	200	17	36.0	50 _{ks}	265	4.0	190	310	100.0	100	4	120	14	M16	53.5	A14×9×90
K7	350	250 _{h6}	145	190	226	18	44.0	60 _{mh6}	300	5.0	212	342	120.0	120	4	125	18	M20	64.0	A18×11×110
K8	400	300 _{h6}	185	235	282	20	45.0	70 _{mh6}	350	5.0	265	410	140.0	140	5	145	18	M20	74.5	A20×12×125
K9	450	350 _{h6}	225	285	330	23	50.0	90 _{mh6}	400	5.0	315	495	170.0	170	8	180	18	M24	95.0	A25×14×140

Dimensions of additional round flanges

Type	Øa1	Øb1	c1	Øe1	f1	Øs1
K1	140	95 _{js}	10	115	3.0	9
K2	160	110 _{js}	12	130	3.5	9
K3	160	110 _{js}	14	130	3.5	9
K3	250	180 _{js}	14	215	4.0	14
K8	350	250 _{h6}	18	300	5.0	18
K8	450	350 _{h6}	20	400	5.0	18

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0

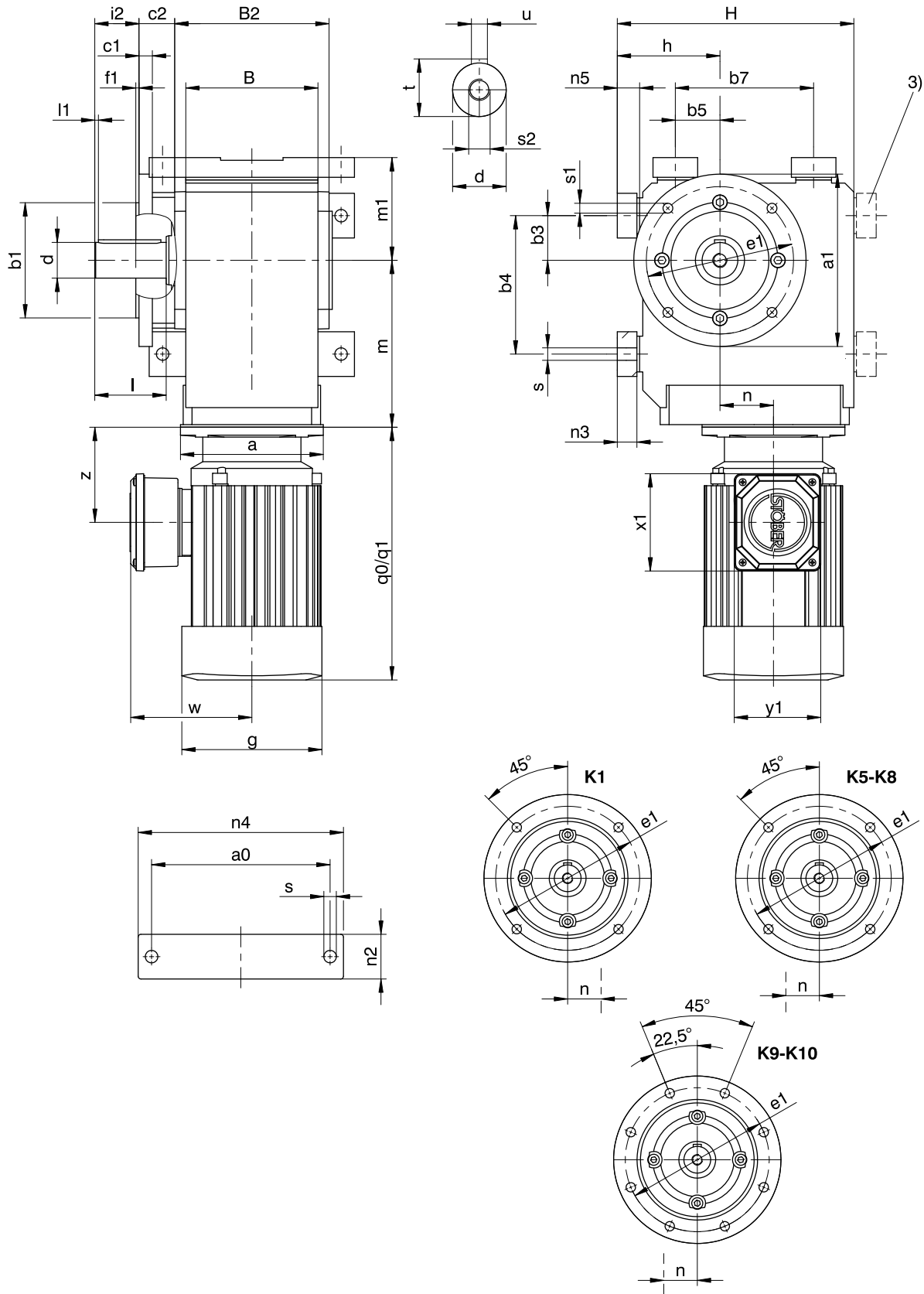
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K202	∅140	143	46.0	∅140	143	46.0	∅160	147	46.0
K203	∅140	180	46.0	∅140	180	46.0	-	-	-
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K402	-	-	-	-	-	-	∅160	187	60.0
K403	-	-	-	∅140	220	60.0	∅160	230	23.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200		
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K202	∅160	147	46.0	∅160	147	46.0	∅200	149	46.0	∅200	149	46.0	-	-	-	-	-	-	-	-	-	-	-	-
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K402	∅160	187	60.0	∅160	187	60.0	∅200	189	60.0	∅200	189	60.0	∅250	192	60.0	-	-	-	-	-	-	-	-	-
K403	∅160	230	23.0	∅160	230	23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-

4.3.16 V shaft design (solid shaft), NF housing design (base + round flange)



q_0 Applies to motors without brake.

3) Only for K1 (other sizes on request)

- K1 – K10: Solid shaft on both sides available.

q_1 Applies to motors with brake.

- K1 – K4: solid shaft without feather key available, on request starting at K5.

Dimensions of gear units

Type	a_0	$\varnothing a_1$	$\varnothing b_1$	b_3	b_4	b_5	b_7	B	B_2	c_1	c_2	$\varnothing d$	$\varnothing e_1$	f_1	h	H	i_2	l	l_1	m_1	n_2	n_3	n_4	n_5	$\varnothing s$	$\varnothing s_1$	s_2	t	u
K1	115	160	110 ₆	30	90	30	90	90	106	10	32.0	25 ₆	130	3.5	75	175	30.0	50	4	75	30	13	140	15	9.0	9	M10	28.0	A8×7×40
K3	170	160	110 ₆	40	130	40	130	130	146	14	38.0	30 ₆	130	3.5	98	236	31.0	60	4	98	45	20	200	23	11.0	9	M10	33.0	A8×7×50

Type	a0	Øa1	Øb1	b3	b4	b5	b7	B	B2	c1	c2	Ød	Øe1	f1	h	H	i2	l	l1	m1	n2	n3	n4	n5	Øs	Øs1	s2	t	u
K5	200	250	180 _β	40	140	100	140	160	185	15	39.5	45 _β	215	4.0	190	290	90.0	90	4	130	60	27	240	30	18.0	14	M16	48.5	A14×9×80
K6	210	300	230 _β	50	160	110	160	168	200	17	36.0	50 _β	265	4.0	220	340	100.0	100	4	150	65	27	250	30	18.5	14	M16	53.5	A14×9×90
K7	241	350	250 _{h6}	55	180	125	180	190	226	18	44.0	60 _{m6}	300	5.0	250	380	120.0	120	4	163	70	35	290	38	23.0	18	M20	64.0	A18×11×110
K8	300	400	300 _{h6}	75	240	165	240	235	282	20	45.0	70 _{m6}	350	5.0	310	455	140.0	140	5	190	85	41	360	45	27.0	18	M20	74.5	A20×12×125
K9	360	450	350 _{h6}	95	280	185	280	285	330	23	50.0	90 _{m6}	400	5.0	365	545	170.0	170	8	230	95	46	430	50	31.0	18	M24	95.0	A25×14×140
K10	330	550	450 _{h6}	115	350	265	420	400	356	25	78.0	110 _{m6}	500	5.0	420	636	210.0	210	15	270	120	-	400	45	39.0	18	M24	116.0	A28×16×180

Dimensions of additional round flanges

Type	Øa1	Øb1	c1	Øe1	f1	Øs1
K1	140	95 _β	10	115	3	9
K8	350	250 _{h6}	18	300	5	18
K8	450	350 _{h6}	20	400	5	18

Dimensions of motors

Type	□g	q0	q1	w	x1	y1	z
D063K04	109	179	231	115	109.0	97.0	81.0
D063M04	109	179	231	115	109.0	97.0	81.0
D071K04	124	208	260	120	109.0	97.0	94.0
D071K02	124	208	260	120	109.0	97.0	94.0
D071L04	124	208	260	120	109.0	97.0	94.0
D071L02	124	208	260	120	109.0	97.0	94.0
D080K04	139	238	295	128	109.0	97.0	97.0

Type	□g	q0	q1	w	x1	y1	z
IE3D080K02	139	238	295	128	109.0	97.0	97.0
IE3D080L04	157	283	351	137	109.0	97.0	107.0
IE3D080L02	157	261	329	137	109.0	97.0	107.0
IE3D090S04	177	310	380	146	120.0	109.0	114.0
IE3D090S02	157	283	351	137	120.0	109.0	107.0
IE3D090L04	177	340	410	146	120.0	109.0	114.0
IE3D090L02	177	310	380	146	120.0	109.0	114.0
IE3D100K04	196	394	481	155	120.0	109.0	120.0
IE3D100L02	196	340	427	155	120.0	109.0	120.0
IE3D100L04	196	444	531	155	120.0	109.0	120.0
IE3D112M02	196	374	461	155	120.0	109.0	120.0
IE3D112M04	217	424	521	178	146.5	156.5	134.0
IE3D132S04	258	476	591	199	146.5	156.5	141.5
IE3D132M04	258	526	641	199	146.5	156.5	141.5
IE3D160M04	313	461	589	242	166.5	193.5	138.0
IE3D160L04	313	549	677	242	166.5	193.5	138.0
IE3D180M04	351	601	748	260	166.5	193.5	178.0
IE3D180L04	351	651	798	260	166.5	193.5	178.0
IE3D200L04	390	729	878	298	207.0	209.0	242.0
IE3D225S04	390	706	855	300	207.0	209.0	169.0
IE3D225M04	440	838	986	324	207.0	209.0	242.0

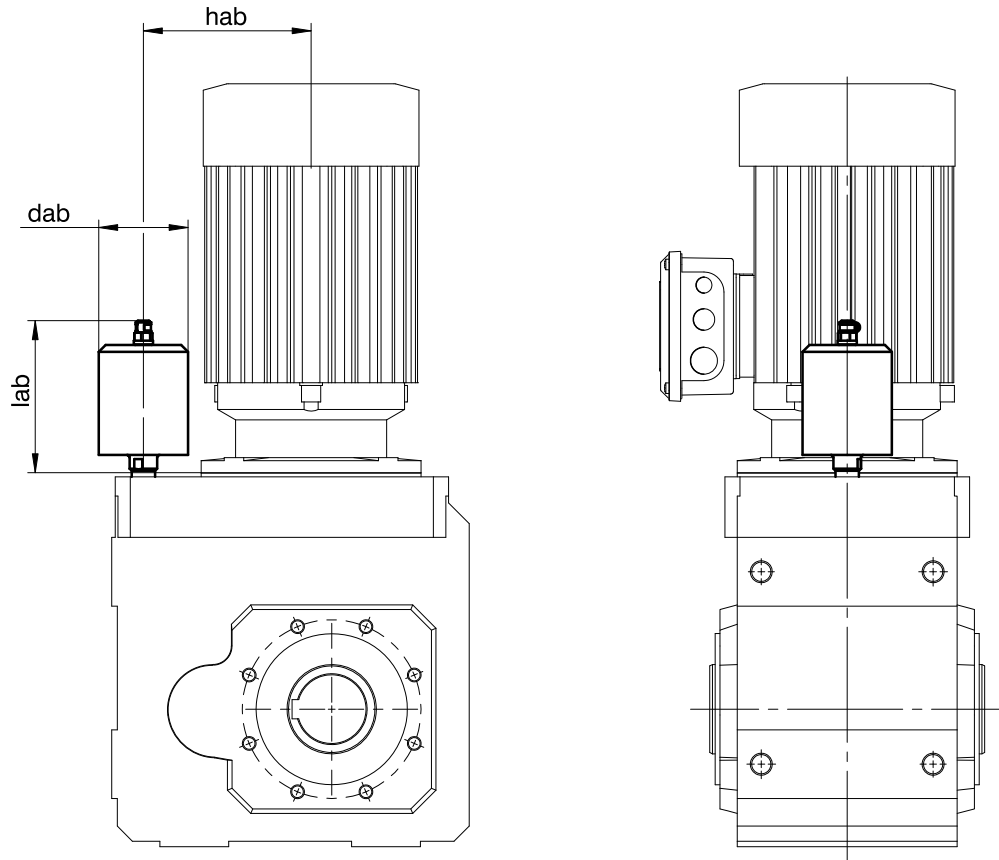
The dimensions a, m and n can be found on the next page.

Dimensions of geared motors

Type	D063			D071			D080		
	a	m	n	a	m	n	a	m	n
K102	∅140	124	36.0	∅140	124	36.0	∅160	128	36.0
K302	-	-	-	∅140	163	52.5	∅160	167	52.5
K303	∅140	200	52.5	∅140	200	52.5	∅160	210	16.0
K514	-	-	-	-	-	-	∅160	215	15.0
K614	-	-	-	-	-	-	∅160	234	18.0
K714	-	-	-	-	-	-	∅160	263	20.0

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200			IE3D225				
	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n	a	m	n		
K102	∅160	128	36.0	∅160	128	36.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K302	∅160	167	52.5	∅160	167	52.5	∅200	169	52.5	∅200	169	52.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K303	∅160	210	16.0	∅160	210	16.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K513	∅160	172	15.0	∅160	172	15.0	∅200	174	15.0	∅200	174	15.0	∅250	177	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K514	∅160	215	15.0	∅160	215	15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K613	∅160	191	18.0	∅160	191	18.0	∅200	193	18.0	∅200	193	18.0	∅250	196	18.0	∅300	210	18.0	∅300	210	18.0	-	-	-	-	-	-	-	
K614	∅160	234	18.0	∅160	234	18.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K713	-	-	-	-	-	-	∅200	221	20.0	∅200	221	20.0	∅250	224	20.0	∅300	237	20.0	∅300	237	20.0	-	-	-	-	-	-	-	-
K714	∅160	263	20.0	∅160	263	20.0	∅200	283	20.0	∅200	283	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
K813	-	-	-	-	-	-	∅200	247	24.0	∅200	247	24.0	∅250	249	24.0	∅300	262	24.0	∅300	262	24.0	-	-	-	-	-	-	-	-
K814	-	-	-	-	-	-	∅200	308	24.0	∅200	308	24.0	∅250	320	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K913	-	-	-	-	-	-	-	-	-	-	-	-	∅250	294	25.0	∅300	307	25.0	∅300	307	25.0	∅350	330	25.0	-	-	-	-	-
K914	-	-	-	-	-	-	∅200	353	25.0	∅200	353	25.0	∅250	365	25.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
K1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	∅300	392	28.0	∅300	392	28.0	∅350	415	28.0	∅400	415	28.0	-	-
K1014	-	-	-	-	-	-	-	-	-	-	-	-	∅250	450	28.0	∅300	475	28.0	∅300	475	28.0	-	-	-	-	-	-	-	-

4.3.17 Oil expansion tank



Dimensions

Type	IE3D080			IE3D090			IE3D100			IE3D112			IE3D132			IE3D160			IE3D180			IE3D200				
	dab	hab	lab	dab	hab	lab	dab	hab	lab	dab	hab	lab	dab	hab	lab	dab	hab	lab	dab	hab	lab	dab	hab	lab		
K513	65	122.0	113.5	65	122.0	113.5	65	130.0	165.0	65	130.0	165.0	65	167.0	165.0	-	-	-	-	-	-	-	-	-	-	
K613	65	148.5	116.5	65	148.5	116.5	65	148.5	116.5	65	148.5	116.5	65	198.5	165.0	65	194.5	191.0	65	194.5	191.0	-	-	-	-	
K713	-	-	-	-	-	-	65	170.0	114.5	65	170.0	114.5	65	170.0	115.5	65	214.0	191.5	65	214.0	191.5	-	-	-	-	
K813	-	-	-	-	-	-	73	205.0	129.5	73	205.0	129.5	73	205.0	129.5	73	205.0	129.5	73	205.0	129.5	-	-	-	-	
K913	-	-	-	-	-	-	-	-	-	-	-	-	73	255.0	129.5	73	255.0	129.5	73	255.0	129.5	73	255.0	129.5	73	255.0
K1013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	305.0	126.0	73	305.0	126.0	73	305.0	112.0	-	

More information can be found in Chapter [▶ 4.6.3](#)

4.4 Type designation

In this chapter, you can find an explanation of the type designation with the associated options.

Additional ordering information not included in the type designation can be found at the end of the chapter.

Sample code

K	4	0	2	A	G	0560	IE3D080L04
----------	----------	----------	----------	----------	----------	-------------	-------------------

Explanation

Code	Designation	Design
K	Type	Helical bevel gear unit
4	Size	4 (example)
0	Generation	Generation 0
1		Generation 1
2	Stages	Two-stage
3		Three-stage
4		Four-stage
A	Shaft	Hollow shaft with keyway
S		Hollow shaft with shrink disk
V		Solid shaft
G	Housing	Pitch circle diameter
F		Round flange
NG		Foot + pitch circle diameter
NF		Foot + round flange
GD		Pitch circle diameter + torque arm
NGD		Foot + pitch circle diameter + torque arm
0560	Transmission ratio (i x 10 rounded)	i = 55.71 (example)
IE3D080	Motor	IE3D asynchronous motor
L04		
D080K04		Asynchronous motor

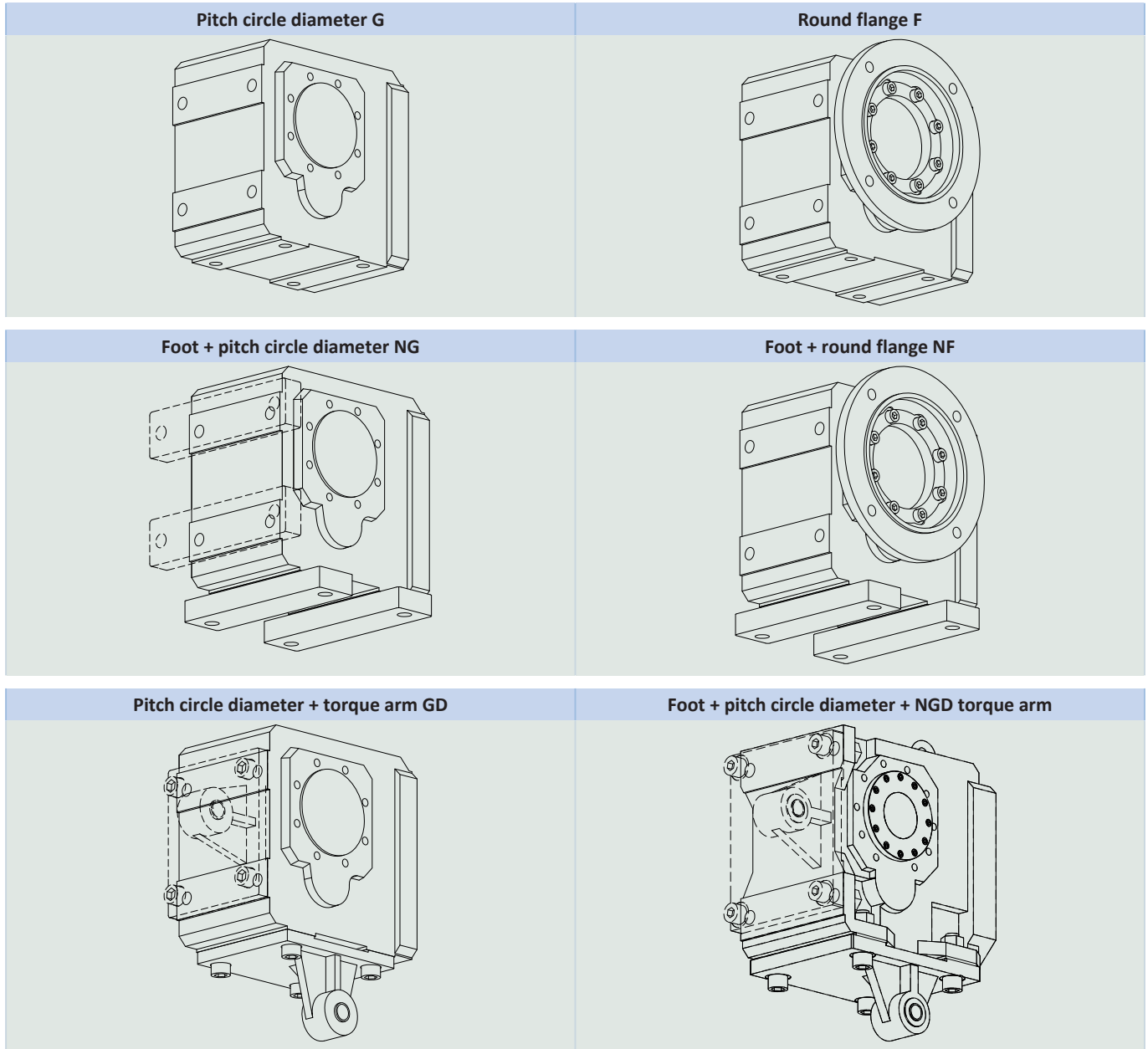
In order to complete the type designation, also specify:

- A detailed type designation of the motor, see the chapter [▶ 6.4](#)
- The mounting position, see Chapter [▶ 4.5.4](#)
- Attachment of solid shaft: gear unit side 3 or 4; solid shaft on both sides
- Attachment of hollow shaft with keyway: insertion side 3 or 4
- Attachment of hollow shaft with shrink disk: shrink disk on gear unit side 3 or 4
- Attachment of baseboards: gear unit side 1 or 5
- Attachment of flange: gear unit side 3 or 4
- Pitch circle diameter: gear unit side 3 or 4
- Attachment of torque arm: torque arm on gear unit side 1 or 5, eye on gear unit side 3 or 4
- The position of the terminal box, see Chapter [▶ 4.5.6](#)
- Oil expansion tank (recommended for gear units in mounting position EL5), see section [▶ 4.6.3](#)
- Standard or reinforced output bearing

An explanation of the gear unit sides can be found in the chapter [▶ 4.5.4](#).

4.5 Product description

4.5.1 Housing design



	G	F	NG	NF	GD	NGD
K1	✓	✓	✓	✓	✓	-
K2	✓	✓	✓	-	✓	-
K3	✓	✓	✓	-	✓	-
K4	✓	✓	✓	-	✓	-
K5	✓	✓	✓	✓	✓	-
K6	✓	✓	✓	✓	✓	-
K7	✓	✓	✓	✓	✓	-
K8	✓	✓	✓	✓	✓	-
K9	✓	✓	✓	✓	✓	-
K10	-	-	✓	✓	-	✓

4.5.2 Combinatorial shaft/housing design

Shaft design	Housing design						
	Code	G	F	NG	NF	GD	NGD
Hollow shaft with keyway	A	AG	AF	ANG	ANF	AGD	ANGD
Hollow shaft with shrink disk	S	SG	SF	SNG	SNF	SGD	SNGD
Solid shaft ¹⁾	V	VG	VF	VNG	VNF	–	–

¹⁾ Gear units in sizes K1 – K10 come with a solid shaft with feather key as standard. Gear units in sizes K1 – K4 can be ordered with the option of a solid shaft without feather key. Only upon request starting at size K5.

4.5.3 Installation conditions

Hollow shaft

The hollow shaft hole tolerance is ISO H7. The tolerance of the machine shaft must be ISO k6.

Take care to align the machine shaft with the gear unit hollow shaft when attaching the gear unit.

Maximum deviation ≤ 0.03 mm.

For simpler assembly and disassembly of the machine shaft, the hollow shafts are equipped with a spiral groove (as a grease deposit).

A hardened, threaded dismounting disk is included in the scope of delivery. You also have the option to order the hollow shaft without a dismounting disk.

Hollow shaft with shrink disk

The tolerance of the hollow shaft hole is ISO H7.

The machine shaft must be executed as follows:

Gear unit type	Tolerance
K1 to K6	ISO h9
K7 to K10	ISO h6

Select a material for the machine shaft with a permitted surface pressure of $p \geq 325$ N/mm².

Possible materials:

- C45E +QT
- 42CrMo4

Attaching the gear unit on the machine side using the pitch circle diameter

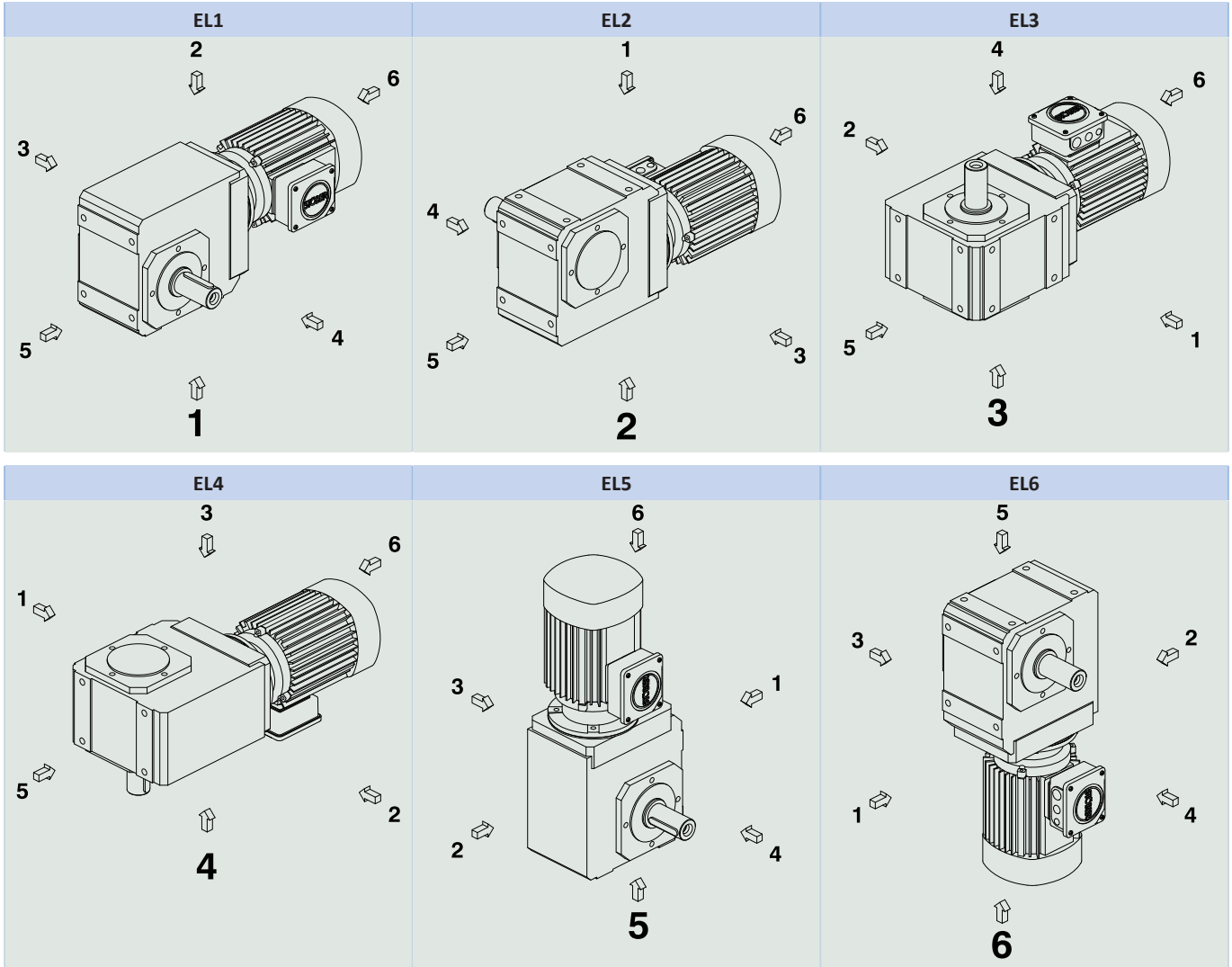
The specified torques and forces only apply when attaching gear units at the machine side using screws of quality 10.9. In addition, the gear housing must be adjusted at the pilot (H7).

4.5.4 Mounting positions

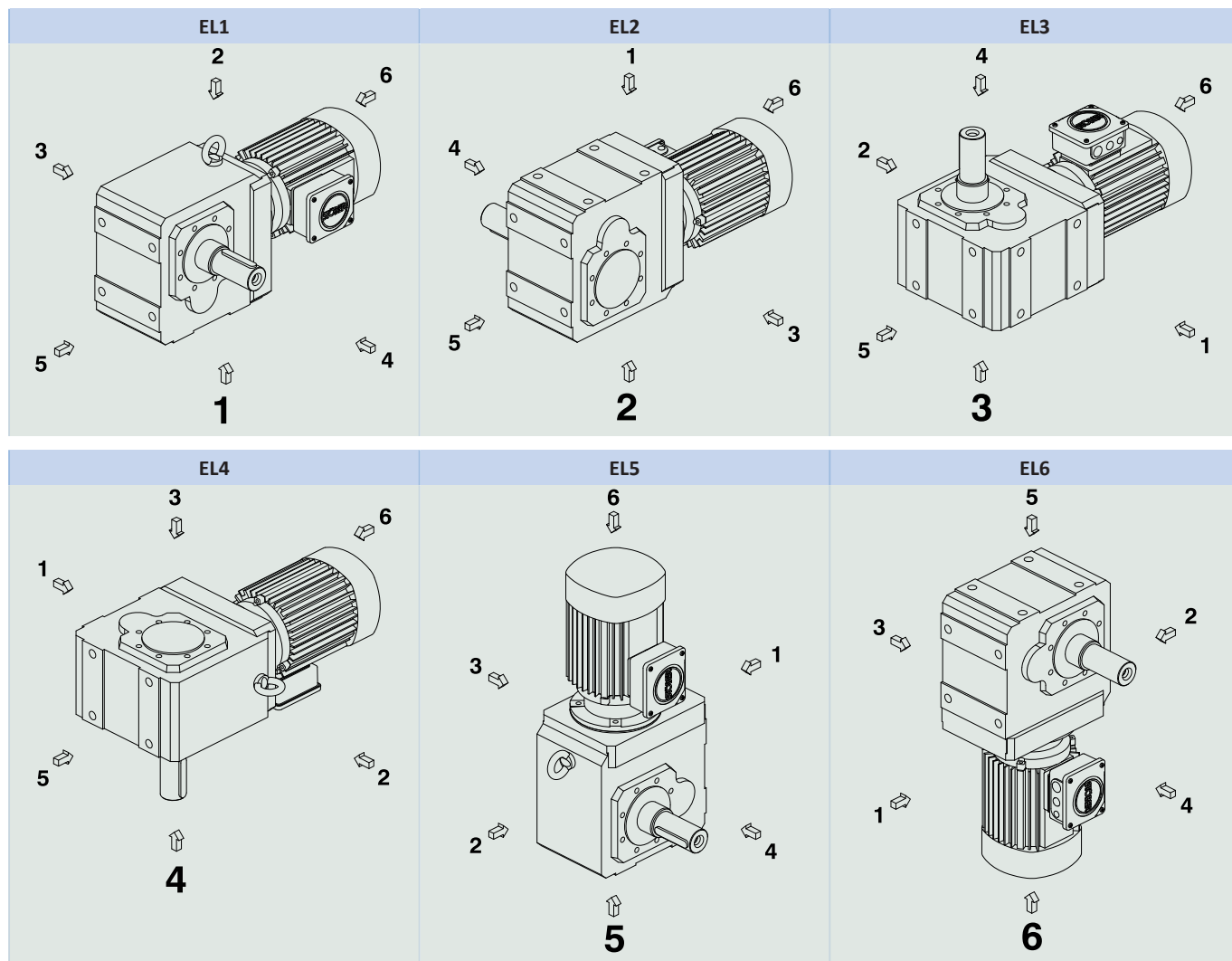
The following table shows the standard mounting positions.

The numbers identify the gear unit sides. The mounting position is defined by the gear side facing downwards.

Mounting positions for gear unit sizes K1 – K4



Mounting positions for gear unit sizes K5 – K10



Since the lubricant filling volume of the gear unit depends on the mounting position, the mounting position must be specified when ordering.

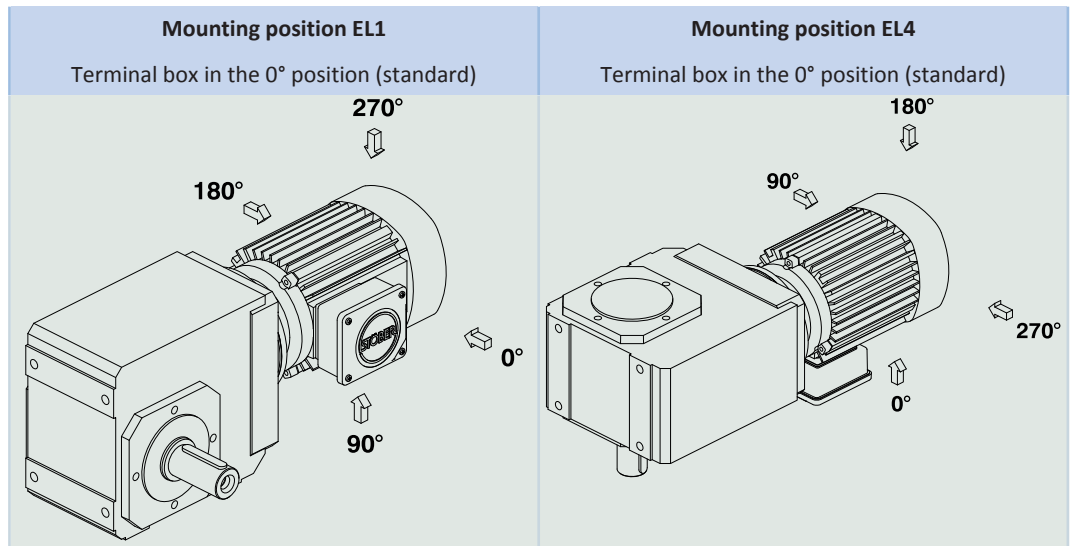
4.5.5 Lubricants

STOBER fills the gear units with the amount and type of lubricant specified on the nameplate. The filling volume and the structure of the gear units depend on the mounting position.

Only install the gear units in the intended mounting position! Reposition the gear units only after consulting STOBER. Otherwise, STOBER assumes no liability for the gear units.

Lubricant filling quantities for gear units, document ID 441871, can be found online at <http://www.stober.de/en/download>. Enter the ID of the documentation in the Search... field.

4.5.6 Position of the terminal box



Indicate variations for your geared motor in the purchase order.

Note that the terminal box position rotates along with the geared motor if the geared motor rotates to another mounting position.

4.5.7 Other product features

Feature	Value
Max. permitted gear unit temperature (on the surface of the gear unit)	≤ 80 °C
Paint	RAL 7035 light gray Optional selection of various RAL colors.
(ATEX) Directive 2014/34/EU	You can get asynchronous motors for use in potentially explosive atmospheres on request.
Protection class	IP56

4.5.8 Losses due to splashing

Increased losses due to splashing can occur in individual cases under certain conditions. These can lead to oil leakage or unacceptably high operating temperatures.

Please coordinate with STOBBER to determine a suitable course of action if:

- The surrounding temperature is under -10 °C or over +40 °C
- The gear unit type meets the following conditions:

Type	Mounting position	n_{1N} [rpm]	ED	i
K5, K6	EL5, EL6	> 2500	> 60%, > 20 min	< 18
K7, K8	EL5, EL6	> 2000	> 60%, > 20 min	< 15
K9, K10	EL5, EL6	> 1750	> 60%, > 20 min	< 15

4.5.9 Maintenance

The instructions for maintenance can be found in the operating manual, ID 443027_en, at <http://www.stoeber.de/en/download>. Enter the ID of the documentation in the Search... field.

Ventilation

Air release valves are fitted as a standard feature and independently of installation position for gear unit sizes K5 to K10.

For the position and dimensions of the air release valve, refer to the 3D model at <http://cad.stoeber.de>.

4.5.10 Direction of rotation

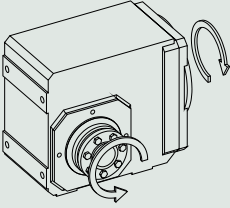
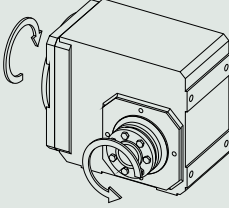
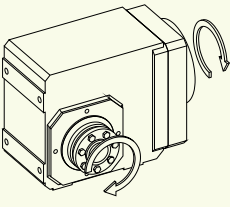
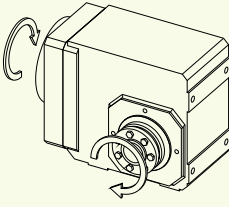
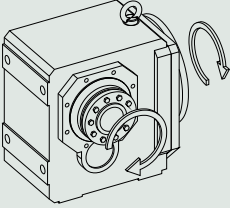
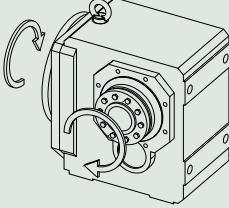
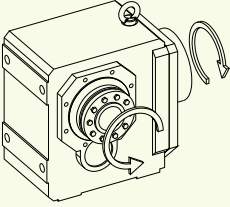
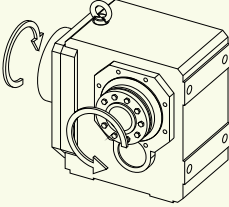
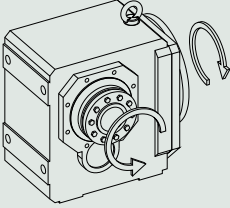
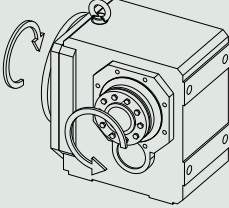
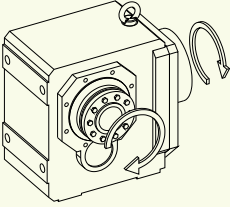
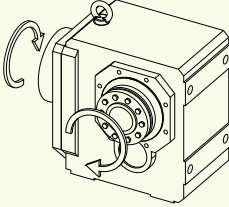
Solid shaft (V), solid shaft on both sides (V), hollow shaft with keyway (A)

Type	Output side 4	Output side 3
K102 – K402		
K203 – K403		
K513 – K1013		
K514 – K1014		

The specified directions of rotation also apply to gear units with hollow shaft (A) if the insertion side of the machine shaft corresponds to the side of the solid shaft that is shown.

The pictures show mounting position EL1.

Hollow shaft with shrink disk (S)

Type	Shrink disk side 4	Shrink disk side 3
K102 – K402		
K203 – K403		
K513 – K813		
K514 – K814		
K913 – K1013		
K914 – K1014		

The pictures show mounting position EL1.

4.6 Project configuration

Project your drives using the information in this chapter. In doing so, observe the limit conditions in this chapter to ensure a safe design.

An explanation of the formula symbols can be found in Chapter [▶ 14.1](#)

Determine the following for your application:

- The actual torque M_{2N^*}
- The actual speed n_{2^*}
- The operating mode operating factor fB_{op}
- The run-time operating factor fB_t
- The motor operating factor fB_{mot}
- The duty cycle ED in %

$$ED = \frac{t_{op}}{T} \cdot 100\%$$

For the S4 and S8 operating mode:

- The mass moment of inertia J_{2^*}

$$J_{1^*} = \frac{J_{2^*}}{i^2}$$

Calculate the motor rating necessary for your application:

$$P_{N^*} = \frac{M_{2N^*} \cdot n_{2^*} \cdot fB_{mot}}{9550}$$

Using the determined values and the calculated motor rating, select a suitable drive from the selection table.


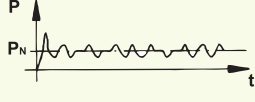
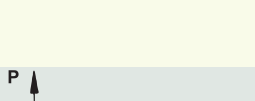
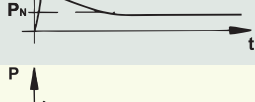
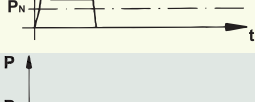
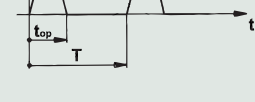
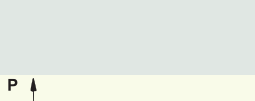
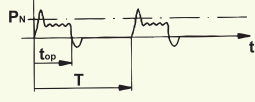
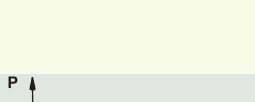
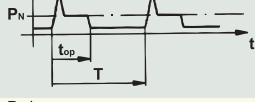
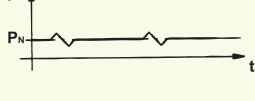
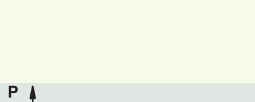
Then check the following conditions:

$$M_{2N^*} \cdot fB_{op} \cdot fB_t < M_{2N} \cdot S$$

$$P_{N^*} < P_N$$

Operating factors

Run time	fB_t
Daily run time ≤ 8 h	1.00
Daily run time ≤ 16 h	1.15
Daily run time ≤ 24 h	1.20

Operating mode	Characteristic output curve	ED	fB _{op}	fB _{mot}
S1 Continuous operation with soft start <ul style="list-style-type: none"> Start time up to 30 s 		100 %	1.00	1.00
S1 Continuous operation with normal start <ul style="list-style-type: none"> Asynchronous motors with direct switch-on or dynamic loading Start time up to 30 s 		100 %	1.25	1.00
S1 Continuous operation with high-load start <ul style="list-style-type: none"> Start time up to 30 s 		100 %	1.25	1.25
S2 brief operation <ul style="list-style-type: none"> Operating time t_{op} ≤ 3 minutes 		≤ 30 %	0.75	0.75
S3 Periodic cyclic operation <ul style="list-style-type: none"> Cycle time T ≤ 10 minutes Cyclic operation with braking motor Low additional flywheel weights J_{1*} < 0,5 · J₁ 		≤ 25 %	0.70	0.70
		≤ 40 %	1.00	1.00
		≤ 60 %	1.25	1.25
S4 Periodic cyclic operation with the effect of the start-up process <ul style="list-style-type: none"> Cycle time T ≤ 10 minutes Cyclic operation with braking motor Larger additional flywheel weights 		40 %	J _{1*} ≤ J ₁ : 1.40 J _{1*} ~ 3 · J ₁ : 1.60	1.40
S6 Uninterrupted periodic operation 	100 %	1.25	1.00	
S6 Uninterrupted periodic operation with short-term loading <ul style="list-style-type: none"> Low speeds Low additional flywheel weights J_{1*} < 0,5 · J₁ 		100 %	1.40	1.00
S6 Uninterrupted periodic operation with impact loading <ul style="list-style-type: none"> High speeds Large additional flywheel weights 		100 %	1.60	1.25
S8 Uninterrupted periodic operation <ul style="list-style-type: none"> With load changes With speed changes 		100 %	J _{1*} ≤ J ₁ : 1.40 J _{1*} ~ 3 · J ₁ : 1.60	J _{1*} ≤ J ₁ : 1.25 J _{1*} ~ 3 · J ₁ : 1.40
S9 Non-periodic operation <ul style="list-style-type: none"> With load changes With speed changes 		100 %	J _{1*} ≤ J ₁ : 1.40 J _{1*} ~ 3 · J ₁ : 1.60	J _{1*} ≤ J ₁ : 1.25 J _{1*} ~ 3 · J ₁ : 1.40
S10 Operation with individual constant loads 	100 %	1.00	1.00	

Tab. 1: Operating factors for operating modes S1 to S10

4.6.1 Permitted shaft loads for the output shaft

The values specified in the tables apply to the permitted shaft loads:

- For shaft dimensions in accordance with the catalog
- For output speeds $n_{2m^*} \leq 20$ rpm ($F_{2axN} = F_{2ax20}$; $F_{2radN} = F_{2rad20}$; $M_{2kN} = M_{2k20}$)
- Only if radial forces on the gear unit are stabilized by its pilots for the pitch circle diameter and flange housing design

4.6.1.1 V shaft design

Permitted shaft loads for V shaft design (solid shaft)

Type	z_2 [mm]	F_{2ax20} [N]	F_{2rad20} [N]	M_{2k20} [Nm]
K1	40.0	1900	5000	360
K2	42.0	2100	6000	430
K3	45.0	2400	7000	525
K4	52.0	3500	11200	1050
K5	72.0	3500	13450	1580
K6	72.0	4000	16000	1960
K8	60.0	7250	29000	3800
K9	87.0	16500	65000	11200
K10	84.0	25000	80000	15200

Reduced values apply in the case of a V shaft design (solid shaft) in conjunction with an NF housing design (foot + round flange):

Type	z_2 [mm]	F_{2ax20} [N]	F_{2rad20} [N]	M_{2k20} [Nm]
K10	132.0	25000	64000	15200

For the V solid shaft design on both sides, the values for F_{2rad20} and M_{2k20} must be multiplied by a factor of 0.7.

For other output speeds, download diagrams at <http://products.stoeber.de>.

The following applies to output speeds $n_{2m^*} > 20$ rpm:

$$F_{2axN} = \frac{F_{2ax20}}{\sqrt[3]{\frac{n_{2m^*}}{20 \text{ rpm}}}}$$

$$F_{2radN} = \frac{F_{2rad20}}{\sqrt[3]{\frac{n_{2m^*}}{20 \text{ rpm}}}}$$

$$M_{2kN} = \frac{M_{2k20}}{\sqrt[3]{\frac{n_{2m^*}}{20 \text{ rpm}}}}$$

The values for F_{2ax20} , F_{2rad20} and M_{2k20} can be found in the table "Permitted shaft loads" in this chapter.

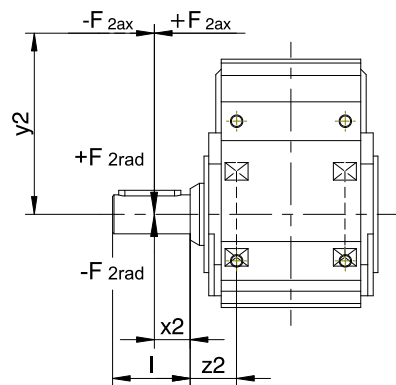


Fig. 1: Force application points for solid shaft

The specified values for F_{2rad20} are based on application of force at the middle of the output shaft: $x_2 = l/2$.

Shaft dimensions can be found in the "Dimensional drawings" chapter.