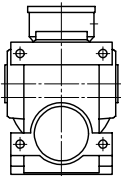
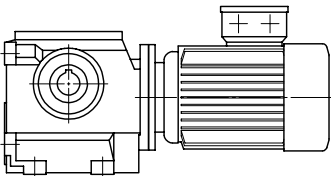
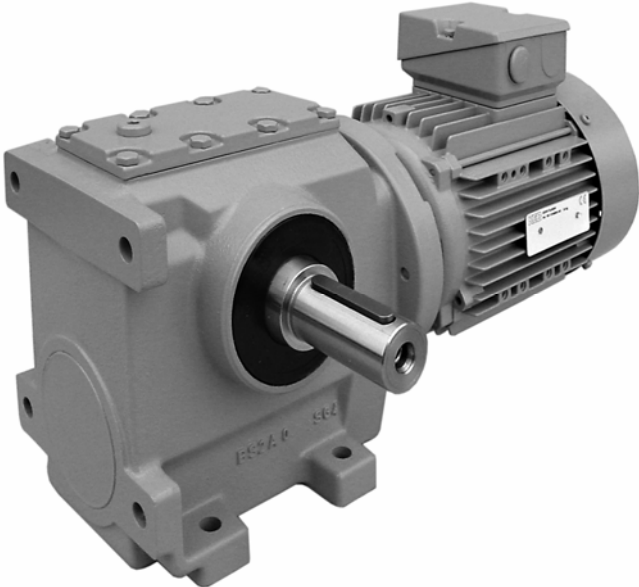
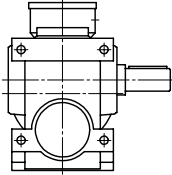
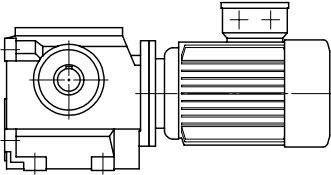


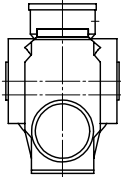
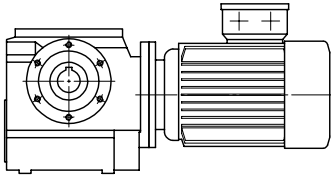
Helical-Worm Geared Motors S



Foot mounted version
with hollow shaft and keyway
Example: S32A DL90L4

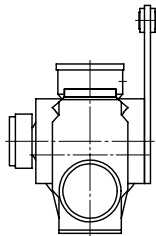
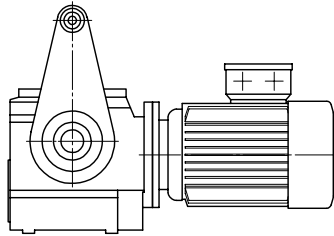


Foot mounted version
with solid shaft and key
Example: S12AV DL80G4

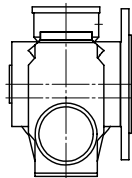
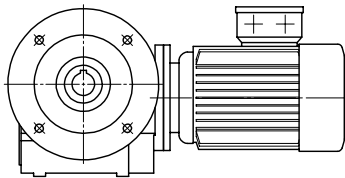


Shaft mounted version
with hollow shaft and keyway
Example: S22B DL100L4

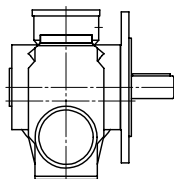
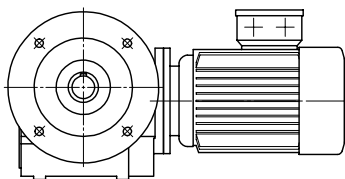
Helical-Worm Geared Motors S



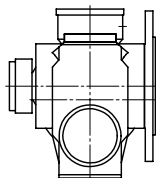
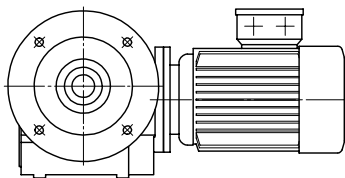
Shaft mounted version
with hollow shaft and shrink disc
with torque arm T1
Example: S22**BT1S** DL80K4



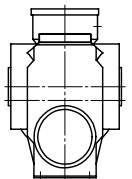
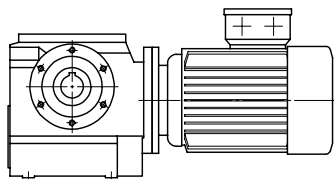
Flange mounted version
with hollow shaft and keyway
Example: S22**C** DL90S4



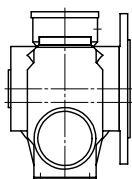
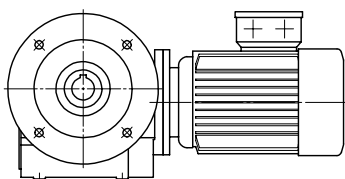
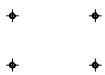
Flange mounted version
with solid shaft and key
Example: S12**CV** DL71G4



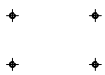
Flange mounted version
with hollow shaft and shrink disc
Example: S32**CS** DL100LX4



Shaft mounted version + foot area
with hollow shaft and keyway
Example: S22**D** DL80G4



Flange mounted version + foot area
with hollow shaft and keyway
Example: S32**E** DL90S4



Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]					Page

0.12 kW

0.29	1860	0.80	4856.2	S42G23A DL63K4	98/99	50
0.33	1660	0.90	4305.3	S42G23B DL63K4		50
				S42G23C DL63K4		54

0.36	1530	1.00	3878.1	S42G22A DL63K4	98/99	50
0.42	1320	1.15	3329.4	S42G22B DL63K4		50
0.49	1150	1.30	2896.2	S42G22C DL63K4		54

0.55	1020	1.50	2545.5			
0.63	910	1.65	2255.8			
0.70	815	1.85	2012.4			
0.78	735	2.0	1805.1			
0.86	670	2.2	1640.6			
0.97	600	2.5	1446.4			
1.1	535	2.8	1281.1			
1.2	485	3.1	1156.1			
1.3	450	3.3	1064.2			
1.5	400	3.7	934.35			
1.7	365	4.0	838.10			

0.69	820	0.80	2040.8	S32G12A DL63K4	97/99	32
0.78	735	0.90	1818.3	S32G12B DL63K4		32
0.86	665	1.00	1632.3	S32G12C DL63K4		34

0.99	585	1.10	1424.7			
1.1	515	1.25	1247.9			
1.2	480	1.35	1146.9			
1.4	425	1.55	1010.5			
1.6	380	1.70	895.82			
1.8	345	1.90	798.16			
2.0	315	2.1	716.51			
2.3	280	2.3	625.38			
2.6	250	2.6	547.76			
2.9	225	2.8	492.61			
3.2	210	3.0	445.64			
3.5	194	3.2	406.20			
3.9	175	3.6	362.38			
4.3	158	3.9	325.05			

1.5	385	0.85	925.37	S22G12A DL63K4	96/99	21
1.7	360	0.95	850.54	S22G12B DL63K4		21
1.9	320	1.05	749.33	S22G12C DL63K4		23

2.1	285	1.15	664.32			
2.4	260	1.30	591.90			
2.7	235	1.40	531.34			
3.0	210	1.55	463.77			
3.5	187	1.75	406.20			
3.9	169	1.90	362.38			
4.3	153	2.1	325.05			
4.8	140	2.3	295.42			
5.4	125	2.5	260.46			
6.1	113	2.8	230.68			
6.8	102	3.1	206.44			
7.8	91	3.4	179.67			

2.5	220	0.85	561.65	S12G02A DL63K4	95/99	16
2.9	197	0.90	490.22	S12G02B DL63K4		16
3.3	177	1.00	429.37	S12G02C DL63K4		17

3.8	159	1.15	375.31			
4.3	141	1.25	330.65			
4.8	127	1.40	293.14			
5.4	114	1.55	261.18			
6.0	104	1.70	234.46			
6.9	92	1.90	204.64			
7.9	83	2.1	179.24			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]					Page

0.12 kW

8.4	78	2.2	168.00	S12A DL63K4	95	12
9.8	69	2.4	143.53	S12B DL63K4		12
11	61	2.7	124.21	S12C DL63K4		13

13	55	3.0	108.57			
15	49	3.3	95.65			
17	44	3.5	84.80			
19	40	3.8	75.56			

7.5	73	0.80	189.00	S02A DL63K4	94	9
8.8	63	0.90	159.35	S02B DL63K4		9
10	55	1.05	135.95	S02C DL63K4		10

12	49	1.15	117.00			
14	43	1.25	101.35			
16	39	1.35	88.20			
18	35	1.50	77.00			
20	38	1.80	69.00			
24	33	2.0	58.18			
28	29	2.3	49.63			
33	25	2.6	42.71			
38	22	2.8	37.00			
44	19	3.1	32.20			
50	17	3.4	28.11			
56	17	3.7	25.00			
67	14	4.2	21.08			
78	12	4.7	17.98			
91	11	5.3	15.48			
105	9.4	5.8	13.41			
113	9.1	7.3	12.50			
121	8.3	6.4	11.67			
134	7.7	8.4	10.54			
138	7.2	7.1	10.19			
157	6.7	9.4	8.99			
182	5.8	11	7.74			
210	5.0	12	6.70			
242	4.4	13	5.83			
277	3.8	14	5.09			

0.18 kW

0.49	1730	0.90	2896.2	S42G22A DL63G4	98/99	50
0.55	1530	1.00	2545.5	S42G22B DL63G4		50
0.63	1360	1.10	2255.8	S42G22C DL63G4		54

0.70	1220	1.25	2012.4			
0.78	1100	1.35	1805.1			
0.86	1010	1.50	1640.6			
0.97	895	1.65	1446.4			
1.1	800	1.85	1281.1			
1.2	730	2.0	1156.1			
1.3	680	2.2	1064.2			
1.5	605	2.5	934.35			
1.7	550	2.7	838.10			
1.9	505	2.9	761.70			
2.1	450	3.2	671.56			
2.4	410	3.6	594.78			
2.6	375	3.8	536.78			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.18 kW

1.1	775	0.85	1247.9	S32G12A DL63G4	97/99	32
1.2	715	0.90	1146.9	S32G12B DL63G4		32
1.4	640	1.00	1010.5	S32G12C DL63G4		34
1.6	570	1.15	895.82			
1.8	515	1.25	798.16			
2.0	470	1.35	716.51			
2.3	415	1.55	625.38			
2.6	370	1.70	547.76			
2.9	340	1.85	492.61			
3.2	315	2.0	445.64			
3.5	290	2.2	406.20			
3.9	260	2.4	362.38			
4.3	235	2.6	325.05			
4.8	215	2.8	294.91			
5.4	195	3.1	261.33			
6.1	174	3.5	230.03			
<hr/>						
5.2	200	3.0	271.60	S32A DL63G4	97	27
6.0	177	3.4	234.71	S32B DL63G4		27
6.9	158	3.8	205.58	S32C DL63G4		29
<hr/>						
2.4	390	0.85	591.90	S22G12A DL63G4	96/99	21
2.7	355	0.95	531.34	S22G12B DL63G4		21
3.0	315	1.05	463.77	S22G12C DL63G4		23
3.5	280	1.15	406.20			
3.9	255	1.30	362.38			
4.3	230	1.40	325.05			
4.8	210	1.55	295.42			
5.4	188	1.70	260.46			
6.1	169	1.90	230.68			
6.8	153	2.1	206.44			
7.8	136	2.3	179.67			
<hr/>						
6.8	154	2.0	207.20	S22A DL63G4	96	17
7.9	135	2.3	177.88	S22B DL63G4		17
9.1	120	2.5	154.74	S22C DL63G4		19
10	108	2.8	136.00			
12	98	3.0	120.52			
<hr/>						
4.3	210	0.85	330.65	S12G02A DL63G4	95/99	16
4.8	190	0.95	293.14	S12G02B DL63G4		16
5.4	172	1.05	261.18	S12G02C DL63G4		17
6.0	156	1.15	234.46			
6.9	139	1.25	204.64			
7.9	124	1.40	179.24			
<hr/>						
8.4	117	1.45	168.00	S12A DL63G4	95	12
9.8	103	1.65	143.53	S12B DL63G4		12
11	92	1.80	124.21	S12C DL63G4		13
13	82	1.95	108.57			
15	74	2.2	95.65			
17	66	2.4	84.80			
19	60	2.6	75.56			
21	55	2.8	67.83			
23	57	2.9	60.90			
24	49	3.0	59.20			
27	49	3.3	52.03			
27	43	3.3	51.85			
31	43	3.7	45.03			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.18 kW

14	65	0.85	101.35	S02A DL63G4	94	9
16	58	0.90	88.20	S02B DL63G4		9
18	52	1.00	77.00	S02C DL63G4		10
20	57	1.20	69.00			
24	49	1.35	58.18			
28	43	1.55	49.63			
33	38	1.70	42.71			
38	33	1.90	37.00			
44	29	2.1	32.20			
50	26	2.3	28.11			
56	25	2.5	25.00			
67	22	2.8	21.08			
78	19	3.2	17.98			
91	16	3.5	15.48			
105	14	3.9	13.41			
113	14	4.9	12.50			
121	12	4.3	11.67			
134	12	5.6	10.54			
138	11	4.7	10.19			
157	10	6.3	8.99			
182	8.7	7.0	7.74			
210	7.5	7.8	6.70			
242	6.5	8.7	5.83			
277	5.7	9.6	5.09			

0.25 kW

0.61	1920	0.80	2255.8	S42G22A DL71K4	98/99	50
0.69	1730	0.85	2012.4	S42G22B DL71K4		50
0.77	1560	0.95	1805.1	S42G22C DL71K4		54
0.84	1420	1.05	1640.6			
0.96	1270	1.20	1446.4			
1.1	1130	1.30	1281.1			
1.2	1030	1.45	1156.1			
1.3	955	1.55	1064.2			
1.5	850	1.75	934.35			
1.7	775	1.90	838.10			
1.8	710	2.1	761.70			
2.1	640	2.3	671.56			
2.3	575	2.5	594.78			
2.6	530	2.7	536.78			
2.8	495	2.9	494.08			
3.1	450	3.2	441.60			
3.5	410	3.4	392.13			
4.0	370	3.8	347.49			
<hr/>						
1.5	810	0.80	895.82	S32G12A DL71K4	97/99	32
1.7	730	0.90	798.16	S32G12B DL71K4		32
1.9	660	0.95	716.51	S32G12C DL71K4		34
2.2	590	1.10	625.38			
2.5	525	1.20	547.76			
2.8	480	1.30	492.61			
3.1	440	1.45	445.64			
3.4	410	1.55	406.20			
3.8	370	1.70	362.38			
4.3	335	1.85	325.05			
4.7	305	2.0	294.91			
5.3	275	2.2	261.33			
6.0	245	2.5	230.03			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

5.1	285	2.1	271.60	S32A DL71K4	97	27
5.9	250	2.4	234.71	S32B DL71K4		27
6.7	225	2.7	205.58	S32C DL71K4		29
7.6	200	2.9	182.00			
8.5	182	3.2	162.52			
9.5	167	3.4	146.16			
10	153	3.7	132.22			
11	142	3.9	120.52			
<hr/>						
3.4	395	0.80	406.20	S22G12A DL71K4	96/99	21
3.8	360	0.90	362.38	S22G12B DL71K4		21
4.3	325	1.00	325.05	S22G12C DL71K4		23
4.7	295	1.10	295.42			
5.3	265	1.20	260.46			
6.0	240	1.35	230.68			
6.7	215	1.45	206.44			
7.7	192	1.60	179.67			
<hr/>						
6.7	215	1.45	207.20	S22A DL71K4	96	17
7.8	190	1.65	177.88	S22B DL71K4		17
9.0	169	1.80	154.74	S22C DL71K4		19
10	152	2.00	136.00			
11	138	2.2	120.52			
13	125	2.3	107.52			
14	113	2.5	96.44			
16	104	2.7	87.65			
18	93	3.0	77.28			
<hr/>						
5.9	220	0.80	234.46	S12G02A DL71K4	95/99	16
6.8	196	0.90	204.64	S12G02B DL71K4		16
7.7	175	1.00	179.24	S12G02C DL71K4		17
<hr/>						
8.2	165	1.05	168.00	S12A DL71K4	95	12
9.6	145	1.15	143.53	S12B DL71K4		12
11	129	1.30	124.21	S12C DL71K4		13
13	116	1.40	108.57			
14	104	1.55	95.65			
16	93	1.70	84.80			
18	84	1.80	75.56			
20	77	1.95	67.83			
23	80	2.1	60.90			
23	69	2.1	59.20			
27	69	2.4	52.03			
27	61	2.3	51.85			
31	61	2.6	45.03			
35	54	2.9	39.36			
40	48	3.2	34.67			
45	43	3.5	30.74			
51	39	3.8	27.39			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.25 kW

20	81	0.85	69.00	S02A DL71K4	94	9
24	70	0.95	58.18	S02B DL71K4		9
28	60	1.10	49.63	S02C DL71K4		10
32	53	1.20	42.71			
37	46	1.35	37.00			
43	41	1.45	32.20			
49	36	1.60	28.11			
55	36	1.75	25.00			
66	31	2.00	21.08			
77	26	2.2	17.98			
89	23	2.5	15.48			
103	20	2.8	13.41			
111	19	3.5	12.50			
119	17	3.0	11.67			
131	16	4.0	10.54			
136	15	3.4	10.19			
154	14	4.5	8.99			
179	12	5.0	7.74			
207	11	5.6	6.70			
237	9.3	6.2	5.83			
272	8.1	6.8	5.09			

0.37 kW

0.95	1880	0.80	1446.4	S42G22A DL71G4	98/99	51
1.1	1680	0.90	1281.1	S42G22B DL71G4		51
1.2	1530	0.95	1156.1	S42G22C DL71G4		55
1.3	1420	1.05	1064.2			
1.5	1260	1.15	934.35			
1.6	1150	1.30	838.10			
1.8	1060	1.40	761.70			
2.1	945	1.55	671.56			
2.3	855	1.70	594.78			
2.6	785	1.85	536.78			
2.8	735	1.95	494.08			
3.1	670	2.1	441.60			
3.5	610	2.3	392.13			
4.0	545	2.6	347.49			
4.5	490	2.8	309.22			
5.2	425	3.2	264.91			
<hr/>						
5.6	400	3.4	247.58	S42A DL71G4	98	46
6.3	360	3.7	220.00	S42B DL71G4		46
7.0	330	4.0	197.22	S42C DL71G4		49
<hr/>						
2.5	780	0.80	547.76	S32G12A DL71G4	97/99	33
2.8	710	0.90	492.61	S32G12B DL71G4		33
3.1	655	0.95	445.64	S32G12C DL71G4		35
3.4	610	1.05	406.20			
3.8	550	1.15	362.38			
4.2	500	1.25	325.05			
4.7	455	1.35	294.91			
5.3	410	1.50	261.33			
6.0	365	1.65	230.03			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.37 kW						
5.1	425	1.45	271.60	S32A DL71G4	97	28
5.9	370	1.65	234.71	S32B DL71G4		28
6.7	330	1.80	205.58	S32C DL71G4		30
7.6	295	2.00	182.00			
8.5	270	2.1	162.52			
9.4	245	2.3	146.16			
10	230	2.5	132.22			
11	210	2.6	120.52			
13	191	2.8	107.52			
14	173	3.1	96.44			
<hr/>						
5.3	395	0.80	260.46	S22G12A DL71G4	96/99	22
6.0	355	0.90	230.68	S22G12B DL71G4		22
6.7	320	1.00	206.44	S22G12C DL71G4		24
7.7	285	1.10	179.67			
<hr/>						
6.7	320	1.00	207.20	S22A DL71G4	96	18
7.8	280	1.10	177.88	S22B DL71G4		18
8.9	250	1.20	154.74	S22C DL71G4		20
10	225	1.35	136.00			
11	205	1.45	120.52			
13	186	1.60	107.52			
14	168	1.70	96.44			
16	155	1.85	87.65			
18	139	2.0	77.28			
19	141	2.2	71.53			
20	124	2.2	68.44			
22	123	2.4	61.41			
26	108	2.7	53.42			
29	97	3.0	46.95			
<hr/>						
9.6	215	0.80	143.53	S12A DL71G4	95	13
11	192	0.85	124.21	S12B DL71G4		13
13	173	0.95	108.57	S12C DL71G4		14
14	154	1.05	95.65			
16	139	1.15	84.80			
18	125	1.25	75.56			
20	114	1.30	67.83			
23	119	1.40	60.90			
23	102	1.45	59.20			
27	103	1.60	52.03			
27	91	1.55	51.85			
31	91	1.75	45.03			
35	81	1.95	39.36			
40	72	2.1	34.67			
45	64	2.4	30.74			
50	57	2.6	27.39			
56	52	2.8	24.59			
61	51	3.0	22.68			
64	45	3.1	21.46			
71	44	3.4	19.38			
73	40	3.3	18.80			
82	38	3.8	16.77			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
0.37 kW						
32	79	0.80	42.71	S02A DL71G4	94	10
37	69	0.90	37.00	S02B DL71G4		10
43	61	1.00	32.20	S02C DL71G4		11
49	54	1.10	28.11			
55	53	1.20	25.00			
65	46	1.35	21.08			
77	39	1.50	17.98			
89	34	1.70	15.48			
103	30	1.85	13.41			
110	29	2.3	12.50			
118	26	2.0	11.67			
131	24	2.7	10.54			
135	23	2.3	10.19			
153	21	3.0	8.99			
178	18	3.4	7.74			
206	16	3.8	6.70			
237	14	4.2	5.83			
271	12	4.6	5.09			
<hr/>						
0.55 kW						
1.5	1840	0.80	934.35	S42G22A DL80K4	98/99	54
1.7	1670	0.90	838.10	S42G22B DL80K4		54
1.9	1540	0.95	761.70	S42G22C DL80K4		57
2.1	1380	1.05	671.56			
2.4	1250	1.15	594.78			
2.6	1150	1.25	536.78			
2.9	1070	1.35	494.08			
3.2	980	1.45	441.60			
3.6	890	1.60	392.13			
4.1	795	1.75	347.49			
4.6	715	1.95	309.22			
5.3	625	2.2	264.91			
<hr/>						
5.7	585	2.3	247.58	S42A DL80K4	98	49
6.4	530	2.5	220.00	S42B DL80K4		49
7.1	480	2.7	197.22	S42C DL80K4		52
7.9	440	2.9	178.08			
8.7	405	3.1	161.78			
9.5	375	3.3	147.91			
11	345	3.5	132.72			
12	315	3.7	119.78			
<hr/>						
4.3	725	0.85	325.05	S32G12A DL80K4	97/99	36
4.8	665	0.95	294.91	S32G12B DL80K4		36
5.4	595	1.00	261.33	S32G12C DL80K4		38
6.1	530	1.15	230.03			
<hr/>						
6.9	480	1.25	205.58	S32A DL80K4	97	31
7.7	435	1.35	182.00	S32B DL80K4		31
8.7	395	1.45	162.52	S32C DL80K4		33
9.6	360	1.60	146.16			
11	335	1.70	132.22			
12	310	1.80	120.52			
13	280	1.95	107.52			
15	255	2.1	96.44			
27	164	3.9	52.21			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.55 kW

9.1	365	0.85	154.74	S22A DL80K4	96	20
10	330	0.90	136.00	S22B DL80K4		20
12	300	1.00	120.52	S22C DL80K4		22
13	270	1.10	107.52			
15	245	1.15	96.44			
16	225	1.25	87.65			
18	200	1.35	77.28			
21	181	1.50	68.44			
26	158	1.85	53.42			
30	141	2.0	46.95			
34	127	2.2	41.61			
38	114	2.4	37.12			
42	103	2.6	33.30			
47	94	2.8	30.26			
53	84	3.0	26.68			
60	74	3.3	23.63			

19	183	0.85	75.56	S12A DL80K4	95	15
21	167	0.90	67.83	S12B DL80K4		15
24	149	1.00	59.20	S12C DL80K4		16
27	132	1.05	51.85			
31	132	1.20	45.03			
36	118	1.35	39.36			
41	104	1.45	34.67			
46	93	1.60	30.74			
51	84	1.75	27.39			
57	75	1.90	24.59			
66	66	2.1	21.46			
75	58	2.3	18.80			
84	56	2.6	16.77			
96	49	2.9	14.66			
109	43	3.2	12.91			
123	39	3.5	11.45			
138	35	3.8	10.20			

78	57	1.05	17.98	S02A DL80K4	94	12
91	50	1.15	15.48	S02B DL80K4		12
105	43	1.25	13.41	S02C DL80K4		13
121	38	1.40	11.67			
138	33	1.55	10.19			
157	31	2.1	8.99			
182	27	2.3	7.74			
210	23	2.6	6.70			
242	20	2.8	5.83			
277	18	3.1	5.09			

0.75 kW

2.4	1710	0.85	594.78	S42G22A DL80G4	98/99	55
2.6	1570	0.90	536.78	S42G22B DL80G4		55
2.8	1470	1.00	494.08	S42G22C DL80G4		59
3.2	1340	1.05	441.60			
3.6	1220	1.15	392.13			
4.0	1090	1.25	347.49			
4.5	985	1.40	309.22			
5.3	855	1.60	264.91			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.75 kW

5.7	805	1.70	247.58	S42A DL80G4	98	50
6.4	725	1.85	220.00	S42B DL80G4		50
7.1	660	2.00	197.22	S42C DL80G4		53
7.9	605	2.1	178.08			
8.7	555	2.3	161.78			
9.5	515	2.4	147.91			
11	470	2.6	132.72			
12	435	2.7	119.78			

6.1	730	0.85	230.03	S32G12A DL80G4	97/99	37
				S32G12B DL80G4		37
				S32G12C DL80G4		39

6.8	660	0.90	205.58	S32A DL80G4	97	32
7.7	595	1.00	182.00	S32B DL80G4		32
8.6	540	1.05	162.52	S32C DL80G4		34
9.6	495	1.15	146.16			
11	455	1.25	132.22			
12	425	1.30	120.52			
13	385	1.40	107.52			
15	345	1.50	96.44			
27	225	2.8	52.21			
30	200	3.1	46.22			
34	181	3.4	41.28			
38	164	3.7	37.12			
42	150	3.9	33.58			

13	370	0.80	107.52	S22A DL80G4	96	21
15	335	0.85	96.44	S22B DL80G4		21
16	310	0.90	87.65	S22C DL80G4		23
18	275	1.00	77.28			
20	250	1.10	68.44			
26	215	1.35	53.42			
30	193	1.50	46.95			
34	174	1.60	41.61			
38	156	1.75	37.12			
42	141	1.90	33.30			
46	129	2.0	30.26			
52	115	2.2	26.68			
59	102	2.4	23.63			
70	91	3.1	19.89			
80	81	3.5	17.49			
90	72	3.8	15.50			

27	181	0.80	51.85	S12A DL80G4	95	16
31	182	0.90	45.03	S12B DL80G4		16
36	161	0.95	39.36	S12C DL80G4		17
40	143	1.05	34.67			
46	128	1.15	30.74			
51	115	1.30	27.39			
57	104	1.40	24.59			
65	91	1.50	21.46			
74	80	1.65	18.80			
83	77	1.90	16.77			
96	68	2.1	14.66			
108	60	2.3	12.91			
122	53	2.6	11.45			
137	47	2.8	10.20			
153	43	3.0	9.16			
175	38	3.3	7.99			
200	33	3.6	7.00			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

0.75 kW

90	68	0.85	15.48	S02A DL80G4	94	13
104	59	0.95	13.41	S02B DL80G4		13
120	52	1.00	11.67	S02C DL80G4		14
137	45	1.15	10.19			
156	42	1.50	8.99			
181	36	1.65	7.74			
209	32	1.85	6.70			
240	27	2.1	5.83			
275	24	2.3	5.09			

1.1 kW

3.6	1770	0.80	392.13	S42G22A DL90S4	98/99	58
3.7	1740	0.80	384.81	S42G22B DL90S4		58
4.1	1580	0.90	347.49	S42G22C DL90S4		62
4.1	1570	0.90	343.94			
4.6	1420	0.95	309.22			
4.6	1410	1.00	305.41			
5.2	1260	1.10	270.64			
5.4	1240	1.10	264.91			
5.9	1140	1.20	240.84			

6.5	1050	1.25	220.00	S42A DL90S4	98	53
7.2	955	1.35	197.22	S42B DL90S4		53
8.0	875	1.45	178.08	S42C DL90S4		57
8.8	805	1.55	161.78			
9.6	745	1.65	147.91			
11	685	1.75	132.72			
12	630	1.90	119.78			
13	585	2.00	110.25			
14	525	2.1	98.54			
16	475	2.3	87.50			
18	425	2.5	77.54			
24	380	3.3	59.37			
27	345	4.0	53.22			
30	310	4.4	48.05			
33	285	4.6	43.65			
36	260	4.8	39.91			
40	235	5.3	35.81			
44	220	4.0	32.48			

9.7	720	0.80	146.16	S32A DL90S4	97	35
11	660	0.85	132.22	S32B DL90S4		35
12	615	0.90	120.52	S32C DL90S4		37
13	555	0.95	107.52			
15	500	1.05	96.44			
16	460	1.10	87.50			
18	415	1.20	77.54			
21	370	1.30	68.25			
24	325	1.40	59.77			
31	290	2.1	46.22			
34	260	2.3	41.28			
38	235	2.5	37.12			
42	215	2.7	33.58			
46	199	2.9	30.61			
52	178	3.1	27.31			
58	160	3.4	24.49			
63	150	3.5	22.44			
64	146	3.6	22.22			
70	136	3.9	20.18			
72	130	3.9	19.69			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

1.1 kW

23	325	0.80	61.25	S22A DL90S4	96	25
27	285	0.90	53.31	S22B DL90S4		25
30	280	1.00	46.95	S22C DL90S4		27
34	250	1.10	41.61			
38	225	1.20	37.12			
43	205	1.30	33.30			
47	187	1.40	30.26			
53	166	1.50	26.68			
60	148	1.65	23.63			
67	133	1.75	21.15			
77	116	1.95	18.40			
81	117	2.4	17.49			
92	104	2.6	15.50			
103	93	2.8	13.82			
115	84	3.1	12.40			
126	76	3.3	11.27			
143	68	3.6	9.94			
161	60	3.9	8.80			

46	185	0.80	30.74	S12A DL90S4	95	20
52	166	0.90	27.39	S12B DL90S4		20
58	150	0.95	24.59	S12C DL90S4		21
66	132	1.05	21.46			
76	116	1.15	18.80			
97	98	1.45	14.66			
110	86	1.60	12.91			
124	77	1.75	11.45			
139	69	1.90	10.20			
155	62	2.1	9.16			
178	54	2.3	7.99			
203	48	2.5	7.00			

1.5 kW

5.2	1740	0.80	270.64	S42G22A DL90L4	98/99	60
5.3	1700	0.80	264.91	S42G22B DL90L4		60
5.8	1560	0.85	240.84	S42G22C DL90L4		63

6.4	1440	0.90	220.00	S42A DL90L4	98	55
7.1	1310	1.00	197.22	S42B DL90L4		55
7.9	1200	1.05	178.08	S42C DL90L4		58
8.7	1110	1.15	161.78			
9.5	1030	1.20	147.91			
11	940	1.30	132.72			
12	865	1.35	119.78			
13	805	1.45	110.25			
14	725	1.55	98.54			
16	650	1.65	87.50			
18	585	1.80	77.54			
24	525	2.4	59.37			
26	475	2.9	53.22			
29	430	3.2	48.05			
32	390	3.4	43.65			
35	360	3.5	39.91			
39	325	3.8	35.81			
43	300	2.9	32.48			
43	295	4.1	32.32			
47	275	4.2	29.75			
48	270	3.2	29.11			
53	245	4.7	26.59			
53	245	3.5	26.29			
59	225	3.8	23.88			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
1.5 kW						
16	635	0.80	87.50	S32A DL90L4	97	37
18	570	0.90	77.54	S32B DL90L4		37
21	505	0.95	68.25	S32C DL90L4		39
24	450	1.05	59.77			
30	400	1.55	46.22			
34	360	1.70	41.28			
38	325	1.85	37.12			
42	300	1.95	33.58			
46	275	2.1	30.61			
51	245	2.3	27.31			
57	220	2.5	24.49			
63	205	2.6	22.44			
63	200	2.6	22.22			
70	187	2.8	20.18			
71	179	2.9	19.69			
77	170	3.0	18.26			
81	158	3.1	17.33			
84	156	3.4	16.64			
93	139	3.4	15.18			
95	140	3.7	14.85			
105	126	4.0	13.32			
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34	345	0.80	41.61	S22A DL90L4	96	26
38	310	0.85	37.12	S22B DL90L4		26
42	280	0.95	33.30	S22C DL90L4		28
46	255	1.00	30.26			
53	230	1.10	26.68			
59	205	1.20	23.63			
66	183	1.30	21.15			
76	160	1.40	18.40			
80	161	1.75	17.49			
91	144	1.90	15.50			
102	129	2.1	13.82			
113	116	2.2	12.40			
125	105	2.4	11.27			
141	93	2.6	9.94			
160	83	2.8	8.80			
178	75	3.1	7.88			
205	65	3.3	6.85			
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75	160	0.85	18.80	S12A DL90L4	95	21
96	135	1.05	14.66	S12B DL90L4		21
109	119	1.15	12.91	S12C DL90L4		22
123	106	1.30	11.45			
138	95	1.40	10.20			
153	85	1.50	9.16			
176	75	1.65	7.99			
201	66	1.80	7.00			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
2.2 kW						
9.6	1500	0.85	147.91	S42A DL100L4	98	60
11	1370	0.90	132.72	S42B DL100L4		60
12	1260	0.95	119.78	S42C DL100L4		64
13	1170	1.00	110.25			
14	1060	1.05	98.54			
16	950	1.15	87.50			
18	855	1.25	77.54			
21	765	1.30	69.00			
27	690	2.0	53.22			
29	625	2.2	48.05			
32	570	2.3	43.65			
35	525	2.4	39.91			
40	475	2.6	35.81			
44	430	2.8	32.32			
48	400	2.9	29.75			
49	395	2.2	29.11			
53	355	3.2	26.59			
54	355	2.4	26.29			
59	325	2.6	23.88			
60	320	3.4	23.61			
65	300	3.4	21.83			
68	285	3.6	20.92			
72	270	3.7	19.59			
76	250	3.8	18.62			
80	245	4.0	17.68			
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34	525	1.15	41.28	S32A DL100L4	97	43
38	475	1.25	37.12	S32B DL100L4		43
42	435	1.35	33.58	S32C DL100L4		45
46	400	1.45	30.61			
52	360	1.55	27.31			
58	320	1.70	24.49			
63	300	1.75	22.44			
64	295	1.80	22.22			
70	275	1.90	20.18			
72	260	1.95	19.69			
77	250	2.1	18.26			
82	230	2.1	17.33			
85	225	2.3	16.64			
93	205	2.3	15.18			
95	205	2.5	14.85			
106	179	2.5	13.33			
106	183	2.7	13.32			
117	166	2.9	12.08			
132	148	3.1	10.71			
150	131	3.4	9.43			
171	115	3.7	8.25			
195	101	4.0	7.25			
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60	295	0.80	23.63	S22A DL100L4	96	33
67	265	0.90	21.15	S22B DL100L4		33
77	235	0.95	18.40	S22C DL100L4		35
91	210	1.30	15.50			
102	187	1.40	13.82			
114	168	1.55	12.40			
126	153	1.65	11.27			
142	136	1.80	9.94			
161	121	1.95	8.80			
180	109	2.1	7.88			
206	95	2.3	6.85			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
3.0 kW						
15	1430	0.80	98.54	S42A DL100LX4	98	63
16	1280	0.85	87.50	S42B DL100LX4		63
18	1150	0.90	77.54	S42C DL100LX4		67
21	1040	0.95	69.00			
27	930	1.50	53.22			
30	845	1.60	48.05			
33	770	1.70	43.65			
36	710	1.75	39.91			
40	640	1.95	35.81			
44	585	2.1	32.32			
48	540	2.1	29.75			
49	535	1.65	29.11			
54	480	2.4	26.59			
54	480	1.80	26.29			
60	440	1.95	23.88			
61	430	2.5	23.61			
65	405	2.5	21.83			
68	380	2.6	20.92			
73	365	2.7	19.59			
77	340	2.8	18.62			
81	330	3.0	17.68			
35	710	0.85	41.28	S32A DL100LX4	97	47
39	645	0.95	37.12	S32B DL100LX4		47
43	585	1.00	33.58	S32C DL100LX4		49
47	540	1.05	30.61			
52	485	1.15	27.31			
58	435	1.25	24.49			
64	405	1.30	22.44			
64	395	1.35	22.22			
71	370	1.40	20.18			
73	350	1.45	19.69			
78	335	1.55	18.26			
83	310	1.60	17.33			
86	305	1.70	16.64			
94	275	1.70	15.18			
96	275	1.85	14.85			
107	240	1.85	13.33			
107	245	2.0	13.32			
118	225	2.1	12.08			
134	200	2.3	10.71			
152	177	2.5	9.43			
173	155	2.7	8.25			
197	137	2.9	7.25			
92	280	0.95	15.50	S22A DL100LX4	96	36
103	255	1.05	13.82	S22B DL100LX4		36
115	225	1.15	12.40	S22C DL100LX4		38
127	205	1.20	11.27			
144	183	1.30	9.94			
163	163	1.45	8.80			
182	147	1.55	7.88			
209	128	1.70	6.85			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	
4.0 kW						
30	1120	1.20	48.05	S42A DL112M4	98	76
33	1020	1.30	43.65	S42B DL112M4		76
36	940	1.35	39.91	S42C DL112M4		80
40	850	1.45	35.81			
44	775	1.55	32.32			
48	715	1.60	29.75			
54	640	1.80	26.59			
55	640	1.35	26.29			
60	585	1.45	23.88			
61	570	1.90	23.61			
66	535	1.90	21.83			
69	505	2.00	20.92			
73	485	2.1	19.59			
77	450	2.1	18.62			
81	440	2.2	17.68			
47	715	0.80	30.61	S32A DL112M4	97	60
53	640	0.85	27.31	S32B DL112M4		60
59	575	0.95	24.49	S32C DL112M4		62
65	525	1.00	22.22			
71	490	1.05	20.18			
73	465	1.10	19.69			
79	445	1.15	18.26			
83	415	1.20	17.33			
86	410	1.30	16.64			
95	365	1.30	15.18			
97	365	1.40	14.85			
108	320	1.40	13.33			
108	330	1.50	13.32			
119	300	1.60	12.08			
134	265	1.75	10.71			
152	235	1.90	9.43			
174	205	2.0	8.25			
198	181	2.2	7.25			
5.5 kW						
40	1160	1.10	35.81	S42A DA132S4	98	84
45	1050	1.15	32.32	S42B DA132S4		84
49	970	1.15	29.75	S42C DA132S4		88
55	870	1.30	26.59			
61	775	1.40	23.61			
69	690	1.45	20.92			
74	660	1.50	19.59			
78	615	1.55	18.62			
82	595	1.65	17.68			
89	550	1.90	16.28			
91	525	1.70	15.95			
100	495	2.0	14.55			
103	465	1.75	14.07			
112	440	2.1	12.92			
127	390	2.3	11.45			
142	350	2.4	10.19			
166	300	2.6	8.73			
188	265	2.7	7.70			

Helical-Worm Geared Motors S



n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

7.5 kW

40	1580	0.80	35.81	S42A DA132M4	98	89
45	1440	0.85	32.32	S42B DA132M4		89
49	1330	0.85	29.75	S42C DA132M4		92
55	1190	0.95	26.59			
61	1060	1.00	23.61			
69	940	1.05	20.92			
74	895	1.10	19.59			
78	835	1.15	18.62			
82	815	1.20	17.68			
89	750	1.40	16.28			
91	715	1.25	15.95			
100	670	1.50	14.55			
103	635	1.30	14.07			
112	600	1.55	12.92			
127	530	1.65	11.45			
142	475	1.75	10.19			
166	410	1.90	8.73			
188	360	2.0	7.70			

n2	T2	cG	i	Type	Dimensions	~kg
[1/min]	[Nm]				Page	

Helical-Worm Geared Motors S for very low Output Speeds



n2 [1/min]	i	Type	Dimensions Page	~kg
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1530 Nm

0.069	20360	S42G23A DL63K4	98/99	50
0.081	17395	S42G23B DL63K4		50
0.094	15053	S42G23C DL63K4		54
0.11	13158			
0.12	11592			
0.14	10277			
0.15	9221.9			
0.17	8060.8			
0.20	7101.6			
0.22	6295.9			
0.26	5512.1			

665 Nm

0.075	18745	S32G13A DL63K4	97/99	32
0.089	15891	S32G13B DL63K4		32
0.10	13638	S32G13C DL63K4		34
0.12	11814			
0.14	10307			
0.16	9041.7			
0.18	7963.6			
0.20	7002.7			
0.23	6009.8			
0.27	5206.1			
0.31	4542.1			
0.35	4043.0	S32G12A DL63K4	97/99	32
0.41	3454.1	S32G12B DL63K4		32
0.47	2989.2	S32G12C DL63K4		34
0.54	2612.8			
0.61	2301.9			

340 Nm

0.10	13901	S22G13A DL63K4	96/99	21
0.12	11784	S22G13B DL63K4		21
0.14	10114	S22G13C DL63K4		23
0.16	8761.0			
0.18	7643.7			
0.21	6705.1			
0.24	5905.6			
0.27	5193.0			
0.32	4456.7			
0.37	3860.7			
0.42	3368.3			
0.47	2998.2	S22G12A DL63K4	96/99	21
0.55	2561.5	S22G12B DL63K4		21
0.64	2216.7	S22G12C DL63K4		23
0.73	1937.6			
0.83	1707.1			
0.93	1513.4			
1.0	1348.4			
1.2	1210.5			
1.3	1056.5			

n2 [1/min]	i	Type	Dimensions Page	~kg
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188 Nm

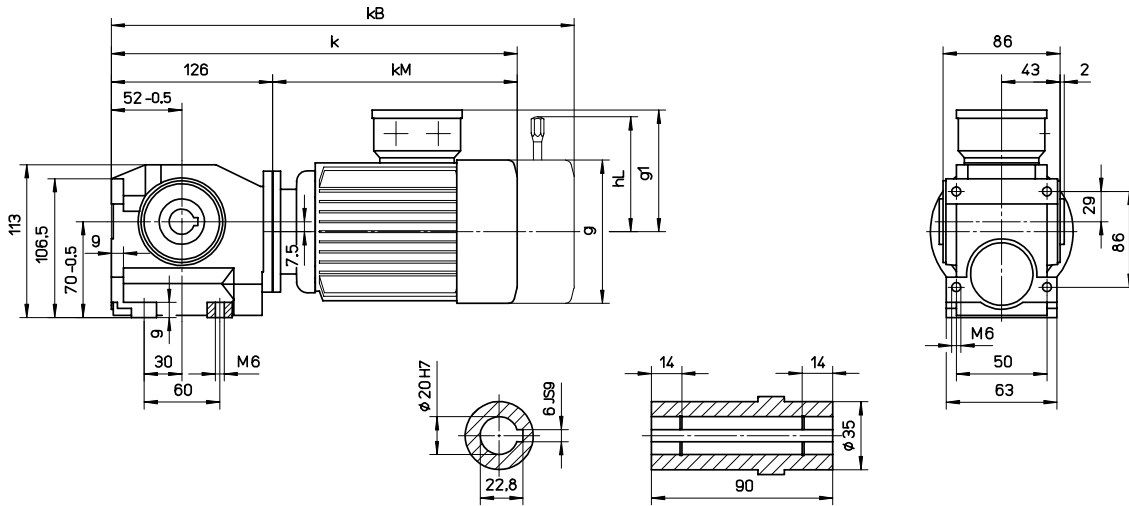
0.16	9007.5	S12G03A DL63K4	95/99	16
0.19	7609.6	S12G03B DL63K4		16
0.22	6505.9	S12G03C DL63K4		17
0.25	5612.6			
0.29	4874.5			
0.33	4254.6			
0.38	3672.3			
0.45	3168.0			
0.51	2751.5			
0.59	2401.5			
0.67	2108.1	S12G02A DL63K4	95/99	16
0.79	1781.0	S12G02B DL63K4		16
0.93	1522.7	S12G02C DL63K4		17
1.1	1313.6			
1.2	1140.8			
1.4	995.75			
1.6	872.16			
1.9	749.62			
2.2	646.68			

Helical-Worm Geared Motors S



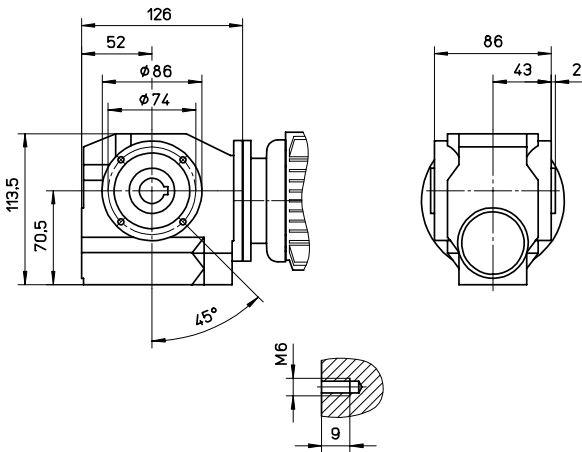
S02A

Foot mounted version



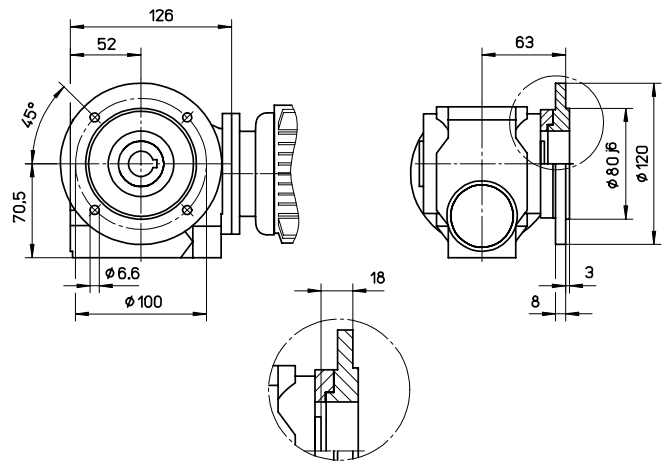
S02B

Shaft mounted version



S02C

Flange mounted version



	k	kB	kM	g	g1	hL
S02_DL63/71	327	381	201	126	113	106
S02_DL80	370	427	244	142	121	114

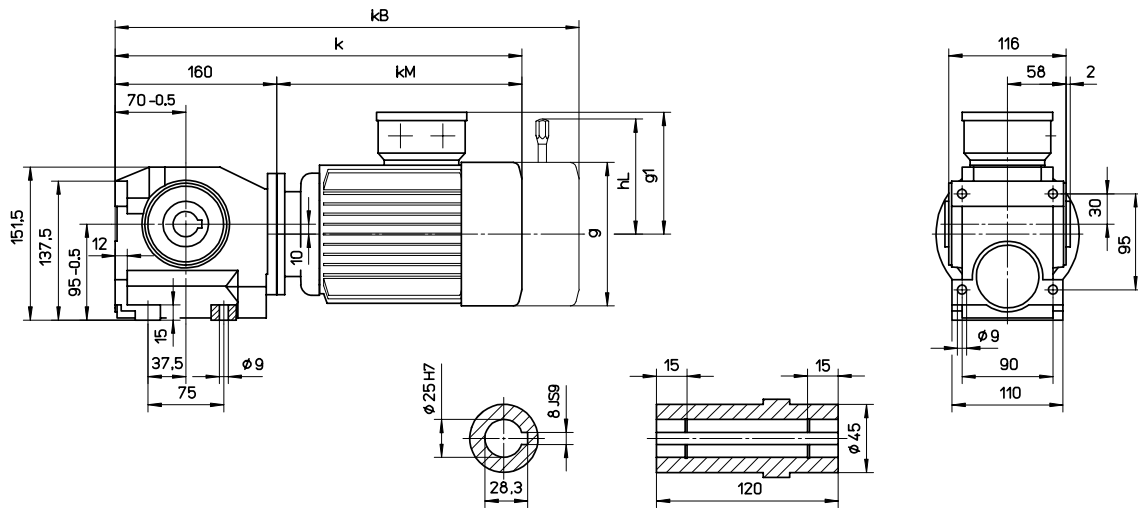
Dimensions kB and hL apply to geared motors with brake.

Helical-Worm Geared Motors S



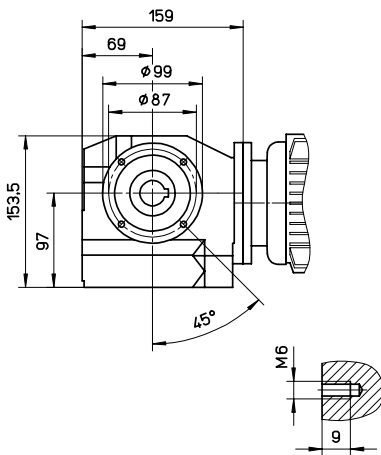
S12A

Foot mounted version



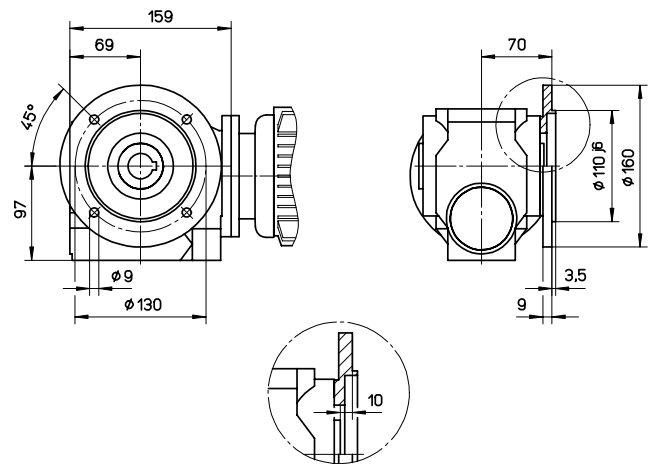
S12B

Shaft mounted version



S12C

Flange mounted version



	k	kB	kM	g	g1	hL
S12_DL63/71	360	414	200	126	113	106
S12_DL80	403	460	243	142	121	114
S12_DL90	449	514	289	160	130	128

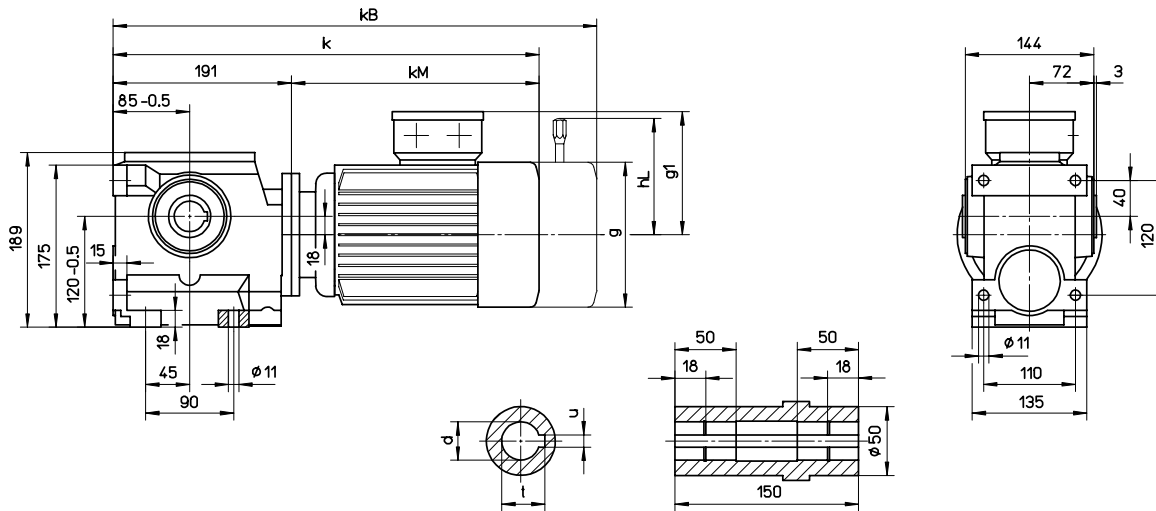
Dimensions kB and hL apply to geared motors with brake.

Helical-Worm Geared Motors S



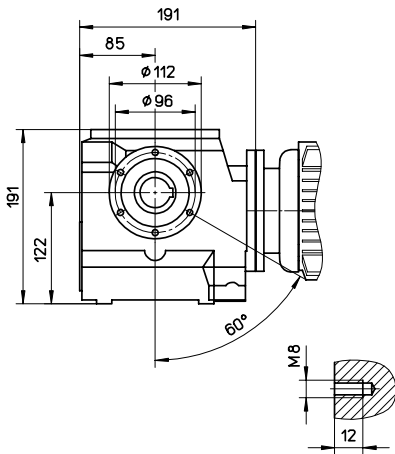
S22A

Foot mounted version



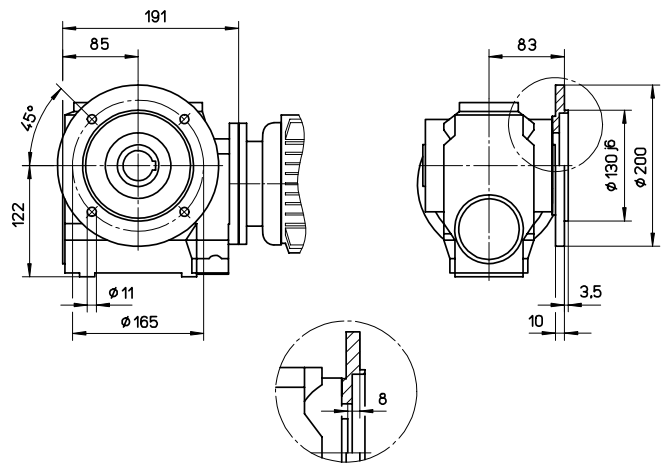
S22B

Shaft mounted version



S22C

Flange mounted version



	k	k _B	k _M	g	g ₁	h _L
S22_DL63/71	388	442	197	126	113	106
S22_DL80	431	488	240	142	121	114
S22_DL90	475	540	284	160	130	128
S22_DL100	528	599	337	180	141	168

Hollow shaft	d	t	u
	35	35H7	38.3
	30	30H7	33.3

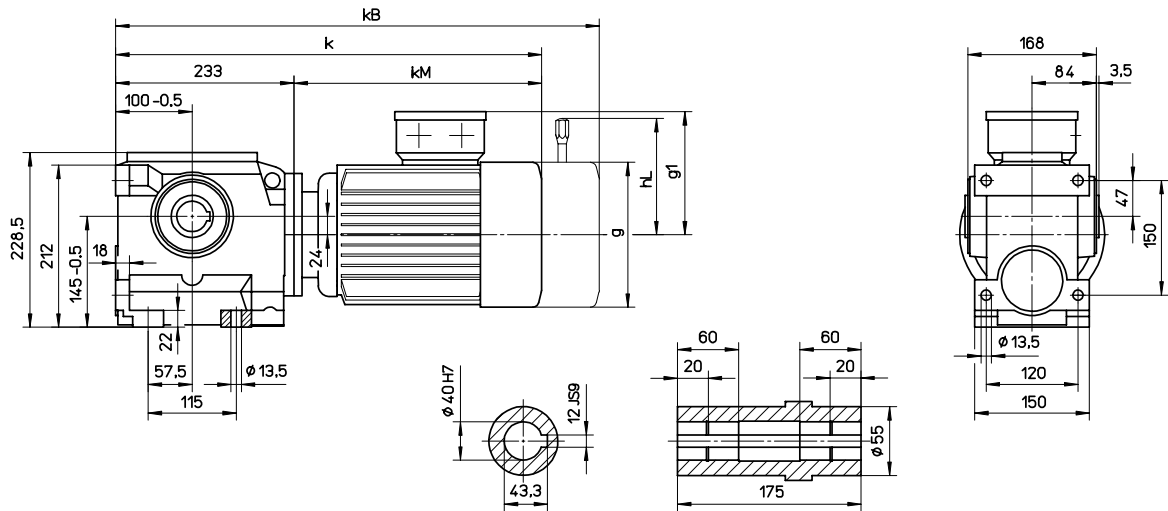
Dimensions k_B and h_L apply to geared motors with brake.

Helical-Worm Geared Motors S



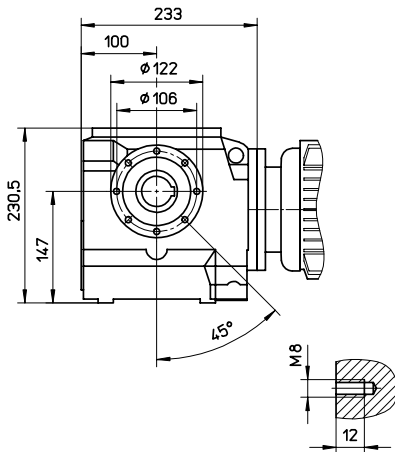
S32A

Foot mounted version



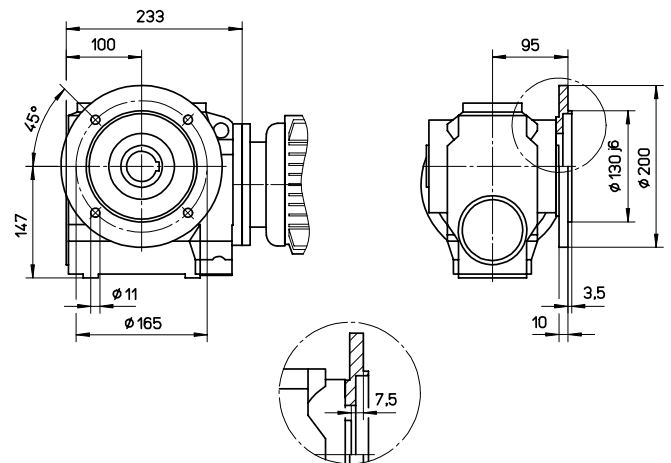
S32B

Shaft mounted version



S32C

Flange mounted version



	k	k _B	k _M	g	g ₁	h _L
S32_DL63/71	429	483	196	126	113	106
S32_DL80	472.5	529.5	239.5	142	120.5	114
S32_DL90	518.5	583.5	285.5	160	129.5	128
S32_DL100	567	638	334	180	141	168
S32_DL112	608.5	695.5	375.5	200	151	176

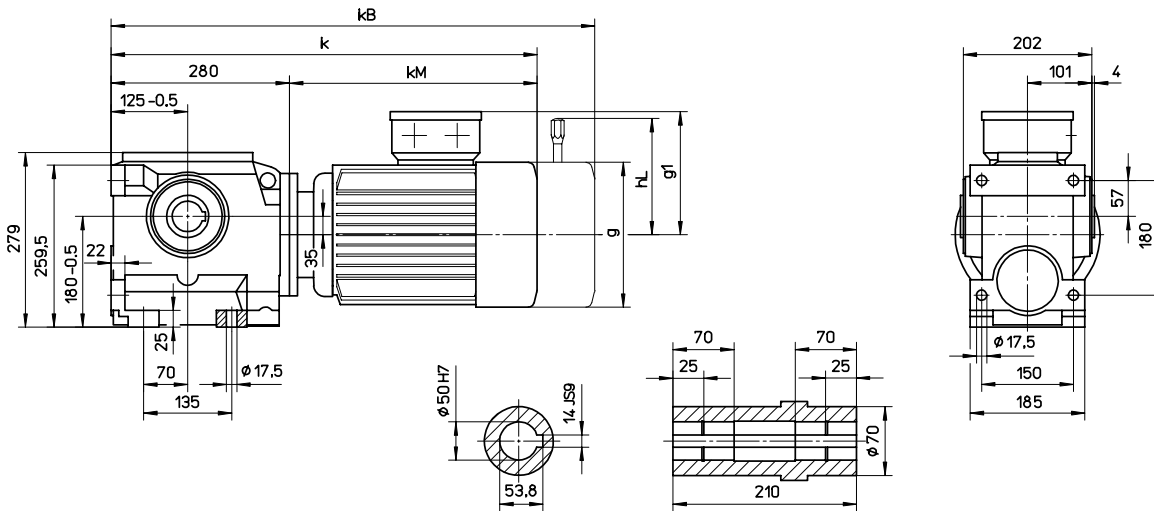
Dimensions k_B and h_L apply to geared motors with brake.

Helical-Worm Geared Motors S



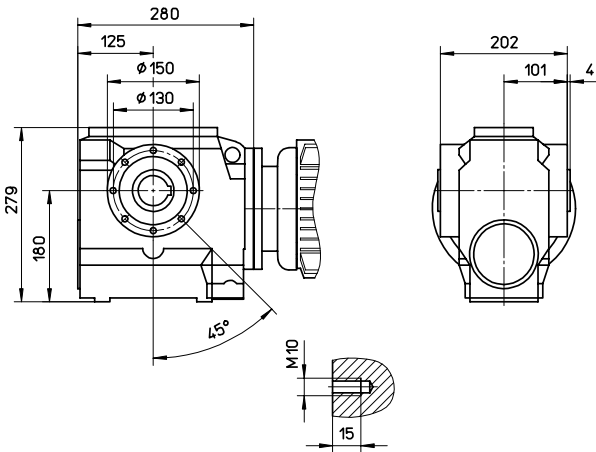
S42A

Foot mounted version



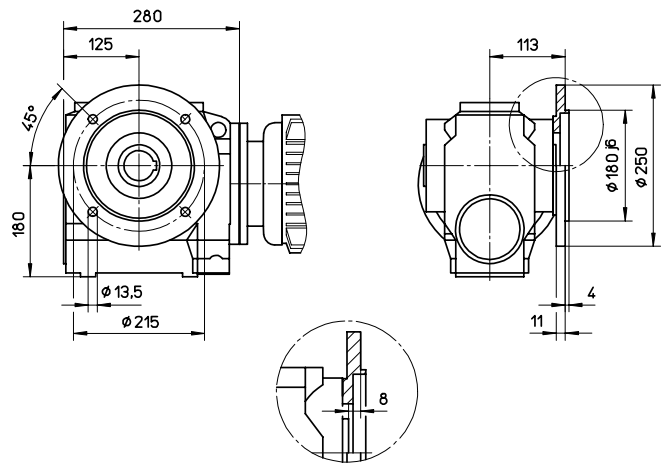
S42B

Shaft mounted version



S42C

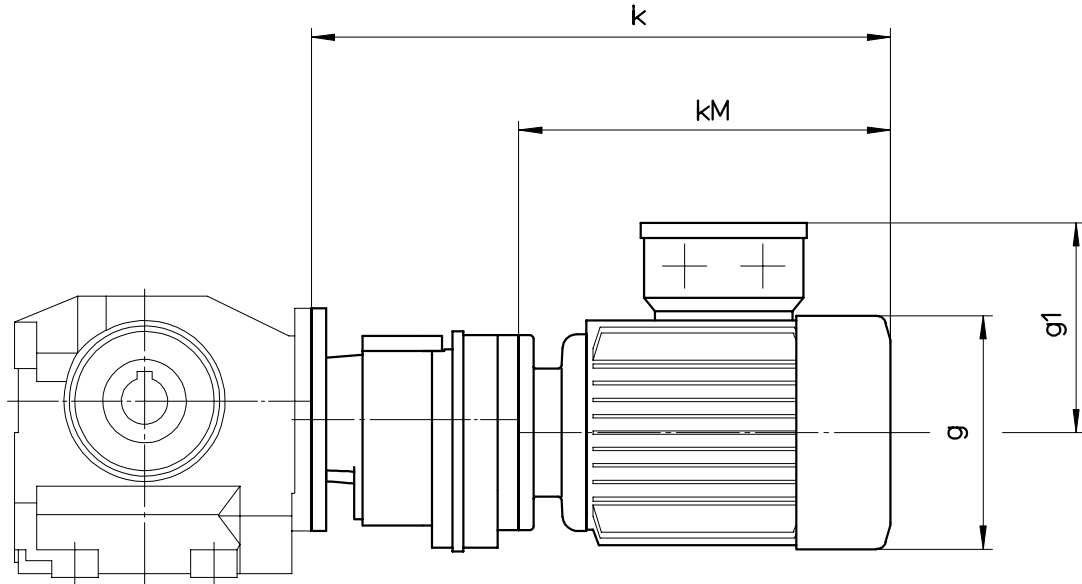
Flange mounted version



	k	k _B	k _M	g	g ₁	h _L
S42_DL63/71	472.5	526.5	192.5	126	113	106
S42_DL80	516	573	236	142	121	114
S42_DL90	562	627	282	160	130	128
S42_DL100	609	680	329	180	141	168
S42_DL112	651	738	371	200	151	176
S42_DA132	711.5	810.5	431.5	245	188	225

Dimensions k_B and h_L apply to geared motors with brake.

Helical-Worm Geared Motors S for very low Output Speeds

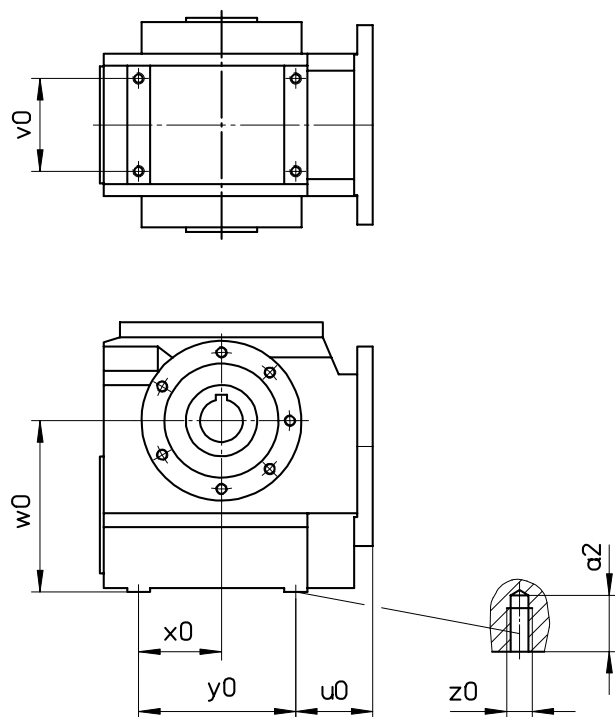


	k	kM	g	g1
S12G0 DL63/71	313	201	126	113
S22G1 DL63/71	323	200	126	113
S32G1 DL63/71	323	200	126	113
S32G1 DL80	366	243	142	121
S42G2 DL63/71	342	197	126	113
S42G2 DL80	385	240	142	121
S42G2 DL90	429	284	160	130

Helical-Worm Gear Units S

Shaft mounted version + foot area

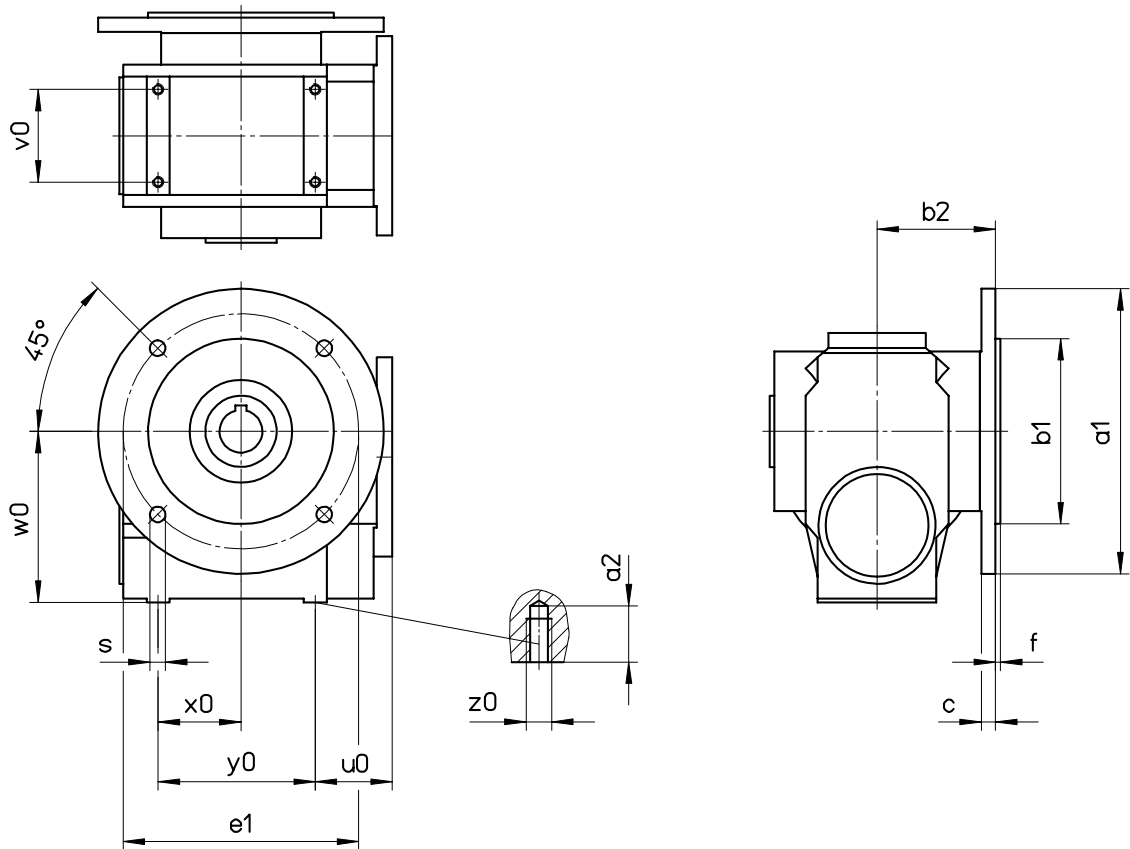
KEB



Gear	u0	v0	w0	x0	y0	z0	a2
S1	54	50	95	46	82	M8	12
S2	54	65	120	58	110	M8	12
S3	65.5	70	145	67.5	135	M10	15
S4	67.5	80	180	87.5	175	M16	24

Helical-Worm Gear Units S

Flange mounted version + foot area

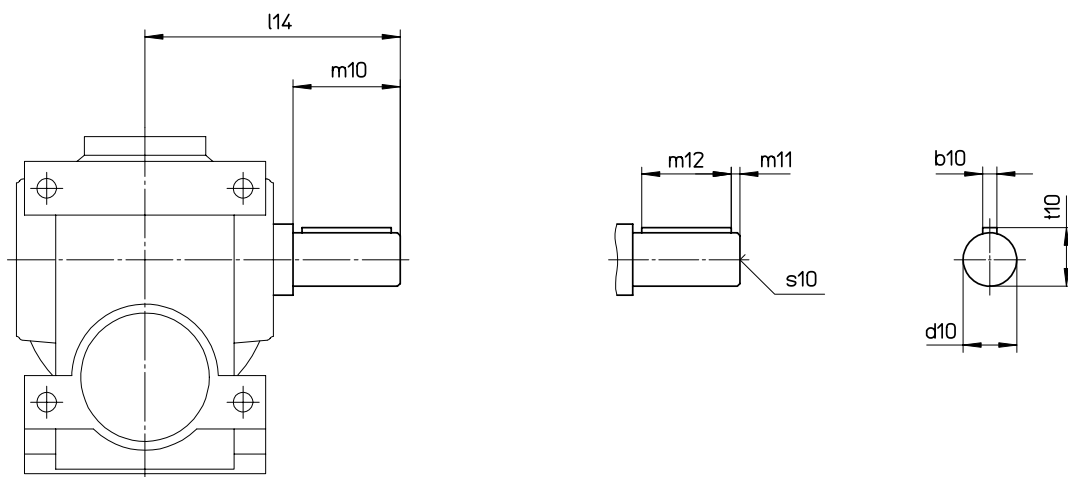


Gear	u0	v0	w0	x0	y0	z0	a2	a1	e1	b1	s	c	f	b2
S1	54	50	95	46	82	M8	12	160	130	110 j6	9	9	3.5	70
S2	54	65	120	58	110	M8	12	200	165	130 j6	11	10	3.5	83
S3	65.5	70	145	67.5	135	M10	15	200	165	130 j6	11	10	3.5	95
S4	67.5	80	180	87.5	175	M16	24	250	215	180 j6	13.5	11	4	113

Helical-Worm Gear Units S

Version with Solid shaft

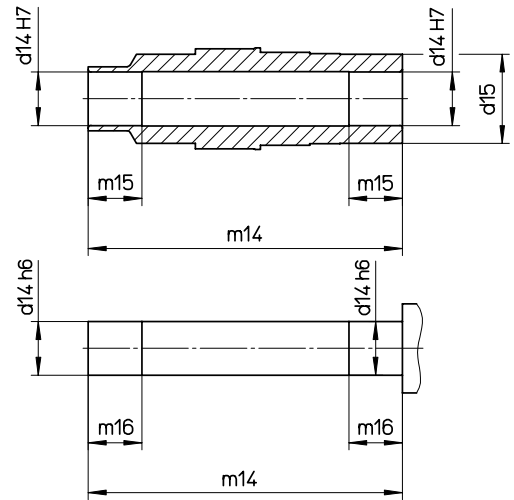
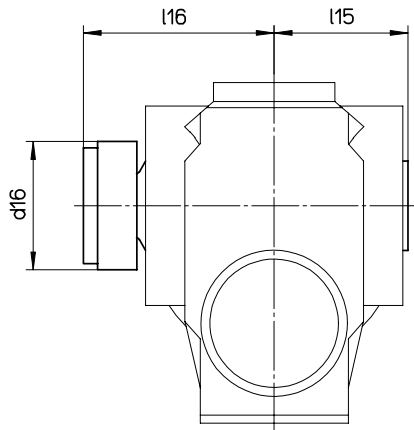
KEB



Gear	d10	m10	m11	m12	b10	t10	s10	l14
S02A S02C	20	40	4	32	6	22.5	M6	85 103
S1	25	50	5	40	8	28	M10	120
S2	30	60	5	50	8	33	M10	143
S2	35	70	7	56	10	38	M12	153
S3	40	80	5	70	12	43	M16	175
S4	50	100	10	80	14	53.5	M16	213

Helical-Worm Gear Units S

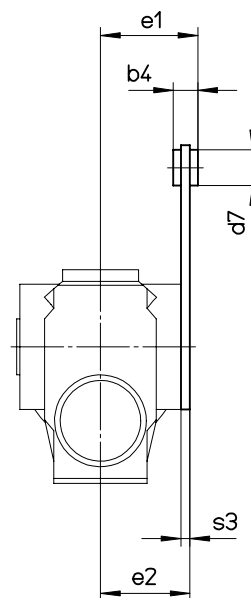
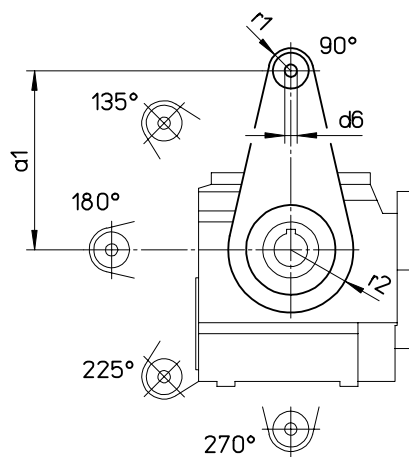
Version with Hollow shaft and Shrink disc



Gear	d14	d15	d16	m14	m15	m16	l15	l16
S1	25	45	60	143	25	27	60	89
S2	30	50	72	176	30	32	75	109
S2	35	50	80	176	30	32	75	109
S3	40	55	90	202	40	42	87.5	122.5
S4	50	70	110	242	50	52	105	145

Helical-Worm Gear Units S

Torque arm T1



Gear	a1	b4	d6	d7	e1	e2	s3	r1	r2
S0	100	15	11	32	52.5	47	4	20	43
S1	130	15	11	32	68.5	64	6	20	49.5
S2	160	22	11	32	87	80	8	20	56
S3	200	22	11	32	99	92	8	20	61
S4	250	32	17	40	121	109	8	28	75

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter	Motor adapter	Motor adapter
					-M IEC	-M NEMA	-M S

S02

189.00	7.4	58	0.10	W1	63 71	56	70
159.35	8.8	58	0.11	W1	63 71	56	70
135.95	10	57	0.12	W1	63 71	56	70
117.00	12	56	0.14	W1	63 71	56	70
101.35	14	55	0.15	W1	63 71	56	70
88.20	16	53	0.16	W1	63 71	56	70
77.00	18	52	0.18	W1	63 71	56	70
69.00	20	69	0.21	W1	63 71	56	70
58.18	24	67	0.24	W1	63 71	56	70
49.63	28	66	0.27	W1	63 71	56	70
42.71	33	64	0.30	W1	63 71	56	70
37.00	38	62	0.34	W1	63 71	56	70
32.20	43	60	0.37	W1	63 71	56	70
28.11	50	58	0.41	W1	63 71	56	70
25.00	56	63	0.44	W1	63 71	56	70
21.08	66	61	0.50	W1	63 71	56	70
17.98	78	59	0.56	W1	63 71	56	70
15.48	90	57	0.63	W1	63 71	56	70
13.41	104	55	0.70	W1	63 71	56	70
12.50	112	67	0.75	W1	63 71	56	70
11.67	120	53	0.75	W1	63 71	56	70
10.54	133	65	0.75	W1	63 71	56	70
10.19	137	51	0.75	W1	63 71	56	70
8.99	156	63	0.75	W1	63 71	56	70
7.74	181	61	0.75	W1	63 71	56	70
6.70	209	59	0.75	W1	63 71	56	70
5.83	240	57	0.75	W1	63 71	56	70
5.09	275	55	0.75	W1	63 71	56	70

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter		Motor adapter	
					-M IEC		-M NEMA	

S12G03

9007.5	0.16	188	<0.05	W1	63 71	56	70
7609.6	0.18	188	<0.05	W1	63 71	56	70
6505.9	0.22	188	<0.05	W1	63 71	56	70
5612.6	0.25	188	<0.05	W1	63 71	56	70
4874.5	0.29	188	<0.05	W1	63 71	56	70
4254.6	0.33	188	<0.05	W1	63 71	56	70
3672.3	0.38	188	<0.05	W1	63 71	56	70
3168.0	0.44	188	<0.05	W1	63 71	56	70
2751.5	0.51	187	<0.05	W1	63 71	56	70
2401.5	0.58	187	<0.05	W1	63 71	56	70

S12G02

2108.1	0.66	187	<0.05	W1	63 71	56	70
1781.0	0.79	187	<0.05	W1	63 71	56	70
1522.7	0.92	186	<0.05	W1	63 71	56	70
1313.6	1.1	186	<0.05	W1	63 71	56	70
1140.8	1.2	186	0.05	W1	63 71	56	70
995.75	1.4	185	0.06	W1	63 71	56	70
872.16	1.6	185	0.07	W1	63 71	56	70
749.62	1.9	184	0.08	W1	63 71	56	70
646.68	2.2	184	0.09	W1	63 71	56	70
561.65	2.5	183	0.10	W1	63 71	56	70
490.22	2.9	182	0.11	W1	63 71	56	70
429.37	3.3	181	0.12	W1	63 71	56	70
375.31	3.7	180	0.14	W1	63 71	56	70
330.65	4.2	179	0.15	W1	63 71	56	70
293.14	4.8	178	0.17	W1	63 71	56	70
261.18	5.4	177	0.18	W1	63 71	56	70
234.46	6.0	176	0.20	W1	63 71	56	70
204.64	6.8	174	0.22	W1	63 71	56	70
179.24	7.8	172	0.25	W1	63 71	56	70

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter	Motor adapter	Motor adapter
					-M IEC	-M NEMA	-M S

S12

168.00	8.3	171	0.26	W1	63 71	56	70
143.53	9.8	168	0.29	W1	63 71	56	70
124.21	11	165	0.32	W1	63 71 80	56 140	70 90
108.57	13	162	0.35	W1	63 71 80	56 140	70 90
95.65	15	160	0.39	W1	63 71 80 90	56 140	70 90 110
84.80	17	157	0.42	W1	63 71 80 90	56 140	70 90 110
75.56	19	153	0.46	W1	63 71 80 90	56 140	70 90 110
67.83	21	150	0.49	W1	63 71 80 90	56 140	70 90 110
60.90	23	166	0.52	W1	63 71	56	70
59.20	24	146	0.54	W1	63 71 80 90	56 140	70 90 110
52.03	27	163	0.59	W1	63 71	56	70
51.85	27	141	0.59	W1	63 71 80 90	56 140	70 90 110
45.03	31	160	0.66	W2	63 71 80	56 140	70 90
39.36	36	156	0.73	W2	63 71 80 90	56 140	70 90 110
34.67	40	153	0.80	W2	63 71 80 90	56 140	70 90 110
30.74	46	150	0.88	W2	63 71 80 90	56 140	70 90 110
27.39	51	146	0.96	W2	63 71 80 90	56 140	70 90 110
24.59	57	143	1.04	W2	63 71 80 90	56 140	70 90 110
22.68	62	152	1.12	W1	63 71	56	70
21.46	65	138	1.14	W2	63 71 80 90	56 140	70 90 110
19.38	72	149	1.27	W1	63 71	56	70
18.80	74	133	1.25	W2	63 71 80 90	56 140	70 90 110
16.77	83	146	1.43	W2	63 71 80	56 140	70 90
14.66	96	142	1.50	W2	63 71 80 90	56 140	70 90 110
12.91	108	139	1.50	W2	63 71 80 90	56 140	70 90 110
11.45	122	136	1.50	W2	63 71 80 90	56 140	70 90 110
10.20	137	132	1.50	W2	63 71 80 90	56 140	70 90 110
9.16	153	129	1.50	W2	63 71 80 90	56 140	70 90 110
7.99	175	124	1.50	W2	63 71 80 90	56 140	70 90 110
7.00	200	120	1.50	W2	63 71 80 90	56 140	70 90 110

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter		Motor adapter	
					-M IEC		-M NEMA	

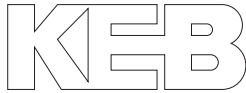
S22G13

13901	0.10	340	<0.05	W1	63 71	56	70
11784	0.12	340	<0.05	W1	63 71	56	70
10114	0.14	340	<0.05	W1	63 71	56	70
8761.0	0.16	340	<0.05	W1	63 71	56	70
7643.7	0.18	340	<0.05	W1	63 71	56	70
6705.1	0.21	340	<0.05	W1	63 71	56	70
5905.6	0.24	340	<0.05	W1	63 71	56	70
5193.0	0.27	340	<0.05	W1	63 71	56	70
4456.7	0.31	340	<0.05	W1	63 71	56	70
3860.7	0.36	339	<0.05	W1	63 71	56	70
3368.3	0.42	339	<0.05	W1	63 71	56	70

S22G12

2998.2	0.47	339	<0.05	W1	63 71	56	70
2561.5	0.55	339	<0.05	W1	63 71	56	70
2216.7	0.63	338	<0.05	W1	63 71	56	70
1937.6	0.72	338	0.05	W1	63 71	56	70
1707.1	0.82	338	0.06	W1	63 71	56	70
1513.4	0.93	337	0.07	W1	63 71	56	70
1348.4	1.0	337	0.07	W1	63 71	56	70
1210.5	1.2	336	0.08	W1	63 71	56	70
1056.5	1.3	335	0.09	W1	63 71	56	70
925.37	1.5	335	0.10	W1	63 71	56	70
850.54	1.6	334	0.11	W1	63 71	56	70
749.33	1.9	333	0.12	W1	63 71	56	70
664.32	2.1	332	0.14	W1	63 71	56	70
591.90	2.4	331	0.15	W1	63 71	56	70
531.34	2.6	330	0.17	W1	63 71	56	70
463.77	3.0	328	0.19	W1	63 71 80	56 140	70 90
406.20	3.4	327	0.21	W1	63 71 80	56 140	70 90
362.38	3.9	325	0.23	W1	63 71 80	56 140	70 90
325.05	4.3	323	0.25	W1	63 71 80	56 140	70 90
295.42	4.7	322	0.27	W1	63 71 80	56 140	70 90
260.46	5.4	320	0.30	W1	63 71 80	56 140	70 90
230.68	6.1	317	0.34	W1	63 71 80	56 140	70 90
206.44	6.8	314	0.37	W1	63 71 80	56 140	70 90
179.67	7.8	311	0.41	W1	63 71 80 90	56 140	70 90 110

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter	Motor adapter	Motor adapter
					-M IEC	-M NEMA	-M S

S22

207.20	6.8	315	0.37	W1	63 71	56	70
177.88	7.9	311	0.41	W1	63 71	56	70
154.74	9.0	306	0.46	W1	63 71 80	56 140	70 90
136.00	10	302	0.50	W1	63 71 80 90	56 140	70 90 110
120.52	12	297	0.54	W1	63 71 80 90	56 140	70 90 110
107.52	13	293	0.59	W2	63 71 80 90	56 140	70 90 110
96.44	15	288	0.64	W2	63 71 80 90	56 140	70 90 110
87.65	16	284	0.69	W2	63 71 80 90	56 140	70 90 110
77.28	18	277	0.75	W2	63 71 80 90 100	56 140 180	70 90 110 140
71.53	20	303	0.81	W1	63 71	56	70
68.44	20	271	0.82	W2	63 71 80 90 100	56 140 180	70 90 110 140
61.41	23	297	0.91	W1	63 71	56	70
61.25	23	265	0.88	W2	80 90 100	140 180	90 110 140
53.42	26	291	1.01	W2	63 71 80	56 140	70 90
53.31	26	256	0.97	W2	80 90 100	140 180	90 110 140
46.95	30	285	1.11	W2	63 71 80 90	56 140	70 90 110
41.61	34	278	1.20	W2	63 71 80 90 100	56 140 180	70 90 110 140
37.12	38	273	1.31	W2	63 71 80 90 100	56 140 180	70 90 110 140
33.30	42	266	1.42	W2	63 71 80 90 100	56 140 180	70 90 110 140
30.26	46	261	1.51	W2	63 71 80 90 100 112	56 140 180	70 90 110 140
26.68	52	252	1.65	W2	63 71 80 90 100 112	56 140 180	70 90 110 140
26.64	53	297	1.85	W1	63 71	56	70
23.63	59	244	1.79	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
22.87	61	291	2.10	W1	63 71	56	70
21.15	66	236	1.93	W3	80 90 100 112	140 180	90 110 140
19.89	70	285	2.34	W2	63 71 80	56 140	70 90
18.40	76	227	2.12	W3	80 90 100 112	140 180	90 110 140
17.49	80	279	2.59	W2	63 71 80 90	56 140	70 90 110
15.50	90	272	2.83	W3	63 71 80 90 100	56 140 180	70 90 110 140
13.82	101	265	3.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
12.40	113	259	3.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
11.27	124	253	3.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
9.94	141	244	3.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
8.80	159	236	3.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
7.88	178	228	3.00	W3	80 90 100 112	140 180	90 110 140
6.85	204	218	3.00	W3	80 90 100 112	140 180	90 110 140

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter		Motor adapter	
					-M IEC		-M NEMA	

S32G13

18745	0.075	663	<0.05	W1	63 71	56	70
15891	0.088	663	<0.05	W1	63 71	56	70
13638	0.10	663	<0.05	W1	63 71	56	70
11814	0.12	663	<0.05	W1	63 71	56	70
10307	0.14	663	<0.05	W1	63 71	56	70
9041.7	0.15	663	<0.05	W1	63 71	56	70
7963.6	0.18	663	<0.05	W1	63 71	56	70
7002.7	0.20	663	<0.05	W1	63 71	56	70
6009.8	0.23	663	<0.05	W1	63 71	56	70
5206.1	0.27	663	<0.05	W1	63 71	56	70
4542.1	0.31	662	<0.05	W1	63 71	56	70

S32G12

4043.0	0.35	662	<0.05	W1	63 71	56	70
3454.1	0.41	661	0.06	W1	63 71	56	70
2989.2	0.47	660	0.07	W1	63 71	56	70
2612.8	0.54	660	0.08	W1	63 71	56	70
2301.9	0.61	659	0.09	W1	63 71	56	70
2040.8	0.69	658	0.10	W1	63 71	56	70
1818.3	0.77	657	0.11	W1	63 71	56	70
1632.3	0.86	656	0.12	W1	63 71	56	70
1424.7	0.98	655	0.13	W1	63 71	56	70
1247.9	1.1	653	0.15	W1	63 71	56	70
1146.9	1.2	652	0.16	W1	63 71	56	70
1010.5	1.4	650	0.18	W1	63 71 80	56 140	70 90
895.82	1.6	648	0.20	W1	63 71 80	56 140	70 90
798.16	1.8	646	0.22	W1	63 71 80	56 140	70 90
716.51	2.0	644	0.25	W1	63 71 80	56 140	70 90
625.38	2.2	641	0.28	W1	63 71 80	56 140	70 90
547.76	2.6	637	0.31	W1	63 71 80	56 140	70 90
492.61	2.8	634	0.33	W1	63 71 80	56 140	70 90
445.64	3.1	631	0.36	W1	63 71 80	56 140	70 90
406.20	3.4	627	0.39	W1	63 71 80 90	56 140	70 90 110
362.38	3.9	623	0.42	W1	63 71 80 90	56 140	70 90 110
325.05	4.3	619	0.47	W1	63 71 80 90	56 140	70 90 110
294.91	4.7	615	0.51	W1	63 71 80 90	56 140	70 90 110
261.33	5.4	609	0.56	W1	63 71 80 90	56 140	70 90 110
230.03	6.1	602	0.62	W2	63 71 80 90	56 140	70 90 110

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter	Motor adapter	Motor adapter
					-M IEC	-M NEMA	-M S

S32

271.60	5.2	611	0.54	W1	63 71	56	70
234.71	6.0	604	0.61	W1	63 71	56	70
205.58	6.8	596	0.68	W2	63 71 80	56 140	70 90
182.00	7.7	587	0.74	W2	63 71 80 90	56 140	70 90 110
162.52	8.6	579	0.80	W2	63 71 80 90 100	56 140 180	70 90 110 140
146.16	9.6	570	0.86	W2	63 71 80 90 100	56 140 180	70 90 110 140
132.22	11	560	0.92	W2	63 71 80 90 100	56 140 180	70 90 110 140
120.52	12	551	0.98	W2	63 71 80 90 100	56 140 180	70 90 110 140
107.52	13	540	1.06	W2	63 71 80 90 100	56 140 180	70 90 110 140
96.44	15	528	1.14	W2	63 71 80 90 100	56 140 180	70 90 110 140
87.50	16	517	1.22	W2	80 90 100	140 180	90 110 140
77.54	18	502	1.32	W2	80 90 100	140 180	90 110 140
68.25	21	486	1.43	W2	80 90 100	140 180	90 110 140
59.77	23	467	1.55	W2	80 90 100 112	140 180	90 110 140
52.50	27	450	1.69	W3	100 112	180	140
52.21	27	636	2.12	W2	63 71 80	56 140	70 90
46.22	30	625	2.33	W2	63 71 80 90	56 140	70 90 110
41.28	34	613	2.54	W3	63 71 80 90 100	56 140 180	70 90 110 140
37.12	38	601	2.75	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
33.58	42	588	2.95	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
30.61	46	576	3.14	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
27.31	51	561	3.42	W3	63 71 80 90 100 112 132	56 140 180 210	70 90 110 140 190
24.49	57	547	3.70	W3	63 71 80 90 100 112 132	56 140 180 210	70 90 110 140 190
22.44	62	532	3.84	W3	63 71 80 90 100	56 140 180	70 90 110 140
22.22	63	533	3.96	W3	80 90 100 112 132	140 180 210	90 110 140 190
20.18	69	523	4.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
19.69	71	513	4.00	W3	80 90 100 112 132	140 180 210	90 110 140 190
18.26	77	517	4.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
17.33	81	494	4.00	W4	80 90 100 112 132	140 180 210	90 110 140 190
16.64	84	525	4.00	W3	63 71 80 90 100 112	56 140 180	70 90 110 140
15.18	92	472	4.00	W4	80 90 100 112 132	140 180 210	90 110 140 190
14.85	94	511	4.00	W4	63 71 80 90 100 112 132	56 140 180 210	70 90 110 140 190
13.33	105	452	4.00	W4	100 112 132	180 210	140 190
13.32	105	497	4.00	W4	63 71 80 90 100 112 132	56 140 180 210	70 90 110 140 190
12.08	116	483	4.00	W4	80 90 100 112 132	140 180 210	90 110 140 190
10.71	131	465	4.00	W4	80 90 100 112 132	140 180 210	90 110 140 190
9.43	149	446	4.00	W4	80 90 100 112 132	140 180 210	90 110 140 190
8.25	170	425	4.00	W4	80 90 100 112 132	140 180 210	90 110 140 190
7.25	193	406	4.00	W4	100 112 132	180 210	140 190

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter		Motor adapter	
					-M IEC		-M NEMA	

S42G23

20360	0.069	1526	<0.05	W1	63 71	56	70
17395	0.080	1526	<0.05	W1	63 71	56	70
15053	0.093	1526	<0.05	W1	63 71	56	70
13158	0.11	1526	<0.05	W1	63 71	56	70
11592	0.12	1526	<0.05	W1	63 71	56	70
10277	0.14	1526	<0.05	W1	63 71	56	70
9221.9	0.15	1526	0.05	W1	63 71	56	70
8060.8	0.17	1526	0.06	W1	63 71	56	70
7101.6	0.20	1526	0.07	W1	63 71	56	70
6295.9	0.22	1526	0.08	W1	63 71	56	70
5512.1	0.25	1525	0.09	W1	63 71	56	70
4856.2	0.29	1524	0.10	W1	63 71	56	70
4305.3	0.33	1523	0.11	W1	63 71	56	70

S42G22

3878.1	0.36	1522	0.12	W1	63 71	56	70
3329.4	0.42	1519	0.14	W1	63 71	56	70
2896.2	0.48	1517	0.16	W1	63 71	56	70
2545.5	0.55	1515	0.18	W1	63 71	56	70
2255.8	0.62	1512	0.20	W1	63 71 80	56 140	70 90
2012.4	0.70	1510	0.22	W1	63 71 80	56 140	70 90
1805.1	0.78	1507	0.24	W1	63 71 80	56 140	70 90
1640.6	0.85	1504	0.27	W1	63 71 80	56 140	70 90
1446.4	0.97	1500	0.30	W1	63 71 80	56 140	70 90
1281.1	1.1	1495	0.33	W1	63 71 80	56 140	70 90
1156.1	1.2	1491	0.37	W1	63 71 80	56 140	70 90
1064.2	1.3	1488	0.39	W1	63 71 80 90	56 140	70 90 110
934.35	1.5	1481	0.44	W1	63 71 80 90	56 140	70 90 110
838.10	1.7	1475	0.48	W1	63 71 80 90	56 140	70 90 110
761.70	1.8	1469	0.52	W1	63 71 80 90	56 140	70 90 110
671.56	2.1	1460	0.58	W1	63 71 80 90	56 140	70 90 110
594.78	2.4	1450	0.64	W2	63 71 80 90	56 140	70 90 110
536.78	2.6	1441	0.69	W2	63 71 80 90	56 140	70 90 110
494.08	2.8	1433	0.73	W2	63 71 80 90	56 140	70 90 110
441.60	3.2	1421	0.79	W2	63 71 80 90 100	56 140 180	70 90 110 140
392.13	3.6	1407	0.86	W2	63 71 80 90 100	56 140 180	70 90 110 140
384.81	3.6	1405	0.88	W2	80 90 100	140 180	90 110 140
347.49	4.0	1394	0.96	W2	63 71 80 90 100	56 140 180	70 90 110 140
343.94	4.1	1393	0.96	W2	80 90 100	140 180	90 110 140
309.22	4.5	1381	1.05	W2	63 71 80 90 100	56 140 180	70 90 110 140
305.41	4.6	1379	1.06	W2	80 90 100	140 180	90 110 140
270.64	5.2	1363	1.17	W2	80 90 100	140 180	90 110 140
264.91	5.3	1360	1.19	W2	63 71 80 90 100	56 140 180	70 90 110 140
240.84	5.8	1345	1.29	W2	80 90 100	140 180	90 110 140

Helical-Worm Gear Units S



i	n2 [1/min] n1=1400	T2max [Nm] n1=1400	P1max [kW] n1=1400	-W	Motor adapter			Motor adapter			Motor adapter		
					-M IEC			-M NEMA			-M S		

S42

247.58	5.7	1350	1.26	W2	63	71	80		56	140		70	90									
220.00	6.4	1330	1.38	W2	63	71	80	90	56	140		70	90	110								
197.22	7.1	1310	1.49	W2	63	71	80	90	100	56	140	180	70	90	110	140						
178.08	7.9	1289	1.60	W2	63	71	80	90	100	112	56	140	180	70	90	110	140					
161.78	8.7	1267	1.71	W2	63	71	80	90	100	112	56	140	180	70	90	110	140					
147.91	9.5	1245	1.81	W3	63	71	80	90	100	112	56	140	180	70	90	110	140					
132.72	11	1215	1.93	W3	63	71	80	90	100	112	56	140	180	70	90	110	140					
119.78	12	1184	2.05	W3	63	71	80	90	100	112	56	140	180	70	90	110	140					
110.25	13	1162	2.16	W3			80	90	100	112		140	180		90	110	140					
98.54	14	1130	2.33	W3			80	90	100	112		140	180		90	110	140					
87.50	16	1093	2.51	W3			80	90	100	112		140	180		90	110	140					
77.54	18	1052	2.68	W3			80	90	100	112		140	180		90	110	140					
69.00	20	1000	2.84	W3					100	112		180					140					
59.37	24	1260	3.59	W2	63	71	80	90			56	140		70	90	110						
59.11	24	920	3.00	W4					132			210					190					
53.22	26	1385	4.38	W3	63	71	80	90	100		56	140	180	70	90	110	140					
52.14	27	917	3.37	W4					132			210					190					
48.05	29	1361	4.74	W3	63	71	80	90	100	112	56	140	180	70	90	110	140					
43.65	32	1320	5.0	W3	63	71	80	90	100	112	56	140	180	70	90	110	140					
39.91	35	1250	5.2	W3	63	71	80	90	100	112	56	140	180	70	90	110	140					
35.81	39	1250	5.7	W4	63	71	80	90	100	112	132	56	140	180	210	70	90	110	140	190		
32.48	43	872	4.32	W2	63	71	80	90			56	140		70	90	110						
32.32	43	1200	6.1	W4	63	71	80	90	100	112	132	56	140	180	210	70	90	110	140	190		
29.75	47	1140	6.2	W4			80	90	100	112	132		140	180	210		90	110	140	190		
29.11	48	866	4.78	W3	63	71	80	90	100		56	140	180	70	90	110	140					
26.59	53	1140	7.0	W4			80	90	100	112	132		140	180	210		90	110	140	190		
26.29	53	857	5.2	W3	63	71	80	90	100	112		56	140	180	70	90	110	140				
23.88	59	849	5.7	W3	63	71	80	90	100	112		56	140	180	70	90	110	140				
23.61	59	1080	7.4	W4			80	90	100	112	132		140	180	210		90	110	140	190		
21.83	64	1006	7.3	W3	63	71	80	90	100	112		56	140	180	70	90	110	140				
20.92	67	1010	7.5	W4			80	90	100	112	132		140	180	210		90	110	140	190		
19.59	71	997	7.5	W4	63	71	80	90	100	112	132	56	140	180	210	70	90	110	140	190		
18.62	75	950	7.5	W4			100	112	132				180	210						140	190	
17.68	79	984	7.5	W4	63	71	80	90	100	112	132	56	140	180	210	70	90	110	140	190		
16.28	86	1054	7.5	W4			80	90	100	112	132		140	180	210		90	110	140	190		
15.95	88	885	7.5	W4					132				210								190	
14.55	96	1000	7.5	W4			80	90	100	112	132		140	180	210		90	110	140	190		
14.07	100	820	7.5	W4					132				210								190	
12.92	108	940	7.5	W4			80	90	100	112	132		140	180	210		90	110	140	190		
11.45	122	885	7.5	W4			80	90	100	112	132		140	180	210		90	110	140	190		
10.19	137	835	7.5	W4					100	112	132		180	210							140	190
8.73	160	775	7.5	W4						132			210									190
7.70	182	725	7.5	W4						132			210									190

Helical-Worm Gear Units S



S02

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
189.00	1/63	18	52	0.18	0.55	15	54	0.16	0.53	9.0	57	0.11	0.49	7.4	58	0.10	0.47
159.35	1/63	21	50	0.20	0.57	18	52	0.17	0.55	11	57	0.13	0.50	8.8	58	0.11	0.49
135.95	1/63	25	48	0.22	0.58	21	51	0.19	0.56	13	56	0.14	0.51	10	57	0.12	0.50
117.00	1/63	29	46	0.24	0.59	24	49	0.21	0.58	15	54	0.16	0.53	12	56	0.14	0.51
101.35	1/63	34	44	0.26	0.60	28	47	0.23	0.59	17	53	0.17	0.54	14	55	0.15	0.52
88.20	1/63	39	42	0.28	0.61	32	45	0.25	0.60	19	51	0.19	0.56	16	53	0.16	0.54
77.00	1/63	44	40	0.30	0.62	36	43	0.27	0.61	22	50	0.20	0.57	18	52	0.18	0.55
69.00	1/23	49	58	0.40	0.75	41	61	0.35	0.73	25	67	0.25	0.70	20	69	0.21	0.68
58.18	1/23	58	56	0.45	0.76	48	59	0.40	0.75	29	65	0.28	0.71	24	67	0.24	0.70
49.63	1/23	69	53	0.49	0.77	56	56	0.44	0.76	34	63	0.31	0.72	28	66	0.27	0.71
42.71	1/23	80	51	0.54	0.78	66	54	0.48	0.77	40	61	0.35	0.73	33	64	0.30	0.72
37.00	1/23	92	48	0.58	0.79	76	52	0.52	0.78	46	59	0.38	0.74	38	62	0.34	0.73
32.20	1/23	106	46	0.63	0.79	87	49	0.56	0.79	53	57	0.42	0.75	43	60	0.37	0.74
28.11	1/23	121	43	0.68	0.80	100	47	0.61	0.79	60	55	0.46	0.76	50	58	0.41	0.75
25.00	3/25	136	51	0.75	0.87	112	54	0.73	0.87	68	61	0.51	0.85	56	63	0.44	0.83
21.08	3/25	161	49	0.75	0.88	133	52	0.75	0.87	81	59	0.58	0.85	66	61	0.50	0.84
17.98	3/25	189	46	0.75	0.88	156	49	0.75	0.88	95	56	0.65	0.86	78	59	0.56	0.85
15.48	3/25	220	44	0.75	0.89	181	47	0.75	0.88	110	54	0.72	0.87	90	57	0.63	0.86
13.41	3/25	254	41	0.75	0.89	209	45	0.75	0.88	127	52	0.75	0.87	104	55	0.70	0.86
12.50	6/25	272	55	0.75	0.92	224	58	0.75	0.92	136	65	0.75	0.91	112	67	0.75	0.90
11.67	3/25	291	39	0.75	0.89	240	42	0.75	0.89	146	50	0.75	0.87	120	53	0.75	0.87
10.54	6/25	323	52	0.75	0.93	266	56	0.75	0.92	161	63	0.75	0.91	133	65	0.75	0.90
10.19	3/25	334	37	0.75	0.90	275	40	0.75	0.89	167	48	0.75	0.88	137	51	0.75	0.87
8.99	6/25	378	49	0.75	0.93	311	53	0.75	0.93	189	60	0.75	0.92	156	63	0.75	0.91
7.74	6/25	439	47	0.75	0.94	362	50	0.75	0.93	220	58	0.75	0.92	181	61	0.75	0.92
6.70	6/25	507	44	0.75	0.94	418	48	0.75	0.93	254	56	0.75	0.92	209	59	0.75	0.92
5.83	6/25	583	42	0.75	0.94	480	45	0.75	0.94	291	54	0.75	0.92	240	57	0.75	0.92
5.09	6/25	668	39	0.75	0.94	550	43	0.75	0.94	334	52	0.75	0.93	275	55	0.75	0.92

Helical-Worm Gear Units S



S02

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
189.00	1/63	4.8	61	0.07	0.43	3.7	62	0.06	0.41	2.6	63	<0.05	0.39	0.053	65	<0.05	0.32
159.35	1/63	5.6	60	0.08	0.44	4.4	61	0.07	0.42	3.1	62	0.05	0.40	0.063	65	<0.05	0.32
135.95	1/63	6.6	59	0.09	0.46	5.1	61	0.08	0.43	3.7	62	0.06	0.41	0.074	65	<0.05	0.32
117.00	1/63	7.7	58	0.10	0.48	6.0	60	0.08	0.45	4.3	61	0.07	0.42	0.085	65	<0.05	0.32
101.35	1/63	8.9	58	0.11	0.49	6.9	59	0.09	0.46	4.9	61	0.07	0.43	0.099	65	<0.05	0.32
88.20	1/63	10	57	0.12	0.50	7.9	58	0.10	0.48	5.7	60	0.08	0.44	0.11	65	<0.05	0.32
77.00	1/63	12	56	0.14	0.51	9.1	57	0.11	0.49	6.5	59	0.09	0.46	0.13	65	<0.05	0.32
69.00	1/23	13	72	0.15	0.64	10	73	0.13	0.62	7.2	75	0.09	0.60	0.14	78	<0.05	0.51
58.18	1/23	15	71	0.18	0.65	12	72	0.14	0.63	8.6	74	0.11	0.61	0.17	78	<0.05	0.51
49.63	1/23	18	70	0.20	0.67	14	72	0.16	0.64	10	73	0.12	0.62	0.20	78	<0.05	0.51
42.71	1/23	21	68	0.22	0.69	16	70	0.18	0.66	12	73	0.14	0.63	0.23	78	<0.05	0.51
37.00	1/23	24	67	0.24	0.70	19	69	0.20	0.67	14	72	0.16	0.64	0.27	78	<0.05	0.51
32.20	1/23	28	66	0.27	0.71	22	68	0.22	0.69	16	71	0.18	0.65	0.31	78	<0.05	0.51
28.11	1/23	32	64	0.30	0.72	25	67	0.25	0.70	18	70	0.20	0.67	0.36	78	<0.05	0.51
25.00	3/25	36	66	0.31	0.80	28	67	0.25	0.79	20	69	0.19	0.77	0.40	72	<0.05	0.69
21.08	3/25	43	65	0.36	0.81	33	66	0.29	0.80	24	68	0.22	0.78	0.47	72	<0.05	0.69
17.98	3/25	50	64	0.41	0.82	39	66	0.33	0.80	28	67	0.25	0.79	0.56	72	<0.05	0.69
15.48	3/25	58	62	0.45	0.84	45	64	0.37	0.82	32	67	0.28	0.79	0.65	72	<0.05	0.69
13.41	3/25	67	61	0.51	0.84	52	63	0.42	0.83	37	66	0.32	0.80	0.75	72	<0.05	0.69
12.50	6/25	72	71	0.61	0.88	56	72	0.49	0.87	40	74	0.36	0.86	0.80	77	<0.05	0.80
11.67	3/25	77	59	0.56	0.85	60	62	0.46	0.84	43	65	0.36	0.81	0.86	72	<0.05	0.69
10.54	6/25	85	69	0.70	0.88	66	71	0.57	0.87	47	73	0.42	0.87	0.95	77	<0.05	0.80
10.19	3/25	88	57	0.62	0.86	69	61	0.52	0.85	49	64	0.40	0.82	0.98	72	<0.05	0.69
8.99	6/25	100	68	0.75	0.89	78	70	0.65	0.88	56	72	0.48	0.87	1.1	77	<0.05	0.80
7.74	6/25	116	66	0.75	0.90	90	69	0.74	0.89	65	71	0.55	0.87	1.3	77	<0.05	0.80
6.70	6/25	134	65	0.75	0.90	104	67	0.75	0.89	75	70	0.63	0.88	1.5	77	<0.05	0.80
5.83	6/25	154	63	0.75	0.91	120	66	0.75	0.90	86	69	0.70	0.88	1.7	77	<0.05	0.80
5.09	6/25	177	61	0.75	0.92	137	65	0.75	0.91	98	68	0.75	0.89	2.0	77	<0.05	0.80

Helical-Worm Gear Units S



S12

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
168.00	1/40	20	151	0.49	0.66	17	156	0.43	0.64	10	168	0.30	0.59	8.3	171	0.26	0.57
143.53	1/40	24	146	0.54	0.67	20	152	0.47	0.65	12	164	0.33	0.61	9.8	168	0.29	0.59
124.21	1/40	27	141	0.59	0.68	23	148	0.52	0.67	14	161	0.37	0.63	11	165	0.32	0.61
108.57	1/40	31	136	0.65	0.69	26	143	0.57	0.68	16	158	0.41	0.64	13	162	0.35	0.62
95.65	1/40	36	131	0.70	0.70	29	139	0.62	0.69	18	155	0.45	0.65	15	160	0.39	0.63
84.80	1/40	40	126	0.75	0.70	33	134	0.67	0.69	20	151	0.48	0.66	17	157	0.42	0.64
75.56	1/40	45	121	0.80	0.71	37	129	0.71	0.70	23	148	0.52	0.67	19	153	0.46	0.65
67.83	1/40	50	116	0.84	0.72	41	124	0.76	0.71	25	144	0.56	0.68	21	150	0.49	0.66
60.90	2/29	56	144	1.0	0.82	46	150	0.89	0.81	28	162	0.61	0.78	23	166	0.52	0.76
59.20	1/40	57	110	0.91	0.73	47	119	0.82	0.72	29	139	0.61	0.69	24	146	0.54	0.67
52.03	2/29	65	138	1.1	0.83	54	145	0.99	0.82	33	158	0.68	0.79	27	163	0.59	0.77
51.85	1/40	66	104	0.98	0.73	54	113	0.88	0.72	33	134	0.66	0.69	27	141	0.59	0.68
45.03	2/29	76	133	1.3	0.83	62	140	1.1	0.83	38	155	0.76	0.80	31	160	0.66	0.79
39.36	2/29	86	128	1.4	0.84	71	135	1.2	0.83	43	151	0.85	0.81	36	156	0.73	0.80
34.67	2/29	98	123	1.5	0.85	81	131	1.3	0.84	49	148	0.93	0.82	40	153	0.80	0.81
30.74	2/29	111	117	1.5	0.85	91	126	1.4	0.84	55	144	1.0	0.82	46	150	0.88	0.81
27.39	2/29	124	112	1.5	0.86	102	121	1.5	0.85	62	140	1.1	0.83	51	146	0.96	0.82
24.59	2/29	138	107	1.5	0.86	114	116	1.5	0.85	69	136	1.2	0.83	57	143	1.0	0.82
22.68	5/27	150	130	1.5	0.91	123	136	1.5	0.91	75	148	1.3	0.89	62	152	1.1	0.88
21.46	2/29	158	101	1.5	0.86	130	110	1.5	0.86	79	131	1.3	0.84	65	138	1.1	0.83
19.38	5/27	175	124	1.5	0.92	145	131	1.5	0.91	88	144	1.5	0.90	72	149	1.3	0.88
18.80	2/29	181	95	1.5	0.87	149	104	1.5	0.86	90	126	1.4	0.84	74	133	1.2	0.83
16.77	5/27	203	119	1.5	0.92	167	126	1.5	0.92	101	141	1.5	0.90	83	146	1.4	0.89
14.66	5/27	232	114	1.5	0.93	191	121	1.5	0.92	116	137	1.5	0.91	96	142	1.5	0.90
12.91	5/27	263	109	1.5	0.93	217	117	1.5	0.92	132	134	1.5	0.91	108	139	1.5	0.90
11.45	5/27	297	105	1.5	0.93	245	112	1.5	0.93	148	130	1.5	0.91	122	136	1.5	0.91
10.20	5/27	333	100	1.5	0.93	275	108	1.5	0.93	167	126	1.5	0.92	137	132	1.5	0.91
9.16	5/27	371	95	1.5	0.93	306	103	1.5	0.93	186	122	1.5	0.92	153	129	1.5	0.91
7.99	5/27	425	90	1.5	0.93	350	98	1.5	0.93	213	118	1.5	0.92	175	124	1.5	0.92
7.00	5/27	486	84	1.5	0.94	400	92	1.5	0.93	243	113	1.5	0.93	200	120	1.5	0.92

Helical-Worm Gear Units S



S12

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
168.00	1/40	5.4	177	0.18	0.54	4.2	179	0.15	0.52	3.0	182	0.11	0.50	0.060	188	<0.05	0.42
143.53	1/40	6.3	175	0.21	0.55	4.9	178	0.17	0.53	3.5	181	0.13	0.51	0.070	188	<0.05	0.42
124.21	1/40	7.2	173	0.23	0.56	5.6	176	0.19	0.54	4.0	179	0.14	0.52	0.081	188	<0.05	0.42
108.57	1/40	8.3	171	0.26	0.57	6.4	175	0.21	0.55	4.6	178	0.16	0.53	0.092	188	<0.05	0.42
95.65	1/40	9.4	169	0.28	0.58	7.3	173	0.24	0.56	5.2	177	0.18	0.54	0.10	188	<0.05	0.42
84.80	1/40	11	167	0.31	0.60	8.3	171	0.26	0.57	5.9	176	0.20	0.54	0.12	188	<0.05	0.42
75.56	1/40	12	164	0.33	0.61	9.3	169	0.28	0.58	6.6	174	0.22	0.55	0.13	188	<0.05	0.42
67.83	1/40	13	162	0.36	0.62	10	167	0.30	0.60	7.4	173	0.24	0.56	0.15	188	<0.05	0.42
60.90	2/29	15	173	0.36	0.73	11	175	0.29	0.72	8.2	178	0.22	0.70	0.16	185	<0.05	0.63
59.20	1/40	15	159	0.40	0.63	12	164	0.33	0.61	8.4	171	0.26	0.57	0.17	188	<0.05	0.42
52.03	2/29	17	171	0.42	0.74	13	174	0.33	0.73	9.6	177	0.25	0.71	0.19	185	<0.05	0.63
51.85	1/40	17	155	0.44	0.64	14	161	0.37	0.62	9.6	169	0.29	0.59	0.19	188	<0.05	0.42
45.03	2/29	20	168	0.47	0.75	16	172	0.38	0.74	11	175	0.28	0.72	0.22	185	<0.05	0.63
39.36	2/29	23	166	0.52	0.76	18	170	0.43	0.74	13	174	0.32	0.73	0.25	185	<0.05	0.63
34.67	2/29	26	164	0.58	0.77	20	168	0.47	0.75	14	173	0.36	0.73	0.29	185	<0.05	0.63
30.74	2/29	29	161	0.63	0.78	23	166	0.52	0.76	16	171	0.39	0.74	0.33	185	<0.05	0.63
27.39	2/29	33	158	0.69	0.79	26	164	0.57	0.77	18	170	0.43	0.75	0.37	185	<0.05	0.63
24.59	2/29	37	156	0.74	0.80	28	162	0.62	0.78	20	168	0.48	0.75	0.41	185	<0.05	0.63
22.68	5/27	40	159	0.77	0.86	31	161	0.61	0.85	22	164	0.45	0.84	0.44	171	<0.05	0.79
21.46	2/29	42	152	0.83	0.81	33	158	0.68	0.79	23	166	0.53	0.76	0.47	185	<0.05	0.63
19.38	5/27	46	157	0.88	0.86	36	160	0.70	0.86	26	163	0.52	0.85	0.52	171	<0.05	0.79
18.80	2/29	48	148	0.91	0.82	37	155	0.75	0.80	27	163	0.59	0.77	0.53	185	<0.05	0.63
16.77	5/27	54	154	1.00	0.87	42	158	0.80	0.86	30	161	0.59	0.85	0.60	171	<0.05	0.79
14.66	5/27	61	152	1.1	0.88	48	156	0.90	0.87	34	160	0.67	0.85	0.68	171	<0.05	0.79
12.91	5/27	70	150	1.2	0.88	54	154	1.0	0.87	39	159	0.75	0.86	0.77	171	<0.05	0.79
11.45	5/27	79	147	1.4	0.89	61	152	1.1	0.88	44	157	0.83	0.86	0.87	171	<0.05	0.79
10.20	5/27	88	144	1.5	0.90	69	150	1.2	0.88	49	156	0.92	0.87	0.98	171	<0.05	0.79
9.16	5/27	98	142	1.5	0.90	76	148	1.3	0.89	55	154	1.0	0.87	1.1	171	<0.05	0.79
7.99	5/27	113	138	1.5	0.90	88	144	1.5	0.90	63	152	1.1	0.88	1.3	171	<0.05	0.79
7.00	5/27	129	134	1.5	0.91	100	141	1.5	0.90	71	149	1.3	0.88	1.4	171	<0.05	0.79

Helical-Worm Gear Units S



S22

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
207.20	1/42	16	282	0.70	0.69	14	291	0.61	0.68	8.2	309	0.42	0.63	6.8	315	0.37	0.61
177.88	1/42	19	275	0.78	0.70	16	284	0.68	0.69	9.6	304	0.47	0.64	7.9	311	0.41	0.62
154.74	1/42	22	267	0.86	0.71	18	277	0.75	0.70	11	299	0.52	0.66	9.0	306	0.46	0.64
136.00	1/42	25	259	0.94	0.72	21	271	0.82	0.71	13	294	0.57	0.67	10	302	0.50	0.65
120.52	1/42	28	252	1.0	0.73	23	264	0.89	0.72	14	289	0.63	0.68	12	297	0.54	0.67
107.52	1/42	32	244	1.1	0.74	26	257	0.96	0.73	16	284	0.68	0.69	13	293	0.59	0.68
96.44	1/42	35	235	1.2	0.75	29	250	1.0	0.73	18	279	0.74	0.70	15	288	0.64	0.68
87.65	1/42	39	228	1.2	0.75	32	243	1.1	0.74	19	274	0.79	0.71	16	284	0.69	0.69
77.28	1/42	44	219	1.3	0.76	36	233	1.2	0.75	22	267	0.86	0.71	18	277	0.75	0.70
71.53	2/29	48	259	1.5	0.84	39	271	1.3	0.83	24	296	0.94	0.78	20	303	0.81	0.77
68.44	1/42	50	209	1.4	0.76	41	224	1.3	0.75	25	260	0.93	0.72	20	271	0.82	0.71
61.41	2/29	55	249	1.7	0.84	46	262	1.5	0.83	28	289	1.0	0.80	23	297	0.91	0.78
61.25	1/42	56	201	1.5	0.77	46	216	1.4	0.76	28	253	1.0	0.73	23	265	0.88	0.72
53.42	2/29	64	239	1.9	0.85	52	252	1.6	0.84	32	282	1.2	0.81	26	291	1.0	0.79
53.31	1/42	64	190	1.6	0.77	53	205	1.5	0.76	32	243	1.1	0.74	26	256	0.97	0.73
46.95	2/29	72	230	2.0	0.85	60	244	1.8	0.84	36	275	1.3	0.82	30	285	1.1	0.80
41.61	2/29	82	222	2.2	0.85	67	235	1.9	0.85	41	268	1.4	0.83	34	278	1.2	0.82
37.12	2/29	92	213	2.4	0.86	75	227	2.1	0.85	46	261	1.5	0.83	38	273	1.3	0.82
33.30	2/29	102	203	2.5	0.86	84	219	2.3	0.85	51	254	1.6	0.84	42	266	1.4	0.83
30.26	2/29	112	196	2.7	0.86	93	212	2.4	0.86	56	248	1.7	0.84	46	261	1.5	0.83
26.68	2/29	127	185	2.8	0.87	105	201	2.6	0.86	64	239	1.9	0.85	52	252	1.6	0.84
26.64	5/27	128	251	3.0	0.92	105	263	3.0	0.91	64	290	2.2	0.89	53	297	1.8	0.89
23.63	2/29	144	174	3.0	0.87	118	191	2.7	0.86	72	230	2.0	0.85	59	244	1.8	0.84
22.87	5/27	149	241	3.0	0.92	122	254	3.0	0.92	74	282	2.4	0.90	61	291	2.1	0.89
21.15	2/29	161	166	3.0	0.87	132	181	2.9	0.87	80	223	2.2	0.85	66	236	1.9	0.85
19.89	5/27	171	231	3.0	0.93	141	244	3.0	0.92	85	275	2.7	0.91	70	285	2.3	0.90
18.40	2/29	185	154	3.0	0.88	152	170	3.0	0.87	92	212	2.4	0.86	76	227	2.1	0.85
17.49	5/27	194	222	3.0	0.93	160	236	3.0	0.92	97	268	3.0	0.91	80	279	2.6	0.90
15.50	5/27	219	213	3.0	0.93	181	227	3.0	0.93	110	261	3.0	0.91	90	272	2.8	0.91
13.82	5/27	246	204	3.0	0.94	203	219	3.0	0.93	123	254	3.0	0.92	101	265	3.0	0.91
12.40	5/27	274	194	3.0	0.94	226	211	3.0	0.93	137	246	3.0	0.92	113	259	3.0	0.91
11.27	5/27	302	187	3.0	0.94	248	203	3.0	0.94	151	240	3.0	0.92	124	253	3.0	0.92
9.94	5/27	342	176	3.0	0.94	282	192	3.0	0.94	171	231	3.0	0.93	141	244	3.0	0.92
8.80	5/27	386	166	3.0	0.94	318	183	3.0	0.94	193	222	3.0	0.93	159	236	3.0	0.92
7.88	5/27	432	158	3.0	0.94	356	173	3.0	0.94	216	214	3.0	0.93	178	228	3.0	0.93
6.85	5/27	496	146	3.0	0.94	409	162	3.0	0.94	248	203	3.0	0.94	204	218	3.0	0.93

Helical-Worm Gear Units S



S22

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
207.20	1/42	4.3	323	0.25	0.58	3.4	327	0.20	0.56	2.4	331	0.16	0.54	0.048	340	<0.05	0.48
177.88	1/42	5.1	321	0.29	0.59	3.9	325	0.23	0.57	2.8	329	0.18	0.55	0.056	340	<0.05	0.48
154.74	1/42	5.8	318	0.32	0.60	4.5	323	0.26	0.58	3.2	327	0.20	0.56	0.065	340	<0.05	0.48
136.00	1/42	6.6	315	0.36	0.61	5.1	320	0.29	0.59	3.7	326	0.22	0.57	0.074	340	<0.05	0.48
120.52	1/42	7.5	312	0.40	0.62	5.8	318	0.32	0.60	4.1	324	0.24	0.58	0.083	340	<0.05	0.48
107.52	1/42	8.4	309	0.43	0.63	6.5	315	0.36	0.61	4.7	322	0.27	0.58	0.093	340	<0.05	0.48
96.44	1/42	9.3	305	0.47	0.64	7.3	313	0.39	0.61	5.2	320	0.29	0.59	0.10	340	<0.05	0.48
87.65	1/42	10	302	0.50	0.65	8.0	310	0.42	0.62	5.7	318	0.32	0.60	0.11	340	<0.05	0.48
77.28	1/42	12	297	0.54	0.67	9.1	306	0.46	0.64	6.5	316	0.35	0.60	0.13	340	<0.05	0.48
71.53	2/29	13	315	0.56	0.75	9.8	320	0.45	0.73	7.0	326	0.34	0.71	0.14	339	<0.05	0.64
68.44	1/42	13	292	0.59	0.68	10	302	0.50	0.65	7.3	313	0.39	0.61	0.15	340	<0.05	0.48
61.41	2/29	15	312	0.63	0.75	11	317	0.51	0.74	8.1	324	0.38	0.72	0.16	339	<0.05	0.64
61.25	1/42	15	288	0.65	0.68	11	298	0.54	0.66	8.2	309	0.42	0.63	0.16	340	<0.05	0.48
53.42	2/29	17	308	0.71	0.76	13	314	0.58	0.75	9.4	321	0.43	0.73	0.19	339	<0.05	0.64
53.31	1/42	17	281	0.71	0.70	13	292	0.59	0.68	9.4	305	0.47	0.64	0.19	340	<0.05	0.48
46.95	2/29	19	304	0.79	0.77	15	311	0.64	0.76	11	318	0.48	0.74	0.21	339	<0.05	0.64
41.61	2/29	22	299	0.87	0.78	17	308	0.71	0.76	12	316	0.53	0.75	0.24	339	<0.05	0.64
37.12	2/29	24	295	0.95	0.79	19	304	0.78	0.77	13	314	0.59	0.75	0.27	339	<0.05	0.64
33.30	2/29	27	290	1.0	0.80	21	300	0.85	0.78	15	311	0.65	0.76	0.30	339	<0.05	0.64
30.26	2/29	30	285	1.1	0.80	23	297	0.92	0.78	17	308	0.70	0.76	0.33	339	<0.05	0.64
26.68	2/29	34	278	1.2	0.82	26	291	1.0	0.79	19	304	0.78	0.77	0.37	339	<0.05	0.64
26.64	5/27	34	310	1.3	0.87	26	314	1.00	0.87	19	306	0.71	0.84	0.38	287	<0.05	0.79
23.63	2/29	38	272	1.3	0.82	30	285	1.1	0.80	21	300	0.86	0.78	0.42	339	<0.05	0.64
22.87	5/27	39	306	1.4	0.88	31	307	1.1	0.87	22	300	0.81	0.85	0.44	278	<0.05	0.79
21.15	2/29	43	266	1.4	0.83	33	279	1.2	0.82	24	296	0.93	0.78	0.47	339	<0.05	0.64
19.89	5/27	45	302	1.6	0.88	35	304	1.3	0.87	25	300	0.92	0.86	0.50	275	<0.05	0.79
18.40	2/29	49	257	1.6	0.84	38	272	1.3	0.82	27	290	1.0	0.80	0.54	339	<0.05	0.64
17.49	5/27	51	298	1.8	0.88	40	298	1.4	0.88	29	296	1.0	0.87	0.57	269	<0.05	0.79
15.50	5/27	58	293	2.0	0.89	45	296	1.6	0.88	32	293	1.1	0.87	0.65	265	<0.05	0.79
13.82	5/27	65	289	2.2	0.89	51	290	1.7	0.88	36	287	1.2	0.88	0.72	259	<0.05	0.79
12.40	5/27	73	284	2.4	0.90	56	286	1.9	0.89	40	283	1.4	0.88	0.81	254	<0.05	0.79
11.27	5/27	80	279	2.6	0.90	62	291	2.1	0.89	44	303	1.6	0.88	0.89	314	<0.05	0.79
9.94	5/27	91	271	2.8	0.91	70	285	2.3	0.90	50	299	1.8	0.88	1.0	301	<0.05	0.79
8.80	5/27	102	265	3.0	0.91	80	279	2.6	0.90	57	294	2.0	0.89	1.1	290	<0.05	0.79
7.88	5/27	114	258	3.0	0.91	89	273	2.8	0.91	63	290	2.2	0.89	1.3	336	0.06	0.79
6.85	5/27	131	249	3.0	0.92	102	265	3.0	0.91	73	283	2.4	0.90	1.5	319	0.06	0.79

Helical-Worm Gear Units S



S32

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
271.60	1/42	13	543	1.0	0.69	10	563	0.91	0.67	6.3	601	0.63	0.62	5.2	611	0.54	0.61
234.71	1/42	14	528	1.1	0.70	12	548	0.99	0.69	7.2	592	0.71	0.63	6.0	604	0.61	0.62
205.58	1/42	17	513	1.2	0.71	14	535	1.1	0.70	8.3	582	0.78	0.65	6.8	596	0.68	0.63
182.00	1/42	19	498	1.3	0.72	15	522	1.2	0.71	9.3	572	0.85	0.66	7.7	587	0.74	0.64
162.52	1/42	21	483	1.5	0.73	17	508	1.3	0.72	10	562	0.91	0.67	8.6	579	0.80	0.65
146.16	1/42	23	468	1.5	0.74	19	495	1.4	0.72	12	551	0.98	0.69	9.6	570	0.86	0.66
132.22	1/42	26	455	1.6	0.74	21	482	1.5	0.73	13	541	1.0	0.69	11	560	0.92	0.67
120.52	1/42	28	442	1.7	0.75	23	469	1.5	0.74	14	531	1.1	0.70	12	551	0.98	0.69
107.52	1/42	32	425	1.9	0.75	26	454	1.7	0.74	16	518	1.2	0.71	13	540	1.1	0.70
96.44	1/42	35	406	2.0	0.76	29	438	1.8	0.75	18	505	1.3	0.72	15	528	1.1	0.70
87.50	1/42	39	392	2.1	0.77	32	423	1.9	0.75	19	493	1.4	0.73	16	517	1.2	0.71
77.54	1/42	44	373	2.2	0.77	36	402	2.0	0.76	22	477	1.5	0.73	18	502	1.3	0.72
68.25	1/42	50	352	2.3	0.78	41	383	2.1	0.77	25	459	1.6	0.74	21	486	1.4	0.73
59.77	1/42	57	332	2.5	0.78	47	361	2.3	0.78	28	441	1.8	0.75	23	467	1.6	0.74
52.50	1/42	65	309	2.7	0.79	53	342	2.4	0.78	32	421	1.9	0.75	27	450	1.7	0.74
52.21	3/32	65	528	4.1	0.89	54	556	3.5	0.88	33	617	2.5	0.85	27	636	2.1	0.84
46.22	3/32	74	509	4.4	0.89	61	539	3.9	0.89	37	604	2.7	0.86	30	625	2.3	0.85
41.28	3/32	82	491	4.7	0.90	68	521	4.2	0.89	41	590	2.9	0.87	34	613	2.5	0.86
37.12	3/32	92	473	5.0	0.90	75	505	4.5	0.89	46	575	3.1	0.88	38	601	2.7	0.86
33.58	3/32	101	457	5.4	0.90	83	489	4.8	0.90	51	563	3.4	0.88	42	588	3.0	0.87
30.61	3/32	111	442	5.7	0.90	91	473	5.0	0.90	56	551	3.6	0.88	46	576	3.1	0.88
27.31	3/32	125	422	6.1	0.91	103	456	5.4	0.90	62	535	3.9	0.89	51	561	3.4	0.88
24.49	3/32	139	400	6.4	0.91	114	437	5.8	0.90	69	517	4.2	0.89	57	547	3.7	0.88
22.44	5/29	151	443	7.5	0.94	125	472	6.6	0.93	76	537	4.7	0.91	62	532	3.8	0.90
22.22	3/32	153	383	6.7	0.91	126	419	6.1	0.91	77	503	4.5	0.89	63	533	4.0	0.89
20.18	5/29	168	426	8.0	0.94	139	456	7.1	0.93	84	524	5.0	0.92	69	523	4.2	0.91
19.69	3/32	173	361	7.1	0.92	142	395	6.5	0.91	86	484	4.9	0.90	71	513	4.3	0.89
18.26	5/29	186	411	8.0	0.94	153	441	7.6	0.94	93	512	5.4	0.92	77	517	4.5	0.91
17.33	3/32	196	337	7.5	0.92	162	373	6.9	0.91	98	462	5.3	0.90	81	494	4.7	0.89
16.64	5/29	204	397	8.0	0.94	168	426	8.0	0.94	102	501	5.8	0.92	84	525	5.0	0.92
15.18	3/32	224	316	8.0	0.92	184	347	7.3	0.92	112	441	5.7	0.90	92	472	5.1	0.90
14.85	5/29	229	378	8.0	0.94	189	409	8.0	0.94	114	485	6.3	0.93	94	511	5.5	0.92
13.33	3/32	255	292	8.0	0.92	210	327	7.8	0.92	128	417	6.1	0.91	105	452	5.5	0.90
13.32	5/29	255	358	8.0	0.94	210	393	8.0	0.94	128	468	6.7	0.93	105	497	5.9	0.92
12.08	5/29	281	342	8.0	0.94	232	376	8.0	0.94	141	454	7.2	0.93	116	483	6.3	0.93
10.71	5/29	318	322	8.0	0.95	261	353	8.0	0.94	159	436	7.7	0.94	131	465	6.8	0.93
9.43	5/29	361	300	8.0	0.95	297	333	8.0	0.94	180	416	8.0	0.94	149	446	7.4	0.93
8.25	5/29	412	280	8.0	0.95	339	309	8.0	0.95	206	396	8.0	0.94	170	425	8.0	0.94
7.25	5/29	469	258	8.0	0.95	386	290	8.0	0.95	234	374	8.0	0.94	193	406	8.0	0.94

Helical-Worm Gear Units S



S32

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
271.60	1/42	3.3	629	0.38	0.58	2.6	637	0.31	0.56	1.8	645	0.23	0.53	0.037	663	<0.05	0.48
234.71	1/42	3.8	624	0.42	0.59	3.0	633	0.35	0.57	2.1	642	0.26	0.54	0.043	663	<0.05	0.48
205.58	1/42	4.4	618	0.47	0.60	3.4	628	0.38	0.58	2.4	639	0.29	0.55	0.049	663	<0.05	0.48
182.00	1/42	4.9	613	0.52	0.61	3.8	623	0.42	0.59	2.7	635	0.32	0.56	0.055	663	<0.05	0.48
162.52	1/42	5.5	608	0.57	0.61	4.3	619	0.47	0.60	3.1	631	0.35	0.57	0.062	663	<0.05	0.48
146.16	1/42	6.2	602	0.62	0.62	4.8	615	0.51	0.60	3.4	628	0.38	0.59	0.068	663	<0.05	0.48
132.22	1/42	6.8	596	0.68	0.63	5.3	610	0.55	0.61	3.8	624	0.42	0.59	0.076	663	<0.05	0.48
120.52	1/42	7.5	590	0.72	0.64	5.8	605	0.60	0.62	4.1	621	0.45	0.60	0.083	663	<0.05	0.48
107.52	1/42	8.4	581	0.79	0.65	6.5	598	0.65	0.63	4.7	616	0.50	0.60	0.093	663	<0.05	0.48
96.44	1/42	9.3	572	0.85	0.66	7.3	591	0.71	0.63	5.2	611	0.54	0.61	0.10	663	<0.05	0.48
87.50	1/42	10	563	0.90	0.67	8.0	585	0.76	0.64	5.7	606	0.59	0.62	0.11	663	<0.05	0.48
77.54	1/42	12	551	0.98	0.69	9.0	575	0.83	0.66	6.4	599	0.65	0.62	0.13	663	<0.05	0.48
68.25	1/42	13	538	1.1	0.70	10	563	0.90	0.67	7.3	591	0.71	0.64	0.15	663	<0.05	0.48
59.77	1/42	15	524	1.2	0.71	12	550	0.98	0.69	8.4	581	0.79	0.65	0.17	663	<0.05	0.48
52.50	1/42	17	508	1.3	0.72	13	537	1.1	0.70	9.5	570	0.86	0.66	0.19	663	<0.05	0.48
52.21	3/32	17	666	1.5	0.83	13	679	1.2	0.82	9.6	694	0.88	0.79	0.19	729	<0.05	0.73
46.22	3/32	19	659	1.6	0.83	15	673	1.3	0.82	11	689	0.98	0.80	0.22	729	<0.05	0.73
41.28	3/32	22	651	1.8	0.83	17	667	1.4	0.83	12	684	1.1	0.81	0.24	729	<0.05	0.73
37.12	3/32	24	644	1.9	0.84	19	661	1.6	0.83	13	678	1.2	0.82	0.27	729	<0.05	0.73
33.58	3/32	27	636	2.1	0.84	21	655	1.7	0.83	15	673	1.3	0.82	0.30	729	<0.05	0.73
30.61	3/32	29	627	2.3	0.85	23	648	1.9	0.84	16	669	1.4	0.82	0.33	729	<0.05	0.73
27.31	3/32	33	616	2.5	0.85	26	639	2.0	0.84	18	663	1.5	0.83	0.37	729	<0.05	0.73
24.49	3/32	37	604	2.7	0.86	29	630	2.2	0.85	20	656	1.7	0.83	0.41	729	<0.05	0.73
22.44	5/29	40	523	2.5	0.89	31	520	1.9	0.88	22	511	1.4	0.87	0.45	476	<0.05	0.81
22.22	3/32	41	592	2.9	0.87	32	621	2.4	0.85	23	649	1.8	0.84	0.45	729	<0.05	0.73
20.18	5/29	45	513	2.7	0.89	35	509	2.1	0.89	25	504	1.5	0.88	0.50	466	<0.05	0.81
19.69	3/32	46	576	3.1	0.88	36	608	2.6	0.86	25	640	2.0	0.84	0.51	729	0.05	0.73
18.26	5/29	49	507	2.9	0.90	38	503	2.3	0.89	27	499	1.6	0.88	0.55	458	<0.05	0.81
17.33	3/32	52	560	3.4	0.88	40	593	2.9	0.87	29	629	2.2	0.85	0.58	729	0.06	0.73
16.64	5/29	54	575	3.6	0.90	42	596	2.9	0.89	30	616	2.2	0.88	0.60	566	<0.05	0.81
15.18	3/32	59	542	3.8	0.89	46	574	3.2	0.88	33	616	2.5	0.85	0.66	729	0.07	0.73
14.85	5/29	61	564	4.0	0.90	47	587	3.2	0.89	34	590	2.4	0.89	0.67	540	<0.05	0.81
13.33	3/32	68	522	4.1	0.89	53	558	3.5	0.88	38	602	2.7	0.86	0.75	729	0.08	0.73
13.32	5/29	68	552	4.3	0.91	53	578	3.5	0.90	38	576	2.6	0.89	0.75	526	0.05	0.81
12.08	5/29	74	541	4.6	0.91	58	569	3.8	0.90	41	597	2.9	0.89	0.83	645	0.07	0.81
10.71	5/29	84	525	5.0	0.92	65	556	4.2	0.91	47	588	3.2	0.89	0.93	624	0.08	0.81
9.43	5/29	95	509	5.5	0.92	74	541	4.6	0.91	53	577	3.6	0.90	1.1	660	0.09	0.81
8.25	5/29	109	492	6.1	0.93	85	523	5.1	0.92	61	564	4.0	0.90	1.2	627	0.10	0.81
7.25	5/29	124	473	6.6	0.93	97	508	5.6	0.92	69	550	4.4	0.91	1.4	593	0.11	0.81

Helical-Worm Gear Units S



S42

i	is	n1=3400 1/min				n1=2800 1/min				n1=1700 1/min				n1=1400 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
247.58	1/42	14	1140	2.3	0.72	11	1194	2.0	0.70	6.9	1316	1.5	0.65	5.7	1350	1.3	0.64
220.00	1/42	15	1105	2.5	0.73	13	1161	2.2	0.71	7.7	1293	1.6	0.66	6.4	1330	1.4	0.64
197.22	1/42	17	1068	2.6	0.74	14	1131	2.3	0.72	8.6	1268	1.7	0.67	7.1	1310	1.5	0.65
178.08	1/42	19	1034	2.8	0.74	16	1099	2.5	0.73	9.5	1243	1.8	0.68	7.9	1289	1.6	0.66
161.78	1/42	21	1002	2.9	0.75	17	1066	2.6	0.74	11	1216	1.9	0.69	8.7	1267	1.7	0.67
147.91	1/42	23	970	3.1	0.76	19	1037	2.8	0.74	11	1189	2.0	0.71	9.5	1245	1.8	0.68
132.72	1/42	26	933	3.3	0.76	21	1001	2.9	0.75	13	1159	2.2	0.71	11	1215	1.9	0.69
119.78	1/42	28	898	3.5	0.77	23	963	3.1	0.76	14	1131	2.3	0.72	12	1184	2.0	0.71
110.25	1/42	31	866	3.6	0.77	25	936	3.3	0.76	15	1105	2.5	0.73	13	1162	2.2	0.71
98.54	1/42	35	819	3.8	0.78	28	897	3.5	0.77	17	1068	2.6	0.74	14	1130	2.3	0.72
87.50	1/42	39	775	4.0	0.78	32	851	3.7	0.77	19	1029	2.8	0.75	16	1093	2.5	0.73
77.54	1/42	44	729	4.3	0.79	36	800	3.9	0.78	22	987	3.0	0.75	18	1052	2.7	0.74
69.00	1/42	49	684	4.5	0.79	41	759	4.1	0.78	25	945	3.2	0.76	20	1000	2.8	0.75
59.37	3/34	57	1152	7.6	0.91	47	1215	6.7	0.90	29	1260	4.3	0.87	24	1260	3.6	0.87
59.11	1/42	58	632	4.8	0.79	47	696	4.4	0.79	29	893	3.5	0.77	24	920	3.0	0.76
53.22	3/34	64	1111	8.2	0.91	53	1181	7.2	0.90	32	1337	5.1	0.88	26	1385	4.4	0.87
52.14	1/42	65	583	5.0	0.80	54	656	4.7	0.79	33	844	3.7	0.77	27	917	3.4	0.77
48.05	3/34	71	1074	8.7	0.91	58	1146	7.7	0.91	35	1308	5.5	0.89	29	1361	4.7	0.88
43.65	3/34	78	1039	9.3	0.91	64	1110	8.2	0.91	39	1278	5.8	0.89	32	1320	5.0	0.88
39.91	3/34	85	1002	9.8	0.91	70	1077	8.7	0.91	43	1247	6.2	0.90	35	1250	5.2	0.89
35.81	3/34	95	962	10	0.91	78	1037	9.3	0.91	47	1213	6.7	0.90	39	1250	5.7	0.89
32.48	5/31	105	897	11	0.94	86	892	8.6	0.93	52	877	5.3	0.91	43	872	4.3	0.91
32.32	3/34	105	924	11	0.91	87	995	9.9	0.91	53	1181	7.2	0.90	43	1200	6.1	0.90
29.75	3/34	114	890	12	0.92	94	965	10	0.91	57	1140	7.5	0.91	47	1140	6.2	0.90
29.11	5/31	117	891	12	0.94	96	886	9.6	0.93	58	871	5.8	0.92	48	866	4.8	0.91
26.59	3/34	128	839	12	0.92	105	923	11	0.91	64	1111	8.2	0.91	53	1140	7.0	0.90
26.29	5/31	129	882	13	0.94	107	876	10	0.94	65	863	6.3	0.92	53	857	5.2	0.92
23.88	5/31	142	873	14	0.95	117	868	11	0.94	71	855	6.9	0.92	59	849	5.7	0.92
23.61	3/34	144	791	13	0.92	119	873	12	0.92	72	1068	8.8	0.91	59	1080	7.4	0.91
21.83	5/31	156	860	15	0.95	128	928	13	0.94	78	1014	8.9	0.93	64	1006	7.3	0.92
20.92	3/34	163	742	14	0.93	134	818	12	0.92	81	1010	9.4	0.91	67	1010	7.8	0.91
19.59	5/31	174	824	16	0.95	143	892	14	0.95	87	1004	9.8	0.93	71	997	8.1	0.93
18.62	3/34	183	694	14	0.93	150	774	13	0.92	91	950	10.0	0.91	75	950	8.2	0.91
17.68	5/31	192	790	17	0.95	158	853	15	0.95	96	989	11	0.93	79	984	8.8	0.93
16.28	5/31	209	760	17	0.95	172	827	16	0.95	104	997	12	0.94	86	1054	10	0.93
15.95	3/34	213	640	15	0.93	176	707	14	0.93	107	885	11	0.91	88	885	8.9	0.91
14.55	5/31	234	715	18	0.95	192	790	17	0.95	117	959	12	0.94	96	1000	11	0.93
14.07	3/34	242	589	16	0.93	199	665	15	0.93	121	820	11	0.92	100	820	9.4	0.91
12.92	5/31	263	673	18	0.95	217	746	18	0.95	132	920	13	0.94	108	940	11	0.94
11.45	5/31	297	629	18	0.95	245	697	18	0.95	149	878	14	0.95	122	885	12	0.94
10.19	5/31	334	587	18	0.95	275	657	18	0.95	167	835	15	0.95	137	835	13	0.94
8.73	5/31	390	539	18	0.95	321	598	18	0.95	195	775	17	0.95	160	775	14	0.95
7.70	5/31	442	496	18	0.96	364	561	18	0.95	221	725	18	0.95	182	725	15	0.95

Helical-Worm Gear Units S



S42

i	is	n1=900 1/min				n1=700 1/min				n1=500 1/min				n1=10 1/min			
		n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η	n2 [1/min]	T2max [Nm]	P1max [kW]	η
247.58	1/42	3.6	1405	0.88	0.61	2.8	1434	0.73	0.58	2.0	1462	0.56	0.55	0.040	1526	<0.05	0.48
220.00	1/42	4.1	1393	0.97	0.62	3.2	1421	0.80	0.59	2.3	1453	0.62	0.56	0.045	1526	<0.05	0.48
197.22	1/42	4.6	1380	1.1	0.62	3.5	1408	0.86	0.61	2.5	1444	0.67	0.57	0.051	1526	<0.05	0.48
178.08	1/42	5.1	1366	1.2	0.63	3.9	1397	0.94	0.61	2.8	1434	0.73	0.58	0.056	1526	<0.05	0.48
161.78	1/42	5.6	1352	1.2	0.63	4.3	1386	1.0	0.62	3.1	1424	0.78	0.59	0.062	1526	<0.05	0.48
147.91	1/42	6.1	1338	1.3	0.64	4.7	1375	1.1	0.62	3.4	1414	0.83	0.60	0.068	1526	<0.05	0.48
132.72	1/42	6.8	1319	1.4	0.65	5.3	1360	1.2	0.63	3.8	1402	0.90	0.61	0.075	1526	<0.05	0.48
119.78	1/42	7.5	1299	1.6	0.66	5.8	1345	1.3	0.64	4.2	1390	0.98	0.62	0.083	1526	<0.05	0.48
110.25	1/42	8.2	1281	1.6	0.67	6.3	1331	1.4	0.64	4.5	1381	1.1	0.62	0.091	1526	<0.05	0.48
98.54	1/42	9.1	1254	1.8	0.68	7.1	1310	1.5	0.65	5.1	1366	1.2	0.63	0.10	1526	<0.05	0.48
87.50	1/42	10	1222	1.9	0.69	8.0	1285	1.6	0.66	5.7	1348	1.3	0.64	0.11	1526	<0.05	0.48
77.54	1/42	12	1186	2.0	0.71	9.0	1257	1.8	0.68	6.4	1328	1.4	0.64	0.13	1526	<0.05	0.48
69.00	1/42	13	1000	1.9	0.72	10	1000	1.5	0.69	7.2	1000	1.2	0.65	0.14	1000	<0.05	0.48
59.37	3/34	15	1260	2.3	0.85	12	1260	1.9	0.84	8.4	1260	1.4	0.81	0.17	1260	<0.05	0.76
59.11	1/42	15	920	2.0	0.73	12	920	1.6	0.71	8.5	920	1.2	0.67	0.17	920	<0.05	0.48
53.22	3/34	17	1465	3.0	0.86	13	1474	2.4	0.85	9.4	1426	1.7	0.82	0.19	1319	<0.05	0.76
52.14	1/42	17	1067	2.6	0.74	13	1147	2.2	0.72	9.6	1242	1.8	0.68	0.19	1526	0.06	0.48
48.05	3/34	19	1449	3.3	0.86	15	1458	2.6	0.85	10	1419	1.9	0.83	0.21	1300	<0.05	0.76
43.65	3/34	21	1320	3.3	0.86	16	1320	2.6	0.85	11	1320	1.9	0.84	0.23	1284	<0.05	0.76
39.91	3/34	23	1250	3.4	0.87	18	1250	2.7	0.86	13	1250	1.9	0.84	0.25	1250	<0.05	0.76
35.81	3/34	25	1250	3.8	0.87	20	1250	3.0	0.86	14	1250	2.1	0.85	0.28	1250	<0.05	0.76
32.48	5/31	28	864	2.8	0.90	22	854	2.2	0.89	15	836	1.5	0.87	0.31	795	<0.05	0.83
32.32	3/34	28	1200	4.0	0.87	22	1200	3.2	0.86	15	1200	2.3	0.85	0.31	1200	0.05	0.76
29.75	3/34	30	1140	4.1	0.88	24	1140	3.2	0.87	17	1140	2.3	0.86	0.34	1140	0.05	0.76
29.11	5/31	31	857	3.1	0.90	24	854	2.4	0.90	17	833	1.7	0.88	0.34	788	<0.05	0.83
26.59	3/34	34	1140	4.6	0.88	26	1140	3.6	0.87	19	1140	2.6	0.86	0.38	1140	0.06	0.76
26.29	5/31	34	847	3.4	0.91	27	844	2.6	0.90	19	827	1.9	0.88	0.38	777	<0.05	0.83
23.88	5/31	38	838	3.6	0.91	29	834	2.8	0.90	21	822	2.0	0.89	0.42	767	<0.05	0.83
23.61	3/34	38	1080	4.8	0.89	30	1080	3.8	0.88	21	1080	2.8	0.86	0.42	1080	0.06	0.76
21.83	5/31	41	993	4.7	0.91	32	987	3.7	0.90	23	978	2.6	0.90	0.46	906	0.05	0.83
20.92	3/34	43	1010	5.1	0.90	33	1010	4.0	0.88	24	1010	2.9	0.87	0.48	1010	0.07	0.76
19.59	5/31	46	983	5.2	0.91	36	977	4.0	0.91	26	971	2.9	0.90	0.51	895	0.06	0.83
18.62	3/34	48	950	5.3	0.90	38	950	4.2	0.89	27	950	3.1	0.87	0.54	950	0.07	0.76
17.68	5/31	51	968	5.6	0.91	40	962	4.4	0.91	28	955	3.1	0.90	0.57	879	0.06	0.83
16.28	5/31	55	1181	7.5	0.92	43	1234	6.1	0.91	31	1242	4.4	0.90	0.61	1141	0.09	0.83
15.95	3/34	56	885	5.8	0.91	44	885	4.5	0.90	31	885	3.3	0.88	0.63	885	0.08	0.76
14.55	5/31	62	1000	7.0	0.92	48	1000	5.5	0.91	34	1000	4.0	0.91	0.69	1000	0.09	0.83
14.07	3/34	64	820	6.0	0.91	50	820	4.7	0.90	36	820	3.4	0.89	0.71	820	0.08	0.76
12.92	5/31	70	940	7.4	0.92	54	940	5.8	0.92	39	940	4.2	0.91	0.77	940	0.09	0.83
11.45	5/31	79	885	7.8	0.93	61	885	6.2	0.92	44	885	4.4	0.91	0.87	885	0.10	0.83
10.19	5/31	88	835	8.3	0.93	69	835	6.5	0.92	49	835	4.7	0.91	0.98	835	0.10	0.83
8.73	5/31	103	775	8.9	0.94	80	775	7.0	0.93	57	775	5.1	0.92	1.1	775	0.11	0.83

Helical-Worm Gear Units S

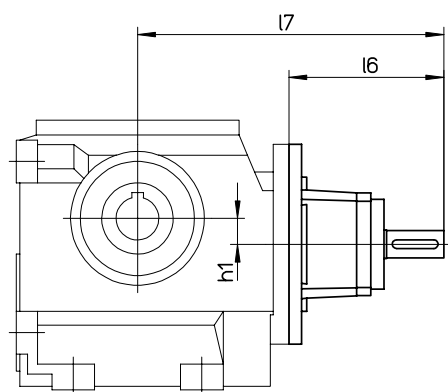


Fig. 1

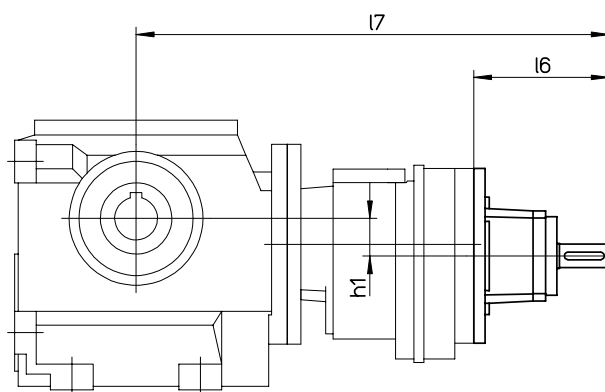


Fig. 2

Type	Fig.	h1	l6	l7
S02 -W1	1	7.5	79.5	153.5
S12 -W1	1	10	78.5	168.5
S12 -W2	1	10	113.5	203.5
S12G0_ -W1	2	17	79.5	281
S22 -W1	1	18	75.5	181.5
S22 -W2	1	18	108.5	214.5
S22 -W3	1	18	153.5	259.5
S22G1_ -W1	2	23	78.5	307.5
S22G1_ -W2	2	23	113.5	342.5
S32 -W1	1	24	75	208
S32 -W2	1	24	110	243
S32 -W3	1	24	154	287
S32 -W4	1	24	192.5	325.5
S32G1_ -W1	2	29	78.5	334.5
S32G1_ -W2	2	29	113.5	369.5

Type	Fig.	h1	l6	l7
S42 -W1	1	35	71.5	226.5
S42 -W2	1	35	106.5	261.5
S42 -W3	1	35	149.5	304.5
S42 -W4	1	35	189	344
S42G2_ -W1	2	46	75.5	375.5
S42G2_ -W2	2	46	108.5	408.5
S42G2_ -W3	2	46	153.5	453.5

Helical-Worm Gear Units S with Adapter for IEC Motors

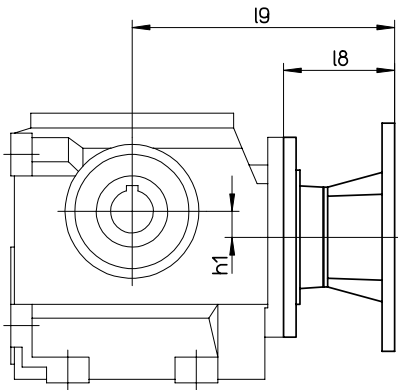


Fig. 1

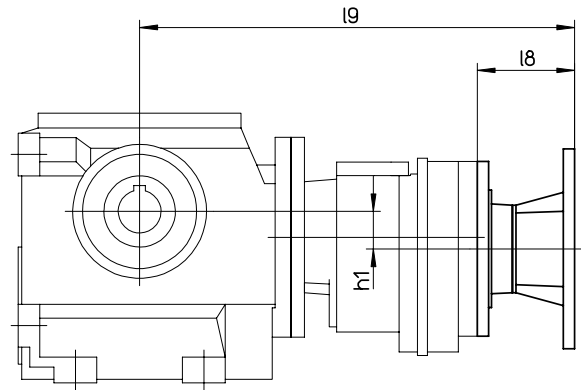


Fig. 2

Type	Fig.	h1	l8	l9
S02 -M IEC63	1	7.5	75	149
S02 -M IEC71	1	7.5	82	156
S12 -M IEC63	1	10	74	164
S12 -M IEC71	1	10	81	171
S12 -M IEC80	1	10	118	208
S12 -M IEC90	1	10	128	218
S12G0_-M IEC63	2	17	75	276.5
S12G0_-M IEC71	2	17	82	283.5
S22 -M IEC63	1	18	71	177
S22 -M IEC71	1	18	78	184
S22 -M IEC80	1	18	113	219
S22 -M IEC90	1	18	123	229
S22 -M IEC100	1	18	156.5	262.5
S22 -M IEC112	1	18	156.5	262.5
S22G1_-M IEC63	2	23	74	303
S22G1_-M IEC71	2	23	81	310
S22G1_-M IEC80	2	23	118	347
S22G1_-M IEC90	2	23	128	357
S32 -M IEC63	1	24	70.5	203.5
S32 -M IEC71	1	24	77.5	210.5
S32 -M IEC80	1	24	114.5	247.5
S32 -M IEC90	1	24	124.5	257.5
S32 -M IEC100	1	24	157	290
S32 -M IEC112	1	24	157	290
S32 -M IEC132	1	24	196	329
S32G1_-M IEC63	2	29	74	330
S32G1_-M IEC71	2	29	81	337
S32G1_-M IEC80	2	29	118	374
S32G1_-M IEC90	2	29	128	384

Type	Fig.	h1	l8	l9
S42 -M IEC63	1	35	67	222
S42 -M IEC71	1	35	74	229
S42 -M IEC80	1	35	111	266
S42 -M IEC90	1	35	121	276
S42 -M IEC100	1	35	152.5	307.5
S42 -M IEC112	1	35	152.5	307.5
S42 -M IEC132	1	35	192.5	347.5
S42G2_-M IEC63	2	46	71	371
S42G2_-M IEC71	2	46	78	378
S42G2_-M IEC80	2	46	113	413
S42G2_-M IEC90	2	46	123	423
S42G2_-M IEC100	2	46	156.5	456.5

Helical-Worm Gear Units S with Adapter for NEMA Motors

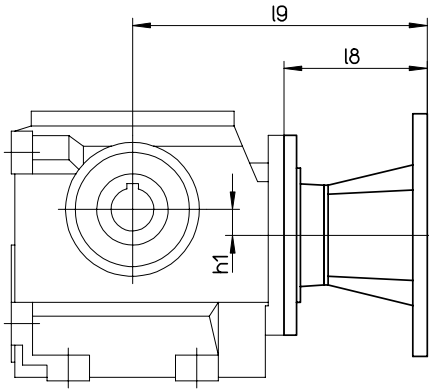


Fig. 1

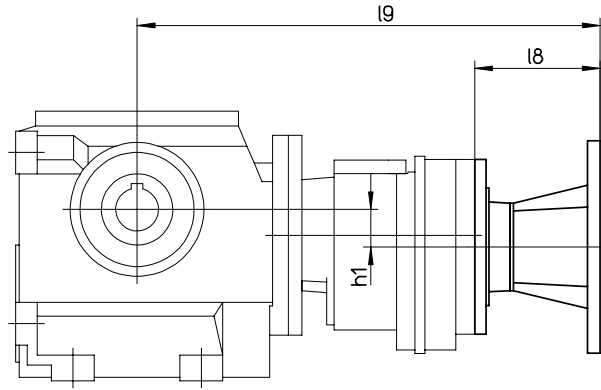


Fig. 2

Type	Fig.	h1	l8	l9
S02 -M NEMA56	1	7.5	104	178
S12 -M NEMA56	1	10	103	193
S12 -M NEMA140	1	10	132	222
S12G0_-M NEMA56	2	17	104	305.5
S22 -M NEMA56	1	18	100	206
S22 -M NEMA140	1	18	127	233
S22 -M NEMA180	1	18	163	269
S22G1_-M NEMA56	2	23	103	332
S22G1_-M NEMA140	2	23	132	361
S32 -M NEMA56	1	24	99.5	232.5
S32 -M NEMA140	1	24	128.5	261.5
S32 -M NEMA180	1	24	163.5	296.5
S32 -M NEMA210	1	24	195.5	328.5
S32G1_-M NEMA56	2	29	103	359
S32G1_-M NEMA140	2	29	132	388

Type	Fig.	h1	l8	l9
S42 -M NEMA56	1	35	96	251
S42 -M NEMA140	1	35	125	280
S42 -M NEMA180	1	35	159	314
S42 -M NEMA210	1	35	192	347
S42G2_-M NEMA56	2	46	100	400
S42G2_-M NEMA140	2	46	127	427
S42G2_-M NEMA180	2	46	163	463

Helical-Worm Gear Units S with Adapter for Servo Motors

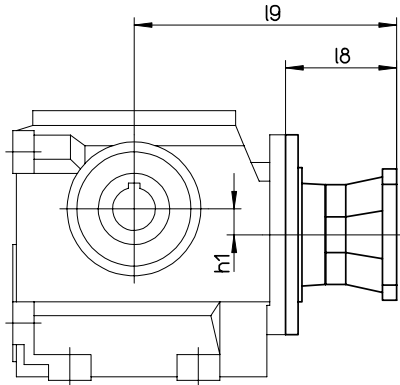


Fig. 1

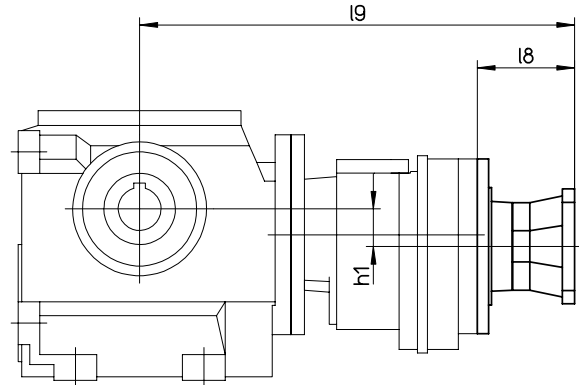


Fig. 2

Type	Fig.	h1	l8	l9
S02 -M S70/1	1	7.5	75	149
S12 -M S70/1	1	10	74	164
S12 -M S90/1	1	10	108	198
S12 -M S110/1	1	10	118	208
S12G0_ -M S70/1	2	17	75	276.5
S22 -M S70/1	1	18	71	177
S22 -M S90/1	1	18	103	209
S22 -M S110/1	1	18	113	219
S22 -M S140/1	1	18	146.5	252.5
S22G1_ -M S70/1	2	23	74	303
S22G1_ -M S90/1	2	23	108	337
S22G1_ -M S110/1	2	23	118	347
S32 -M S70/1	1	24	70.5	203.5
S32 -M S90/1	1	24	104.5	237.5
S32 -M S110/1	1	24	114.5	247.5
S32 -M S140/1	1	24	147	280
S32 -M S190/1	1	24	174	307
S32G1_ -M S70/1	2	29	74	330
S32G1_ -M S90/1	2	29	108	364
S32G1_ -M S110/1	2	29	118	374

Type	Fig.	h1	l8	l9
S42 -M S70/1	1	35	67	222
S42 -M S90/1	1	35	101	256
S42 -M S110/1	1	35	111	266
S42 -M S140/1	1	35	142.5	297.5
S42 -M S190/1	1	35	170.5	325.5
S42G2_ -M S70/1	2	46	71	371
S42G2_ -M S90/1	2	46	103	403
S42G2_ -M S110/1	2	46	113	413
S42G2_ -M S140/1	2	46	146.5	446.5