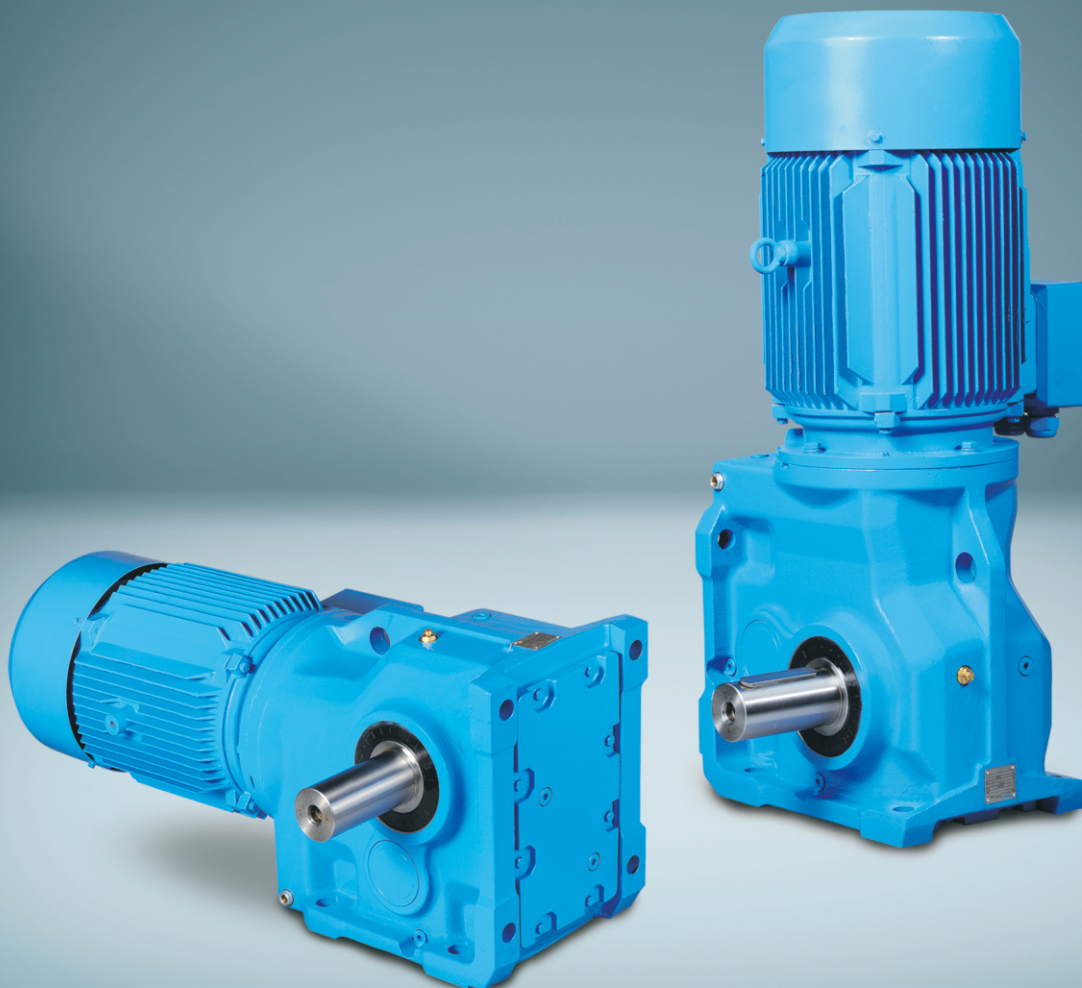
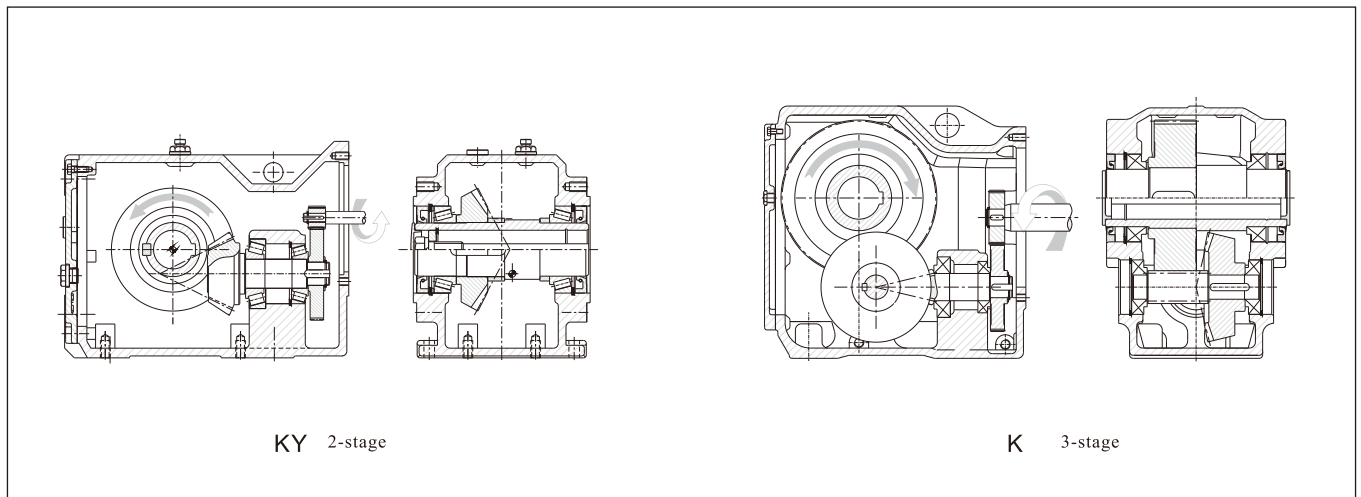


K Series Helical-Spiral Bevel Gear Units





1 Sectional Drawings:



K

2 Type Designation

KA 87 A - 30.9 - Y-7.5 +T31- B51 - 90

K Series

- K* = Foot-mounted solid shaft with parallel key
- KH* = Foot-mounted hollow shaft with shrink disk
- KW* = Foot-mounted hollow shaft with parallel key
- KN* = Foot-mounted hollow shaft with involute spline
- KF* = Flange-mounted solid shaft with parallel key
- KL* = Flange-mounted hollow shaft with parallel key
- KHL* = Flange-mounted hollow shaft with shrink disk
- KNF* = Flange-mounted hollow shaft with involute spline
- KA* = Torque-arm-mounted hollow shaft with parallel key
- KHA* = Torque-arm-mounted hollow shaft with shrink disk
- KNA* = Torque-arm-mounted hollow shaft with involute spline
- KZ* = Short-flange-mounted hollow shaft with parallel key
- KHZ* = Short-flange-mounted hollow shaft with shrink disk
- KNZ* = Short-flange-mounted hollow shaft with involute spline
- KYW* = Foot-mounted hollow shaft with parallel key
- KYL* = Flange-mounted hollow shaft with parallel key

Size

Output Shaft Direction

- A\B* = Unidirectional Output Shaft
- S* = Bidirectional Output Shaft

Nominal Ratio

Input Part

- Y* = Motor
- AE* = Input Shaft
- AG* = Connection Flange

Accessories and Special Requests

Mounting Positions

Positions of Motor Terminal Box

Combi-type Designation: KW87/CRL47-287-Y-1.1+L01-B3-90



3 Mounting Positions, Position of Motor Terminal Box and Output Shaft Direction:

<p><i>K..VKH..VKW..VKN..IKYW..</i></p>	<p>B3</p>	<p>B61</p>	<p>B8</p>	
	<p>B31</p>	<p>B62</p>	<p>B81</p>	<p>B63</p>
	<p>V5</p>	<p>V51</p>	<p>V6</p>	<p>V61</p>
<p><i>KF..VKL..VKHL..KNF..IKYL..</i></p>	<p>B51</p>	<p>B52</p>	<p>B53</p>	<p>V3</p>
	<p>B54</p>	<p>B55</p>	<p>B56</p>	<p>V1</p>
	<p>B58</p>	<p>B57</p>	<p>V11</p>	
<p><i>KF..VKL..VKHL..KNF..IKYL..</i></p>	<p>B55</p>	<p>B56</p>	<p>B57</p>	<p>V31</p>
	<p>B58</p>	<p>B56</p>	<p>B57</p>	<p>V11</p>
	<p>B58</p>	<p>B56</p>	<p>B57</p>	<p>V11</p>
<p><i>KZ..VKHZ..KNZ..</i></p>	<p>H1</p>	<p>H3</p>	<p>H4</p>	<p>H5</p>
	<p>H2</p>	<p>H3</p>	<p>H4</p>	<p>H6</p>
	<p>H2</p>	<p>H3</p>	<p>H4</p>	<p>H6</p>
<p><i>KZ..VKHZ..KNZ..</i></p>	<p>H11</p>	<p>H31</p>	<p>H41</p>	<p>H51</p>
	<p>H21</p>	<p>H31</p>	<p>H41</p>	<p>H61</p>
	<p>H21</p>	<p>H31</p>	<p>H41</p>	<p>H61</p>
<p><i>KA..VKHA..KNA..</i></p>	<p>H1</p>	<p>H3</p>	<p>H4</p>	<p>H5</p>
	<p>H2</p>	<p>H3</p>	<p>H4</p>	<p>H6</p>
	<p>H2</p>	<p>H3</p>	<p>H4</p>	<p>H6</p>

K



4 Type Selection and Example:

Steps	Description	Symbols	Parameters Calculation and Guidelines			
1	Driven Machine Factor	f_1	Load Characteristic	Operating hours per day (h)		
				≤ 2	2~10	10~24
			Uniform	1.00(1.00)	1.00(1.25)	1.25(1.50)
			Moderate	1.00(1.25)	1.25(1.50)	1.50(1.75)
			Heavy	1.25(1.50)	1.50(1.75)	1.75(2.00)
			Note: Apply values in the brackets when starts per hour are 10 times or more.			
2	Input Speed	n_1	$\leq 1800r/min$ Consult us if higher speed required.			
3	Calculation of the Ratio	i	$i=n_1/n_2$			
4	Transmission Efficiency	η	3-stage	94%		
			2-stage	88%		
5	Calculation of the input power of the gear unit on basis of the torque and power required by the driven machine.	P_1	$P_1=T_2 \cdot n_1/(9550 \cdot i \cdot \eta)$ or $P_1=P_2/\eta$			
6	Determination of gear unit type referring to the table of transmission capacity after calculation, For directly-connected motor, require to refer to directly-connected motor power table.	T_{2N} , P_{1N}	$T_{2N} \geq T_2 \cdot f_1$ or $P_{1N} \geq P_1 \cdot f_1$			
7	Check the radial and axial forces on the shafts.	F_{r1}/F_{r2} F_{a1}/F_{a2}	See P17/K.			
8	Determination of Lubrication system		Generally Splash Lubrication			
9	Determination of Cooling System		Generally Air Cooling			
10	Determination of every item included in the Type Designation		For details about Type Designation, see P2/K.			
11	Normal ambient conditions		Ambient temperature -10 to 40°C, ample space, good ventilation, altitude not exceeding 1000m and common plant dust.			
12	Special ambient conditions		For higher or lower temperature, dusty sites, chemical reaction (acids, alkaline, etc), or open field (sunlight, ice, rain, etc), please consult us!			

K



Type selection example

1) Geared motor

Known Criteria:

1. The power required by the driven machine $P_2=10\text{kW}$, speed $n_2=16.92\text{r/min}$
2. Common motor: 4-pole, speed $n_1=1450\text{r/min}$
3. Load characteristics: moderate, working 16 hours/d and starting 10 times/h
4. Mounting mode: Unidirectional solid output shaft, output mode A, flange-mounted, mounting position B51, terminal box position 90

Selection Steps:

1. By referring to the table of Load Characteristic, we get the driven machine factor $f_1=1.75$.
2. Calculation of the Ratio i_N :
As $i=n_1/n_2=1450/16.92=85.69$, nominal ratio $i_N=85.9$ is appropriate.
3. Calculation of the input power and determination of the motor power (transmission efficiency $\eta=94\%$):
 $P_1=P_2/\eta=10/0.94=10.64\text{kW}$, so 11kW motor is selected.
Refer to the directly-connected motor power table, it can be directly-connected.
4. Determination of the nominal power of the geared motor P_{1N} :
 $P_{1N} \geq P_2 \cdot f_1 / \eta = 10 \times 1.75 / 0.94 = 10.64 \times 1.75 = 18.62\text{kW}$
5. The type selected:
KF127A-85.9-Y-11-B51-90

2) Gear Unit

Known Criteria:

1. The torque required by the driven machine $T_2=1500\text{N} \cdot \text{m}$ and speed $n_2=26\text{r/min}$
2. The motor supplied by the users:
4-pole, speed $n_1=1450\text{r/min}$
3. Load characteristic: moderate, operating 16h/d continuously
4. Mounting mode: Hollow shaft with parallel key, flange-mounted, mounting position B8

Selection steps:

1. By referring to the table of Load Characteristic, we get the driven machine factor $f_1=1.5$.
2. Calculation of the ratio i_N :
As $i=n_1/n_2=1450/26=55.77$, nominal ratio $i_N=55.5$ is appropriate
3. Determination of the nominal torque T_{2N} and nominal power P_{1N} of the gear unit (transmission efficiency $\eta=94\%$):
 $T_{2N} \geq T_2 \cdot f_1 = 1500 \times 1.5 = 2250\text{N} \cdot \text{m}$;
 $P_{1N} \geq P_1 \cdot f_1 = T_2 \cdot f_1 \cdot n_1 / (9550 \cdot i_N \cdot \eta)$
 $= 1500 \times 1.5 \times 1450 / (9550 \times 55.5 \times 0.94)$
 $= 6.55\text{kW}$
In the table of Transmission Capacity, K87 meets the requirements ($T_{2N}=2700\text{N} \cdot \text{m}$, $P_{1N}=7.24\text{kW}$)
4. Determination of the input mode:
As $P_{1N} \geq P_1 = T_2 \cdot n_1 / (9550 \cdot i_N \cdot \eta)$
 $= 1500 \times 1450 / (9550 \times 55.5 \times 0.94) = 4.37\text{kW}$
and power of the user-supplied motor is specified as 5.5kW, in the table of Dimensions of the AE Input Shaft, AE4 is selected.
5. The type selected:
KW87-55.5-AE4-B8



5 Transmission Capacity:
KY.. (n1=1450r/min)

									KY.67			KY.77			KY.87		
n ₁ (r/min)	n _{2N} (r/min)	i _N							T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
1450	414	3.5							206	3.52	10.08	333	3.52	16.3	609	3.42	30.7
	363	4							242	4.2	9.96	360	4.2	14.8	682	4.22	27.9
	309	4.7							241	4.77	8.7	384	4.77	13.9	743	4.71	27.2
	264	5.5							237	5.3	7.72	390	5.3	12.7	780	5.43	24.8
	242	6							227	5.92	6.61	395	5.92	11.5	781	6.04	22.3
	213	6.8							204	6.66	5.29	384	6.66	9.96	779	6.75	19.9 ¹⁾

K

K.. (n1=1450r/min)

			K..37			K..47			K..67			K..77			K..87		
n ₁ (r/min)	n _{2N} (r/min)	i _N	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
1450	179	8.1	155	8.06	2.92	270	8.24	4.98	440	8.14	8.21	890	8.22	16.44	1400	8.01	26.5
	148	9.8	160	9.93	2.45	280	9.82	4.33	480	9.73	7.49	940	9.83	14.52	1500	9.89	23
	132	11.0	160	11.08	2.19	280	11.28	3.77	500	11.04	6.88	990	11.2	13.48	1500	11	20.6
	116	12.5	160	12.45	1.95	280	12.42	3.42	530	12.28	6.55	1000	12.4	12.24	2000	12.7	23.9
	101	14.3	170	14.24	1.81	380	14.37	4.02	700	14.42	7.37	1400	14.4	14.79	2100	14.1	22.6
	85	17.1	180	17.56	1.56	380	17.13	3.37	740	17.23	6.52	1450	17.2	12.82	2200	17.4	19.2
	76	19.0	185	19.59	1.43	400	19.67	3.09	760	19.55	5.9	1450	19.5	11.30	2300	19.5	18
	66	22.0	185	21.97	1.28	400	21.65	2.81	780	21.74	5.45	1450	21.7	10.16	2300	22.4	15.6
	58	25.0	195	24.78	1.19	400	25.2	2.41	820	24.3	5.12	1550	24.2	9.72	2500	24.9	15.2
	52	27.9	200	28.15	1.08	400	28.05	2.17	820	27.33	4.56	1550	27.2	8.64	2600	27.9	14.2
	47	30.9	200	30.11	1.01	400	31.43	1.93	820	30.96	4.02	1550	30.9	7.63	2700	31.4	13.1
	41	35.7	200	36.16	0.84	400	36.07	1.68	820	36.46	3.41	1550	36.5	6.45	2500	35.7	10.6
	34	43.2	200	42.25	0.72	400	43.01	1.41	820	43.56	2.86	1550	43.6	5.40	2600	44	8.97
	29.0	50.0	200	49.74	0.61	400	49.38	1.23	820	49.43	2.52	1550	49.4	4.76	2700	49.2	8.34
	26.1	55.5	200	55.77	0.54	400	54.36	1.12	820	54.97	2.26	1550	55	4.28	2700	56.6	7.24
	23.2	62.4	200	62.91	0.48	400	63.27	0.96	820	61.45	2.03	1550	61.5	3.83	2700	63	6.51
	20.7	70.1	200	71.47	0.42	400	70.44	0.86	820	69.09	1.8	1550	69.1	3.41	2700	70.5	5.82
	18.7	77.7	200	76.42	0.4	400	78.92	0.77	820	78.27	1.59	1550	78.3	3.01	2700	79.3	5.17
	16.9	85.9	200	88.08	0.34	400	83.77	0.72	820	85.82	1.45	1550	85.8	2.74	2700	86.3	4.75
	14.2	102	200	102.9	0.3	400	101.5	0.6	820	102.1	1.22	1550	102	2.30	2700	103	3.99
	12.4	117				400	117.1	0.52	820	116	1.07	1550	119	1.98	2700	116	3.54
	11.5	126				400	126.4	0.48	820	124.1	1	1550	126	1.87	2700	127	3.23
	10.1	143							820	143.7	0.87	1550	142	1.65	2700	140	2.93
	9.1	159										1450	163	1.35	2000	164	1.85
8.4	172										1450	175	1.26	1550	174	1.35	
7.6	191													1350	197	1.04	



KY.97			KY.107			KY.127								
T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)						
968	3.53	47.3	1388	3.42	70	2652	3.52	130						
1096	4.22	44.8	1495	4.22	61.13	2763	4.2	113.5						
1147	4.71	42	1564	4.71	57.28	2767	4.76	100.3						
1146	5.43	36.4	1653	5.43	52.51	2763	5.47	87.16						
1145	6.04	32.7	1634	6.04	46.67	2764	6.06	78.69						
1142	6.75	29.2	1590	6.75	40.65	2761	6.74	70.68						

K

K..97			K..107			K..127			K..157			K..167			K..187		
T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
2660	8.2	49.3	4070	7.99	77.34	7230	8.18	134.2									
2870	9.79	44.5	4190	9.87	64.46	8000	9.77	124.3									
2870	10.93	39.9	4300	11.02	59.24	8000	11.09	109.5									
3890	12.6	46.9	4300	12.7	51.41	8530	12.73	101.7									
4300	14.58	44.8	6890	14.02	74.62	12100	14.42	127.4									
4300	17.41	37.5	7050	17.31	61.84	13000	17.23	114.6									
4300	19.45	33.6	7200	19.33	56.55	13000	19.51	101.2	18000	18.37	148.8	32000	18.52	262.3	41400	18.62	337.6
4300	22.4	29.1	7200	22.27	49.09	13000	22.43	88	18000	22.15	123.4	32000	22.27	218.2	43900	22.27	299.3
4300	24.92	26.2	7200	24.77	44.13	13000	24.85	79.4	18000	24.74	110.5	32000	25.76	188.6	47600	25.64	281.9
4300	27.87	23.4	7200	27.7	39.47	13000	27.67	71.3	18000	28.5	95.89	32000	28.52	170.4	50000	28.29	268.4
4300	31.38	20.8	7200	31.19	35.05	13000	31	63.7	18000	31.7	86.21	32000	31.72	153.2	50000	31.35	242.2
4300	36.87	17.7	7200	35.45	30.84	13000	36.46	54.1	18000	36.49	74.9	32000	35.33	137.5	50000	34.44	220.4
4300	44.02	14.8	7360	43.75	25.54	13000	43.56	45.3	18000	44.02	62.09	32000	44.22	109.9	50000	44.23	171.6
4300	49.16	13.3	7480	48.87	23.24	13000	49.32	40.0	18000	49.04	55.73	32000	51.16	94.97	50000	51.18	148.3
4300	56.64	11.5	8000	56.3	21.57	13000	56.72	34.8	18000	56.57	48.31	32000	56.64	85.78	50000	56.47	134.4
4300	63	10.4	8000	62.62	19.40	13000	62.83	31.4	18000	62.95	43.42	32000	63	77.12	50000	61.46	123.5
4300	70.46	9.3	8000	70.04	17.34	13000	69.95	28.2	18000	70.48	38.78	32000	70.17	69.24	50000	68.75	110.4
4300	79.34	8.2	8000	78.87	15.40	13000	78.38	25.2	18000	79.37	34.43	32000	77.61	62.6	50000	76.08	99.8
4300	86.33	7.6	8000	85.82	14.15	13000	85.82	23	18000	86.22	31.7	32000	86.34	56.27	50000	84.69	89.6
4300	102.7	6.4	8000	102.1	11.90	13000	102.1	19.3	18000	102.6	26.64	32000	102.7	47.31	50000	100.8	75.3
4300	115.8	5.6	8000	115.1	10.55	13000	115.1	17.2	18000	115.6	23.64	32000	115.8	41.96	50000	115.4	65.8
4300	126.9	5.1	8000	126.1	9.63	13000	126.1	15.6	18000	126.8	21.55	32000	126.9	38.29	50000	126.5	60.0
4300	147.3	4.4	5835	146.4	6.05	13000	146.4	13.5	18000	139.8	19.55	32000	139.9	34.73	50000	139.5	54.4
4300	164.3	4.0	4651	163.4	4.32	10500	163.4	9.8	18000	157.8	17.32	32000	154.4	31.47	50000	153.9	49.3
4300	174.2	3.7	4651	173.1	4.08	11300	173.1	9.9	18000	172.9	15.81	32000	169.2	28.72	50000	168.7	45
4300	197.4	3.3	4651	196.2	3.60	12700	196.2	9.8	18000	196.8	13.89	32000	186.6	26.04	50000	186	40.8



KY.. (n1=1740r/min)

						KY.67			KY.77			KY.87		
n ₁ (r/min)	n _{2N} (r/min)	i _N				T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
1740	497	3.5				206	3.52	12.10	333	3.52	19.56	609	3.42	36.84
	435	4				242	4.2	11.95	360	4.2	17.76	682	4.22	33.48
	370	4.7				241	4.77	10.44	384	4.77	16.68	743	4.71	32.64
	316	5.5				237	5.3	9.26	390	5.3	15.24	780	5.43	29.76
	290	6				227	5.92	7.93	395	5.92	13.80	781	6.04	26.76
	256	6.8				204	6.66	6.35	384	6.66	11.95	779	6.75	23.88

K

K.. (n1=1740r/min)

			K..37			K..47			K..67			K..77			K..87		
n ₁ (r/min)	n _{2N} (r/min)	i _N	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
1740	215	8.1	155	8.06	3.50	270	8.24	5.98	440	8.14	9.85	890	8.22	19.73	1400	8.01	31.80
	178	9.8	160	9.93	2.94	280	9.82	5.20	480	9.73	8.99	940	9.83	17.42	1500	9.89	27.60
	158	11	160	11.08	2.63	280	11.28	4.52	500	11.04	8.26	990	11.2	16.18	1500	11	24.72
	139	12.5	160	12.45	2.34	280	12.42	4.10	530	12.28	7.86	1000	12.4	14.69	2000	12.7	28.68
	122	14.3	170	14.24	2.17	380	14.37	4.82	700	14.42	8.84	1400	14.4	17.75	2100	14.1	27.12
	102	17.1	180	17.56	1.87	380	17.13	4.04	740	17.23	7.82	1450	17.2	15.38	2200	17.4	23.04
	92	19	185	19.59	1.72	400	19.67	3.71	760	19.55	7.08	1450	19.5	13.56	2300	19.5	21.60
	79.1	22	185	21.97	1.54	400	21.65	3.37	780	21.74	6.54	1450	21.7	12.19	2300	22.4	18.72
	69.6	25	195	24.78	1.43	400	25.2	2.89	820	24.3	6.14	1550	24.2	11.66	2500	24.9	18.24
	62.4	27.9	200	28.15	1.30	400	28.05	2.60	820	27.33	5.47	1550	27.2	10.37	2600	27.9	17.04
	56.3	30.9	200	30.11	1.21	400	31.43	2.32	820	30.96	4.82	1550	30.9	9.16	2700	31.4	15.72
	48.7	35.7	200	36.16	1.01	400	36.07	2.02	820	36.46	4.09	1550	36.5	7.74	2500	35.7	12.72
	40.3	43.2	200	42.25	0.86	400	43.01	1.69	820	43.56	3.43	1550	43.6	6.48	2600	44	10.76
	34.8	50	200	49.74	0.73	400	49.38	1.48	820	49.43	3.02	1550	49.4	5.71	2700	49.2	10.01
	31.4	55.5	200	55.77	0.65	400	54.36	1.34	820	54.97	2.71	1550	55	5.14	2700	56.6	8.69
	27.9	62.4	200	62.91	0.58	400	63.27	1.15	820	61.45	2.44	1550	61.5	4.60	2700	63	7.81
	24.8	70.1	200	71.47	0.50	400	70.44	1.03	820	69.09	2.16	1550	69.1	4.09	2700	70.5	6.98
	22.4	77.7	200	76.42	0.48	400	78.92	0.92	820	78.27	1.91	1550	78.3	3.61	2700	79.3	6.20
	20.3	85.9	200	88.08	0.41	400	83.77	0.86	820	85.82	1.74	1550	85.8	3.29	2700	86.3	5.70
	17.1	102	200	102.9	0.36	400	101.5	0.72	820	102.1	1.46	1550	102	2.76	2700	103	4.79
14.9	117				400	117.1	0.62	820	116	1.28	1550	119	2.38	2700	116	4.25	
13.8	126				400	126.4	0.58	820	124.1	1.20	1550	126	2.24	2700	127	3.88	
12.2	143							820	143.7	1.04	1550	142	1.98	2700	140	3.52	
10.9	159										1450	163	1.62	2000	164	2.22	
10.1	172										1450	175	1.51	1550	174	1.62	
9.1	191													1350	197	1.25	



KY.97			KY.107			KY.127											
T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)									
968	3.53	56.8	1388	3.42	84.0	2652	3.52	156.0									
1096	4.22	53.8	1495	4.22	73.4	2763	4.2	136.2									
1147	4.71	50.4	1564	4.71	68.7	2767	4.76	120.4									
1146	5.43	43.7	1653	5.43	63.0	2763	5.47	104.6									
1145	6.04	39.2	1634	6.04	56.0	2764	6.06	94.4									
1142	6.75	35.0	1590	6.75	48.8	2761	6.74	84.8									

K

K..97			K..107			K..127			K..157			K..167			K..187		
T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
2660	8.2	59.2	4070	7.99	92.8	7230	8.18	161.0									
2870	9.79	53.4	4190	9.87	77.4	8000	9.77	149.2									
2870	10.93	47.9	4300	11.02	71.1	8000	11.09	131.4									
3890	12.6	56.3	4300	12.7	61.7	8530	12.73	122.0									
4300	14.58	53.8	6890	14.02	89.5	12100	14.42	152.9									
4300	17.41	45.0	7050	17.31	74.2	13000	17.23	137.5									
4300	19.45	40.3	7200	19.33	67.9	13000	19.51	121.4	18000	18.37	178.6	32000	18.52	314.8	41400	18.62	405.1
4300	22.4	34.9	7200	22.27	58.9	13000	22.43	105.6	18000	22.15	148.1	32000	22.27	261.8	43900	22.27	359.2
4300	24.92	31.4	7200	24.77	53.0	13000	24.85	95.3	18000	24.74	132.6	32000	25.76	226.3	47600	25.64	338.3
4300	27.87	28.1	7200	27.7	47.4	13000	27.67	85.6	18000	28.5	115.1	32000	28.52	204.5	50000	28.29	322.1
4300	31.38	25.0	7200	31.19	42.1	13000	31	76.4	18000	31.7	103.5	32000	31.72	183.8	50000	31.35	290.6
4300	36.87	21.2	7200	35.45	37.0	13000	36.46	64.9	18000	36.49	89.9	32000	35.33	165.0	50000	34.44	264.5
4300	44.02	17.8	7360	43.75	30.6	13000	43.56	54.4	18000	44.02	74.5	32000	44.22	131.9	50000	44.23	205.9
4300	49.16	16.0	7480	48.87	27.9	13000	49.32	48.0	18000	49.04	66.9	32000	51.16	114.0	50000	51.18	178.0
4300	56.64	13.8	8000	56.3	25.9	13000	56.72	41.8	18000	56.57	58.0	32000	56.64	102.9	50000	56.47	161.3
4300	63	12.5	8000	62.62	23.3	13000	62.83	37.7	18000	62.95	52.1	32000	63	92.5	50000	61.46	148.2
4300	70.46	11.2	8000	70.04	20.8	13000	69.95	33.8	18000	70.48	46.5	32000	70.17	83.1	50000	68.75	132.5
4300	79.34	9.8	8000	78.87	18.5	13000	78.38	30.2	18000	79.37	41.3	32000	77.61	75.1	50000	76.08	119.8
4300	86.33	9.1	8000	85.82	17.0	13000	85.82	27.6	18000	86.22	38.0	32000	86.34	67.5	50000	84.69	107.5
4300	102.7	7.7	8000	102.1	14.3	13000	102.1	23.2	18000	102.6	32.0	32000	102.7	56.8	50000	100.8	90.4
4300	115.8	6.7	8000	115.1	12.7	13000	115.1	20.6	18000	115.6	28.4	32000	115.8	50.4	50000	115.4	79.0
4300	126.9	6.1	8000	126.1	11.6	13000	126.1	18.7	18000	126.8	25.9	32000	126.9	45.9	50000	126.5	72.0
4300	147.3	5.3	5835	146.4	7.3	13000	146.4	16.2	18000	139.8	23.5	32000	139.9	41.7	50000	139.5	65.3
4300	164.3	4.8	4651	163.4	5.2	10500	163.4	11.8	18000	157.8	20.8	32000	154.4	37.8	50000	153.9	59.2
4300	174.2	4.4	4651	173.1	4.9	11300	173.1	11.9	18000	172.9	19.0	32000	169.2	34.5	50000	168.7	54.0
4300	197.4	4.0	4651	196.2	4.3	12700	196.2	11.8	18000	196.8	16.7	32000	186.6	31.2	50000	186	49.0



K../CRL..(n1=1450r/min)

			K..37/CRL37			K..47/CRL37			K..67/CRL37			K..77/CRL37			K..87/CRL47				
n1 (r/min)	n2N (r/min)	iN	T2N (N·m)	ieX	P1N (kW)	T2N (N·m)	ieX	P1N (kW)	T2N (N·m)	ieX	P1N (kW)	T2N (N·m)	ieX	P1N (kW)	T2N (N·m)	ieX	P1N (kW)		
1450	12.50	116	200	120.7	0.27	400	121.2	0.54	820	120.4	1.12	1550	120	2.13	2700	116.3	3.82		
	11.24	129	200	134.8	0.24	400	135.3	0.49	820	134.5	1.00	1550	134	1.91	2700	133.6	3.33		
	9.93	146	200	151	0.22	400	151.7	0.43	820	150.7	0.90	1550	150.2	1.70	2700	147	3.03		
	8.79	165	200	171.8	0.19	400	172.5	0.38	820	171.5	0.79	1550	170.8	1.50	2700	170.2	2.61		
	7.14	203	200	211.6	0.16	400	212.4	0.31	820	211.1	0.64	1550	210.4	1.21	2700	202.9	2.19		
	6.30	230	200	236.3	0.14	400	237.2	0.28	820	235.8	0.57	1550	234.9	1.09	2700	232.8	1.91		
	5.62	258	200	264.9	0.12	400	265.9	0.25	820	264.3	0.51	1550	263.4	0.97	2700	256.4	1.73		
	5.05	287	200	298.7		400	300	0.22	820	298.1	0.45	1550	297.1	0.86	2700	298.4	1.49		
	4.49	323	200	339.5		400	340.9	0.19	820	338.8	0.40	1550	337.6	0.76	2700	332.2	1.34		
	4.26	340	200	342.2		400	339.7	0.19	820	340.1	0.40	1550	340.1	0.75	2700	337.7	1.32		
	3.77	385	200	383.5		400	380.7	0.17	820	381.1	0.35	1550	381.1	0.67	2700	371.6	1.20		
	3.33	435	200	436.2		400	433.1	0.15	820	433.5	0.31	1550	433.5	0.59	2700	430.2	1.03		
	2.71	535	200	537.2		400	533.3	0.12	820	533.8	0.25	1550	533.8	0.48	2700	512.7	0.87		
	2.40	605	200	599.9		400	595.5		820	596.1	0.23	1550	596.1	0.43	2700	588.4	0.76		
	2.13	680	200	672.5		400	667.6		820	668.3	0.20	1550	668.3	0.38	2700	647.9	0.69		
	1.92	755	200	758.5		400	753		820	753.8	0.18	1550	753.8	0.34	2700	754.1	0.59		
	1.71	850	200	862		400	855.8		820	856.6	0.16	1550	856.6	0.30	2700	839.7	0.53		
	1.53	945	200	921.7		400	915		820	915.9	0.15	1550	915.9	0.28	2700	940.4	0.47		
	1.39	1040	200	1062		400	1054		820	1055	0.13	1550	1055	0.24	2700	998.4	0.45		
	1.17	1240	200	1240		400	1231		820	1232		1550	1232	0.21	2700	1210	0.37		
	1.07	1360	200	1351		400	1342		820	1343		1550	1343	0.19	2700	1361	0.33		
	0.88	1655	200	1666		400	1654		820	1655		1550	1655	0.15	2700	1623	0.27		
	0.78	1860	200	1859		400	1846		820	1848		1550	1848	0.14	2700	1864	0.24		
	0.69	2110	200	2085		400	2070		820	2072		1550	2072	0.12	2700	2051	0.22		
	0.61	2380	200	2371		400	2353		820	2356		1550	2356		2700	2388	0.19		
	0.49	2985	200	2922		400	2901		820	2904		1550	2904		2700	2983	0.15		
	0.44	3330	200	3261		400	3237		820	3241		1550	3241		2700	3323	0.13		
	0.39	3735	200	3657		400	3630		820	3634		1550	3634		2700	3659	0.12		
0.34	4225	200	4124		400	4095		820	4099		1550	4099		2700	4258				
0.31	4720	200	4686		400	4652		820	4656		1550	4656		2700	4741				
0.28	5200	200	5011		400	4975		820	4980		1550	4980		2700	5310				
0.24	5923	200	5926		400	5841		820	5729		1550	5729		2700	6103				
0.22	6617				400	6635		820	6508		1550	6508		2700	6795				
0.20	7290				400	7096		820	6960		1550	6960		2700	7610				
0.18	8062				400	8179		820	8022		1550	8022		2700	8082				
0.15	9604				400	9552		820	9369		1550	9369		2700	9794				
0.13	11006													2700	11295				
0.12	11917													2700	12197				
0.11	13459																		

K



	K..97/CRL67			K.107/CRL77			K..127/CRL87			K..157/CRL107			K..167/CRL107			K..187/CRL107		
	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
	4300	118.6	5.97	8000	115.2	11.44	13000	118	18.15	18000	111.3	26.64	32000	111.1	47.45	50000	112.3	73.35
	4300	134.6	5.26	8000	130.9	10.07	13000	131.9	16.24	18000	124.4	23.84	32000	124.1	42.48	50000	125.4	65.69
	4300	149.6	4.74	8000	145.4	9.06	13000	151.8	14.11	18000	143.3	20.69	32000	143	36.87	50000	144.4	57.05
	4300	171	4.14	8000	162.6	8.11	13000	169	12.67	18000	159.3	18.62	32000	159.1	33.14	50000	160.7	51.26
	4300	204.2	3.47	8000	204.1	6.46	13000	207.2	10.34	18000	196.2	15.11	32000	197.8	26.65	50000	199.8	41.23
	4300	231.6	3.06	8000	231.8	5.69	13000	230.8	9.28	18000	218.6	13.57	32000	220.4	23.92	50000	222.6	37.01
	4300	257.7	2.75	8000	257.3	5.12	13000	266.1	8.05	18000	252	11.77	32000	254.1	20.75	50000	256.7	32.09
	4300	288.1	2.46	8000	288.2	4.57	13000	296.2	7.23	18000	280.5	14.22	32000	282.8	18.64	50000	285.7	28.83
	4300	323.8	2.19	8000	324.4	4.06	13000	331.7	6.46	18000	314.1	9.44	32000	316.7	16.65	50000	319.9	25.75
							K..127/CRL77			K..157/CRL97			K..167/CRL97					
	4300	340.2	2.08	8000	330.8	3.98	13000	333.9	6.41	18000	332	8.93	32000	346.4	15.22	50000	346.5	23.77
	4300	378	1.87	8000	367.5	3.59	13000	370.9	5.77	18000	382.5	7.75	32000	399	13.21	50000	399.2	20.63
	4300	432.1	1.64	8000	411	3.21	13000	414.8	5.16	18000	425.2	6.97	32000	443.6	11.88	50000	443.7	18.57
	4300	516.2	1.37	8000	516.1	2.55	13000	520.8	4.11	18000	523.7	5.66	32000	546.4	9.65	50000	546.6	15.07
	4300	585.5	1.21	8000	586	2.25	13000	591.3	3.62	18000	583.6	5.08	32000	608.8	8.66	50000	609	13.53
	4300	651.4	1.09	8000	650.5	2.03	13000	656.4	3.26	18000	672.8	4.41	32000	701.9	7.51	50000	702.2	11.73
	4300	728.1	0.97	8000	728.7	1.81	13000	735.4	2.91	18000	748.8	3.96	32000	781.2	6.75	50000	781.5	10.54
																K..187/CRL97		
	4300	818.5	0.87	8000	820	1.61	13000	827.6	2.59	18000	838.6	3.54	32000	874.8	6.03	50000	875.2	9.41
	4300	927.2	0.76	8000	927.6	1.42	13000	936.1	2.29	18000	944.5	3.14	32000	985.3	5.35	50000	985.7	8.36
	4300	1017	0.70	8000	1016	1.30	13000	1025	2.09	18000	1026	2.89	32000	1070	4.93	50000	1071	7.69
	4300	1209	0.59	8000	1210	1.09	13000	1221	1.75	18000	1221	2.43	32000	1274	4.14	50000	1274	6.47
	4300	1344	0.53	8000	1349	0.98	13000	1361	1.57	18000	1325	2.24	32000	1382	3.81	50000	1383	5.96
	4300	1602	0.44	8000	1619	0.81	13000	1633	1.31	18000	1639	1.81	32000	1710	3.08	50000	1711	4.81
	4300	1839	0.39	8000	1838	0.72	13000	1855	1.15	18000	1826	1.62	32000	1905	2.77	50000	1906	4.32
	4300	2025	0.35	8000	2040	0.65	13000	2059	1.04	18000	2107	1.41	32000	2198	2.40	50000	2199	3.75
	4300	2357	0.30	8000	2285	0.58	13000	2306	0.93	18000	2345	1.26	32000	2446	2.16	50000	2447	3.37
	4300	2940	0.24	8000	2908	0.45	13000	2935	0.73	18000	2956	1.00	32000	3084	1.71	50000	3085	2.67
	4300	3280	0.22	8000	3240	0.41	13000	3270	0.65	18000	3224	0.92	32000	3363	1.57	50000	3365	2.45
	4300	3611	0.20	8000	3597	0.37	13000	3630	0.59	18000	3719	0.80	32000	3880	1.36	50000	3881	2.12
	4300	4203	0.17	8000	4028	0.33	13000	4065	0.53	18000	4139	0.72	32000	4318	1.22	50000	4320	1.91
	4300	4679	0.15	8000	4518	0.29	13000	4560	0.47	18000	4634	0.64	32000	4834	1.09	50000	4836	1.70
	4300	5240	0.14	8000	5126	0.26	13000	5174	0.41	18000	5218	0.57	32000	5443	0.97	50000	5446	1.51
	4300	6024	0.12	8000	5773	0.23	13000	5765	0.37	18000	5949	0.50	32000	5922	0.89	50000	5803	1.42
	4300	6706		8000	6475	0.20	13000	6467	0.33	18000	6660	0.45	32000	6630	0.80	50000	6496	1.27
	4300	7511		8000	7347	0.18	13000	7338	0.29	18000	7499	0.40	32000	7466	0.71	50000	7315	1.13
	4300	7975		8000	8055	0.16	13000	8044	0.27	18000	8147	0.36	32000	8112	0.65	50000	7948	1.04
	4300	9667		8000	9588	0.14	13000	9576	0.22	18000	9698	0.31	32000	9655	0.55	50000	9460	0.87
	4300	11140		8000	10884	0.12	13000	10870	0.20	18000	10924	0.27	32000	10876	0.48	50000	10662	0.77
	4300	12035		8000	11655	0.11	13000	11640	0.18	18000	11982	0.25	32000	11929	0.44	50000	11679	0.70
				8000	13483	0.10	13000	13465	0.16	18000	13215	0.22	32000	13157	0.40	50000	12889	0.64

K



K../CRL..(n1=1740r/min)

n ₁ (r/min)	n _{2N} (r/min)	i _N	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	
1740	15	116	200	120.7	0.32	400	121.2	0.65	820	120.4	1.34	1550	120	2.56	2700	116.3	4.58	
	13.5	129	200	134.8	0.29	400	135.3	0.59	820	134.5	1.20	1550	134	2.29	2700	133.6	4.00	
	11.9	146	200	151	0.26	400	151.7	0.52	820	150.7	1.08	1550	150.2	2.04	2700	147	3.64	
	10.5	165	200	171.8	0.23	400	172.5	0.46	820	171.5	0.95	1550	170.8	1.80	2700	170.2	3.13	
	8.57	203	200	211.6	0.19	400	212.4	0.37	820	211.1	0.77	1550	210.4	1.45	2700	202.9	2.63	
	7.56	230	200	236.3	0.17	400	237.2	0.34	820	235.8	0.68	1550	234.9	1.31	2700	232.8	2.29	
	6.74	258	200	264.9	0.14	400	265.9	0.30	820	264.3	0.61	1550	263.4	1.16	2700	256.4	2.08	
	6.06	287	200	298.7	0.13	400	300	0.26	820	298.1	0.54	1550	297.1	1.03	2700	298.4	1.79	
	5.39	323	200	339.5		400	340.9	0.23	820	338.8	0.48	1550	337.6	0.91	2700	332.2	1.61	
	5.11	340	200	342.2		400	339.7	0.23	820	340.1	0.48	1550	340.1	0.90	2700	337.7	1.58	
	4.52	385	200	383.5		400	380.7	0.20	820	381.1	0.42	1550	381.1	0.80	2700	371.6	1.44	
	4.00	435	200	436.2		400	433.1	0.18	820	433.5	0.37	1550	433.5	0.71	2700	430.2	1.24	
	3.25	535	200	537.2		400	533.3	0.14	820	533.8	0.30	1550	533.8	0.58	2700	512.7	1.04	
	2.88	605	200	599.9		400	595.5	0.13	820	596.1	0.28	1550	596.1	0.52	2700	588.4	0.91	
	2.56	680	200	672.5		400	667.6		820	668.3	0.24	1550	668.3	0.46	2700	647.9	0.83	
	2.30	755	200	758.5		400	753		820	753.8	0.22	1550	753.8	0.41	2700	754.1	0.71	
	2.05	850	200	862		400	855.8		820	856.6	0.19	1550	856.6	0.36	2700	839.7	0.64	
	1.84	945	200	921.7		400	915		820	915.9	0.18	1550	915.9	0.34	2700	940.4	0.56	
	1.67	1040	200	1062		400	1054		820	1055	0.16	1550	1055	0.29	2700	998.4	0.54	
	1.40	1240	200	1240		400	1231		820	1232	0.13	1550	1232	0.25	2700	1210	0.44	
	1.28	1360	200	1351		400	1342		820	1343		1550	1343	0.23	2700	1361	0.40	
	1.06	1655	200	1666		400	1654		820	1655		1550	1655	0.18	2700	1623	0.32	
	0.94	1860	200	1859		400	1846		820	1848		1550	1848	0.17	2700	1864	0.29	
	0.83	2110	200	2085		400	2070		820	2072		1550	2072	0.14	2700	2051	0.26	
	0.73	2380	200	2371		400	2353		820	2356		1550	2356	0.13	2700	2388	0.23	
	0.59	2985	200	2922		400	2901		820	2904		1550	2904		2700	2983	0.18	
	0.53	3330	200	3261		400	3237		820	3241		1550	3241		2700	3323	0.16	
	0.47	3735	200	3657		400	3630		820	3634		1550	3634		2700	3659	0.14	
	0.41	4225	200	4124		400	4095		820	4099		1550	4099		2700	4258	0.12	
	0.37	4720	200	4686		400	4652		820	4656		1550	4656		2700	4741		
0.34	5200	200	5011		400	4975		820	4980		1550	4980		2700	5310			
0.29	5923	200	5926		400	5841		820	5729		1550	5729		2700	6103			
0.26	6617				400	6635		820	6508		1550	6508		2700	6795			
0.24	7290				400	7096		820	6960		1550	6960		2700	7610			
0.22	8062				400	8179		820	8022		1550	8022		2700	8082			
0.18	9604				400	9552		820	9369		1550	9369		2700	9794			
0.16	11006													2700	11295			
0.14	11917													2700	12197			
0.13	13459																	

K



K..97/CRL67			K.107/CRL77			K..127/CRL87			K..157/CRL107			K..167/CRL107			K..187/CRL107		
T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)	T _{2N} (N·m)	i _{ex}	P _{1N} (kW)
4300	118.6	7.16	8000	115.2	13.7	13000	118	21.8	18000	111.3	32.0	32000	111.1	56.9	50000	112.3	88.0
4300	134.6	6.31	8000	130.9	12.1	13000	131.9	19.5	18000	124.4	28.6	32000	124.1	51.0	50000	125.4	78.8
4300	149.6	5.69	8000	145.4	10.9	13000	151.8	16.9	18000	143.3	24.8	32000	143	44.2	50000	144.4	68.5
4300	171	4.97	8000	162.6	9.73	13000	169	15.2	18000	159.3	22.3	32000	159.1	39.8	50000	160.7	61.5
4300	204.2	4.16	8000	204.1	7.75	13000	207.2	12.4	18000	196.2	18.1	32000	197.8	32.0	50000	199.8	49.5
4300	231.6	3.67	8000	231.8	6.83	13000	230.8	11.1	18000	218.6	16.3	32000	220.4	28.7	50000	222.6	44.4
4300	257.7	3.30	8000	257.3	6.14	13000	266.1	9.66	18000	252	14.1	32000	254.1	24.9	50000	256.7	38.5
4300	288.1	2.95	8000	288.2	5.48	13000	296.2	8.68	18000	280.5	17.1	32000	282.8	22.4	50000	285.7	34.6
4300	323.8	2.63	8000	324.4	4.87	13000	331.7	7.75	18000	314.1	11.3	32000	316.7	20.0	50000	319.9	30.9
						K..127/CRL77			K..157/CRL97			K..167/CRL97					
4300	340.2	2.50	8000	330.8	4.78	13000	333.9	7.69	18000	332	10.7	32000	346.4	18.3	50000	346.5	28.5
4300	378	2.24	8000	367.5	4.31	13000	370.9	6.92	18000	382.5	9.30	32000	399	15.9	50000	399.2	24.8
4300	432.1	1.97	8000	411	3.85	13000	414.8	6.19	18000	425.2	8.36	32000	443.6	14.3	50000	443.7	22.3
4300	516.2	1.64	8000	516.1	3.06	13000	520.8	4.93	18000	523.7	6.79	32000	546.4	11.6	50000	546.6	18.1
4300	585.5	1.45	8000	586	2.70	13000	591.3	4.34	18000	583.6	6.10	32000	608.8	10.4	50000	609	16.2
4300	651.4	1.31	8000	650.5	2.44	13000	656.4	3.91	18000	672.8	5.29	32000	701.9	9.01	50000	702.2	14.1
4300	728.1	1.16	8000	728.7	2.17	13000	735.4	3.49	18000	748.8	4.75	32000	781.2	8.10	50000	781.5	12.6
															K..187/CRL97		
4300	818.5	1.04	8000	820	1.93	13000	827.6	3.11	18000	838.6	4.25	32000	874.8	7.24	50000	875.2	11.3
4300	927.2	0.91	8000	927.6	1.70	13000	936.1	2.75	18000	944.5	3.77	32000	985.3	6.42	50000	985.7	10.0
4300	1017	0.84	8000	1016	1.56	13000	1025	2.51	18000	1026	3.47	32000	1070	5.92	50000	1071	9.23
4300	1209	0.71	8000	1210	1.31	13000	1221	2.10	18000	1221	2.92	32000	1274	4.97	50000	1274	7.76
4300	1344	0.64	8000	1349	1.18	13000	1361	1.88	18000	1325	2.69	32000	1382	4.57	50000	1383	7.15
4300	1602	0.53	8000	1619	0.97	13000	1633	1.57	18000	1639	2.17	32000	1710	3.70	50000	1711	5.77
4300	1839	0.47	8000	1838	0.86	13000	1855	1.38	18000	1826	1.94	32000	1905	3.32	50000	1906	5.18
4300	2025	0.42	8000	2040	0.78	13000	2059	1.25	18000	2107	1.69	32000	2198	2.88	50000	2199	4.50
4300	2357	0.36	8000	2285	0.70	13000	2306	1.12	18000	2345	1.51	32000	2446	2.59	50000	2447	4.04
4300	2940	0.29	8000	2908	0.54	13000	2935	0.88	18000	2956	1.20	32000	3084	2.05	50000	3085	3.20
4300	3280	0.26	8000	3240	0.49	13000	3270	0.78	18000	3224	1.10	32000	3363	1.88	50000	3365	2.94
4300	3611	0.24	8000	3597	0.44	13000	3630	0.71	18000	3719	0.96	32000	3880	1.63	50000	3881	2.54
4300	4203	0.20	8000	4028	0.40	13000	4065	0.64	18000	4139	0.86	32000	4318	1.46	50000	4320	2.29
4300	4679	0.18	8000	4518	0.35	13000	4560	0.56	18000	4634	0.77	32000	4834	1.31	50000	4836	2.04
4300	5240	0.17	8000	5126	0.31	13000	5174	0.49	18000	5218	0.68	32000	5443	1.16	50000	5446	1.81
4300	6024	0.14	8000	5773	0.28	13000	5765	0.44	18000	5949	0.60	32000	5922	1.07	50000	5803	1.70
4300	6706	0.12	8000	6475	0.24	13000	6467	0.40	18000	6660	0.54	32000	6630	0.96	50000	6496	1.52
4300	7511		8000	7347	0.22	13000	7338	0.35	18000	7499	0.48	32000	7466	0.85	50000	7315	1.36
4300	7975		8000	8055	0.19	13000	8044	0.32	18000	8147	0.43	32000	8112	0.78	50000	7948	1.25
4300	9667		8000	9588	0.17	13000	9576	0.26	18000	9698	0.37	32000	9655	0.66	50000	9460	1.04
4300	11140		8000	10884	0.14	13000	10870	0.24	18000	10924	0.32	32000	10876	0.58	50000	10662	0.92
4300	12035		8000	11655	0.13	13000	11640	0.22	18000	11982	0.30	32000	11929	0.53	50000	11679	0.84
			8000	13483	0.12	13000	13465	0.19	18000	13215	0.26	32000	13157	0.48	50000	12889	0.77

K



6 Directly connected motor power table:

iN P _m (kW)	P _m (kW)									P _m (kW)									
	0.12	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	0.12	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3
3.5																			
4																			
4.7																			
5.5																			
6																			
6.8																			
8.1																			
9.8																			
11																			
12.5																			
14.3																			
17.1																			
19																			
22																			
25																			
27.9																			
30.9																			
35.7																			
43.2																			
50																			
55.5																			
62.4																			
70.1																			
77.7																			
85.9																			
102																			
117																			
126																			
143																			
159																			
172																			
191																			

K

iN P _m (kW)	P _m (kW)											P _m (kW)												
	0.12	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11
3.5																								
4																								
4.7																								
5.5																								
6																								
6.8																								
8.1																								
9.8																								
11																								
12.5																								
14.3																								
17.1																								
19																								
22																								
25																								
27.9																								
30.9																								
35.7																								
43.2																								
50																								
55.5																								
62.4																								
70.1																								
77.7																								
85.9																								
102																								
117																								
126																								
143																								
159																								
172																								
191																								

- Note: 1. Means permissible directly-connected motor.
 2. Means permissible directly-connected motor(The motor's power is more than nominal input power of gear unit, P1 > P1N).
 3. Means unallowed directly-connected motor.
 4. The selection of motor shall be suitable for driver machine factor and regulations of type selection.
 5. The motor is 4-pole motor.



iN	P _m (kW)	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22	30	
3.5																												
4																												
4.7																												
5.5																												
6																												
6.8																												
8.1																												
9.8																												
11																												
12.5																												
14.3																												
17.1																												
19																												
22																												
25																												
27.9																												
30.9																												
35.7																												
43.2																												
50																												
55.5																												
62.4																												
70.1																												
77.7																												
85.9																												
102																												
117																												
126																												
143																												
159																												
172																												
191																												

K

iN	P _m (kW)	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45	55	75	90
3.5																													
4																													
4.7																													
5.5																													
6																													
6.8																													
8.1																													
9.8																													
11																													
12.5																													
14.3																													
17.1																													
19																													
22																													
25																													
27.9																													
30.9																													
35.7																													
43.2																													
50																													
55.5																													
62.4																													
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77.7																													
85.9																													
102																													
117																													
126																													
143																													
159																													
172																													
191																													

- Note: 1. Means permissible directly-connected motor.
 2. Means permissible directly-connected motor(The motor's power is more than nominal input power of gear unit, P1 > P1N).
 3. Means unallowed directly-connected motor.
 4. The selection of motor shall be suitable for driver machine factor and regulations of type selection.
 5. The motor is 4-pole motor.



7 Permissible Radial Force and Axial Force on Shaft:

7.1 Radial Force on Input Shaft (Fr1)(N):

	Fr1(N)					
	KY67	KY77	KY87	KY97	KY107	KY127
AE3	1504	1504	/	/	/	/
AE4	/	2188	2188	/	/	/
AE5	/	/	4207	4207	4207	/
AE6	/	/	/	5664	5664	5664
AE7	/	/	/	/	/	9957
AE8	/	/	/	/	/	12546

7.2 Radial Force on Input Shaft (Fr1)(N):

n _{2N} (r/min)	Fr1(N)										
	K..37	K..47	K..67	K..77	K..87	K..97	K..107	K..127	K..157	K..167	K..187
AE2	803	803	803	803	803	/	/	/	/	/	/
AE3	/	1504	1504	1504	1504	1504	1504	/	/	/	/
AE4	/	/	/	2188	2188	2188	2188	2188	/	/	/
AE5	/	/	/	/	4207	4207	4207	4207	4207	4207	4207
AE6	/	/	/	/	/	5664	5664	5664	5664	5664	5664
AE7	/	/	/	/	/	/	/	9957	9957	9957	9957
AE8	/	/	/	/	/	/	/	12546	12546	12546	12546

7.3 Radial Force on Output Shaft (Fr2)(N):

n _{2N} (r/min)	Fr2(N)										
	K..37	K..47	K..67	K..77	K..87	K..97	K..107	K..127	K..157	K..167	K..187
160 ~ 225	1899	3150	9990	11135	12150	14220	22140	29250	/	/	/
140 ~ 160	2070	3240	10350	12510	12780	14760	23220	29700	/	/	/
125 ~ 140	2250	3510	10620	12960	13410	14580	24300	30510	/	/	/
112 ~ 125	2340	3348	11070	13590	13320	14470	25200	31860	/	/	/
90 ~ 112	2430	3510	10260	13500	13770	15300	19710	28620	/	/	/
80 ~ 90	2610	3807	9900	14490	14670	16020	21240	30240	/	/	/
71 ~ 80	2799	3960	9720	14130	15120	17190	23490	31500	38800	66600	74700
63 ~ 71	2880	4239	9720	13860	16110	18810	26010	34200	42300	69750	76770
56 ~ 63	2997	4500	9360	13860	16200	19800	28800	36900	46800	73500	78120
50 ~ 56	3150	4770	9270	13860	16650	20970	29700	38700	48600	79740	81180
45 ~ 50	3285	5040	9270	13860	17280	22050	31500	41340	51300	81900	85050
35.5 ~ 45	3375	5328	9270	13860	19260	23130	33300	44460	54000	89730	92700
31.5 ~ 35.5	3960	5328	9270	13860	20520	25470	36450	48600	60300	96660	101430
28 ~ 31.5	4194	5328	9270	13860	21150	27900	37980	52200	65250	105300	113400
25 ~ 28	4410	5328	9270	13860	22500	29070	39960	53910	67410	108000	113490
22.4 ~ 25	4662	5328	9270	13860	23580	30420	41220	57600	71100	114300	123300
20 ~ 22.4	4968	5328	9270	13860	24570	32040	43200	60930	75780	126000	130500
18 ~ 20	5076	5328	9270	13860	24570	33390	45450	63000	79200	126090	132300
16 ~ 18	5076	5328	9270	13860	24570	34920	47700	66150	82710	132480	143100
≤16	5076	5328	9270	13860	24570	36000	51300	71280	88200	135000	152910

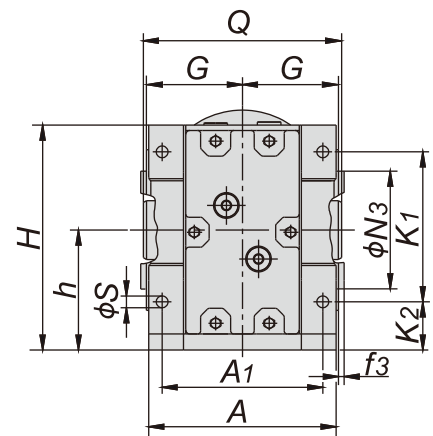
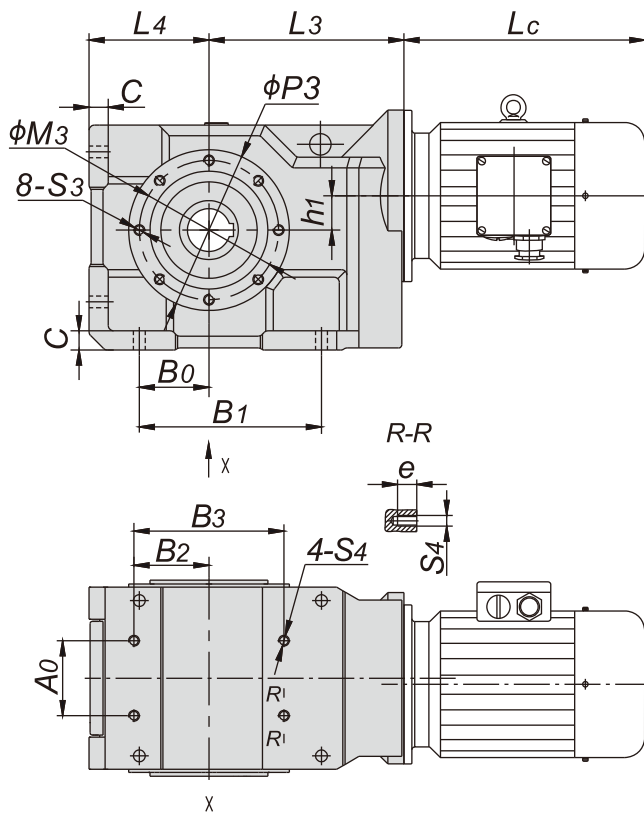
Notes: For lower output speed, apply the largest Fr2 value in each type.



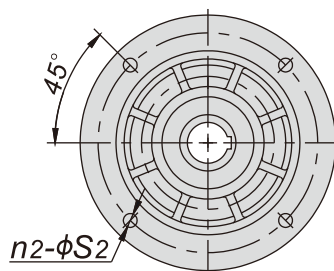
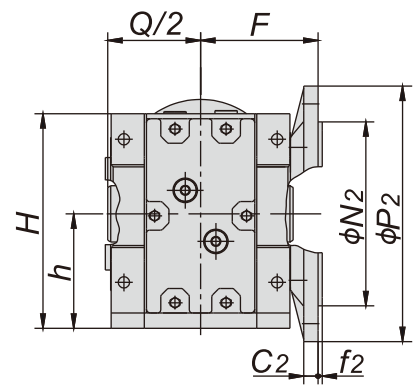
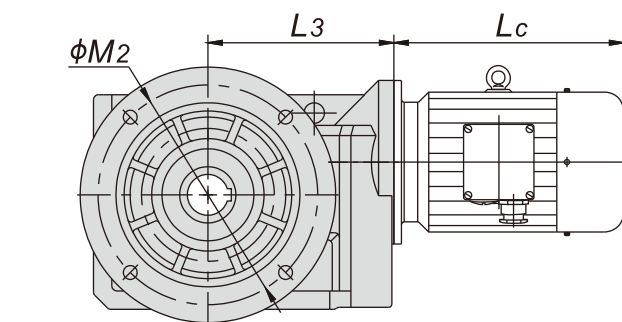


8 Mounting , Output Modes and Dimensions:

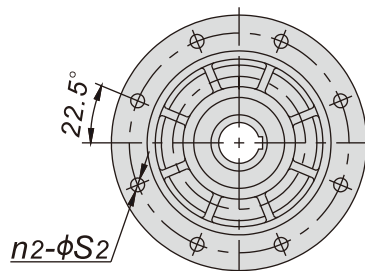
KY.67~KY.127



Foot-mounted **KYW67~KYW127**



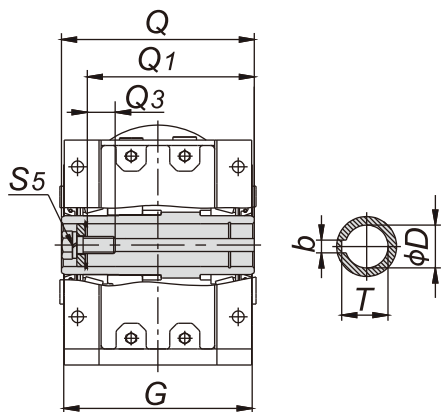
KYL67-KYL87



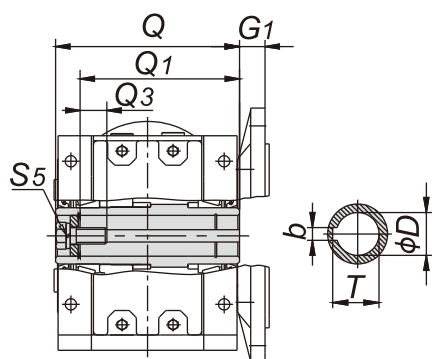
KYL97-KYL127

Flange-mounted **KYL67~KYL127**

Note: Solid shaft, shrink disc and hollow shaft with splines on request.



Hollow shaft with parallel key



Hollow shaft with parallel key

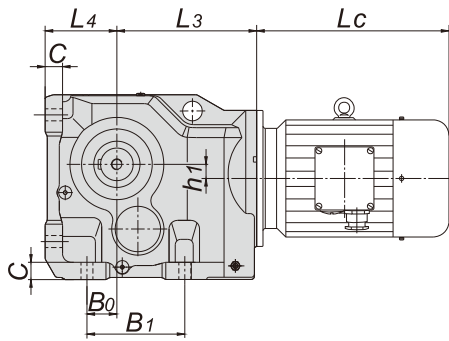
Size	67	77	87	97	107	127
A	165	200	225	295	345	400
A0	70	88	102	118	160	190
A1	140	170	190	255	295	335
b	12	14	18	20	25	28
B0	65	80	90	110	145	175
B1	170	220	235	280	355	410
B2	70	87	100.5	125	153	174
B3	140	174	201	250	306	348
C	18	24	27	32	36	40
C2	14	16	18	22	22	25
D	40H7	50H7	60H7	70H7	90H7	100H7
e	18	21	28	28	35	42
F	120	139	154	200	216	256
f2	4	4	5	5	5	5
f3	3.5	3.5	4	4	4	5
G1	27	36	36	50	43	53
G	93	103	118	150	173	203
H	212	267	317	367	439	520
h	112	140	160	180	240	280
h1	31.95	40.38	56.22	70.84	74.75	90.46
K1	140	175	205	250	280	345
K2	45	55	70	70	95	105
L3	182	230	245	290	360	405
L4	112	140	160	180	240	280
M2	215	265	300	400	400	500
M3	130	165	178	215	265	300
N2	180h7	230h7	250h7	350h7	350h7	450h7
N3	110h7	130h7	155h7	180h7	230h7	250h7
n2	4	4	4	8	8	8
P2	250	300	350	450	450	550
P3	150	190	215	250	300	335
Q	185	210	236	300	346	405
Q1	160	183	206	270	309	368
Q3	26	28	38	40	39	46
S	11	13.5	17.5	22	26	33
S2	13.5	13.5	17.5	17.5	17.5	17.5
S3	M10	M12	M16	M16	M16	M16
S4	M10	M12	M16	M16	M20	M24
S5	M16	M16	M20	M20	M24	M24
T	43.3	53.8	64.4	74.9	95.4	106.4
Weight(kg)	28	50	72	110	195	325

K

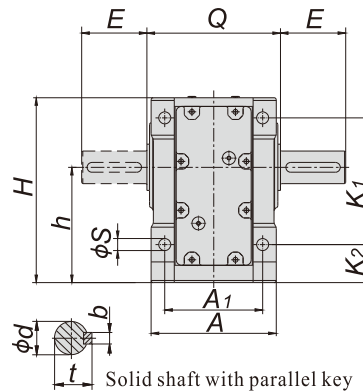
Note: * The weight of motor and lubricant is not included.



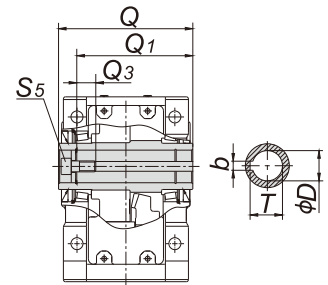
K..37~K..107



Foot-mounted

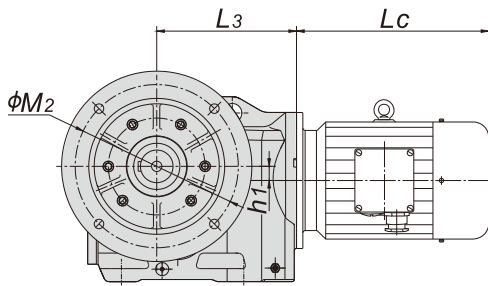


Solid shaft with parallel key
K37~K107

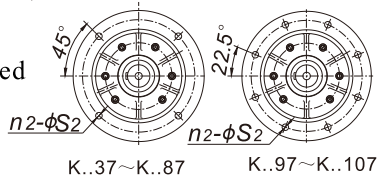


Hollow shaft with parallel key
KW37~KW107

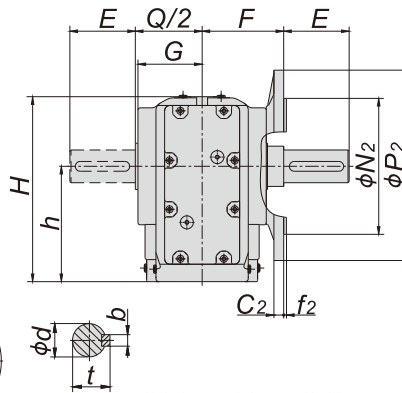
K



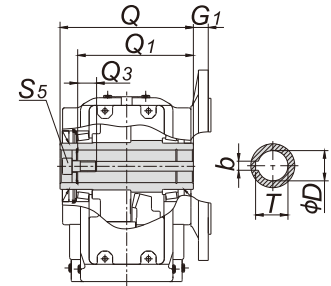
Flange-mounted



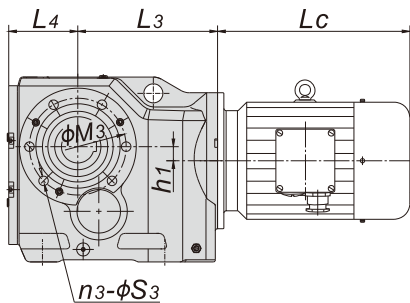
K..37~K..87 K..97~K..107



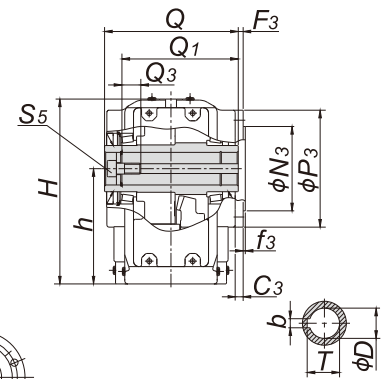
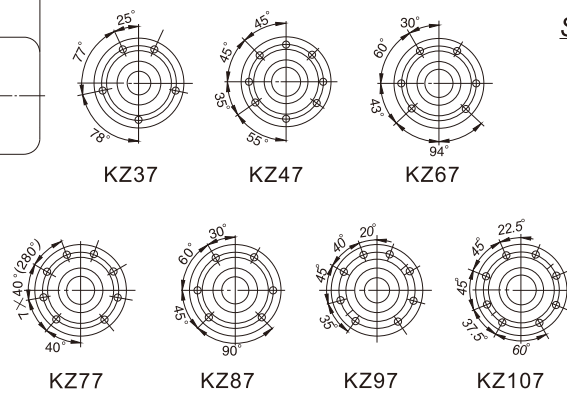
Solid shaft with parallel key
KF37~KF107



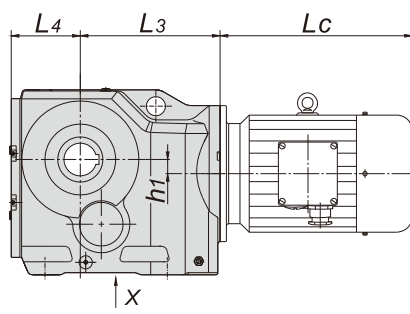
Hollow shaft with parallel key
KL37~KL107



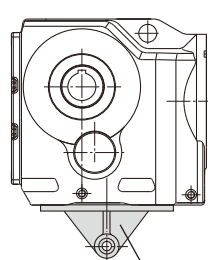
Short-flange mounted



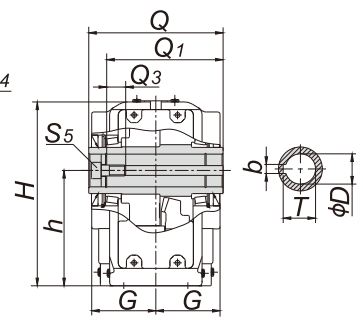
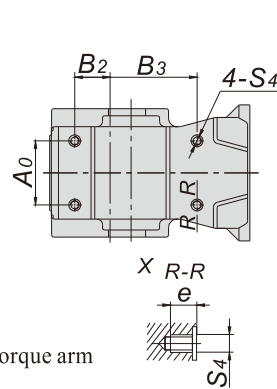
Hollow shaft with parallel key
KZ37~KZ107



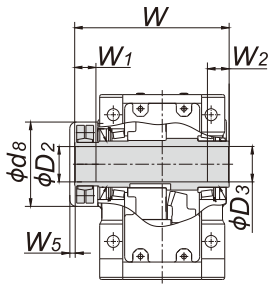
Shaft-mounted (Applicable for torque arm-mounted)



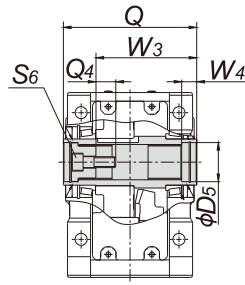
Refer to page30/K for torque arm



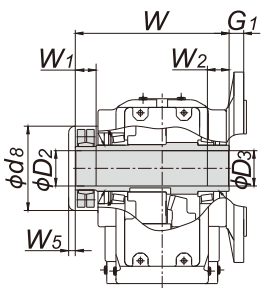
Hollow shaft with parallel key
KA37~KA107



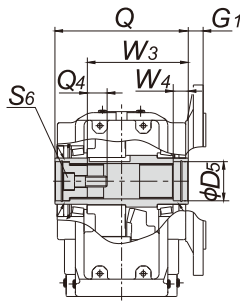
Hollow shaft with shrink disk
KH37~KH107



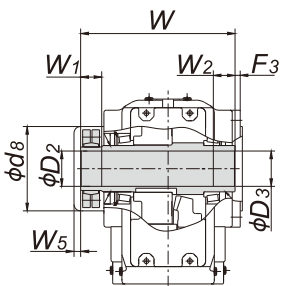
Hollow shaft with involute spline
KN37~KN107



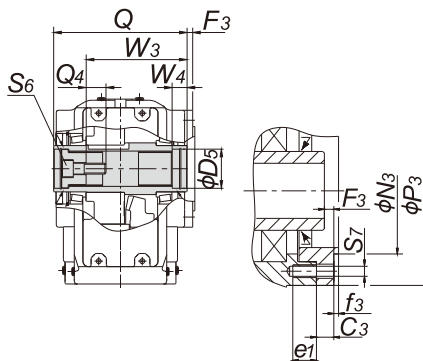
Hollow shaft with shrink disk
KHL37~KHL107



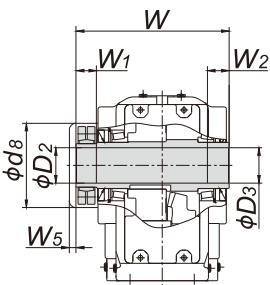
Hollow shaft with involute spline
KNF37~KNF107



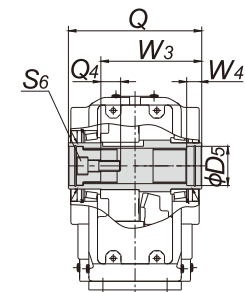
Hollow shaft with shrink disk
KHZ37~KHZ107



Hollow shaft with involute spline
KNZ37~KNZ107



Hollow shaft with shrink disk
KHA37~KHA107



Hollow shaft with involute spline
KNA37~KNA107

Outline Dimensions

Size	37	47	67	77	87	97	107
A	120	145	170	200	230	290	340
A0	60	70	88	102	118	160	190
A1	100	120	140	165	180	240	270
B0	28	35	30	40	55	75	95
B1	110	130	120	150	180	240	280
B2	35	40	42	48	65	83	100
B3	82	100	110	122	160	165	190
C	16	18	24	27	32	36	40
C2	10	12	15	16	18	22	22
C3	11	11	12	14	15	18	22
e	20	20	25	32	32	36	44
e1	14	14	20	20	26	26	32
F	84	100	113	142	150	191.5	215.5
f2	3.5	3.5	4	4	5	4	5
f3	3	3	3.5	3.5	4	4	4
G	58	73	88	103	118	148	173
H	164	186	228	288	340	417	503
h	100	112	140	180	212	265	315
h1	8.5	7.2	20	31.3	25.9	32.3	52
K1	115	130	160	200	233	295	360
K2	32	37	45	55	70	83	95
L3	155	174	187	215	261	276	346
L4	63	71	90	112	132	160	200
M2	130	165	215	265	300	400	400
M3	94	102	125	142	178	220	260
N2	110h7	130h7	180h7	230h7	250h7	350h7	350h7
N3	80h7	80h7	105h7	125h7	155h7	180h7	210h7
n2	4	4	4	4	4	8	8
n3	5	8	6	8	6	8	8
P2	160	200	250	300	350	450	450
P3	110	120	155	170	215	260	304
S	11	11	13.5	17.5	22	26	33
S2	9	11	13.5	13.5	17.5	17.5	17.5
S3	9	9	13.5	13.5	17.5	17.5	22
S4	M8	M10	M12	M16	M16	M20	M24
S7	M8	M8	M12	M12	M16	M16	M20
b	8	10	12	14	18	20	25
D	30H7	35H7	40H7	50H7	60H7	70H7	90H7
D2	30H7	35H7	40H7	50H7	65H7	75H7	85H7
D3	30H7	35H7	40H7	50H7	65H7	75H7	90H7
D5	37H7	37H7	42H7	55H7	72H7	72H7	90H7
d	25k6	35k6	40k6	50k6	60m6	70m6	90m6
d8	86	86	96	122	150	160	207
E	50	60	80	100	120	140	170
F3	9	9	9	12	13	16	20
G1	24	25	23	37	30	43.5	41
Q	120	150	180	210	240	300	350
Q1	105	132	156	183	210	270	313
Q3	17	22	29	35	44	43	40
Q4	16	18	18	31	36.5	36.5	36.5
S5	M10	M12	M16	M16	M20	M20	M24
S6	M10	M10	M10	M16	M20	M20	M20
T	33.3	38.3	43.3	53.8	64.4	74.9	95.4
t	28	38	43	53.5	64	74.5	95
W	146	177	208	241	281	345	405
W1	31	32	38	36	41	55	65
W2	20	20	20	30	40	50	60
W3	91	118	144	162	182	242	292
W4	18	18	25	23	25	25	26
W5	12	11	12	9	9	11	38
m**	1.25	2	2	2	2	2	3
Z**	22	16	16	24	31	34	27
alpha**	30	30	30	30	30	30	30
D6**	30	35	35	50	65	70	85
Weight (kg)	12	20	30	49	80	150	250

Dimensions of output shaft

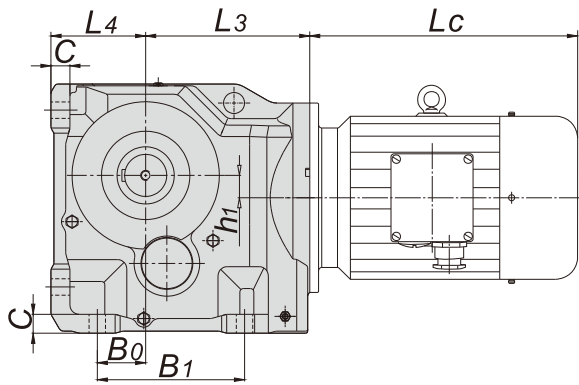
Note: * For KHL, KHA, KHZ, shrink disk should be installed on the opposite side of flange, short-flange and torque-arm, For KH, shrink disk should be installed on the opposite side of A/B extension.

** Involute spline acc. to DIN 5480 Module M x number of teeth Z x Pressure angle alpha x Major diameter D6x9H.

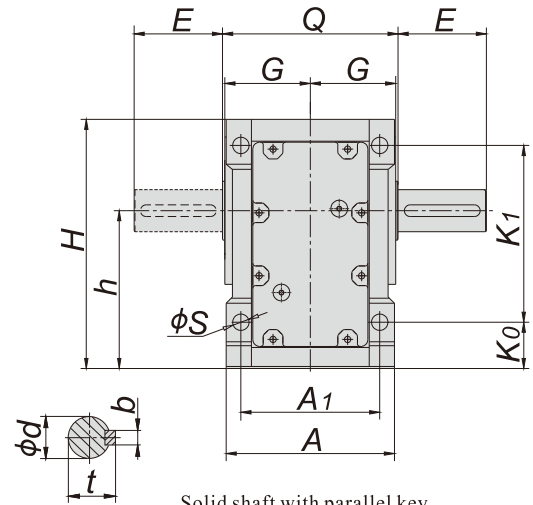
*** The weight of motor and lubricant is not included.



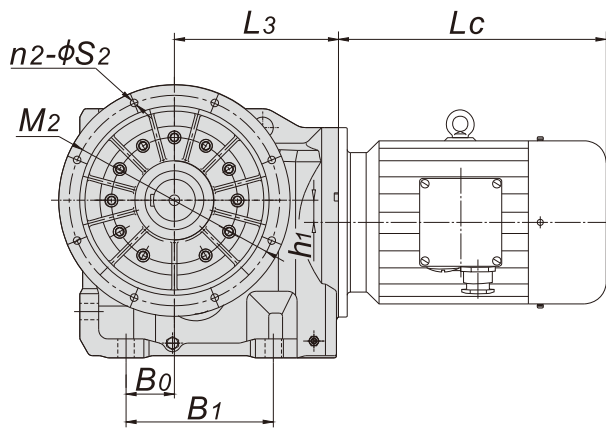
K..127、K..157



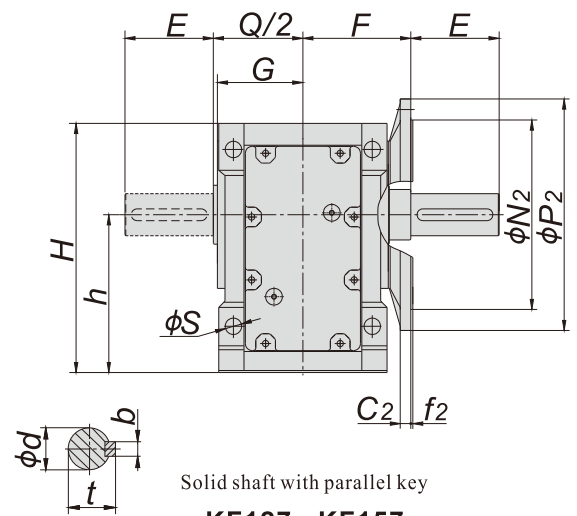
Foot-mounted



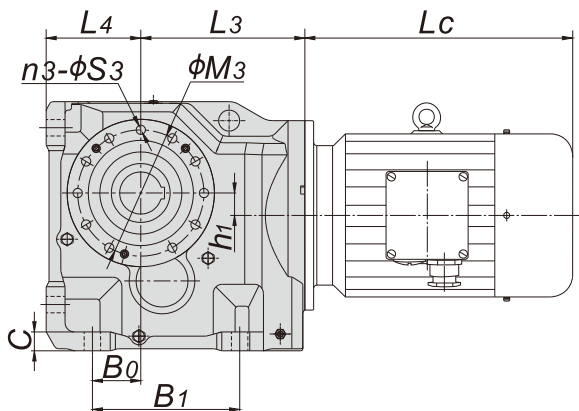
Solid shaft with parallel key
K127、K157



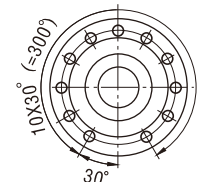
Flange-mounted



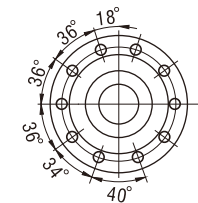
Solid shaft with parallel key
KF127、KF157



Short-flange mounted



K..127

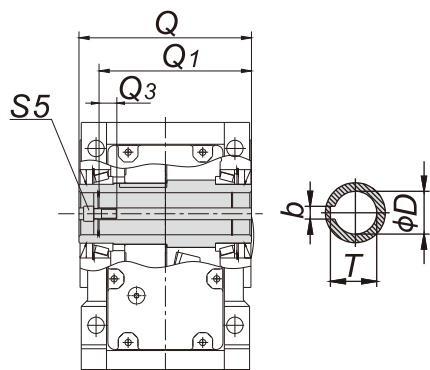


K..157

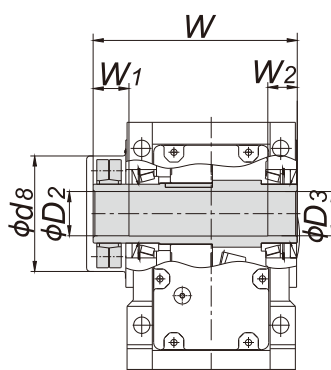
K



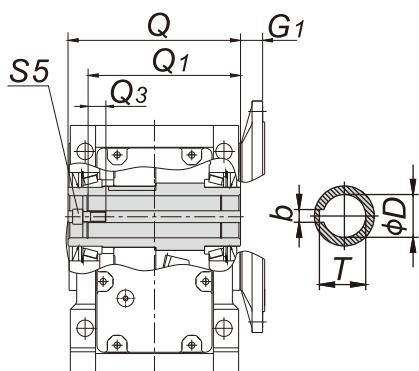
K



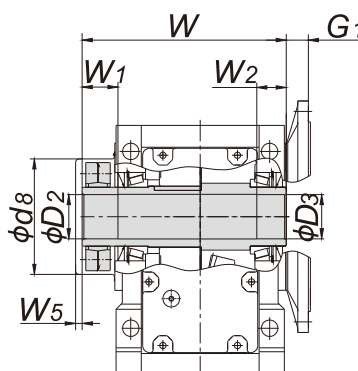
Hollow shaft with parallel key
KW127、KW157



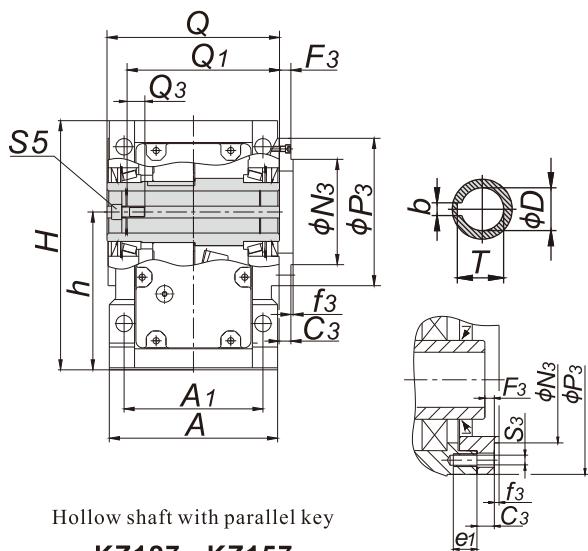
Hollow shaft with shrink disk
KH127、KH157



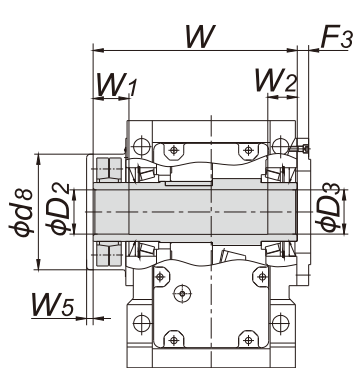
Hollow shaft with parallel key
KL127、KL157



Hollow shaft with shrink disk
KHL127、KHL157



Hollow shaft with parallel key
KZ127、KZ157



Hollow shaft with shrink disk
KHZ127、KHZ157

Outline Dimensions

Dimensions of output shaft

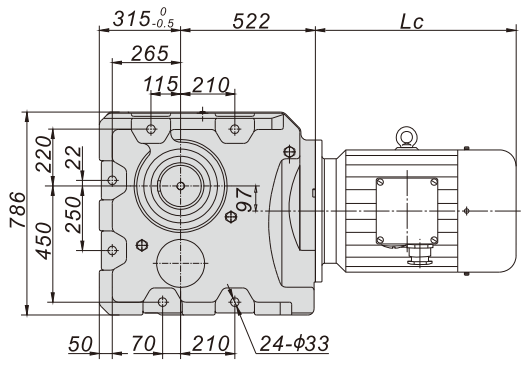
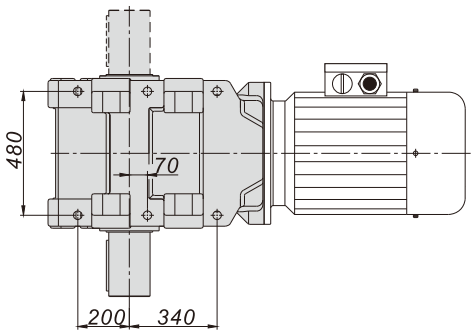
Size	127	157
A	400	500
A0	330	420
A1	330	420
B0	115	140
B1	350	380
B2	115	140
B3	350	380
b	28	32
C	45	50
C2	25	28
C3	28	58
d	100m6	120m6
E	210	210
e1	30	38
F	256	310
f2	5	6
f3	5	5
G	203	217
H	592	705
h	375	450
h1	53	76
K0	110	130
K1	420	500
L3	398	426
L4	225	280
M2	500	600
M3	300	340
N2	450h7	550h7
n2	8	8
n3	11	10
P2	550	660
S	39	39
S2	17.5	22
S3	22	26
S4	M36	M36
t	106	127
D	100H7	120H7
D2	105H7	115H7
D3	105H7	125H7
d3	140	160
d8	252	302
F3	26	25
G1	51	62
N3	250h7	290h7
P3	350	400
Q	410	500
Q1	373	460
Q3	40	40
S5	M24	M24
T	106.4	127.4
W	485	580
W1	85	90
W2	70	80
W5	23	33
Weight* (kg)	410	666

Note:* The weight of motor and lubricant is not included.

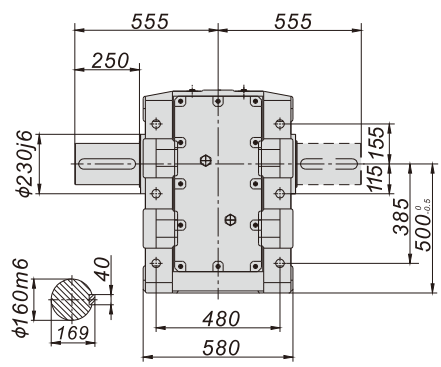


K.167、K.187

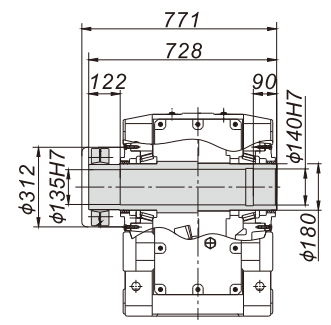
K



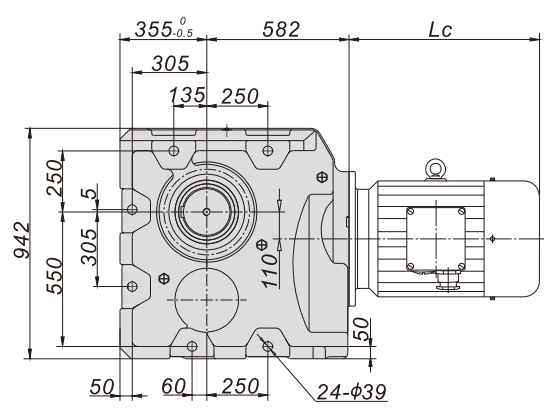
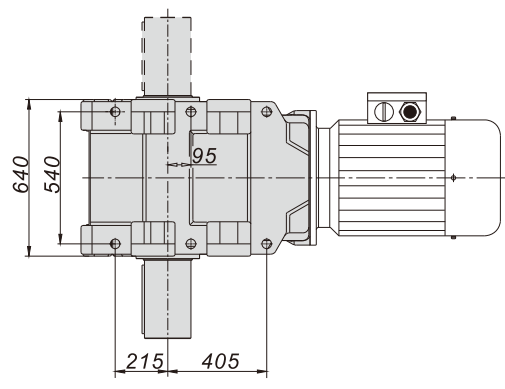
Foot-mounted



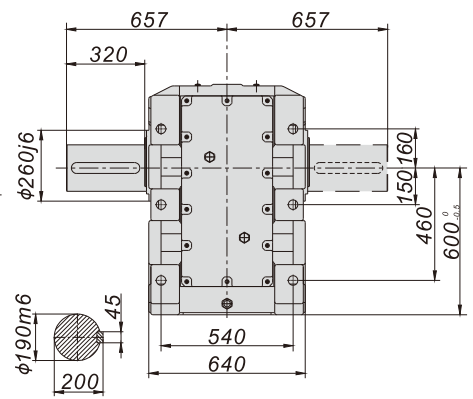
Solid shaft with parallel key
K167



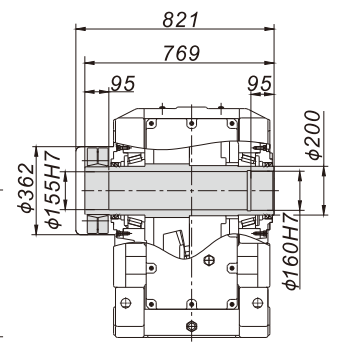
Hollow shaft with shrink disk
KH167



Foot-mounted



Solid shaft with parallel key
K187



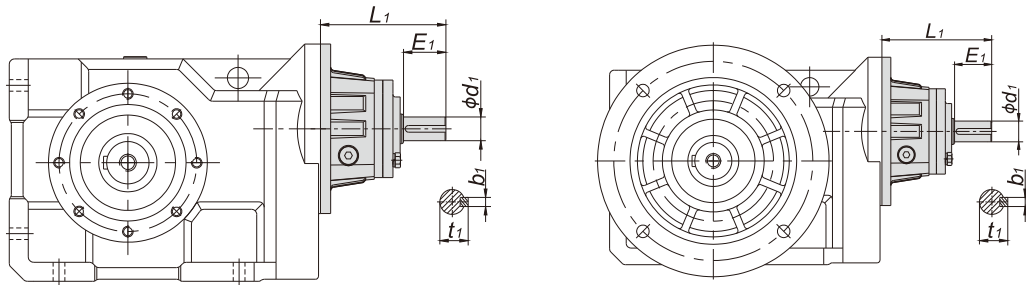
Hollow shaft with shrink disk
KH187

Note: The weight of K.167 is 1036kg; K.187,1600kg.(Motor and lubricant is not included)



9 Input Part:

9.1 KY Series Dimensions of AE Input Shaft:

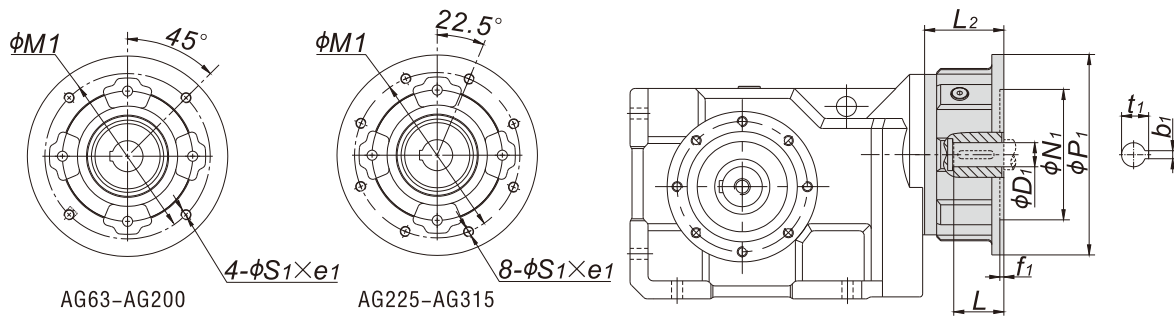


K

Size	Input Shaft	Range of Power	d1	E1	L1	b1	t1	Weight (kg)
67	AE3	1.5-5.5kW	28k6	60	175	8	31	7.5
77	AE3	1.5-5.5kW	28k6	60	165	8	31	8.5
	AE4	7.5-11kW	38k6	80	216	10	41	12.8
87	AE4	7.5-11kW	38k6	80	209	10	41	14.5
	AE5	15-22kW	42k6	110	271	12	45	25.4
97	AE5	15-22kW	42k6	110	265	12	45	26.6
	AE6	30-45kW	48k6	110	327	14	51.5	51.6
107	AE5	15-22kW	42k6	110	252	12	45	29.1
	AE6	30-45kW	48k6	110	314	14	51.5	50.8
127	AE6	30-45kW	48k6	110	298	14	51.5	57.2
	AE7	55-90kW	55m6	110	297	16	59	64
	AE8	110-132kW	70m6	140	377	20	74.5	84.4



9.2 KY Series Dimensions of AG Connection Flange:

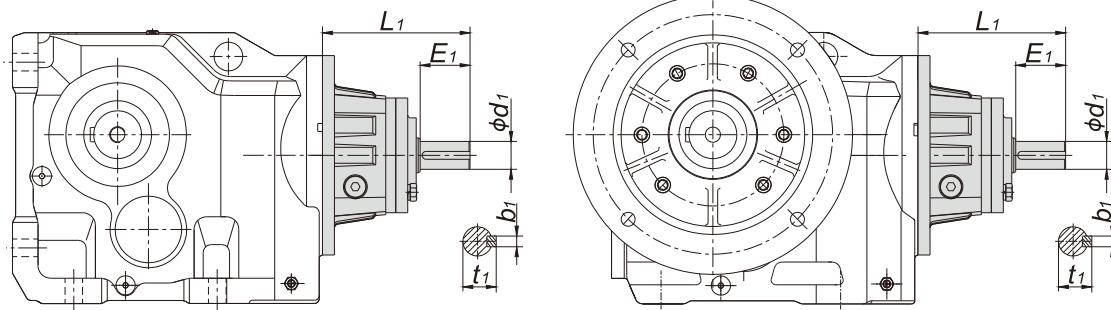


K

Size	Flange	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(Kg)
67	AG100\112	21	28H7	180H7	215	250	5	8	31.3	60	M12	96	13.1
77	AG100\112	21	28H7	180H7	215	250	5	8	31.3	60	M12	86	13.9
	AG132	21	38H7	230H7	265	300	5	10	41.3	80	M12	103	19.7
87	AG132	21	38H7	230H7	265	300	5	10	41.3	80	M12	96	22.6
	AG160	28	42H7	250H7	300	350	6	12	45.3	110	M16	143	37.2
	AG180	28	48H7	250H7	300	350	6	14	51.8	110	M16	143	37.2
97	AG160	28	42H7	250H7	300	350	6	12	45.3	110	M16	137	40.4
	AG180	28	48H7	250H7	300	350	6	14	51.8	110	M16	137	40.4
	AG200	28	55H7	300H7	350	400	6	16	59.3	110	M20	167	51.9
107	AG180	28	48H7	250H7	300	350	6	14	51.8	110	M16	124	43.4
	AG200	28	55H7	300H7	350	400	6	16	59.3	110	M20	154	52.4
	AG225	28	60H7	350H7	400	450	7	18	64.4	140	M16	182	89
127	AG200	28	55H7	300H7	350	400	6	16	59.3	110	M20	138	60.3
	AG225	28	60H7	350H7	400	450	6	18	64.4	140	M16	166	98.6
	AG250	28	65H7	450H7	500	550	7	18	69.4	140	M16	171	122.6
	AG280	28	75H7	450H7	500	550	7	20	79.9	140	M16	171	122.6



9.3 K Series Dimensions of AE Input Shaft:

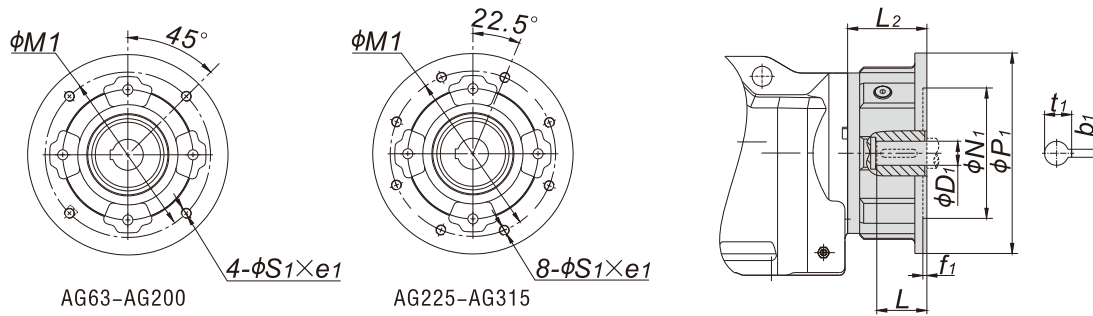


Size	Input Shaft	Range of Power	d1	E1	L1	b1	t1	Weight(Kg)
37	AE2	0.12-1.1kW	19k6	40	117	6	21.5	3.2
47	AE2	0.12-1.1kW	19k6	40	119	6	21.5	3.9
	AE3	1.5-4kW	28k6	60	175	8	31	7.5
67	AE2	0.12-1.1kW	19k6	40	119	6	21.5	3.9
	AE3	1.5-5.5kW	28k6	60	175	8	31	7.5
77	AE2	0.12-1.1kW	19k6	40	111	6	21.5	4.7
	AE3	1.5-5.5kW	28k6	60	165	8	31	8.5
	AE4	7.5-11kW	38k6	80	216	10	41	12.8
87	AE2	0.12-1.1kW	19k6	40	108	6	21.5	5.9
	AE3	1.5-5.5kW	28k6	60	158	8	31	9.9
	AE4	7.5-11kW	38k6	80	209	10	41	14.5
	AE5	15-22kW	42k6	110	271	12	45	25.4
97	AE3	1.5-5.5kW	28k6	60	156	8	31	11.9
	AE4	7.5-11kW	38k6	80	203	10	41	17
	AE5	15-22kW	42k6	110	265	12	45	26.6
	AE6	30-45kW	48k6	110	327	14	51.5	51.6
107	AE3	1.5-5.5kW	28k6	60	146	8	31	13.9
	AE4	7.5-11kW	38k6	80	190	10	41	19.3
	AE5	15-22kW	42k6	110	252	12	45	29.1
	AE6	30-45kW	48k6	110	314	14	51.5	50.8
127	AE4	7.5-11kW	38k6	80	176	10	41	23.7
	AE5	15-22kW	42k6	110	238	12	45	37.3
	AE6	30-45kW	48k6	110	298	14	51.5	57.2
	AE7	55-90kW	55m6	110	297	16	59	64
	AE8	110-132kW	70m6	140	377	20	74.5	84.4
157	AE5	15-22kW	42k6	110	228	12	45	48.8
	AE6	30-45kW	48k6	110	280	14	51.5	66
	AE7	55-90kW	55m6	110	279	16	59	73.8
	AE8	110-132kW	70m6	140	361	20	74.5	96
167 187	AE5	15-22kW	42k6	110	228	12	45	48.8
	AE6	30-45kW	48k6	110	280	14	51.5	66
	AE7	55-90kW	55m6	110	279	16	59	73.8
	AE8	110-200kW	70m6	140	361	20	74.5	96

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9.4 K Series Dimensions of AG Connection Flange:



Size	Flange	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(Kg)
37	AG 63	14	11H7	95H7	115	140	4	4	12.8	23	M8	59	4.5
	AG 71	14	14H7	110H7	130	160	4	5	16.3	30	M8	59	4.5
	AG 80	18	19H7	130H7	165	200	4	6	21.8	40	M10	74	7.3
47 67	AG 63	14	11H7	95H7	115	140	4	4	12.8	23	M8	61	4.6
	AG 71	14	14H7	110H7	130	160	4	5	16.3	30	M8	61	4.6
	AG 80	18	19H7	130H7	165	200	4	6	21.8	40	M10	76	8
	AG 90	18	24H7	130H7	165	200	4	8	27.3	50	M10	81	9.1
	AG 100\112	21	28H7	180H7	215	250	5	8	31.3	60	M12	96	13.1
77	AG 71	14	14H7	110H7	130	160	4	5	12.8	30	M8	53	5.5
	AG 80	18	19H7	130H7	165	200	4	6	21.8	40	M10	68	9.7
	AG 90	18	24H7	130H7	165	200	4	8	27.3	50	M10	73	10.6
	AG 100\112	21	28H7	180H7	215	250	5	8	31.3	60	M12	86	13.9
	AG 132	21	38H7	230H7	265	300	5	10	41.3	80	M12	103	19.7
87	AG 80	18	19H7	130H7	165	200	4	6	21.8	40	M10	65	10.2
	AG 90	18	24H7	130H7	165	200	4	8	27.3	50	M10	70	11.1
	AG 100\112	21	28H7	180H7	215	250	5	8	31.3	60	M12	83	15.8
	AG 132	21	38H7	230H7	265	300	5	10	41.3	80	M12	96	22.6
	AG 160	28	42H7	250H7	300	350	6	12	45.3	110	M16	143	37.2
97	AG 180	28	48H7	250H7	300	350	6	14	51.8	110	M16	143	37.2
	AG 90	18	24H7	130H7	165	200	4	8	27.3	50	M10	64	14.1
	AG 100\112	21	28H7	180H7	215	250	5	8	31.3	60	M12	78	17
	AG 132	21	38H7	230H7	265	300	5	10	41.3	80	M12	94	24.5
	AG 160	28	42H7	250H7	300	350	6	12	45.3	110	M16	137	40.4
	AG 180	28	48H7	250H7	300	350	6	14	51.8	110	M16	137	40.4
107	AG 200	28	55H7	300H7	350	400	6	16	59.3	110	M20	167	51.9
	AG 100\112	21	28H7	180H7	215	250	5	8	31.3	60	M12	69	19.6
	AG 132	21	38H7	230H7	265	300	5	10	41.3	80	M12	83	25.4
	AG 160	28	42H7	250H7	300	350	6	12	45.3	110	M16	124	43.4
	AG 180	28	48H7	250H7	300	350	6	14	51.8	110	M16	124	43.4
	AG 200	28	55H7	300H7	350	400	6	16	59.3	110	M20	154	52.4
127	AG 225	28	60H7	350H7	400	450	7	18	64.4	140	M16	182	89
	AG 132	21	38H7	230H7	265	300	5	10	41.3	80	M12	71	33.1
	AG 160	28	42H7	250H7	300	350	6	12	45.3	110	M16	110	50
	AG 180	28	48H7	250H7	300	350	6	14	51.8	110	M16	110	50
	AG 200	28	55H7	300H7	350	400	6	16	59.3	110	M20	138	60.3
	AG 225	28	60H7	350H7	400	450	6	18	64.4	140	M16	166	98.6
	AG 250	28	65H7	450H7	500	550	7	18	69.4	140	M16	171	122.6
157 167 187	AG 280	28	75H7	450H7	500	550	7	20	79.9	140	M16	171	122.6
	AG 160	28	42H7	250H7	300	350	6	12	45.3	110	M16	100	59.7
	AG 180	28	48H7	250H7	300	350	6	14	51.8	110	M16	100	59.7
	AG 200	28	55H7	300H7	350	400	6	16	59.3	110	M20	120	70.7
	AG 225	28	60H7	350H7	400	450	7	18	64.4	140	M16	148	100.9
	AG 250	28	65H7	450H7	500	550	7	18	69.4	140	M16	153	133.8
	AG 280	28	75H7	450H7	500	550	7	20	79.9	140	M16	153	133.8
AG 315	35	80H7	550H7	600	660	7	22	85.4	170	M20	200	221.7	



10 Combi-type Dimensions:

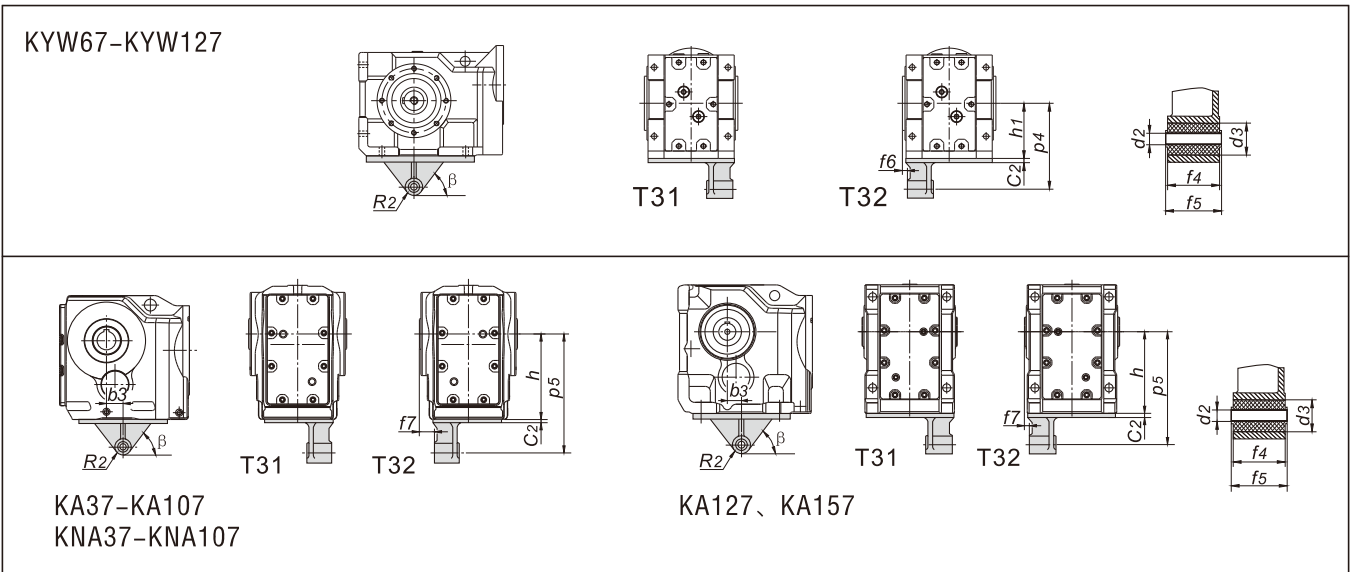
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	K..47/CRL37 K..67/CRL37	183
	K..77/CRL37	173
	K..87/CRL47	180
	K..97/CRL67	225
	K..107/CRL77	238.5
	K..127/CRL87	281
	K..127/CRL77	227
	K..157/CRL97	322
	K..157/CRL107	361
K..167/CRL97	322	
K..167/CRL107	361	
K..187/CRL97	322	
K..187/CRL107	361	





11 Accessories:

11.1 Torque-arm(Accessory code T31,T32):



KA37-KA107
KNA37-KNA107

KA127、KA157

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Type	K.A/T37	K.A/T47 KYW/T67	K.A/T67 KYW/T77	K.A/T77 KYW/T87	K.A/T87 KYW/T97	K.A/T97 KYW/T107	K.A/T107 KYW/T127	K.A/T127	K.A/T157
b3	23.5	30	45	52.5	60	70	74	60	50
C2	10	12	13	14	16	17	20	45	45
d2	10.4	10.4	16.4	16.4	25	25	25	40	40
d3	25	25	36	36	52	52	52	103	103
f4	31	31	54	54	72	92	92	110	110
f5	36	36	60	60	80	100	100	126	126
f6	/	/	34.5	40	37	56	61	75	/
f7	20	20	25	25	30.5	40	45	7	2
h	100	112	140	180	212	265	315	375	450
h1	/	/	112	140	160	180	240	280	/
p4	/	/	160	200	230	268	325	415	/
p5	140	160	200	250	300	350	450	550	700
R2	22.5	22.5	29	29	41	41	41	70	70
β	60°	55°	55°	65°	60°	50°	55°	55°	70°

11.2 Oil:

KY..

		Oil level (L)					
Size	Mounting position	B3、B61 B51、B55 H1、H11	B63、B81 B53、B57 H3、H31	B8 B54、B58 H2、H21	B31、B62 B52、B56 H4、H41	V5、V51 V1、V11 H6、H61	V6、V61 V3、V31 H5、H51
		KY67		1.3	2.3	2.5	4
KY77		3.2	5.2	5.4	8.5	6.6	6.6
KY87		4	6.9	7.2	11.5	8.9	8.9
KY97		7.4	14	14.6	22	17.9	17.9
KY107		15	23.9	24.3	40	30.4	30.4
KY127		23.5	37.2	36.2	63.5	46.6	46.6

Note: When ambient temperature -15°C ~+35°C, GL-5 heavy-load vehicle hyperbolic gear oil SAE viscosity class, 85w/90; accessory code is V23.



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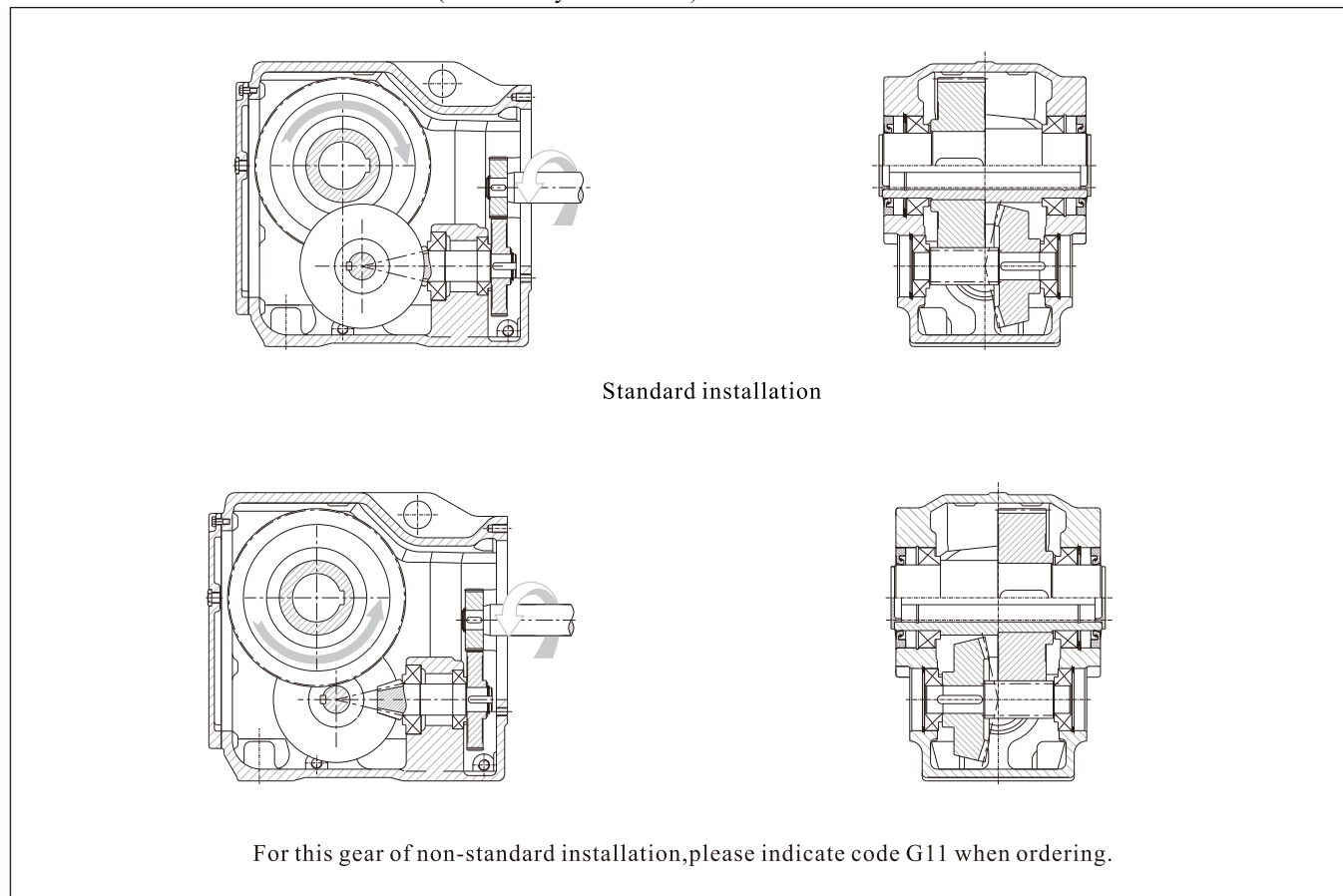
		Oil level (L)					
Size	Mounting position	B3、B61 B51、B55 H1、H11	B63、B81 B53、B57 H3、H31	B8 B54、B58 H2、H21	B31、B62 B52、B56 H4、H41	V5、V51 V1、V11 H6、H61	V6、V61 V3、V31 H5、H51
		37	0.5	1.1	1.1	1.5	1
47	0.8	1.3	1.7	2.2	1.6	1.6	
67	1.1	2.4	2.8	3.6	2.7	2.7	
77	2.2	4.1	4.6	6	4.5	4.5	
87	3.7	8.2	9	11.9	8.4	8.4	
97	7	14.7	17.3	21.5	15.7	16.5	
107	10	22	26	35	25	25	
127	21	41.5	46	55	41	41	
157	31	66	69	92	62	62	
167	35	100	100	125	85	85	
187	60	170	170	205	130	130	

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Note: When ambient temperature is $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$,

- 1) For k37~K127 series products, lubricant brand is VG220(ISO Viscosity class), accessory code is V22;
- 2) For K157~K187 Series products, lubricant brand is VG320(ISO Viscosity class), accessory code is V32.

11.3 Gear Non-standard Installation (Accessory Code G11):

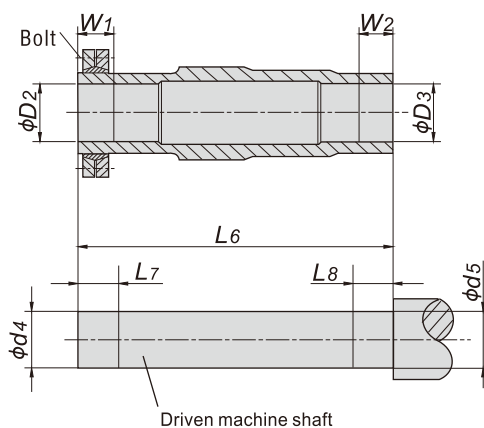


11.4 Please refer to page 5/Y of motor section for motor accessories.



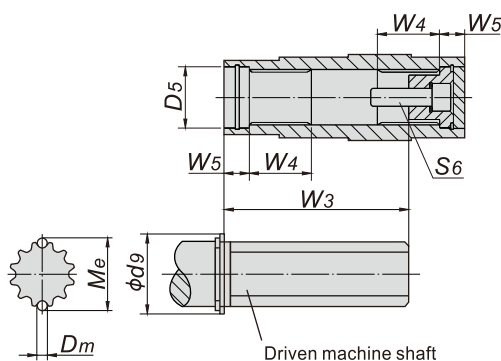
12 Recommended dimensions for the driven machine:

12.1 Shrink Disk:



Size	D2	D3	d4	d5	L6	L7	L8	W1	W2	Model	Bolt	Weight (kg)
37	30H7	30H7	30h6	30h6	146	36	25	31	20	SP2-44X80	M6	0.6
47	35H7	35H7	35h6	35h6	177	37	25	32	20	SP2-44X80	M6	0.6
67	40H7	40H7	40h6	40h6	208	43	25	38	20	SP2-50X90	M6	0.8
77	50H7	50H7	50h6	50h6	241	41	35	36	30	SP2-62X110	M6	1.3
87	65H7	65H7	65h6	65h6	281	46	45	41	40	SP2-80X145	M8	1.9
97	75H7	75H7	75h6	75h6	345	60	55	55	50	SP2-90X155	M8	3.3
107	85H7	90H7	85h6	90h6	405	75	70	65	60	SP2-110X185	M10	5.9
127	105H7	105H7	105h6	105h6	485	95	80	85	70	SP2-140X230	M12	10
157	115H7	125H7	115h6	125h6	580	100	90	90	80	SP2-155X263	M12	15
167	135H7	140H7	135h6	140h6	728	130	100	122	90	SP2-175X300	M16	22
187	155H7	160H7	155h6	160h6	769	130	105	117	95	SP2-195X350	M16	41

12.2 Involute Spline:



Size	D5	Dm	d9	Me	W3	W4	W5	S6
37	37	2.75	42	33.03	85	25	18	M10X30
47	37	4	42	38.92	115	32	18	M10X30
67	42	4	49	38.92	130	42	25	M10X30
77	55	4	62	54.13	160	52	23	M16X50
87	72	4	82	68.96	180	62	25	M20X60
97	72	4	90	74.15	240	72	25	M20X60
107	90	6	105	90.99	290	89	26	M20X60