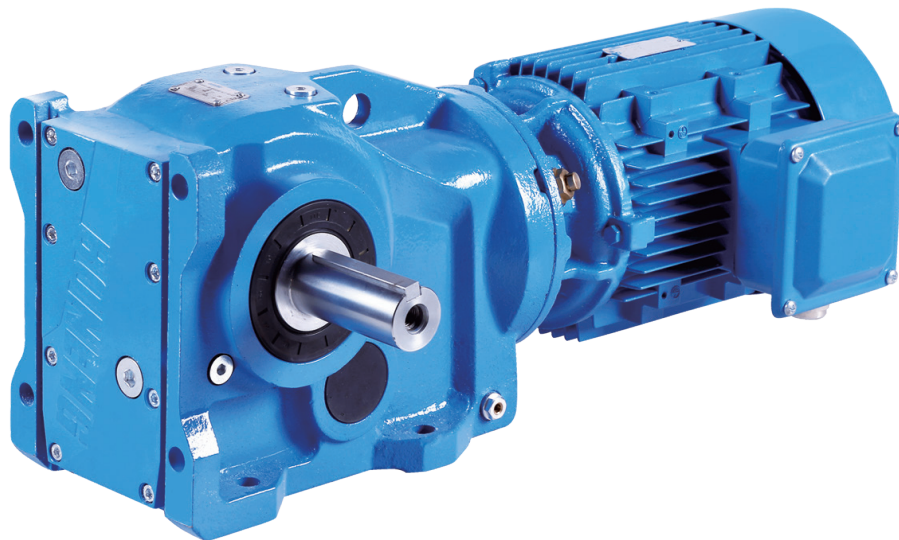


BONENG

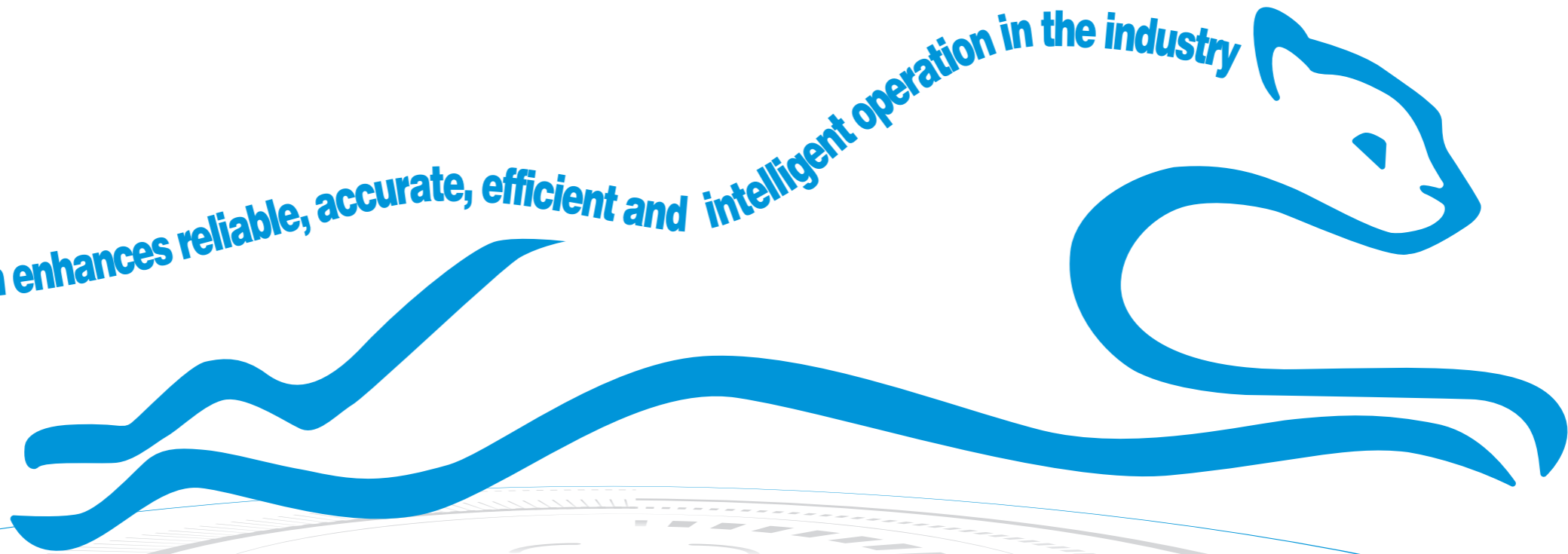


K Helical-Bevel Gearmotor

Modified date 12/2020
Selection Sample C05.0037-EN

Boneng Transmission

Boneng Transmission enhances reliable, accurate, efficient and intelligent operation in the industry



Boneng Transmission More products: drive / motor / gearmotor / gearbox
Please browse: www.boneng.com

Note:

- ◆ The structure scheme, appearance diagram and other attached diagrams in sample are examples, there is no strict proportion requirement. (The unmarked dimension units are mm).
- ◆ The marked weight is average value, it has no constraint force.

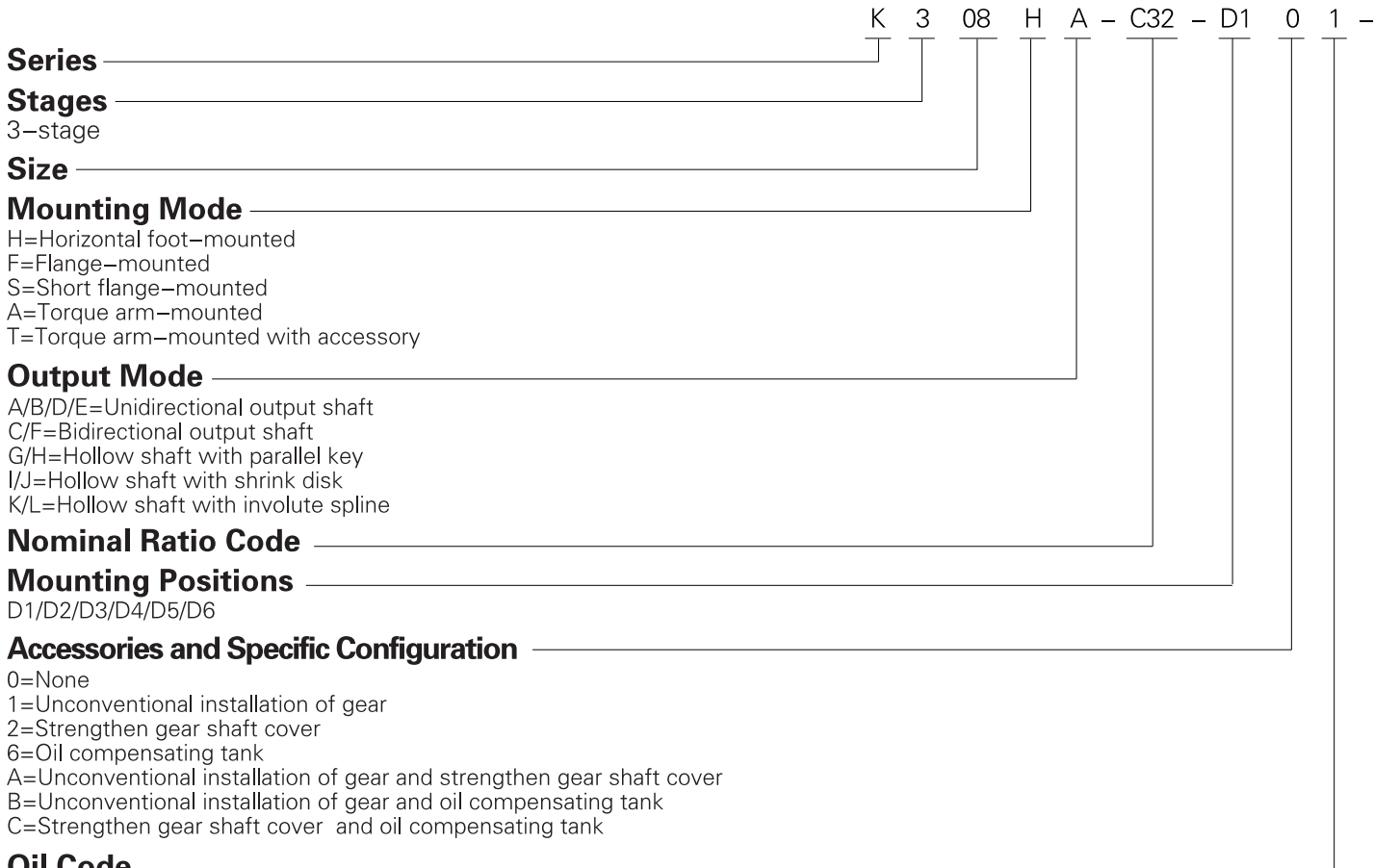
You must conform to the following instructions:

- ◆ To prevent accidents, all the rotation parts are added with protective covers according to the safety regulations of the nation and region.
- ◆ Before debugging, you should carefully read instruction book.
- ◆ Gearbox is on running—permission status when delivered, you should add lubrication oil before putting it into running.
- ◆ The marked oil quantity in sample is only reference value, actual oil filling quantity should be the same with the mark on oil immersion lens.
- ◆ Lubrication oil viscosity should be selected according to working situation and application environment temperature of gearmotor.
- ◆ You can only apply lubrication oil of internationally famous brand.

Contents

..... Type Designation	01
..... Mounting Positions	03
..... Type Selection and Example	05
..... Transmission Capacity	07
..... Permissible Radial Force	15
..... Dimensions	17
..... Input Flange and Input shaft	41
..... Combi-type Dimensions	46
..... Accessories and Specific Configuration	47
..... Motor Rainproof Cover Dimensions	49
..... Recommended Dimensions for Driven Equipment Shaft	50
..... Shaft End Centre Hole	52
..... Dimension of Parallel Key and Keyway	53
..... oil	54

1 Type Designation



Oil Code

0=Without oil filling(Please select this option when you do not need lubricating oil);
 1=With mineral oil VG220(Please select this option when the ambient temperature is -20°C~+40°C, and K303~K312 need lubricating oil);
 2=With mineral oil VG320(Please select this option when the ambient temperature is -20°C~+40°C, and K315~K318 need lubricating oil);
 5=With synthetic lubricating oil VG220(It is recommended to select this option when you need lubricating oil and the ambient temperature is below 0°C);

Note¹⁾ Motor Type/Frame Size/Poles/Power Code

Power kW	4-pole Type	6-pole Type	Power kW	4-pole Type	6-pole Type	Power kW	4-pole Type	6-pole Type	Power kW	4-pole Type	6-pole Type
0.09	MS056M4A09		1.1	MS090S4B11 MH090S4B11 MP090S4B11 MA090M4B11	MH090S6B11 MP090M6B11	11	MH160S4C11 MP160M4C11 MA160M4C11	MH160M6C11 MP160M6C11	55	MH250M4C55 MP250M4C55 MA250M4C55	MH280M6C55 MP280M6C55
0.12	MH063M4A12 MP063M4A12 MA063M4A12		1.5	MS090S4B15 MH090S4B15 MP090M4B15 MA090M4B15	MH100M6B15 MP100M6B15	15	MH160M4C15 MP160L4C15 MA160L4C15	MH180M6C15 MP180M6C15	75	MH280S4C75 MP280S4C75 MA280S4C75	MH315S6C75 MP315S6C75
0.18	MH063M4A18 MP063M4A18 MA063M4A18	MH071M6A18 MP071M6A18	2.2	MS100M4B22 MH100M4B22 MP100M4B22 MA100M4B22	MH112M6B22 MP112M6B22	18.5	MH180M4C18 MP180M4C18 MA180M4C18	MH200M6C18 MP200M6C18	90	MH280M4C90 MP280M4C90 MA280M4C90	MH315M6C90 MP315M6C90
0.25	MH071M4A25 MP071M4A25 MA071M4A25	MH071M6A25 MP071M6A25	3	MS100M4B30 MH100M4B30 MP100M4B30 MA100M4B30	MH132S6B30 MP132S6B30	22	MH180L4C22 MP180L4C22 MA180L4C22	MH200M6C22 MP200M6C22	110	MH315S4D11 MP315S4D11	MH315L6D11
0.37	MH071M4A37 MP071M4A37 MA071M4A37	MH080M6A37 MP080M6A37	4	MS112M4B40 MH112L4B40 MP112L4B40 MA112L4B40	MH132M6B40 MP132S6B40	30	MH200M4C30 MP200M4C30 MA200M4C30	MH225M6C30 MP225M6C30	132	MH315M4D13 MP315M4D13	MH315L6D13
0.55	MS080M4A55 MH080M4A55 MP080M4A55 MA080M4A55	MH080M6A55 MP080M6A55	5.5	MS132S4B55 MH132S4B55 MP132M4B55 MA132L4B55	MH132M6B55 MP132M6B55	37	MH225M4C37 MP225M4C37 MA225M4C37	MH250M6C37 MP250M6C37	160	MH315L4D16 MP315L4D16	
0.75	MS080M4A75 MH080M4A75 MP080M4A75 MA080M4A75	MH090S6A75 MP090S6A75	7.5	MS132M4B75 MH132M4B75 MP132L4B75 MA132L4B75	MH160S6B75 MP160S6B75	45	MH225M4C45 MP225M4C45 MA225M4C45	MH280S6C45 MP280S6C45	200	MH315L4D20 MP315L4D20	

MH 132S 4 B55 A C 3 - A 0 B 1 0-0 1 1

Cable Entry Position

1/2/3/4

Terminal Box Position

1/2/3/4

Motor mounting Position 0

Motor protection

0=IP55/F without rain cover A=IP55/H without rain cover
1=IP55/F with rain cover B=IP55/H with rain cover

Thermal Protection and Heating Protection

0=Without thermal protection and heating Protection 2=Thermal switch 5=Thermistor and heating belt
1=Thermistor 3= PT100 temperature sensor 6=Thermal switch and heating belt
4=Heating belt 7= PT100 temperature sensor and heating belt

Brake

N=Without brake
A=Brake 220-240VAC G=Brake with self-lock device 220-240VAC P=Double-brakes 220-240VAC
B=Brake 380-415VAC H=Brake with self-lock device 380-415VAC Q=Double-brakes 380-415VAC
C=Brake 440-480VAC J=Brake with self-lock device 440-480VAC X=Double-brakes 440-480VAC
D=Brake with release handle 220-240VAC K=Brake with micro switch 220-240VAC R=Double-brakes with release handle 220-240VAC
E=Brake with release handle 380-415VAC L=Brake with micro switch 380-415VAC S=Double-brakes with release handle 380-415VAC
F=Brake with release handle 440-480VAC M=Brake with micro switch 440-480VAC T=Double-brakes with release handle 440-480VAC

Encoder

0=No encoder 2=With standard encoder accessories 4=With encoder E25C
1=With encoder E25A 3=With encoder E25B

Cooling Method

N=Natural cooling
A=Self-fan cooling
F=Forced-fan cooling

Frequency/Voltage Code

1=50Hz 220V Δ/380VY 5=60Hz 440V Δ E=60Hz 220V Δ/380VY
2=50Hz 230V Δ/400VY 6=60Hz 460V Δ F=60Hz 380V Δ
3=50Hz 380V Δ/660VY 7=60Hz 440VY G=60Hz 230VY
4=50Hz 400V Δ/690VY 8=60Hz 460VY H=60Hz 230V Δ
A=50Hz 240V Δ/415VY C=60Hz 480VY J=60Hz 575VY
B=50Hz 415V Δ D=60Hz 480V Δ K=60Hz 575V Δ

Note: Alternative code of 3kW and below: 1,2,7,8,A,C,E;
Alternative code of 4kW and above: 3,4,5,6,B,D,F

Frame Material

L=Die-casting aluminum frame(standard configuration of 100 and below)
C=Grey cast iron frame(standard configuration of 112 and above)

Mounting Mode A

Power Code ¹⁾

Motor Poles ¹⁾

4=4-pole; 6=6-pole

Frame Size ¹⁾

Motor Type ¹⁾

MS=Three-phase asynchronous motor (IE1)
MH=High efficiency three-phase asynchronous motor (IE2)
MP=Premium Efficiency three-phase asynchronous motor (IE3)

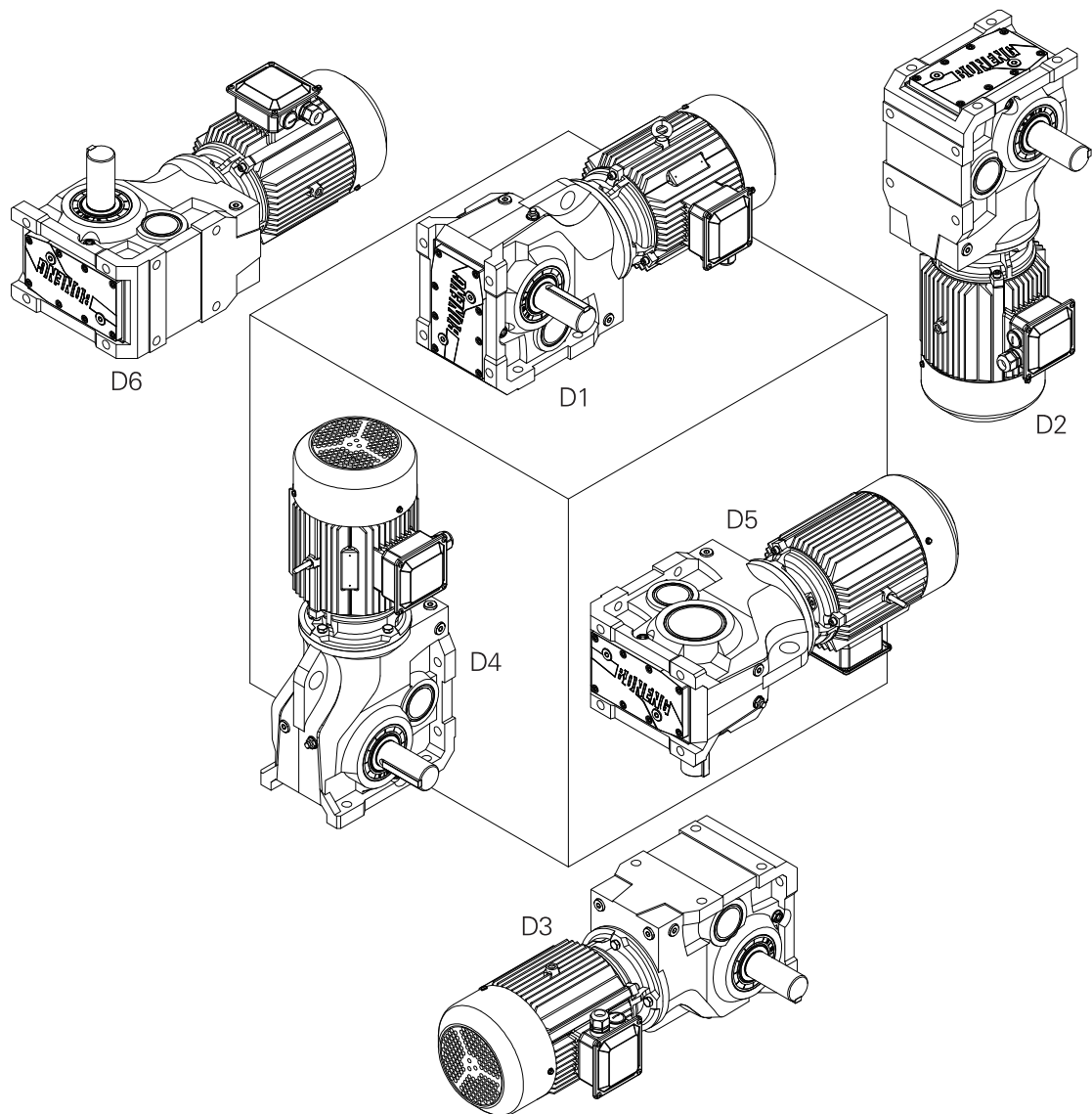
◆ **Example of product type with input flange or input shaft:** K308HA-C32-D101-AE3

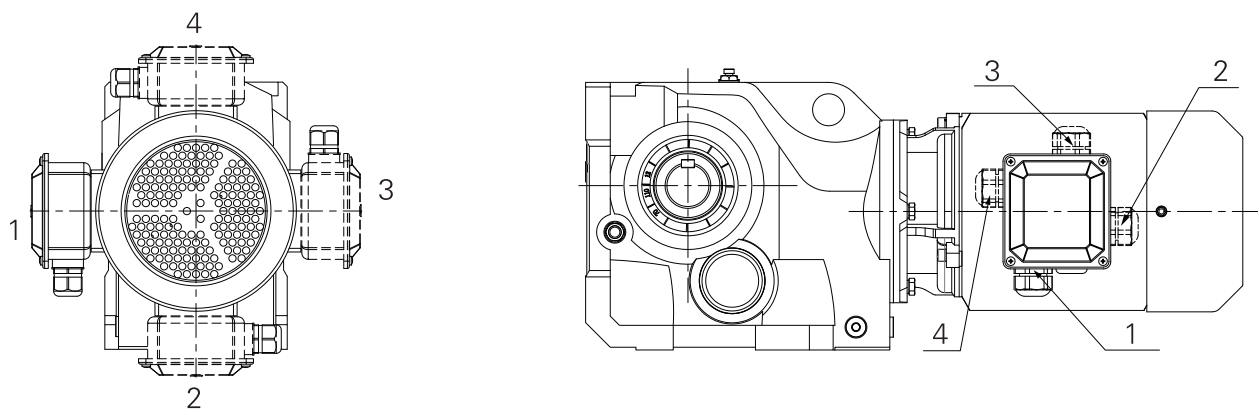
◆ **Example of product type with input flange and motor type:** K308HA-C32-D101-AP132-MH132S4B55FC3-A0N10-011

◆ **Combi-type designation:** K308HA/C205-D28-D100-MH080M4A75AL1-A0N00-011

Note: MA type(NEMA efficiency three-phase asynchronous motor) alternative pole code 4,frequency and voltage code 6,8,G,H,J,K, brake code A,D,G,K.

2 Mounting Positions



Motor terminal box and cable entry position (View : Motor afterbody)

Assembly colour of gearmotor (RAL5015)

3 Type Selection and Example

Step	Description	Symbol	Parameters Calculation and Guideline			
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	$\leq 1800\text{rpm}$ Consult us if higher speed required.			
3	Calculation of the Ratio	i	$i = n_1/n_2$			
4	Transmission Efficiency	η	K3.. 3-stage: 94%			
5	Calculation of the input power of the gearmotor 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 gearunit 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 the table of Radial Force on Output Shaft (F_{r2}) on P15			
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 P01			
11	Normal ambient conditions	/	Ambient temperature -20 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!			

n_2 : The output speed required by the driven machine.
 T_2 : The output torque required by the driven machine.
 P_2 : The output power required by the driven machine.

T_{2N} : The rated output torque of gearmotor.
 P_{1N} : The rated input power of gearmotor.

Example

◆ Known Criteria:

- 1、 Load characteristics by the driven machine: Moderate, working 16 hours/d and starting 10 times/h;
- 2、 Normal motor: 4-pole, speed $n_1=1450\text{r/min}$;
- 3、 The power required $P_2=10\text{KW}$, speed $n_2=16\text{ r/min}$;
- 4、 Mounting mode: flange-mounted, unidirectional output shaft A, mounting position D1, motor terminal box 1, cable entry position 1.

◆ 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 :
 $i=N_1/n_2=1450/16=90.63$, nominal ratio $i_N=90$;
- 3、 Calculation of the input power and determination of the motor power (transmission efficiency $\eta =94\%$):
 $P_1 \geq P_2/\eta =10/0.94=10.64\text{kW}$, 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} :
 $P_{1N} \geq P_2 \cdot f_1/\eta =10 \times 1.75/0.94=18.62\text{kW}$;
- 5、 The type selected: K312FA-C90-D100- MH160S4C11AC3-A0N00-011

4 Transmission Capacity

4.1 K Transmission capacity

K...(i_N=4-180)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power
n _{1N} (r/min)	n _{2N} (r/min)	Code	i _N	T _{2N} (N.m)	i _{ex}	P _{1N} (kW)	T _{2N} (N.m)	i _{ex}	P _{1N} (kW)
				K303			K304		
1450	363	B40	4	150	3.95	5.8	200	3.95	7.7
	322	B45	4.5	150	4.46	5.1	230	4.43	7.9
	290	B50	5	150	5.08	4.48	250	5.01	7.6
	259	B56	5.6	160	5.74	4.23	260	5.56	7.1
	230	B63	6.3	180	6.42	4.25	280	6.19	6.9
	204	B71	7.1	180	7.24	3.77	280	6.95	6.1
	181	B80	8	180	8.25	3.31	300	7.85	5.8
	161	B90	9	180	9.33	2.93	310	8.71	5.4
	145	C10	10	180	10.6	2.59	340	9.98	5.2
	129	C11	11.2	180	11.4	2.40	360	11.0	4.98
	116	C13	12.5	180	12.7	2.16	380	12.4	4.66
	104	C14	14	200	14.3	2.13	400	13.5	4.48
	90.6	C16	16	200	16.3	1.87	420	15.2	4.19
	80.6	C18	18	210	18.4	1.73	420	17.2	3.71
	72.5	C20	20	220	20.8	1.60	450	19.1	3.58
	64.7	C22	22.4	225	22.4	1.52	450	21.8	3.13
	58.0	C25	25	230	23.7	1.47	450	24.0	2.85
	51.8	C28	28	230	28.9	1.21	450	27.1	2.53
	46.0	C32	31.5	230	32.2	1.09	450	30.2	2.26
	40.8	C36	35.5	230	36.3	0.96	450	37.2	1.83
	36.3	C40	40	230	41.3	0.85	450	41.8	1.63
	32.2	C45	45	230	46.7	0.75	450	47.2	1.45
	29.0	C50	50	230	52.9	0.66	450	52.4	1.30
	25.9	C56	56	230	57.0	0.61	450	60.1	1.14
	23.0	C63	63	230	66.7	0.52	450	66.0	1.04
	20.4	C71	71	230	75.6	0.46	450	74.4	0.92
	18.1	C80	80	230	83.3	0.42	450	79.5	0.86
	16.1	C90	90	230	91.1	0.38	450	92.4	0.74
14.5	D10	100	230	99.6	0.35	450	104.0	0.66	
12.9	D11	112				450	113.6	0.60	
11.6	D13	125				450	124.6	0.55	
10.4	D14	140							
9.06	D16	160							
8.06	D18	180							
960	15.2	C63	63	230	66.7	0.35			
	13.5	C71	71	230	75.6	0.31			
	12.0	C80	80	230	83.3	0.28	450	79.5	0.57
	10.7	C90	90	230	91.1	0.25	450	92.4	0.49
	9.6	D10	100	230	99.6	0.23	450	104.0	0.43
	8.6	D11	112				450	113.6	0.40
	7.7	D13	125				450	124.6	0.36
	6.9	D14	140						
	6.00	D16	160						
5.33	D18	180							

Note: (1)Actual output speed of the gearmotor: Actual input speed (n₁)/Exact ratio (i_{ex});
 (2)Rated input power corresponding to actual input speed of the gearmotor: P_{1N}=T_{2N}*n₁/ (9550*i_{ex}),the rated output torque T_{2N} in the formula remains unchanged.

Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power
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)
K305			K306			K307			K308		
360	4.08	13.4	680	4.20	24.6						
360	4.58	11.9	680	4.82	21.4						
360	5.18	10.6	700	5.14	20.7						
380	5.75	10.0	730	5.59	19.8						
400	6.56	9.3	750	6.02	18.9						
420	7.41	8.6	750	6.90	16.5	1300	6.86	28.8	1800	7.07	38.6
420	8.23	7.7	750	8.00	14.2	1300	7.81	25.3	1800	8.04	34.0
430	9.43	6.9	750	9.17	12.4	1300	8.66	22.8	1800	9.33	29.3
450	10.4	6.6	750	9.78	11.6	1300	9.93	19.9	1800	10.2	26.9
460	10.7	6.5	750	11.4	10.0	1300	11.2	17.7	2100	11.4	27.9
500	12.0	6.3	750	13.0	8.7	1380	12.0	17.4	2350	12.5	28.5
550	13.6	6.1	850	13.9	9.3	1550	13.7	17.2	2350	14.0	25.5
600	15.1	6.0	850	16.6	7.8	1650	15.2	16.5	2600	15.9	24.8
620	17.3	5.4	850	19.0	6.8	1650	17.4	14.4	2600	18.5	21.4
650	19.0	5.2	850	20.2	6.4	1650	19.6	12.8	2600	20.1	19.6
680	21.4	4.82	950	22.0	6.6	1650	22.4	11.2	2850	22.6	19.1
680	22.9	4.51	950	25.2	5.7	1750	25.7	10.4	3000	25.9	17.6
680	29.5	3.50	950	26.9	5.4	1750	28.9	9.2	3000	29.1	15.6
680	33.1	3.12	950	31.2	4.62	1750	31.0	8.6	3000	32.0	14.3
680	37.4	2.76	950	35.8	4.03	1750	35.3	7.5	3000	36.9	12.3
680	41.5	2.49	950	38.2	3.78	1750	39.2	6.8	3000	39.4	11.6
680	47.5	2.17	950	45.5	3.17	1750	44.9	5.9	3000	47.0	9.7
680	52.3	1.98	950	50.7	2.85	1750	50.5	5.3	3000	51.3	8.9
680	58.9	1.75	950	55.7	2.59	1750	56.5	4.71	3000	57.7	7.9
630	62.9	1.52	950	63.3	2.28	1750	62.9	4.23	3000	63.2	7.2
520	73.2	1.08	950	69.1	2.09	1750	68.9	3.86	3000	73.0	6.2
520	82.3	0.96	950	78.7	1.83	1750	74.9	3.55	3000	77.9	5.8
520	89.9	0.88	900	83.6	1.63	1750	84.2	3.15	3000	90.0	5.1
520	98.6	0.80	850	96.7	1.33	1750	92.3	2.88	3000	102.3	4.45
520	107.1	0.74	850	115.0	1.12	1750	108.3	2.45	3000	113.6	4.01
			850	122.3	1.05	1700	120.4	2.14	3000	127.8	3.56
						1650	132.5	1.89	3000	140.6	3.24
						1600	149.3	1.63	2500	153.7	2.47
						1600	175.7	1.38	2000	177.9	1.71

520	82.3	0.63									
520	89.9	0.58									
520	98.6	0.53	850	96.7	0.88	1750	92.3	1.91	3000	102.3	2.95
520	107.1	0.49	850	115.0	0.74	1750	108.3	1.62	3000	113.6	2.65
			850	122.3	0.70	1700	120.4	1.42	3000	127.8	2.36
						1650	132.5	1.25	3000	140.6	2.14
						1600	149.3	1.08	2500	153.7	1.64
						1600	175.7	0.92	2000	177.9	1.13

4.1 K Transmission capacity

K...(i_N=4-180)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power	
n _{1N} (r/min)	n _{2N} (r/min)	Code	i _N	T _{2N} (N.m)	i _{ex}	P _{1N} (kW)	T _{2N} (N.m)	i _{ex}	P _{1N} (kW)	
				K309			K310			
1450	363	B40	4							
	322	B45	4.5							
	290	B50	5							
	259	B56	5.6							
	230	B63	6.3							
	204	B71	7.1		3500	7.24	73			
	181	B80	8		3500	7.93	67	6000	8.14	112
	161	B90	9		3800	9.37	62	6000	9.11	100
	145	C10	10		4000	10.5	58	6000	10.7	85
	129	C11	11.2		4000	11.2	54	6500	11.7	85
	116	C13	12.5		4500	12.8	53	7500	12.5	91
	104	C14	14		5000	14.3	53	7900	14.0	86
	90.6	C16	16		5000	16.2	46.9	8300	16.5	76
	80.6	C18	18		5000	18.1	41.9	8300	17.9	70
	72.5	C20	20		5000	19.4	39.2	8300	20.9	60
	64.7	C22	22.4		5000	22.2	34.3	8300	23.2	54
	58.0	C25	25		5000	24.6	30.8	8300	24.6	51
	51.8	C28	28		5000	27.9	27.2	8300	27.9	45.1
	46.0	C32	31.5		5000	31.3	24.2	8300	31.2	40.3
	40.8	C36	35.5		5000	34.5	22.0	8300	34.5	36.6
	36.3	C40	40		5000	37.8	20.1	8300	38.6	32.7
	32.2	C45	45		5000	44.6	17.0	8300	45.5	27.7
	29.0	C50	50		5000	50.0	15.2	8500	49.4	26.1
	25.9	C56	56		5000	53.4	14.2	9000	57.6	23.7
	23.0	C63	63		5000	61.1	12.4	9000	63.9	21.4
	20.4	C71	71		5000	67.9	11.2	9000	67.7	20.2
	18.1	C80	80		5000	77.1	9.9	9000	77.0	17.7
	16.1	C90	90		5000	86.4	8.8	9000	86.2	15.9
14.5	D10	100		5000	98.6	7.7	9000	95.7	14.3	
12.9	D11	112		5000	105.1	7.2	9000	112.0	12.2	
11.6	D13	125		4300	120.8	5.4	9000	120.4	11.3	
10.4	D14	140		4300	135.8	4.81	9000	135.3	10.1	
9.06	D16	160		4300	150.0	4.35	8500	155.8	8.3	
8.06	D18	180		4300	168.7	3.87	8500	173.3	7.4	
960	15.2	C63	63							
	13.5	C71	71							
	12.0	C80	80							
	10.7	C90	90							
	9.6	D10	100							
	8.6	D11	112							
	7.7	D13	125		4300	120.8	3.58	9000	120.4	7.5
	6.9	D14	140		4300	135.8	3.18	9000	135.3	6.7
	6.00	D16	160		4300	150.0	2.88	8500	155.8	5.5
	5.33	D18	180		4300	168.7	2.56	8500	173.3	4.93

Note: (1)Actual output speed of the gearmotor: Actual input speed (n₁)/Exact ratio (i_{ex});
 (2)Rated input power corresponding to actual input speed of the gearmotor: P_{1N}=T_{2N}*n₁/ (9550*i_{ex}),the rated output torque T_{2N} in the formula remains unchanged.

4.2 K.../C... Combi-type transmission capacity

K.../C...(i_N=112-14000)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Nominal Ratio	Rated Input Power	Rated Output Torque	Nominal Ratio	Rated Input Power	Rated Output Torque	Nominal Ratio	Rated Input Power	
n _{1N} (r/min)	n _{2N} (r/min)	Code	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	12.90	D11	112	230	116.2	0.30	450	110.4	0.62	680	106.8	0.97	
	11.60	D13	125	230	129.5	0.27	450	126.5	0.54	680	122.4	0.84	
	10.36	D14	140	230	144.8	0.24	450	138.9	0.49	680	134.4	0.77	
	9.06	D16	160	230	153.7	0.23	450	156.2	0.44	680	151.2	0.68	
					K303/C301								
	8.06	D18	180	230	182.9	0.19	450	167.4	0.41	680	162.0	0.64	
								K304/C303			K305/C303		
	7.25	D20	200	230	209.6	0.17	450	189.7	0.36	680	183.6	0.56	
	6.47	D22	224	230	238.8	0.15	450	214.5	0.32	680	207.6	0.50	
					K303/C201			K304/C203			K305/C203		
	5.80	D25	250	230	248.3	0.14	450	264.1	0.26	680	265.5	0.39	
	5.18	D28	280	230	281.3	0.12	450	298.3	0.23	680	299.9	0.34	
	4.60	D32	315	230	332.1	0.11	450	331.1	0.21	680	332.9	0.31	
	4.08	D36	355	230	370.3		450	379.4	0.18	680	381.5	0.27	
	3.63	D40	400	230	413.8		450	416.6	0.16	680	418.9	0.25	
	3.22	D45	450	230	439.2		450	468.7	0.15	680	471.2	0.22	
					K303/C301								
	2.90	D50	500	230	522.7		450	502.2	0.14	680	504.9	0.20	
								K304/C303			K305/C303		
	2.59	D56	560	230	599.0		450	569.2	0.12	680	572.2	0.18	
	2.30	D63	630	230	682.4		450	643.6	0.11	680	647.0	0.16	
	2.04	D71	710	230	740.5		450	732.8		680	736.8	0.14	
	1.81	D80	800	230	805.9		450	825.8		680	830.3	0.12	
	1.61	D90	900	230	893.0		450	937.4		680	942.5	0.11	
	1.45	E10	1000	230	998.3		450	1001		680	1006		
	1.29	E11	1120	230	1172		450	1127		680	1133		
	1.16	E13	1250	230	1285		450	1283		680	1290		
	1.04	E14	1400	230	1394		450	1455		680	1462		
	0.91	E16	1600	230	1681		450	1644		680	1653		
	0.81	E18	1800	230	1880		450	1771		680	1780		
	0.73	E20	2000	230	1997		450	2072		680	2083		
	0.65	E22	2240	230	2207		450	2351		680	2364		
	0.58	E25	2500	230	2561		450	2581		680	2459		
	0.52	E28	2800	230	3088		450	2917		680	2780		
	0.46	E32	3150	230	3455		450	3142		680	2994		
	0.41	E36	3550	230	3669		450	3676		680	3504		
	0.36	E40	4000	230	4055		450	4171		680	3975		
	0.32	E45	4500	230	4756		450	4594		680	4378		
	0.29	E50	5000	230	5403		450	5023		680	4787		
0.26	E56	5600	230	5830		450	5491		680	5233			
0.23	E63	6300				450	6431		680	6257			
0.20	E71	7100				450	7032		680	6841			
0.18	E80	8000				450	7688		680	7480			
0.16	E90	9000											
0.15	F10	10000											
0.13	F11	11200											
0.12	F13	12500											
0.10	F14	14000											

Rated Output Torque	Nominal Ratio	Rated Input Power	Rated Output Torque	Nominal Ratio	Rated Input Power	Rated Output Torque	Nominal Ratio	Rated Input Power
T_{2N} (N·m)	i_{ex}	P_{IN} (kW)	T_{2N} (N·m)	i_{ex}	P_{IN} (kW)	T_{2N} (N·m)	i_{ex}	P_{IN} (kW)
K306/C203			K307/C203			K308/C205		
950	115.7	1.25	1750	106.8	2.49	3000	113.3	4.02
950	132.6	1.09	1750	122.4	2.17	3000	120.8	3.77
950	145.6	0.99	1750	134.4	1.98	3000	135.0	3.37
950	163.8	0.88	1750	151.2	1.76	3000	150.0	3.04
950	175.5	0.82	1750	162.0	1.64	3000	187.5	2.43
K306/C303			K307/C303					
950	198.9	0.73	1750	183.6	1.45	3000	205.0	2.22
950	224.9	0.64	1750	207.6	1.28	3000	233.8	1.95
K306/C203			K307/C203					
950	254.2	0.57	1750	250.6	1.06	3000	267.5	1.70
950	287.1	0.50	1750	283.1	0.94	3000	294.5	1.55
950	318.6	0.45	1750	314.2	0.85	3000	334.3	1.36
950	365.2	0.40	1750	360.1	0.74	3000	356.5	1.28
950	401.0	0.36	1750	395.4	0.67	3000	398.5	1.14
950	451.1	0.32	1750	444.8	0.60	3000	442.8	1.03
950	483.3	0.30	1750	476.6	0.56	3000	553.5	0.82
K306/C303			K307/C303					
950	547.7	0.26	1750	540.1	0.49	3000	605.2	0.75
950	619.3	0.23	1750	610.7	0.44	3000	690.0	0.66
950	705.3	0.20	1750	695.4	0.38	3000	734.3	0.62
						K308/C305		
950	794.8	0.18	1750	783.7	0.34	3000	826.6	0.55
950	902.2	0.16	1750	889.6	0.30	3000	929.9	0.49
950	963.0	0.15	1750	949.6	0.28	3000	1048	0.43
950	1085	0.13	1750	1070	0.25	3000	1162	0.39
950	1235	0.12	1750	1218	0.22	3000	1332	0.34
950	1400	0.10	1750	1380	0.19	3000	1465	0.31
950	1582		1750	1560	0.17	3000	1738	0.26
950	1704		1750	1680	0.16	3000	1930	0.24
950	1994		1750	1966	0.14	3000	2210	0.21
950	2263		1750	2231	0.12	3000	2428	0.19
950	2475		1750	2459	0.11	3000	2509	0.18
950	2798		1750	2780		3000	2977	0.15
950	3013		1750	2994		3000	3305	0.14
950	3526		1750	3504		3000	3786	0.12
950	4001		1750	3975		3000	4159	0.11
950	4406		1750	4378		3000	4689	
950	4817		1750	4787		3000	5012	
950	5267		1750	5233		3000	5827	
950	5819		1750	5860		3000	6678	
950	6362		1750	6408		3000	7137	
950	6956		1750	7005		3000	8298	
						3000	9333	
						3000	10197	
						3000	11178	
						3000	12150	

K.../C... Combi-type transmission capacity

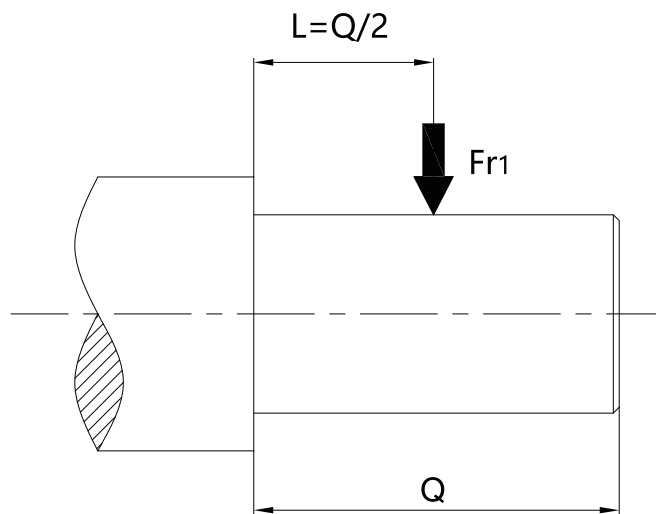
K.../C...(i_N=112-14000)

Nominal Input Speed	Nominal Output Speed	Nominal Ratio Code	Nominal Ratio	Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power	
n _{1N} (r/min)	n _{2N} (r/min)	Code	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	12.90	D11	112	5000	116.0	6.5	9000	112.6	12.1	14500	115.9	19.0	
	11.60	D13	125	5000	123.6	6.1	9000	128.8	10.6	14500	131.0	16.8	
	10.36	D14	140	5000	138.2	5.5	9000	145.0	9.4	14500	142.4	15.5	
								K310/C307					
	9.06	D16	160	5000	153.6	4.94	9000	157.5	8.7	14500	160.0	13.8	
	8.06	D18	180	5000	192.0	3.95	9000	181.3	7.5	14500	175.1	12.6	
	7.25	D20	200	5000	209.9	3.62	9000	192.5	7.1	14500	202.9	10.9	
	6.47	D22	224	5000	239.4	3.17	9000	221.3	6.2	14500	216.7	10.2	
								K310/C207			K312/C208		
	5.80	D25	250	5000	250.1	3.04	9000	246.3	5.5	14500	247.0	8.9	
	5.18	D28	280	5000	275.3	2.76	9000	280.5	4.87	14500	281.3	7.8	
	4.60	D32	315	5000	312.6	2.43	9000	310.8	4.40	14500	311.7	7.1	
	4.08	D36	355	5000	333.3	2.28	9000	355.4	3.85	14500	356.4	6.2	
	3.63	D40	400	5000	372.6	2.04	9000	400.2	3.41	14500	401.4	5.5	
								K310/C307			K312/C307		
	3.22	D45	450	5000	414.0	1.83	9000	434.7	3.14	14500	436.0	5.0	
	2.90	D50	500	5000	517.5	1.47	9000	500.3	2.73	14500	501.7	4.39	
	2.59	D56	560	5000	565.8	1.34	9000	531.3	2.57	14500	532.8	4.13	
	2.30	D63	630	5000	645.2	1.18	9000	610.7	2.24	14500	612.4	3.59	
	2.04	D71	710	5000	686.6	1.11	9000	714.2	1.91	14500	716.2	3.07	
								K309/C305					
	1.81	D80	800	5000	772.8	0.98	9000	800.4	1.71	14500	802.7	2.74	
	1.61	D90	900	5000	869.4	0.87	9000	914.3	1.49	14500	916.9	2.40	
	1.45	E10	1000	5000	979.8	0.77	9000	976.4	1.40	14500	979.2	2.25	
	1.29	E11	1120	5000	1087	0.70	9000	1118	1.22	14500	1121	1.96	
	1.16	E13	1250	5000	1245	0.61	9000	1273	1.07	14500	1277	1.72	
	1.04	E14	1400	5000	1370	0.55	9000	1311	1.04	14500	1315	1.67	
	0.91	E16	1600	5000	1625	0.47	9000	1504	0.91	14500	1509	1.46	
	0.81	E18	1800	5000	1804	0.42	9000	1708	0.80	14500	1713	1.29	
	0.73	E20	2000	5000	2067	0.37	9000	1911	0.71	14500	1917	1.15	
	0.65	E22	2240	5000	2270	0.33	9000	2129	0.64	14500	2135	1.03	
	0.58	E25	2500	5000	2426	0.31	9000	2428	0.56	14500	2379	0.93	
	0.52	E28	2800	5000	2878	0.26	9000	2786	0.49	14500	2729	0.81	
0.46	E32	3150	5000	3196	0.24	9000	3163	0.43	14500	3099	0.71		
0.41	E36	3550	5000	3660	0.21	9000	3540	0.39	14500	3468	0.63		
0.36	E40	4000	5000	4020	0.19	9000	3943	0.35	14500	3862	0.57		
0.32	E45	4500	5000	4534	0.17	9000	4332	0.32	14500	4244	0.52		
0.29	E50	5000	5000	4845	0.16	9000	4920	0.28	14500	4820	0.46		
0.26	E56	5600	5000	5633	0.13	9000	6122	0.22	14500	5997	0.37		
0.23	E63	6300	5000	6411	0.12	9000	8775	0.16	14500	9009	0.24		
0.20	E71	7100	5000	6852	0.11	9000	6637	0.21	14500	6815	0.32		
0.18	E80	8000	5000	7966		9000	8258	0.17	14500	8478	0.26		
0.16	E90	9000	5000	8960		9000	8775	0.16	14500	9009	0.24		
0.15	F10	10000	5000	9789		9000	10146	0.13	14500	10416	0.21		
0.13	F11	11200	5000	10731		9000	10732	0.13	14500	11018	0.20		
0.12	F13	12500	5000	11664		9000	12068	0.11	14500	12390	0.18		
0.10	F14	14000				9000	12835		14500	13178	0.17		

Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power	Rated Output Torque	Exact Ratio	Rated Input Power
T_{2N} (N·m)	iex	P_{IN} (kW)	T_{2N} (N·m)	iex	P_{IN} (kW)	T_{2N} (N·m)	iex	P_{IN} (kW)
K315/C210			K316/C210			K318/C210		
20000	115.8	26.2	38000	107.1	53.9	58000	114.0	77.2
20000	129.6	23.4	38000	119.9	48.1	58000	127.6	69.0
20000	143.4	21.2	38000	132.7	43.5	58000	141.2	62.3
20000	167.5	18.1	38000	155.0	37.2	58000	165.0	53.4
20000	184.9	16.4	38000	171.1	33.7	58000	182.2	48.3
20000	195.6	15.5	38000	181.0	31.9	58000	192.7	45.7
20000	222.4	13.7	38000	205.8	28.0	58000	219.1	40.2
K315/C209			K316/C209			K318/C209		
20000	249.9	12.2	38000	247.8	23.3	58000	252.7	34.8
20000	277.9	10.9	38000	275.5	20.9	58000	281.0	31.3
20000	315.4	9.6	38000	312.7	18.4	58000	319.0	27.6
20000	357.5	8.5	38000	354.5	16.3	58000	361.6	24.4
20000	403.6	7.5	38000	400.1	14.4	58000	408.1	21.6
20000	428.3	7.1	38000	424.7	13.6	58000	433.2	20.3
20000	492.1	6.2	38000	487.9	11.8	58000	497.6	17.7
20000	545.2	5.6	38000	540.5	10.7	58000	551.3	16.0
20000	619.5	4.90	38000	614.3	9.4	58000	626.5	14.1
20000	693.8	4.38	38000	688.0	8.4	58000	701.7	12.6
20000	793.0	3.83	38000	786.2	7.3	58000	801.9	11.0
20000	846.1	3.59	38000	838.9	6.9	58000	855.6	10.3
K315/C309			K316/C309			K318/C309		
20000	987.7	3.07	38000	979.3	5.9	58000	998.8	8.8
20000	1143	2.66	38000	1134	5.1	58000	1156	7.6
20000	1246	2.44	38000	1236	4.67	58000	1260	7.0
20000	1402	2.17	38000	1390	4.15	58000	1418	6.2
20000	1536	1.98	38000	1523	3.79	58000	1554	5.7
20000	1774	1.71	38000	1759	3.28	58000	1794	4.91
20000	1894	1.60	38000	1878	3.07	58000	1915	4.60
20000	2244	1.35	38000	2225	2.59	58000	2270	3.88
20000	2451	1.24	38000	2451	2.35	58000	2511	3.51
20000	2686	1.13	38000	2686	2.15	58000	2752	3.20
20000	3101	0.98	38000	3101	1.86	58000	3176	2.77
20000	3312	0.92	38000	3312	1.74	58000	3392	2.60
20000	3924	0.77	38000	3924	1.47	58000	4020	2.19
20000	4277	0.71	38000	4277	1.35	58000	4381	2.01
20000	4816	0.63	38000	4816	1.20	58000	4933	1.79
20000	5274	0.58	38000	5274	1.09	58000	5402	1.63
20000	6039	0.50	38000	5998	0.96	58000	6095	1.44
20000	6800	0.45	38000	6753	0.85	58000	6862	1.28
20000	7446	0.41	38000	7395	0.78	58000	7515	1.17
20000	8609	0.35	38000	8550	0.67	58000	8688	1.01
20000	9177	0.33	38000	9114	0.63	58000	9261	0.95
20000	10602	0.29	38000	10529	0.55	58000	10699	0.82
20000	12052	0.25	38000	11970	0.48	58000	12163	0.72
20000	13390	0.23	38000	13298	0.43	58000	13512	0.65

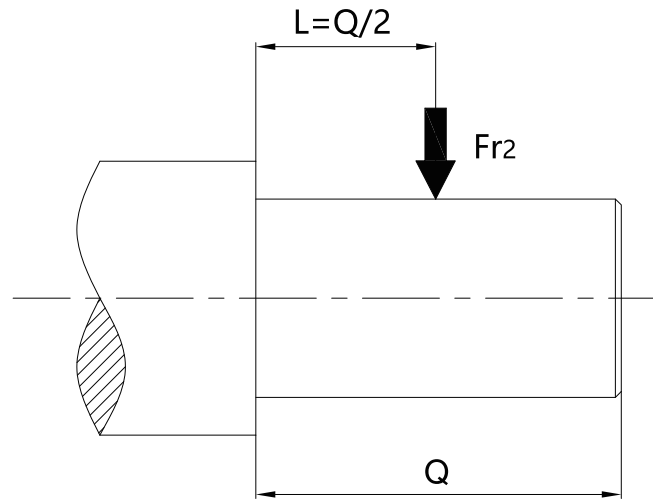
5 Permissible Radial Force

5.1 Radial force on input shaft (F_{r1}) (N)



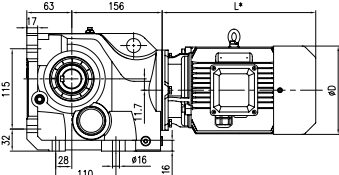
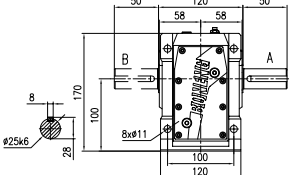
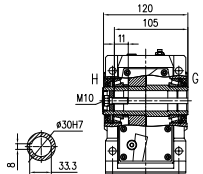
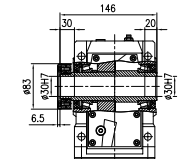
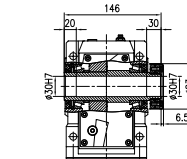
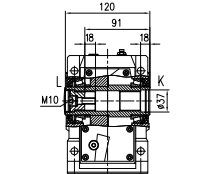
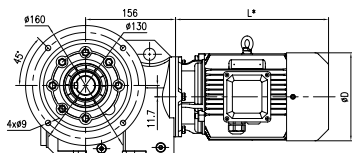
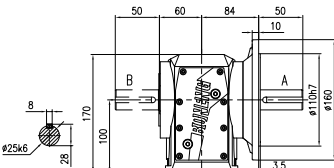
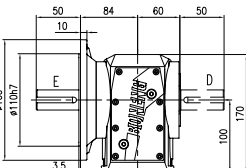
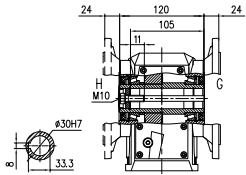
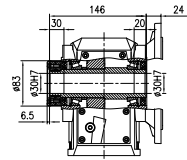
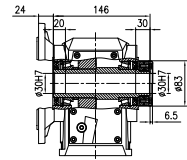
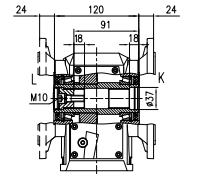
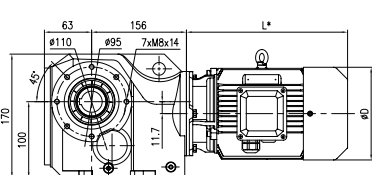
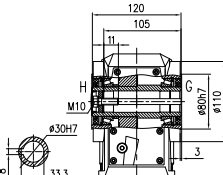
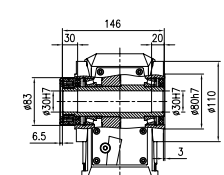
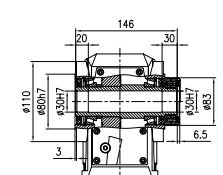
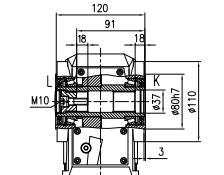
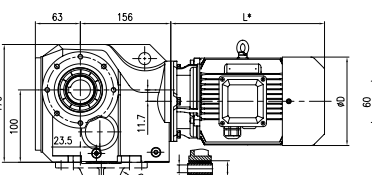
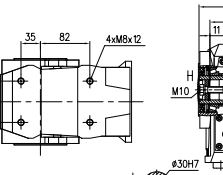
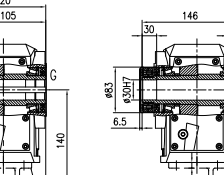
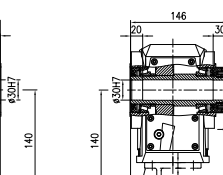
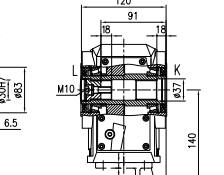

	F_{r1} (N)											
	K303	K304	K305	K306	K307	K308	K309	K310	K312	K315	K316	K318
AE2	803	803	803	803	803	803	/	/	/	/	/	/
AE3	/	1504	1504	1504	1504	1504	1504	1504	/	/	/	/
AE4	/	/	/	/	2188	2188	2188	2188	2188	/	/	/
AE5	/	/	/	/	/	4207	4207	4207	4207	4207	4207	4207
AE6	/	/	/	/	/	/	5664	5664	5664	5664	5664	5664
AE7	/	/	/	/	/	/	/	/	9957	9957	9957	9957
AE8	/	/	/	/	/	/	/	/	12546	12546	12546	12546

5.2 Radial force on output shaft (Fr2) (N)



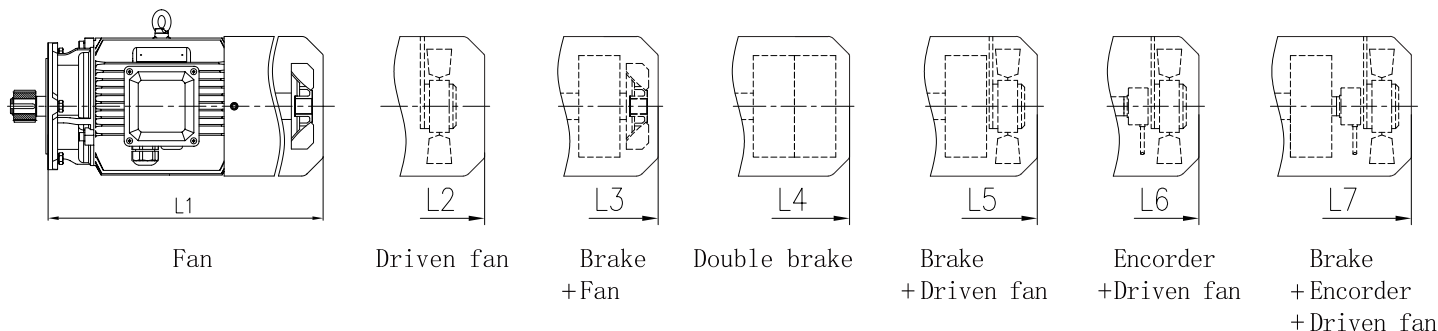
n_{2N} (r/min)	Fr_2 (N)											
	K303	K304	K305	K306	K307	K308	K309	K310	K312	K315	K316	K318
315~425	1466	2430	4330	7715	/	/	/	/	/	/	/	/
280~315	1600	2650	4720	8410	/	/	/	/	/	/	/	/
225~280	1750	2890	5150	9165	/	/	/	/	/	/	/	/
160~225	1899	3150	5610	9990	11135	12150	14220	22140	29250	/	/	/
140~160	2070	3240	5791	10350	12510	12780	14760	23220	29700	30400	52180	58530
125~140	2250	3510	6105	10620	12960	13410	14580	24300	30510	31920	54790	61450
112~125	2340	3348	6088	11070	13590	13320	14470	25200	31860	33520	57500	64530
90~112	2430	3510	6001	10260	13500	13770	15300	19710	28620	35190	60400	67750
80~90	2610	3807	6139	9900	14490	14670	16020	21240	30240	36950	63420	71140
71~80	2799	3960	6204	9720	14130	15120	17190	23490	31500	38800	66600	74700
63~71	2880	4239	6419	9720	13860	16110	18810	26010	34200	42300	69750	76770
56~63	2997	4500	6490	9360	13860	16200	19800	28800	36900	46800	73500	78120
50~56	3150	4770	6650	9270	13860	16650	20970	29700	38700	48600	79740	81180
45~50	3285	5040	6835	9270	13860	17280	22050	31500	41340	51300	81900	85050
35.5~45	3375	5328	7028	9270	13860	19260	23130	33300	44460	54000	89730	92700
31.5~35.5	3960	5328	7028	9270	13860	20520	25470	36450	48600	60300	96660	101430
28~31.5	4194	5328	7028	9270	13860	21150	27900	37980	52200	65250	105300	113400
25~28	4410	5328	7028	9270	13860	22500	29070	39960	53910	67410	108000	113490
22.4~25	4662	5328	7028	9270	13860	23580	30420	41220	57600	71100	114300	123300
20~22.4	4968	5328	7028	9270	13860	24570	32040	43200	60930	75780	126000	130500
18~20	5076	5328	7028	9270	13860	24570	33390	45450	63000	79200	126090	132300
16~18	5076	5328	7028	9270	13860	24570	34920	47700	66150	82710	132480	143100
≤16	5076	5328	7028	9270	13860	24570	36000	51300	71280	88200	135000	152910

6 Dimensions

Mounting Mode	K303 Dimensions					
Horizontal foot-mounted	 <p>Horizontal foot-mounted (H) Weight: 12.7kg (Without motor and oil)</p>		 <p>K303HA Unidirectional output shaft K303HB Unidirectional output shaft K303HC Bidirectional output shaft</p>			
	 <p>K303HG Hollow shaft with parallel key K303HH Hollow shaft with parallel key</p>		 <p>K303HI Hollow shaft with shrink disk</p>	 <p>K303HJ Hollow shaft with shrink disk</p>	 <p>K303HK Hollow shaft with involute spline K303HL Hollow shaft with involute spline</p>	
Flange-mounted	 <p>Flange-mounted (F) Weight: 13.5kg (Without motor and oil)</p>		 <p>K303FA Unidirectional output shaft K303FB Unidirectional output shaft K303FC Bidirectional output shaft</p>		 <p>K303FD Unidirectional output shaft K303FE Unidirectional output shaft K303FF Bidirectional output shaft</p>	
	 <p>K303FG Hollow shaft with parallel key K303FH Hollow shaft with parallel key</p>		 <p>K303FI Hollow shaft with shrink disk</p>	 <p>K303FJ Hollow shaft with shrink disk</p>	 <p>K303FK Hollow shaft with involute spline K303FL Hollow shaft with involute spline</p>	
Short flange-mounted	 <p>Short flange-mounted (S) Weight: 12kg (Without motor and oil)</p>		 <p>K303SG Hollow shaft with parallel key K303SH Hollow shaft with parallel key</p>	 <p>K303SI Hollow shaft with shrink disk</p>	 <p>K303SJ Hollow shaft with shrink disk</p>	 <p>K303SK Hollow shaft with involute spline K303SL Hollow shaft with involute spline</p>
Torque arm-mounted	 <p>Torque arm-mounted with accessory (T) Weight: 26kg (Without motor and oil)</p>		 <p>Torque arm-mounted without accessory (A) Weight: 16kg (Without motor and oil)</p>	 <p>K303AG Hollow shaft with parallel key K303AH Hollow shaft with parallel key K303TG Hollow shaft with parallel key K303TH Hollow shaft with parallel key</p>	 <p>K303AI Hollow shaft with shrink disk K303TI Hollow shaft with shrink disk</p>	 <p>K303AJ Hollow shaft with shrink disk K303TJ Hollow shaft with shrink disk</p>
Torque arm-mounted with accessory					 <p>K303AK Hollow shaft with involute spline K303AL Hollow shaft with involute spline K303TK Hollow shaft with involute spline K303TL Hollow shaft with involute spline</p>	

Note: Involute spline size DIN5480: m1.25 × Z22 × α30 × D30 × 9H

Corresponding motor dimension table for K303



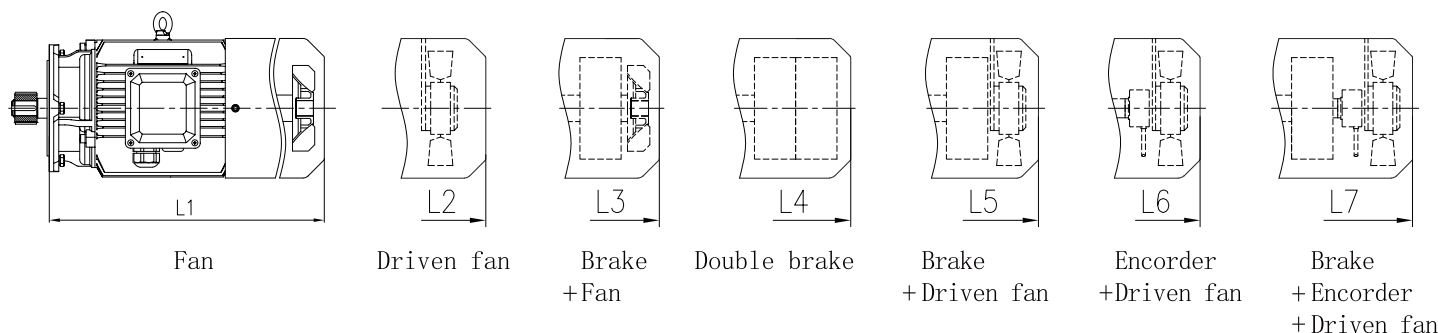
Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7				
0.12	4-100	/	261	241	/	296	/	/	206	261	241	296	/	/	206	261	241	296	/	/	206	261	241	296	*	*	124			
0.18	4-100	/	261	241	/	296	/	/	206	261	241	296	/	/	206	261	241	296	/	/	206	261	241	296	*	*	124			
0.25	4-100	/	268	263	/	313	313	353	223	268	263	313	313	353	223	268	263	313	313	353	223	273	263	318	318	358	139			
0.37	4-100	/	268	263	/	313	313	353	223	268	263	313	313	353	223	268	263	313	313	353	223	273	263	318	318	358	139			
0.55	4-71	299	344	359	419	404	404	454	299	344	359	404	404	454	299	344	359	404	404	454	299	344	359	404	404	449	162			
0.75	4-56	299	344	359	419	404	404	454	299	344	359	404	404	454	299	344	359	404	404	454	299	344	359	404	404	449	162			
1.1	4-35.5	322	367	377	437	422	422	477	322	367	377	422	422	477	322	367	377	422	422	477	347	392	402	452	452	497	176			
1.5	4-28	322	367	377	437	422	422	477	322	367	377	422	422	477	347	392	402	447	447	502	347	392	402	452	452	497	176			
2.2	4-16	394	434	469	529	509	509	564	394	434	469	509	509	564	394	434	469	509	509	564	394	449	469	529	529	574	202			
3	4-11.2	394	434	469	529	509	509	564	394	434	469	509	509	564	394	434	469	509	509	564	394	449	469	529	529	574	202			

Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7			
0.12	4-100	/	8	9	/	9	/	/	7	8	9	9	/	/	7	8	9	9	/	/	7	7.5	8.5	9	/	/			
0.18	4-100	/	8	9	/	9	/	/	7	8	9	9	/	/	8	9	10	10	/	/	8	8.5	9.5	10	/	/			
0.25	4-100	/	9	10	/	11	10	12	8	9	10	11	10	12	9	10	11	12	11	13	9	10	10.5	11.5	10.5	12.5			
0.37	4-100	/	10	11	/	12	11	13	9	10	11	12	11	13	10	11	12	13	12	14	10	11	11.5	12.5	11.5	13.5			
0.55	4-71	13	14	17	21	18	15	19	14	15	18	19	16	20	15	16	19	20	17	21	15	16	19	20	16.5	21			
0.75	4-56	14	15	18	22	19	16	20	15	16	19	20	17	21	16	17	20	21	18	22	16	17	20	21	17.5	22			
1.1	4-35.5	16	17	20	24	21	18	22	18	19	22	23	20	24	21	22	25	26	23	27	21	22	25	26	22.5	27			
1.5	4-28	17	18	21	25	22	19	23	19	20	23	24	21	25	23	24	27	28	25	29	23	24	27	28	24.5	29			
2.2	4-16	27	28	35	42	36	29	37	30	31	38	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45			
3	4-11.2	30	31	38	45	39	32	40	33	34	41	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45			

Corresponding motor dimension table for K304



Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7				
0.12	4-125	/	262	242	/	297	/	/	207	262	242	297	/	/	207	262	242	297	/	/	207	262	242	297	*	*	124			
0.18	4-125	/	262	242	/	297	/	/	207	262	242	297	/	/	207	262	242	297	/	/	207	262	242	297	*	*	124			
0.25	4-125	/	269	264	/	314	314	354	224	269	264	314	314	354	224	269	264	314	314	354	224	274	264	319	319	359	139			
0.37	4-125	/	269	264	/	314	314	354	224	269	264	314	314	354	224	269	264	314	314	354	224	274	264	319	319	359	139			
0.55	4-125	300	345	360	420	405	405	455	300	345	360	405	405	455	300	345	360	405	405	455	300	345	360	405	405	450	162			
0.75	4-112	300	345	360	420	405	405	455	300	345	360	405	405	455	300	345	360	405	405	455	300	345	360	405	405	450	162			
1.1	4-71	323	368	378	438	423	423	478	323	368	378	423	423	478	323	368	378	423	423	478	348	393	403	453	453	498	176			
1.5	4-50	323	368	378	438	423	423	478	323	368	378	423	423	478	348	393	403	448	448	503	348	393	403	453	453	498	176			
2.2	4-35.5	395	435	470	530	510	510	565	395	435	470	510	510	565	395	435	470	510	510	565	395	450	470	530	530	575	202			
3	4-28	395	435	470	530	510	510	565	395	435	470	510	510	565	395	435	470	510	510	565	395	450	470	530	530	575	202			
4	4-20	391	441	466	526	516	516	571	459	509	534	584	584	639	459	509	534	584	584	639	459	519	534	599	599	639	220			

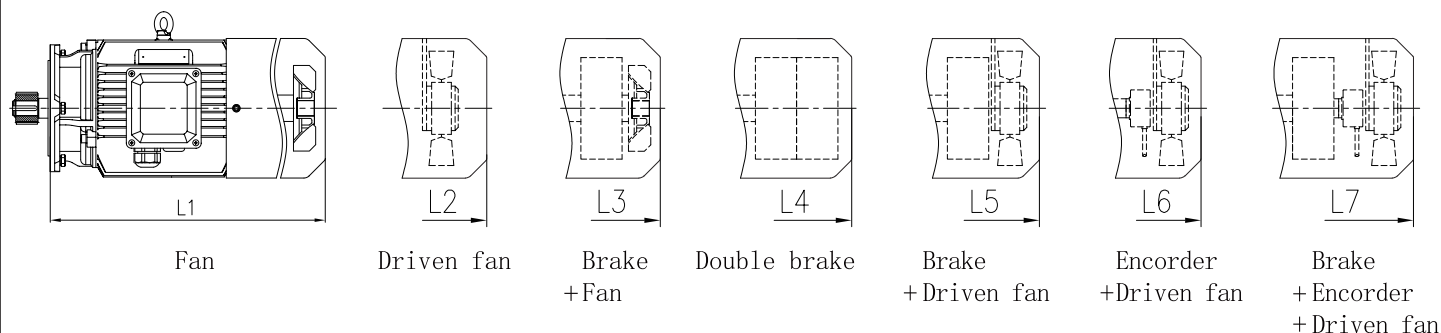
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7			
0.12	4-125	/	8	9	/	9	/	/	7	8	9	9	/	/	7	8	9	9	/	/	7	7.5	8.5	9	/	/			
0.18	4-125	/	8	9	/	9	/	/	7	8	9	9	/	/	8	9	10	10	/	/	8	8.5	9.5	10	/	/			
0.25	4-125	/	9	10	/	11	10	12	8	9	10	11	10	12	9	10	11	12	11	13	9	10	10.5	11.5	10.5	12.5			
0.37	4-125	/	10	11	/	12	11	13	9	10	11	12	11	13	10	11	12	13	12	14	10	11	11.5	12.5	11.5	13.5			
0.55	4-125	13	14	17	21	18	15	19	14	15	18	19	16	20	15	16	19	20	17	21	15	16	19	20	16.5	21			
0.75	4-112	14	15	18	22	19	16	20	15	16	19	20	17	21	16	17	20	21	18	22	16	17	20	21	17.5	22			
1.1	4-71	16	17	20	24	21	18	22	18	19	22	23	20	24	21	22	25	26	23	27	21	22	25	26	22.5	27			
1.5	4-50	17	18	21	25	22	19	23	19	20	23	24	21	25	23	24	27	28	25	29	23	24	27	28	24.5	29			
2.2	4-35.5	27	28	35	42	36	29	37	30	31	38	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45			
3	4-28	30	31	38	45	39	32	40	33	34	41	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45			
4	4-20	45	46	53	61	54	47	55	52	53	60	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66			

Mounting Mode	K305 Dimensions						
Horizontal foot-mounted	<p>Horizontal foot-mounted (H) Weight: 26kg (Without motor and oil)</p>		<p>K305HA Unidirectional output shaft K305HB Unidirectional output shaft K305HC Bidirectional output shaft</p>				
	<p>K305HG Hollow shaft with parallel key K305HH Hollow shaft with parallel key</p>	<p>K305HI Hollow shaft with shrink disk</p>	<p>K305HJ Hollow shaft with shrink disk</p>	<p>K305HK Hollow shaft with involute spline K305HL Hollow shaft with involute spline</p>			
Flange-mounted	<p>Flange-mounted (F) Weight: 32kg (Without motor and oil)</p>		<p>K305FA Unidirectional output shaft K305FB Unidirectional output shaft K305FC Bidirectional output shaft</p>		<p>K305FD Unidirectional output shaft K305FE Unidirectional output shaft K305FF Bidirectional output shaft</p>		
	<p>K305FG Hollow shaft with parallel key K305FH Hollow shaft with parallel key</p>	<p>K305FI Hollow shaft with shrink disk</p>	<p>K305FJ Hollow shaft with shrink disk</p>	<p>K305FK Hollow shaft with involute spline K305FL Hollow shaft with involute spline</p>			
Short flange-mounted	<p>Short flange-mounted (S) Weight: 28kg (Without motor and oil)</p>		<p>K305SG Hollow shaft with parallel key K305SH Hollow shaft with parallel key</p>	<p>K305SI Hollow shaft with shrink disk</p>	<p>K305SJ Hollow shaft with shrink disk</p>	<p>K305SK Hollow shaft with involute spline K305SL Hollow shaft with involute spline</p>	
Torque arm-mounted	<p>Torque arm-mounted with accessory (T) Weight: 31kg (Without motor and oil)</p>		<p>Torque arm-mounted without accessory (A) Weight: 28kg (Without motor and oil)</p>		<p>K305AG Hollow shaft with parallel key K305AH Hollow shaft with parallel key K305TG Hollow shaft with parallel key K305TH Hollow shaft with parallel key</p>	<p>K305AI Hollow shaft with shrink disk K305TI Hollow shaft with shrink disk</p>	<p>K305AJ Hollow shaft with shrink disk K305TJ Hollow shaft with shrink disk</p>
Torque arm-mounted with accessory			<p>K305AK Hollow shaft with involute spline K305AL Hollow shaft with involute spline K305TK Hollow shaft with involute spline K305TL Hollow shaft with involute spline</p>				

Note: Involute spline size DIN 5480 : m2 × Z16 × α30 × D35 × 9H

Corresponding motor dimension table for K305



Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7				
0.25	4-112	/	269	264	/	314	314	354	224	269	264	314	314	354	224	269	264	314	314	354	224	274	264	319	319	359	139			
0.37	4-112	/	269	264	/	314	314	354	224	269	264	314	314	354	224	269	264	314	314	354	224	274	264	319	319	359	139			
0.55	4-112	300	345	360	420	405	405	455	300	345	360	405	405	455	300	345	360	405	405	455	300	345	360	405	405	450	162			
0.75	4-112	300	345	360	420	405	405	455	300	345	360	405	405	455	300	345	360	405	405	455	300	345	360	405	405	450	162			
1.1	4-63	323	368	378	438	423	423	478	323	368	378	423	423	478	323	368	378	423	423	478	348	393	403	453	453	498	176			
1.5	4-63	323	368	378	438	423	423	478	323	368	378	423	423	478	348	393	403	448	448	503	348	393	403	453	453	498	176			
2.2	4-56	395	435	470	530	510	510	565	395	435	470	510	510	565	395	435	470	510	510	565	395	450	470	530	530	575	202			
3	4-40	395	435	470	530	510	510	565	395	435	470	510	510	565	395	435	470	510	510	565	395	450	470	530	530	575	202			
4	4-28	391	441	466	526	516	516	571	459	509	534	584	584	639	459	509	534	584	584	639	459	519	534	599	599	639	220			

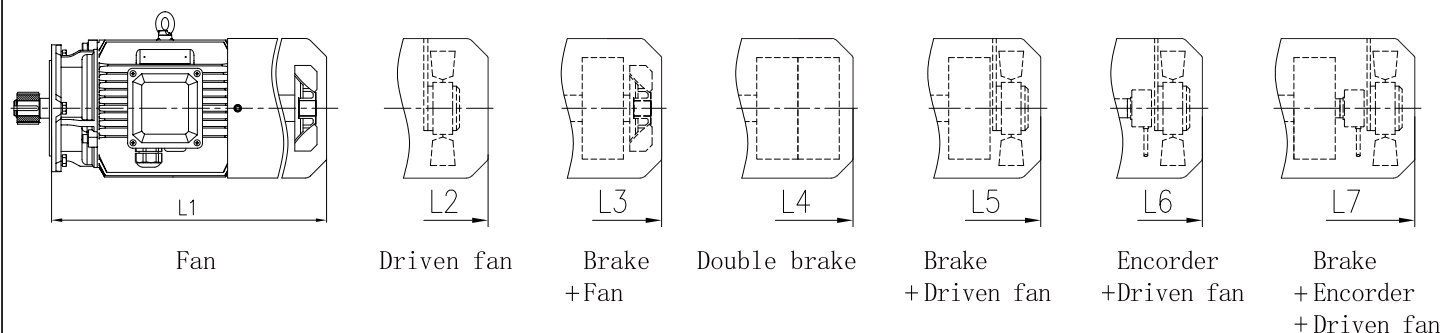
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7			
0.25	4-112	/	9	10	/	11	10	12	8	9	10	11	10	12	9	10	11	12	11	13	9	10	10.5	11.5	10.5	12.5			
0.37	4-112	/	10	11	/	12	11	13	9	10	11	12	11	13	10	11	12	13	12	14	10	11	11.5	12.5	11.5	13.5			
0.55	4-112	13	14	17	21	18	15	19	14	15	18	19	16	20	15	16	19	20	17	21	15	16	19	20	16.5	21			
0.75	4-112	14	15	18	22	19	16	20	15	16	19	20	17	21	16	17	20	21	18	22	16	17	20	21	17.5	22			
1.1	4-63	16	17	20	24	21	18	22	18	19	22	23	20	24	21	22	25	26	23	27	21	22	25	26	22.5	27			
1.5	4-63	17	18	21	25	22	19	23	19	20	23	24	21	25	23	24	27	28	25	29	23	24	27	28	24.5	29			
2.2	4-56	27	28	35	42	36	29	37	30	31	38	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45			
3	4-40	30	31	38	45	39	32	40	33	34	41	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45			
4	4-28	45	46	53	61	54	47	55	52	53	60	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66			

Mounting Mode	K306 Dimensions						
Horizontal foot-mounted	<p>Horizontal foot-mounted (H) Weight: 32kg (Without motor and oil)</p>		<p>K306HA Unidirectional output shaft K306HB Unidirectional output shaft K306HC Bidirectional output shaft</p>				
	<p>K306HG Hollow shaft with parallel key K306HH Hollow shaft with parallel key</p>	<p>K306HI Hollow shaft with shrink disk</p>	<p>K306HJ Hollow shaft with shrink disk</p>	<p>K306HK Hollow shaft with involute spline K306HL Hollow shaft with involute spline</p>			
Flange-mounted	<p>Flange-mounted (F) Weight: 39kg (Without motor and oil)</p>		<p>K306FA Unidirectional output shaft K306FB Unidirectional output shaft K306FC Bidirectional output shaft</p>		<p>K306FD Unidirectional output shaft K306FE Unidirectional output shaft K306FF Bidirectional output shaft</p>		
	<p>K306FG Hollow shaft with parallel key K306FH Hollow shaft with parallel key</p>	<p>K306FI Hollow shaft with shrink disk</p>	<p>K306FJ Hollow shaft with shrink disk</p>	<p>K306FK Hollow shaft with involute spline K306FL Hollow shaft with involute spline</p>			
Short flange-mounted	<p>Short flange-mounted (S) Weight: 34kg (Without motor and oil)</p>		<p>K306SG Hollow shaft with parallel key K306SH Hollow shaft with parallel key</p>	<p>K306SI Hollow shaft with shrink disk</p>	<p>K306SJ Hollow shaft with shrink disk</p>	<p>K306SK Hollow shaft with involute spline K306SL Hollow shaft with involute spline</p>	
Torque arm-mounted	<p>Torque arm-mounted with accessory (T) Weight: 37kg (Without motor and oil)</p>		<p>Torque arm-mounted without accessory (A) Weight: 34kg (Without motor and oil)</p>		<p>K306AG Hollow shaft with parallel key K306AH Hollow shaft with parallel key K306TG Hollow shaft with parallel key K306TH Hollow shaft with parallel key</p>	<p>K306AI Hollow shaft with shrink disk K306TI Hollow shaft with shrink disk K306TJ Hollow shaft with shrink disk</p>	<p>K306AK Hollow shaft with involute spline K306AL Hollow shaft with involute spline K306TK Hollow shaft with involute spline K306TL Hollow shaft with involute spline</p>
Torque arm-mounted with accessory							

Note: Involute spline size DIN 5480 : m2 × Z16 × α30 × D35 × 9H

Corresponding motor dimension table for K306



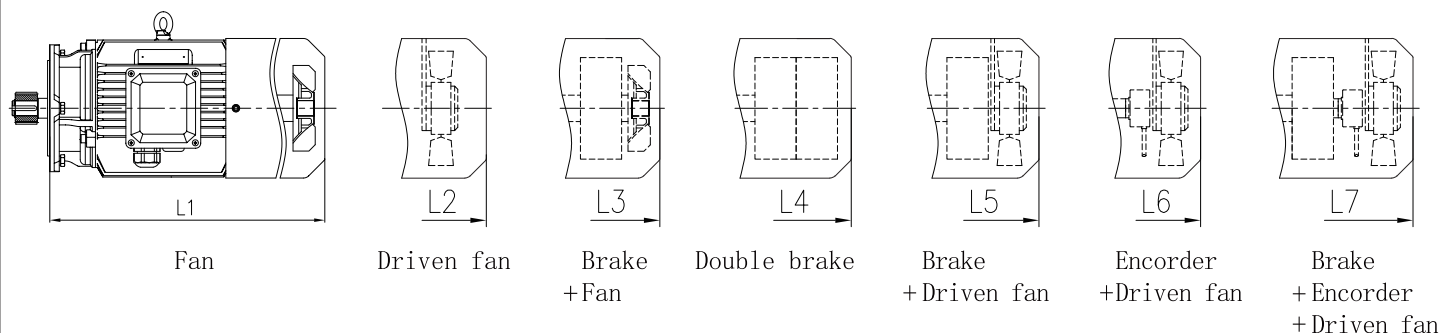
Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7				
0.37	90-125	/	269	264	/	314	314	354	224	269	264	314	314	354	224	269	264	314	314	354	224	274	264	319	319	359	139			
0.55	63-125	300	345	360	420	405	405	455	300	345	360	405	405	455	300	345	360	405	405	455	300	345	360	405	405	450	162			
0.75	45-125	300	345	360	420	405	405	455	300	345	360	405	405	455	300	345	360	405	405	455	300	345	360	405	405	450	162			
1.1	31.5-90	323	368	378	438	423	423	478	323	368	378	423	423	478	323	368	378	423	423	478	348	393	403	453	453	498	176			
1.5	22.4-90	323	368	378	438	423	423	478	323	368	378	423	423	478	348	393	403	448	448	503	348	393	403	453	453	498	176			
2.2	14-80	395	435	470	530	510	510	565	395	435	470	510	510	565	395	435	470	510	510	565	395	450	470	530	530	575	202			
3	9-56	395	435	470	530	510	510	565	395	435	470	510	510	565	395	435	470	510	510	565	395	450	470	530	530	575	202			
4	7.1-40	391	441	466	526	516	516	571	459	509	534	584	584	639	459	509	534	584	584	639	459	519	534	599	599	639	220			
5.5	4-31.5	432	482	512	577	557	557	612	432	482	512	557	557	612	470	520	550	595	595	650	508	573	588	658	658	688	259			
7.5	4-22.4	470	520	550	615	595	595	650	470	520	550	595	595	650	508	558	588	633	633	688	508	573	588	658	658	688	259			

Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7			
0.37	90-125	/	10	11	/	12	11	13	9	10	11	12	11	13	10	11	12	13	12	14	10	11	11.5	12.5	11.5	13.5			
0.55	63-125	13	14	17	21	18	15	19	14	15	18	19	16	20	15	16	19	20	17	21	15	16	19	20	16.5	21			
0.75	45-125	14	15	18	22	19	16	20	15	16	19	20	17	21	16	17	20	21	18	22	16	17	20	21	17.5	22			
1.1	31.5-90	16	17	20	24	21	18	22	18	19	22	23	20	24	21	22	25	26	23	27	21	22	25	26	22.5	27			
1.5	22.4-90	17	18	21	25	22	19	23	19	20	23	24	21	25	23	24	27	28	25	29	23	24	27	28	24.5	29			
2.2	14-80	27	28	35	42	36	29	37	30	31	38	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45			
3	9-56	30	31	38	45	39	32	40	33	34	41	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45			
4	7.1-40	45	46	53	61	54	47	55	52	53	60	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66			
5.5	4-31.5	63	65	74	85	76	66	77	67	69	78	80	70	81	77	79	88	90	80	91	77	79	88	90	80	91			
7.5	4-22.4	73	75	84	95	86	76	87	80	82	91	93	83	94	88	90	99	101	91	102	88	90	99	101	91	102			

Corresponding motor dimension table for K307



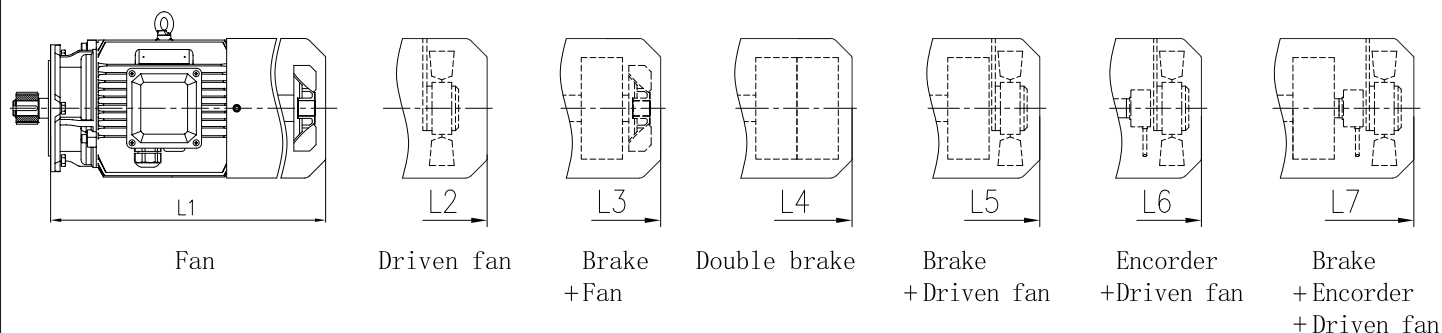
Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
0.37	160-180	/	261	256	/	306	306	346	216	261	256	/	306	306	346	216	261	256	306	306	346	216	266	256	311	311	351	139		
0.55	112-180	292	337	352	412	397	397	447	292	337	352	/	397	397	447	292	337	352	397	397	447	292	337	352	397	397	442	162		
0.75	90-180	292	337	352	412	397	397	447	292	337	352	/	397	397	447	292	337	352	397	397	447	292	337	352	397	397	442	162		
1.1	56-112	315	360	370	430	415	415	470	315	360	370	/	415	415	470	315	360	370	415	415	470	340	385	395	445	445	490	176		
1.5	40-112	315	360	370	430	415	415	470	315	360	370	/	415	415	470	340	385	395	440	440	495	340	385	395	445	445	490	176		
2.2	28-112	387	427	462	522	502	502	557	387	427	462	/	502	502	557	387	427	462	502	502	557	387	442	462	522	522	567	202		
3	20-112	387	427	462	522	502	502	557	387	427	462	/	502	502	557	387	427	462	502	502	557	387	442	462	522	522	567	202		
4	16-80	383	433	458	518	508	508	563	451	501	526	/	576	576	631	451	501	526	576	576	631	451	511	526	591	591	631	220		
5.5	9-50	421	471	501	566	546	546	601	421	471	501	/	546	546	601	459	509	539	584	584	639	497	562	577	647	647	677	259		
7.5	7.1-40	459	509	539	604	584	584	639	459	509	539	/	584	584	639	497	547	577	622	622	677	497	562	577	647	647	677	259		
11	7.1-28	/	542	602	/	632	632	682	507	542	602	652	632	632	682	551	586	646	676	676	726	551	601	646	701	701	736	314		
15	7.1-20	/	586	646	/	676	676	726	551	586	646	696	676	676	726	581	616	676	706	706	756	581	631	676	731	731	766	314		

Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
0.37	160-180	/	10	11	/	12	11	13	9	10	11	/	12	11	13	10	11	12	13	12	14	10	11	11.5	12.5	11.5	13.5		
0.55	112-180	13	14	17	21	18	15	19	14	15	18	/	19	16	20	15	16	19	20	17	21	15	16	19	20	16.5	21		
0.75	90-180	14	15	18	22	19	16	20	15	16	19	/	20	17	21	16	17	20	21	18	22	16	17	20	21	17.5	22		
1.1	56-112	16	17	20	24	21	18	22	18	19	22	/	23	20	24	21	22	25	26	23	27	21	22	25	26	22.5	27		
1.5	40-112	17	18	21	25	22	19	23	19	20	23	/	24	21	25	23	24	27	28	25	29	23	24	27	28	24.5	29		
2.2	28-112	27	28	35	42	36	29	37	30	31	38	/	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45		
3	20-112	30	31	38	45	39	32	40	33	34	41	/	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45		
4	16-80	45	46	53	61	54	47	55	52	53	60	/	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66		
5.5	9-50	63	65	74	85	76	66	77	67	69	78	/	80	70	81	77	79	88	90	80	91	77	79	88	90	80	91		
7.5	7.1-40	73	75	84	95	86	76	87	80	82	91	/	93	83	94	88	90	99	101	91	102	88	90	99	101	91	102		
11	7.1-28	/	123	142	/	143	124	144	121	123	142	162	143	124	144	129	131	150	151	132	152	129	131	150	151	132	152		
15	7.1-20	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		

Corresponding motor dimension table for K308



Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
0.55	160-180	283	328	343	403	388	388	438	283	328	343	/	388	388	438	283	328	343	388	388	438	283	328	343	388	388	433	162		
0.75	140-180	283	328	343	403	388	388	438	283	328	343	/	388	388	438	283	328	343	388	388	438	283	328	343	388	388	433	162		
1.1	100-160	306	351	361	421	406	406	461	306	351	361	/	406	406	461	306	351	361	406	406	461	331	376	386	436	436	481	176		
1.5	71-160	306	351	361	421	406	406	461	306	351	361	/	406	406	461	331	376	386	431	431	486	331	376	386	436	436	481	176		
2.2	50-160	378	418	453	513	493	493	548	378	418	453	/	493	493	548	378	418	453	493	493	548	378	433	453	513	513	558	202		
3	35.5-160	378	418	453	513	493	493	548	378	418	453	/	493	493	548	378	418	453	493	493	548	378	433	453	513	513	558	202		
4	25-140	374	424	449	509	499	499	554	442	492	517	/	567	567	622	442	492	517	567	567	622	442	502	517	582	582	622	220		
5.5	16-80	413	463	493	558	538	538	593	413	463	493	/	538	538	593	451	501	531	576	576	631	489	554	569	639	639	669	259		
7.5	8-71	451	501	531	596	576	576	631	451	501	531	/	576	576	631	489	539	569	614	614	669	489	554	569	639	639	669	259		
11	7.1-50	/	541	601	/	631	631	681	506	541	601	651	631	631	681	550	585	645	675	675	725	550	600	645	700	700	735	314		
15	7.1-35.5	/	585	645	/	675	675	725	550	585	645	695	675	675	725	580	615	675	705	705	755	580	630	675	730	730	765	314		
18.5	7.1-28	/	651	731	/	756	756	796	621	651	731	786	731	756	801	621	651	731	756	756	801	621	666	731	776	776	816	356		
22	7.1-25	/	699	779	/	804	804	849	669	699	779	834	779	804	849	669	699	779	804	804	849	669	714	779	824	824	864	356		

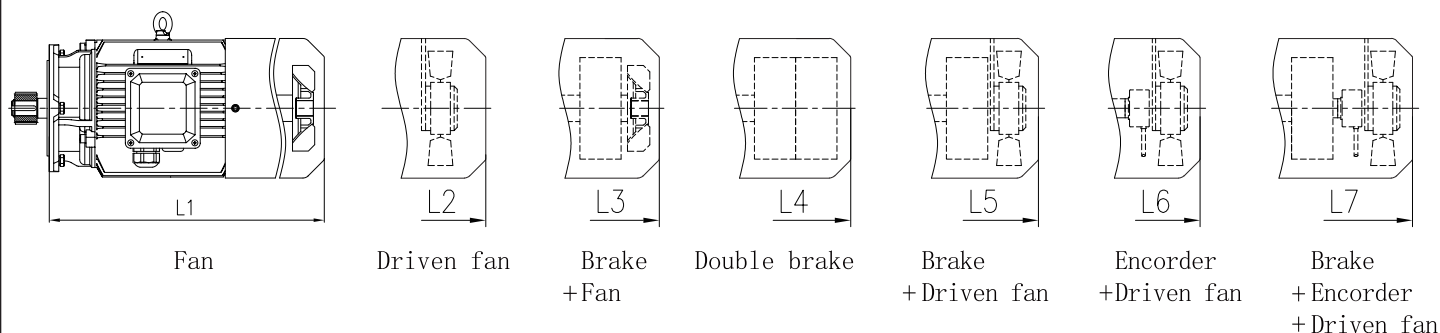
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
0.55	160-180	13	14	17	21	18	15	19	14	15	18	/	19	16	20	15	16	19	20	17	21	15	16	19	20	16.5	21		
0.75	140-180	14	15	18	22	19	16	20	15	16	19	/	20	17	21	16	17	20	21	18	22	16	17	20	21	17.5	22		
1.1	100-160	16	17	20	24	21	18	22	18	19	22	/	23	20	24	21	22	25	26	23	27	21	22	25	26	22.5	27		
1.5	71-160	17	18	21	25	22	19	23	19	20	23	/	24	21	25	23	24	27	28	25	29	23	24	27	28	24.5	29		
2.2	50-160	27	28	35	42	36	29	37	30	31	38	/	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45		
3	35.5-160	30	31	38	45	39	32	40	33	34	41	/	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45		
4	25-140	45	46	53	61	54	47	55	52	53	60	/	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66		
5.5	16-80	63	65	74	85	76	66	77	67	69	78	/	80	70	81	77	79	88	90	80	91	77	79	88	90	80	91		
7.5	8-71	73	75	84	95	86	76	87	80	82	91	/	93	83	94	88	90	99	101	91	102	88	90	99	101	91	102		
11	7.1-50	/	123	142	/	143	124	144	121	123	142	162	143	124	144	129	131	150	151	132	152	129	131	150	151	132	152		
15	7.1-35.5	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		
18.5	7.1-28	/	184	214	/	215	185	217	182	184	214	246	215	185	217	200	202	232	233	203	235	200	202	232	233	203	235		
22	7.1-25	/	206	236	/	237	207	239	204	206	236	268	237	207	239	220	222	252	253	223	255	220	222	252	253	223	255		

Mounting Mode	K309 Dimensions						
Horizontal foot-mounted	<p>Horizontal foot-mounted (H) Weight: 155kg (Without motor and oil)</p>		<p>K309HA Unidirectional output shaft K309HB Unidirectional output shaft K309HC Bidirectional output shaft</p>				
	<p>K309HG Hollow shaft with parallel key K309HH Hollow shaft with parallel key</p>	<p>K309HI Hollow shaft with shrink disk</p>	<p>K309HJ Hollow shaft with shrink disk</p>	<p>K309HK Hollow shaft with involute spline K309HL Hollow shaft with involute spline</p>			
Flange-mounted	<p>Flange-mounted (F) Weight: 174kg (Without motor and oil)</p>		<p>K309FA Unidirectional output shaft K309FB Unidirectional output shaft K309FC Bidirectional output shaft</p>		<p>K309FD Unidirectional output shaft K309FE Unidirectional output shaft K309FF Bidirectional output shaft</p>		
	<p>K309FG Hollow shaft with parallel key K309FH Hollow shaft with parallel key</p>	<p>K309FI Hollow shaft with shrink disk</p>	<p>K309FJ Hollow shaft with shrink disk</p>	<p>K309FK Hollow shaft with involute spline K309FL Hollow shaft with involute spline</p>			
Short flange-mounted	<p>Short flange-mounted (S) Weight: 154kg (Without motor and oil)</p>		<p>K309SG Hollow shaft with parallel key K309SH Hollow shaft with parallel key</p>	<p>K309SI Hollow shaft with shrink disk</p>	<p>K309SJ Hollow shaft with shrink disk</p>	<p>K309SK Hollow shaft with involute spline K309SL Hollow shaft with involute spline</p>	
Torque arm-mounted	<p>Torque arm-mounted with accessory (T) Weight: 167kg (Without motor and oil)</p>		<p>Torque arm-mounted without accessory (A) Weight: 154kg (Without motor and oil)</p>	<p>K309AG Hollow shaft with parallel key K309AH Hollow shaft with parallel key K309TG Hollow shaft with parallel key K309TH Hollow shaft with parallel key</p>	<p>K309AI Hollow shaft with shrink disk K309TI Hollow shaft with shrink disk</p>	<p>K309AJ Hollow shaft with shrink disk K309TJ Hollow shaft with shrink disk</p>	<p>K309AK Hollow shaft with involute spline K309AL Hollow shaft with involute spline K309TK Hollow shaft with involute spline K309TL Hollow shaft with involute spline</p>
Torque arm-mounted with accessory							

Note: Involute spline size DIN 5480 : m2 × Z34 × α30 × D70 × 9H

Corresponding motor dimension table for K309



Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
1.1	140-180	303	348	358	418	403	403	458	303	348	358	/	403	403	458	303	348	358	403	403	458	328	373	383	433	433	478	176		
1.5	112-180	303	348	358	418	403	403	458	303	348	358	/	403	403	458	328	373	383	428	428	483	328	373	383	433	433	478	176		
2.2	90-180	374	414	449	509	489	489	544	374	414	449	/	489	489	544	374	414	449	489	489	544	374	429	449	509	509	554	202		
3	63-180	374	414	449	509	489	489	544	374	414	449	/	489	489	544	374	414	449	489	489	544	374	429	449	509	509	554	202		
4	45-180	370	420	445	505	495	495	550	438	488	513	/	563	563	618	438	488	513	563	563	618	438	498	513	578	578	618	220		
5.5	35.5-112	412	462	492	557	537	537	592	412	462	492	/	537	537	592	450	500	530	575	575	630	488	553	568	638	638	668	259		
7.5	25-112	450	500	530	595	575	575	630	450	500	530	/	575	575	630	488	538	568	613	613	668	488	553	568	638	638	668	259		
11	16-90	/	535	595	/	625	625	675	500	535	595	645	625	625	675	544	579	639	669	669	719	544	594	639	694	694	729	314		
15	9-63	/	579	639	/	669	669	719	544	579	639	689	669	669	719	574	609	669	699	699	749	574	624	669	724	724	759	314		
18.5	7.1-50	/	645	725	/	750	750	795	615	645	725	780	725	750	795	615	645	725	750	750	795	615	660	725	770	770	810	356		
22	7.1-40	/	693	773	/	798	798	843	663	693	773	828	773	798	843	663	693	773	798	798	843	663	708	773	818	818	858	356		
30	7.1-28	/	710	820	/	825	825	870	705	710	820	845	825	825	870	705	710	820	825	825	870	705	725	820	845	845	890	398		

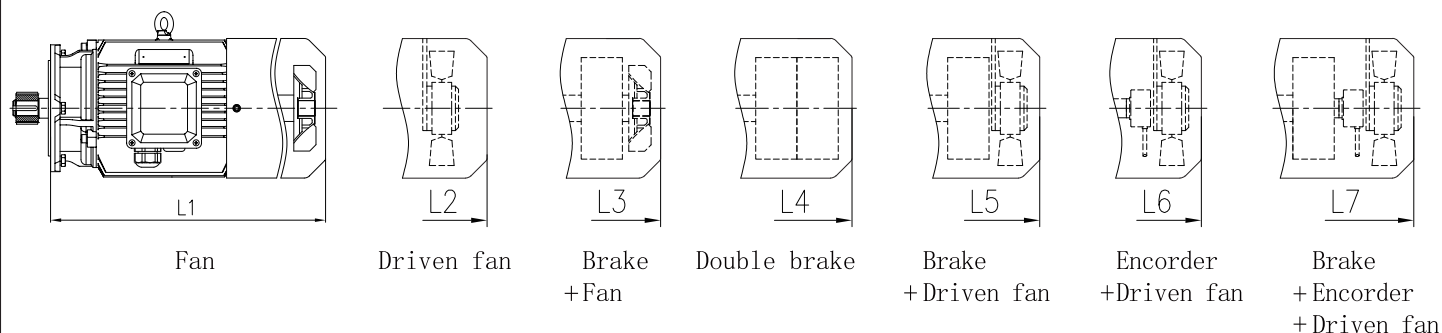
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
1.1	140-180	16	17	20	24	21	18	22	18	19	22	/	23	20	24	20	21	24	25	22	26	21	22	25	26	22.5	27		
1.5	112-180	17	18	21	25	22	19	23	19	20	23	/	24	21	25	22	23	26	27	24	28	23	24	27	28	24.5	29		
2.2	90-180	27	28	35	42	36	29	37	30	31	38	/	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45		
3	63-180	30	31	38	45	39	32	40	33	34	41	/	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45		
4	45-180	45	46	53	61	54	47	55	52	53	60	/	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66		
5.5	35.5-112	63	65	74	85	76	66	77	67	69	78	/	80	70	81	77	79	88	90	80	91	77	79	88	90	80	91		
7.5	25-112	73	75	84	95	86	76	87	80	82	91	/	93	83	94	88	90	99	101	91	102	88	90	99	101	91	102		
11	16-90	/	123	142	/	143	124	144	121	123	142	162	143	124	144	129	131	150	151	132	152	129	131	150	151	132	152		
15	9-63	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		
18.5	7.1-50	/	184	214	/	215	185	217	182	184	214	246	215	185	217	200	202	232	233	203	235	200	202	232	233	203	235		
22	7.1-40	/	206	236	/	237	207	239	204	206	236	268	237	207	239	220	222	252	253	223	255	220	222	252	253	223	255		
30	7.1-28	/	260	310	/	308	261	310	260	260	310	360	308	261	310	280	280	330	328	281	330	280	280	330	328	281	330		

Mounting Mode	K310 Dimensions						
Horizontal foot-mounted	<p>Horizontal foot-mounted (H) Weight: 271kg (Without motor and oil)</p>		<p>K310HA Unidirectional output shaft K310HB Unidirectional output shaft K310HC Bidirectional output shaft</p>				
	<p>K310HG Hollow shaft with parallel key K310HH Hollow shaft with parallel key</p>	<p>K310HI Hollow shaft with shrink disk</p>	<p>K310HJ Hollow shaft with shrink disk</p>	<p>K310HK Hollow shaft with involute spline K310HL Hollow shaft with involute spline</p>			
Flange-mounted	<p>Flange-mounted (F) Weight: 280kg (Without motor and oil)</p>		<p>K310FA Unidirectional output shaft K310FB Unidirectional output shaft K310FC Bidirectional output shaft</p>		<p>K310FD Unidirectional output shaft K310FE Unidirectional output shaft K310FF Bidirectional output shaft</p>		
	<p>K310FG Hollow shaft with parallel key K310FH Hollow shaft with parallel key</p>	<p>K310FI Hollow shaft with shrink disk</p>	<p>K310FJ Hollow shaft with shrink disk</p>	<p>K310FK Hollow shaft with involute spline K310FL Hollow shaft with involute spline</p>			
Short flange-mounted	<p>Short flange-mounted (S) Weight: 261kg (Without motor and oil)</p>		<p>K310SG Hollow shaft with parallel key K310SH Hollow shaft with parallel key</p>	<p>K310SI Hollow shaft with shrink disk</p>	<p>K310SJ Hollow shaft with shrink disk</p>	<p>K310SK Hollow shaft with involute spline K310SL Hollow shaft with involute spline</p>	
Torque arm-mounted	<p>Torque arm-mounted with accessory (T) Weight: 283kg (Without motor and oil)</p>		<p>Torque arm-mounted without accessory (A) Weight: 261kg (Without motor and oil)</p>		<p>K310AG Hollow shaft with parallel key K310AH Hollow shaft with parallel key K310TG Hollow shaft with parallel key K310TH Hollow shaft with parallel key</p>	<p>K310AJ Hollow shaft with shrink disk K310TI Hollow shaft with shrink disk K310TJ Hollow shaft with shrink disk</p>	<p>K310AK Hollow shaft with involute spline K310AL Hollow shaft with involute spline K310TK Hollow shaft with involute spline K310TL Hollow shaft with involute spline</p>

Note: Involute spline size DIN 5480 : m3 × Z27 × α30 × D85 × 9H

Corresponding motor dimension table for K310



Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
2.2	140-180	370	410	445	505	485	485	540	370	410	445	/	485	485	540	370	410	445	485	485	540	370	425	445	505	505	550	202		
3	112-180	370	410	445	505	485	485	540	370	410	445	/	485	485	540	370	410	445	485	485	540	370	425	445	505	505	550	202		
4	80-180	366	416	441	501	491	491	546	434	484	509	/	559	559	614	434	484	509	559	559	614	434	494	509	574	574	614	220		
5.5	56-125	401	451	481	546	526	526	581	401	451	481	/	526	526	581	439	489	519	564	564	619	477	542	557	627	627	657	259		
7.5	40-125	439	489	519	584	564	564	619	439	489	519	/	564	564	619	477	527	557	602	602	657	477	542	557	627	627	657	259		
11	28-125	/	524	584	/	614	614	664	489	524	584	634	614	614	664	533	568	628	658	658	708	533	583	628	683	683	718	314		
15	20-112	/	568	628	/	658	658	708	533	568	628	678	658	658	708	563	598	658	688	688	738	563	613	658	713	713	748	314		
18.5	16-90	/	634	714	/	739	739	784	604	634	714	769	714	739	784	604	634	714	739	739	784	604	649	714	759	759	799	356		
22	12.5-80	/	682	762	/	787	787	832	652	682	762	817	762	787	832	652	682	762	787	787	832	652	697	762	807	807	847	356		
30	8-50	/	710	820	/	825	825	870	705	710	820	845	825	825	870	705	710	820	825	825	870	705	725	820	845	845	890	398		
37	8-40	/	776	861	/	891	891	936	746	776	861	/	891	891	936	746	776	861	891	891	936	746	781	861	901	901	941	446		
45	8-35.5	/	776	861	/	891	891	936	746	776	861	/	891	891	936	746	776	861	891	891	936	746	781	861	901	901	941	446		

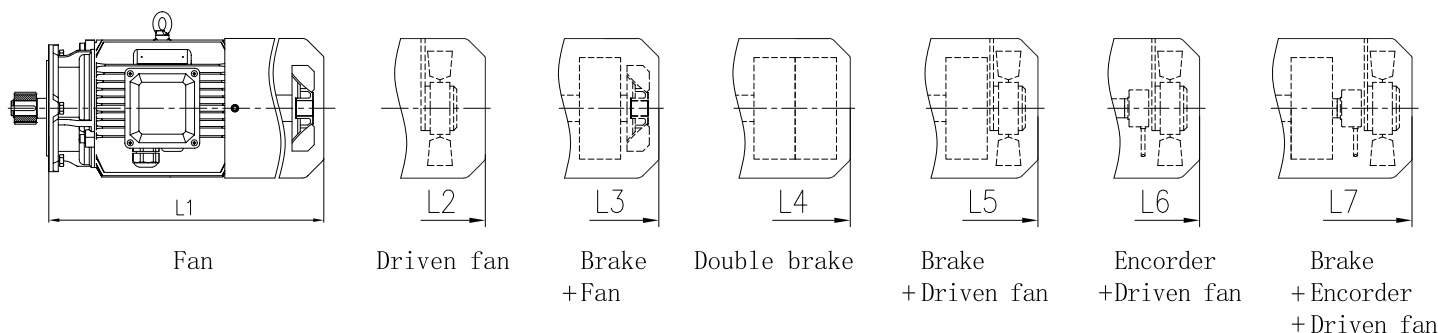
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
2.2	140-180	27	28	35	42	36	29	37	30	31	38	/	39	32	40	32	33	40	41	34	42	36	37	44	45	38	45		
3	112-180	30	31	38	45	39	32	40	33	34	41	/	42	35	43	36	37	44	45	38	46	36	37	44	45	38	45		
4	80-180	45	46	53	61	54	47	55	52	53	60	/	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66		
5.5	56-125	63	65	74	85	76	66	77	67	69	78	/	80	70	81	77	79	88	90	80	91	77	79	88	90	80	91		
7.5	40-125	73	75	84	95	86	76	87	80	82	91	/	93	83	94	88	90	99	101	91	102	88	90	99	101	91	102		
11	28-125	/	123	142	/	143	124	144	121	123	142	162	143	124	144	129	131	150	151	132	152	129	131	150	151	132	152		
15	20-112	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		
18.5	16-90	/	184	214	/	215	185	217	182	184	214	246	215	185	217	200	202	232	233	203	235	200	202	232	233	203	235		
22	12.5-80	/	206	236	/	237	207	239	204	206	236	268	237	207	239	220	222	252	253	223	255	220	222	252	253	223	255		
30	8-50	/	260	310	/	308	261	310	260	260	310	360	308	261	310	280	280	330	328	281	330	280	280	330	328	281	330		
37	8-40	/	332	380	/	381	334	383	330	332	380	/	381	334	383	345	347	395	396	349	398	345	347	395	396	349	398		
45	8-35.5	/	347	395	/	396	349	398	345	347	395	/	396	349	398	365	367	415	416	369	418	365	367	415	416	369	418		

Mounting Mode	K312 Dimensions									
Horizontal foot-mounted	<p>Horizontal foot-mounted (H) Weight: 462kg (Without motor and oil)</p>		<p>K312HA Unidirectional output shaft K312HB Unidirectional output shaft K312HC Bidirectional output shaft</p>							
	<p>K312HG Hollow shaft with parallel key</p>	<p>K312HI Hollow shaft with shrink disk</p>	<p>K312HJ Hollow shaft with shrink disk</p>	<p>K312HK Hollow shaft with involute spline</p>		<p>K312HL Hollow shaft with involute spline</p>				
Flange-mounted	<p>Flange-mounted (F) Weight: 496kg (Without motor and oil)</p>		<p>K312FA Unidirectional output shaft K312FB Unidirectional output shaft K312FC Bidirectional output shaft</p>		<p>K312FD Unidirectional output shaft K312FE Unidirectional output shaft K312FF Bidirectional output shaft</p>					
	<p>K312FG Hollow shaft with parallel key</p>	<p>K312FI Hollow shaft with shrink disk</p>	<p>K312FJ Hollow shaft with shrink disk</p>	<p>K312FK Hollow shaft with involute spline</p>		<p>K312FL Hollow shaft with involute spline</p>				
Short flange-mounted	<p>Short flange-mounted (S) Weight: 462kg (Without motor and oil)</p>		<p>K312SG Hollow shaft with parallel key</p>	<p>K312SI Hollow shaft with shrink disk</p>	<p>K312SJ Hollow shaft with shrink disk</p>	<p>K312SK Hollow shaft with involute spline</p>	<p>K312SL Hollow shaft with involute spline</p>			
Torque arm-mounted	<p>Torque arm-mounted with accessory (T) Weight: 527kg (Without motor and oil)</p>		<p>Torque arm-mounted without accessory (A) Weight: 462kg (Without motor and oil)</p>		<p>K312AG Hollow shaft with parallel key</p>	<p>K312AJ Hollow shaft with shrink disk</p>	<p>K312AK Hollow shaft with involute spline</p>	<p>K312AL Hollow shaft with involute spline</p>	<p>K312TK Hollow shaft with involute spline</p>	<p>K312TL Hollow shaft with involute spline</p>
Torque arm-mounted with accessory			<p>K312AH Hollow shaft with parallel key</p>	<p>K312TI Hollow shaft with shrink disk</p>	<p>K312TJ Hollow shaft with shrink disk</p>	<p>K312TK Hollow shaft with involute spline</p>	<p>K312TL Hollow shaft with involute spline</p>			

Note: Involute spline size DIN 5480 : m3 × Z30 × α30 × D95 × 9H

Corresponding motor dimension table for K312



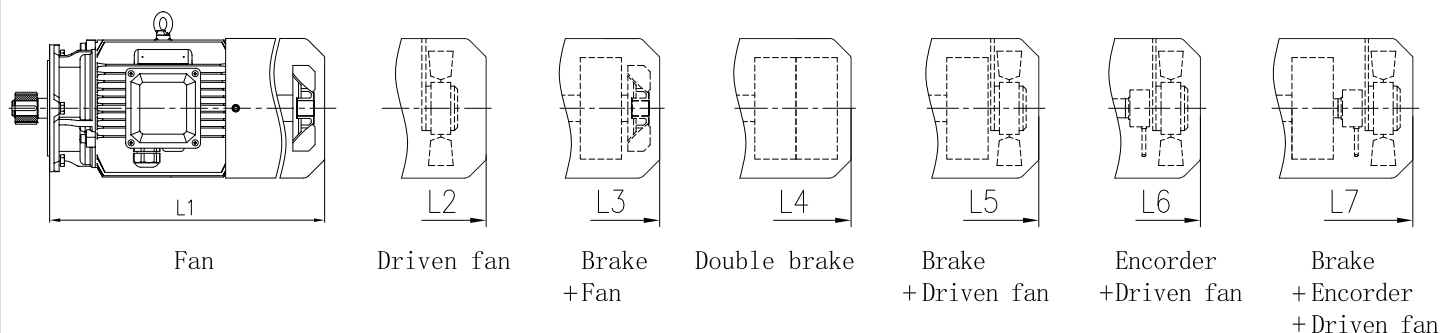
Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
4	140-180	355	405	430	490	480	480	535	423	473	498	/	548	548	603	423	473	498	548	548	603	423	483	498	563	563	603	220		
5.5	100-140	391	441	471	536	516	516	571	391	441	471	/	516	516	571	429	479	509	554	554	609	467	532	547	617	617	647	259		
7.5	71-140	429	479	509	574	554	554	609	429	479	509	/	554	554	609	467	517	547	592	592	647	467	532	547	617	617	647	259		
11	45-140	/	508	568	/	598	598	648	473	508	568	618	598	598	648	517	552	612	642	642	692	517	567	612	667	667	702	314		
15	35.5-140	/	552	612	/	642	642	692	517	552	612	662	642	642	692	547	582	642	672	672	722	547	597	642	697	697	732	314		
18.5	28-140	/	618	698	/	723	723	768	588	618	698	753	698	723	768	588	618	698	723	723	768	588	633	698	743	743	783	356		
22	25-112	/	666	746	/	771	771	816	636	666	746	801	746	771	816	636	666	746	771	771	816	636	681	746	791	791	831	356		
30	16-90	/	689	799	/	804	804	849	684	689	799	824	804	804	849	684	689	799	804	804	849	684	704	799	824	824	869	398		
37	9-71	/	755	840	/	870	870	915	725	755	840	/	870	870	915	725	755	840	870	870	915	725	760	840	880	880	920	446		
45	7.1-56	/	755	840	/	870	870	915	725	755	840	/	870	870	915	725	755	840	870	870	915	725	760	840	880	880	920	446		
55	7.1-45	/	856	981	/	991	991	1026	841	856	981	/	991	991	1036	841	856	981	991	991	1036	841	866	981	1021	1021	1041	485		
75	7.1-35.5	/	916	1026	/	1061	1061	1106	886	916	1026	/	1061	1061	1106	886	916	1026	1061	1061	1106	886	916	1026	1066	1066	1106	547		
90	7.1-28	/	967	1077	/	1112	1112	1157	937	967	1077	/	1112	1112	1157	937	967	1077	1112	1112	1157	937	967	1077	1117	1117	1157	547		

Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
4	140-180	45	46	53	61	54	47	55	52	53	60	/	61	54	62	56	57	64	65	58	66	56	57	64	65	58	66		
5.5	100-140	63	65	74	85	76	66	77	67	69	78	/	80	70	81	77	79	88	90	80	91	77	79	88	90	80	91		
7.5	71-140	73	75	84	95	86	76	87	80	82	91	/	93	83	94	88	90	99	101	91	102	88	90	99	101	91	102		
11	45-140	/	123	142	/	143	124	144	121	123	142	162	143	124	144	129	131	150	151	132	152	129	131	150	151	132	152		
15	35.5-140	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		
18.5	28-140	/	184	214	/	215	185	217	182	184	214	246	215	185	217	200	202	232	233	203	235	200	202	232	233	203	235		
22	25-112	/	206	236	/	237	207	239	204	206	236	268	237	207	239	220	222	252	253	223	255	220	222	252	253	223	255		
30	16-90	/	260	310	/	308	261	310	260	260	310	360	308	261	310	280	280	330	328	281	330	280	280	330	328	281	330		
37	9-71	/	332	380	/	381	334	383	330	332	380	/	381	334	383	345	347	395	396	349	398	345	347	395	396	349	398		
45	7.1-56	/	347	395	/	396	349	398	345	347	395	/	396	349	398	365	367	415	416	369	418	365	367	415	416	369	418		
55	7.1-45	/	436	540	/	535	436	537	435	436	540	/	535	436	537	470	471	575	570	471	572	470	471	575	570	470	572		
75	7.1-35.5	/	577	680	/	678	578	680	575	577	680	/	678	578	680	630	632	735	733	633	735	630	632	735	733	633	735		
90	7.1-28	/	647	750	/	748	648	750	645	647	750	/	748	648	750	710	712	815	813	713	815	710	712	815	813	713	815		

Corresponding motor dimension table for K315



Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
7.5	100-140	429	479	509	574	554	554	609	429	479	509	/	554	554	609	467	517	547	592	592	647	467	532	547	617	617	647	259		
11	71-140	/	493	553	/	583	583	633	458	493	553	603	583	583	633	502	537	597	627	627	677	502	552	597	652	652	687	314		
15	50-140	/	537	597	/	627	627	677	502	537	597	647	627	627	677	532	567	627	657	657	707	532	582	627	682	682	717	314		
18.5	40-140	/	603	683	/	708	708	753	573	603	683	738	683	708	753	573	603	683	708	708	753	573	618	683	728	728	768	356		
22	31.5-140	/	651	731	/	756	756	801	621	651	731	786	731	756	801	621	651	731	756	756	801	621	666	731	776	776	816	356		
30	25-112	/	679	789	/	794	794	839	674	679	789	814	794	794	839	674	679	789	794	794	839	674	694	789	814	814	859	398		
37	20-100	/	745	830	/	860	860	905	715	745	830	/	860	860	905	715	745	830	860	860	905	715	750	830	870	870	910	446		
45	16-80	/	745	830	/	860	860	905	715	745	830	/	860	860	905	715	745	830	860	860	905	715	750	830	870	870	910	446		
55	12.5-71	/	846	971	/	981	981	1016	831	846	971	/	981	981	1026	831	846	971	981	981	1026	831	856	971	1011	1011	1031	485		
75	10-50	/	906	1016	/	1051	1051	1096	876	906	1016	/	1051	1051	1096	876	906	1016	1051	1051	1096	876	906	1016	1056	1056	1096	547		
90	10-40	/	957	1067	/	1102	1102	1147	927	957	1067	/	1102	1102	1147	927	957	1067	1102	1102	1147	927	957	1067	1107	1107	1147	547		

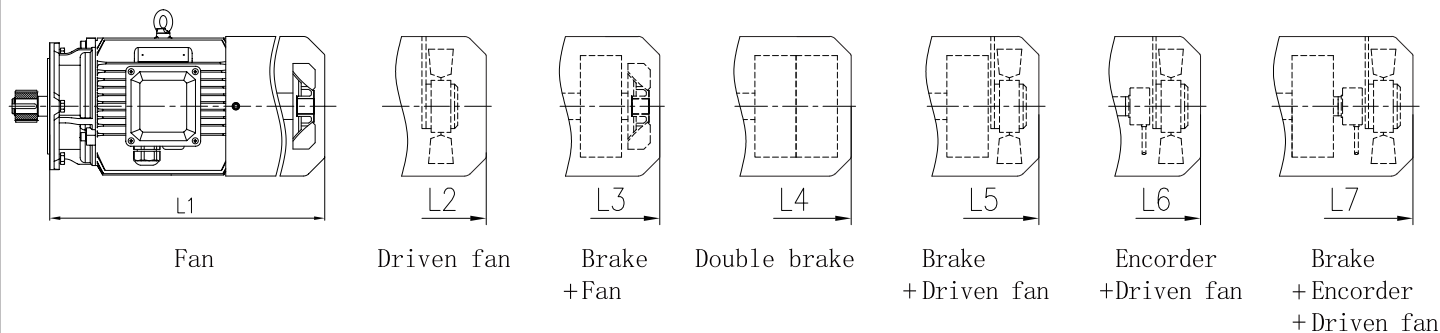
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
7.5	100-140	73	75	84	95	86	76	87	80	82	91	/	93	83	94	88	90	99	101	91	102	88	90	99	101	91	102		
11	71-140	/	123	142	/	143	124	144	121	123	142	162	143	124	144	129	131	150	151	132	152	129	131	150	151	132	152		
15	50-140	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		
18.5	40-140	/	184	214	/	215	185	217	182	184	214	246	215	185	217	200	202	232	233	203	235	200	202	232	233	203	235		
22	31.5-140	/	206	236	/	237	207	239	204	206	236	268	237	207	239	220	222	252	253	223	255	220	222	252	253	223	255		
30	25-112	/	260	310	/	308	261	310	260	260	310	360	308	261	310	280	280	330	328	281	330	280	280	330	328	281	330		
37	20-100	/	332	380	/	381	334	383	330	332	380	/	381	334	383	345	347	395	396	349	398	345	347	395	396	349	398		
45	16-80	/	347	395	/	396	349	398	345	347	395	/	396	349	398	365	367	415	416	369	418	365	367	415	416	369	418		
55	12.5-71	/	436	540	/	535	436	537	435	436	540	/	535	436	537	470	471	575	570	471	572	470	471	575	570	470	572		
75	10-50	/	577	680	/	678	578	680	575	577	680	/	678	578	680	630	632	735	733	633	735	630	632	735	733	633	735		
90	10-40	/	647	750	/	748	648	750	645	647	750	/	748	648	750	710	712	815	813	713	815	710	712	815	813	713	815		

Mounting Mode	K316 Dimensions			
Horizontal foot-mounted				
	<p>Horizontal foot-mounted (H) Weight: 1110kg (Without motor and oil)</p>	<p>K316HA Unidirectional output shaft K316HB Unidirectional output shaft K316HC Bidirectional output shaft</p>		
	<p>K316HG Hollow shaft with parallel key K316HH Hollow shaft with parallel key</p>	<p>K316HI Hollow shaft with shrink disk</p>	<p>K316HJ Hollow shaft with shrink disk</p>	<p>K316HK Hollow shaft with involute spline K316HL Hollow shaft with involute spline</p>
Flange-mounted				
	<p>Flange-mounted (F) Weight: 1300kg (Without motor and oil)</p>	<p>K316FA Unidirectional output shaft K316FB Unidirectional output shaft K316FC Bidirectional output shaft</p>		<p>K316FD Unidirectional output shaft K316FE Unidirectional output shaft K316FF Bidirectional output shaft</p>
	<p>K316FG Hollow shaft with parallel key K316FH Hollow shaft with parallel key</p>	<p>K316FI Hollow shaft with shrink disk</p>	<p>K316FJ Hollow shaft with shrink disk</p>	<p>K316FK Hollow shaft with involute spline K316FL Hollow shaft with involute spline</p>

Note: Involute spline size DIN 5480 : m3 × Z45 × α30 × D140 × 9H

Corresponding motor dimension table for K316



Directly connected motor dimension table

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
11	125-160	/	493	553	/	583	583	633	458	493	553	603	583	633	502	537	597	627	627	677	502	552	597	652	652	687	314			
15	90-160	/	537	597	/	627	627	677	502	537	597	647	627	627	677	532	567	627	657	657	707	532	582	627	682	682	717	314		
18.5	80-160	/	603	683	/	708	708	753	573	603	683	738	683	708	753	573	603	683	708	708	753	573	618	683	728	728	768	356		
22	63-160	/	651	731	/	756	756	801	621	651	731	786	731	756	801	621	651	731	756	756	801	621	666	731	776	776	816	356		
30	45-112	/	679	789	/	794	794	839	674	679	789	814	794	794	839	674	679	789	794	794	839	674	694	789	814	814	859	398		
37	40-112	/	745	830	/	860	860	905	715	745	830	/	860	860	905	715	745	830	860	860	905	715	750	830	870	870	910	446		
45	31.5-112	/	745	830	/	860	860	905	715	745	830	/	860	860	905	715	745	830	860	860	905	715	750	830	870	870	910	446		
55	25-112	/	846	971	/	981	981	1016	831	846	971	/	981	981	1026	831	846	971	981	981	1026	831	856	971	1011	1011	1031	485		
75	18-90	/	906	1016	/	1051	1051	1096	876	906	1016	/	1051	1051	1096	876	906	1016	1051	1051	1096	876	906	1016	1056	1056	1096	547		
90	14-80	/	957	1067	/	1102	1102	1147	927	957	1067	/	1102	1102	1147	927	957	1067	1102	1102	1147	927	957	1067	1107	1107	1147	547		

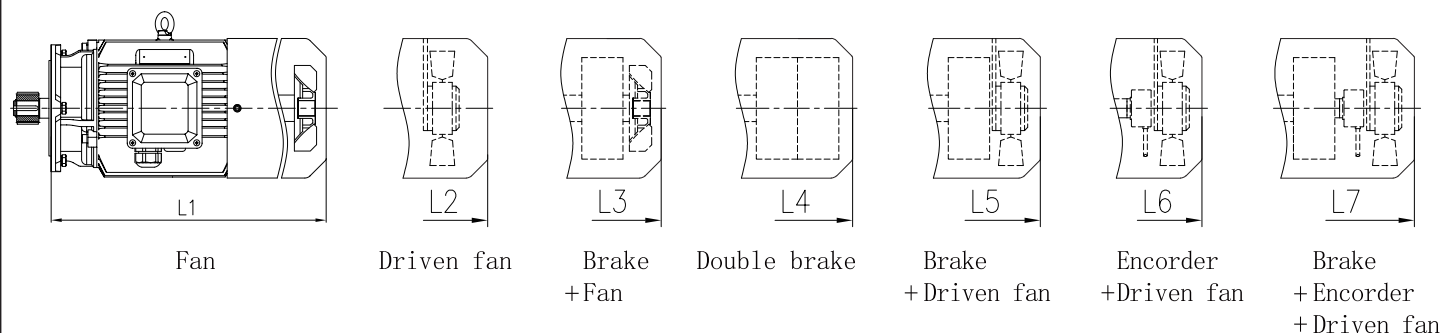
Directly connected motor weight table / kg

4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
11	125-160	/	123	142	/	143	124	144	121	123	142	162	143	124	144	129	131	150	151	132	152	129	131	150	151	132	152		
15	90-160	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		
18.5	80-160	/	184	214	/	215	185	217	182	184	214	246	215	185	217	200	202	232	233	203	235	200	202	232	233	203	235		
22	63-160	/	206	236	/	237	207	239	204	206	236	268	237	207	239	220	222	252	253	223	255	220	222	252	253	223	255		
30	45-112	/	260	310	/	308	261	310	260	260	310	360	308	261	310	280	280	330	328	281	330	280	280	330	328	281	330		
37	40-112	/	332	380	/	381	334	383	330	332	380	/	381	334	383	345	347	395	396	349	398	345	347	395	396	349	398		
45	31.5-112	/	347	395	/	396	349	398	345	347	395	/	396	349	398	365	367	415	416	369	418	365	367	415	416	369	418		
55	25-112	/	436	540	/	535	436	537	435	436	540	/	535	436	537	470	471	575	570	471	572	470	471	575	570	470	572		
75	18-90	/	577	680	/	678	578	680	575	577	680	/	678	578	680	630	632	735	733	633	735	630	632	735	733	633	735		
90	14-80	/	647	750	/	748	648	750	645	647	750	/	748	648	750	710	712	815	813	713	815	710	712	815	813	713	815		

Mounting Mode	K318 Dimensions				
Horizontal foot-mounted					
	<p>Horizontal foot-mounted (H) Weight: 1430kg (Without motor and oil)</p>		<p>K318HA Unidirectional output shaft K318HB Unidirectional output shaft K318HC Bidirectional output shaft</p>		
Flange-mounted					
	<p>K318HG Hollow shaft with parallel key K318HH Hollow shaft with parallel key</p>		<p>K318HI Hollow shaft with shrink disk</p>	<p>K318HJ Hollow shaft with shrink disk</p>	<p>K318HK Hollow shaft with involute spline K318HL Hollow shaft with involute spline</p>
Flange-mounted					
	<p>Flange-mounted (F) Weight: 1688kg (Without motor and oil)</p>		<p>K318FA Unidirectional output shaft K318FB Unidirectional output shaft K318FC Bidirectional output shaft</p>		<p>K318FD Unidirectional output shaft K318FE Unidirectional output shaft K318FF Bidirectional output shaft</p>
Flange-mounted					
	<p>K318FG Hollow shaft with parallel key K318FH Hollow shaft with parallel key</p>		<p>K318FI Hollow shaft with shrink disk</p>	<p>K318FJ Hollow shaft with shrink disk</p>	<p>K318FK Hollow shaft with involute spline K318FL Hollow shaft with involute spline</p>

Note: Involute spline size DIN 5480 : m3 × Z45 × α30 × D140 × 9H

Corresponding motor dimension table for K318



Directly connected motor dimension table

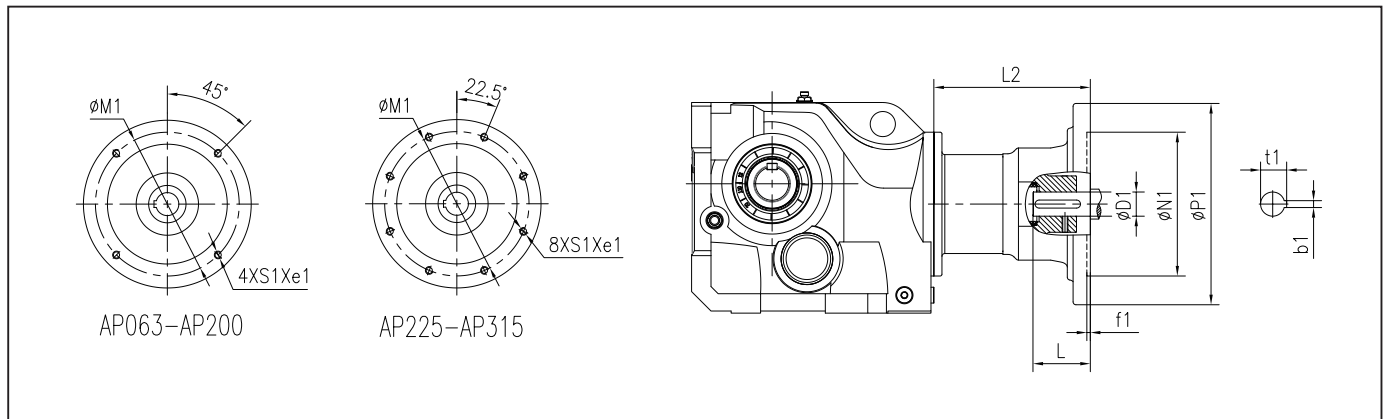
4-pole power (kW)	Range of Ratio	MS							MH							MP							MA							D
		L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L4	L5	L6	L7	L1	L2	L3	L5	L6	L7	L1	L2	L3	L5	L6	L7			
15	140-160	/	537	597	/	627	627	677	502	537	597	647	627	627	677	532	567	627	657	657	707	532	582	627	682	682	717	314		
18.5	112-160	/	603	683	/	708	708	753	573	603	683	738	683	708	753	573	603	683	708	708	753	573	618	683	728	728	768	356		
22	100-160	/	651	731	/	756	756	801	621	651	731	786	731	756	801	621	651	731	756	756	801	621	666	731	776	776	816	356		
30	71-140	/	679	789	/	794	794	839	674	679	789	814	794	794	839	674	679	789	794	794	839	674	694	789	814	814	859	398		
37	56-140	/	745	830	/	860	860	905	715	745	830	/	860	860	905	715	745	830	860	860	905	715	750	830	870	870	910	446		
45	45-140	/	745	830	/	860	860	905	715	745	830	/	860	860	905	715	745	830	860	860	905	715	750	830	870	870	910	446		
55	40-140	/	846	971	/	981	981	1016	831	846	971	/	981	981	1026	831	846	971	981	981	1026	831	856	971	1011	1011	1031	485		
75	28-112	/	906	1016	/	1051	1051	1096	876	906	1016	/	1051	1051	1096	876	906	1016	1051	1051	1096	876	906	1016	1056	1056	1096	547		
90	20-112	/	957	1067	/	1102	1102	1147	927	957	1067	/	1102	1102	1147	927	957	1067	1102	1102	1147	927	957	1067	1107	1107	1147	547		

Directly connected motor weight table / kg

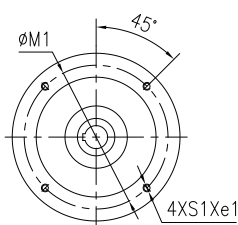
4-pole power (kW)	Range of Ratio	MS							MH							MP							MA						
		M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M4	M5	M6	M7	M1	M2	M3	M5	M6	M7	M1	M2	M3	M5	M6	M7		
15	140-160	/	141	160	/	161	142	162	139	141	160	180	161	142	162	161	163	182	183	164	184	161	163	182	183	164	184		
18.5	112-160	/	184	214	/	215	185	217	182	184	214	246	215	185	217	200	202	232	233	203	235	200	202	232	233	203	235		
22	100-160	/	206	236	/	237	207	239	204	206	236	268	237	207	239	220	222	252	253	223	255	220	222	252	253	223	255		
30	71-140	/	260	310	/	308	261	310	260	260	310	360	308	261	310	280	280	330	328	281	330	280	280	330	328	281	330		
37	56-140	/	332	380	/	381	334	383	330	332	380	/	381	334	383	345	347	395	396	349	398	345	347	395	396	349	398		
45	45-140	/	347	395	/	396	349	398	345	347	395	/	396	349	398	365	367	415	416	369	418	365	367	415	416	369	418		
55	40-140	/	436	540	/	535	436	537	435	436	540	/	535	436	537	470	471	575	570	471	572	470	471	575	570	470	572		
75	28-112	/	577	680	/	678	578	680	575	577	680	/	678	578	680	630	632	735	733	633	735	630	632	735	733	633	735		
90	20-112	/	647	750	/	748	648	750	645	647	750	/	748	648	750	710	712	815	813	713	815	710	712	815	813	713	815		

7 Input Flange and Input Shaft

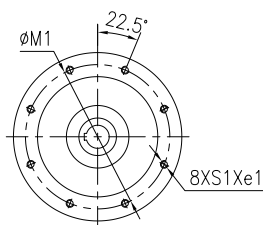
7.1 K series dimensions of AP input flange



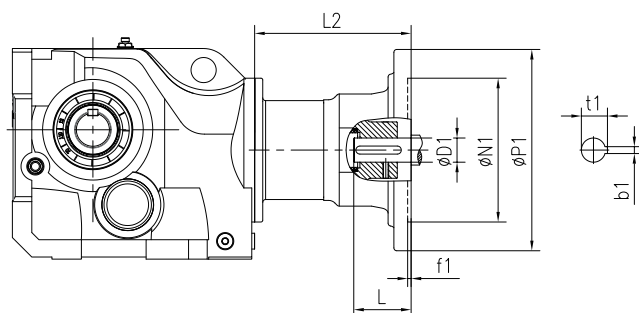
Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(kg)
K303	AP063	4-100	14	11H7	95H7	115	140	4	4	12.8	23	M8	59	4.8
	AP071	4-100	14	14H7	110H7	130	160	4	5	16.3	30	M8	59	4.8
	AP080	4-71	18	19H7	130H7	165	200	4	6	21.8	40	M10	74	7.6
K304	AP063	4-125	14	11H7	95H7	115	140	4	4	12.8	23	M8	61	5.1
	AP071	4-125	14	14H7	110H7	130	160	4	5	16.3	30	M8	61	5.1
	AP080	4-125	18	19H7	130H7	165	200	4	6	21.8	40	M10	76	8.6
	AP090	4-71	18	24H7	130H7	165	200	4	8	27.3	50	M10	81	9.2
	AP100	4-35.5	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
	AP112	4-20	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
K305	AP063	4-112	14	11H7	95H7	115	140	4	4	12.8	23	M8	61	5.1
	AP071	4-112	14	14H7	110H7	130	160	4	5	16.3	30	M8	61	5.1
	AP080	4-112	18	19H7	130H7	165	200	4	6	21.8	40	M10	76	8.6
	AP090	4-63	18	24H7	130H7	165	200	4	8	27.3	50	M10	81	9.2
	AP100	4-56	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
	AP112	4-28	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
K306	AP063	4-125	14	11H7	95H7	115	140	4	4	12.8	23	M8	61	5.1
	AP071	4-125	14	14H7	110H7	130	160	4	5	16.3	30	M8	61	5.1
	AP080	4-125	18	19H7	130H7	165	200	4	6	21.8	40	M10	76	8.6
	AP090	4-90	18	24H7	130H7	165	200	4	8	27.3	50	M10	81	9.2
	AP100	4-80	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
	AP112	4-40	28	28H7	180H7	215	250	5	8	31.3	60	M12	191	14.1
K307	AP071	7.1-180	14	14H7	110H7	130	160	4	5	16.3	30	M8	53	6.7
	AP080	7.1-180	18	19H7	130H7	165	200	4	6	21.8	40	M10	68	10.3
	AP090	7.1-112	18	24H7	130H7	165	200	4	8	27.3	50	M10	73	11.1
	AP100	7.1-112	28	28H7	180H7	215	250	5	8	31.3	60	M12	181	15.5
	AP112	7.1-80	28	28H7	180H7	215	250	5	8	31.3	60	M12	181	15.5
	AP132	7.1-50	28	38H7	230H7	265	300	5	10	41.3	80	M12	210	22.3
K308	AP080	90-180	18	19H7	130H7	165	200	4	6	21.8	40	M10	65	10.4
	AP090	7.1-160	18	24H7	130H7	165	200	4	8	27.3	50	M10	66	12.1
	AP100	7.1-160	28	28H7	180H7	215	250	5	8	31.3	60	M12	171	18.2
	AP112	7.1-140	28	28H7	180H7	215	250	5	8	31.3	60	M12	171	18.2
	AP132	7.1-80	28	38H7	230H7	265	300	5	10	41.3	80	M12	203	24.9
	AP160	7.1-45	40	42H7	250H7	300	350	6	12	45.3	110	M16	272	46.4
	AP180	7.1-28	40	48H7	250H7	300	350	6	14	51.8	110	M16	272	46.4



AP063-AP200

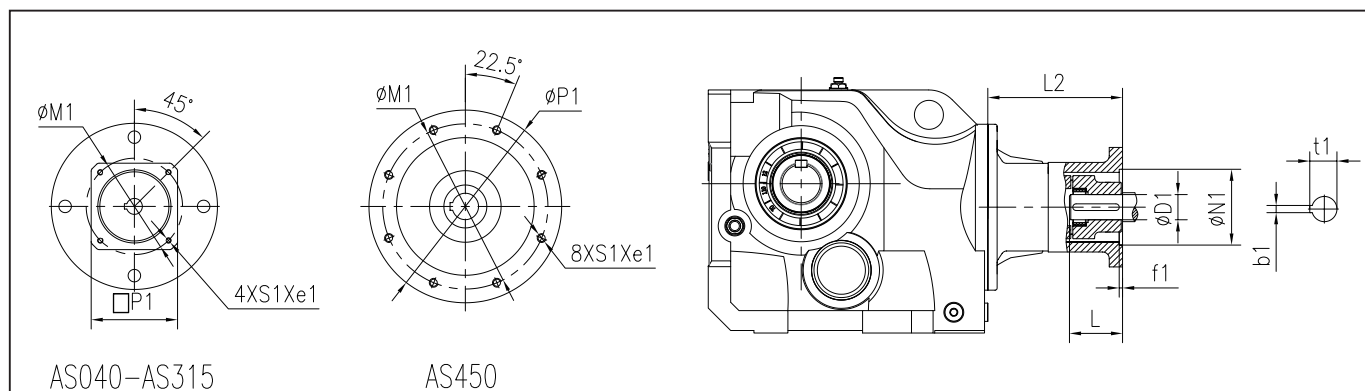


AP225-AP315

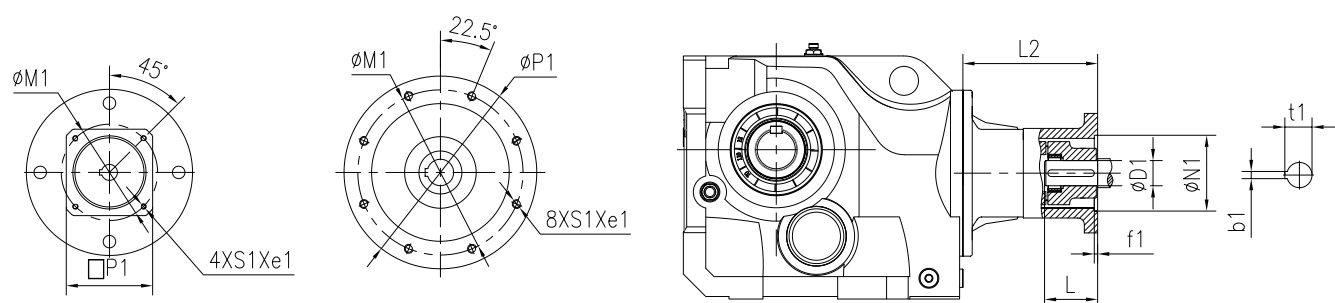


Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(kg)
K309	AP090	7.1-180	18	24H7	130H7	165	200	4	8	27.3	50	M10	70	14.7
	AP100	7.1-180	28	28H7	180H7	215	250	5	8	31.3	60	M12	172	21.5
	AP112	7.1-180	28	28H7	180H7	215	250	5	8	31.3	60	M12	172	21.5
	AP132	7.1-112	28	38H7	230H7	265	300	5	10	41.3	80	M12	202	28.3
	AP160	7.1-90	40	42H7	250H7	300	350	6	12	45.3	110	M16	270	49.9
	AP180	7.1-50	40	48H7	250H7	300	350	6	14	51.8	110	M16	270	49.9
	AP200	7.1-28	40	55H7	300H7	350	400	6	16	59.3	110	M16	327	72.8
K310	AP100	8-180	28	28H7	180H7	215	250	5	8	31.3	60	M12	162	25.6
	AP112	8-180	28	28H7	180H7	215	250	5	8	31.3	60	M12	162	25.6
	AP132	8-125	28	38H7	230H7	265	300	5	10	41.3	80	M12	189	33.7
	AP160	8-125	40	42H7	250H7	300	350	6	12	45.3	110	M16	257	52.3
	AP180	8-90	40	48H7	250H7	300	350	6	14	51.8	110	M16	257	52.3
	AP200	8-50	40	55H7	300H7	350	400	6	16	59.3	110	M16	327	77.4
K312	AP225	8-40	30	60H7	350H7	400	450	6	18	64.4	140	M16	354	85.1
	AP132	7.1-140	28	38H7	230H7	265	300	5	10	41.3	80	M12	175	46.4
	AP160	7.1-140	40	42H7	250H7	300	350	6	12	45.3	110	M16	243	66.9
	AP180	7.1-140	40	48H7	250H7	300	350	6	14	51.8	110	M16	243	66.9
	AP200	7.1-90	40	55H7	300H7	350	400	6	16	59.3	110	M16	316	89.8
	AP225	7.1-71	30	60H7	350H7	400	450	6	18	64.4	140	M16	343	97.5
	AP250	7.1-45	32	65H7	450H7	500	550	7	18	69.4	140	M16	361	131.3
K315	AP280	7.1-35.5	32	75H7	450H7	500	550	7	20	79.9	140	M16	361	131.3
	AP160	10-140	40	42H7	250H7	300	350	6	12	45.3	110	M16	233	90.9
	AP180	10-140	40	48H7	250H7	300	350	6	14	51.8	110	M16	233	90.9
	AP200	10-112	40	55H7	300H7	350	400	6	16	59.3	110	M16	298	109.4
	AP225	10-100	30	60H7	350H7	400	450	6	18	64.4	140	M16	325	117.1
	AP250	10-71	32	65H7	450H7	500	550	7	18	69.4	140	M16	343	147.8
	AP280	10-50	32	75H7	450H7	500	550	7	20	79.9	140	M16	343	147.8
K316	AP315	10-31.5	35	80H7	550H7	600	660	7	22	85.4	170	M20	447	262.5
	AP160	10-160	40	42H7	250H7	300	350	6	12	45.3	110	M16	233	90.9
	AP180	10-160	40	48H7	250H7	300	350	6	14	51.8	110	M16	233	90.9
	AP200	10-112	40	55H7	300H7	350	400	6	16	59.3	110	M16	298	109.4
	AP225	10-112	30	60H7	350H7	400	450	6	18	64.4	140	M16	325	117.1
	AP250	10-112	32	65H7	450H7	500	550	7	18	69.4	140	M16	343	147.8
	AP280	10-90	32	75H7	450H7	500	550	7	20	79.9	140	M16	343	147.8
K318	AP315	10-63	35	80H7	550H7	600	660	7	22	85.4	170	M20	447	262.5
	AP160	71-160	40	42H7	250H7	300	350	6	12	45.3	110	M16	233	90.9
	AP180	71-160	40	48H7	250H7	300	350	6	14	51.8	110	M16	233	90.9
	AP200	10-140	40	55H7	300H7	350	400	6	16	59.3	110	M16	298	109.4
	AP225	10-140	30	60H7	350H7	400	450	6	18	64.4	140	M16	325	117.1
	AP250	10-140	32	65H7	450H7	500	550	7	18	69.4	140	M16	343	147.8
	AP280	10-112	32	75H7	450H7	500	550	7	20	79.9	140	M16	343	147.8

7.2 K series dimensions of AS input flange



Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(kg)
K303	AS040	4-100	4	8H7	30H7	46	78	4	2	9	25	M4	65	2.5
	AS055	4-100	4	9H7	40H7	63	78	4	3	10.4	25	M5	65	2.5
	AS060	4-100	10	14H7	50H7	70	60	4	5	16.3	30	M5	114	3.2
	AS070	4-100	10	14H7	60H7	75	70	4	5	16.3	30	M5	114	3.3
	AS080	4-100	10	19H7	70H7	90	80	4	6	21.8	35	M6	120	3.4
	AS090	4-100	10	19H7	80H7	100	90	4	6	21.8	40	M6	125	3.6
	AS100	4-56	14	19H7	95H7	115	100	4	6	21.8	45	M8	122	3.9
	AS125	4-56	15	24H7	110H7	130	130	5	8	27	50	M8	133	4.9
K304	AS060	4-125	10	14H7	50H7	70	60	4	5	16.3	30	M5	116	4.1
	AS070	4-125	10	14H7	60H7	75	70	4	5	16.3	30	M5	116	4.2
	AS080	4-125	10	19H7	70H7	90	80	4	6	21.8	35	M6	122	4.3
	AS090	4-125	10	19H7	80H7	100	90	4	6	21.8	40	M6	127	4.5
	AS100	4-80	14	19H7	95H7	115	100	4	6	21.8	45	M8	124	4.8
	AS125	4-80	15	24H7	110H7	130	130	5	8	27	50	M8	135	5.8
	AS140	4-80	15	24H7	110H7	145	130	5.5	8	27	55	M8	135	5.7
	AS160	4-80	15	32H7	130H7	165	155	5	10	35.3	60	M10	190	9.9
K305	AS060	4-112	10	14H7	50H7	70	60	4	5	16.3	30	M5	116	4.1
	AS070	4-112	10	14H7	60H7	75	70	4	5	16.3	30	M5	116	4.2
	AS080	4-112	10	19H7	70H7	90	80	4	6	21.8	35	M6	122	4.3
	AS090	4-112	10	19H7	80H7	100	90	4	6	21.8	40	M6	127	4.5
	AS100	4-63	14	19H7	95H7	115	100	4	6	21.8	45	M8	124	4.8
	AS125	4-63	15	24H7	110H7	130	130	5	8	27	50	M8	135	5.8
	AS140	4-63	15	24H7	110H7	145	130	5.5	8	27	55	M8	135	5.7
	AS160	4-63	15	32H7	130H7	165	155	5	10	35.3	60	M10	190	9.9
K306	AS060	4-125	10	14H7	50H7	70	60	4	5	16.3	30	M5	116	4.1
	AS070	4-125	10	14H7	60H7	75	70	4	5	16.3	30	M5	116	4.2
	AS080	4-125	10	19H7	70H7	90	80	4	6	21.8	35	M6	122	4.3
	AS090	4-125	10	19H7	80H7	100	90	4	6	21.8	40	M6	127	4.5
	AS100	4-90	14	19H7	95H7	115	100	4	6	21.8	45	M8	124	4.8
	AS125	4-90	15	24H7	110H7	130	130	5	8	27	50	M8	135	5.8
	AS140	4-90	15	24H7	110H7	145	130	5.5	8	27	55	M8	135	5.7
	AS160	4-90	15	32H7	130H7	165	155	5	10	35.3	60	M10	190	9.9
K307	AS060	7.1-180	10	14H7	50H7	70	60	4	5	16.3	30	M5	108	5.6
	AS070	7.1-180	10	14H7	60H7	75	70	4	5	16.3	30	M5	108	5.7
	AS080	7.1-180	10	19H7	70H7	90	80	4	6	21.8	35	M6	114	5.8
	AS090	7.1-180	10	19H7	80H7	100	90	4	6	21.8	40	M6	119	6
	AS100	7.1-112	14	19H7	95H7	115	100	4	6	21.8	45	M8	116	6.3
	AS125	7.1-112	15	24H7	110H7	130	130	5	8	27	50	M8	127	7.3
	AS140	7.1-112	15	24H7	110H7	145	130	5.5	8	27	55	M8	127	7.2
	AS160	7.1-112	15	32H7	130H7	165	155	5	10	35.3	60	M10	180	11.3
	AS180	7.1-50	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	210	16.7
	AS190	7.1-50	18	38H7	180H7	215	190	5	10	41.3	80	M12	210	17.1
AS240	7.1-50	28	38H7	230H7	265	240	5	10	41.3	80	M12	210	22.3	

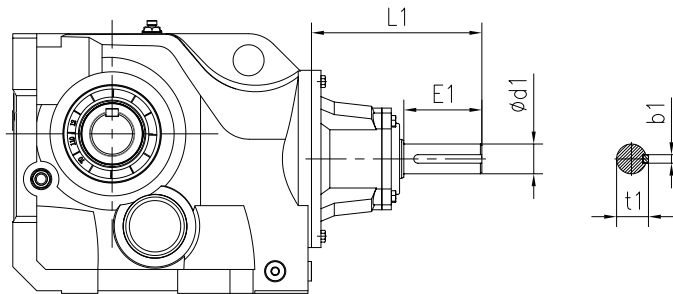


AS040-AS315

AS450

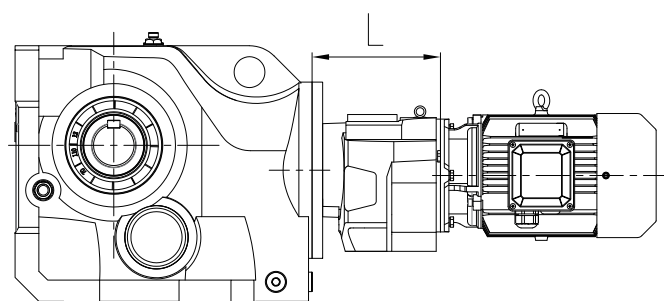
Size	Flange	Range of Ratio	e1	D1	N1	M1	P1	f1	b1	t1	L	S1	L2	Weight(kg)
K308	AS070	90-180	10	14H7	60H7	75	70	4	5	16.3	30	M5	105	8
	AS080	90-180	10	19H7	70H7	90	80	4	6	21.8	35	M6	111	8.1
	AS090	90-180	10	19H7	80H7	100	90	4	6	21.8	40	M6	116	8.3
	AS100	7.1-160	14	19H7	95H7	115	100	4	6	21.8	45	M8	113	8.6
	AS125	7.1-160	15	24H7	110H7	130	130	5	8	27	50	M8	124	9.6
	AS140	7.1-160	15	24H7	110H7	145	130	5.5	8	27	55	M8	124	9.5
	AS160	7.1-160	15	32H7	130H7	165	155	5	10	35.3	60	M10	170	14
	AS180	7.1-80	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	203	19.3
	AS190	7.1-80	18	38H7	180H7	215	190	5	10	41.3	80	M12	203	19.7
	AS240	7.1-80	28	38H7	230H7	265	240	5	10	41.3	80	M12	203	24.9
AS260	7.1-80	40	48H7	250H7	300	260	6	14	51.8	110	M16	272	46.4	
K309	AS160	7.1-180	15	32H7	130H7	165	155	5	10	35.3	60	M10	171	17.3
	AS180	7.1-112	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	202	22.7
	AS190	7.1-112	18	38H7	180H7	215	190	5	10	41.3	80	M12	202	23.1
	AS240	7.1-112	28	38H7	230H7	265	240	5	10	41.3	80	M12	202	28.3
	AS260	7.1-112	40	48H7	250H7	300	260	6	14	51.8	110	M16	271	49.9
K310	AS315	7.1-28	40	55H7	300H7	350	315	6	16	59.3	110	M16	327	72.8
	AS160	8-180	15	32H7	130H7	165	155	5	10	35.3	60	M10	161	21.4
	AS180	8-125	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	189	28.1
	AS190	8-125	18	38H7	180H7	215	190	5	10	41.3	80	M12	189	28.5
	AS240	8-125	28	38H7	230H7	265	240	5	10	41.3	80	M12	189	33.7
	AS260	8-125	40	48H7	250H7	300	260	6	14	51.8	110	M16	258	52.3
K312	AS315	8-100	40	55H7	300H7	350	315	6	16	59.3	110	M16	327	77.4
	AS180	7.1-140	16	35H7	114.3H7	200	180	7	10	38.3	80	M12	175	40.8
	AS190	7.1-140	18	38H7	180H7	215	190	5	10	41.3	80	M12	175	41.2
	AS240	7.1-140	28	38H7	230H7	265	240	5	10	41.3	80	M12	175	46.4
	AS260	7.1-140	40	48H7	250H7	300	260	6	14	51.8	110	M16	244	66.9
	AS315	7.1-112	40	55H7	300H7	350	315	6	16	59.3	110	M16	316	89.8
K315	AS450	7.1-90	30	55H7	350H7	400	450	6	16	59.3	140	M16	343	97.5
	AS260	10-140	40	48H7	250H7	300	260	6	14	51.8	110	M16	234	90.9
	AS315	10-112	40	55H7	300H7	350	315	6	16	59.3	110	M16	298	109.4
K316	AS450	10-90	30	55H7	350H7	400	450	6	16	59.3	140	M16	325	117.1
	AS260	10-160	40	48H7	250H7	300	260	6	14	51.8	110	M16	234	90.9
	AS315	10-112	40	55H7	300H7	350	315	6	16	59.3	110	M16	298	109.4
K318	AS450	10-90	30	55H7	350H7	400	450	6	16	59.3	140	M16	325	117.1
	AS260	71-160	40	48H7	250H7	300	260	6	14	51.8	110	M16	234	90.9
	AS315	10-140	40	55H7	300H7	350	315	6	16	59.3	110	M16	298	109.4

7.3 F series dimensions of AE input shaft



Size	Input Shaft	Range of Power	Range of Ratio	d1	E1	L1	b1	t1	Weight (kg)
K303	AE2	0.12-0.75kW	4-100	19k6	40	117	6	21.5	2.5
K304	AE2	0.12-0.75kW	4-125	19k6	40	119	6	21.5	3.4
	AE3	1.1-4kW	4-50	28k6	60	175	8	31	6.1
K305	AE2	0.12-0.75kW	4-112	19k6	40	119	6	21.5	3.4
	AE3	1.1-4kW	4-63	28k6	60	175	8	31	6.1
K306	AE2	0.12-0.75kW	4-125	19k6	40	119	6	21.5	3.4
	AE3	1.1-4kW	4-90	28k6	60	175	8	31	6.1
K307	AE2	0.12-0.75kW	7.1-180	19k6	40	111	6	21.5	4.9
	AE3	1.1-4kW	7.1-112	28k6	60	165	8	31	7.5
	AE4	5.5-7.5kW	7.1-40	38k6	80	211	10	41	10.5
K308	AE2	0.12-0.75kW	90-180	19k6	40	108	6	21.5	7.2
	AE3	1.1-4kW	7.1-160	28k6	60	155	8	31	10.2
	AE4	5.5-11kW	7.1-71	38k6	80	204	10	41	13.1
	AE5	15-22kW	7.1-35.5	42k6	110	266	12	45	23.3
K309	AE3	1.1-4kW	7.1-180	28k6	60	156	8	31	10.2
	AE4	5.5-11kW	7.1-112	38k6	80	203	10	41	13.1
	AE5	15-22kW	7.1-63	42k6	110	265	12	45	23.3
	AE6	30-45KW	7.1-28	48k6	110	309	14	51.5	40.9
K310	AE3	1.1-4kW	8-180	28k6	60	146	8	31	17.6
	AE4	5.5-11kW	8-125	38k6	80	190	10	41	21.9
	AE5	15-22kW	8-112	42k6	110	252	12	45	29.2
	AE6	30-45KW	8-50	48k6	110	309	14	51.5	45.5
K312	AE4	5.5-11kW	7.1-140	38k6	80	176	10	41	34.6
	AE5	15-22kW	7.1-140	42k6	110	238	12	45	43.8
	AE6	30-45KW	7.1-90	48k6	110	298	14	51.5	57.9
	AE7	55-90KW	7.1-45	55m6	110	297	16	59	64.6
	AE8	110-200KW	7.1-25	70m6	140	377	20	74.5	87.8
K315	AE5	15-22KW	10-140	42k6	110	228	12	45	67.8
	AE6	30-45KW	10-112	48k6	110	280	14	51.5	77.5
	AE7	55-90KW	10-71	55m6	110	279	16	59	81.1
	AE8	110-200KW	10-31.5	70m6	140	361	20	74.5	104.8
K316	AE5	15-22KW	10-160	42k6	110	228	12	45	67.8
	AE6	30-45KW	10-112	48k6	110	280	14	51.5	77.5
	AE7	55-90KW	10-112	55m6	110	279	16	59	81.1
	AE8	110-200KW	10-63	70m6	140	361	20	74.5	104.8
K318	AE5	15-22KW	71-160	42k6	110	228	12	45	67.8
	AE6	30-45KW	10-140	48k6	110	280	14	51.5	77.5
	AE7	55-90KW	10-140	55m6	110	279	16	59	81.1
	AE8	110-200KW	10-100	70m6	140	361	20	74.5	104.8

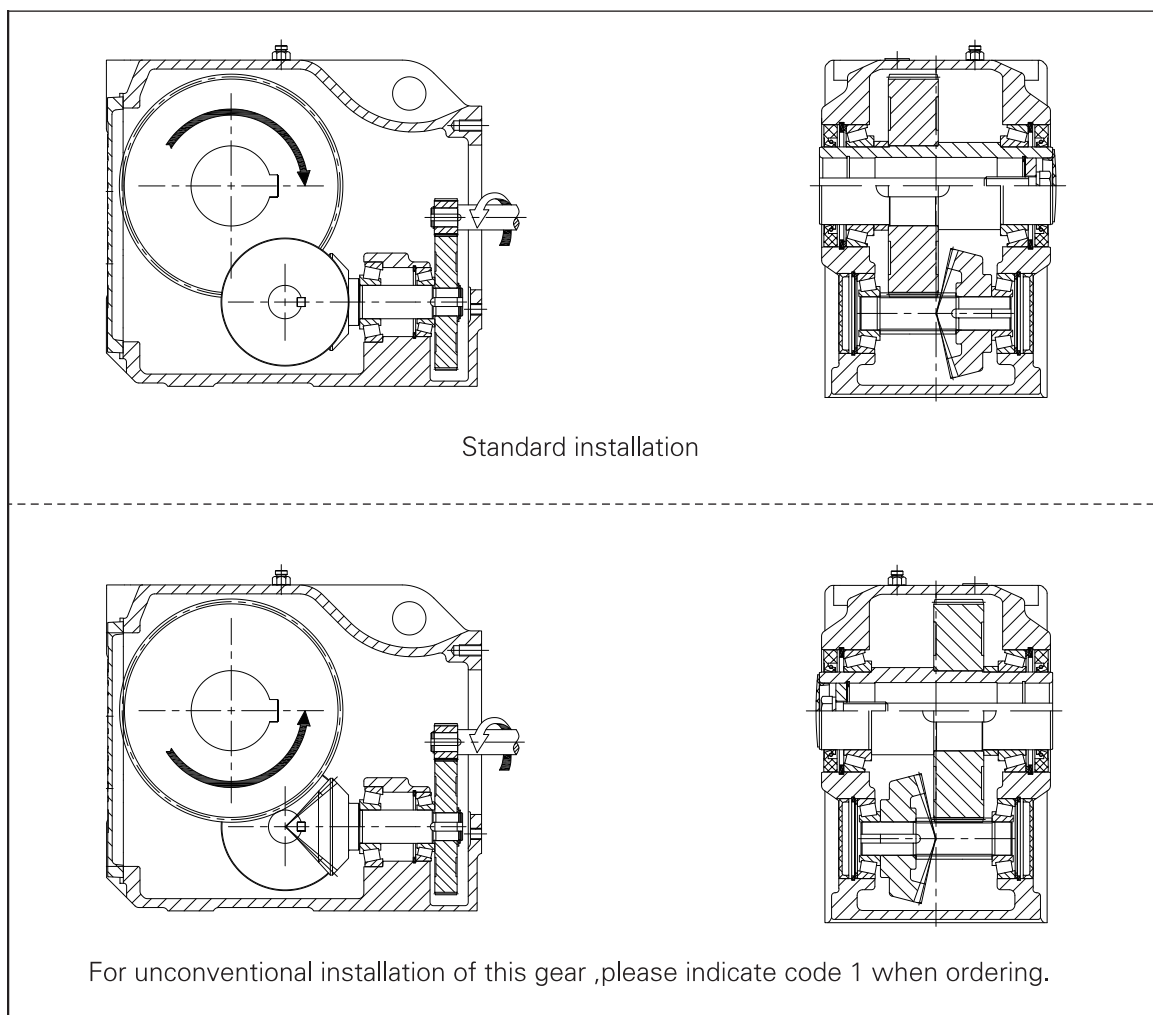
8 Combi-type Dimensions



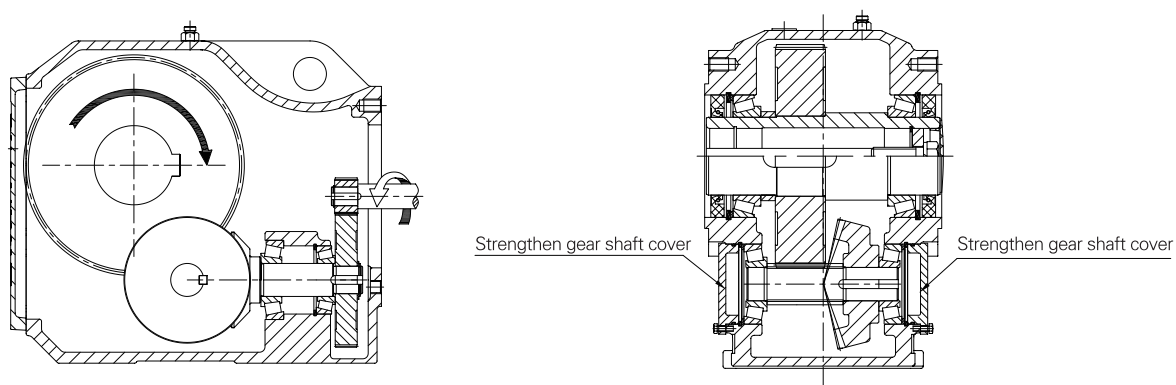
Type	K303/C201 K303/C301	K304/C203 K304/C303	K305/C203 K305/C303	K306/C203 K306/C303	K307/C203 K307/C303	K308/C205 K308/C305	K309/C205 K309/C305	K310/C207 K310/C307
L	134	170	170	170	170	182	182	226
Range of Motor Power (kW)	0.12-0.25	0.12-0.55	0.12-0.75	0.12-1.1	0.12-2.2	0.12-4	0.12-4	0.12-7.5
Type	K312/C207 K312/C307	K312/C208	K315/C209 K315/C309	K315/C210	K316/C209 K316/C309	K316/C210	K318/C209 K318/C309	K318/C210
L	226	264	321	361	321	361	321	361
Range of Motor Power (kW)	0.12-7.5	7.5-18.5	0.12-11	11-22	0.37-22	22-45	0.55-30	30-45

9 Accessories and Specific Configuration

9.1 Unconventional installation of gear(Code 1)



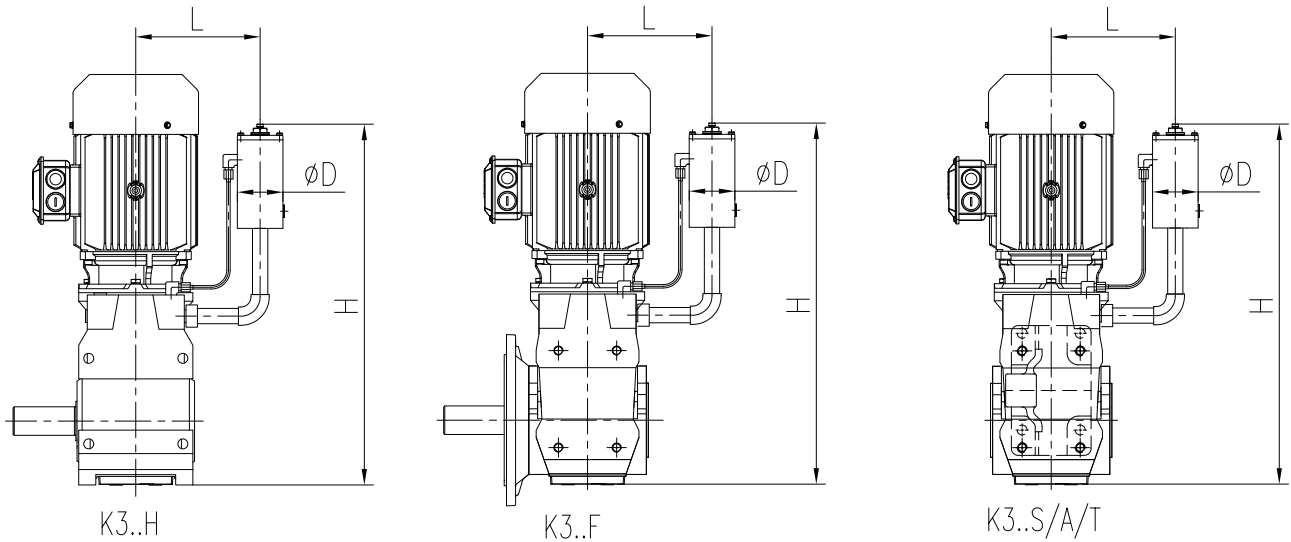
9.2 Strengthen gear shaft cover (Size:K308F/S/A/T~K315F/S/A/T , code 2)



Note: The recommended applications would be load impactive occasions, e.g.gantry crane long travel mechanism etc.

9.3 Oil compensating tank(Code 6)

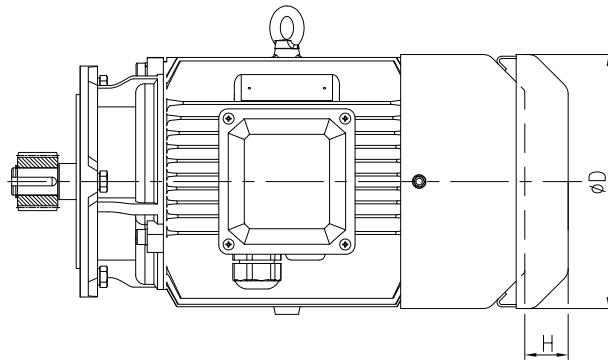
The installation position of K3...H,K3...F,K3...S/A/T is D4,recommended oil compensating tank lubrication.



Size	L	H	D
K303	128	330	42
K304	142	360	42
K305	174	462	80
K306	179	472	80
K307	199	522	80
K308	214	580	80
K309	241	645	80
K310	332	804	120
K312	370	892	120
K315	390	934	120

Note: In case of vertical position, the oil level is higher above the breather. A compensation is a necessary to prevent the oil erupting from the gearbox after a long term running, which could lead insufficient lubrication The actual dimension and final position of the compensation tank will be decided when the product is ordered.Other positions on request.

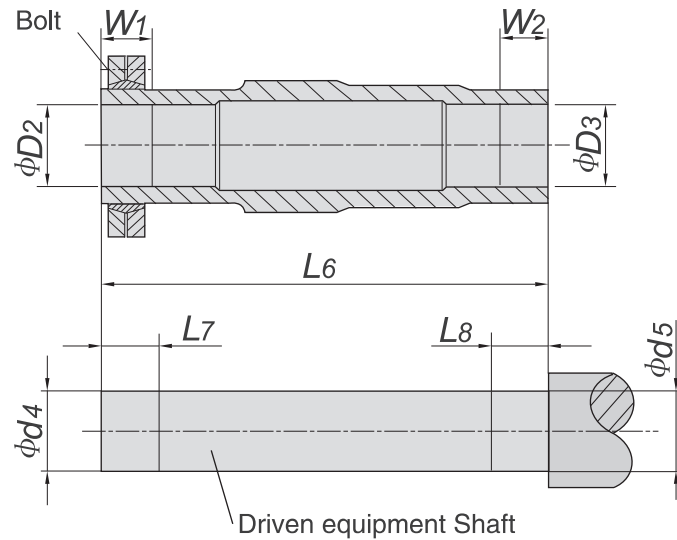
10 Motor Rainproof Cover Dimensions



Frame Size	H63	H71	H80	H90	H100	H112	H132	H160	H180	H200	H225	H250	H280
D	124	139	159	176	199	220	259	314	356	398	446	485	547
H	25	30	30	35	40	40	40	60	60	70	70	80	80

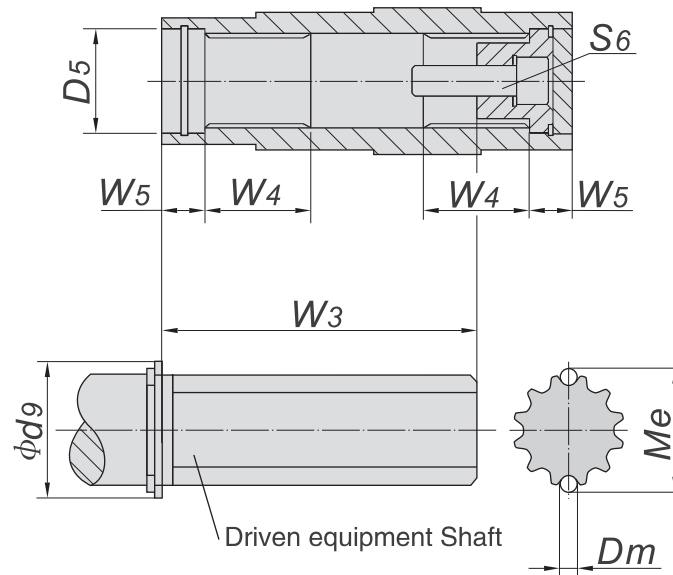
11 Recommended Dimensions for Driven Equipment Shaft

11.1 Shrink disk



Size	D2	D3	d4	d5	L6	L7	L8	W1	W2	Type	Bolt	Number
K303	30H7	30H7	30h6	30h6	146	35	25	30	20	SP2-44×80	M6	0.6
K304	35H7	35H7	35h6	35h6	177	35	25	30	20	SP2-44×80	M6	0.6
K305	40H7	40H7	40h6	40h6	195	40	30	35	25	SP2-50×90	M6	0.8
K306	40H7	40H7	40h6	40h6	208	43	25	38	20	SP2-50×90	M6	0.8
K307	50H7	50H7	50h6	50h6	241	41	35	36	30	SP2-62×110	M6	1.3
K308	65H7	65H7	65h6	65h6	281	46	45	41	40	SP2-80×145	M8	1.9
K309	75H7	75H7	75h6	75h6	345	60	55	55	50	SP2-90×155	M8	3.3
K310	95H7	95H7	95h6	95h6	405	75	70	65	60	SP2-110×185	M10	5.9
K312	105H7	105H7	105h6	105h6	485	95	80	85	70	SP2-140×230	M12	10
K315	125H7	125H7	125h6	125h6	580	100	87	90	77	SP2-155×263	M12	15
K316	135H7	140H7	135h6	140h6	728	130	100	122	90	SP2-175×300	M16	22
K318	155H7	160H7	155h6	160h6	790	130	105	119	95	SP2-195×350	M16	41

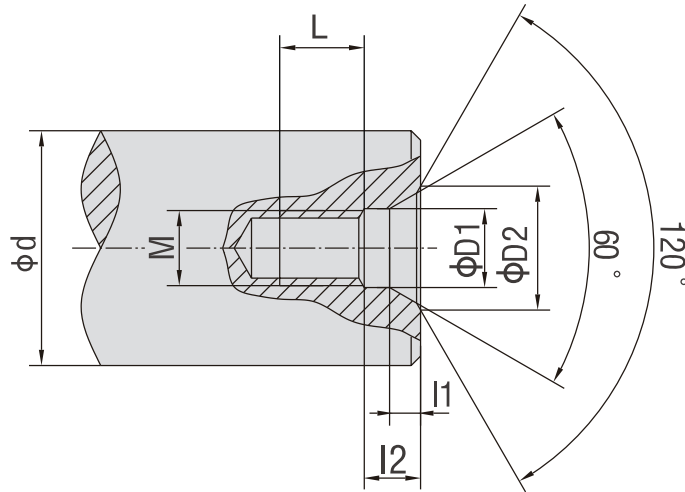
11.2 Involute spline



Size	D5	Dm	d9	Me	W3	W4	W5	S6
K303	37	2.25	42	25.28	85	25	18	M10×30
K304	37	3.5	42	27.71	115	32	18	M10×30
K305	42	3.5	47	27.71	125	42	25	M16×40
K306	42	3.5	47	27.71	140	42	25	M16×40
K307	55	3.5	62	42.62	160	52	23	M16×50
K308	72	3.5	82	57.65	180	62	25	M20×60
K309	72	3.5	90	62.66	240	72	25	M20×60
K310	90	5.25	105	73.92	290	89	26	M20×60
K312	100	5.25	120	84.11	380	92	28	M24×50
K315	120	5.25	140	109.11	468	107	30	M24×50
K316	145	5.25	165	129.02	585	128	23	M30×60
K318	155	5.25	175	129.02	650	128	23	M30×60

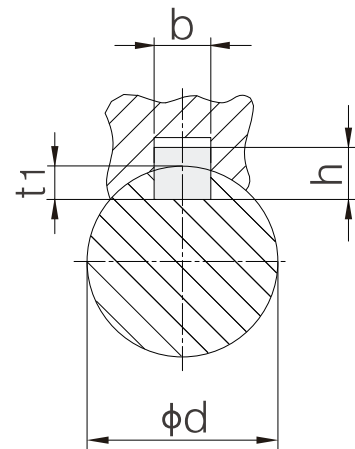
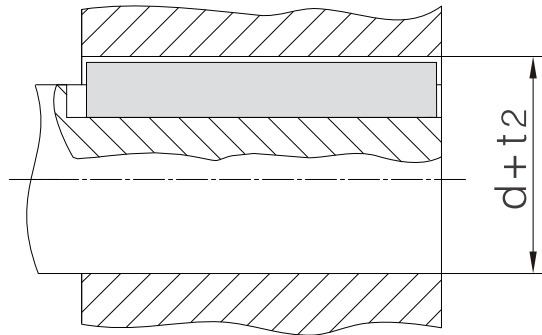
12 Shaft End Centre Hole

Type C screw central hole in shaft end



d	M	L	l2	l1	D1	D2
7 < d ≤ 10	M3	10	2.6	1.8	3.2	5.8
10 < d ≤ 13	M4	10	3.2	2.1	4.3	7.4
13 < d ≤ 16	M5	10	4	2.4	5.3	8.8
16 < d ≤ 21	M6	12	5	2.8	6.4	10.5
21 < d ≤ 24	M8	12	6	3.3	8.4	13.2
24 < d ≤ 30	M10	15	7.5	3.8	10.5	16.3
30 < d ≤ 38	M12	20	9.5	4.4	13	19.8
38 < d ≤ 50	M16	25	12	5.2	17	25.3
50 < d ≤ 85	M20	30	15	6.4	21	31.3
85 < d ≤ 130	M24	35	18	8	25	38
130 < d ≤ 225	M30	45	18	11	31	48

13 Dimension of Parallel Key and Keyway



d	b	h	t ₁	d + t ₂
8 < d ≤ 10	3	3	1.8	d + 1.4
10 < d ≤ 12	4	4	2.5	d + 1.8
12 < d ≤ 17	5	5	3	d + 2.3
17 < d ≤ 22	6	6	3.5	d + 2.8
22 < d ≤ 30	8	7	4	d + 3.3
30 < d ≤ 38	10	8	5	d + 3.3
38 < d ≤ 44	12	8	5	d + 3.3
44 < d ≤ 50	14	9	5.5	d + 3.8
50 < d ≤ 58	16	10	6	d + 4.3
58 < d ≤ 65	18	11	7	d + 4.4
65 < d ≤ 75	20	12	7.5	d + 4.9
75 < d ≤ 85	22	14	9	d + 5.4
85 < d ≤ 95	25	14	9	d + 5.4
95 < d ≤ 110	28	16	10	d + 6.4
110 < d ≤ 130	32	18	11	d + 7.4
130 < d ≤ 150	36	20	12	d + 8.4
150 < d ≤ 170	40	22	13	d + 9.4
170 < d ≤ 200	45	25	15	d + 10.4
200 < d ≤ 230	50	28	17	d + 11.4
230 < d ≤ 260	56	32	20	d + 12.4

14 Oil (L)

Mounting position Size	D1	D2	D3	D4	D5	D6
K303	0.5	1.1	1.1	1.5	1	1
K304	0.8	1.3	1.7	2.2	1.6	1.6
K305	1	1.9	2.3	3	2.2	2.2
K306	1.1	2.4	2.8	3.6	2.7	2.7
K307	2.2	4.1	4.6	6	4.5	4.5
K308	3.7	8.2	9	11.9	8.4	8.4
K309	7	14.7	17.3	21.5	15.7	16.5
K310	10	22	26	35	25	25
K312	21	41.5	46	55	41	41
K315	31	66	69	92	62	62
K316	35	100	100	125	85	85
K318	60	170	170	205	130	130



★ Manufacturing Base ▲ Assembly Company ▣ Sales Company ● Office ■ Dealer

BonengTransmission(India)Pvt.Ltd

402, 4th floor,8, Deepshikha Building,
Rajendra Place, New Delhi-110008
E-mail: india@boneng.com
TEL: +91-11-45076293

Mumbai Office

No.603,Bhumiraj Costa Rica Commercial
Building,Plot1&2,Palm Beach Road,Sector18,
Sanpada,Navi Mumbai 400705 India
TEL: +91-22-2781-3385
FAX: +91-22-2781-3386

BonengTransmission(USA)LLC.

1670 ENTERPRISE PARKWAY,
TWINSBURG,OH 44087
E-mail: america@boneng.com
TEL: 1-330-425-1516
FAX: 1-330-425-1519

Along with the technology advancedet.,the product of the manual of Boneng will be changed,please forgive.



BONENG TRANSMISSION (USA) LLC.

1670 ENTERPRISE PARKWAY, TWINSBURG, OH 44087
www.boneng.com

BONENG TRANSMISSION (India) Pvt.Ltd

402, 4th floor, 8, Deepshikha Building, Rajendra Place, New Delhi-110008
www.boneng.com

