

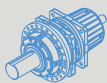


P Series planetary gear unit

Hangzhou ANG Drive Co., Ltd.

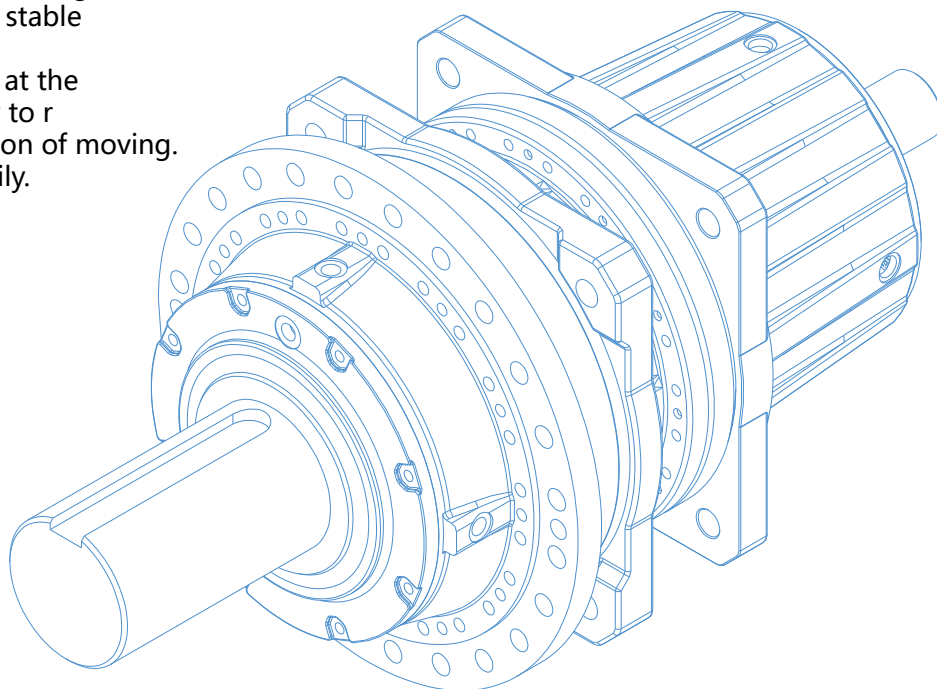
Note!

1. The structure scheme, appearance diagram and other attached diagrams in sample are examples, there is no strict proportion requirement. If you need exact dimension of certain types, please contact our sales dept.. (The unmarked dimension units are mm).
2. Gear unit has been tested before delivered, users should add lubrication oil before running.
3. We can only refer to the marked oil in the mannul. Actual oil filling level should be the same with the mark on oil immersion lens.
4. Lubrication oil viscosity should be selected according to working conditions and ambient temperature.
5. To prevent accidents, all the rotation parts should be added with protective covers according to safety regulation of the nation and region.

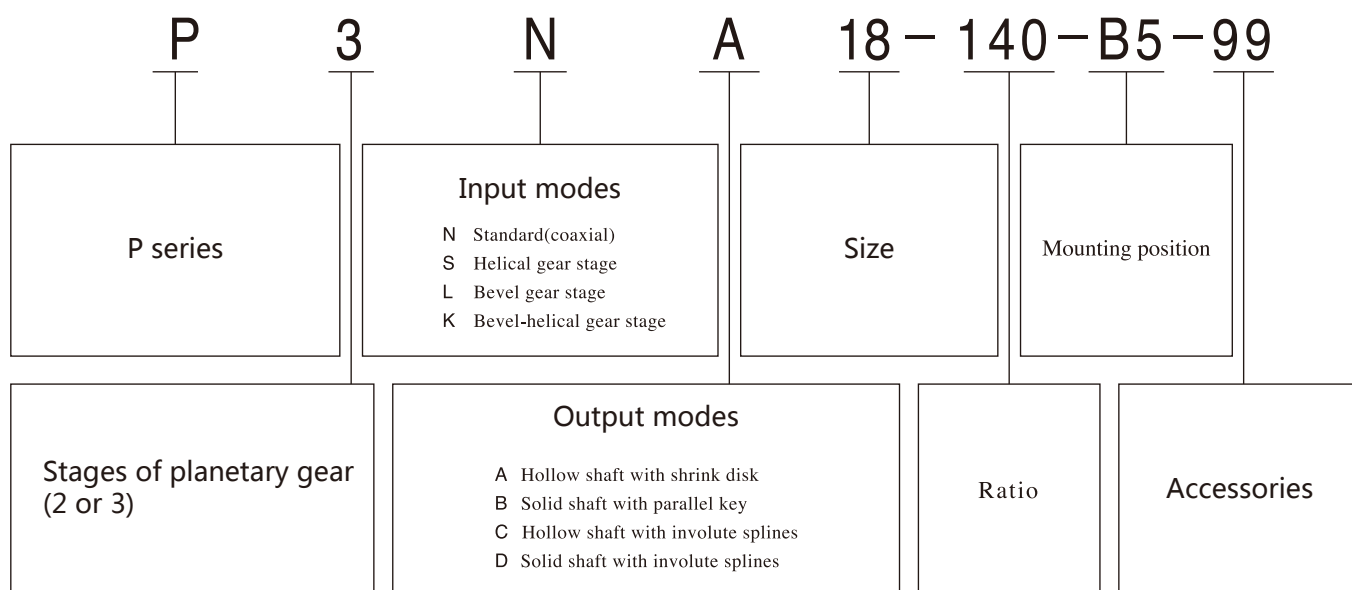


P series gear unit features

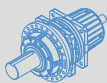
- ◆ High modular design.
- ◆ Compact design and dimension, light weight.
- ◆ Wide range of ratio, high efficiency, stable running and low noise level.
- ◆ Several planet wheels run with load at the same time and distribute the power to realize the combination and separation of moving.
- ◆ Realize the coaxial transmission easily.
- ◆ Rich optional accessories.



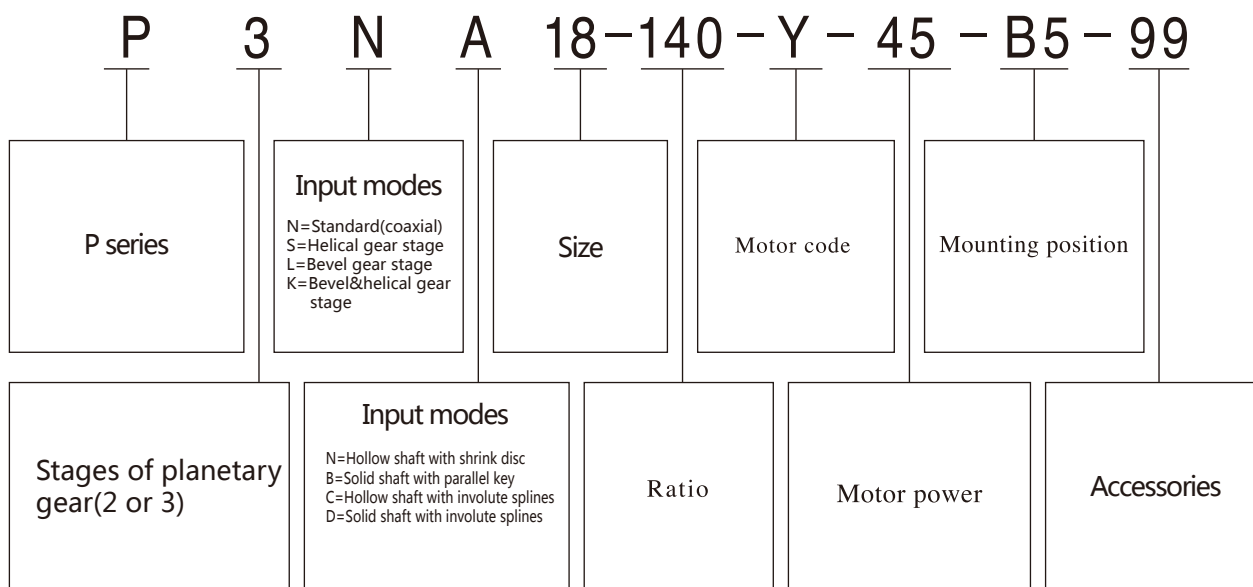
Basic type designation



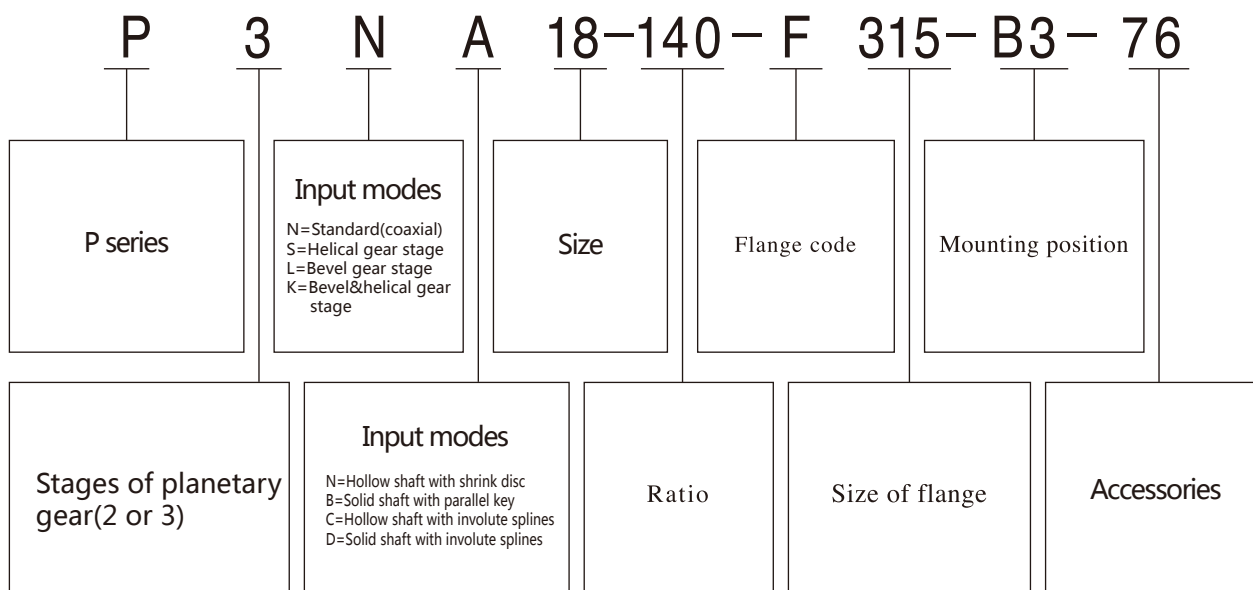
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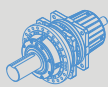


Compact type with motor designation:



Basic type with motor connection flange designation:

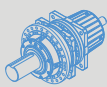




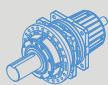
Type selection and example:

Steps	Specification	Symbol	Calculate parameter												
1	Driven machine factor	f ₁	Refer to f ₁ on P6												
2	Prime mover factor	f ₂	Prime mover factor										f ₂		
			Electric motors, hydraulic motors, turbines										1.0		
			Piston engines 4 - 6 cylinders cyclic variation 1 : 100 to 1 : 200										1.25		
			Piston engines 1 - 3 cylinders cyclic variation up to 1 : 100										1.5		
3	Input speed	n ₁	≤1500r/min/Consult us if higher speed required.												
4		i	i=n ₁ /n ₂												
5		η	Type	η			Type	η							
			P2N	94%			P3N	92%							
			P2L	93%			P3S	91%							
			P2S	93%			P3K	89%							
			P2K	91%											
6	Calculation of the input power of the gearbox on the basis of the torque power required by the driven machine	P ₁	P ₁ =T ₂ · n ₁ /(9550 · i · η) or P ₁ =P ₂ /η												
7	Determination of gearbox size referring to the talbe of “Transmission Capacity”	T _{2N} P _{1N}	T _{2N} ≥ T ₂ · f ₁ · f ₂ or P _{1N} ≥P ₁ · f ₁ · f ₂ If not meet: 3.33 · P ₁ ≥P _{1N} please consult us.												
8	Check peat torque	T _A	P _{1N} ≥T _A · n ₁ · f ₃ /9550	f ₃		Load peaks per hour									
						1–5	6–30	31–100	>100						
				Steady direction of load		0.5	0.65	0.7	0.85						
				Atemating direction of load		0.7	0.95	1.10	1.25						
9	Check the radial force on the shaft	Fr	Refer to Fr table on P5.												
10	Calculation of the utilization	f ₁₄	Utilization=P ₁ /P _{1N} *100% f ₁₄ : factor for utilization	Utilization	30%	40%	50%	60%	70%	80%	90%	100%			
				f ₁₄	0.66	0.77	0.83	0.90	0.90	0.95	1.0	1.0			
11	Check thermal capacity	P _G	If P ₁ ≤P _G =P _{G1} *f _t *f ₁₄ , no cooling device is required; If P ₁ > P _G , auxiliary cooling device should be installed.	Ambient temperature factor f ₄											
				Ambient Temperature	Operating cycle per hour (ED) in %										
					100	80	60	40	20						
				10 ° C	1.14	1.20	1.32	1.54	2.04						
				20 ° C	1.00	1.06	1.16	1.35	1.79						
				30 ° C	0.87	0.93	1.00	1.18	1.56						
				40 ° C	0.71	0.75	0.82	0.96	1.27						
				50 ° C	0.55	0.58	0.64	0.74	0.98						
12	Determination of lubrication system		V1, V3, V11, V31: Dip lubrication ; B51 : Pump lubrication; Other mounting positions: splash lubrication.												
13	Determination of every item include in the Type Desination		For details about Type Desination, see P1&P2.												

Peak torque: Max. load torque, which means max. torque due to be caused from starting, braking, or max. pulsating load. (Generally, it refers to the peak starting or braking torque.)



	Selection example
P	Prime mover Motor Motor speed: $n_1=1000\text{r/min}$ Max. starting torque: 2000N.m (This value is usually provided by users, it is routine to calculate by 1.6 times of nominal torque of electric motor) Driven machine Name: conveyor Speed: 12.5r/min Required torque: 68000N.m Duty: 12h/d Starts per hour: >3 ED: 60% Ambient temperature: $0-20^\circ\text{C}$ Place of installation: Altitude: below 1000m Other requirement: helical gear stage input, solid output shaft with parallel key, input shaft facing downwards Selection steps: 1. Determination of gear unit type 1) Calculation of the ratio: $i=n_1/n_2=1000/12.5=80$ 2) Selection of gear unit type: P2S...B5 selected (as per ratio, input shaft and output shafts). 2. Determination of gear unit size: 1) Calculation of nominal power of gear unit: $P_1=T_2 \cdot n_1 / (9550 \cdot i \cdot \eta)$ $\eta = 0.93$ (The transmission efficiency data from P2) $P_1 = 2000\text{N.m} \cdot 1000 / (9550 \cdot 80 \cdot 0.93) = 95.7\text{kW}$ $P_{1N} > P_1 \cdot f_1 \cdot f_2$ See P6, $f_1 = 1.5$; See P3, $f_2 = 1$ $P_{1N} \geq 95.7 \cdot 1.5 \cdot 1 = 143.6\text{kW}$ Selected from the table of transmission capacity: P2SB14-80-B5, where $P_{1N} = 153\text{kW}$, $i_{ex} = 78.8$ 2) Check $3.33 \cdot 95.7 = 318.681 \geq P_{1N}$, satisfied. 3) Check of peak torque $P_{1N} \geq T_A \cdot n_1 \cdot f_3 / 9550$, See P03, $f_3 = 0.5$ $P_{1N} = 153\text{kW} \geq 2000 \cdot 1000 \cdot 0.5 / 9550$, satisfied. 3. Check thermal capacity Nominal power utilization $= P_1 / P_{1N} = 95.7 / 153 = 0.625 = 62.5\%$ See P03, $f_{14} = 0.9$, $f_4 = 1.16$; See P26, $PG_1 = 94\text{kW}$ $PG_1 \cdot f_4 \cdot f_{14} = 94 \cdot 1.16 \cdot 0.9 = 100.32\text{kW} > P_1$ So no extra cooling device is needed. Lubrication: Dip lubrication 4. Determine the gear unit: P2SB14-80-B5-99



Symbol specification

ED=duty cycle per hour, for example, ED=60%

f1=driven machine factor

f2=prime mover factor

f3=peak torque factor

f4=ambient temperature factor

f14=utilization factor

PG1=gear unit thermal capacity without extra cooling device

Fr2=nominal radial force on output shaft

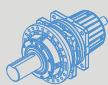
P1N=rate power

TA=max. torque occuring on input shaft, e.g. peak operating, starting or braking torque.

Radial force on output shaft(Fr2)

n1 (r/min)	n2N	iN	Fr 2 (N)													
			9	10	11	12	13	14	16	17	18	19-20	21-22	23-24	25-26	27-28
1450	58.0	25	9538	23353	32518	42407	34737	41183	72297	64454	69713	70477	99136	99347	123583	126071
	51.8	28	9905	24252	33770	44039	36057	42768	75080	66935	72396	73190	102952	103171	128341	130925
	46.0	31.5	10302	25223	35122	45803	37519	44481	78086	69616	75295	76121	107075	107302	133480	136167
	40.8	35.5	10720	26249	36550	47665	39044	46289	81261	72446	78356	79215	111428	111665	138907	141703
	36.3	40	11155	27314	38033	49599	40629	48167	84559	75386	81536	82430	115950	116196	144544	147454
	32.2	45	11602	28408	39556	51585	42256	50096	87945	78404	84801	85731	120593	120849	150332	153358
	29.0	50	12017	29423	40970	53429	43766	51887	91088	81207	87832	88795	124903	125169	155705	158840
	25.9	56	12479	30556	42547	55486	45451	53884	94595	84333	91214	92214	129712	129988	161700	164955
	23.0	63	12979	31779	44251	57708	47271	56042	98383	87710	94866	95906	134906	135193	168175	171560
	20.4	71	13507	33071	46050	60054	49193	58320	102382	91276	98723	99805	140390	140689	175011	178534
	18.1	80	14055	34413	47919	62491	51189	60687	106537	94980	102729	103856	146088	146398	182114	185780
	16.1	90	14618	35791	49838	64993	53239	63117	110803	98783	106843	108014	151937	152260	189406	193219
	14.5	100	15140	37071	51619	67316	55142	65373	114764	102314	110662	111875	157368	157703	196176	200125
	12.9	112	15723	38498	53606	69908	57265	67890	119182	106253	114922	116182	163427	163774	203729	207830
	11.6	125	16309	39933	55605	72514	59400	70421	123626	110215	119207	120514	169520	169880	211325	215578
	10.4	140	16937	41471	57746	75306	61687	73132	128385	114458	123796	125153	176046	176420	219460	223878

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



Service Factors f₁

Factor for driven machine				f ₁			
Driven machines	Effective daily operating period under load in hours			Driven machines	Effective daily operating period under load in hours		
	0.5	>0.5-10	>10		0.5	>0.5-10	>10
Waste water treatment				Conveyors			
Thickeners (central drive)	–	–	1.2	Bucket conveyors	–	1.4	1.5
Filter presses	1.0	1.3	1.5	Hauling winches	1.4	1.6	1.6
Flocculation apparata	0.8	1.0	1.3	Hoists	–	1.5	1.8
Aerators	–	1.8	2.0	Belt conveyors ≤ 150 kW	1.0	1.2	1.3
Raking equipment	1.0	1.2	1.3	Belt conveyors ≥ 150 kW	1.1	1.3	1.4
Combined longitudinal and rotary rakes	1.0	1.3	1.5	Goods lifts	–	1.2	1.5
Pre-thickeners	–	1.1	1.3	Passenger lifts	–	1.5	1.8
Screw pumps	–	1.3	1.5	Apron conveyors	–	1.2	1.5
Water turbines	–	–	2.0	Escalators	1.0	1.2	1.4
Pumps				Rail travelling gears	–	1.5	–
Centrifugal pumps	1.0	1.2	1.3				
Positive-displacement pumps				Frequency converters	–	1.8	2.0
1 piston	1.3	1.4	1.8				
> 1piston	1.2	1.4	1.5	Reciprocating compressors	–	1.8	1.9
Dredgers							
Bucket conveyors	–	1.6	1.6	Cranes			
Dumping devices	–	1.3	1.5	Slewing gears	1.0	1.4	1.8
Carterpillar travelling gears	1.2	1.6	1.8	Luffing gears	1.0	1.1	1.4
Bucket wheel excavators				Travelling gears	1.1	1.6	2.0
as pick-up	–	1.7	1.7	Hoisting gears	1.0	1.1	1.4
for primitive material	–	2.2	2.2	Derricking jib cranes	1.0	1.2	1.6
Cutter heads	–	2.2	2.2				
Traversing gears	–	1.4	1.8	Cooling towers			
Plate bending machines	–	1.0	1.0	Cooling tower fans	–	–	2.0
				Blowers (axial and radial)	–	1.4	1.5
Chemical industry				Food industry			
Extruders	–	–	1.6	Cane sugar production			
Dough mills	–	1.8	1.8	Cane knives	–	–	1.7
Rubber calenders	–	1.5	1.5	Cane mills	–	–	1.7
Cooling drums	–	1.3	1.4	Beet sugar production			
Mixers for				Beet cossettes macerators,	–	–	1.2
uniform media	1.0	1.3	1.4	Extraction plants, Mechanical			
non-uniform media	1.4	1.6	1.7	refrigerators, Juice boilers,	–	–	1.4
Agitators for media with				Sugar beet washing machines,			
uniform density	1.0	1.3	1.5	Sugar beet cutters	–	–	1.5
non-uniform density	1.2	1.4	1.6				
non-uniform gas absorption	1.4	1.6	1.8	Paper machines			
Toasters	1.0	1.3	1.5	of all-kind	–	1.8	2.0
Centrifuges	1.0	1.2	1.3	Pulper drives	On request		
Metal working mills				Centrifugal compressors	–	1.4	1.5
Plate tilters	1.0	1.0	1.2				
Ingot pushers	1.0	1.2	1.2	Cableways			
Winding machines	–	1.6	1.6	Material ropeways	–	1.3	1.4
Cooling bed transfer frames	–	1.5	1.5	To- and fro system			
Roller straighteners	–	1.6	1.6	aerial ropeways	–	1.6	1.8
Roller tables				T-bar lifts	–	1.3	1.4
continuous	–	1.5	1.5	Continuous ropeways	–	1.4	1.6
intermittent	–	2.0	2.0				
Reversing tube mills	–	1.8	1.8	Cement industry			
Shears				Concrete mixers	–	1.5	1.5
continuous	–	1.5	1.5	Breakers	–	1.2	1.4
crank type	1.0	1.0	1.0	Rotary kilns	–	–	2.0
Continuous casting drivers	–	1.4	1.4	Tube mills	–	–	2.0
Rolls				Separators	–	1.6	1.6
Reversing blooming mills	–	2.5	2.5	Roll crushers	–	–	2.0
Reversing slabbing mills	–	2.5	2.5				
Reversing wire mills	–	1.8	1.8				
Reversing sheet mills	–	2.0	2.0				
Reversing plate mills	–	1.8	1.8				
Roll adjustment drives	0.9	1.0	–				

1. Determination of nominal power of driven machine.

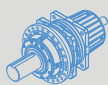
*) The nominal power usually corresponds to max. torque.

**) The actual service factors should comply with the actually classified loads.

***Thermal capacity checking is necessary.

2. The factors listed above are empirical values only. If the driven machine design is not common, please consult us.

3. For the driven machines which are not listed in the table, please consult us.



Service Factor f1

Factor for driven machine							f1
Driven equipment	Daily running time with load(hour)			Driven equipment	Daily running time with load(hour)		
	≤ 2	> 2-10	> 10		≤ 2	> 2-10	> 10
Wood industry				Plastics industry			
Barking machine				Miller, compound grinding			
Feed drive	1.25	1.25	1.50	Coating, film	1.25	1.25	1.25
Main drive	1.75	1.75	1.75	Conveying pipe, Pulling rod, thin type			
Conveyor				Pipe type, Pile drawer	1.25	1.25	1.50
Burner, repeating saw	1.25	1.25	1.50	Continuous mixer, Calender	1.50	1.50	1.50
Rotary tower, transit transport	1.50	1.50	1.50	Blow film, to plasticizing			
Main loading, heavy loading	1.75	1.75	2.00	Batch mixer	1.75	1.75	1.75
Main original wood, land base				Rubber industry			
Conveying chain				Continuous strong inner mixer, Mix roller,			
Floor	1.50	1.50	1.50	Batch feeding mixer (except for double sticks)	1.50	1.50	1.50
Green-wood	1.50	1.50	1.75	Refiner, calender			
Cutting Chain				Double roller clamp feeding and mixed miller	1.25	1.25	1.50
Saw transmission, traction	1.50	1.50	1.75	Batch strong inner mixer,			
Peeling barrel	1.75	1.75	2.00	Double stick single groove grain stick	1.75	1.75	1.75
Feed drive				Miller heater, double sticks			
Edging, wood trimmer	1.25	1.25	1.50	Batch feeding mixer			
Planer feed, assorting table,				Wave stick miller	2.00	2.00	2.00
Automatic incline lifting	1.75	1.75	1.75	Generator and exciter	1.00	1.00	1.25
Multi-shaft feed, raw wood					1.75	1.75	2.00
Transportation and rotation				Hammer crusher			
Transportation				Sand miller	1.25	1.25	1.50
Charging tray							
Plywood lathe drive	1.50	1.50	1.75				
Conveying chain, Lifting							

1. Determination of nominal power of driven machine.

*) The nominal power usually corresponds to max. torque.

**) The actual service factors should comply with the actually classified loads.

***) Thermal capacity checking is necessary.

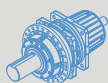
2. The factors listed above are empirical values only. If the driven machine design is not common, please consult us.

3. For the driven machines which are not listed in the table, please consult us.

SF factor	SF
Ordinary: Single machine halts when gear units fail, easy to replace spare parts and minor loss occurred.	$1.0 \leq SF \leq 1.3$
Important: A product line or an entire plant halt when gear units fail, heavy loss.	$1.3 \leq SF \leq 1.5$
Highly reliable: Several production problem happens gear units fail, enormous loss and life injuries.	$1.5 \leq SF$

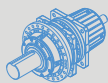
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Thermal factor f4					
Ambient Temperature	Duty cycle per hour				
	100%	80%	60%	40%	20%
10°C	1.14	1.20	1.32	1.54	2.04
20°C	1.00	1.06	1.16	1.35	1.79
30°C	0.87	0.93	1.00	1.18	1.56
40°C	0.71	0.75	0.82	0.96	1.27
50°C	0.55	0.58	0.64	0.74	0.98

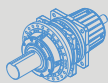


P2N & P2S transmission capacity table: (i=25~125)

n ₁ (r/min)	n _{2N} (r/min)	i _N	P2-9			P2-10			P2-11			P2-12			P2-13			P2-14		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	60	25	22	25.634	137	31	25.634	193	42	25.875	261	60	24.983	373	83	24.958	516	117	24.958	728
1000	40				91			129			174			249			344			485
750	30				68			96			131			187			258			364
1500	54	28	22	28.058	123	31	28.058	173	42	28.233	235	60	27.26	336	83	27.318	465	117	27.318	655
1000	36				82			116			157			224			310			437
750	27				62			87			118			168			232			327
1500	48	31.5	22	31.142	109	31	31.142	154	42	31.207	209	60	30.13	298	83	30.321	413	117	30.321	582
1000	32				73			103			139			199			275			388
750	24				55			77			104			149			206			291
1500	42	35.5	22	35.201	96	31	35.201	135	42	35.072	183	60	33.863	261	83	34.272	361	117	34.272	509
1000	28				64			90			122			174			241			340
750	21				48			67			91			131			181			255
1500	38	40	22	40.781	87	31	40.781	122	42	40.302	165	60	38.912	236	83	39.706	327	117	39.706	461
1000	25				57			80			109			155			215			303
750	19				43			61			83			118			163			230
1500	33.3	45	22	45.601	77	31	45.601	108	42	43.209	147	60	41.719	209	83	43.797	290	117	43.797	408
1000	22.2				51			72			98			140			193			272
750	16.7				38			54			73			105			145			204
1500	30.0	50	22	51.544	69	31	51.544	97	42	48.561	132	60	46.887	188	83	49.505	261	117	49.505	368
1000	20.0				46			65			88			126			174			245
750	15.0				35			49			66			94			130			184
1500	26.8	56	22	59.715	62	31	59.715	87	42	55.802	118	60	53.878	168	83	57.353	233	117	57.353	328
1000	17.9				41			58			79			112			155			219
750	13.4				31			43			59			84			116			164
1500	23.8	63	22	61.953	55	31	61.953	77	42	63.399	105	60	61.213	150	83	59.977	207	117	59.977	292
1000	15.9				37			52			70			100			138			194
750	11.9				27			39			52			75			103			146
1500	21.1	71	22	71.775	49	31	71.775	69	42	72.853	93	60	70.34	133	83	69.485	184	117	69.485	259
1000	14.1				32			46			62			88			122			173
750	10.6				24			34			46			66			92			129
1500	18.8	80	22	78.782	43	31	78.782	61	42	81.303	82	60	78.499	118	83	78.827	163	117	78.827	230
1000	12.5				29			41			50			79			109			153
750	9.4				22			30			41			59			81			115
1500	16.7	90	22	91.272	38	31	91.272	54	42	93.426	73	60	90.205	105	83	91.324	145	117	91.324	204
1000	11.1				26			36			49			70			97			136
750	8.3				19			27			37			52			72			102
1500	15.0	100	22	99.735	35	31	99.735	49	42	99.678	66	60	96.241	94	83	95.963	130	117	95.963	184
1000	10.0				23			32			44			63			87			123
750	7.5				17			24			33			47			65			92
1500	13.4	112	22	115.55	31	31	115.55	43	42	114.54	59	60	110.59	84	83	111.18	116	117	111.18	164
1000	8.9				21			29			39			56			78			109
750	6.7				15			22			29			42			58			82
1500	12.0	125	22	124.74	28	31	124.74	39	42	123.14	53	60	118.9	75	83	119.12	104	117	119.12	147
1000	8.0				18			26			35			50			70			98
750	6.0				14			19			26			38			52			74

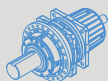


P2-16			P2-17			P2-18			P2-19			P2-20			P2-21			i _N	n _{2N} (r/min)	n ₁ (r/min)
T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)			
160	24.75	995	202	24.75	1256	244	24.958	1517	295	26.622	1834	354	26.622	2201	392	26.622	1625	25	60	1500
		663			837			1012			1223			1468			1219		40	1000
		497			628			759			917			1101					30	750
160	27.09	895	202	27.09	1131	244	27.318	1366	295	29.139	1651	354	29.139	1981	392	29.139	1463	28	54	1500
		597			754			910			1101			1321			1097		36	1000
		448			565			683			825			991					27	750
160	30.068	796	202	30.068	1005	244	30.321	1214	295	32.342	1468	354	32.342	1761	392	32.342	1950	31.5	48	1500
		531			670			809			978			1174			1300		32	1000
		398			502			607			734			881			975		24	750
160	33.987	696	202	33.987	879	244	34.272	1062	295	36.557	1284	354	36.557	1541	392	36.557	1706	35.5	42	1500
		464			586			708			856			1027			1138		28	1000
		348			440			531			642			770			853		21	750
160	39.375	630	202	39.375	796	244	39.706	961	295	42.353	1162	354	42.353	1394	392	42.353	1544	40	38	1500
		415			523			632			764			917			1016		25	1000
		315			398			480			581			697			772		19	750
160	42.318	558	202	42.318	705	244	42.867	852	295	45.725	1030	354	45.725	1236	392	46.357	1368	45	33.3	1500
		372			470			568			686			824			912		22.2	1000
		279			353			426			515			618			684		16.7	750
160	47.833	503	202	47.833	635	244	48.454	766	295	51.684	927	354	51.684	1112	392	52.399	1231	50	30.0	1500
		335			423			511			618			741			821		20.0	1000
		251			317			383			463			556			616		15.0	750
160	55.417	449	202	55.417	567	244	56.136	684	295	59.878	827	354	59.878	993	392	60.706	1099	56	26.8	1500
		299			378			456			552			662			733		17.9	1000
		224			283			342			414			496			550		13.4	750
160	61.438	399	202	61.438	504	244	60.32	608	295	64.341	735	354	64.341	883	392	66.084	977	63	23.8	1500
		266			336			406			490			588			651		15.9	1000
		199			252			304			368			441			489		11.9	750
160	71.178	354	202	71.178	447	244	69.882	540	295	74.541	653	354	74.541	783	392	76.561	867	71	21.1	1500
		236			298			360			435			522			578		14.1	1000
		177			223			270			326			392			434		10.6	750
160	78.788	314	202	78.788	397	244	78.976	479	295	84.841	579	354	84.841	695	392	84.746	770	80	18.8	1500
		209			264			319			386			463			513		12.5	1000
		157			198			240			290			347			385		9.4	750
160	91.278	279	202	91.278	353	244	91.496	426	295	97.596	515	354	97.596	618	392	98.182	684	90	16.7	1500
		186			235			284			343			412			456		11.1	1000
		140			176			213			257			309			342		8.3	750
160	96.594	251	202	96.594	317	244	95.963	383	295	102.36	463	354	102.36	556	392	103.9	616	100	15.0	1500
		168			212			255			309			371			410		10.0	1000
		126			159			192			232			278			308		7.5	750
160	111.91	224	202	111.91	283	244	111.18	342	295	118.59	414	354	118.59	496	392	120.37	550	112	13.4	1500
		150			189			228			276			331			366		8.9	1000
		112			142			171			207			248			275		6.7	750
160	120.59	201	202	120.59	254	244	119.12	307	295	127.06	371	354	127.06	445	392	129.41	493	125	12.0	1500
		134			169			204			247			297			328		8.0	1000
		101			127			153			185			222			246		6.0	750

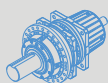


P2N & P2S transmission capacity table : (i=25~125)

n ₁ (r/min)	n _{2N} (r/min)	i _N	P2-22			P2-23			P2-24			P2-25			P2-26			P2-27		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	60	25	450	26.622	■	531	26.872	■	592	26.872	■	684	26.872	■	763	26.872	■	852	26.622	■
1000	40				1866			2172			2454			2863			3163			3532
750	30				1399			1595			1841			2127			2372			2649
1500	54	28	450	29.139	■	531	29.321	■	592	29.321	■	684	29.321	■	763	29.321	■	852	29.139	■
1000	36				1679			1914			2209			2552			2847			3179
750	27				1259			1436			1657			1914			2135			2384
1500	48	31.5	450	32.342	2239	531	32.409	2552	592	32.409	2945	684	32.409	3403	763	32.409	3796	852	32.342	4238
1000	32				1492			1701			1963			2268			2350			2826
750	24				1119			1276			1472			1701			1898			2129
1500	42	35.5	450	36.557	1959	531	36.424	2233	592	36.424	2577	684	36.424	2977	763	36.424	3321	852	36.557	3709
1000	28				1306			1489			1718			1985			2214			2472
750	21				979			1117			1288			1489			1661			1854
1500	38	40	450	42.353	1772	531	41.855	2020	592	41.855	2331	684	41.855	2694	763	41.855	3005	852	42.353	3355
1000	25				1166			1329			1534			1772			1977			2208
750	19				886			1010			1166			1347			1502			1678
1500	33.3	45	450	46.357	1571	531	45.373	1790	592	45.373	2066	684	45.373	2387	763	45.373	2663	852	46.948	■
1000	22.2				1047			1194			1377			1592			1775			1982
750	16.7				785			895			1033			1194			1332			1487
1500	30.0	50	450	52.399	1414	531	50.993	1611	592	50.993	1860	684	50.993	2149	763	50.993	2397	852	53.067	■
1000	20.0				942			1074			1240			1432			1598			1784
750	15.0				707			806			930			1074			1198			1338
1500	26.8	56	450	60.706	1262	531	58.597	1439	592	58.597	1660	684	58.597	1918	763	58.597	2140	852	61.48	■
1000	17.9				841			959			1107			1279			1427			1593
750	13.4				631			719			830			959			1070			1195
1500	23.8	63	450	66.084	1122	531	64.442	1279	592	64.442	1476	684	64.442	1705	763	64.442	1902	852	66.345	■
1000	15.9				748			853			984			1137			1268			1416
750	11.9				561			639			738			853			951			1062
1500	21.1	71	450	76.561	995	531	74.051	1135	592	74.051	1310	684	74.051	1513	763	74.051	1688	852	76.863	■
1000	14.1				664			757			873			1009			1125			1256
750	10.6				498			567			655			757			844			942
1500	18.8	80	450	84.746	883	531	82.781	1007	592	82.781	1162	684	82.781	1343	763	82.781	1498	852	84.241	■
1000	12.5				589			671			775			895			999			1115
750	9.4				442			504			581			671			749			836
1500	16.7	90	450	98.182	785	531	95.124	895	592	95.124	1033	684	95.124	1194	763	95.124	1332	852	97.596	■
1000	11.1				524			597			689			796			888			991
750	8.3				393			448			517			597			666			743
1500	15.0	100	450	103.9	707	531	101.6	806	592	101.6	930	684	101.6	1074	763	101.6	1198	852	102.36	■
1000	10.0				471			537			620			716			799			892
750	7.5				353			403			465			537			599			669
1500	13.4	112	450	120.37	631	531	116.75	719	592	116.75	830	684	116.75	959	763	116.75	1070	852	118.59	■
1000	8.9				421			480			553			639			713			797
750	6.7				316			360			415			480			535			597
1500	12.0	125	450	129.41	565	531	125.56	645	592	125.56	744	684	125.56	859	763	125.56	959	852	127.06	■
1000	8.0				377			430			496			573			639			714
750	6.0				283			322			372			430			479			535

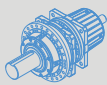


P2-28			P2-29			P2-30			P2-31			P2-32			P2-33			P2-34			i _N	n _{2N} (r/min)	n ₁ (r/min)
T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)			
950	26.622	■	1060	26.622	■	1200	26.622	■	1330	26.872	■	1500	26.872	■	1680	26.622	■	1920	26.622	■	25	60	1500
		3938			4394			4975			5514			6218			6965			7960		40	1000
		2954			3296			3731			4135			4664			5223			5970		30	750
950	29.139	■	1060	29.139	■	1200	29.139	■	1330	29.321	■	1500	29.321	■	1680	29.139	■	1920	29.139	■	28	54	1500
		3544			3955			4477			4962			5597			6268			7164		36	1000
		2658			2966			3358			3722			4197			4701			5373		27	750
950	32.342	■	1060	32.342	■	1200	32.342	■	1330	32.409	■	1500	32.409	■	1680	32.342	■	1920	32.342	■	31.5	48	1500
		4726			5273			5970			6616			7462			8358			9551		32	1000
		3151			3515			3980			4411			4975			5572			6368		24	750
950	36.557	■	1060	36.557	■	1200	36.557	■	1330	36.424	■	1500	36.424	■	1680	36.557	■	1920	36.557	■	35.5	42	1500
		2757			3076			3482			3860			4353			4875			5572		28	1000
		2068			2307			2612			2895			3265			3656			4179		21	750
950	42.353	■	1060	42.353	■	1200	42.353	■	1330	41.855	■	1500	41.855	■	1680	42.353	■	1920	42.353	■	40	38	1500
		3741			4175			4726			5238			5907			6616			7562		25	1000
		2461			2746			3109			3446			3886			4353			4975		19	750
950	46.948	■	1060	46.948	■	1200	46.948	■	1330	45.575	■	1500	45.575	■	1680	45.481	■	1920	45.481	■	45	33.3	1500
		2210			2466			2792			3095			3490			3909			4467		22.2	1000
		1658			1850			2094			2321			2618			2932			3351		16.7	750
950	53.067	■	1060	53.067	■	1200	53.067	■	1330	51.221	■	1500	51.221	■	1680	51.409	■	1920	51.409	■	50	30.0	1500
		1989			2220			2513			2785			3141			3518			4021		20.0	1000
		1492			1665			1885			2089			2356			2639			3016		15.0	750
950	61.48	■	1060	61.48	■	1200	61.48	■	1330	58.858	■	1500	58.858	■	1680	59.559	■	1920	59.559	■	56	26.8	1500
		1776			1982			2244			2487			2805			3141			3590		17.9	1000
		1332			1486			1683			1865			2103			2356			2692		13.4	750
950	66.345	■	1060	66.345	■	1200	66.345	■	1330	66.102	■	1500	66.102	■	1680	66.345	■	1920	66.345	■	63	23.8	1500
		1579			1762			1994			2210			2493			2792			3191		15.9	1000
		1184			1321			1496			1658			1870			2094			2393		11.9	750
950	76.863	■	1060	76.863	■	1200	76.863	■	1330	75.958	■	1500	75.958	■	1680	76.863	■	1920	76.863	■	71	21.1	1500
		1401			1563			1770			1961			2212			2478			2831		14.1	1000
		1051			1172			1327			1471			1659			1858			2124		10.6	750
950	84.241	■	1060	84.241	■	1200	84.241	■	1330	83.932	■	1500	83.932	■	1680	84.241	■	1920	84.241	■	80	18.8	1500
		1243			1387			1571			1741			1963			2199			2513		12.5	1000
		933			1041			1178			1306			1472			1649			1885		9.4	750
950	97.596	■	1060	97.596	■	1200	97.596	■	1330	96.448	■	1500	96.448	■	1680	97.596	■	1920	97.596	■	90	16.7	1500
		1105			1233			1396			1547			1745			1954			2234		11.1	1000
		829			925			1047			1160			1309			1466			1675		8.3	750
950	102.36	■	1060	102.36	■	1200	102.36	■	1330	104.3	■	1500	104.3	■	1680	104.69	■	1920	104.69	■	100	15.0	1500
		995			1110			1256			1393			1571			1759			2010		10.0	1000
		746			832			942			1044			1178			1319			1508		7.5	750
950	118.59	■	1060	118.59	■	1200	118.59	■	1330	119.96	■	1500	119.96	■	1680	121.28	■	1920	121.28	■	112	13.4	1500
		888			991			1122			1243			1402			1571			1795		8.9	1000
		666			743			841			933			1052			1178			1346		6.7	750
950	127.06	■	1060	127.06	■	1200	127.06	■	1330	127.56	■	1500	127.56	■	1680	129.08	■	1920	129.08	■	125	12.0	1500
		796			888			1005			1114			1256			1407			1608		8.0	1000
		597			666			754			836			942			1055			1206		6.0	750

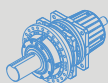


P3N & P3S transmission capacity table: (i=140~900)

n ₁ (r/min)	n _{2N} (r/min)	i _N	P3-9			P3-10			P3-11			P3-12			P3-13			P3-14		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	10.7	140	22	146.81	24.8	31	146.81	34.9	42	147.12	47.3	60	142.04	68	83	142.94	94	117	142.94	132
1000	7.1				16.5			23.3			31.5			45			62			88
750	5.4				12.4			17.5			23.7			34			47			66
1500	9.4	160	22	165.95	21.7	31	165.95	30.6	42	165.34	41.4	60	159.64	59	83	161.57	82	117	161.57	115
1000	6.3				14.5			20.4			27.6			39			55			77
750	4.7				10.8			15.3			20.7			30			41			58
1500	8.3	180	22	192.25	19.3	31	192.25	27.2	42	189.99	36.8	60	183.44	53	83	187.19	73	117	187.19	103
1000	5.6				12.9			18.1			24.5			35			48			68
750	4.2				9.6			13.6			18.4			26			36			51
1500	7.5	200	22	210.43	17.3	31	210.43	24.4	42	207.96	33.1	60	200.79	47	83	204.88	65	117	204.88	92
1000	5.0				11.6			16.3			22.1			32			44			62
750	3.8				8.7			12.2			16.6			24			33			46
1500	6.7	225	22	233.57	15.4	31	233.57	21.7	42	230.82	29.4	60	222.86	42	83	227.41	58	117	227.41	82
1000	4.4				10.3			14.5			19.6			28			39			55
750	3.3				7.7			10.9			14.7			21			29			41
1500	6.0	250	22	264.01	13.9	31	364.01	19.6	42	260.9	26.5	60	251.90	38	83	257.04	52	117	257.04	74
1000	4.0				9.3			13.0			17.7			25			35			49
750	3.0				6.9			9.8			13.2			19			26			37
1500	5.4	280	22	305.86	12.4	31	305.86	17.5	42	302.26	23.7	60	291.84	34	83	297.79	47	117	297.79	66
1000	3.6				8.3			11.6			15.8			23			31			44
750	2.7				6.2			8.7			11.8			17			23			33
1500	5.4	280	22	295.21	13.5	31	295.21	17.6	42	295.82	24	60	285.62	34	83	287.42	47	117	287.42	67
1000	3.6				8.3			12			16			23			31			44
750	2.7				6.3			8.8			12			17			24			33
1500	4.8	315	22	333.68	11	31	333.68	16	42	332.46	21	60	320.99	30	83	324.88	42	117	324.88	59
1000	3.2				7.4			10.5			14			20			28			39
750	2.4				5.6			7.8			11			15			21			30
1500	4.2	355	22	386.58	10	31	386.58	14	42	382.03	19	60	368.86	27	83	376.39	37	117	376.39	53
1000	2.8				6.7			9.3			13			18			25			35
750	2.1				5			7			9			13			19			26
1500	3.8	400	22	401.07	8.8	31	401.07	12.4	42	399.60	17	60	385.82	24	83	390.49	33	117	390.49	47
1000	2.5				5.8			8.2			11			16			22			31
750	1.9				4.4			6.2			8			12			17			23
1500	3.3	450	22	464.65	7.8	31	464.65	11	42	459.18	15	60	443.35	21	83	452.4	29	117	452.4	41
1000	2.2				5.2			7.3			10			14			20			28
750	1.7				3.4			5.5			7.4			11			15			21
1500	3.0	500	22	510.01	7	31	510.01	10	42	508.15	13.4	60	490.62	19	83	496.56	26	117	496.56	37
1000	2.0				4.7			6.6			8.9			13			18			25
750	1.5				3.5			5			6.7			10			13			19
1500	2.7	560	22	590.87	6.3	31	590.87	8.8	42	583.92	12	60	563.78	17	83	575.29	24	117	575.29	33
1000	1.8				4.2			6			8			11			16			22
750	1.3				3.1			4.4			6			9			12			17
1500	2.4	630	22	645.65	5.6	31	645.65	7.8	42	643.29	10.6	60	621.11	15	83	628.63	21	117	628.63	30
1000	1.6				3.7			5.2			7			10			14			20
750	1.2				2.8			3.9			5.3			8			10			15
1500	2.1	710	22	748.01	4.5	31	748.01	7	42	739.21	9.4	60	713.72	13	83	728.29	19	117	728.29	26
1000	1.4				3.3			4.5			6.3			9			12			18
750	1.1				2.5			3.5			4.7			7			9			13
1500	1.9	800	22	807.55	4.4	31	807.55	6.2	42	798.04	8.4	60	770.53	12	83	786.25	17	117	786.25	23
1000	1.3				2.9			4.1			5.6			8			11			16
750	0.9				2.2			3.1			4.2			6			8			12
1500	1.7	900	22	935.57	3.4	31	935.57	5.5	42	924.56	7.4	60	892.68	11	83	910.90	15	117	910.90	21
1000	1.1				2.6			3.7			5			7			10			14
750	0.8				1.9			2.7			3.7			5			7			10

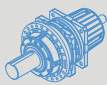


P3-16			P3-17			P3-18			P3-19			P3-20			P3-21			i _N	n _{2N} (r/min)	n ₁ (r/min)
T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)			
160	143.08	180	202	143.08	228	244	142.94	275	295	152.47	332	354	152.47	399	392	152.17	442	140	10.7	1500
		120			152			183			222			266			294		7.1	1000
		90			114			137			166			199			221		5.4	750
160	161.73	158	202	161.73	199	244	161.57	241	295	172.34	291	354	172.34	349	392	172.34	386	160	9.4	1500
		105			133			160			194			233			258		6.3	1000
		79			100			120			145			174			193		4.7	750
160	187.37	140	202	187.37	177	244	187.19	214	295	199.66	258	354	199.66	310	392	199.66	343	180	8.3	1500
		93			118			143			172			207			229		5.6	1000
		70			88			107			129			155			172		4.2	750
160	204.45	126	202	204.45	159	244	204.88	192	295	218.54	233	354	218.54	279	392	218.54	309	200	7.5	1500
		84			106			128			155			186			206		5.0	1000
		63			80			96			116			140			155		3.8	750
160	225.98	112	202	225.98	142	244	227.41	171	295	242.57	207	354	242.57	248	392	242.57	275	225	6.7	1500
		75			94			114			138			165			183		4.4	1000
		56			71			86			103			124			137		3.3	750
160	253.97	101	202	253.97	127	244	257.04	154	295	274.18	186	354	274.18	223	392	274.18	247	250	6.0	1500
		67			85			103			124			149			165		4.0	1000
		50			64			77			93			112			124		3.0	750
160	291.84	90	202	291.84	114	244	297.79	137	295	317.65	166	354	317.65	199	392	317.65	221	280	5.4	1500
		60			76			92			111			133			147		3.6	1000
		45			57			69			83			100			110		2.7	750
160	268.53	91	202	268.53	115	244	283.53	139	295	302.43	168	354	302.43	202	392	302.43	223	280	5.4	1500
		61			77			93			112			134			149		3.6	1000
		46			57			69			84			101			112		2.7	750
160	303.53	81	202	303.53	102	244	320.48	123	295	341.48	149	354	341.48	179	392	341.48	198	315	4.8	1500
		54			68			82			100			119			132		3.2	1000
		40			51			62			75			90			99		2.4	750
160	351.65	72	202	351.65	91	244	371.29	110	295	396.04	132	354	396.04	159	392	396.04	176	355	4.2	1500
		48			60			73			88			106			117		2.8	1000
		36			45			55			66			79			88		2.1	750
160	396.27	64	202	396.27	80	244	388.27	97	295	414.16	118	354	414.16	141	392	414.16	156	400	3.8	1500
		43			54			65			78			94			104		2.5	1000
		32			40			49			59			71			78		1.9	750
160	459.1	57	202	459.1	72	244	449.83	86	295	479.82	104	354	479.82	125	392	479.82	139	450	3.3	1500
		38			48			58			70			84			93		2.2	1000
		28			36			43			52			63			69		1.7	750
160	508.18	51	202	508.18	64	244	510.30	78	295	544.32	94	354	544.32	113	392	544.32	125	500	3.0	1500
		34			43			52			63			75			83		2.0	1000
		26			32			39			47			56			62		1.5	750
160	588.75	46	202	588.75	57	244	591.20	69	295	630.61	84	354	630.61	101	392	630.61	112	560	2.7	1500
		30			38			46			56			67			74		1.8	1000
		23			29			35			42			50			56		1.3	750
160	623.03	40	202	623.03	51	244	621.23	62	295	662.65	75	354	662.65	90	392	662.65	99	630	2.4	1500
		27			34			41			50			60			66		1.6	1000
		20			26			31			37			45			50		1.2	750
160	721.81	36	202	721.81	45	244	719.72	55	295	767.70	66	354	767.70	79	392	767.70	88	710	2.1	1500
		24			30			37			44			53			59		1.4	1000
		18			23			27			33			40			44		1.1	750
160	776.02	32	202	776.02	40	244	771.13	49	295	822.54	59	354	822.54	71	392	822.54	78	800	1.9	1500
		21			27			32			39			47			52		1.3	1000
		16			20			24			29			35			39		0.9	750
160	891.73	28	202	891.73	36	244	893.38	43	295	952.94	52	354	952.94	63	392	952.94	69	900	1.7	1500
		19			24			29			35			42			46		1.1	1000
		14			18			22			26			31			35		0.8	750

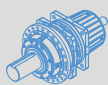


P3N & P3S transmission capacity table: (i=140~900)

n ₁ (r/min)	n _{2N} (r/min)	i _N	P3-22			P3-23			P3-24			P3-25			P3-26			P3-27		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	10.7	140	450	152.17	507	513	152.79	578	592	152.79	667	684	152.79	711	763	152.79	860	852	152.47	640
1000	7.1				338			385			445			514			573			640
750	5.4				253			289			333			385			430			480
1500	9.4	160	450	172.34	444	513	171.71	506	592	171.71	584	684	171.71	674	763	171.71	752	852	172.34	560
1000	6.3				296			337			389			450			501			560
750	4.7				222			253			292			337			376			420
1500	8.3	180	450	199.66	394	513	187.32	450	592	187.32	519	684	197.32	599	763	197.32	669	852	199.66	498
1000	5.6				263			300			346			400			446			498
750	4.2				197			225			259			300			334			373
1500	7.5	200	450	218.54	355	513	215.97	405	592	215.97	467	684	215.97	539	763	215.97	602	852	218.54	448
1000	5.0				237			270			311			360			401			448
750	3.8				177			202			233			270			301			336
1500	6.7	225	460	242.57	315	513	239.71	360	592	239.71	415	684	239.71	479	763	239.71	535	82	242.57	597
1000	4.4				210			240			277			320			357			398
750	3.3				158			180			207			240			267			299
1500	6.0	250	450	274.18	284	513	270.95	324	592	270.95	373	684	270.95	432	763	270.95	481	852	274.18	538
1000	4.0				189			216			249			288			321			358
750	3.0				142			162			187			216			241			269
1500	5.4	280	450	317.65	253	513	313.91	289	592	313.91	333	684	313.91	385	763	313.91	430	852	317.65	480
1000	3.6				169			193			222			257			287			320
750	2.7				127			144			167			193			215			240
1500	5.4	280	450	302.43	256	513	295.28	292	592	295.28	337	684	295.28	389	763	295.28	434	852	296.01	485
1000	3.6				171			195			225			260			290			323
750	2.7				128			146			168			195			217			242
1500	4.8	315	450	341.48	228	513	331.86	260	592	331.86	300	684	331.86	346	763	331.86	386	852	334.59	431
1000	3.2				152			173			200			231			257			287
750	2.4				114			130			150			173			193			216
1500	4.2	355	450	396.04	202	513	381.34	230	592	381.34	266	684	381.34	307	763	381.34	343	852	387.63	383
1000	2.8				135			154			177			205			228			255
750	2.1				101			115			133			154			171			191
1500	3.8	400	450	414.16	179	513	426.24	204	592	426.24	236	684	426.24	273	763	426.24	304	852	416.52	339
1000	2.5				120			136			157			182			203			226
750	1.9				90			102			118			136			152			170
1500	3.3	450	450	479.82	159	513	489.8	182	592	489.8	210	684	489.8	242	763	489.8	270	852	482.56	302
1000	2.2				106			121			140			162			180			201
750	1.7				80			91			105			121			135			151
1500	3.0	500	450	544.32	143	513	546.62	164	592	546.62	189	684	546.6	218	763	546.6	243	852	545.35	272
1000	2.0				96			109			126			145			162			181
750	1.5				72			82			94			109			122			136
1500	2.7	560	450	630.61	128	513	628.12	146	592	628.12	168	684	628.12	195	763	628.12	217	852	631.81	242
1000	1.8				85			97			112			130			145			162
750	1.3				64			73			84			97			109			121
1500	2.4	630	450	662.65	114	513	670.15	130	592	670.15	150	684	670.15	173	763	670.15	193	852	662.65	216
1000	1.6				76			87			100			115			129			144
750	1.2				57			65			75			87			97			108
1500	2.1	710	450	767.70	101	513	770.08	115	592	770.08	133	684	770.08	154	763	770.08	171	852	767.70	191
1000	1.4				67			77			89			102			114			128
750	1.1				51			58			66			77			86			96
1500	1.9	800	450	822.54	90	513	829.8	102	592	829.8	118	684	829.8	136	763	829.8	152	852	822.54	170
1000	1.3				60			68			79			91			110			113
750	0.9				45			51			59			68			76			85
1500	1.7	900	450	952.94	80	513	961.35	91	592	961.35	105	684	961.35	121	763	961.35	135	852	952.94	151
1000	1.1				53			61			70			81			90			101
750	0.8				40			45			52			61			68			75

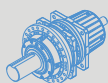


P3-28			P3-29			P3-30			P3-31			P3-32			P3-33			P3-34			i _N	n _{2N} (r/min)	n ₁ (r/min)
T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)						
950	152.47	■	1060	152.47	■	1200	152.47	■	1330	152.79	■	1500	152.79	■	1680	153.90	■	1920	153.90	■	140	10.7	1500
		714			796			901			999			1127			1262						
		535			597			676			749			845			946						
950	172.34	■	1060	172.34	■	1200	172.34	■	1330	171.71	■	1500	171.71	■	1680	173.96	■	1920	173.96	■	160	9.4	1500
		624			697			789			874			986			1104						
		468			522			591			656			739			828						
950	199.66	■	1060	199.66	■	1200	199.66	■	1330	197.32	■	1500	197.32	■	1680	201.54	■	1920	201.54	■	180	8.3	1500
		555			619			701			777			876			981						
		416			464			526			583			657			736						
950	218.54	■	1060	218.54	■	1200	218.54	■	1330	215.97	■	1500	215.97	■	1680	219.91	■	1920	219.91	■	200	7.5	1500
		499			557			631			699			789			883						
		375			418			473			524			591			662						
950	242.57	■	1060	242.57	■	1200	242.57	■	1330	239.71	■	1500	239.71	■	1680	243.07	■	1920	243.07	■	225	6.7	1500
		666			743			841			932			1051			1178						
		444			495			561			622			701			785						
950	274.18	■	1060	274.18	■	1200	274.18	■	1330	270.95	■	1500	270.95	■	1680	273.18	■	1920	273.18	■	250	6.0	1500
		599			669			757			839			946			1060						
		400			446			505			559			631			707						
950	317.65	■	1060	317.65	■	1200	317.65	■	1330	313.91	■	1500	313.91	■	1680	313.91	■	1920	313.91	■	280	4.0	1000
		300			334			379			420			473			530						
		535			597			676			749			845			946						
950	317.65	■	1060	317.65	■	1200	317.65	■	1330	313.91	■	1500	313.91	■	1680	313.91	■	1920	313.91	■	280	5.4	1500
		357			398			451			499			563			631						
		268			299			338			375			422			473						
950	296.01	■	1060	296.01	■	1200	296.01	■	1330	300.72	■	1500	300.72	■	1680	292.05	■	1920	292.05	■	280	3.6	1000
		541			603			683			757			854			956						
		361			402			455			505			569			638						
950	334.59	■	1060	334.59	■	1200	334.59	■	1330	337.97	■	1500	337.97	■	1680	330.11	■	1920	330.11	■	315	2.7	750
		270			302			342			379			427			478						
		481			536			607			673			759			850						
950	387.63	■	1060	387.63	■	1200	387.63	■	1330	388.37	■	1500	388.37	■	1680	382.45	■	1920	382.45	■	355	4.8	1500
		320			358			405			449			506			567						
		240			268			304			336			379			425						
950	416.52	■	1060	416.52	■	1200	416.52	■	1330	426.24	■	1500	426.24	■	1680	417.18	■	1920	417.18	■	400	3.2	1000
		427			476			539			597			673			754						
		284			317			359			398			449			503						
950	482.56	■	1060	482.56	■	1200	482.56	■	1330	489.80	■	1500	489.80	■	1680	483.31	■	1920	483.31	■	450	2.8	1000
		213			238			269			299			337			377						
		379			422			478			530			598			669						
950	545.35	■	1060	545.35	■	1200	545.35	■	1330	546.60	■	1500	546.60	■	1680	535.90	■	1920	535.90	■	500	2.5	1000
		252			282			319			353			398			446						
		189			211			239			265			299			335						
950	631.81	■	1060	631.81	■	1200	631.81	■	1330	628.12	■	1500	628.12	■	1680	620.86	■	1920	620.86	■	560	3.3	1500
		336			375			425			471			531			595						
		224			250			283			314			354			397						
950	662.65	■	1060	662.65	■	1200	662.65	■	1330	670.15	■	1500	670.15	■	1680	657.74	■	1920	657.74	■	630	2.2	1000
		168			188			213			236			266			298						
		303			338			383			424			478			536						
950	767.70	■	1060	767.70	■	1200	767.70	■	1330	770.08	■	1500	770.08	■	1680	762.02	■	1920	762.02	■	710	3.0	1500
		202			225			255			283			319			357						
		151			169			191			212			239			268						
950	822.54	■	1060	822.54	■	1200	822.54	■	1330	827.92	■	1500	827.92	■	1680	819.53	■	1920	819.53	■	800	2.7	1500
		270			302			342			379			427			478						
		180			201			228			252			285			319						
950	952.94	■	1060	952.94	■	1200	952.94	■	1330	959.17	■	1500	959.17	■	1680	941.73	■	1920	941.73	■	900	1.8	1000
		135			151			171			189			213			239						
		240			268			304			336			379			425						
950	952.94	■	1060	952.94	■	1200	952.94	■	1330	959.17	■	1500	959.17	■	1680	941.73	■	1920	941.73	■	900	2.4	1500
		160			179			202			224			253			283						
		120			134			152			168			190			213						
950	952.94	■	1060	952.94	■	1200	952.94	■	1330	959.17	■	1500	959.17	■	1680	941.73	■	1920	941.73	■	900	1.6	1000
		213			238			269			299			337			377						
		142			159			180			199			226			251						
950	952.94	■	1060	952.94	■	1200	952.94	■	1330	959.17	■	1500	959.17	■	1680	941.73	■	1920	941.73	■	900	1.4	1000
		107			119			135			149			168			189						
		189			211			239			265			299			335						
950	952.94	■	1060	952.94	■	1200	952.94	■	1330	959.17	■	1500	959.17	■	1680	941.73	■	1920	941.73	■	900	3.8	1500
		126			141			159			177			199			223						
		95			106			120			132			149			167						
950	952.94	■	1060	952.94	■	1200	952.94	■	1330	959.17	■	1500	959.17	■	1680	941.73	■	1920	941.73	■	900	1.9	1500
		168			188			213			236			266			298						
		112			125			142			157			177			198						
950	952.94	■	1060	952.94	■	1200	952.94	■	1330	959.17	■	1500	959.17	■	1680	941.73	■	1920	941.73	■	900	1.7	1500
		84			94			106			118			133			149						
		170			188			213			236			266			298						



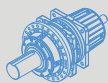
P2L transmission capacity table: ($i=31.5 \sim 100$)

n_1 (r/min)	n_{2N} (r/min)	i_N	P2-9			P2-10			P2-11			P2-12			P2-13		
			T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)
1500	47.6	31.5	22	32.5353	111	31	32.5353	156	42	32.8413	212	60	31.7089	302	83	31.6775	418
1000	31.7				74			104			141			202			279
750	23.8				55			78			106			151			209
1500	42.3	35.5	22	35.6114	98	31	35.6114	139	42	35.8344	188	60	34.5987	268	83	34.6723	345
1000	28.2				66			92			125			179			247
750	21.1				49			69			94			134			173
1500	37.5	40	22	39.5264	87	31	39.5264	123	42	39.6083	167	60	38.2424	238	83	38.4842	306
1000	25.0				58			82			111			159			204
750	18.8				44			62			83			119			153
1500	33.3	45	22	43.882	78	31	43.882	109	42	43.4177	148	60	41.9206	212	83	42.1856	293
1000	22.2				52			73			99			141			195
750	16.7				39			55			74			106			146
1500	30.0	50	22	50.4204	70	31	50.4204	98	42	50.5248	133	60	48.7826	191	83	49.0910	264
1000	20.0				47			66			89			127			176
750	15.0				35			49			67			95			132
1500	26.8	56	22	55.7278	62	31	55.7278	88	42	55.8432	119	60	53.9176	170	83	54.2585	235
1000	17.9				42			59			79			113			157
750	13.4				31			44			60			85			118
1500	23.8	63	22	60.4521	55	31	60.4521	78	42	60.5773	106	60	58.4884	151	83	62.3263	209
1000	15.9				37			52			71			101			139
750	11.9				28			39			53			76			105
1500	21.1	71	22	69.6115	49	31	69.6115	69	42	69.7557	94	60	67.3503	134	83	67.7761	186
1000	14.1				33			46			63			89			124
750	10.6				25			35			47			67			93
1500	18.8	80	22	79.0528	44	31	79.0528	62	42	79.9667	83	60	77.2092	119	83	77.6973	165
1000	12.5				29			41			56			79			110
750	9.4				22			31			42			60			82
1500	16.7	90	22	86.2394	39	31	86.2394	55	42	86.418	74	60	83.438	106	83	83.9656	146
1000	11.1				26			36			49			71			98
750	8.3				19			27			37			53			73
1500	15.0	100	22	98.2172	35	31	98.2172	49	42	98.4205	67	60	95.0266	95	83	95.6275	132
1000	10.0				23			33			44			64			88
750	7.5				17			25			33			48			66



P2-14			P2-16			P2-17			P2-18			P2-19			i_N	n_{2N} (r/min)	n_1 (r/min)
T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)	T_{2N} (kN·m)	i_{ex}	P_{1N} (kW)			
117	31.6775	510	160	31.4135	806	202	31.4135	865	244	31.4286	1230	295	33.5237	1487	31.5	47.6	1500
		340			538			577			820			991		31.7	1000
		255			403			433			615			743		23.8	750
117	34.6723	487	160	34.3835	716	202	34.3835	858	244	34.3999	1091	295	36.6933	1319	35.5	42.3	1500
		324			477			572			728			880		28.2	1000
		243			358			429			546			660		21.1	750
117	38.4842	432	160	38.1635	635	202	38.1635	802	244	38.1819	969	295	40.7272	1171	40	37.5	1500
		288			423			535			646			781		25.0	1000
		216			318			401			484			585		18.8	750
117	42.1856	413	160	41.834	565	202	41.834	713	244	43.149	861	295	46.0254	1041	45	33.3	1500
		275			376			475			574			694		22.2	1000
		206			282			356			430			520		16.7	750
117	49.091	372	160	48.6818	508	202	48.6818	641	244	49.091	775	295	52.3636	937	50	30.0	1500
		248			339			428			517			625		20.0	1000
		186			254			321			387			468		15.0	750
117	54.2585	332	160	53.8063	454	202	53.8063	573	244	54.8664	692	295	58.524	836	56	26.8	1500
		221			302			382			461			558		17.9	1000
		166			227			286			346			418		13.4	750
117	62.3263	295	160	61.8069	403	202	61.8069	509	244	62.3263	615	295	66.4812	743	63	23.8	1500
		197			269			339			410			496		15.9	1000
		147			202			255			307			372		11.9	750
117	67.7761	262	160	67.2113	358	202	67.2113	452	244	67.7761	546	295	72.2943	660	71	21.1	1500
		174			239			301			364			440		14.1	1000
		131			179			226			273			330		10.6	750
117	77.6973	232	160	77.0498	318	202	77.0498	401	244	77.6973	484	295	82.8769	585	80	18.8	1500
		155			212			267			323			390		12.5	1000
		116			159			200			242			293		9.4	750
117	83.9656	206	160	83.2658	282	202	83.2658	356	244	83.9656	430	295	89.563	520	90	16.7	1500
		138			188			238			287			347		11.1	1000
		103			141			178			215			260		8.3	750
117	95.6275	186	160	94.8305	254	202	94.8305	321	244	95.6275	387	295	102.0023	468	100	15.0	1500
		124			169			214			258			312		10.0	1000
		93			127			160			194			234		7.5	750

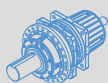
Note: Forced lubrication required.



P2L transmission capacity table: ($i=31.5 \sim 100$)

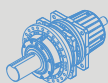
n ₁ (r/min)	n _{2N} (r/min)	i _N	P2-20			P2-21			P2-22			P2-23			P2-24			P2-25		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	47.6	31.5	354	33.5237	1517	392	33.5237	1976	450	33.5237	2268	513	33.8391		592	33.8391		684	33.8391	
1000	31.7				1011			1317			1512			1724			1989			2298
750	23.8				758			988			1134			1293			1492			1724
1500	42.3	35.5	354	36.6933	1504	392	36.6933	1753	450	36.6933	2013	513	36.9231		592	36.9231		684	36.9231	
1000	28.2				1003			1169			1342			1530			1712			2040
750	21.1				752			877			1006			1147			1284			1530
1500	37.5	40	354	40.7272	1405	392	40.7272	1556	450	40.7272	1786	513	40.8116		592	40.8116		684	40.8116	
1000	25.0				937			1037			1191			1358			1567			1810
750	18.8				703			778			883			1018			1175			1358
1500	33.3	45	354	46.0254	1249	392	46.0254	1383	450	46.0254	1588	513	46.1208		592	46.1208		684	46.1208	
1000	22.2				833			922			1059			1207			1393			1609
750	16.7				625			692			794			905			1044			1207
1500	30.0	50	354	52.3636	1124	392	52.3636	1245	450	52.3636	1429	513	52.472		592	52.472		684	52.1365	
1000	20.0				749			830			953			1086			1253			1448
750	15.0				562			622			714			815			940			1086
1500	26.8	56	354	58.524	1004	392	58.524	1111	450	58.524	1276	513	58.6452		592	58.6452		684	58.6452	
1000	17.9				669			741			851			970			1119			1293
750	13.4				502			556			638			727			839			970
1500	23.8	63	354	66.4812	892	392	66.4812	988	450	66.4812	1134	513	66.6189		592	66.6189		684	66.6189	
1000	15.9				595			659			756			862			995			1149
750	11.9				446			494			567			646			746			862
1500	21.1	71	354	72.2943	792	392	72.2943	877	450	72.2943	1006	513	72.4441		592	72.4441		684	72.4441	
1000	14.1				528			584			671			765			883			1020
750	10.6				396			438			503			574			662			765
1500	18.8	80	354	82.8769	703	392	82.8769	778	450	82.8769	893	513	83.0486		592	83.0486		684	83.0486	
1000	12.5				468			519			595			679			783			905
750	9.4				351			389			447			509			587			679
1500	16.7	90	354	89.563	625	392	89.563	692	450	89.563	794	513	89.7486		592	89.7486		684	89.7486	
1000	11.1				416			461			529			603			696			804
750	8.3				312			346			397			453			522			603
1500	15.0	100	354	102.0023	562	392	102.0023	622	450	102.0023	714	513	102.2136		592	102.2136		684	102.2136	
1000	10.0				375			415			476			543			627			724
750	7.5				281			311			357			407			470			543

Note: Forced lubrication required.



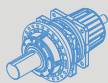
P2-26			P2-27			P2-28			P2-29			P2-30			P2-31 ~ P2-34			i _N	n ^{2N} (r/min)	n ¹ (r/min)
T _{2N} (kN・m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN・m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN・m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN・m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN・m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN・m)	i _{ex}	P _{1N} (kW)			
763	33.8391		852	33.5237		950	33.5237		1060	33.5237		1200	33.5237					31.5	47.6	1500
		2564			2863			2937											31.7	1000
		1923			2147			2203											23.8	750
763	36.9231		852	36.6933		950	36.6933		1060	36.6933		1200	36.6933					35.5	42.3	1500
		2275			2540			2833											28.2	1000
		1706			1905			2124											21.1	750
763	40.8116		852	40.7272		950	40.7272		1060	40.7272		1200	40.7272					40	37.5	1500
		2019			2255			2514											25.0	1000
		1514			1691			1885											18.8	750
763	46.1208		852	46.0254		950	46.0254		1060	46.0254		1200	46.0254					45	33.3	1500
		1795			2004			2235											22.2	1000
		1346			1503			1676			1870			2117					16.7	750
763	52.1365		852	52.0288		950	52.0288		1060	52.0288		1200	52.0288		On request.			50	30.0	1500
		1615			1804			2011											20.0	1000
		1211			1353			1508			1683			1905					15.0	750
763	58.6452		852	58.524		950	58.524		1060	58.524		1200	58.524					56	26.8	1500
		1442			1610			1796			2004			2268					17.9	1000
		1082			1208			1347			1503			1701					13.4	750
763	66.6189		852	66.4812		950	66.4812		1060	66.4812		1200	66.4812					63	23.8	1500
		1282			1432			1596			1781			2016					15.9	1000
		961			1074			1197			1336			1512					11.9	750
763	72.4441		852	72.2943		950	72.2943		1060	72.2943		1200	72.2943					71	21.1	1500
		1138			1270			1416			1580			1789					14.1	1000
		853			953			1062			1185			1342					10.6	750
763	83.0486		852	82.8769		950	82.8769		1060	82.8769		1200	82.8769					80	18.8	1500
		1010			1127			1257			1403			1588					12.5	1000
		757			845			943			1052			1191					9.4	750
763	89.7486		852	89.563		950	89.563		1060	89.563		1200	89.563					90	16.7	1500
		897			1002			1117			1247			1411					11.1	1000
		673			752			838			935			1059					8.3	750
763	102.2136		852	102.0023		950	102.0023		1060	102.0023		1200	102.0023					100	15.0	1500
		808			902			1006			1122			1270					10.0	1000
		606			676			754			842			953					7.5	750

Note: Forced lubrication required.

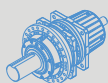


P2K transmission capacity table: ($i=112 \sim 560$)

n ₁ (r/min)	n _{2N} (r/min)	i _N	P2-9			P2-10			P2-11			P2-12			P2-13			P2-14		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	13.4	112	22	111.25	30.9	31	111.25	43.6	42	111.83	59.0	60	107.97	84	83	107.97	117	117	107.76	164
1000	8.9				20.6			29.0			39.4			56			78			110
750	6.7				15.5			21.8			29.5			42			58			82
1500	12.0	125	22	125.75	27.7	31	125.75	39.0	42	125.68	52.9	60	121.35	76	83	121.8	105	117	121.8	147
1000	8.0				18.5			26.0			35.3			50			70			98
750	6.0				13.9			19.5			26.4			38			52			74
1500	10.7	140	22	145.69	24.7	31	145.69	34.9	42	144.42	47.2	60	139.44	67	83	141.11	93	117	141.11	132
1000	7.1				16.5			23.2			31.5			45			62			88
750	5.4				12.4			17.4			23.6			34			47			66
1500	9.4	160	22	157.28	21.6	31	157.28	30.5	42	155.27	41.3	60	149.91	59	83	151.19	82	117	151.19	115
1000	6.3				14.4			20.3			27.5			39			54			77
750	4.7				10.8			15.3			20.7			30			41			58
1500	8.3	180	22	175.77	19.2	31	175.77	27.1	42	173.52	36.7	60	167.54	52	83	167.85	73	117	167.85	102
1000	5.6				12.8			18.1			24.5			35			48			68
750	4.2				9.6			13.6			18.4			26			36			51
1500	7.5	200	22	203.53	17.3	31	203.53	24.4	42	200.92	33.1	60	193.99	47	83	192.86	65	117	192.86	92
1000	5.0				11.5			16.3			22.0			31			44			61
750	3.8				8.7			12.2			16.5			24			33			46
1500	6.7	225	22	223.22	15.4	31	223.22	21.7	42	220.36	29.4	60	212.76	42	83	213.16	58	117	213.16	82
1000	4.4				10.3			14.5			19.6			28			39			55
750	3.3				7.7			10.8			14.7			21			29			41
1500	6.0	250	22	242.15	13.9	31	242.15	19.5	42	239.04	26.4	60	230.8	38	83	231.23	52	117	231.23	74
1000	4.0				9.2			13.0			17.6			25			35			49
750	3.0				6.9			9.8			13.2			19			26			37
1500	5.4	280	22	278.84	12.4	31	278.84	17.4	42	275.26	23.6	60	265.77	34	83	266.26	47	117	266.26	66
1000	3.6				8.2			11.6			15.7			22			31			44
750	2.7				6.2			8.7			11.8			17			23			33
1500	4.7	320	22	316.65	10.8	31	316.65	15.3	42	312.6	20.7	60	301.82	30	83	302.38	41	117	302.38	58
1000	3.1				7.2			10.2			13.8			20			76			38
750	2.3				5.4			7.6			10.3			15			20			29
1500	4.2	360	22	345.44	9.6	31	345.44	13.6	42	341.01	18.4	60	329.25	26	83	329.86	36	117	329.86	51
1000	2.8				6.4			9.0			12.2			17			24			34
750	2.1				4.8			6.8			9.2			13			18			26
1500	3.8	400	22	393.42	8.7	31	393.42	12.2	42	388.38	16.5	60	374.98	24	83	375.68	33	117	375.68	46
1000	2.5				5.8			8.1			11.0			16			22			31
750	1.9				4.3			6.1			8.3			12			16			23
1500	3.3	450	22	442.27	7.7	31	442.27	10.8	42	436.6	14.7	60	421.54	21	83	422.33	29	117	422.33	41
1000	2.2				5.1			7.2			9.8			14			19			27
750	1.7				3.8			5.4			7.3			10			15			20
1500	3.0	500	22	487.63	6.9	31	487.63	9.8	42	481.38	13.2	60	464.78	19	83	465.64	26	117	465.64	37
1000	2.0				4.6			6.5			8.8			13			17			25
750	1.5				3.5			4.9			6.6			9			13			18
1500	2.7	560	On request																	
1000	1.8																			
750	1.3																			

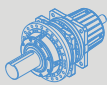


P2-16			P2-17			P2-18			P2-19			P2-20			i _N	n _{2N} (r/min)	n ₁ (r/min)	
T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)				
160	108.47	225	202	108.47	284	244	107.76	343	295	114.94	415	354	114.94	498	112	13.4	1500	
		150			189			229			276			332		8.9	1000	
		112			142			171			207			249		6.7	750	
160	122.6	201	202	122.6	254	244	121.8	307	295	129.92	372	354	129.92	446	125	12.0	1500	
		134			170			205			248			297		8.0	1000	
		101			127			154			186			223		6.0	750	
160	142.04	180	202	1442.04	227	244	141.11	274	295	150.52	332	354	150.52	398	140	10.7	1500	
		120			151			183			221			265		7.1	1000	
		90			114			137			166			199		5.4	750	
160	153.05	157	202	153.05	199	244	151.19	240	295	161.27	290	354	161.27	348	160	9.4	1500	
		105			132			160			193			232		6.3	1000	
		79			99			120			145			174		4.7	750	
160	167.77	140	202	167.77	177	244	165.73	213	295	176.78	258	354	176.78	310	180	8.3	1500	
		93			118			142			172			206		5.6	1000	
		70			88			107			129			155		4.2	750	
160	195.23	126	202	195.23	159	244	192.86	192	295	205.71	232	354	205.71	279	200	7.5	1500	
		84			106			128			155			186		5.0	1000	
		63			79			96			116			139		3.8	750	
160	215.79	112	202	215.79	141	244	213.16	171	295	227.37	206	354	227.37	248	225	6.7	1500	
		75			94			114			138			165		4.4	1000	
		56			71			85			103			124		3.3	750	
160	234.08	101	202	234.08	127	244	244.85	154	295	261.18	186	354	261.18	223	250	6.0	1500	
		67			85			102			124			149		4.0	1000	
		50			64			77			93			111		3.0	750	
160	269.55	90	202	269.55	114	244	266.26	137	295	284.01	166	354	284.01	199	280	5.4	1500	
		60			76			91			111			133		3.6	1000	
		45			57			69			83			100		2.7	750	
160	309	79	202	309	99	244	305.24	120	295	325.59	145	354	325.59	174	320	4.7	1500	
		52			66			80			97			116		3.1	1000	
		39			50			60			73			87		2.3	750	
160	333.93	70	202	333.93	88	244	329.86	107	295	351.86	129	354	351.86	155	360	4.2	1500	
		47			59			71			86			103		2.8	1000	
		35			44			53			64			77		2.1	750	
160	380.31	63	202	380.31	79	244	375.68	96	295	400.72	116	354	400.72	139	400	3.8	1500	
		42			53			64			77			93		2.5	1000	
		31			40			48			58			70		1.9	750	
160	427.53	56	202	427.53	71	244	422.33	85	295	450.48	103	354	450.48	124	450	3.3	1500	
		37			47			57			69			83		2.2	1000	
		28			35			43			52			62		1.7	750	
160	471.38	50	202	471.38	64	244	465.64	77	295	496.68	93	354	496.68	111	500	3.0	1500	
		34			42			51			62			74		2.0	1000	
		25			32			38			46			56		1.5	750	
On request															560	2.7	1500	
																1.8	1000	
																1.3	750	

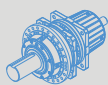


P3K transmission capacity table: (i=560~4000)

n ₁ (r/min)	n _{2N} (r/min)	i _N	P3-9			P3-10			P3-11			P3-12			P3-13		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	2.68	560	22	566.22	6.3	31	566.22	9	42	567.4	12	60	547.83	17	83	551.29	24
1000	1.79				4.2			6			8			11			16
750	1.34				3.1			4.4			6			9			12
1500	2.38	630	22	640.02	5.6	31	640.02	7.8	42	637.68	11	60	615.69	15	83	623.14	21
1000	1.59				3.7			5.2			7			10			14
750	1.19				2.8			3.9			5			8			11
1500	2.11	710	22	700.53	5.0	31	700.53	7	42	697.96	9	60	673.9	14	83	682.06	19
1000	1.41				3.3			4.5			6			9			12
750	1.06				2.5			3.5			5			7			9
1500	1.88	800	22	777.54	4.4	31	777.54	6	42	774.7	8	60	747.98	12	83	757.04	17
1000	1.25				2.9			4			6			8			11
750	0.94				2.2			3			4			6			8
1500	1.67	900	22	878.88	3.9	31	878.88	5.5	42	875.66	7.5	60	845.46	11	83	855.70	15
1000	1.11				2.6			3.7			5			7			10
750	0.83				2.0			2.7			3.7			5			7
1500	1.50	1000	22	982.19	3.5	31	982.19	5	42	978.6	6.7	60	944.85	10	83	956.3	13
1000	1.00				2.3			3.3			4.5			6			9
750	0.75				1.8			2.5			3.4			5			7
1500	1.34	1120	22	1137.3	3.1	31	1137.3	4.4	42	1133.1	6	60	1094	9	83	1107.3	12
1000	0.89				2.1			2.9			4			6			8
750	0.67				1.6			2.2			3			4.5			6
1500	1.20	1250	22	1247.3	2.8	31	1247.3	4.0	42	1242.8	5.4	60	1199.9	8	83	1214.4	11
1000	0.80				1.9			2.6			3.6			5			7
750	0.60				1.4			2.0			2.7			4			5
1500	1.07	1400	22	1351.1	2.5	31	1351.1	3.5	42	1348.1	4.8	60	1301.6	7	83	1317.4	4.9
1000	0.71				1.7			2.4			3.2			5			6
750	0.54				1.3			1.8			2.4			3.5			4.5
1500	0.94	1600	22	1558.1	2.2	31	1558.1	3.1	42	1552.4	4.2	60	1498.9	6	83	1517	8
1000	0.63				1.5			2.1			2.8			4			6
750	0.47				1.1			1.5			2.1			3			4
1500	0.83	1800	22	1769.4	2.0	31	1769.4	2.8	42	1762.9	3.7	60	1702.1	5	83	1722.8	7
1000	0.56				1.3			1.8			2.5			4			5
750	0.42				1.0			1.4			1.9			2.7			3.7
1500	0.75	2000	22	1930.3	1.8	31	1930.3	2.5	42	1923.2	3.4	60	1856.9	4.8	83	1879.4	6.6
1000	0.50				1.2			1.7			2.2			3.2			4.4
750	0.38				0.9			1.2			1.7			2.4			3.3
1500	0.67	2240	22	2198.4	1.6	31	2198.4	2.2	42	2190.3	3.0	60	2114.8	4.3	83	2140.4	5.9
1000	0.45				1.0			1.5			2.0			2.9			3.9
750	0.33				0.8			1.1			1.5			2.1			3.0
1500	0.60	2500	22	2471.3	1.4	31	2471.3	2.0	42	2462.3	2.7	60	2377.4	3.8	83	2406.1	5.3
1000	0.40				0.9			1.3			1.8			2.6			3.5
750	0.30				0.7			1.0			1.3			1.9			2.7
1500	0.54	2800	22	2724.8	1.3	31	2724.8	1.8	42	2714.8	2.4	60	2621.2	3.4	83	2652.9	4.7
1000	0.36				0.8			1.2			1.6			2.3			3.2
750	0.27				0.6			0.9			1.2			1.7			2.4
1500	0.48	3150	22	3105	1.1	31	3104.9	1.6	42	3093.6	2.1	60	2986.9	3.0	83	3023.1	4.2
1000	0.32				0.7			1.0			1.4			2.0			2.8
750	0.24				0.6			0.8			1.1			1.5			2.1
1500	0.42	3550	22	3597.2	1.0	31	3597.2	1.4	42	3584.1	1.9	60	3460.5	2.7	83	3502.4	3.7
1000	0.28				0.7			0.9			1.3			1.8			2.5
750	0.21				0.5			0.7			0.9			1.4			1.9
1500	0.38	4000	22	4167.5	0.9	31	4167.5	1.2	42	4118.5	1.7	60	3976.5	2.4	83	4057.6	3.3
1000	0.25				0.6			0.8			1.1			1.6			4.2
750	0.19				0.4			0.6			0.8			1.2			1.7

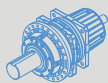


P3-14			P3-16			P3-17			P3-18			P3-19			i _N	n _{2N} (r/min)	n ₁ (r/min)
T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)			
117	551.29	33	160	551.25	46	202	551.25	58	244	544.28	70	295	580.56	84	560	2.68	1500
		22			30			38			46			56		1.79	1000
		17			23			29			35			42		1.34	750
117	623.14	30	160	623.09	41	202	623.09	51	244	615.21	62	295	656.22	75	630	2.38	1500
		20			27			34			41			50		1.59	1000
		15			20			26			31			37		1.19	750
117	682.06	26	160	679.88	36	202	679.88	45	244	673.37	55	295	718.27	66	710	2.11	1500
		18			24			30			37			44		1.41	1000
		13			18			23			27			33		1.06	750
117	757.04	23	160	751.48	32	202	751.48	40	244	747.4	49	295	797.23	59	800	1.88	1500
		16			21			27			32			39		1.25	1000
		12			16			20			24			29		0.94	750
117	855.70	21	160	844.56	28	202	844.56	36	244	844.81	43	295	901.13	52	900	1.67	1500
		14			19			24			29			35		1.11	1000
		10			14			18			22			26		0.83	750
117	956.3	19	160	943.84	26	202	943.84	32	244	937.9	39	295	1000.4	47	1000	1.50	1500
		12			17			22			26			31		1.00	1000
		9			13			16			19			24		0.75	750
117	1107.3	17	160	1092.4	23	202	1092.9	29	244	1077.6	35	295	1149.5	42	1120	1.34	1500
		11			15			19			23			28		0.89	1000
		8			11			14			17			21		0.67	750
117	1214.4	15	160	1198.6	20	202	1198.6	26	244	1191.1	31	295	1270.5	38	1250	1.20	1500
		10			14			17			21			25		0.80	1000
		7			10			13			16			19		0.60	750
117	1317.4	13	160	1300.2	18	202	1300.2	23	244	1292.1	28	295	1378.2	34	1400	1.07	1500
		9			12			15			19			22		0.71	1000
		7			9			12			14			17		0.54	750
117	1517	12	160	1497.3	16	202	1497.3	20	244	1487.8	24	295	1587	29	1600	0.94	1500
		8			11			13			16			20		0.63	1000
		6			8			10			12			15		0.47	750
117	1722.8	10	160	1700.3	14	202	1700.3	18	244	1689.6	22	295	1802.3	26	1800	0.83	1500
		7			9			12			14			17		0.56	1000
		5.2			7.1			9			11			13		0.42	750
117	1879.4	9.4	160	1854.9	12.8	202	1854.9	16	244	1843.2	19	295	1966.1	24	2000	0.75	1500
		6.2			8.5			11			13			16		0.50	1000
		4.7			6.4			8			10			12		0.38	750
117	2140.4	8.3	160	2112.5	11.4	202	2112.5	14	244	2099.2	17	295	2239.2	21	2240	0.67	1500
		5.6			7.6			10			12			14		0.45	1000
		4.2			5.7			7.2			8.7			10.5		0.33	750
117	2406.1	7.5	160	2374.8	10.2	202	2374.8	12.9	244	2359.9	16	295	2517.2	19	2500	0.60	1500
		5.0			6.8			8.6			10.4			12.6		0.40	1000
		3.7			5.1			6.5			7.8			9.4		0.30	750
117	2652.9	6.7	160	2618.4	9.1	202	2618.4	12	244	2601.9	14	295	2775.4	17	2800	0.54	1500
		4.5			6.1			7.7			9.3			11.2		0.36	1000
		3.3			4.6			5.8			7.0			8.4		0.27	750
117	3023.1	5.9	160	2983.8	8.1	202	2983.8	10.2	244	2965	12	295	3162.6	15	3150	0.48	1500
		4.0			5.4			6.8			8.3			10		0.32	1000
		3.0			4.1			5.1			6.2			7.5		0.24	750
117	3502.4	5.3	160	3428.7	7.2	202	3428.7	9.1	244	3435	11	295	3664	13	3550	0.42	1500
		3.5			4.8			6.1			7.3			8.9		0.28	1000
		2.6			3.6			4.5			5.5			6.6		0.21	750
117	4057.6	4.7	160	3972.2	6.4	202	3972.2	8.1	244	3979.6	9.7	295	4244.9	12	4000	0.38	1500
		3.1			4.3			5.4			6.5			7.9		0.25	1000
		2.3			3.2			4.0			4.9			5.9		0.19	750

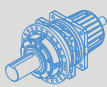


P3K transmission capacity table: ($i=560 \sim 4000$)

n ₁ (r/min)	n _{2N} (r/min)	i _N	P3-20			P3-21			P3-22			P3-23			P3-24			P3-25		
			T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)
1500	2.68	560	354	580.56	101	392	580.56	112	450	580.56	128	513	593.88	146	592	593.88	169	684	593.88	195
1000	1.79				67			75			86			98			113			130
750	1.34				51			56			64			73			84			98
1500	2.38	630	354	656.22	90	392	656.22	99	450	656.22	114	513	667.44	130	592	667.44	150	684	667.44	174
1000	1.59				60			66			76			87			100			116
750	1.19				45			50			57			65			75			87
1500	2.11	710	354	718.27	80	392	718.27	88	450	718.27	101	513	730.55	115	592	730.55	133	684	730.55	154
1000	1.41				53			59			68			77			89			103
750	1.06				40			44			51			58			67			77
1500	1.88	800	354	797.23	71	392	797.23	78	450	797.23	90	513	810.87	102	592	810.87	118	684	810.87	137
1000	1.25				47			52			60			68			79			91
750	0.94				35			39			45			51			59			68
1500	1.67	900	354	901.13	63	392	901.13	70	450	901.13	80	513	916.54	91	592	916.54	105	684	916.54	121
1000	1.11				42			46			53			61			70			81
750	0.83				31			35			40			46			53			61
1500	1.50	1000	354	1000.4	57	392	1000.4	63	450	1000.4	72	513	1004.7	82	592	1004.7	95	684	1004.7	109
1000	1.00				38			42			48			55			63			73
750	0.75				28			31			36			41			47			55
1500	1.34	1120	354	1149.5	51	392	1149.5	56	450	1149.5	64	513	1169.1	73	592	1169.1	84	684	1169.1	98
1000	0.89				34			37			43			49			56			65
750	0.67				25			28			32			37			42			49
1500	1.20	1250	354	1270.5	45	392	1270.5	50	450	1270.5	58	513	1292.2	66	592	1292.2	76	684	1292.2	87
1000	0.80				30			33			38			44			50			58
750	0.60				23			25			29			33			38			44
1500	1.07	1400	354	1378.2	40	392	1378.2	45	450	1378.2	51	513	1401.8	59	592	1401.8	68	684	1401.8	78
1000	0.71				27			30			34			39			45			52
750	0.54				20			22			26			29			34			39
1500	0.94	1600	354	1587	35	392	1587	39	450	1587	45	513	1614.2	51	592	1614.2	59	684	1614.2	68
1000	0.63				24			26			30			34			39			46
750	0.47				18			20			22			26			30			34
1500	0.83	1800	354	1802.3	31	392	1802.3	35	450	1802.3	40	513	1850.4	46	592	1850.4	53	684	1850.4	61
1000	0.56				21			23			27			30			35			40
750	0.42				16			17			20			23			26			30
1500	0.75	2000	354	1966.1	28	392	1966.1	31	450	1966.1	36	513	1999.7	41	592	1999.7	47	684	1999.7	55
1000	0.50				19			21			24			27			32			36
750	0.38				14			16			18			20			24			27
1500	0.67	2240	354	2239.2	25	392	2239.2	28	450	2239.2	32	513	2277.5	37	592	2277.5	42	684	2277.5	49
1000	0.45				17			19			21			24			28			33
750	0.33				12.6			14			16			18			21			24
1500	0.60	2500	354	2517.2	23	392	2517.2	25	450	2517.2	29	513	2560.2	33	592	2560.2	38	684	2560.2	44
1000	0.40				15.1			17			19			22			25			29
750	0.30				11.3			13			14			16			19			22
1500	0.54	2800	354	2775.4	20	392	2775.4	22	450	2775.4	26	513	2822.8	29	592	2822.8	34	684	2822.8	39
1000	0.36				13.5			15			17			20			23			26
750	0.27				10.1			11.2			13			15			17			20
1500	0.48	3150	354	3162.6	18	392	3162.6	20	450	3162.6	23	513	3216.7	26	592	3216.7	30	684	3216.7	35
1000	0.32				12			13.3			15			17			20			23
750	0.24				9			9.9			11			13			15			17
1500	0.42	3550	354	3664	16	392	3664	18	450	3664	20	513	3726.7	23	592	3726.7	27	684	3726.7	31
1000	0.28				10.6			11.8			14			15			18			21
750	0.21				8			8.8			10			12			13			15
1500	0.38	4000	354	4244.9	14	392	4244.9	16	450	4244.9	18	513	4282.4	20	592	4282.4	24	684	4282.4	27
1000	0.25				9.4			10.4			12			14			16			
750	0.19			7.1			7.8			9			10			12			14	



P3-26			P3-27			P3-28			P3-29			P3-30			P3-31~P3-34			i _N	n _{2N} (r/min)	n ₁ (r/min)
T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)	T _{2N} (kN·m)	i _{ex}	P _{1N} (kW)			
763	593.88	218	852	580.56	243	950	580.56	271	1060	580.56	303	1200	580.56	342				560	2.68	1500
		145			162			181			202			228					1.79	1000
		109			122			136			151			171					1.34	750
763	667.44	194	852	656.22	216	950	656.22	241	1060	656.22	269	1200	656.22	304				630	2.38	1500
		129			144			161			179			203					1.59	1000
		97			108			121			134			152					1.19	750
763	730.55	172	852	718.27	192	950	718.27	214	1060	718.27	239	1200	718.27	270				710	2.11	1500
		115			128			143			159			180					1.41	1000
		86			96			107			119			135					1.06	750
763	810.87	152	852	797.23	170	950	797.23	190	1060	797.23	212	1200	797.23	240				800	1.88	1500
		102			113			127			141			160					1.25	1000
		76			85			95			106			120					0.94	750
763	916.54	136	852	901.13	151	950	901.13	169	1060	901.13	188	1200	901.13	213				900	1.67	1500
		90			101			112			125			142					1.11	1000
		68			76			84			94			107					0.83	750
763	1004.7	122	852	987.8	136	950	987.8	152	1060	987.8	169	1200	987.8	192				1000	1.50	1500
		81			91			101			113			128					1.00	1000
		61			68			76			85			95					0.75	750
763	1169.1	109	852	1149.5	122	950	1149.5	136	1060	1149.5	151	1200	1149.5	171				1120	1.34	1500
		73			81			90			101			114					0.89	1000
		54			61			68			76			86					0.67	750
763	1992.2	98	852	1270.5	109	950	1270.5	121	1060	1270.5	136	1200	1270.5	153				1250	1.20	1500
		65			73			81			90			103					0.80	1000
		49			54			61			68			77					0.60	750
763	1401.8	87	852	1459.4	97	950	1459.4	108	1060	1459.4	121	1200	1459.4	137				1400	1.07	1500
		58			65			72			81			91					0.71	1000
		44			49			54			61			68					0.54	750
763	1614.2	76	852	1587	85	950	1587	95	1060	1587	106	1200	1587	120	On request.			1600	0.94	1500
		51			57			63			71			80					0.63	1000
		38			43			47			53			60					0.47	750
763	1850.4	68	852	1819.3	76	950	1819.3	84	1060	1819.3	94	1200	1819.3	107				1800	0.83	1500
		45			50			56			63			71					0.56	1000
		34			38			42			47			53					0.42	750
763	1999.7	61	852	1966.1	68	950	1966.1	76	1060	1966.1	85	1200	1966.1	96				2000	0.75	1500
		41			45			51			56			64					0.50	1000
		30			34			38			42			48					0.38	750
763	2277.5	54	852	2239.2	61	950	2239.2	68	1060	2239.2	76	1200	2239.2	86				2240	0.67	1500
		36			41			45			50			57					0.45	1000
		27			30			34			38			43					0.33	750
763	2560.2	49	852	2517.2	54	950	2517.2	61	1060	2517.2	68	1200	2517.2	77				2500	0.60	1500
		33			36			40			45			51					0.40	1000
		24			27			30			34			38					0.30	750
763	2822.8	44	852	2775.4	49	950	2775.4	54	1060	2775.4	61	1200	2775.4	68				2800	0.54	1500
		29			32			36			40			46					0.36	1000
		22			24			27			30			34					0.27	750
763	3216.7	39	852	3162.6	43	950	3162.6	48	1060	3162.6	54	1200	3162.6	61				3150	0.48	1500
		26			29			32			36			41					0.32	1000
		19			22			24			27			30					0.24	750
763	3726.7	34	852	3664	38	950	3664	43	1060	3664	48	1200	3664	54				3550	0.42	1500
		23			26			29			32			36					0.28	1000
		17			19			21			24			27					0.21	750
763	4282.4	30	852	4244.9	34	950	4244.9	38	1060	4244.9	42	1200	4244.9	48				4000	0.38	1500
		20			23			25			28			32					0.25	1000
		15			17			19			21			24					0.19	750



P2N thermal capacity(horizontal mounting):

Size Wind velocity PG1	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small confined spaces Wind velocity ≥ 0.5 m/s	21	26	32	42	49	65	75	92	100	119	142	174	201	242	287	326	366
Large halls, workshops Wind velocity ≥ 1.4 m/s	29	37	45	60	69	92	106	130	147	169	201	246	285	343	406	462	519
In the open Wind velocity ≥ 3.7 m/s	39	50	60	80	93	125	143	175	191	228	272	333	386	464	505	626	702

P2S thermal capacity(horizontal mounting):

Size Wind velocity PG1	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small confined spaces Wind velocity ≥ 0.5 m/s	15	20	24	32	36	49	56	69	75	89	106	130	151	182	215	245	275
Large halls, workshops Wind velocity ≥ 1.4 m/s	22	28	34	45	52	69	79	97	106	127	151	185	214	257	305	347	389
In the open Wind velocity ≥ 3.7 m/s	29	38	45	60	70	94	107	132	143	171	204	250	289	348	412	469	527

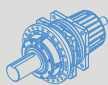
P3N thermal capacity(horizontal mounting):

Size Wind velocity PG1	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small confined spaces Wind velocity ≥ 0.5 m/s	14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	228	256
Large halls, workshops Wind velocity ≥ 1.4 m/s	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	323	362
In the open Wind velocity ≥ 3.7 m/s	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	437	490

P3S thermal capacity(horizontal mounting):

Size Wind velocity PG1	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34
Small confined spaces Wind velocity ≥ 0.5 m/s	12	15	18	24	28	40	43	53	57	69	82	100	116	139	165	188	211
Large halls, workshops Wind velocity ≥ 1.4 m/s	17	21	26	34	40	53	61	75	81	97	116	142	164	197	234	266	298
In the open Wind velocity ≥ 3.7 m/s	23	29	35	46	54	72	82	101	110	131	156	192	222	267	316	360	404

Note: Thermal capacity of other mounting positions, please consult us.



P2L thermal capacity(horizontal mounting):

Size Wind velocity PG1	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31~34
Small confined spaces Wind velocity ≥ 0.5 m/s	14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	On request.
Large halls, workshops Wind velocity ≥ 1.4 m/s	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	
In the open Wind velocity ≥ 3.7 m/s	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	

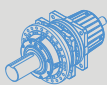
P2K thermal capacity(horizontal mounting):

Size Wind velocity PG1	9	10	11	12	13	14	16	17	18	19/20
Small confined spaces Wind velocity ≥ 0.5 m/s	12	15	18	24	28	38	44	53	58	69
Large halls, workshops Wind velocity ≥ 1.4 m/s	17	22	26	35	40	54	62	76	82	98
In the open Wind velocity ≥ 3.7 m/s	23	29	35	47	54	73	83	102	111	133

P3K thermal capacity(horizontal mounting):

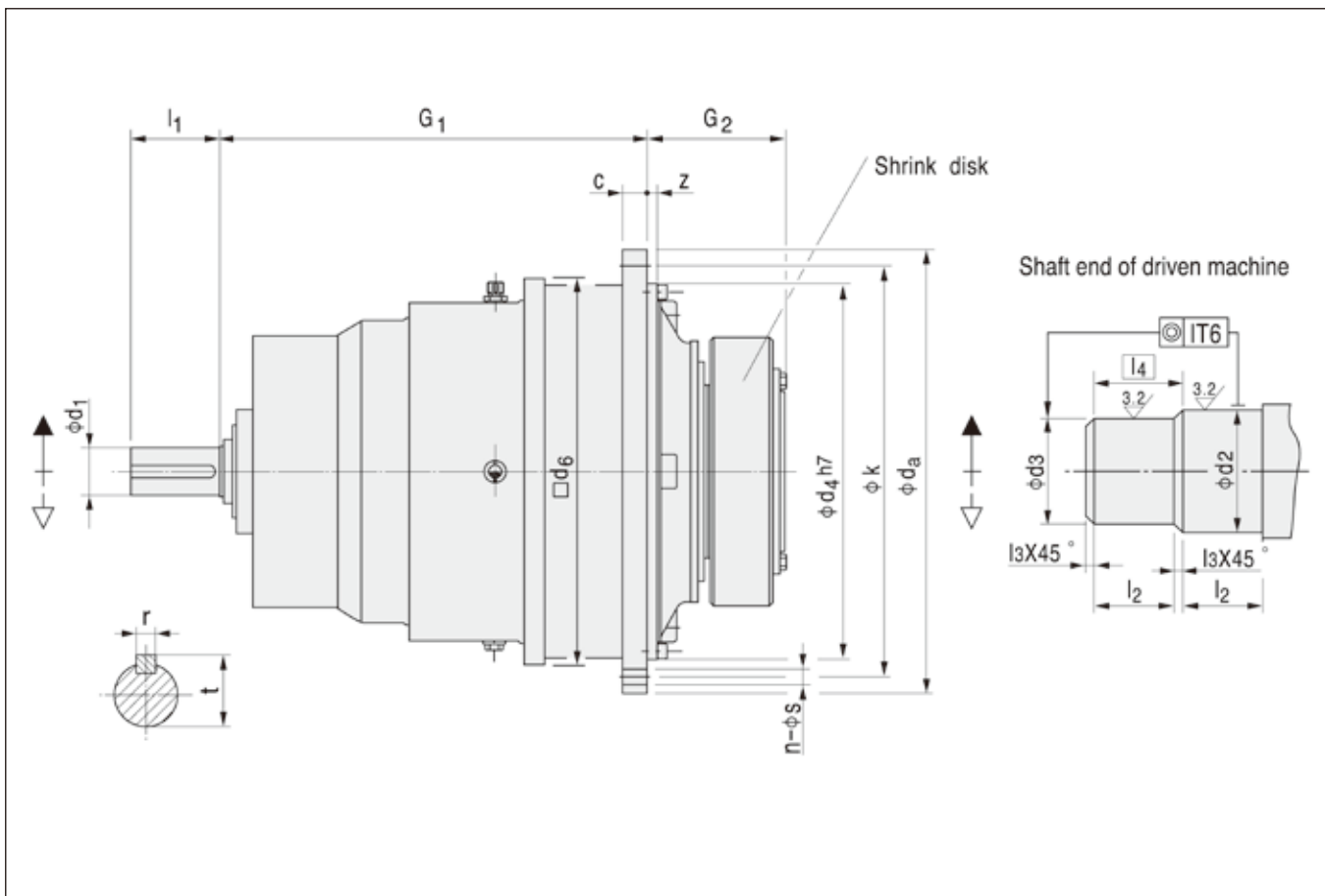
Size Wind velocity PG1	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31~34
Small confined spaces Wind velocity ≥ 0.5 m/s	10	12	15	20	23	31	35	43	47	56	67	82	95	109	125	On request
Large halls, workshops Wind velocity ≥ 1.4 m/s	14	17	21	28	33	44	50	61	66	79	95	116	106	125	144	
In the open Wind velocity ≥ 3.7 m/s	19	24	28	38	44	59	67	83	90	107	128	157	166	195	225	

Note: Thermal capacity of other mounting positions, please consult us.



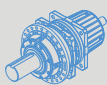
P2NA

iN = 25 ... 40



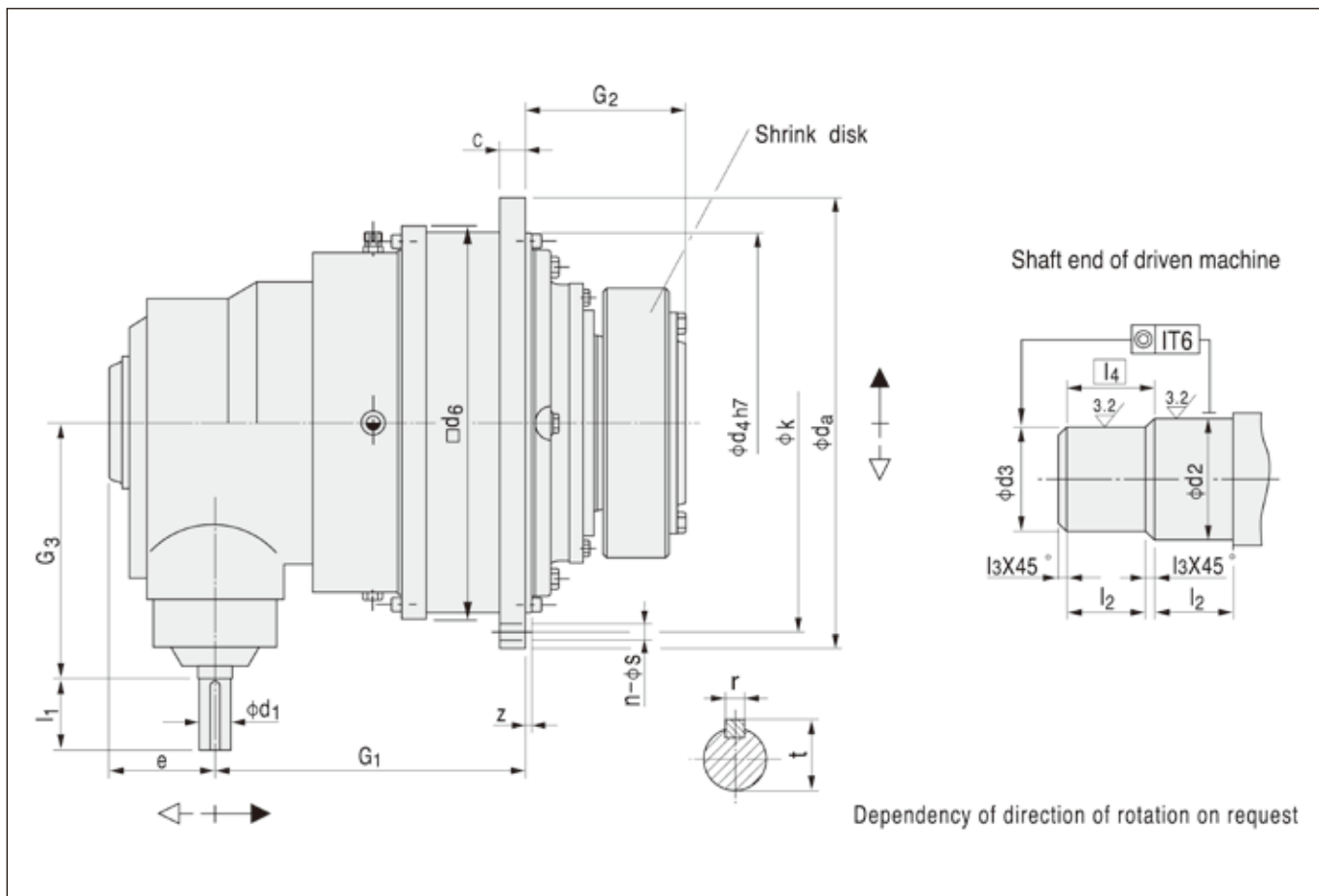
P2NA Type	Nominal output torque T _{2N} (N · m)	Shaft end input side				d ₂	d ₃	l ₂	l ₃	l ₄	c	d _a	d ₄	d ₆	G ₁	G ₂	k	z	Flange bolts		Weight (kg)	Oil quantity (l)
		d ₁	l ₁	r	t														s	n		
9	22 000	55	90	16	59	120	115	65	2.5	67.5	24	428	350	356	469	165	388	6 ± 1.5	18	24	145	6
10	31 000	55	90	16	59	130	125	70	2.5	72.5	28	472	394	400	489	174	436	8 ± 1.5	18	28	195	8
11	42 000	70	120	20	74.5	140	135	82.5	2.5	85.0	32	525	425	436	579	204	485	8 ± 1.5	22	20	280	12
12	60 000	70	120	20	74.5	160	155	90	2.5	92.5	34	605	495	510	593	224	555	9 ± 1.5	26	20	425	16
13	83 000	80	140	25	85	180	175	95	2.5	97.5	39	645	535	554	714	241	595	11 ± 1.5	26	24	540	20
14	117 000	80	140	25	85	210	205	105	2.5	107.5	42	720	610	629	737	278	665	11 ± 1.5	26	32	805	32
16	160 000	95	160	25	100	230	225	110	2.5	112.5	44	770	660	680	851	285	715	10	26	36	1 030	40
17	202 000	95	160	25	100	250	245	120	2.5	122.5	50	895	750	775	877	294	830	10	33	24	1 500	56
18	244 000	110	180	28	116	260	255	120	2.5	122.5	50	930	785	815	1006	303	865	10	33	32	1 900	66
19	295 000	110	180	28	116	280	275	135	2.5	137.5	56	980	840	870	1029.5	327.5	915	12	33	36	2 000	82
20	354 000	110	180	28	116	300	295	135	2.5	137.5	56	980	840	870	1029.5	327.5	915	12	33	36	2 100	75
21	392 000	120	210	32	127	310	305	152	2.5	154.5	62	1115	935	960	1046	354	1025	24	39	32	2 650	110
22	450 000	120	210	32	127	330	325	152	2.5	154.5	62	1115	935	960	1046	354	1025	24	39	32	2 800	95
23	513 000	130	210	32	137	350	345	164	2.5	166.5	68	1210	1025	1056	1150	380	1120	28	39	36	3 450	150
24	592 000	130	210	32	137	360	355	164	2.5	166.5	68	1210	1025	1056	1150	380	1120	28	39	36	3 900	125
25	684 000	140	240	36	148	380	375	180	2.5	182.5	74	1320	1115	1150	1241	407	1220	29	45	36	4 750	190
26	763 000	140	240	36	148	400	395	180	2.5	182.5	74	1320	1115	1150	1241	407	1220	29	45	36	5 150	160
27	852 000	150	240	36	158	430	425	191	2.5	193.5	81	1460	1215	1248	1379	453	1345	31	52	32	6 100	245
28	950 000	150	240	36	158	450	445	191	2.5	193.5	81	1460	1215	1248	1379	453	1345	31	52	32	6 550	205
29	1 060 000	160	270	40	169	460	450	197.5	5	202.5	87	1565	1320	1355	1457	483	1450	34	52	36	7 800	305
30	1 200 000	160	270	40	169	480	470	197.5	5	202.5	87	1565	1320	1355	1457	483	1450	34	52	36	8 300	255
31	1 330 000	170	270	40	179	480	470	232	5	237.0	94	1665	1400	1443	1607	538	1545	36	62	32	10 200	380
32	1 500 000	170	270	40	179	510	500	232	5	237.0	94	1665	1400	1443	1607	538	1545	36	62	32	10 700	315
33	1 680 000	180	310	40	179	530	520	242	5	247.0	100	1755	1495	1536	1683	573	1635	36	62	36	12 350	460
34	1 920 000	180	310	45	190	570	560	242	5	247.0	100	1755	1495	1536	1683	573	1635	36	62	36	13 150	380

Note: 1 When shaft diameter d₁ ≤ 100, tolerance is m6;
When shaft diameter d₁ > 100, tolerance is n6;
2 When shaft diameter d₂ or d₃ ≤ 160, tolerance h6;
When shaft diameter d₂ or d₃ > 160, tolerance g6;
3 Weight without shrink disk and oil.



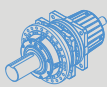
P2LA

$i_N = 31.5 \dots 100$



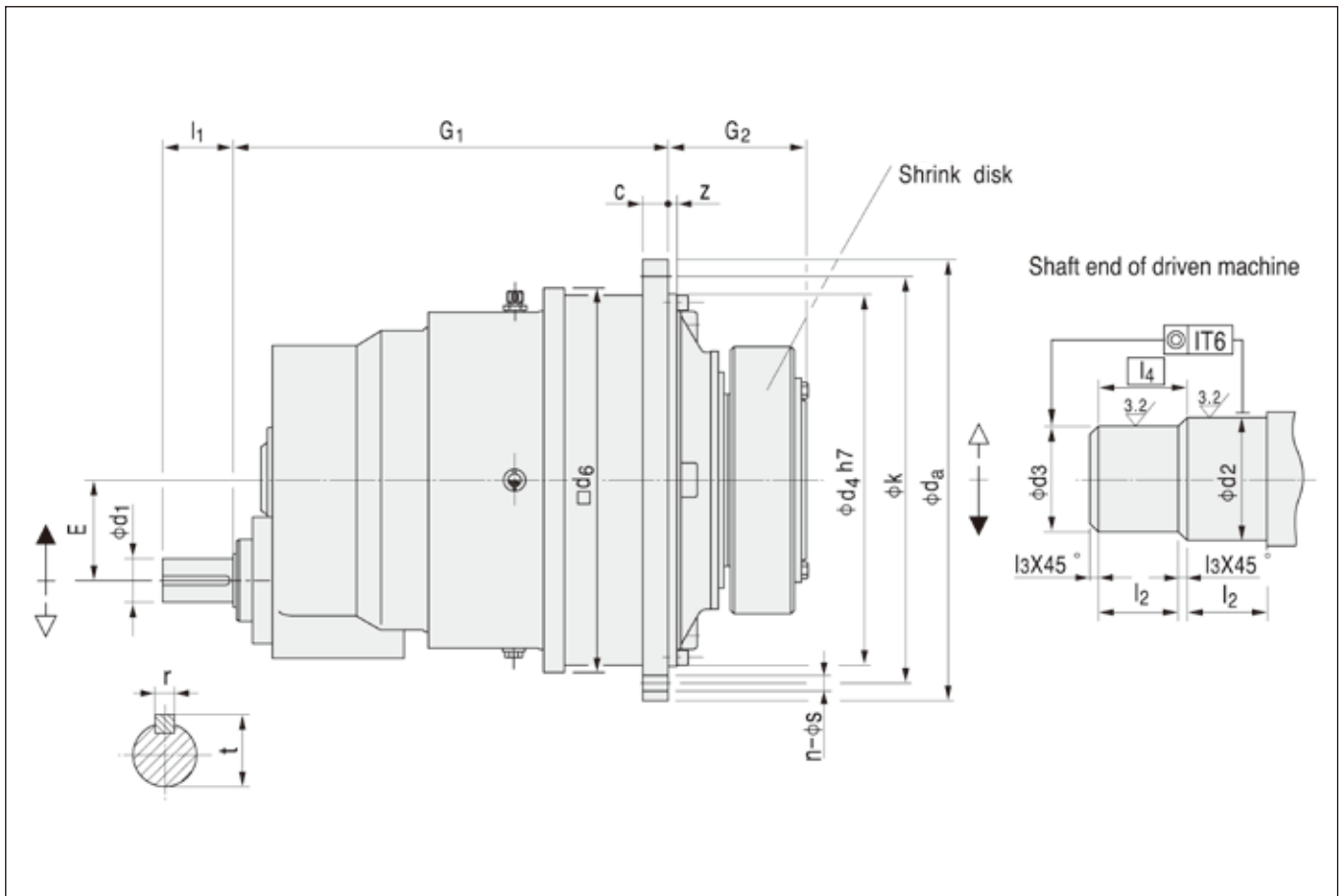
P2LA Type	Nominal out- put torque T2N (N · m)	Shaft end input side								d ₂	d ₃	l ₂	l ₃	l ₄	c	d _a	d ₄	d ₆	e	G ₁	G ₂	G ₃	k	z	Flange bolts		Weight	Oil quantity (l)	
		i _N < 90				i _N > 100																			s	n			
		d ₁	l ₁	r	t	d ₁	l ₁	r	t																				
9	22 000	50	100	14	53.5	40	80	12	43	120	115	65	2.5	67.5	24	428	350	356	185	425	165	305	388	6 ± 1.5	18	24	159	6	
10	31 000	50	100	14	53.5	40	80	12	43	130	125	70	2.5	72.5	28	472	394	400	185	445	174	305	436	8 ± 1.5	18	28	215	8	
11	42 000	60	110	18	64	50	100	14	53.5	140	135	82.5	2.5	85.0	32	525	425	436	210	501	204	350	485	8 ± 1.5	22	20	310	12	
12	60 000	60	110	18	64	50	100	14	53.5	160	155	90	2.5	92.5	34	605	495	510	210	515	224	350	555	9 ± 1.5	26	20	470	16	
13	83 000	75	135	20	79.5	60	110	18	64	180	175	95	2.5	97.5	39	645	535	554	250	619	241	415	595	11 ± 1.5	26	24	595	20	
14	117 000	75	135	20	79.5	60	110	18	64	210	205	105	2.5	107.5	42	720	610	629	250	642	278	415	665	9	32	890	32		
16	160 000	85	165	22	90	70	140	20	74.5	230	225	110	2.5	112.5	44	770	660	680	295	705	285	490	715	10	26	36	1 137	40	
17	202 000	85	165	22	90	70	140	20	74.5	250	245	120	2.5	122.5	50	895	750	775	295	731	294	490	830	10	33	24	1 660	56	
18	244 000	95	165	25	100	75	140	20	79.5	260	255	120	2.5	122.5	50	930	785	815	350	882	303	605	865	10	33	32	2 100	66	
19	295 000	95	165	25	100	75	140	20	79.5	280	275	135	2.5	137.5	56	980	840	870	350	905.5	327.5	605	915	12	33	36	2 200	82	
20	354 000	95	165	25	100	75	140	20	79.5	300	295	135	2.5	137.5	56	980	840	870	350	905.5	327.5	605	915	12	33	36	2 300	75	
21	392 000	115	205	32	122	90	170	25	95	310	305	152	2.5	154.5	62	1115	935	960	400	996	354	700	1025	24	39	32	2 930	110	
22	450 000	115	205	32	122	90	170	25	95	330	325	152	2.5	154.5	62	1115	935	960	400	996	354	700	1025	24	39	32	3 100	95	
23	513 000	115	205	32	122	90	170	25	95	350	345	164	2.5	166.5	68	1210	1025	1056	400	1055	380	700	1120	28	39	36	3 800	150	
24	592 000	115	205	32	122	90	170	25	95	360	355	164	2.5	166.5	68	1210	1025	1056	400	1055	380	700	1120	28	39	36	4 300	125	
25	684 000	140	245	36	148	110	210	28	116	380	375	180	2.5	182.5	74	1320	1115	1150	475	1138	407	835	1220	29	45	36	5 250	190	
26	763 000	140	245	36	148	110	210	28	116	400	395	180	2.5	182.5	74	1320	1115	1150	475	1138	407	835	1220	29	45	36	5 660	160	
27	852 000	140	245	36	148	110	210	28	116	430	425	191	2.5	193.5	81	1460	1215	1248	475	1272	453	835	1345	31	52	32	6 680	245	
28	950 000	140	245	36	148	110	210	28	116	450	445	191	2.5	193.5	81	1460	1215	1248	475	1272	453	835	1345	31	52	32	7 180	205	
29	1 060 000	150	245	40	169	115	210	32	122	460	450	197.5	5	202.5	87	1565	1320	1355	530	1367	483	945	1450	34	52	36	8 500	305	
30	1 200 000	150	245	40	169	115	210	32	122	480	470	197.5	5	202.5	87	1565	1320	1355	530	1367	483	945	1450	34	52	36	9 070	255	
31 – 34		On request																											

Note: 1 When shaft diameter $d1 \leq 100$, tolerance is m6;
When shaft diameter $d1 > 100$, tolerance is n6;
2 When shaft diameter $d2$ or $d3 \leq 160$, tolerance h6;
When shaft diameter $d2$ or $d3 > 160$, tolerance g6;
3 Weight without shrink disk and oil.



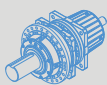
P2SA

$i_N = 45 \dots 125$



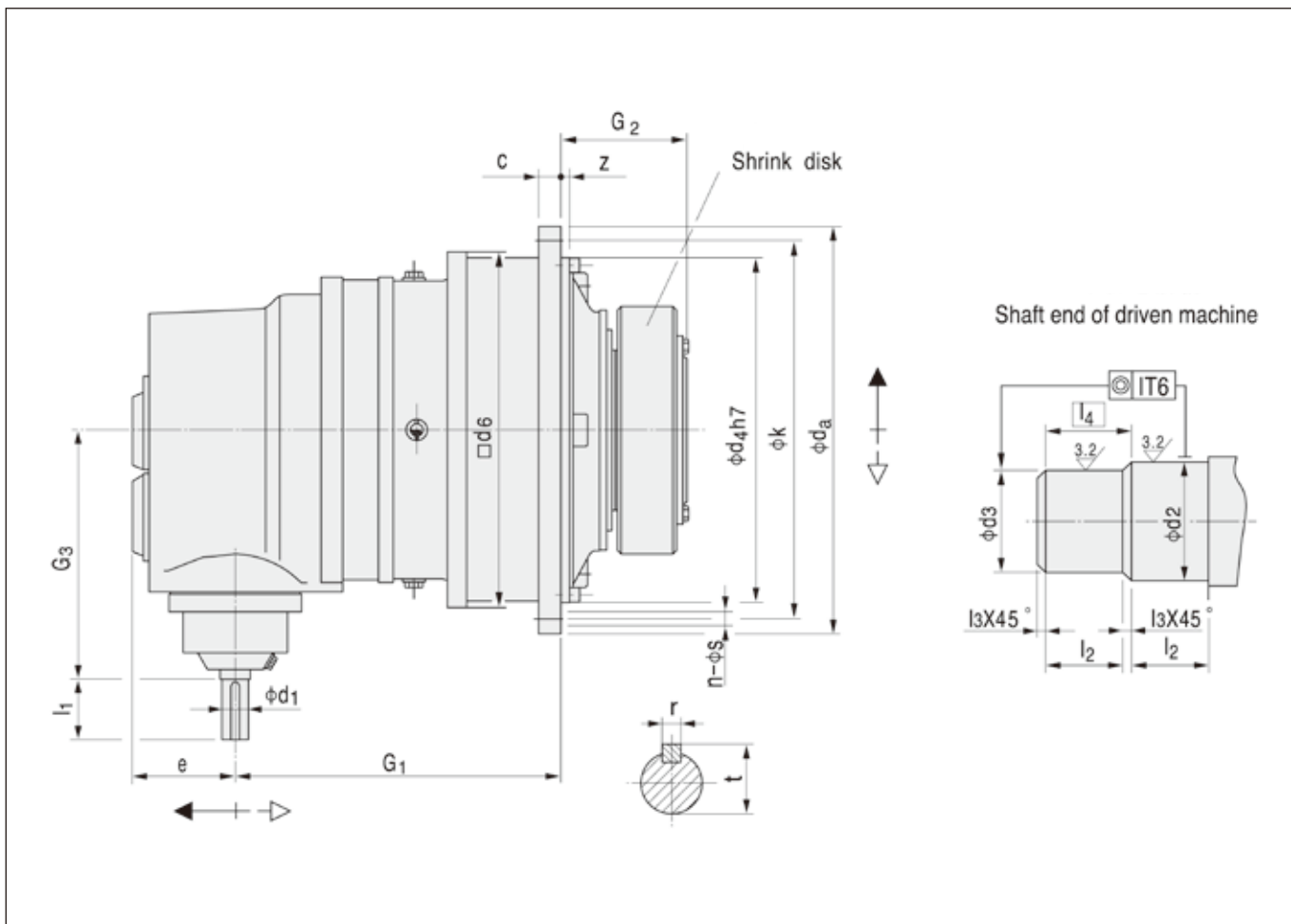
P2SA Type	Nominal output torque T2N (N · m)	Shaft end input side				d2	d3	l2	l3	l4	c	da	d4	d6	E	G1	G2	k	z	Flange bolts		Weight (kg)	Oil quantity (l)
		d1	l1	r	t															s	n		
9	22 000	38	60	10	41	120	115	65	2.5	67.5	24	428	350	356	90	469	165	388	6 ^{±1.5}	18	24	160	6
10	31 000	38	60	10	41	130	125	70	2.5	72.5	28	472	394	400	90	489	174	436	8 ^{±1.5}	18	28	220	8
11	42 000	55	90	16	59	140	135	82.5	2.5	85.0	32	525	425	436	115	579	204	485	8 ^{±1.5}	22	20	310	12
12	60 000	55	90	16	59	160	155	90	2.5	92.5	34	605	495	510	115	593	224	555	9 ^{±1.5}	26	20	470	16
13	83 000	70	120	20	74.5	180	175	95	2.5	97.5	39	645	535	554	140	714	241	595	11 ^{±1.5}	26	24	600	20
14	117 000	70	120	20	74.5	210	205	105	2.5	107.5	42	720	610	629	140	737	278	665	9	26	32	900	32
16	160 000	80	140	25	85	230	225	110	2.5	112.5	44	770	660	680	170	851	285	715	10	26	36	1 150	40
17	202 000	80	140	25	85	250	245	120	2.5	122.5	50	895	750	775	170	877	294	830	10	33	24	1 650	56
18	244 000	90	160	25	95	260	255	120	2.5	122.5	50	930	785	815	200	1006	303	865	10	33	32	1 950	66
19	295 000	90	160	25	95	280	275	135	2.5	137.5	56	980	840	870	200	1029.5	327.5	915	12	33	36	2 400	82
20	354 000	90	160	25	95	300	295	135	2.5	137.5	56	980	840	870	200	1029.5	327.5	915	12	33	36	2 500	75
21	392 000	100	180	28	106	310	305	152	2.5	154.5	62	1115	935	960	230	1076	354	1025	24	39	32	2 900	110
22	450 000	100	180	28	106	330	325	152	2.5	154.5	62	1115	935	960	230	1076	354	1025	24	39	32	3 100	95
23	513 000	120	210	32	127	350	345	164	2.5	166.5	68	1210	1025	1056	265	1175	380	1120	28	39	36	3 800	150
24	592 000	120	210	32	127	360	355	164	2.5	166.5	68	1210	1025	1056	265	1175	380	1120	28	39	36	4 100	125
25	684 000	130	210	32	137	380	375	180	2.5	182.5	74	1320	1115	1150	300	1291	407	1220	29	45	36	4 950	190
26	763 000	130	210	32	137	400	395	180	2.5	182.5	74	1320	1115	1150	300	1291	407	1220	29	45	36	5 350	160
27	852 000	140	240	36	148	430	425	191	2.5	193.5	81	1460	1215	1248	320	1429	453	1345	31	52	32	6 800	245
28	950 000	140	240	36	148	450	445	191	2.5	193.5	81	1460	1215	1248	320	1429	453	1345	31	52	32	7 200	205
29	1 060 000	150	240	36	158	460	450	197.5	5	202.5	87	1565	1320	1355	360	1507	483	1450	34	52	36	8 500	305
30	1 200 000	150	240	36	158	480	470	197.5	5	202.5	87	1565	1320	1355	360	1507	483	1450	34	52	36	9 000	255
31	1 330 000	160	270	40	169	480	470	232	5	237.0	94	1665	1400	1443	400	1662	538	1545	36	62	32	10 500	380
32	1 500 000	160	270	40	169	510	500	232	5	237.0	94	1665	1400	1443	400	1662	538	1545	36	62	32	11 200	315
33	1 680 000	170	270	40	179	530	520	242	5	247.0	100	1755	1495	1536	400	1743	573	1635	36	62	36	12 700	460
34	1 920 000	170	270	40	179	570	560	242	5	247.0	100	1755	1495	1536	400	1743	573	1635	36	62	36	13 500	380

Note: 1 When shaft diameter $d1 \leq 100$, tolerance is m6;
When shaft diameter $d1 > 100$, tolerance is n6;
2 When shaft diameter $d2$ or $d3 \leq 160$, tolerance h6;
When shaft diameter $d2$ or $d3 > 160$, tolerance g6;
3 Weight without shrink disk and oil.



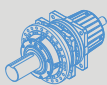
P2KA

$i_N = 112 \dots 500$



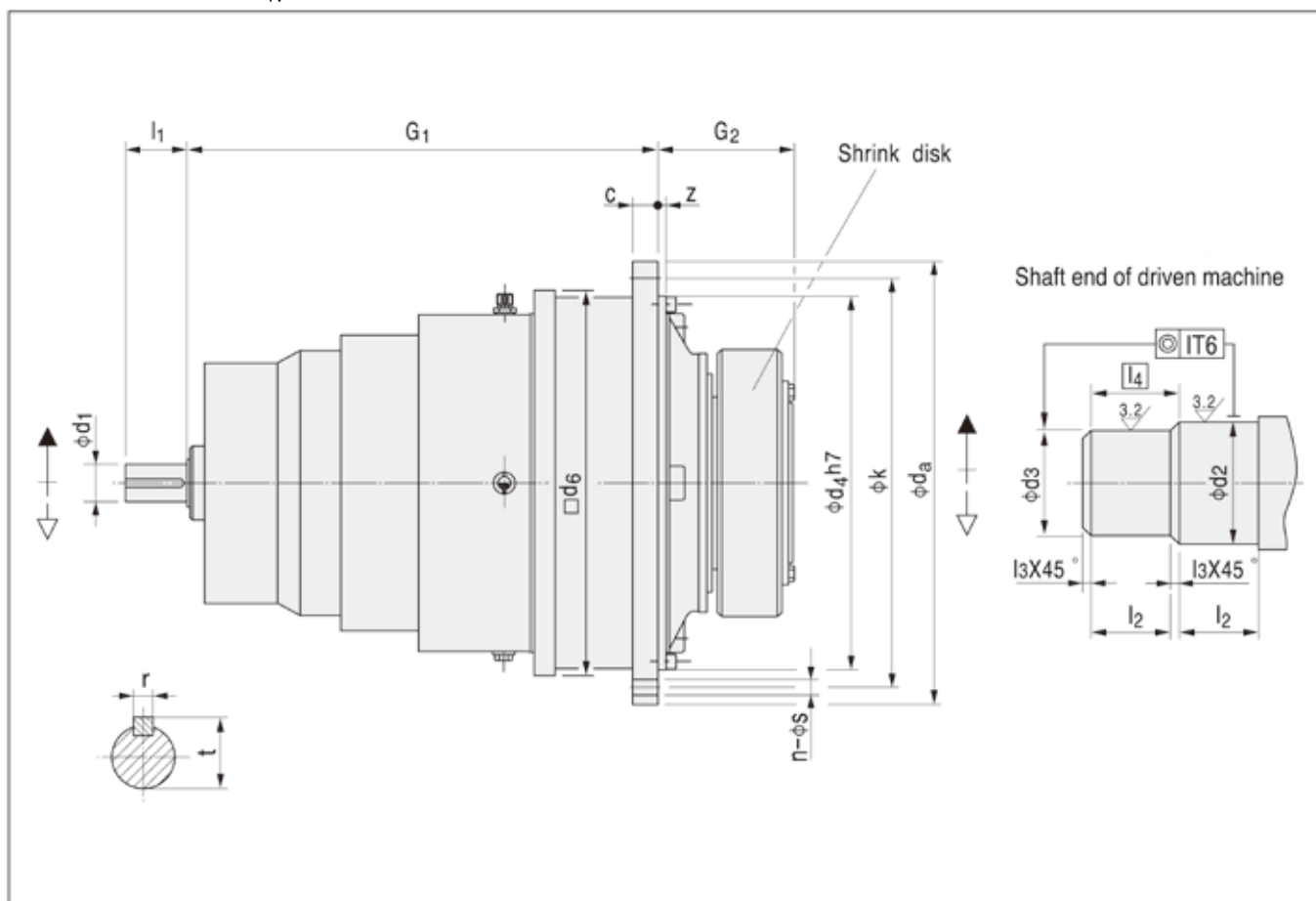
P2KA Type	Nominal out- put torque T _{2N} (N · m)	Shaft end input side								d ₂	d ₃	l ₂	l ₃	l ₄	c	d _a	d ₄	d ₆	e	G ₁	G ₂	G ₃	k	z	Flange bolts		Weight (kg)	Oil quantity (l)
		i _N ≤ 360				i _N > 400																			s	n		
		d ₁	l ₁	r	t	d ₁	l ₁	r	t																			
9	22 000	35	70	10	38	30	60	8	33	120	115	65	2.5	67.5	24	428	350	356	119	339	165	320	388	6 ±1.5	18	24	165	6
10	31 000	35	70	10	38	30	60	8	33	130	125	70	2.5	72.5	28	472	394	400	119	359	174	320	436	8 ±1.5	18	28	227	8
11	42 000	45	80	14	48.5	35	60	10	38	140	135	82.5	2.5	85	32	525	425	436	137	419	204	375	485	8 ±1.5	22	20	320	12
12	60 000	45	80	14	48.5	35	60	10	38	160	155	90	2.5	92.5	34	605	495	510	137	433	224	375	555	9 ±1.5	26	20	484	16
13	83 000	50	100	14	53.5	40	80	12	43	180	175	95	2.5	97.5	39	645	535	554	172	518.5	241	445	595	11 ±1.5	26	24	818	20
14	117 000	50	100	14	53.5	40	80	12	43	210	205	105	2.5	107.5	42	720	610	629	172	541.5	278	445	665	9	26	32	927	32
16	160 000	60	110	18	64	50	100	14	53.5	230	225	110	2.5	112.5	44	770	660	680	194	632	285	520	715	10	26	36	1 184	40
17	202 000	60	110	18	64	50	100	14	53.5	250	245	120	2.5	122.5	50	895	750	775	194	658	294	520	830	10	33	24	1 700	56
18	244 000	75	135	20	79.5	60	110	18	64	260	255	120	2.5	122.5	50	930	785	815	240	741.5	303	615	865	10	33	32	2 010	73
19	295 000	75	135	20	79.5	60	110	18	64	280	275	135	2.5	137.5	56	980	840	870	240	764.5	327.5	615	915	12	33	36	2 470	82
20	354 000	75	135	20	79.5	60	110	18	64	300	295	135	2.5	137.5	56	980	840	870	240	764.5	327.5	615	915	12	33	36	2 550	75
21 – 26	On request																											

Note: 1 When shaft diameter $d_1 \leq 100$, tolerance is m6,
When shaft diameter $d_1 > 100$, tolerance is n6;
2 When shaft diameter d_2 or $d_3 \leq 160$, tolerance h6;
When shaft diameter d_2 or $d_3 > 160$, tolerance g6;
3 Weight without shrink disk and oil.



P3NA

$i_N = 140 \dots 280$



P3NA Type	Nominal output torque T_{2N} (N · m)	Shaft end input side				d_2	d_3	l_2	l_3	l_4	c	d_a	d_4	d_6	G_1	G_2	k	z	Flange bolts		Weight (kg)	Oil quantity (l)
		d_1	l_1	r	t														s	n		
9	22 000	55	90	16	59	120	115	65	2.5	67.5	24	428	350	356	565	165	388	6 ± 1.5	18	24	152	7
10	31 000	55	90	16	59	130	125	70	2.5	72.5	28	472	394	400	585	174	436	6 ± 1.5	18	28	205	9
11	42 000	55	90	16	59	140	135	82.5	2.5	85.0	32	525	425	436	616	204	485	8 ± 1.5	22	20	295	13
12	60 000	55	90	16	59	160	155	90	2.5	92.5	34	605	495	510	630	224	555	9 ± 1.5	26	20	447	17
13	83 000	55	90	16	59	180	175	95	2.5	97.5	39	645	535	554	688	241	595	11 ± 1.5	26	24	567	21
14	117 000	55	90	16	59	210	205	105	2.5	107.5	42	720	610	629	711	278	665	9	26	32	850	33
16	160 000	70	120	20	74.5	230	225	110	2.5	112.5	44	770	660	680	853	285	715	10	26	36	1 085	42
17	202 000	70	120	20	74.5	250	245	120	2.5	122.5	50	895	750	775	879	294	830	10	33	24	1 580	60
18	244 000	80	140	25	85	260	255	120	2.5	122.5	50	930	785	815	1013.5	303	865	10	33	32	2 000	70
19	295 000	80	140	25	85	280	275	135	2.5	137.5	56	980	840	870	1036.5	327.5	915	12	33	36	2 100	85
20	354 000	80	140	25	85	300	295	135	2.5	137.5	56	980	840	870	1036.5	327.5	915	12	33	36	2 200	75
21	392 000	80	140	25	85	310	305	152	2.5	154.5	62	1115	935	960	1093	354	1025	24	39	32	2 785	115
22	450 000	80	140	25	85	330	325	152	2.5	154.5	62	1115	935	960	1093	354	1025	24	39	32	2 950	105
23	513 000	95	160	25	100	350	345	164	2.5	166.5	68	1210	1025	1056	1222	380	1120	28	39	36	3 625	155
24	592 000	95	160	25	100	360	355	164	2.5	166.5	68	1210	1025	1056	1222	380	1120	28	39	36	4 100	135
25	684 000	95	160	25	100	380	375	180	2.5	182.5	74	1320	1115	1150	1284.5	407	1220	29	45	36	5 000	195
26	763 000	95	160	25	100	400	395	180	2.5	182.5	74	1320	1115	1150	1284.5	407	1220	29	45	36	5 400	170
27	852 000	110	180	28	116	430	425	191	2.5	193.5	81	1460	1215	1248	1470	453	1345	31	52	32	6 400	250
28	950 000	110	180	28	116	450	445	191	2.5	193.5	81	1460	1215	1248	1470	453	1345	31	52	32	6 875	220
29	1 060 000	110	180	28	116	460	450	197.5	5	202.5	87	1565	1320	1355	1517	483	1450	34	52	36	8 190	310
30	1 200 000	110	180	28	116	480	470	197.5	5	202.5	87	1565	1320	1355	1517	483	1450	34	52	36	8 715	280
31	1 330 000	120	210	32	127	480	470	232	5	237.0	94	1665	1400	1443	1585	540	1545	36	62	32	10 700	390
32	1 500 000	120	210	32	127	510	500	232	5	237.0	94	1665	1400	1443	1585	540	1545	36	62	32	11 200	360
33	1 680 000	130	210	32	137	530	520	242	5	247.0	100	1755	1495	1536	1710	573	1635	36	62	36	12 950	470
34	1 920 000	130	210	32	137	570	560	242	5	247.0	100	1755	1495	1536	1710	573	1635	36	62	36	13 800	430

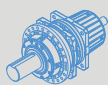
Note: 1 When shaft diameter $d_1 \leq 100$, tolerance is m6;

When shaft diameter $d_1 > 100$, tolerance is n6;

2 When shaft diameter d_2 or $d_3 \leq 160$, tolerance h6;

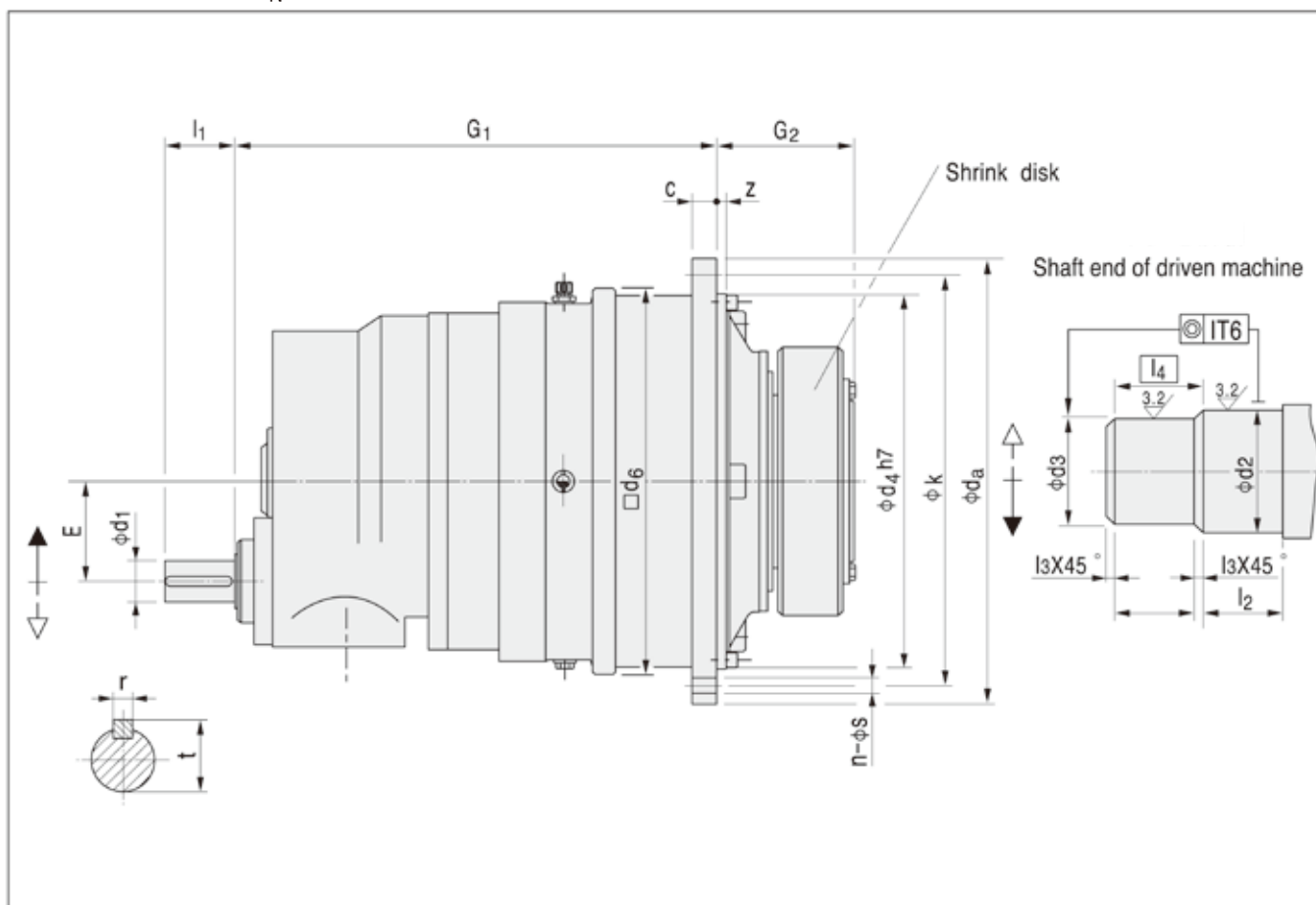
When shaft diameter d_2 or $d_3 > 160$, tolerance g6;

3 Weight without shrink disk and oil.



P3SA

$i_N = 280 \dots 900$



P3SA Type	Nominal output torque T _{2N} (N · m)	Shaft end input side				d ₂	d ₃	l ₂	l ₃	l ₄	c	d _a	d ₄	d ₆	E	G ₁	G ₂	k	z	Flange bolts		Weight (kg)	Oil quantity (l)
		d ₁	l ₁	r	t															s	n		
9	22 000	38	60	10	41	120	115	65	2.5	67.5	24	428	350	356	90	565	165	388	6 ^{±1.5}	18	24	170	7
10	31 000	38	60	10	41	130	125	70	2.5	72.5	28	472	394	400	90	585	174	436	8 ^{±1.5}	18	28	230	9
11	42 000	38	60	10	41	140	135	82.5	2.5	85.0	32	525	425	436	90	616	204	485	8 ^{±1.5}	22	20	310	13
12	60 000	38	60	10	41	160	155	90	2.5	92.5	34	605	495	510	90	630	224	555	9 ^{±1.5}	26	20	460	17
13	83 000	38	60	10	41	180	175	95	2.5	97.5	39	645	535	554	90	688	241	595	11 ^{±1.5}	26	24	584	21
14	117 000	38	60	10	41	210	205	105	2.5	107.5	42	720	610	629	90	711	278	665	9	26	32	875	33
16	160 000	55	90	16	59	230	225	110	2.5	112.5	44	770	660	680	115	853	285	715	10	26	36	1 115	42
17	202 000	55	90	16	59	250	245	120	2.5	122.5	50	895	750	775	115	879	294	830	10	33	24	1 625	60
18	244 000	70	120	20	74.5	260	255	120	2.5	122.5	50	930	785	815	140	1013.5	303	865	10	33	32	2 060	70
19	295 000	70	120	20	74.5	280	275	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2 160	85
20	354 000	70	120	20	74.5	300	295	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2 260	75
21	392 000	70	120	20	74.5	310	305	152	2.5	154.5	62	1115	935	960	140	1093	354	1025	24	39	32	2 870	115
22	450 000	70	120	20	74.5	330	325	152	2.5	154.5	62	1115	935	960	140	1093	354	1025	24	39	32	3 040	105
23	513 000	80	140	25	85	350	345	164	2.5	166.5	68	1210	1025	1056	170	1222	380	1120	28	39	36	3 730	155
24	592 000	80	140	25	85	360	355	164	2.5	166.5	68	1210	1025	1056	170	1222	380	1120	28	39	36	4 220	135
25	684 000	80	140	25	85	380	375	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5 150	195
26	763 000	80	140	25	85	400	395	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5 560	170
27	852 000	90	160	25	95	430	425	191	2.5	193.5	81	1460	1215	1248	200	1470	453	1345	31	52	32	6 580	250
28	950 000	90	160	25	95	450	445	191	2.5	193.5	81	1460	1215	1248	200	1470	453	1345	31	52	32	7 080	220
29	1 060 000	90	160	25	95	460	450	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8 400	310
30	1 200 000	90	160	25	95	480	470	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8 970	280
31	1 330 000	100	180	28	106	480	470	232	5	237.0	94	1665	1400	1443	230	1617	538	1545	36	62	32	11 000	390
32	1 500 000	100	180	28	106	510	500	232	5	237.0	94	1665	1400	1443	230	1617	538	1545	36	62	32	11 500	360
33	1 680 000	120	210	32	127	530	520	242	5	247.0	100	1755	1495	1536	265	1735	573	1635	36	62	36	13 300	470
34	1 920 000	120	210	32	127	570	560	242	5	247.0	100	1755	1495	1536	265	1735	573	1635	36	62	36	14 200	430

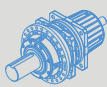
Note: 1 When shaft diameter d₁ ≤ 100, tolerance is m6;

When shaft diameter d₁ > 100, tolerance is n6;

2 When shaft diameter d₂ or d₃ ≤ 160, tolerance h6;

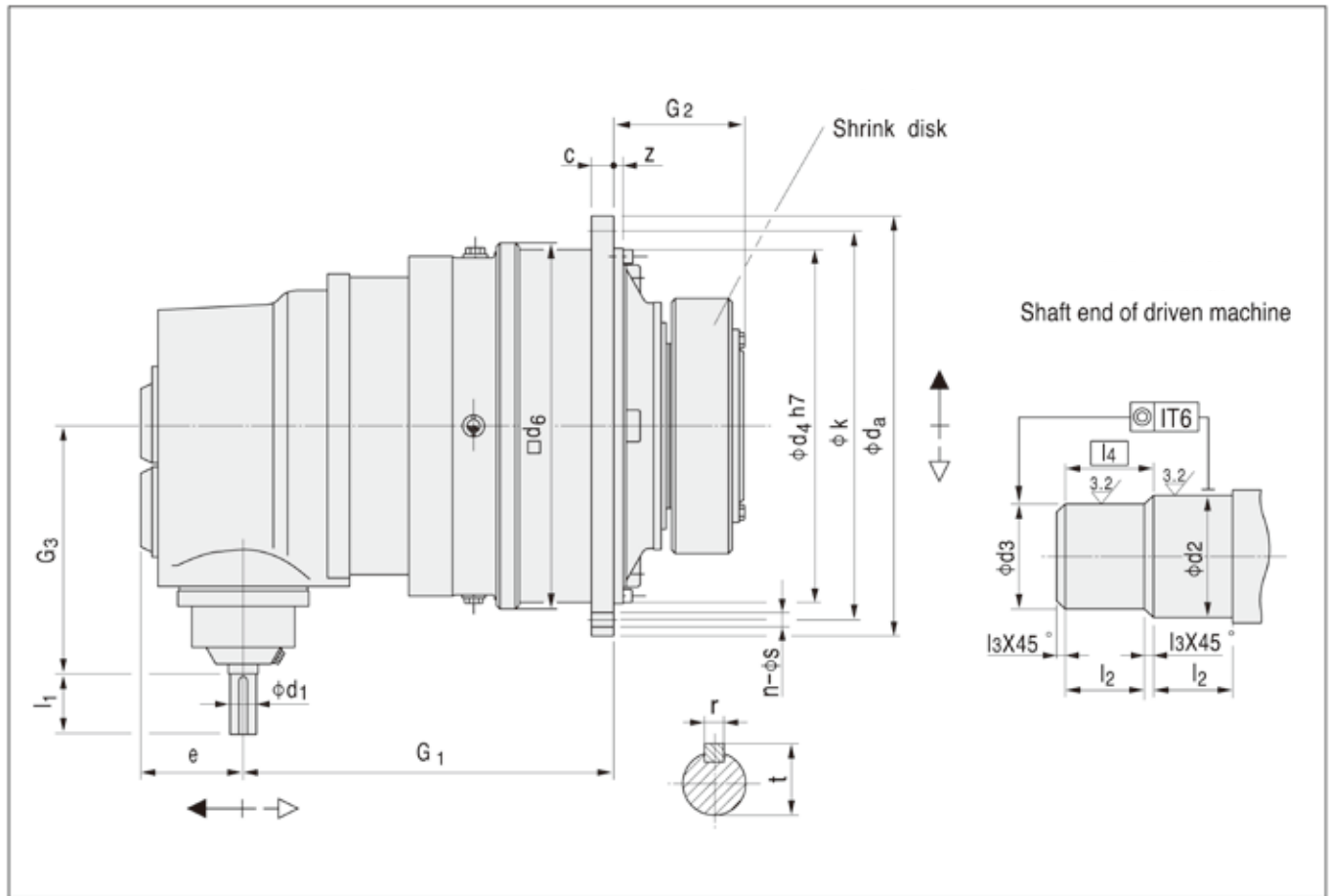
When shaft diameter d₂ or d₃ > 160, tolerance g6;

3 Weight without shrink disk and oil.



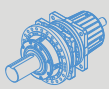
P3KA

$i_N = 560 \dots 4000$

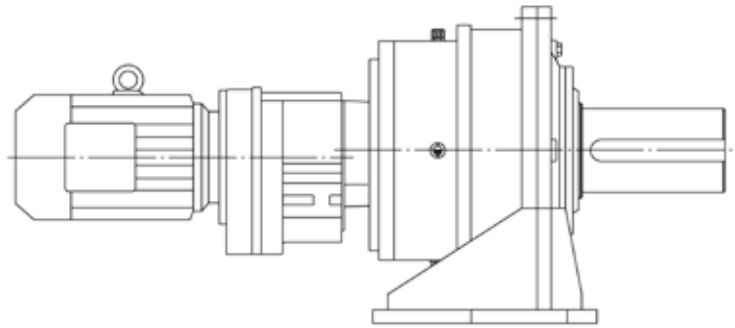


P3KA Type	Nominal out- put touque T2N (N · m)	Shaft end input side								d ₂	d ₃	l ₂	l ₃	l ₄	c	d _a	d ₄	d ₆	e	G ₁	G ₂	G ₃	k	z	Flange bolts		Weight	Oil quantity (l)
		iN ≤ 2000				iN ≥ 2240																			s	n		
		d ₁	l ₁	r	t	d ₁	l ₁	r	t																			
9	22 000	35	70	10	38	30	60	8	33	120	115	65	2.5	67.5	24	428	350	356	119	435	165	320	388	6 ±1.5	18	24	180	7
10	31 000	35	70	10	38	30	60	8	33	130	125	70	2.5	72.5	28	472	394	400	119	455	174	320	436	8 ±1.5	18	28	240	9
11	42 000	35	70	10	38	30	60	8	33	140	135	82.5	2.5	85	32	525	425	436	119	486	204	320	485	8 ±1.5	22	20	315	15
12	60 000	35	70	10	38	30	60	8	33	160	155	90	2.5	92.5	34	605	495	510	119	500	224	320	555	9 ±1.5	26	20	470	20
13	83 000	35	70	10	38	30	60	8	33	180	175	95	2.5	97.5	39	645	535	554	119	558	241	320	595	11 ±1.5	26	24	595	21
14	117 000	35	70	10	38	30	60	8	33	210	205	105	2.5	107.5	42	720	610	629	119	581	278	320	665	9	26	32	890	33
16	160 000	45	80	14	48.5	35	60	10	38	230	225	110	2.5	112.5	44	770	660	680	137	693	285	375	715	10	26	36	1 137	42
17	202 000	45	80	14	48.5	35	60	10	38	250	245	120	2.5	122.5	50	895	750	775	137	719	294	375	830	10	33	24	1 660	60
18	244 000	50	100	14	53.5	40	80	12	43	260	255	120	2.5	122.5	50	930	785	815	172	818	303	445	865	10	33	32	2 100	70
19	295 000	50	100	14	53.5	40	80	12	43	280	275	135	2.5	137.5	56	980	840	870	172	841	327.5	445	915	12	33	36	2 200	85
20	354 000	50	100	14	53.5	40	80	12	43	300	295	135	2.5	137.5	56	980	840	870	172	841	327.5	445	915	12	33	36	2 300	75
21	392 000	50	100	14	53.5	40	80	12	43	310	305	152	2.5	154.5	62	1115	935	960	172	897.5	354	445	1025	24	39	32	2 930	115
22	450 000	50	100	14	53.5	40	80	12	43	330	325	152	2.5	154.5	62	1115	935	960	172	897.5	354	445	1025	24	39	32	3 100	105
23	513 000	60	110	18	64	50	100	14	53.5	350	345	164	2.5	166.5	68	1210	1025	1056	194	1003	380	520	1120	28	39	36	3 800	155
24	592 000	60	110	18	64	50	100	14	53.5	360	355	164	2.5	166.5	68	1210	1025	1056	194	1003	380	520	1120	28	39	36	4 300	135
25	684 000	60	110	18	64	50	100	14	53.5	380	375	180	2.5	182.5	74	1320	1115	1150	194	1065	407	520	1220	29	45	36	5 250	195
26	763 000	60	110	18	64	50	100	14	53.5	400	395	180	2.5	182.5	74	1320	1115	1150	194	1065	407	520	1220	29	45	36	5 660	170
27	852 000	75	135	20	79.5	60	110	18	64	430	425	191	2.5	193.5	81	1460	1215	1248	240	1205.5	453	615	1345	31	52	32	6 680	250
28	950 000	75	135	20	79.5	60	110	18	64	450	445	191	2.5	193.5	81	1460	1215	1248	240	1205.5	453	615	1345	31	52	32	7 180	220
29	1 060 000	75	135	20	79.5	60	110	18	64	460	450	197.5	5	202.5	87	1565	1320	1355	240	1252.5	483	615	1450	34	52	36	8 500	310
30	1 200 000	75	135	20	79.5	60	110	18	64	480	470	197.5	5	202.5	87	1565	1320	1355	240	1252.5	483	615	1450	34	52	36	9 070	280

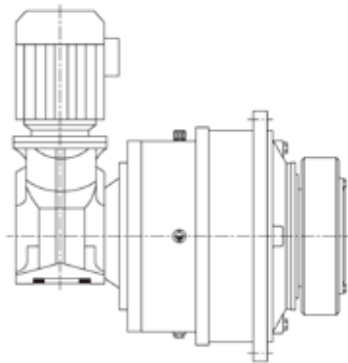
Note: 1 When shaft diameter $d1 \leq 100$, tolerance is m6;
When shaft diameter $d1 > 100$, tolerance is n6;
2 When shaft diameter $d2$ or $d3 \leq 160$, tolerance h6;
When shaft diameter $d2$ or $d3 > 160$, tolerance g6;
3 Weight without shrink disk and oil.



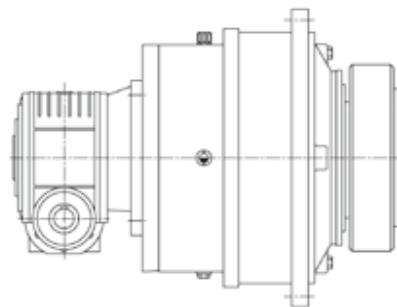
Combi-type:



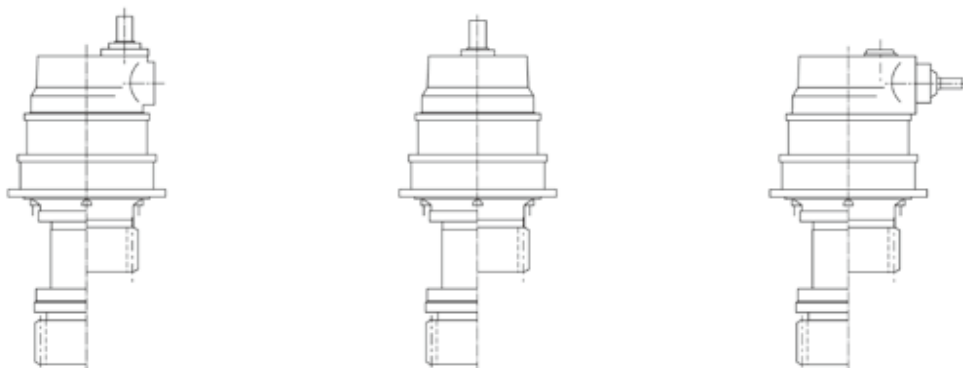
P../R combination please consult us.



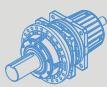
P../K combination please consult us.



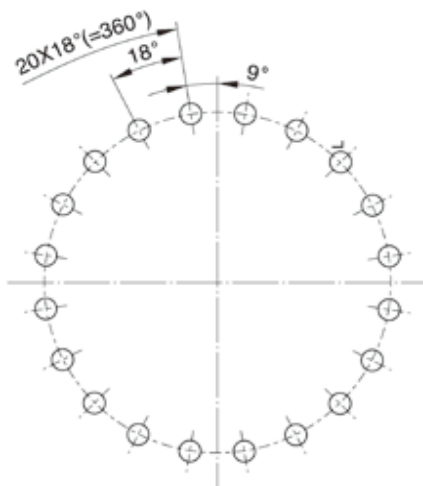
P../RV(160–250) combination please consult us.



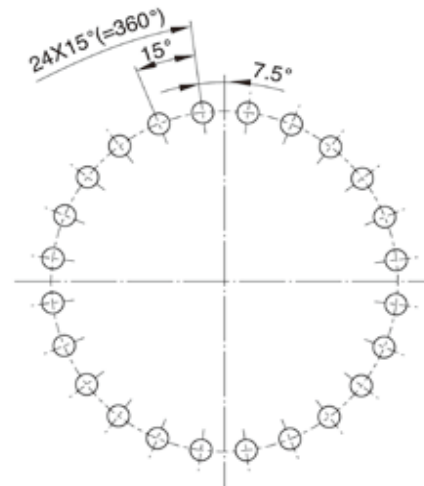
P../TR revering design, please consult us.



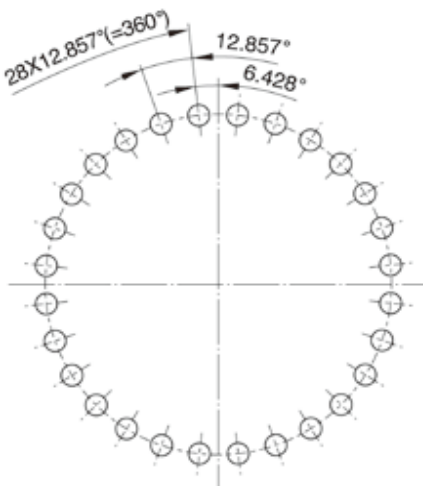
Hole patterns on output flanges:



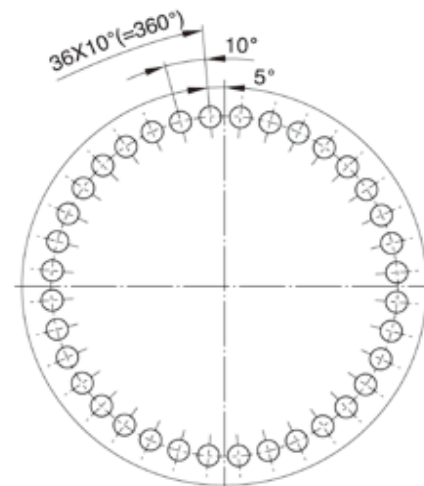
Size: 11, 12



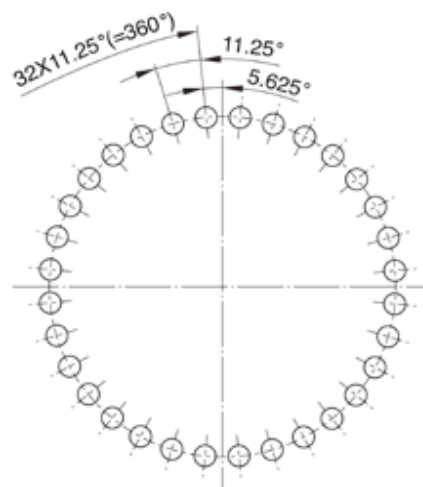
Size: 09, 13, 17



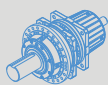
Size: 10



Size: 16, 19, 20, 23, 24, 25, 26, 29, 30, 33, 34



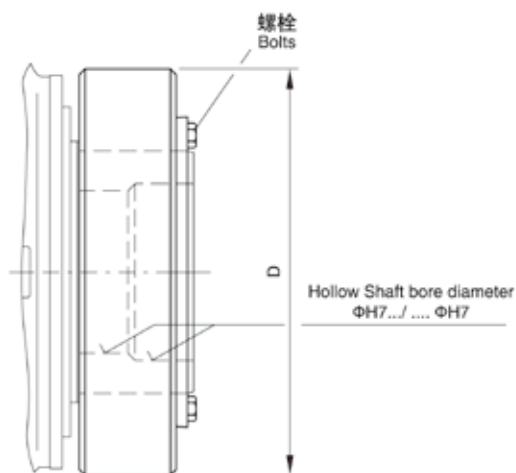
Size: 14, 18, 21, 22, 27, 28, 31, 32



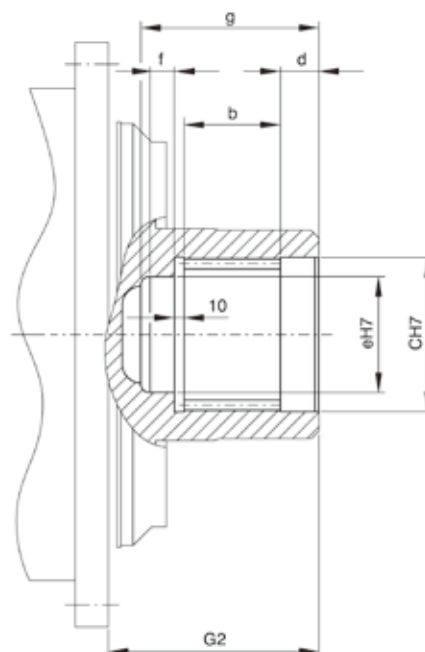
Dimensions of output shafts:

Hollow shaft:

Hollow shaft with shrink disc

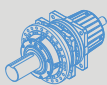


Hollow shaft with involute spline



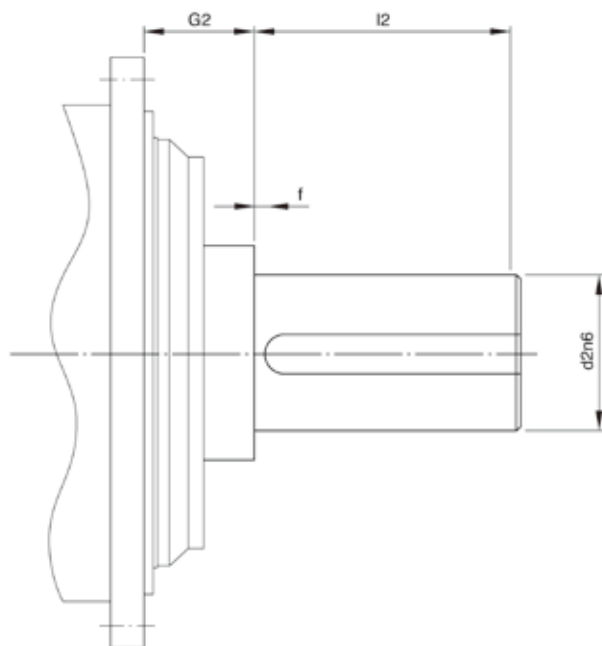
Hollow shaft with involute spline acc. to Din 5480.

Size	Nominal torque T _{2N} (N · m)	Hollow shaft with shrink disc				Hollow Shaft with Involute Splines							
		Size	D	Bolts	Weight (kg)	Type of involute splines	b	c	d	e	f	G2	g
9	22000	155	263	M14	15.2	120X5X30X22X9H	70	122	40	107	20	165	150
10	31000	165	290	M16	21.5	130X5X30X24X9H	80	132	40	117	20	174	160
11	42000	185	320	M16	32.7	140X5X30X26X9H	90	142	45	125	25	204	180
12	60000	220	370	M20	53	160X5X30X30X9H	100	162	45	145	25	223	190
13	83000	240	405	M20	66	180X5X30X34X9H	110	182	45	165	25	237	200
14	117000	280	460	M20	103	210X5X30X40X9H	125	212	45	195	25	264	215
16	160000	300	485	M24	120	240X8X30X28X9H	140	242	50	220	25	285	235
17	202000	320	520	M24	138	250X8X30X30X9H	150	252	50	230	30	290	250
18	244000	340	570	M24	189	260X8X30X31X9H	160	262	50	240	30	303	260
19	295000	360	590	M24	207	280X8X30X34X9H	170	282	50	260	30	327.5	270
20	354000	380	640	M27	244	300X8X30X36X9H	180	302	50	280	30	327.5	280
21	392000	390	650	M27	249	310X8X30X37X9H	190	312	60	290	40	354	310
22	450000	420	670	M27	285	330X8X30X40X9H	200	332	60	310	40	354	320
23	513000	440	720	M27	357	340X8X30X41X9H	200	342	60	320	40	348	320
24	592000	460	770	M27	419	360X8X30X44X9H	220	362	60	340	40	368	340
25	684000	480	800	M30	492	380X8X30X46X9H	230	382	60	360	40	372	350
26	763000	500	850	M30	567	400X8X30X48X9H	240	402	60	380	40	382	360
27	852000	530	910	M30	744	440X8X30X54X9H	250	442	60	420	40	423	370
28	950000	560	940	M30	776	450X8X30X55X9H	260	452	65	430	40	428	385
29	1060000	560	940	M30	836	460X8X30X56X9H	270	462	65	440	45	433	400
30	1200000	590	960	M30	845	480X8X30X58X9H	285	482	65	460	45	448	415
31	1330000	590	960	M30	935								
32	1500000	620	1020	M30	1064								
33	1680000	660	1070	M33	1178								
34	1920000	700	1140	M33	1345								

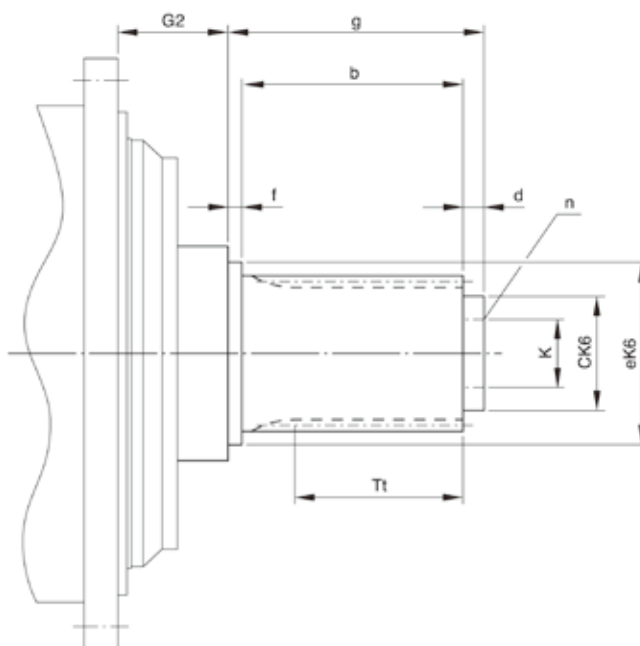


Solid shaft:

Solid shaft with parallel key

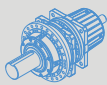


Solid shaft with involute spline

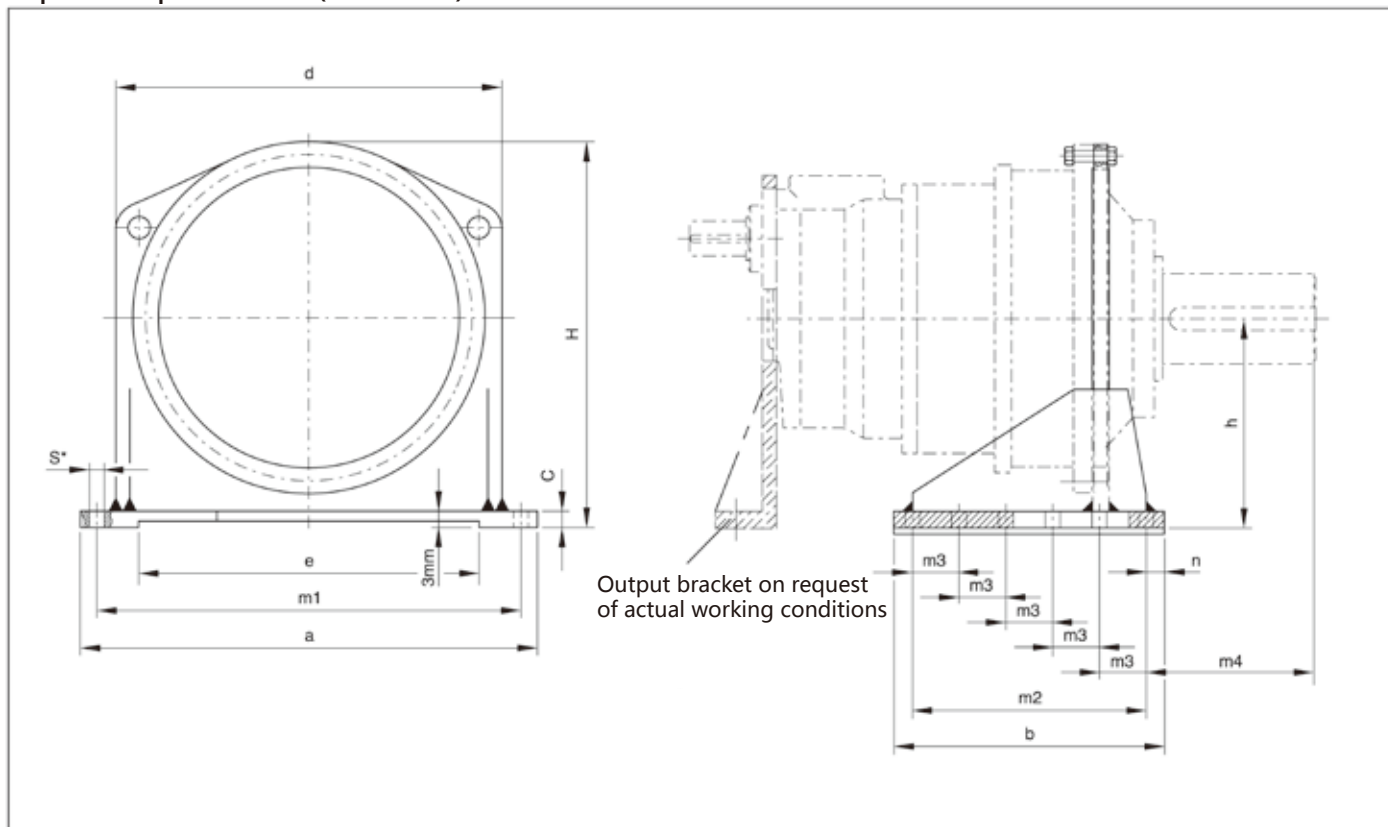


Solid shaft with involute spline acc. to DIN5480.

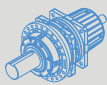
	Nominal torque T _{2N} (N · m)	Solid shaft with parallel key			Solid shaft with involute spline										
		d2	l2	G2	External spline	Tt	b	c	d	e	f	g	k	n	G2
9	22000	120	210	95	130X5X30X24X8m	70	80	110	20	132	20	120	80	3XM16X24	95
10	31000	130	210	95	140X5X30X26X8m	80	90	120	20	142	20	130	90	3XM16X24	95
11	42000	150	240	109	160X5X30X30X8m	90	100	140	25	162	25	150	110	3XM16X24	109
12	60000	160	270	106	180X5X30X34X8m	100	110	90	25	182	25	160	130	3XM16X24	106
13	83000	180	310	118	200X5X30X38X8m	110	120	100	30	202	25	175	140	3XM16X24	118
14	117000	210	350	139	220X5X30X42X8m	125	135	120	30	222	30	195	160	3XM16X24	139
16	160000	230	350	142	250X8X30X30X8m	140	155	140	35	252	30	220	185	3XM20X30	142
17	202000	250	400	139	260X8X30X31X8m	150	165	155	40	262	35	240	200	3XM20X30	139
18	244000	260	400	134	280X8X30X34X8m	160	175	170	40	282	35	250	215	3XM20X30	134
19	295000	280	450	148.5	300X8X30X36X8m	170	185	180	40	302	35	260	225	3XM20X30	148.5
20	354000	300	500	148.5	310X8X30X37X8m	180	195	190	40	312	35	270	235	6XM20X30	148.5
21	392000	310	500	158	320X8X30X38X8m	190	205	200	40	322	35	280	250	6XM20X30	158
22	450000	330	500	158	340X8X30X41X8m	200	215	210	40	342	35	290	265	6XM20X30	158
23	513000	350	550	175	360X8X30X44X8m	200	215	230	40	362	35	290	275	6XM20X30	175
24	592000	360	590	175	380X8X30X46X8m	220	235	245	40	382	35	310	290	6XM20X30	175
25	684000	380	590	182	400X8X30X48X8m	230	245	260	40	402	35	320	310	6XM24X36	182
26	763000	400	650	182	420X8X30X51X8m	240	255	280	40	422	35	330	330	6XM24X36	182
27	852000	430	690	196.5	440X8X30X54X8m	250	265	310	40	442	35	340	370	6XM24X36	196.5
28	950000	450	750	196.5	450X8X30X55X8m	260	275	330	45	452	40	360	380	6XM24X36	196.5
29	1060000	460	750	209	460X8X30X56X8m	270	285	340	45	462	40	370	390	6XM24X36	209
30	1200000	480	790	209	480X8X30X58X8m	285	300	360	45	482	40	385	410	6XM24X36	209
31	1330000	500	790	232											
32	1500000	510	850	232											
33	1690000	530	900	251											
34	1920000	570	950	251											



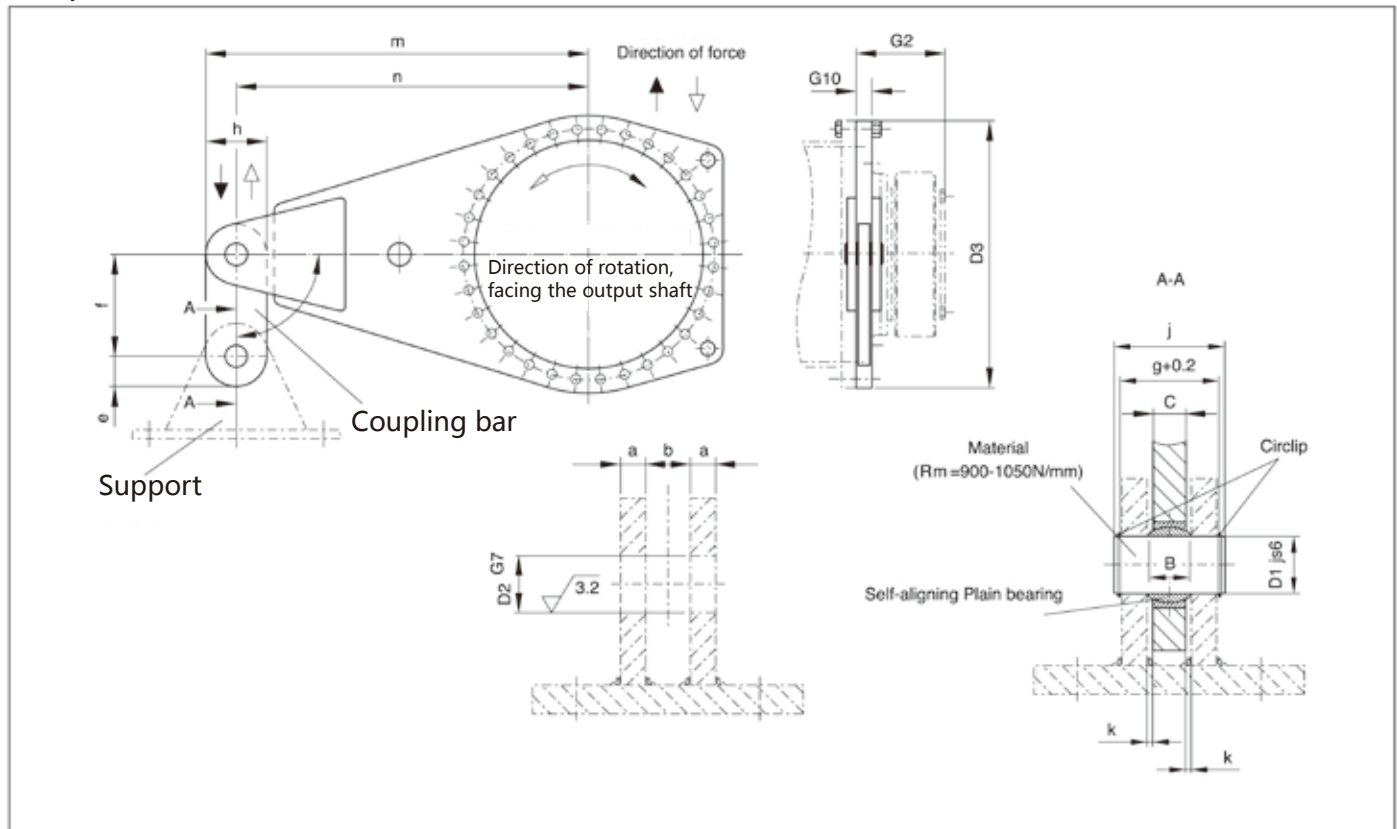
Accessories: Input/output bracket(code: 96):



Size	a	b	c	d	e	h	H	m1	m2	m3	m4	n	Bolt		Weight (kg)
													s*	No.	
9	580	330	20	450	380	260	480	520	260	130	240	35	26	2X3	56
10	630	360	25	500	430	280	525	570	290	145	240	35	26	2X3	82
11	680	400	30	550	480	315	585	620	330	110	274	35	26	2X4	122
12	760	450	30	630	560	360	670	700	380	95	292	35	26	2X5	157
13	820	490	35	680	610	390	720	750	420	105	334	35	26	2X5	213
14	920	560	35	760	680	430	800	840	480	120	380	40	33	2X5	270
16	980	580	40	820	700	470	865	900	500	125	374	40	33	2X5	350
17	1130	670	45	940	810	540	998	1040	580	145	405	45	39	2X5	520
18	1180	720	45	980	830	560	1035	1080	620	155	385	50	39	2X5	580
19	1260	760	50	1050	880	590	1090	1160	640	160	450	60	45	2X5	720
20	1260	760	50	1050	880	590	1090	1160	640	160	500	60	45	2X5	720
21	1440	840	55	1170	1020	660	1228	1320	700	175	513	70	52	2X5	940
22	1440	840	55	1170	1020	660	1228	1320	700	175	513	70	52	2X5	940
23	1540	910	60	1270	1100	730	1345	1420	750	150	567	80	52	2X6	1275
24	1540	910	60	1270	1100	730	1345	1420	750	150	607	80	52	2X6	1275
25	1700	1000	65	1400	1240	795	1465	1550	860	215	574	70	62	2X5	1670
26	1700	1000	65	1400	1240	795	1465	1550	860	215	634	70	62	2X5	1670
27	1850	1100	70	1550	1370	870	1610	1700	950	190	664	75	62	2X6	2170
28	1850	1100	70	1550	1370	870	1610	1700	950	190	724	75	62	2X6	2170
29	1980	1180	75	1640	1460	925	1715	1820	1000	250	731	90	70	2X5	2650
30	1980	1180	75	1640	1460	925	1715	1820	1000	250	771	90	70	2X5	2650
31	2150	1300	75	1750	1570	1000	1845	1950	1100	220	773	100	70	2X6	3100
32	2150	1300	75	1750	1570	1000	1845	1950	1100	220	833	100	70	2X6	3100
33	2230	1350	85	1850	1630	1050	1940	2050	1150	230	883	100	78	2X6	3850
34	2230	1350	85	1850	1630	1050	1940	2050	1150	230	933	100	78	2X6	3850

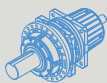


Torque arm on one side(code:75):

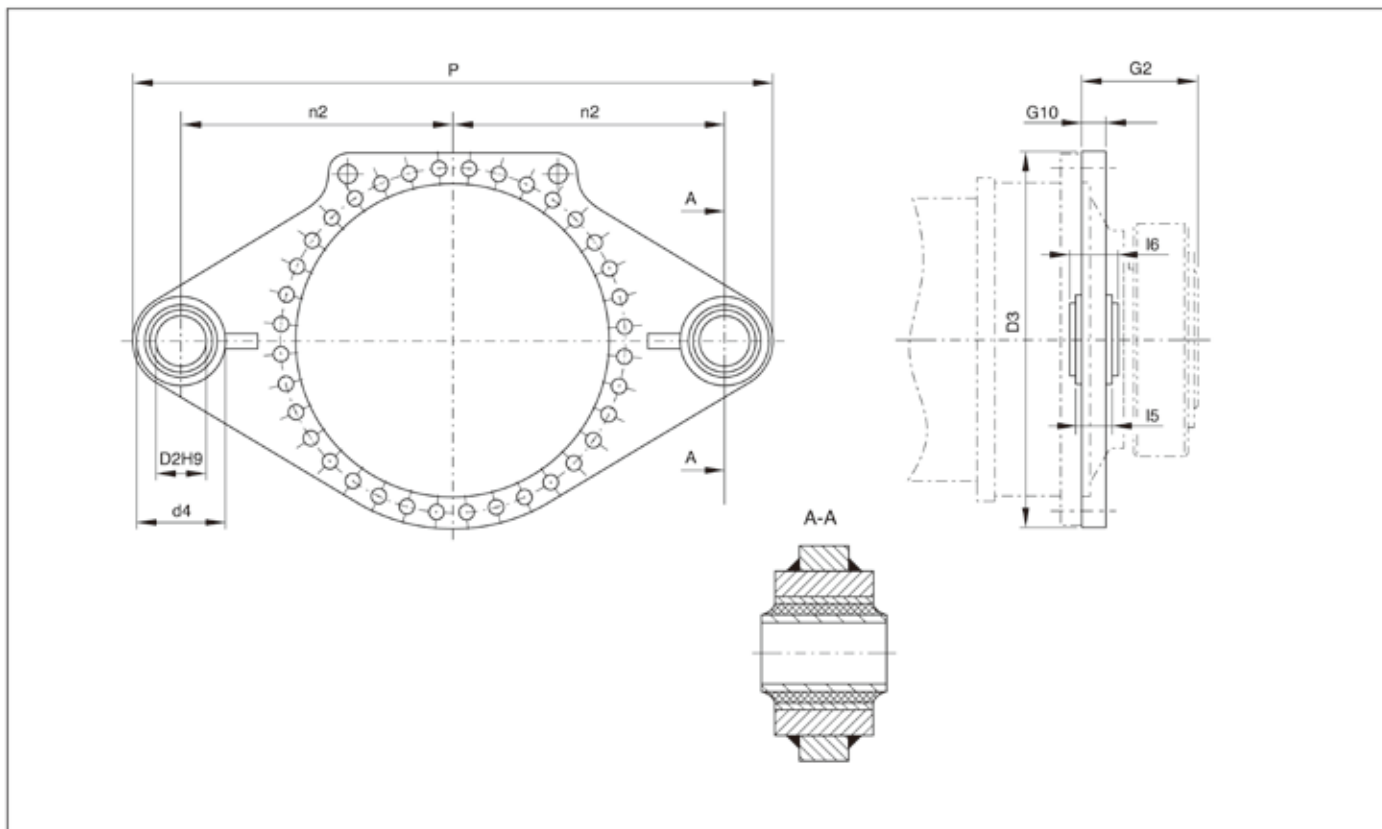


Size	T ₂ N (N · m)	D1	D2	D3	G2	G10	a min.	b	B*	c	e	f	g +0.2	h	j	k	m	n	Plain bearing	Weight (kg)
9	22000	30		440	165	25	15	25	22	18	50	140	59.5	100	70	3.5	605	555	30	38
10	31000	35		485	174	30	15	30	25	20	52.5	140	64.5	105	75	5	667.5	615	35	51
11	42000	40		540	204	30	18	30	28	22	65	160	70.5	130	85	4	750	685	40	82
12	60000	40		620	224	30	18	30	28	22	65	160	70.5	130	85	4	850	785	40	85
13	83000	45		665	241	35	20	35	32	25	72.5	180	79.5	145	95	5	912.5	840	45	113
14	117000	50		740	278	40	20	40	35	30	72.5	200	85	145	100	5	1012.5	940	50	145
16	160000	60		790	285	50	25	50	44	35	77.5	240	105	155	120	7.5	1077.5	1000	60	206
17	202000	60		915	294	50	25	50	44	35	85	240	105	170	120	7.5	1250	1165	60	274
18	244000	70		955	303	55	30	55	49	40	105	280	120	210	135	7.5	1315	1210	70	365
19	295000	80		1005	327.5	60	30	60	55	45	105	320	125	210	145	7.5	1405	1300	80	423
20	354000	80		1005	327.5	60	30	60	55	45	105	320	125	210	145	7.5	1405	1300	80	423
21	392000	80		1140	354	60	30	60	55	45	113	320	125	225	145	7.5	1562.5	1450	80	530
22	450000	80		1140	354	60	30	60	55	45	113	320	125	225	145	7.5	1562.5	1450	80	530
23	513000	90		1235	380	65	30	65	60	50	125	360	130	250	150	7.5	1700	1575	90	665
24	592000	90		1235	380	65	30	65	60	50	125	360	130	250	150	7.5	1700	1575	90	665
25	684000	100		1350	407	75	35	75	70	55	138	400	150	275	170	10	1857.5	1720	100	940
26	763000	100		1350	407	75	35	75	70	55	138	400	150	275	170	10	1857.5	1720	100	940
27	852000	110		1490	453	75	35	75	70	55	150	440	150	300	175	10	2050	1900	110	1120
28	950000	110		1490	453	75	35	75	70	55	150	440	150	300	175	10	2050	1900	110	1120
29	1060000	110		1600	483	75	35	75	70	55	158	440	150	315	175	10	2192.5	2035	110	1260
30	1200000	110		1600	483	75	35	75	70	55	158	440	150	315	175	10	2192.5	2035	110	1260
31-34	On request																			

*) Nominal size B=22-35, tolerance -0.12
 Nominal size B=44-55, tolerance -0.15
 Nominal size B=60-70, tolerance -0.20

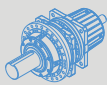


Torque arm on two sides with rubber bushes(code: 76):

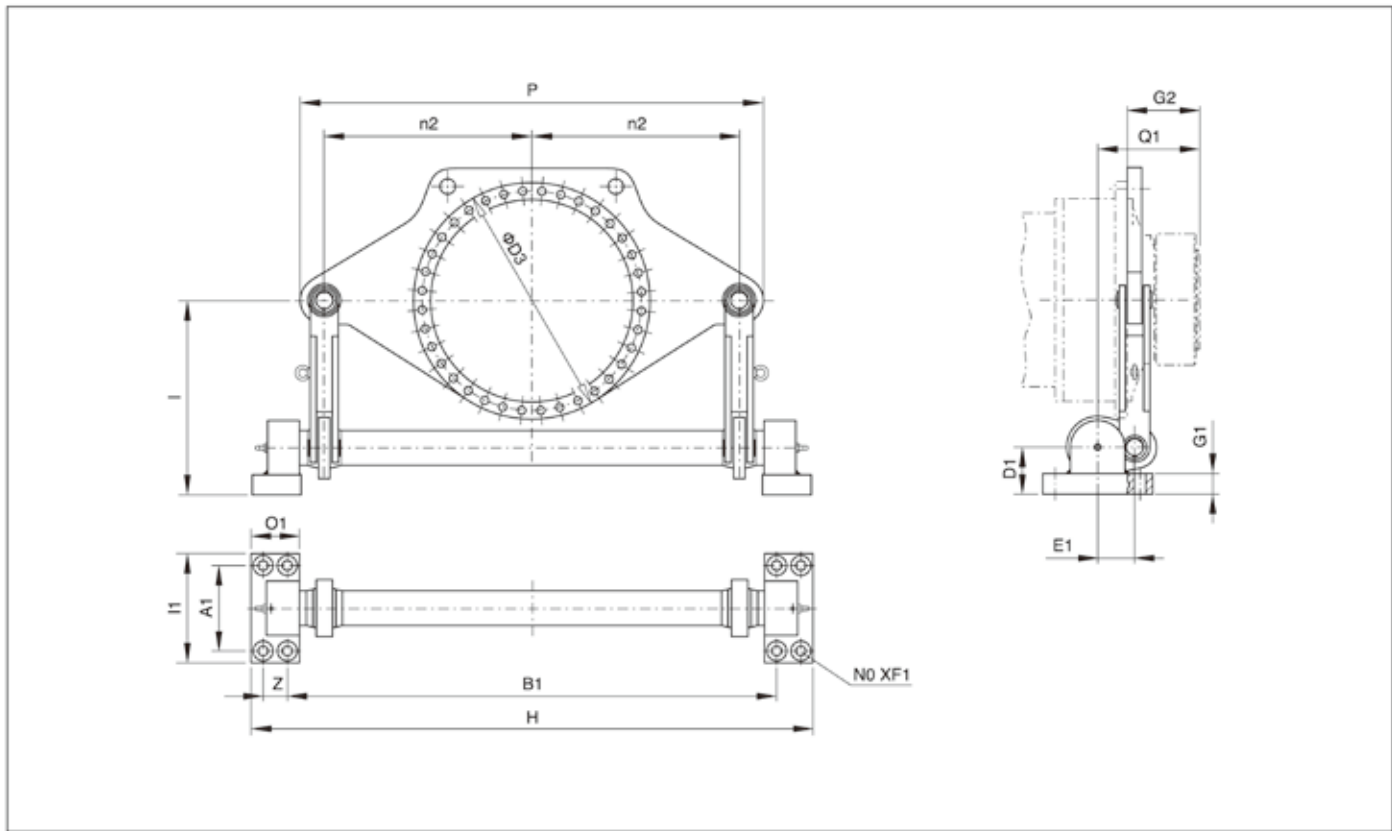


Size	T2N (N · m)	D2*	D3	d4	G2	G10	I5	I6	n2	P	Bush	Weight (kg)
9	22000	50	440	115	165	30	100	110	500	1140	0118095	58
10	31000	50	485	115	174	30	100	110	500	1240	0118095	72
11	42000	100	540	180	204	30	110	120	575	1355	0118772	95
12	60000	100	620	180	224	35	110	120	625	1455	0118772	120
13	83000	110	665	210	241	35	170	180	600	1435	0118802	145
14	117000	110	740	210	278	40	170	180	650	1535	0118802	170
16	160000	124	790	240	285	40	220	230	700	1670	0118805	230
17	202000	124	915	240	288	40	220	230	750	1770	0118805	300
18	244000	124	955	240	303	50	220	230	900	2070	0118805	400

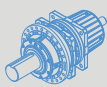
* Pin: Φh8



Torsion shaft support(code:77):

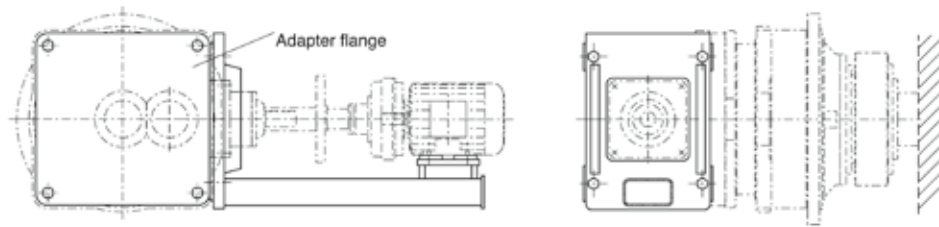


Size	T _{2N} (N · m)	A1	B1	D3	D1	E1	F1	G1	G2	H	I	I1	n2	N0	O1	P	Q1	Z	Weight (kg)
9	22000	250	1414	610	120	105	33	48.5	165	1619	560	330	550	8	140	1230	247.5	65	300
10	31000	250	1414	610	120	105	33	48.5	174	1619	560	330	550	8	140	1230	256.5	65	300
11	42000	250	1414	610	120	105	33	48.5	204	1619	560	330	550	8	140	1230	286.5	65	300
12	60000	250	1414	610	120	105	33	48.5	224	1619	560	330	550	8	140	1230	306.5	65	300
13	83000	280	1604	775	155	145	39	68.5	241	1837	620	380	650	8	158	1450	358.5	75	600
14	117000	280	1604	775	155	145	39	68.5	278	1837	620	380	650	8	158	1450	395.5	75	600
16	160000	280	1604	775	155	145	39	68.5	285	1837	620	380	650	8	158	1450	402.5	75	600
17	202000	315	1777	955	170	165	39	73.5	294	2041	700	400	750	8	180	1680	431.5	84	900
18	244000	315	1777	955	170	165	39	73.5	303	2041	700	400	750	8	180	1680	440.5	84	900
19	295000	350	2000	985	195	175	45	83.5	328	2300	860	450	850	8	200	1900	470.5	100	1400
20	354000	350	2000	985	195	175	45	83.5	328	2300	860	450	850	8	200	1900	470.5	100	1400
21	392000	400	2254	1120	210	190	45	88.5	354	2591	900	530	950	8	225	2110	506.5	113	1700
22	450000	400	2254	1120	210	190	45	88.5	354	2591	900	530	950	8	225	2110	506.5	113	1700
23	513000	450	2496	1215	235	220	45	98.5	380	2871	1060	590	1063	8	250	2385	562.5	125	2150
24	592000	450	2496	1215	235	220	45	98.5	380	2871	1060	590	1063	8	250	2385	562.5	125	2150
25	684000	500	2816	1350	275	245	52	118.5	407	3236	1200	650	1150	8	280	2600	614.5	140	2700
26	763000	500	2816	1350	275	245	52	118.5	407	3236	1200	650	1150	8	280	2600	614.5	140	2700
27	852000	530	2887	1490	300	255	52	128.5	453	3327	1250	700	1250	8	290	2820	670.5	150	3400
28	950000	530	2887	1490	300	255	52	128.5	453	3327	1250	700	1250	8	290	2820	670.5	150	3400
29	1060000	560	3200	1565	300	280	62	128.5	483	3673	1350	750	1360	8	315	3080	718	158	4350
30	1200000	560	3200	1565	300	280	62	128.5	483	3673	1350	750	1360	8	315	3080	718	158	4350
31	1330000	590	3408	1695	340	300	70	148.5	538	3906	1400	790	1450	8	330	3260	788	168	5500
32	1500000	590	3408	1695	340	300	70	148.5	538	3906	1400	790	1450	8	330	3260	788	168	5500
33	1680000	620	3588	1785	375	320	70	158.5	573	4116	1500	840	1550	8	350	3520	840.5	178	7000
34	1920000	620	3588	1785	375	320	70	158.5	573	4116	1500	840	1500	8	350	3520	840.5	178	7000

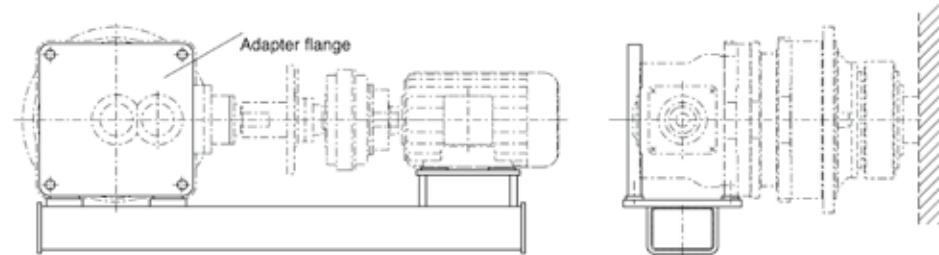


Motor bracket:

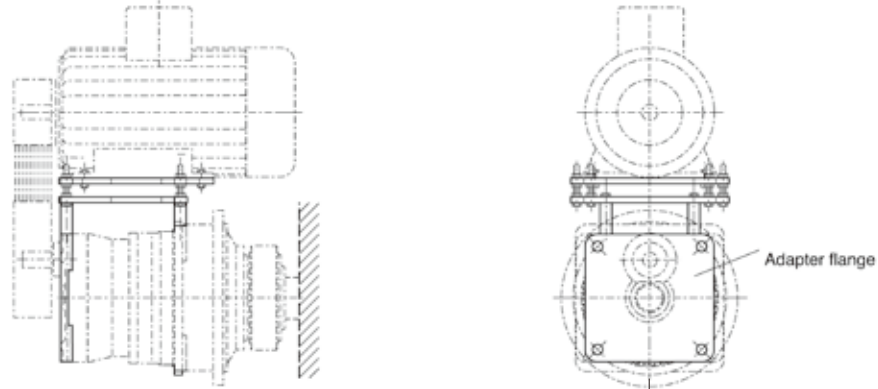
Motor bracket(code:71): For PK..., PL... vertical mounting.



Motor bracket(code:71): For PK..., PL... horizontal mounting.

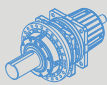


Motor bracket(code:72): for horizontal motor

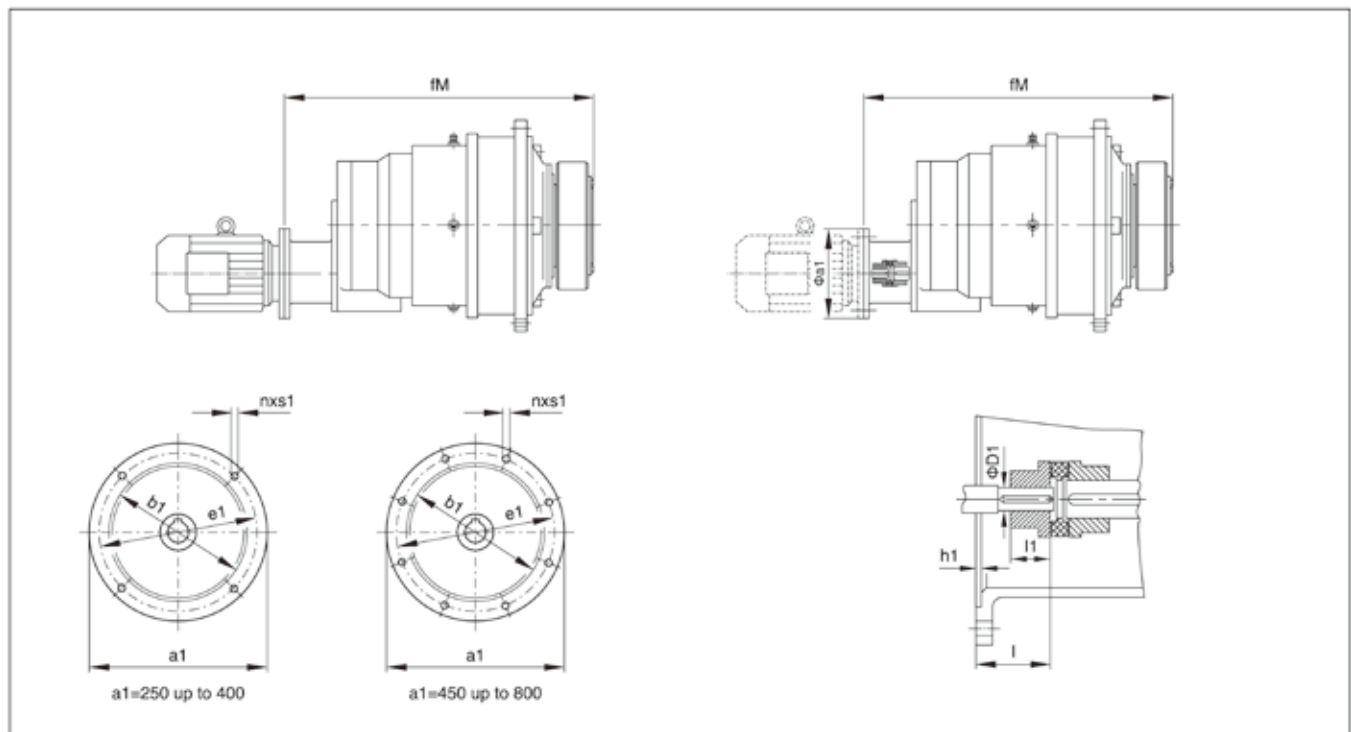


Tightening torque:

Size	Flange		Base	
	Bolt (10.9)	Tightening torque (N · m)	Bolt (8.5)	Tightening torque (N · m)
9	M16	295	M24	710
10	M16	295	M24	710
11	M20	580	M24	710
12	M24	1000	M24	710
13	M24	1000	M24	710
14	M24	1000	M30	1450
16	M24	1000	M30	1450
17	M30	2000	M36	2530
18	M30	2000	M36	2530
19/20	M30	2000	M42	4070
21/22	M36	3560	M48	6140
23/24	M36	3560	M48	6140
25/26	M42	5720	M56	9840
27/28	M48	8640	M56	9840
29/30	M48	8640	M64	14300
31/32	M56	13850	M64	14300
33/34	M56	13850	M64	14300

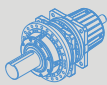


Flange input: P2S:

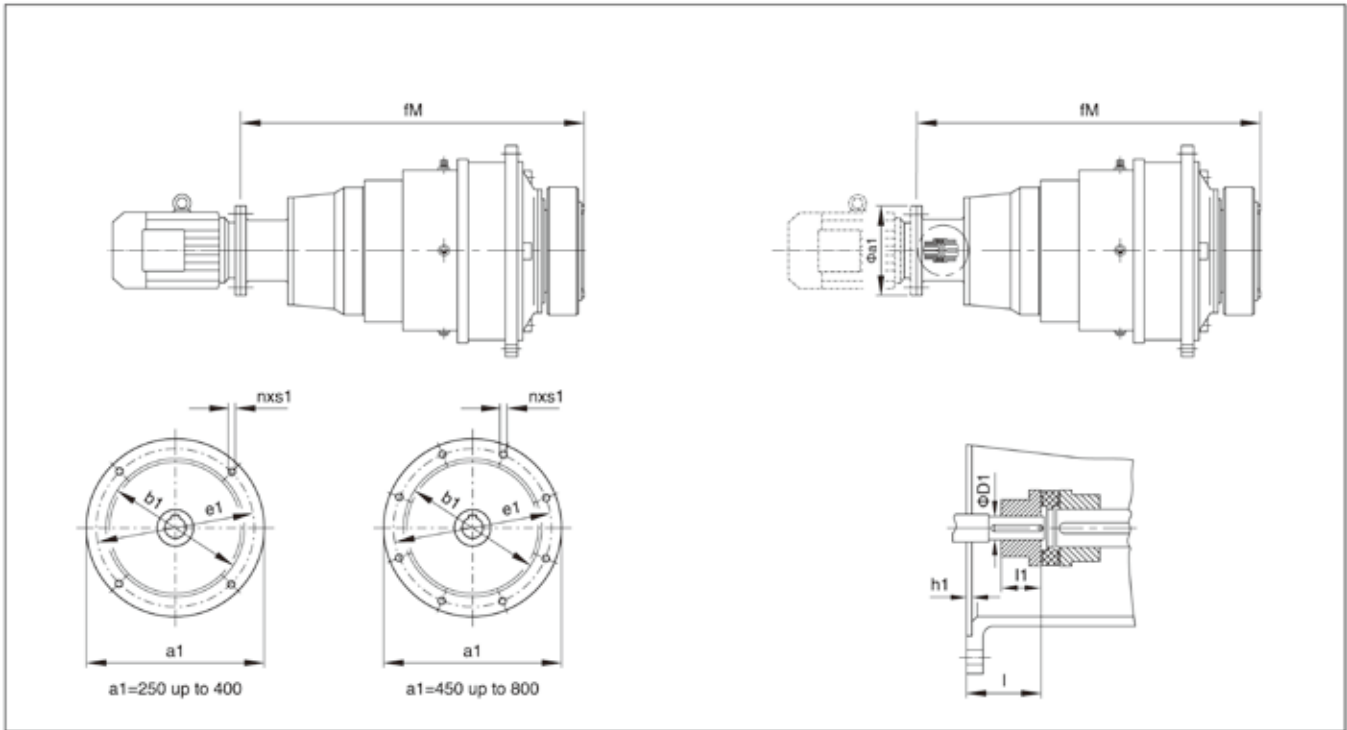


P2S.	Motor (Y)*	Flange (F)**	a1	b1(h7)	D1	e1	fM	h1	l1	l	n	s1
9	160		350	250	42	300	832	6	75	110	4	M16
	180		350	250	48	300	832	6	75	110	4	M16
10	160		350	250	42	300	861	6	75	110	4	M16
	180		350	250	48	300	861	6	75	110	4	M16
11	160		350	250	42	300	1010	6	75	110	4	M16
	180		350	250	48	300	1010	6	75	110	4	M16
	200		400	300	55	350	1010	7	75	110	4	M16
12	160		350	250	42	300	1044	6	75	110	4	M16
	180		350	250	48	300	1044	6	75	110	4	M16
	200		400	300	55	350	1044	7	75	110	4	M16
13	225		450	350	60	400	1247	7	90	140	8	M16
	250		550	450	65	500	1247	8	90	140	8	M16
14	225		450	350	60	400	1307	7	90	140	8	M16
	250		550	450	65	500	1307	8	90	140	8	M16
16	250		550	450	65	500	1452	7	100	140	8	M16
	280		550	450	75	500	1452	8	100	140	8	M16
17	250		550	450	65	500	1487	7	100	140	8	M16
	280		550	450	75	500	1487	8	100	140	8	M16
18	315		660	550	80	600	1680	11	110	140	8	M20
19,20	315		660	550	80	600	1728	11	110	140	8	M20

Note: (1) '*' the power of coupled motor in selection must be sufficient for transmission capacity requirements;
 '**' the flanges listed in the table are standard. Consult us if any deviation exists.
 (2) For combinations with torque arm on one side, please consult us.

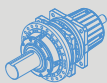


P3N

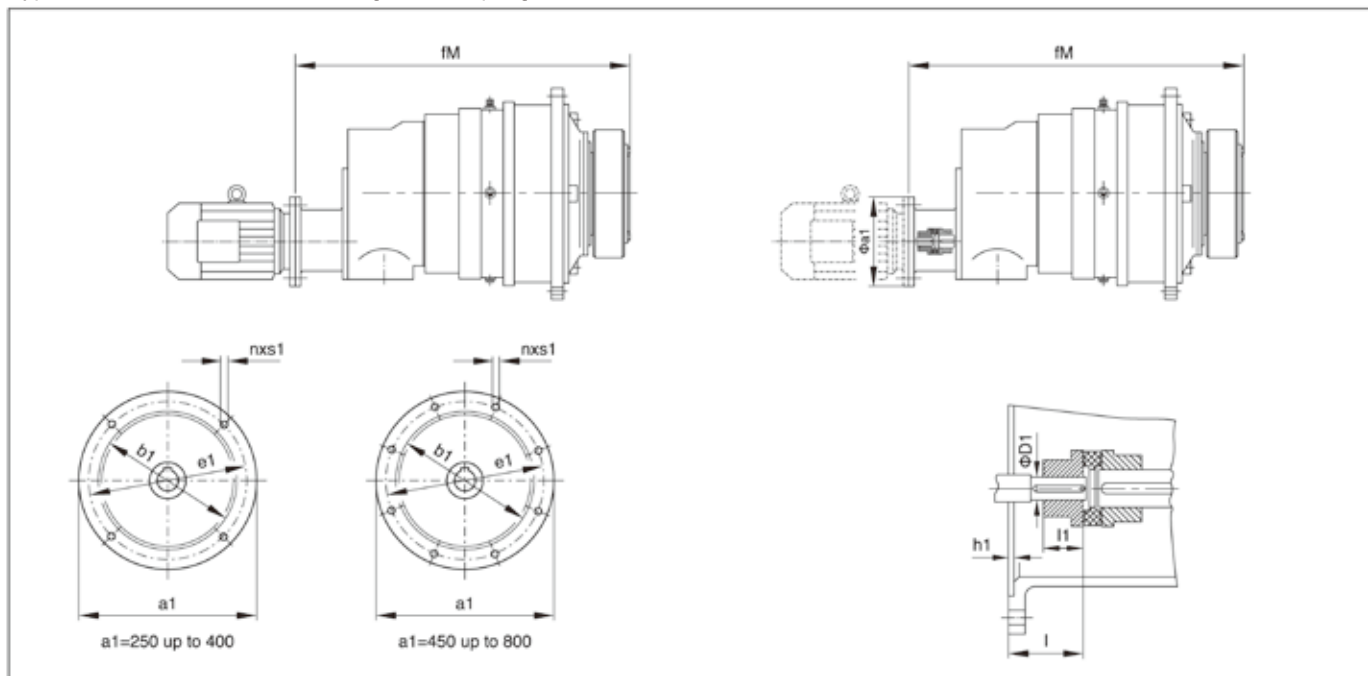


P3N.	Motor (Y)*	Flange (F)**	a1	b1(h7)	D1	e1	fM	h1	l1	l	n	s1
9	132		300	230	38	265	912	5	56	80	4	M12
	160		350	250	42	300	960	6	80	110	4	M16
	180		350	250	48	300	960	6	80	110	4	M16
10	132		300	230	38	265	941	5	56	80	4	M12
	160		350	250	42	300	989	6	80	110	4	M16
	180		350	250	48	300	989	6	80	110	4	M16
11	132		300	230	38	265	1002	5	56	80	4	M12
	160		350	250	42	300	1050	6	80	110	4	M16
	180		350	250	48	300	1050	6	80	110	4	M16
12	132		300	230	38	265	1036	5	56	80	4	M12
	160		350	250	42	300	1084	6	80	110	4	M16
	180		350	250	48	300	1084	6	80	110	4	M16
13	160		350	250	42	300	1159	6	80	110	4	M16
	180		350	250	48	300	1159	6	80	110	4	M16
	200		400	300	55	350	1159	7	80	110	4	M16
14	160		350	250	42	300	1219	6	80	110	4	M16
	180		350	250	48	300	1219	6	80	110	4	M16
	200		400	300	55	350	1219	7	80	110	4	M16
16	200		400	300	55	350	1400	7	90	110	4	M16
	225		450	350	60	400	1430	7	90	140	8	M16
17	200		400	300	55	350	1435	7	90	110	4	M16
	225		450	350	60	400	1465	7	90	140	8	M16
18	250		550	450	65	500	1636.5	7	100	140	8	M16
	280		550	450	75	500	1636.5	8	100	140	8	M16
19,20	250		550	450	65	500	1685	7	100	140	8	M16
	280		550	450	75	500	1685	8	100	140	8	M16

Note: (1) '**' the power of coupled motor in selection must be sufficient for transmission capacity requirements;
 '***' the flanges listed in the table are standard. Consult us if any deviation exists.
 (2) For combinations with torque arm on one side, please consult us.



Type P3S. With Motor Bell Housing and Coupling:

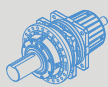


P3S.	Motor (Y)*	Flange (F)**	a1	b1	D1	e1	fM	h1	l1	l	n	s1
9	100		250	180	28	215	865	5	45	60	4	M12
	112		250	180	28	215	865	5	45	60	4	M12
	132		300	230	38	265	896	5	70	80	4	M12
	160		350	250	42	300	931	6	75	110	4	M16
10	100		250	180	28	215	894	5	45	60	4	M12
	112		250	180	28	215	894	5	45	60	4	M12
	132		300	230	38	265	925	5	70	80	4	M12
	160		350	250	42	300	957	6	75	110	4	M16
11	112		250	180	28	215	955	5	45	60	4	M12
	132		300	230	38	265	986	5	70	80	4	M12
	160		350	250	42	300	1018	6	75	110	4	M16
	180		350	250	48	300	1018	6	75	110	4	M16
12	112		250	180	28	215	989	5	45	60	4	M12
	132		300	230	38	265	1020	5	70	80	4	M12
	160		350	250	42	300	1052	6	75	110	4	M16
	180		350	250	48	300	1052	6	75	110	4	M16
13	132		300	230	38	265	1095	5	70	80	4	M12
	160		350	250	42	300	1127	6	75	110	4	M16
	180		350	250	48	300	1127	6	75	110	4	M16
14	132		300	230	38	265	1155	5	70	80	4	M12
	160		350	250	42	300	1187	6	75	110	4	M16
	180		350	250	48	300	1187	6	75	110	4	M16
16	160		350	250	42	300	1365	6	75	110	4	M16
	180		350	250	48	300	1365	6	75	110	4	M16
	200		400	300	55	350	1365	7	75	110	4	M16
17	160		350	250	42	300	1390	6	75	110	4	M16
	180		350	250	48	300	1390	6	75	110	4	M16
	200		400	300	55	350	1400	7	75	110	4	M16
18	180		350	250	48	300	1558.5	6	90	110	4	M16
	200		400	300	55	350	1570.5	6	90	110	4	M16
	225		450	350	60	400	1608.5	7	90	110	8	M16
	250		550	450	65	500	1608.5	7	90	110	8	M16
19,20	180		350	250	48	300	1606	6	90	110	4	M16
	200		400	300	55	350	1618	6	90	110	4	M16
	225		450	350	60	400	1656	7	90	110	8	M16
	250		550	450	65	500	1656	7	90	110	8	M16

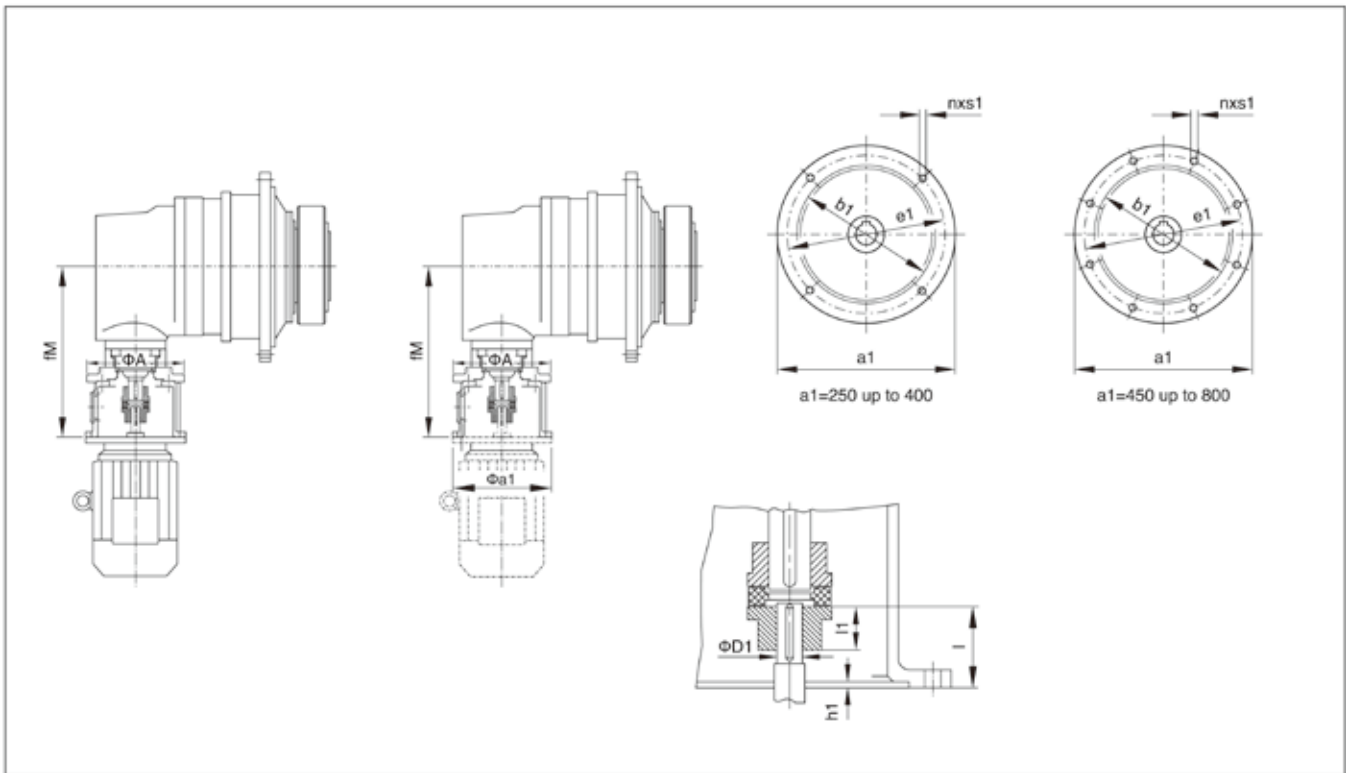
Note: (1) "*" Power of selected motor must meet transmission table.

"**" Indicate standard flange, if special dimension is needed, please consult us.

(2) For combinations with torque arm on one side, please refer to us.

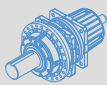


P2K

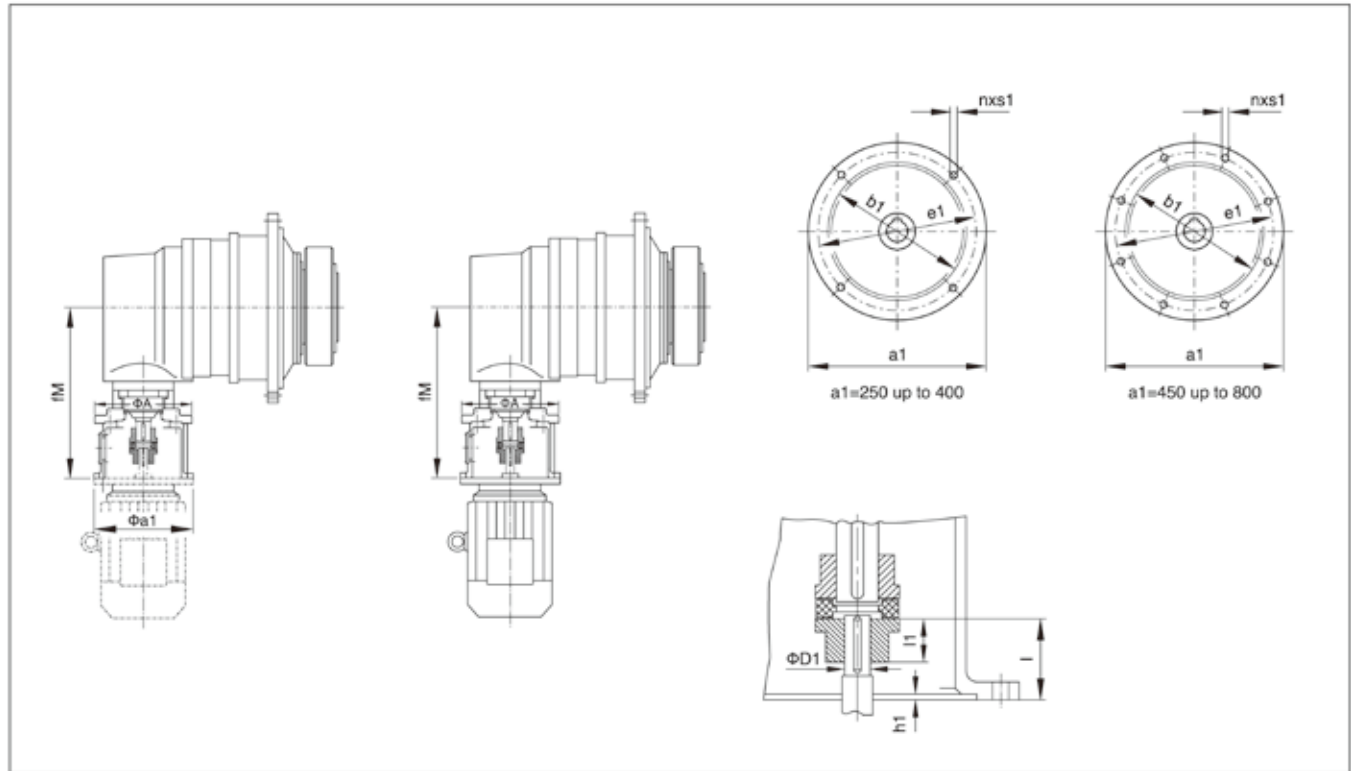


P2K.	Motor (Y)*	Flange (F)**	a1	A	b1	D1	e1	fM	h1	l	l1	n	s1
9,10	132		300	250	230	38	265	486	5	80	70	4	M12
	160		350	250	250	42	300	528	6	110	75	4	M16
11,12	160		350	300	250	42	300	593	6	110	75	4	M16
	180		350	350	250	48	300	593	6	110	75	4	M16
	200		400	350	300	55	350	593	7	110	75	4	M16
13,14	160		350	440	250	42	300	663	6	110	75	4	M16
	180		350	440	250	48	300	663	6	110	75	4	M16
	200		400	440	300	55	350	663	7	110	75	4	M16
	225		450	440	350	60	400	695	7	140	80	8	M16
	250		550	440	450	65	500	707	8	140	85	8	M16
16,17	200		400	440	300	55	350	770	7	110	80	4	M16
	225		425	440	350	60	400	800	7	140	80	8	M16
	250		550	440	450	65	500	812	8	140	85	8	M16
	280		550	440	450	75	500	812	8	140	85	8	M16
18,19,20	225		450	440	350	60	400	932	7	140	80	8	M16
	250		550	440	450	65	500	932	8	140	85	8	M16
	280		550	440	450	75	500	932	8	140	85	8	M16
	315*		660	440	550	80	600	967	11	170	100	8	M20

Note: (1) '**' the power of coupled motor in selection must be sufficient for transmission capacity requirements;
 (2) For combinations with torque arm on one side, please consult us.

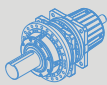


P2L

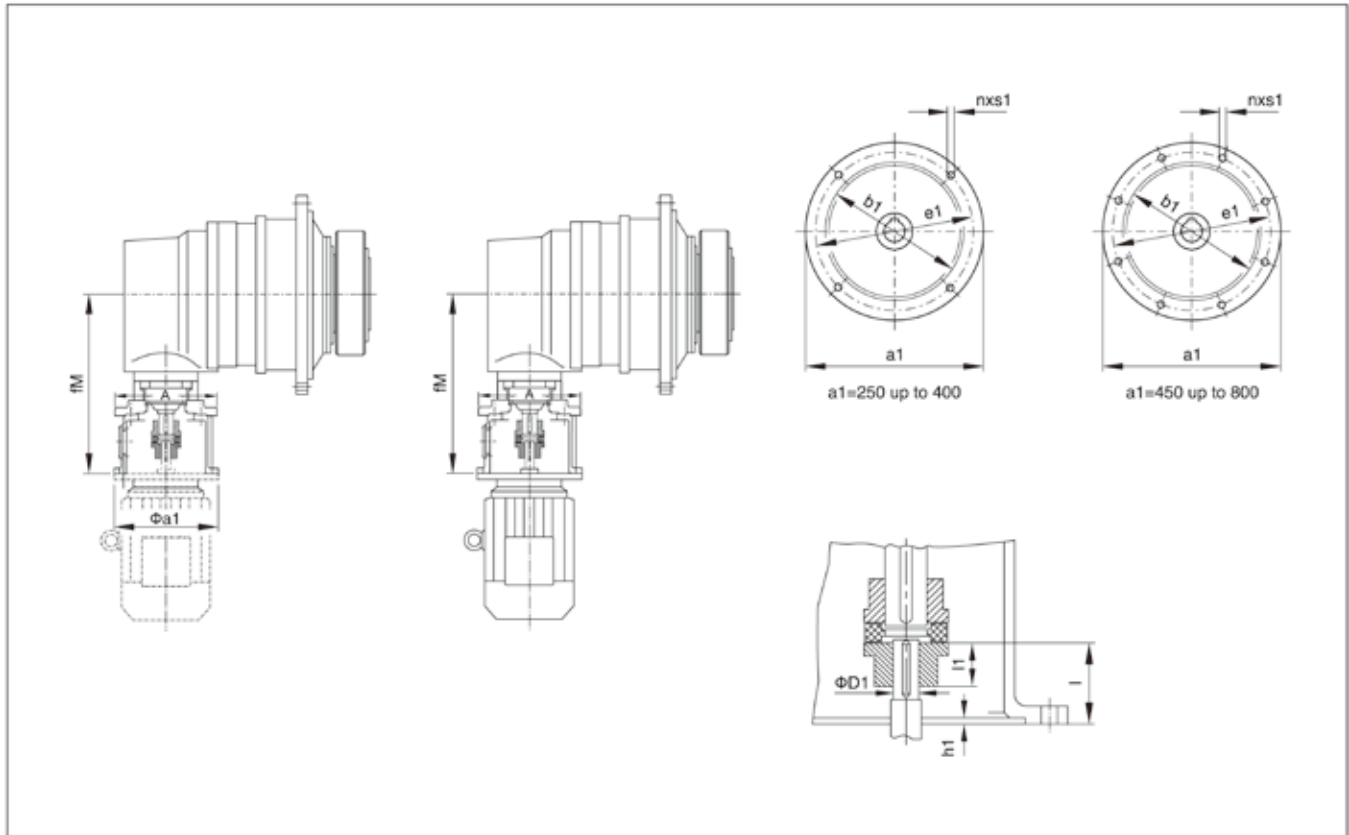


P2L.	Motor (Y)*	Flange (F)**	a1	A	b1	D1	e1	fM	h1	l	l1	n	s1
9,10	160		350	440	250	42	300	543	6	110	75	4	M16
	180		350	440	250	48	300	543	6	110	75	4	M16
	200		400	440	300	55	350	543	7	110	75	4	M16
	225		450	440	350	60	400	575	7	140	80	8	M16
11,12	200		400	440	300	55	350	600	7	110	75	4	M16
	225		450	440	350	60	400	630	7	140	80	8	M16
	250		550	440	450	65	500	642	8	140	85	8	M16
13,14	225		450	440	350	60	400	732	7	140	85	8	M16
	250		550	440	450	65	500	732	8	140	85	8	M16
	280		550	440	450	75	500	732	8	140	85	8	M16
16,17	280		550	600	450	75	500	842	8	140	100	8	M16
	315*		660	650	550	80	600	872	11	170	100	8	M20
	315MC		660	650	550	80	600	872	11	170	100	8	M20
	315MD		660	650	550	80	600	872	11	170	100	8	M20
	315LB		660	650	550	80	600	987	11	170	100	8	M20
18,19,20	315*		660	650	550	80	600	987	11	170	100	8	M20
	315MC		660	650	550	80	600	987	11	170	100	8	M20
	315MD		660	650	550	80	600	987	11	170	100	8	M20
	315LB		660	650	550	80	600	1122	11	170	100	8	M20
21,22,23,24	315MC		660	650	550	80	600	1122	11	170	125	8	M20
	315MD		660	650	550	80	600	1122	11	170	125	8	M20
	315LB		660	650	550	80	600	1122	11	170	125	8	M20
	355MB		800	650	680	95	740	1122	11	170	125	8	M20
	355LB		800	650	680	95	740	1122	11	170	125	8	M20

Note: (1) '*' the power of coupled motor in selection must be sufficient for transmission capacity requirements;
 (2) For combinations with torque arm on one side, please consult us.

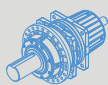


P3K

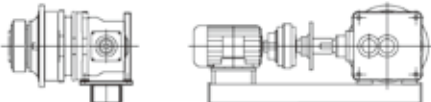
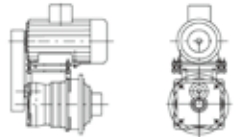
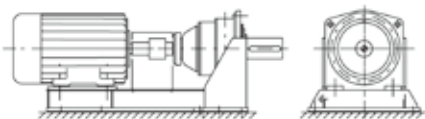
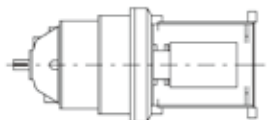
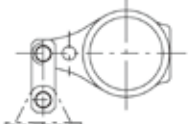
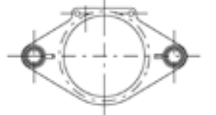
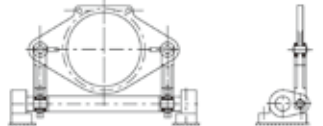
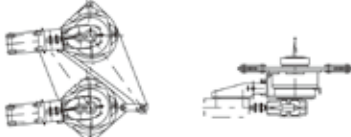
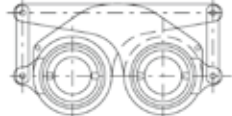


P3K.	Motor (Y)*	Flange (F)**	a1	A	b1	D1	e1	fM	h1	l	l1	n	s1
9,10,11 12,13,14	132		300	250	230	38	265	486	5	80	70	4	M12
	160		350	250	250	42	300	528	6	110	75	4	M16
	180		350	250	250	48	300	528	6	110	75	4	M16
16,17	160		350	350	250	42	300	593	6	110	75	4	M16
	180		350	350	250	40	300	593	6	110	75	4	M16
	200		400	350	300	55	350	593	7	110	75	4	M16
18,19,20 21,22	160		350	440	250	42	300	663	6	110	75	4	M16
	180		350	440	250	48	300	663	6	110	75	4	M16
	200		400	440	300	35	350	663	7	110	75	4	M16
	225		450	440	350	60	400	695	7	140	80	8	M16
	250		550	440	450	65	500	707	8	140	85	8	M16
23,24 25,26	200		400	440	300	55	350	770	6	110	80	4	M16
	225		450	440	350	60	400	800	7	140	80	8	M16
	250		550	440	450	62	500	812	7	140	85	8	M16
	280		550	440	450	75	500	812	8	140	85	8	M16
27,28 29,30	225		450	440	350	60	400	932	7	140	85	8	M16
	250		550	440	450	65	500	932	7	140	85	8	M16
	280		550	440	450	75	500	932	8	140	85	8	M16
	315*		660	440	550	80	600	967	11	170	100	8	M20

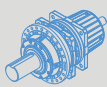
Note: (1) '**' the power of coupled motor in selection must be sufficient for transmission capacity requirements;
 '***' the flanges listed in the table are standard. Consult us if any deviation exists.
 (2) For combinations with torque arm on one side, please consult us.



Accessories codes:

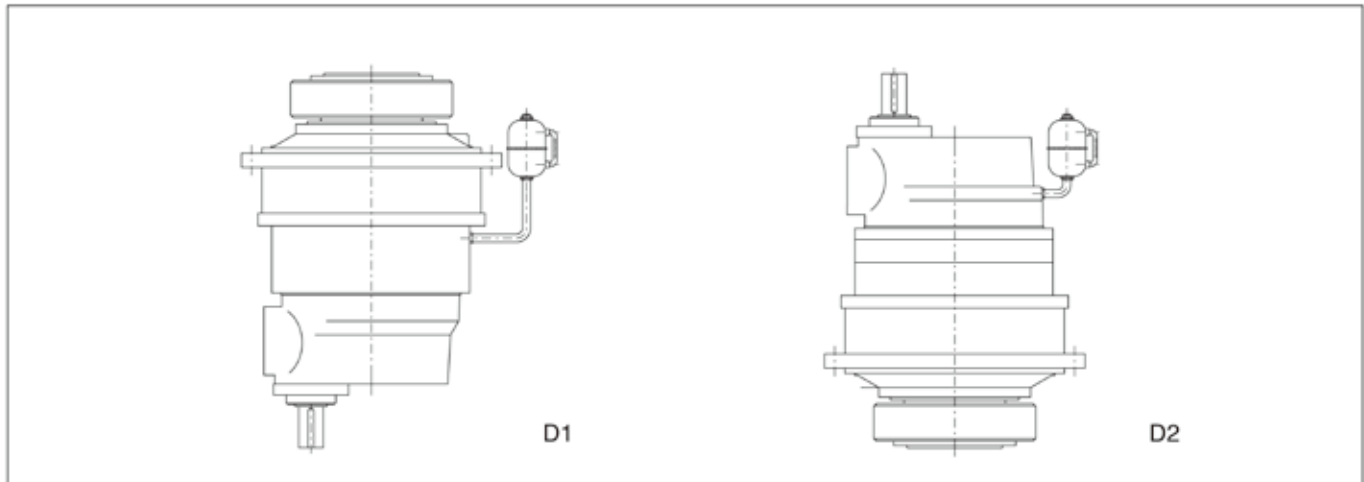
Code	Accessories	Representation
99	Without accessories	
96	Output bracket	
71	Motor bracket	
72	Braket for horizontal motor	
73	Motor swing-base (motor,coupling,gear unit)	
74*	Bell housing (output)	
75	Torque arm(on one side)	
76	Torque arm(on both sides)	
77	Torsion shaft support	
80	Support I	
81	Support II	
Special design on request		

* Not for rigid couplings



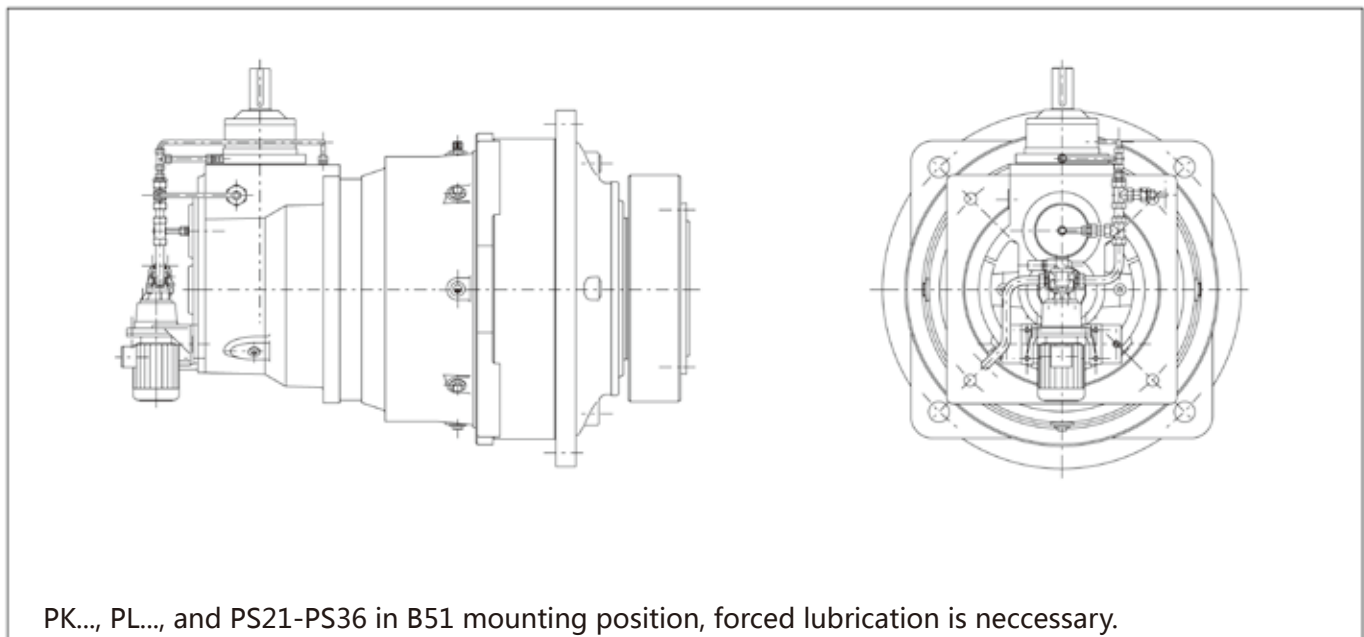
Lubrication system

Oil compensating system for vertical mounting positions V1, V3, V11 and V31.



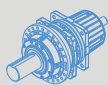
In case of vertical mounting position, normal lubrication system would fail to feed the overhead rolling bearings. To ensure an adequate supply of lubricants, the oil level has to be increased accordingly. As shown above (D1, D2), an oil compensating tank with breather is attached for this purpose. It can be fitted either to the gear unit or to customer's machine frame. The actual dimension and final position will be decided when the product is ordered.

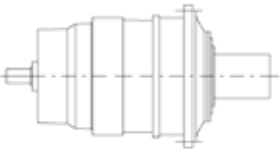
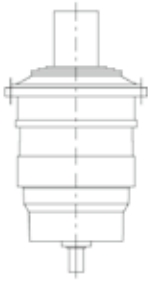
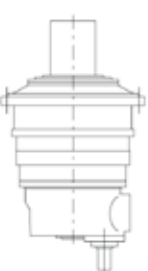
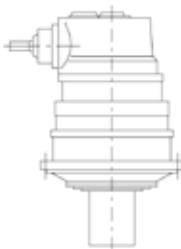
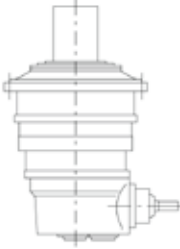
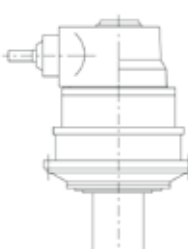
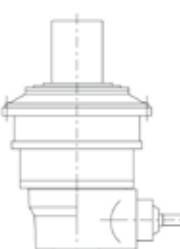
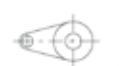
Forced lubrication with motor pump

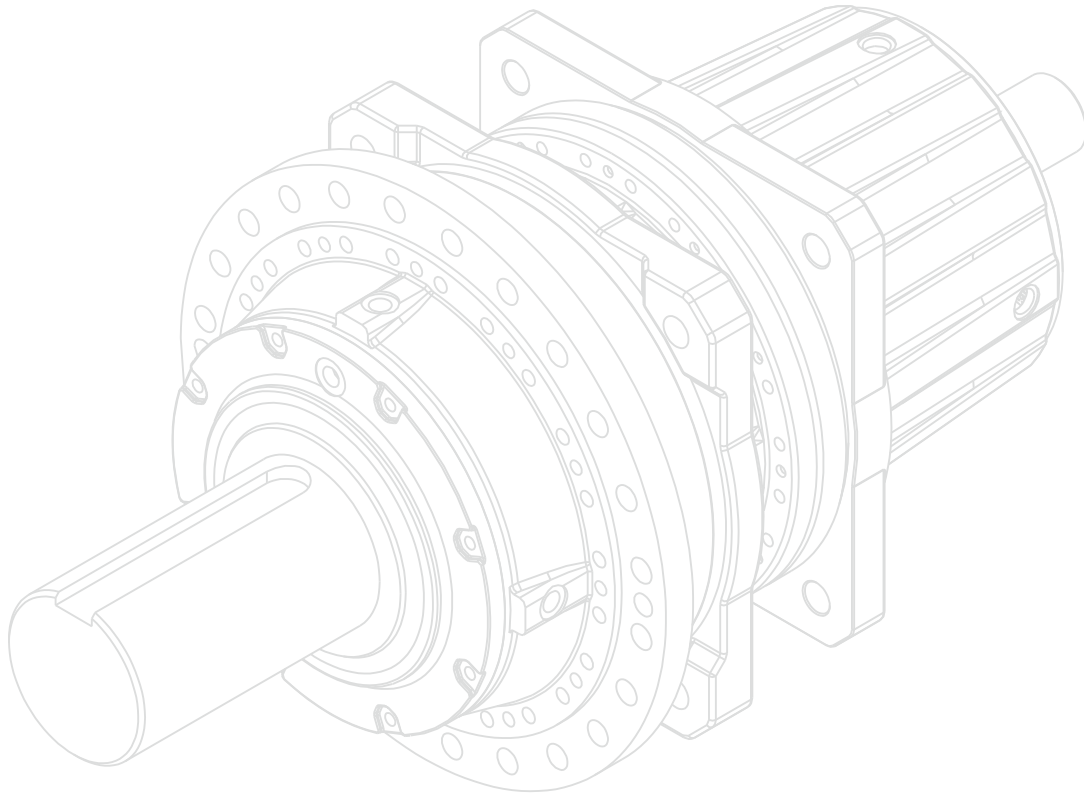


PK..., PL..., and PS21-PS36 in B51 mounting position, forced lubrication is necessary.

Note: For mounting positions, see P50.



		Horizontal		Vertical	
Coaxial	0	P.N.	 B5	 V1	 V3
Helical- planetary	1	P.S. P.N.	  B51	 V11	 V31
			  B52		
			  B53		
			  B54		
Bevel- helical- planetary	2	P.K.	  B51	 V11	 V31
			  B52		
			  B53		
			  B54		
Bevel- planetary	3	P.L.	  B51	 V11	 V31
			  B52		
			  B53		
			  B54		
Torque arm	5		 A51	In the case of B51, V1, V3, V11, V31 mounting position, it's necessary to consider gearbox lubrication, please consult us.	
			 A52		
			 A53		
			 A54		
			 A55		
			 A56		



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