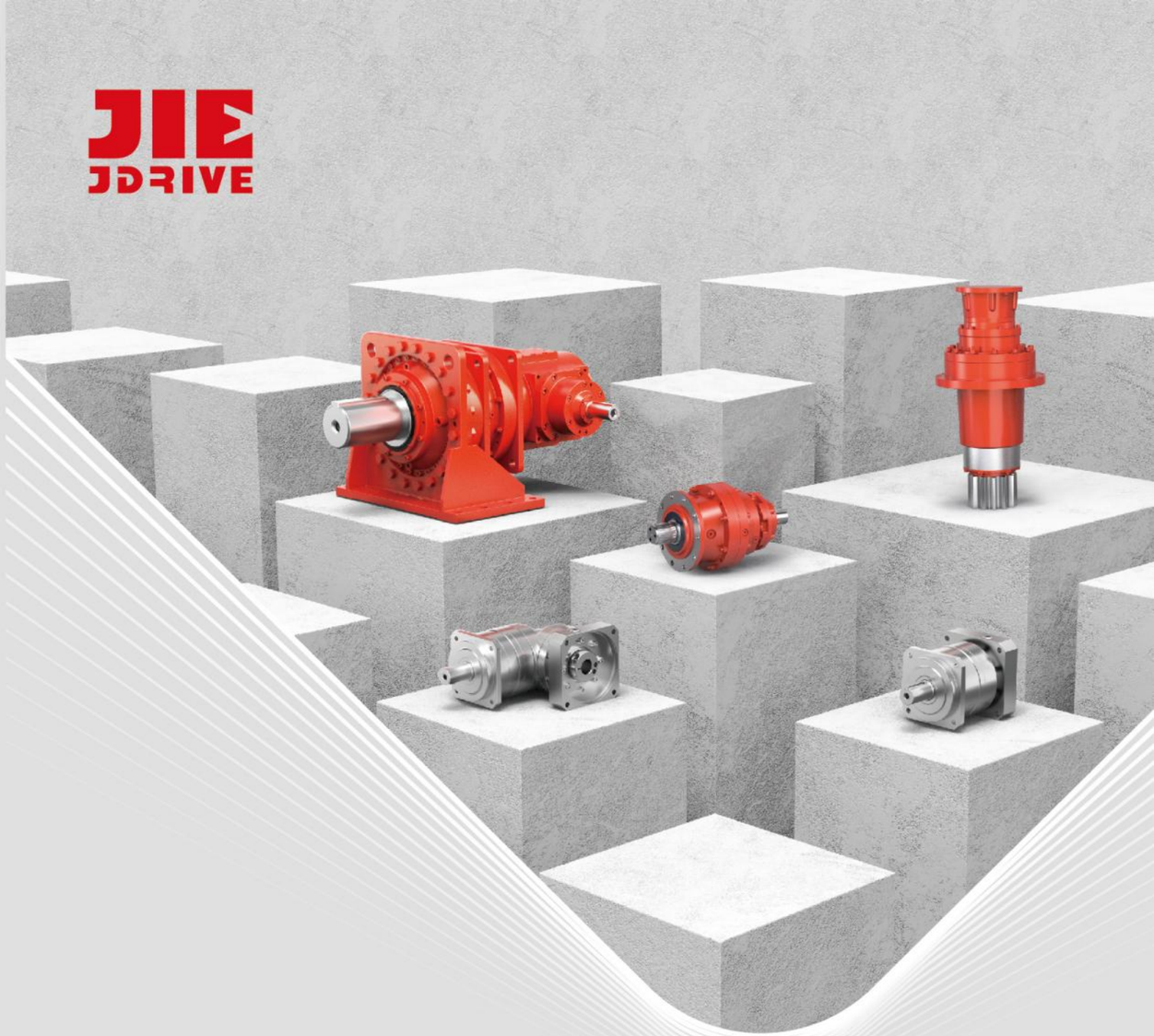
JRP Planetary Gear Units Selection Manual



JRP Planetary Gear Units

JIE Total Drive Solutions Provider

www.jie-drives.com

JIE JDRIVE

No.1, JIE Road, Hangzhou,
Zhejiang, China
Tel.: +86 571 8299 1111
E-mail: jie@jie.com.cn
Web.: www.jiedrive.com

JIE USA

279 Madsen Drive Ste 101
Bloomingdale IL 60108
Tel.: +1 630 580 9986
E-mail: info@jie-drives.com
Web: www.jie-drives.com

JIE CANADA

130 Rue de l'Émissaire Drummondville,
Québec J2E 1S4 Canada
Tel.: +1 819 850 9886
E-mail: info@jie-drives.com
Web.: www.jie-drives.com

JIE EURONORM

Hub van Doorneweg 8, 2171 KZ
Sassenheim, Netherlands
Tel.: +31 252 228 850
E-mail: info@jie-euronorm.com
Web.: www.jie-euronorm.com

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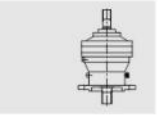
JIE INTELLIGENT DRIVE SOLUTIONS PROVIDER



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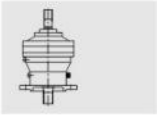
1. Selection Guide



1 **Select JIE Drive product**

Example: Pick the right model,JRP..N planetary gear units, JRP..S parallel shaft planetary gear units, JRP..L Bevel helical planetary gear units, JRP..K bevel helical – parallel shaft planetary gear units.

2 **Enter current product brand**

Example: JIE Drive or competitors.

3 **Enter current product specifications**

Example: JRP planetary gear units, size 9~36, ratio 25~4000, input power 0.4～12934kW, output torque 22000~2600000Nm and other specifications.

4 **Generate JIE Drive model and specifications**

Example: JRP2NB12-25-500-00, JRP2SB12-50-511-01, JRP2LD12-50-532-01, JRP3KD12-1000-523-IEC100 and other models.

5 **Generate 2D/3D drawings of JIE Drive products**

Example: 2D/3D drawings of JRP2NB12-25-500-00, JRP2SB12-50-511-01, JRP2LD12-50-532-01, JRP3KD12-1000-523-IEC100 and other models.

6 **Confirm the technical quality standard**

Example: The technical and quality standards shall be implemented according to the relevant standards of JIE Drive and the standards agreed by both parties. The warranty period shall be 12 months after start using products or 18 months after shipment from JIE whichever comes earlier.

7 **Confirm delivery standard**

Example: Delivery shall be made according to the time agreed by both parties for the first cooperation; 4 weeks lead time base on 1+3 rolling plan, including total usage, annual usage, monthly usage, batch usage and sample; confirmation of pre-sales service, in-sales service, after-sales service and pre-order management.

8 **Confirm the settlement price standard**

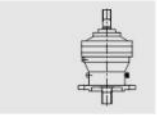
Example: The order comes into effective after 30% deposition received and products will be delivered after balance payment; price shall be subject to agreed upon both parties.

9 **Confirm order information**

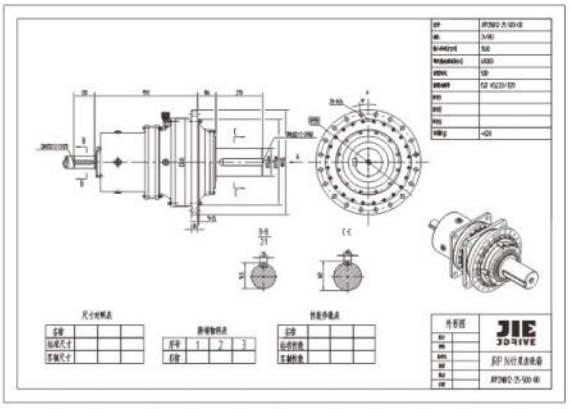
Example: Confirm product type, model, specification, order quantity, color, packaging, transportation, P.O issue time, delivery time, delivery location, receiving company and other order information.

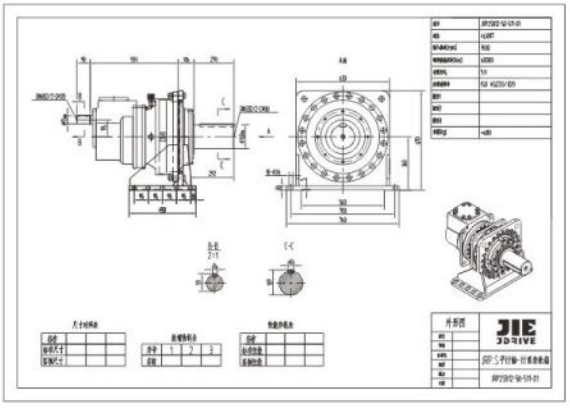
10 **Confirm product delivery information**

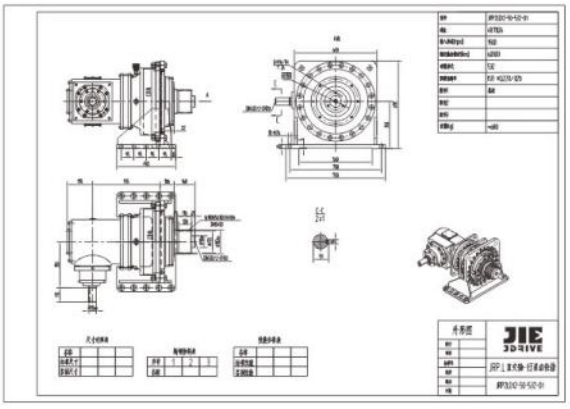
Example: Confirm prototype delivery, small batch delivery, batch delivery and other delivery information.

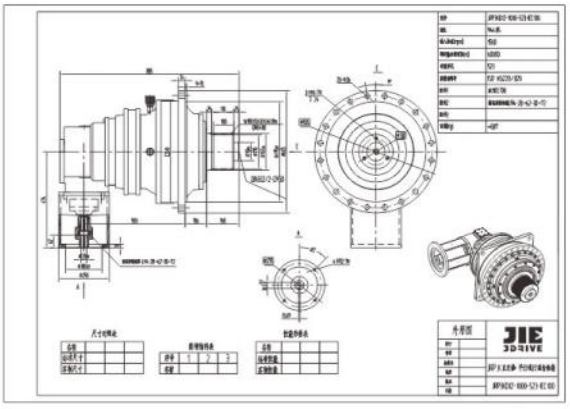


5. Generate 2D/3D drawing of JIE products

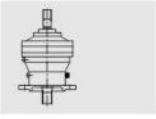








2. Product Pictures



JRP...01-8

JRP...9-36

JRPH

JRPG

3. Product Description

1. Product Characteristics

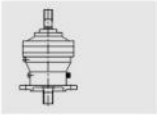
JRP planetary gear units, with independent intellectual property rights, is featured with no oil leakage, long service life, high torque, high speed ratio and intelligence. It includes JRP..N planetary gear units , JRP..S parallel shaft planetary gear units, JRP..L Bevel helical planetary gear units, JRP..K bevel helical – parallel shaft planetary gear units, and other JRP series product.

JRP planetary gear units promotes lean production, builds intelligent factories, and realizes the integration of research, production, supply, marketing and service, so as to meet customers' demand for rapid response through complete product planning and design such as “core product-extreme technology, peripheral product-extreme service, external product-extreme experience” and the implementation of the optimal plan of lean production in the whole value chain such as “product planning, design validation, processing test, assembly test, warehouse logistics, sales service, information system, HR, operation plan, strategy planning”.

JRP planetary gear units follows the concept of modular and optimized design. The whole-series product comprises AD2 solid shaft input interface, ADM flange solid shaft input interface, IEC electric motor input interface, A type shrink disc output module, B type solid shaft output module, C type hollow shaft with spline output module, D type solid shaft with spline output module, base installation, flange installation, torque arm installation and other input interfaces, output modules and installation types. This product supports the modular combination and integration of multi-stage gearbox with different types adapters, with standard painting color RAL7031 & packed based on order. And available for customized base on customer requirement.

JIE is committed to providing great products for great partners across the world, JIE Intelligent Drive Solutions Provider.

2. General Information



Attention!

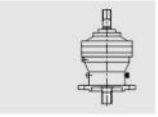
- Illustiations are examples only and not structly binding.JIE reserves the ringht to change the dimensions
- The default unit size in the manual is mm.
- The weights are average values and not strictly binding.
- To prevent the accidents,all rotanting parts should be guarded according to local and national safety regulations and be protected by cover.
- Prior to caommissioning,the operating instructions must be read.The gear units are on the ready –operational condition while delivery, the luhicent should be filled before operation.
- Oil quantities given are just for reference only.The exact quantity of oil will follow the oil dipstick.
- The oil ciscosity should be accord with the data given on the name plate.
- The gear units are supplied with radial shaft seals.For other typpes of oil seal, pleass inquine.
- Directions of rotation refev to output shaft d2.
- Illustration of symbols as following.

 =Oil dipstick

 =Breather

 =Oil drain

 =Oil filler



3. Summary of Basic Types

2 Stages Planetary unit

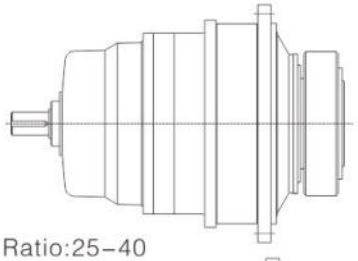
Example

JRP	2	N	A

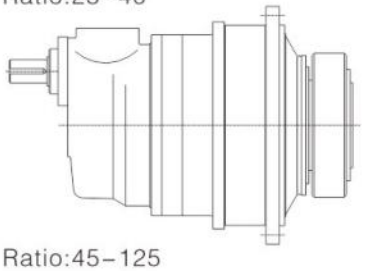
JRP	2	S	A

JRP	2	L	A

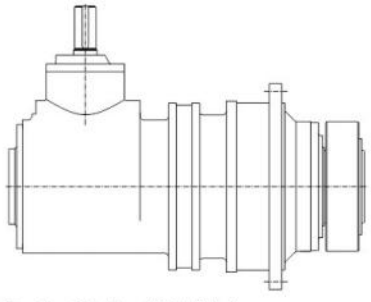
JRP	2	K	A



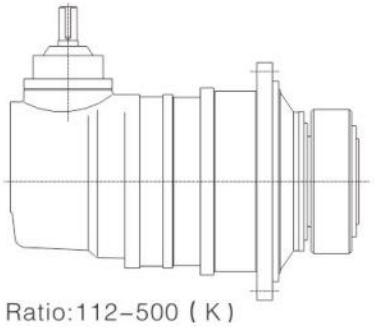
Ratio:25–40



Ratio:45–125



Ratio:31.5–100 (L)



Ratio:112–500 (K)

- A= Hollow Shaft Output With Shrink Disk
- B = Solid Shaft Output With Flat Key.
- C =Hollow Shaft Output With Involute Spline
- D=Solid Shaft Output With Involute Spline
- N = Standard (coaxial)
- S = One stage Helical gear panall shaft
- L = One stage Bevel gear rectargblar shaft
- K = One stage Bevel–helical gear finst stage
- 2 = Stages of planetary gear
- JRP = JIE Planetary gear units

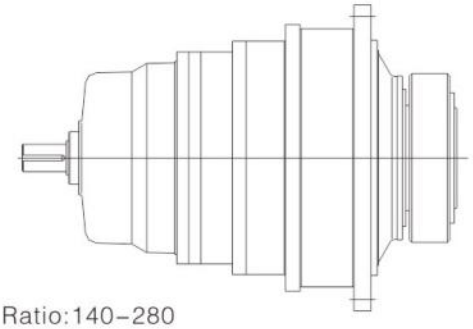
3 Stages Planetary unit

Example

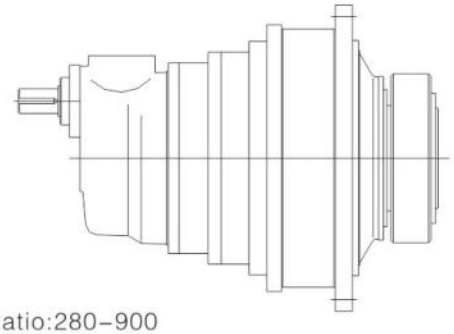
JRP	3	N	A

JRP	3	S	A

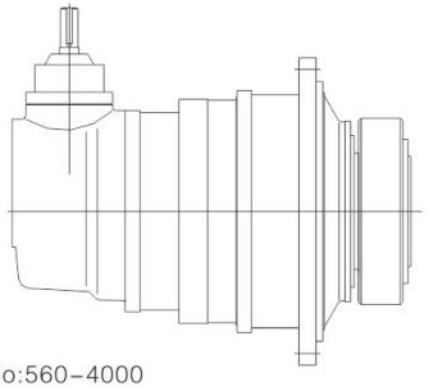
JRP	3	K	A



Ratio:140–280



Ratio:280–900



Ratio:560–4000

A= Hollow Shaft Output With Shrink Disk
B = Solid Shaft Output With Flat Key.
C = Hollow Shaft Output With Involute Spline
D= Solid Shaft Output With Involute Spline

N = Standard (coaxial)
S = Helical gear stage
K = Bevel–helical gear stage

3 = Number of planetary gear stages

JRP = JIE Planetary gear units

4. JRP 01~8 Planetary Gear Units

SUB-CONTENTS

1. Model Designation

J	RP	1	N	B	02	3.50	500	00
1	2	3	4	5	6	7	8	9

1 Enterprise Code

J–JIE Drive

2 Product Code

RP – Planetary Gear Units

3 No.of planetary

gear stages
1,2,3,4

4 Type of planetary gear

N –Standard(coaxial)

5 Output shaft design

A–Hollow Shaft Output with Shrink Disc
B–Solid Shaft Output with Flat Key
C–Hollow Shaft Output with Involute Spline
D–Solid Shaft Output with Involute Spline

6 Size

01……8

7 Ratio

See page 22–42

8 Mounting positions

See page 61

9 Add–on Pieces

See page 58

2. Technical Descriptions

i = Ratio
It represents the ratio between gear unit input and output speed.
Samples provide modular design units, such as consult JIE DRIVE need other transmission ratio

T_2 = Output torque (Nm)
Gear unit output torque referred to 10000 hours of operation,
calculated according to I.S.O.(D.P.6336). Output torque according to the different ratio of different input speed, according to the sample.

T_{2max} = Max. torque (Nm)
Max:permissible output torque , as peak or for short periods.

T_N = Nominal output torque (Nm)
The conventional torque characterizing the size of the gear unit , see page 21.

P_2=Nominal power (kW)

P_T = Thermal power(kW)

The power that can be transmitted continuously by the gear unit, in given operating conditions , relevant to the max.

If $P_2 > P_T$, the gear unit need auxiliary cooling device.

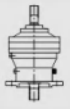
n_1=Input speed (r/min)

n_2=output speed (r/min)

F_a=Axial force (N)

F_r=Radial force (N)

3. Service Coefficient



The listed factors are empirical values. Prerequisite for their application is that the machinery and equipmentmentioned correspond to generally accepted design and load specifi-cations. In case of deviations from standardconditions, please refer to us.

Cs/Factor Cs

	Starts per hour			
	1–5	6–25	26–100	101–200
Cs	1	1.05	1.15	1.25

Application factor K_A

Application factor									
Driven machine		K_A	Driven machine	K_A	Driven machine		K_A
Agitators/Mixer			**Food industry**		Conveyor	Chip. bark	1.25
Pure liquids		1	Cereal cooker	1		Log	2
Liquid and solids		1.25	Dough mixer	1.25	Dryers	Grooving machine	1.25
Liquid –variable density		1.25	Meat grinders	1.25		Conveyor type	1.5
Clay working machine			**Hoist**			Extruder	1.5
Brick press		1.75	Heavy duty	1.75	Screen	Chip	1.5
Briquette machine		1.75	Medium duty	1.75		Rotary	1.5
Compactors		2	Skip hoist	1.25		Vibrating	2
Conveyors			**Laundry**			Size press	1.25
General	Worm conveyor	1	Tumblers	1.25		Super calender calender	1.25
	Uniform loaded or fed	1	Washers	1.5		Thickener (AC motor)	1.5
Heavey duty	Not uniform fed	1.25	**Lumber industry**			Thickener (DC motor)	1.25
	Reciprocating or shaker	1.75	Conveyors–burner burner	1.25		Washer (AC motor)	1.5
Cranes			Continuous cycle	1.5		Washer (AC motor)	1.25
Dry dock	Main hoist	2.5	Log processing	1.75	**Plastic industry**		
	Auxiliary Hoist	2.5	Planer	1.75	Batch mixers		1.75
	Boom Hoist	2.5	Transfer	1.25	Continuous mixers		1.5
	Slewing drive	2.5	Debarking drums	1.75	Calenders		1.5
	Traction drive	3	Transfers–chain	1.5	**Rubber industry**		
Container	Main hoist	3	**Metal mills**		Batch mixers		1.75
	Boom Hoist	2	Reversing	2	Continuous mixers		1.5
Industrial duty	Main	2.5	Slab pushers	1.5	Calenders		1.5
	Auxiliary	2.5	Shears	2	Sand muller		1.25
	Bridge	3	Wire drawing	1.25	**Sewage disposal equipment**		
	Trolley travel	3	Wire winding machine	1.5	Bar screens		1.25
Crusher			**Metal strip processing machinery**		Chemical feeders		1.5
Stone or ore		1.75	Limit actuator	1.25	Dewatering screens		1.5
Dredges			Coilers & uncoilers	1	Mixer		1.5
Cable reel		1.25	Edge trimmers	1.25	Sludge collectors		1.25
Conveyors		1.25	Flatteners	1.25	Thickeners		1.5
Cutter head drives		2	Pinch rolls	1.25	Vacuum filters		1.5
Screen drives		1.75	Scrap choppers	1.25	Screens	Air washing	1
Stackers		1.25	Shears	2		Rotary–stone	1.25
Winches		1.25	Slitters	1.25	**Sugar industry**		
Elevators			**Mills . rotary type**		Beet slicer		2
Bucket		1.25	Cement kilns	1.5	Cane knives		1.5
Escalators		1	dryers & coolers	1.5	Crushers		1.5
Extruders			Mixer concrete	1.25	Mills		1.75
General		1.5	**Paper mills**		**Textile industry**		
Plastic	Variabile speed drive	1.5	Agitator (mixer)	1.5	Batchers		1.25
	Fixed speed drive	1.75	Agitator for pure liquors	1.25	Calenders		1.25
Rubber	Continuous screw operation	1.75	Calender	1.25	Dryers		1.25
	Intermittent screw operation	1.75	Chipper	2			
Feeders	Apron	1.25	Chip feeder	1.5			
	Belt	1.25	Coating rolls	1.25			

4. Radial and axial load Selection Instruction

The radial force loaded on the output/Input shafts Fr[N].The catalogue gives the diagrams of permissible Fr radial loads on the output shafts referred $n_2 \cdot h=10^5$ of bearings.The Fr must be multiplied by the coeffient from diagram B, and C must not exceed1.5 of the life.

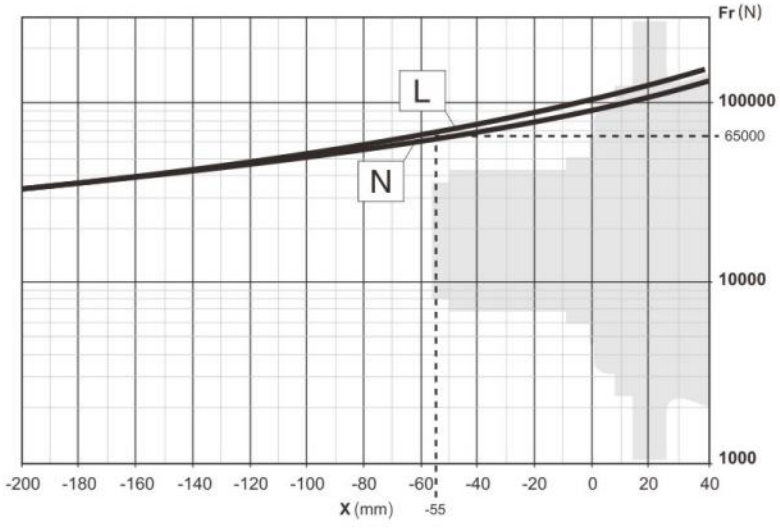


Diagram A

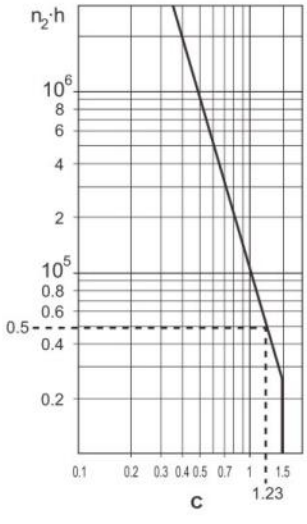


Diagram B

Calculation example

Known criteria:

Gear unit size JRP2NB4

Radial load F=80KN

Load position X=−55mm

Output speed n_2=20r/min

Radial load capacity Fr=65KN(as per diagram A)

$C=\frac{F}{Fr}=1.23$

$n_2 \cdot h = 0.5x10^5$(as per diagram B)

Bearing life $h=0.5x10^5/20=2500$hours

Each type of Input shafts and Output shafts allows the radial force Fr ,can view the corresponding parametersof various sizes.

5. Thermal Power P_T(kW)

The thermal power of the gear units are given in the tables summarizing the technical performance of thevarious reduction stages.

When using must meet the following conditions:

- With splash lubrication
- Horizontally mounted
- At a gear unit input speed of 1500 r/min
- For a max. oil temperature of 80℃(oil VG150)
- At an ambient temperature of 20℃
- Large interior space

If does not meet the conditions, should consider the following factor.

K Factor

Hours of work per day	Ambient temperature (℃)				
	10°	20°	30°	40°	50°
10	1.15	1	0.85	0.7	0.6
8	1.25	1.1	1	0.85	0.7
6	1.4	1.25	1.1	1	0.85
4	1.6	1.4	1.25	1.1	1
2	1.8	1.6	1.4	1.25	1.1

S Factor

	Input speed n(r/min)			
	1750	1500	1000	500
S	0.94	1	1.05	1.1

R Factor

	Small space	Large space	Outdoors
R	0.7	1.00	1.35

The revised thermal power value:$P_{T1}=P_T x K x S x R$

Check whether meet the conditions:$P_{T1}>P$

If does not meet the conditions, must have a secondary cooling device.

6. Selection Description

6.1 Selection Table of JIE JRP Products

Conditions of use:

Application industry: Equipment name:
Ambient temperature: Ambient humidity:
Altitude: Site of use: ☐indoor ☐outdoor
Start-stop frequency: Running time:
Load time: ☐15% ☐25% ☐40% ☐60% ☐100%
Current brand: Current model:
Existing problem: Items needing improvement:

Product information:

Packaging:
Packaging material: ☐Carton ☐Wooden case ☐Carton + Wooden case Case mark: ☐Chinese ☐English
Relevant data: ☐Certificate of conformity ☐Ex-factory inspection report ☐Chinese operating instruction
☐English operating instruction
List of accessories: ☐Gearbox base ☐ Motor flange mounting ☐ (One side) torque arm ☐ (Both sides) torque arm ☐Backstop £None
Appearance:
Paint color: ☐JMR-01 ☐JMG-01 ☐JGB-01 ☐RAL2002 ☐RAL5015 ☐RAL9003 ☐RAL7045 ☐RAL7031
Nameplate requirement: ☐Chinese ☐English Anti-corrosive grade: ☐Standard ☐JS1 ☐JS2 ☐JS3 ☐JS4
Installation:
Product model: ☐JRP.N. ☐JRP.S. ☐JRP.K. ☐JRP.L.
Type of installation: ☐Flange installation ☐Base installation
Mount position: ☐500 ☐900☐600 (see attached figure)
Output module: ☐Solid shaft with flat key ☐Solid shaft with spline ☐Hollow shaft with shrink disc
☐Hollow shaft with spline
Output shaft rotation: ☐ Clockwise ☐Counterclockwise ☐Two-direction
Input module: ☐IEC module ☐AD module ☐ADM module £None
Product model:
Performance:
Working speed: n2= Working shaft power (kW) : P =
Working torque (Nm)T= Service factor: f=
Lubrication: ☐Splash lubrication ☐Oil expansion tank immersion lubrication ☐Axial end pump forced lubrication
☐Electric pump forced lubrication
Cooling mode: ☐ Fan ☐ Air cooler system ☐ Plate water cooler system ☐None
Whether there is axial bearing radial force: ☐ Yes ☐ No Radial force:
Whether the output shaft withstands radial force: ☐ Yes ☐ No Radial force:
Whether the outlet shaft withstands axial force: ☐ Yes ☐ No Axial force:
Transmission ratio: i= Output torque: Service factor:

Type of motor: ☐Standard motor ☐Frequency conversion motor ☐Explosion-proof motor ☐Roller motor ☐Lifting motor
☐Servo motor
Rated power: kW Pole number: ☐2 ☐4 ☐6 ☐8
Rated voltage: ☐220/380V ☐380/660V Motor frequency: ☐50Hz ☐60Hz ☐87Hz
Insulation grade: ☐F ☐H Protection grade: ☐IP55 ☐IP56
Working system: ☐S1 ☐S3-40% Cooling mode: ☐IC410 ☐IC411 ☐IC416
Energy efficiency class: ☐ IE3 ☐ IE4
Fan voltage: ☐DC 24V ☐AC 220V (1～) ☐AC 220V (1～) ☐AC 380V (3～)
Fan frequency: ☐50Hz ☐60Hz
Braking voltage: ☐DC 24V ☐AC 220V ☐AC 380V
Release device: ☐ Handle release HR ☐ Screw release HF ☐ None Brake response: ☐ Ordinary ☐ Fast
Angle between release device and terminal box (clockwise from the end of shaft extension) : ☐0°☐90°☐180°☐270° (see attached figure)
Product model:

Customized information:
Packaging:
Appearance:
Installation dimension:
Performance indicators:
After-sales service:

Service information:
Pre-sales service:
Training consulting: ☐ Type selection training ☐ Application training ☐ Use and maintenance
Design selection: ☐ Participate in design ☐ Design verification ☐ Product selection
Demand confirmation: ☐ Working condition confirmation ☐ Product confirmation ☐ Service confirmation
In-sales service: ☐ On-site full inspection ☐ Process sampling ☐ Ex-factory inspection
After-sales service: ☐ Installation and commissioning☐ Testing and maintenance ☐ Spare parts

Business information:
Transportation:
Delivery place:
Delivery time:
Order quantity:
Settlement price:

Attached figure:

		Horizontal gear unit position 5...		Vertical gear unit position 9...	Vertical gear unit position 6...
Coaxial planetary gear units	0	JRP N. 500		900	600
Torque reaction arm	5	551	552	*)Viewing on input shaft **)please consult us	
		553	554		
		555	556		

6.2 Example of Type selection

Known
Prime mover
Electric motor: 1.5kW
Motor speed: 1500 (r/min)
Working machine
Conveyor belt uneven transport
Runtime:comtimuous 10 hours/day
Number of starts per hour : 1
Output torque: 4900 Nm
Max. torque on start : 9800 Nm
Output speed: 1.85 r/min
Design lift:10000 h
Mounting position:horizontal
Ambient temperature: 30 ℃
Large-space indoor installaion

Gear unit selection

6.1 Ratio required: 1500/1.85=810
6.2 Determine the rated torque
Application factor K_A: 1.25
Starfover coefficient C_S:1
Torque: $T_{2R}=4900 \times K_A \times C_S = 6125$ Nm,
the gear unit selected:$T_2 > T_{2R}$
reference torque for gear unit selection.
Select the gear unit according to the rated output torque,
for size No.4,$T_N=6400$ Nm$>T_{2R}$.
Search the ratio ieff of size4,the ratio 771.8 is close to
the ratio 810.
$T_2=7348$ Nm$>T_{2R}$, JRP4NB4 meet the torque requirements.
6.3 Calculation of transmission ratio: $i_{eff}=771.8$
6.4 Check the max. torque: $T_{2max}=10000$ Nm>9800 Nm
6.5 Check the thermal power:

$P_T=8$ kW
K=0.85
$P_{T1}=8 \times 0.85=6.8$ kW
Power of working machine: $P_2=4900 \times 1.9/9550=0.97$ kW
As $P_{T1} > P_2$ auxiliary cooling system will not be required.

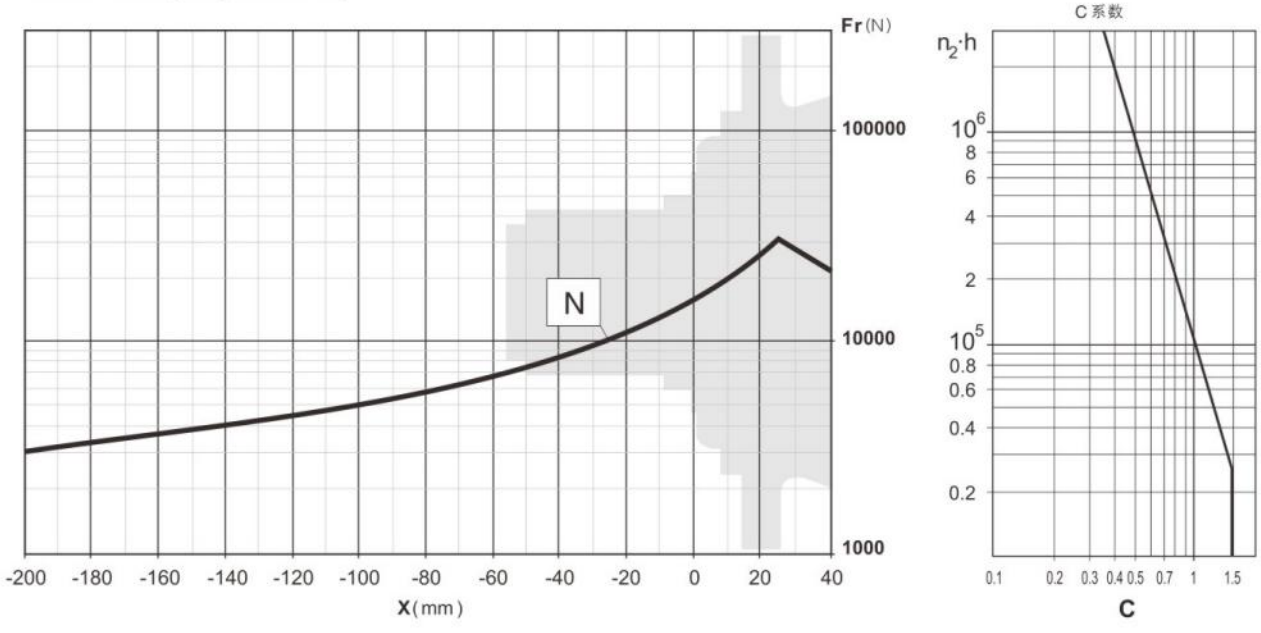
7. Specification & Torque

Type	i	T_N(Nm)	Output shafts dimension	
			DIN5482	Φ Solid shaft
01	3.38–765.1	1000	B40x36	42
02	3.08–3160	2100	B58x53	65
03	15.37–3170	3800	B58x53	65
1	15.37–3170	3800	B58x53	65
2	3.50–3301	3800	B58x53	65
3	3.50–3301	3800	B58x53	65
4	3.50–3170	6400	B70x64	80
5	12.25–315.4	6400	B70x64	80
6	4.08–3207	9200	B80x74	90
7	3.09–3460	13000	B80x74	100
8	19.50–272.7	13000	B100x94	100

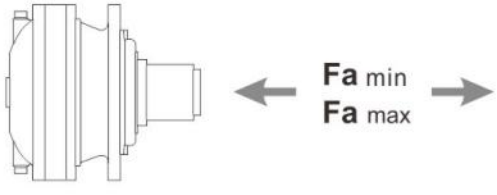
JRP...01

i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP1N...01											
3.38	444	410	19.1	296	463	14.4	148	570	8.8	1600	12
4.39	342	431	15.4	228	487	11.6	114	600	7.2	1600	
6	250	412	10.8	167	453	7.9	83	510	4.5	1600	
6.94	216	387	8.8	144	407	6.2	72	457	3.5	1600	
10.5	143	206	3.1	95	213	2.1	47.6	224	1.1	1600	
JRP2N...01											
11.42	131	591	8.1	88	667	6.1	43.8	821	3.8	1600	8
14.84	101	639	6.8	67	722	5.1	33.7	889	3.1	1600	
19.27	78	672	5.5	52	759	4.1	25.9	816	2.2	1600	
20.28	74	702	5.4	49.3	793	4.1	24.7	916	2.4	1600	
23.46	64	733	4.9	42.6	828	3.7	21.3	921	2.1	1600	
26.34	57	738	4.4	38	803	3.2	19	825	1.6	1600	
30.47	49.2	771	4	32.8	808	2.8	16.4	829	1.4	1600	
36	41.7	561	2.4	27.8	589	1.7	13.9	636	0.93	1600	
41.64	36	571	2.2	24	599	1.5	12	646	0.81	1600	
48.16	31.1	512	1.7	20.8	537	1.2	10.4	581	0.63	1600	
JRP3N...01											
65.14	23	918	2.2	15.4	931	1.5	7.7	952	0.77	1600	5
68.55	21.9	920	2.1	14.6	933	1.4	7.3	954	0.73	1600	
79.29	18.9	925	1.8	12.6	937	1.2	6.3	958	0.63	1600	
89.03	16.8	928	1.6	11.2	941	1.1	5.6	961	0.57	1600	
103	14.6	933	1.4	9.7	945	1	4.9	966	0.49	1600	
115.6	13	836	1.1	8.6	847	0.77	4.3	865	0.39	1600	
121.7	12.3	938	1.2	8.2	950	0.82	4.1	970	0.42	1600	
140.7	10.7	943	1.1	7.1	955	0.71	3.6	975	0.36	1600	
162.8	9.2	947	0.91	6.1	959	0.62	3.1	979	0.32	1600	
182.8	8.2	848	0.73	5.5	859	0.49	2.7	877	0.25	1600	
211.4	7.1	852	0.63	4.7	863	0.43	2.4	880	0.22	1600	
216	6.9	684	0.5	4.6	732	0.36	2.3	799	0.19	1600	
246.3	6.1	959	0.61	4.1	971	0.41	2	990	0.21	1600	
276.6	5.4	859	0.49	3.6	870	0.33	1.8	887	0.17	1600	
319.9	4.7	863	0.42	3.1	873	0.29	1.6	900	0.15	1600	
372.6	4	824	0.35	2.7	846	0.24	1.3	883	0.12	1600	
378	4	759	0.32	2.6	796	0.22	1.3	854	0.12	1600	
437.2	3.4	786	0.28	2.3	800	0.19	1.1	873	0.11	1600	
484	3.1	874	0.28	2.1	884	0.19	1	961	0.1	1600	
661.5	2.3	800	0.19	1.5	836	0.13	0.76	930	0.07	1600	
765.1	2	772	0.16	1.3	823	0.11	0.65	915	0.06	1600	

Radial force (Output shafts)

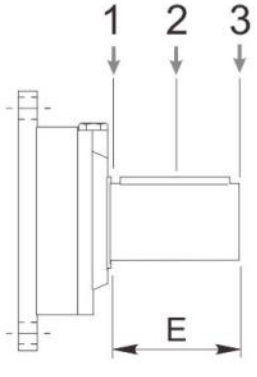


Axial force (Output shafts)



	法兰安装/Flange-mounted
Fa min(N)	9000
Fa max(N)	9000

Radial force (Input shafts)

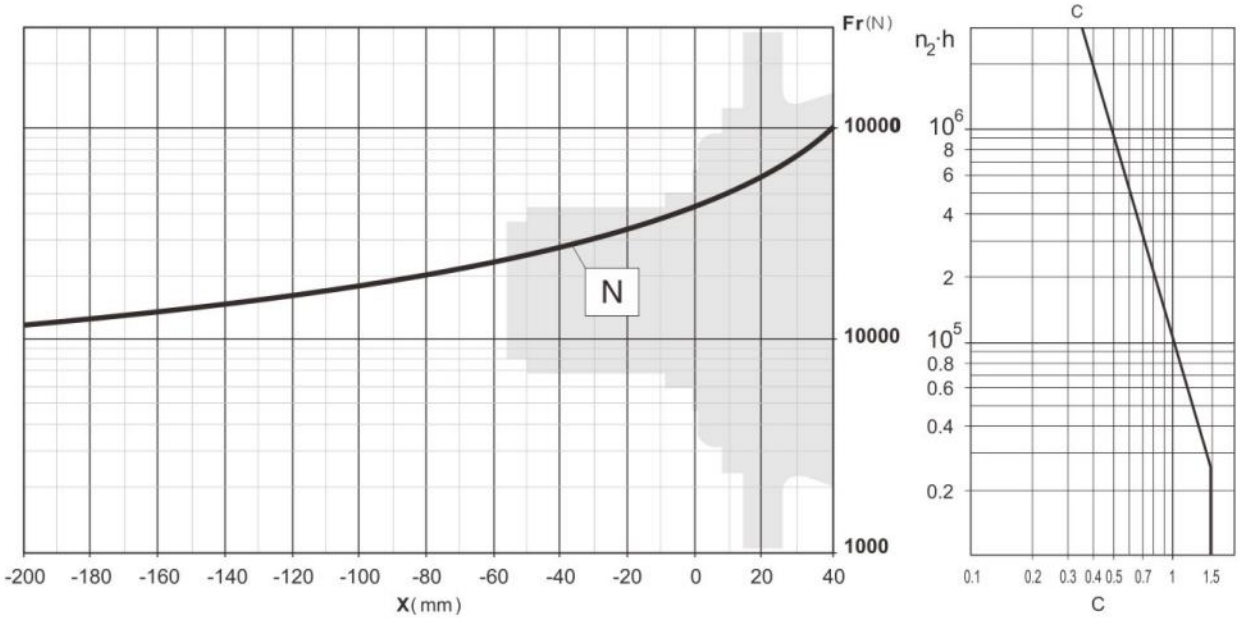


	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

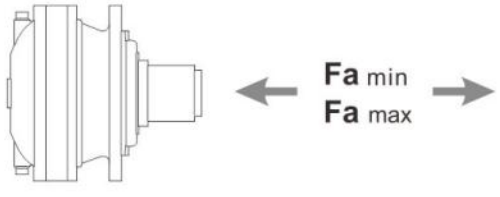
JRP...02

i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP1N...02											
3.08	487	888	45.3	325	1003	34.1	162	1235	21	2800	20
3.5	429	972	43.6	286	1098	32.9	143	1351	20.2	2800	
4.13	363	1005	38.2	242	1135	28.8	121	1397	17.7	2800	
5.17	290	1045	31.8	193	1159	23.5	97	1287	13	2800	
6	250	1001	26.2	167	1077	18.8	83	1187	10.4	2800	
7.25	207	863	18.7	138	924	13.3	69	1015	7.3	2800	
JRP2N...02											
10.41	144	1263	19.1	96	1427	14.4	48	1756	8.8	2800	12
11.83	127	1401	18.6	85	1582	14	42.3	1948	8.6	2800	
13.52	111	1329	15.4	74	1501	11.6	37	1848	7.2	2800	
15.37	98	1510	15.4	65	1705	11.6	32.5	2036	6.9	2800	
18.13	83	1566	13.6	55	1715	9.9	27.6	1840	5.3	2800	
21	71	1445	10.8	47.6	1585	7.9	23.8	1787	4.5	2800	
22.7	66	1348	9.3	44.1	1411	6.5	22	1515	3.5	2800	
24.78	61	1697	10.8	40.4	1772	7.5	20.2	1895	4	2800	
28.66	52	1600	8.8	34.9	1683	6.2	17.4	1890	3.5	2800	
31.02	48.4	1397	7.1	32.2	1458	4.9	16.1	1561	2.6	2800	
35.88	41.8	1419	6.2	27.9	1480	4.3	13.9	1582	2.3	2800	
41.64	36	1305	4.9	24	1360	3.4	12	1453	1.8	2800	
50.32	29.8	1116	3.5	19.9	1164	2.4	9.9	1246	1.3	2800	
JRP3N...02											
59.36	25.3	2071	5.5	16.8	2276	4	8.4	2514	2.2	2800	8
61.28	24.5	1861	4.8	16.3	1933	3.3	8.2	2078	1.8	2800	
70.98	21.1	2121	4.7	14.1	2201	3.2	7	2471	1.8	2800	
82.1	18.3	2150	4.1	12.2	2229	2.8	6.1	2545	1.6	2800	
92.19	16.3	2172	3.7	10.8	2259	2.6	5.4	2606	1.5	2800	
106.6	14.1	2201	3.2	9.4	2329	2.3	4.7	2683	1.3	2800	
108.8	13.8	1963	2.8	9.2	2035	2	4.6	2341	1.1	2800	
126	11.9	1963	2.4	7.9	2062	1.7	4	2228	0.93	2800	
145.7	10.3	1999	2.2	6.9	2097	1.5	3.4	2263	0.81	2800	
161.3	9.3	2333	2.3	6.2	2536	1.6	3.1	2800	0.91	2800	
172	8.7	2049	1.9	5.8	2231	1.4	2.9	2567	0.78	2800	
198.9	7.5	2113	1.7	5	2221	1.2	2.5	2401	0.63	2800	
220.5	6.8	2099	1.5	4.5	2196	1	2.3	2364	0.56	2800	
260.2	5.8	2235	1.3	3.8	2428	0.98	1.9	2785	0.56	2800	
289	5.2	1583	0.86	3.5	1727	0.63	1.7	1994	0.36	2800	
325.7	4.6	1833	0.88	3.1	1995	0.64	1.5	2297	0.37	2800	
JRP4N...02											
360.4	4.2	2748	1.2	2.8	2800	0.82	1.4	2800	0.41	2800	4
404.7	3.7	2800	1.1	2.5	2800	0.73	1.2	2800	0.35	2800	
468.1	3.2	2800	0.94	2.1	2800	0.62	1.1	2800	0.32	2800	
502.5	3	2554	0.8	2	2766	0.58	0.99	2800	0.29	2800	
569.8	2.6	2800	0.76	1.8	2800	0.53	0.88	2800	0.26	2800	
639.8	2.3	2800	0.67	1.6	2800	0.47	0.78	2800	0.23	2800	
708.2	2.1	2800	0.62	1.4	2800	0.41	0.71	2800	0.21	2800	
835.7	1.8	2800	0.53	1.2	2800	0.35	0.6	2800	0.18	2800	
892.1	1.7	2800	0.5	1.1	2800	0.32	0.56	2800	0.16	2800	
1032	1.5	2800	0.44	0.97	2800	0.28	0.48	2800	0.14	2800	
1120	1.3	2800	0.38	0.89	2800	0.26	0.45	2800	0.13	2800	
1323	1.1	2659	0.32	0.76	2789	0.22	0.38	2800	0.11	2800	
1380	1.1	2641	0.3	0.72	2800	0.21	0.36	2800	0.11	2800	
1561	0.96	2800	0.28	0.64	2800	0.19	0.32	2800	0.09	2800	
1806	0.83	2800	0.24	0.55	2800	0.16	0.28	2800	0.08	2800	
1999	0.75	2800	0.22	0.5	2800	0.15	0.25	2800	0.07	2800	
2315	0.65	2800	0.19	0.43	2800	0.13	0.22	2800	0.06	2800	
2615	0.57	2783	0.17	0.38	2800	0.11	0.19	2800	0.06	2800	
2732	0.55	2800	0.16	0.37	2800	0.11	0.18	2800	0.05	2800	
3160	0.47	2800	0.14	0.32	2800	0.09	0.16	2800	0.05	2800	

Radial force (Output shafts)

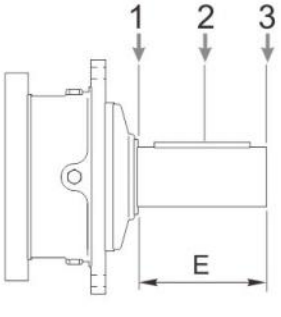


Axial force (Output shafts)

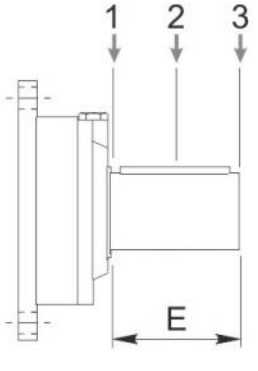


	Flange-mounted
Fa min(N)	35000
Fa max(N)	60000

Radial force (Input shafts)

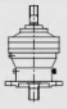


	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200



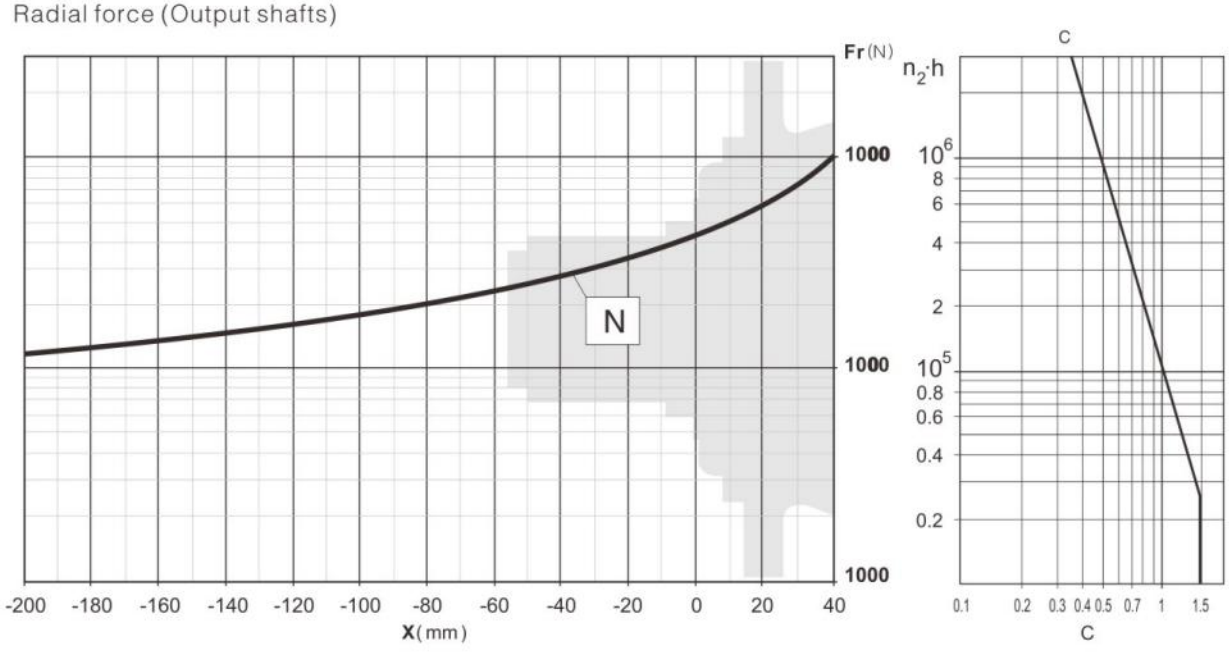
	E	Fr					
		n1 · h=10^7			n1 · h=10^8		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

JRP...03

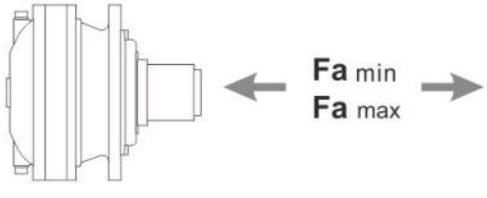


i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP2N...03											
15.37	98	1510	15.4	65	1705	11.6	32.5	2100	7.2	5600	12
17.47	86	2121	19.1	57	2395	14.4	28.6	2732	8.2	6000	
20.28	74	2206	17.1	49.3	2314	12	24.7	2494	6.4	6000	
22.7	66	2231	15.4	44.1	2519	11.6	22	2805	6.5	6000	
26.34	57	2276	13.6	38	2383	9.5	19	2560	5.1	6000	
31.02	48.4	2134	10.8	32.2	2342	7.9	16.1	2639	4.5	6000	
36	41.7	2358	10.3	27.8	2463	7.2	13.9	2640	3.8	6000	
41.64	36	2325	8.8	24	2446	6.2	12	2678	3.4	6000	
43.5	34.5	2027	7.3	23	2119	5.1	11.5	2276	2.7	6000	
50.32	29.8	2060	6.4	19.9	2152	4.5	9.9	2309	2.4	6000	
JRP3N...03											
59.06	25.4	2765	7.4	16.9	2879	5.1	8.5	3076	2.7	6000	8
61.28	24.5	2640	6.8	16.3	2982	5.1	8.2	3671	3.1	6000	
70.98	21.1	2457	5.4	14.1	2775	4.1	7	3206	2.4	6000	
83.76	17.9	2900	5.4	11.9	3275	4.1	6	3783	2.4	6000	
89.03	16.8	2591	4.6	11.2	2695	3.2	5.6	2876	1.7	6000	
96.88	15.5	3029	4.9	10.3	3421	3.7	5.2	3803	2.1	6000	
108.8	13.8	3051	4.4	9.2	3320	3.2	4.6	3410	1.6	6000	
124.2	12.1	2447	3.1	8.1	2528	2.1	4	2658	1.1	6000	
146.6	10.2	2888	3.1	6.8	2983	2.1	3.4	3137	1.1	6000	
157.5	9.5	3042	3	6.3	3179	2.1	3.2	3695	1.2	6000	
186.1	8.1	2901	2.4	5.4	3046	1.7	2.7	3292	0.93	6000	
198.9	7.5	2115	1.7	5	2221	1.2	2.5	2401	0.63	6000	
215.3	7	2953	2.2	4.6	3098	1.5	2.3	3343	0.81	6000	
249	6	2648	1.7	4	2780	1.2	2	3006	0.63	6000	
289	5.2	2924	1.6	3.5	3197	1.2	1.7	3489	0.63	6000	
325.7	4.6	3101	1.5	3.1	3244	1	1.5	3492	0.56	6000	
JRP4N...03											
367.7	4.1	3835	1.6	2.7	3888	1.1	1.4	3972	0.57	6000	4
404.7	3.7	2928	1.1	2.5	2966	0.77	1.2	3029	0.39	6000	
460.3	3.3	3674	1.3	2.2	4000	0.91	1.1	4605	0.52	6000	
495.4	3	3874	1.2	2	3925	0.83	1	4008	0.42	6000	
581.3	2.6	3894	1.1	1.7	3944	0.71	0.86	4027	0.36	6000	
643.5	2.3	3907	0.95	1.6	3956	0.64	0.78	4039	0.33	6000	
691.5	2.2	4002	0.91	1.4	4348	0.66	0.72	4494	0.34	6000	
817.1	1.8	4142	0.8	1.2	4424	0.57	0.61	4516	0.29	6000	
879.4	1.7	3945	0.71	1.1	3994	0.48	0.57	4075	0.24	6000	
1017	1.5	3963	0.61	0.98	4011	0.41	0.49	4092	0.21	6000	
1142	1.3	3550	0.49	0.88	3593	0.33	0.44	3666	0.17	6000	
1304	1.2	2886	0.35	0.77	2961	0.24	0.38	3092	0.12	6000	
1430	1	4445	0.49	0.7	4498	0.33	0.35	4589	0.17	6000	
1539	0.97	3406	0.35	0.65	3494	0.24	0.32	3649	0.12	6000	
1806	0.83	3248	0.28	0.55	3304	0.19	0.28	3607	0.11	6000	
1999	0.75	3610	0.28	0.5	3652	0.19	0.25	3969	0.1	6000	
2268	0.66	4502	0.31	0.44	4781	0.22	0.22	5124	0.12	6000	
2502	0.6	4519	0.28	0.4	4572	0.19	0.2	4969	0.1	6000	
2904	0.52	4726	0.26	0.34	5112	0.18	0.17	5767	0.1	6000	
3170	0.47	4042	0.2	0.32	4382	0.15	0.16	5013	0.08	6000	

Radial force (Output shafts)

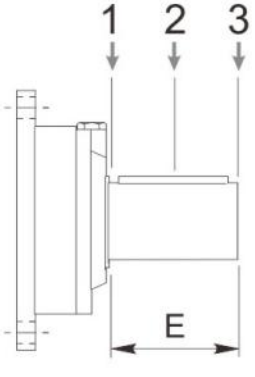


Axial force (Output shafts)



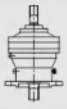
	Flange-mounted
Fa min(N)	35000
Fa max(N)	60000

Radial force (Input shafts)



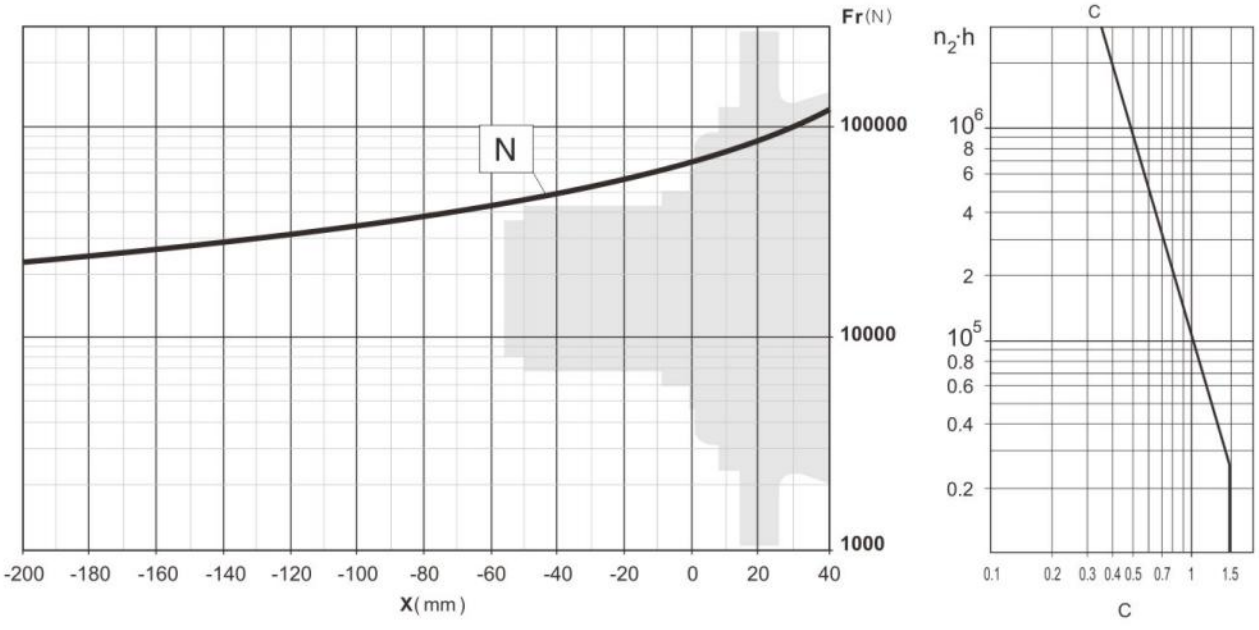
	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

JRP...1

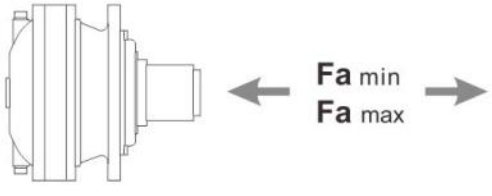


i	1500			1000			500			T_{2max} (Nm)	P_1 (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP2N...1											
15.37	98	1510	15.4	65	1705	11.6	32.5	2100	7.2	5600	12
17.47	86	2121	19.1	57	2395	14.4	28.6	2732	8.2	6000	
20.28	74	2206	17.1	49.3	2314	12	24.7	2494	6.4	6000	
22.7	66	2231	15.4	44.1	2519	11.6	22	2805	6.5	6000	
26.34	57	2276	13.6	38	2383	9.5	19	2560	5.1	6000	
31.02	48.4	2134	10.8	32.2	2342	7.9	16.1	2639	4.5	6000	
36	41.7	2358	10.3	27.8	2463	7.2	13.9	2640	3.8	6000	
41.64	36	2325	8.8	24	2446	6.2	12	2678	3.4	6000	
43.5	34.5	2027	7.3	23	2119	5.1	11.5	2276	2.7	6000	
50.32	29.8	2060	6.4	19.9	2152	4.5	9.9	2309	2.4	6000	
JRP3N...1											
59.06	25.4	2765	7.4	16.9	2879	5.1	8.5	3076	2.7	6000	8
61.28	24.5	2640	6.8	16.3	2982	5.1	8.2	3671	3.1	6000	
70.98	21.1	2457	5.4	14.1	2775	4.1	7	3206	2.4	6000	
83.76	17.9	2900	5.4	11.9	3275	4.1	6	3783	2.4	6000	
89.03	16.8	2591	4.6	11.2	2695	3.2	5.6	2876	1.7	6000	
96.88	15.5	3029	4.9	10.3	3421	3.7	5.2	3803	2.1	6000	
108.8	13.8	3051	4.4	9.2	3320	3.2	4.6	3410	1.6	6000	
124.2	12.1	2447	3.1	8.1	2528	2.1	4	2658	1.1	6000	
146.6	10.2	2888	3.1	6.8	2983	2.1	3.4	3137	1.1	6000	
157.5	9.5	3042	3	6.3	3179	2.1	3.2	3695	1.2	6000	
186.1	8.1	2901	2.4	5.4	3046	1.7	2.7	3292	0.93	6000	
198.9	7.5	2115	1.7	5	2221	1.2	2.5	2401	0.63	6000	
215.3	7	2953	2.2	4.6	3098	1.5	2.3	3343	0.81	6000	
249	6	2648	1.7	4	2780	1.2	2	3006	0.63	6000	
289	5.2	2924	1.6	3.5	3197	1.2	1.7	3489	0.63	6000	
325.7	4.6	3101	1.5	3.1	3244	1	1.5	3492	0.56	6000	
JRP4N...1											
367.7	4.1	3835	1.6	2.7	3888	1.1	1.4	3972	0.57	6000	4
404.7	3.7	2928	1.1	2.5	2966	0.77	1.2	3029	0.39	6000	
460.3	3.3	3674	1.3	2.2	4000	0.91	1.1	4605	0.52	6000	
495.4	3	3874	1.2	2	3925	0.83	1	4008	0.42	6000	
581.3	2.6	3894	1.1	1.7	3944	0.71	0.86	4027	0.36	6000	
643.5	2.3	3907	0.95	1.6	3956	0.64	0.78	4039	0.33	6000	
691.5	2.2	4002	0.91	1.4	4348	0.66	0.72	4494	0.34	6000	
817.1	1.8	4142	0.8	1.2	4424	0.57	0.61	4516	0.29	6000	
879.4	1.7	3945	0.71	1.1	3994	0.48	0.57	4075	0.24	6000	
1017	1.5	3963	0.61	0.98	4011	0.41	0.49	4092	0.21	6000	
1142	1.3	3550	0.49	0.88	3593	0.33	0.44	3666	0.17	6000	
1304	1.2	2886	0.35	0.77	2961	0.24	0.38	3092	0.12	6000	
1430	1	4445	0.49	0.7	4498	0.33	0.35	4589	0.17	6000	
1539	0.97	3406	0.35	0.65	3494	0.24	0.32	3649	0.12	6000	
1806	0.83	3248	0.28	0.55	3304	0.19	0.28	3607	0.11	6000	
1999	0.75	3610	0.28	0.5	3652	0.19	0.25	3969	0.1	6000	
2268	0.66	4502	0.31	0.44	4781	0.22	0.22	5124	0.12	6000	
2502	0.6	4519	0.28	0.4	4572	0.19	0.2	4969	0.1	6000	
2904	0.52	4726	0.26	0.34	5112	0.18	0.17	5767	0.1	6000	
3170	0.47	4042	0.2	0.32	4382	0.15	0.16	5013	0.08	6000	

Radial force (Output shafts)

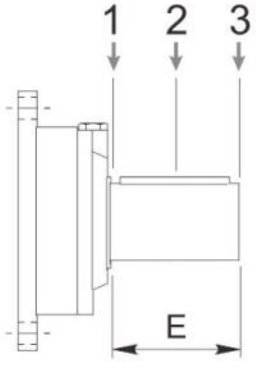


Axial force (Output shafts)



	Flange-mounted
Fa min(N)	45000
Fa max(N)	80000

Radial force (Input shafts)

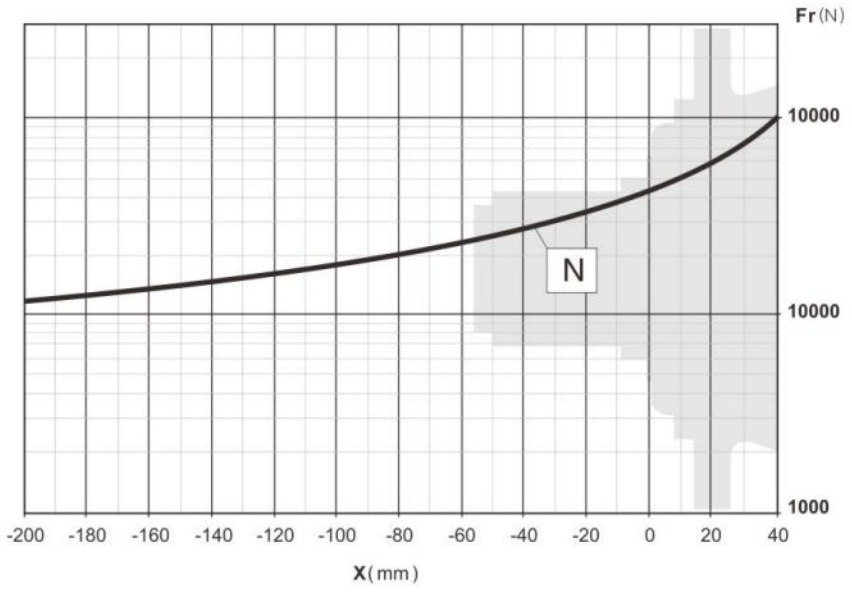


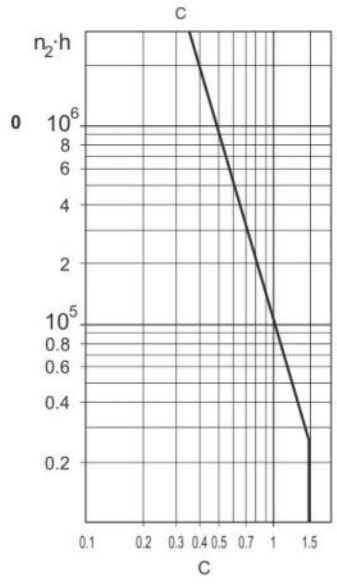
	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

JRP...2

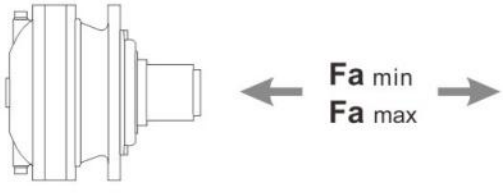
i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP1N...2											
3.5	429	1565	70	286	1767	53	143	2175	32.6	6000	
4.13	363	1617	62	242	1827	46.3	121	2249	28.5	6000	
5.17	290	1682	51	193	1900	38.5	97	2339	23.7	6000	20
6	250	1732	45.4	167	1956	34.1	83	2173	19	6000	
7.25	207	1582	34.3	138	1695	24.5	69	1868	13.5	6000	
JRP2N...2											
10.78	139	2193	32	93	2476	24.1	46.4	3049	14.8	6000	
12.25	122	2278	29.2	82	2573	22	40.8	3168	13.5	6000	
14.46	104	2394	26	69	2704	19.6	34.6	3329	12.1	6000	
17.06	88	2475	22.8	59	2795	17.2	29.3	3393	10.4	6000	
18.1	83	2561	22.2	55	2893	16.7	27.6	3562	10.3	6000	
21	71	2678	20	47.6	3025	15.1	23.8	3724	9.3	6000	
25.38	59	2835	17.6	39.4	3202	13.2	19.7	3553	7.3	6000	15
29.94	50	2931	15.4	33.4	3310	11.6	16.7	3583	6.3	6000	
31.02	48.4	2582	13.1	32.2	2698	9.1	16.1	2893	4.9	6000	
36	41.7	2358	10.3	27.8	2463	7.2	13.9	2640	3.8	6000	
43.5	34.5	2407	8.7	23	2511	6	11.5	2689	3.2	6000	
52.56	28.5	2070	6.2	19	2161	4.3	9.5	2319	2.3	6000	
JRP3N...2											
53.78	27.9	3552	10.4	18.6	3961	7.7	9.3	4314	4.2	6000	
63.46	23.6	3732	9.2	15.8	4022	6.6	7.9	4469	3.7	6000	
73.5	20.4	3901	8.3	13.6	4077	5.8	6.8	4609	3.3	6000	
79.44	18.9	3955	7.8	12.6	4106	5.4	6.3	4684	3.1	6000	
92.19	16.3	4010	6.8	10.8	4174	4.7	5.4	4831	2.7	6000	
100.3	15	4042	6.3	10	4250	4.4	5	4915	2.6	6000	
108.6	13.8	4071	5.9	9.2	4323	4.2	4.6	4996	2.4	6000	
125.6	11.9	4125	5.2	8	4459	3.7	4	5146	2.1	6000	
145.7	10.3	4221	4.6	6.9	4601	3.3	3.4	5088	1.8	6000	10
152.3	9.9	3846	4	6.6	4014	2.8	3.3	4302	1.5	6000	
176.1	8.5	3907	3.5	5.7	4074	2.4	2.8	4363	1.3	6000	
207.8	7.2	3970	3	4.8	4326	2.2	2.4	4941	1.2	6000	
224.2	6.7	4035	2.8	4.5	4395	2.1	2.2	4798	1.1	6000	
260.2	5.8	4165	2.5	3.8	4532	1.8	1.9	4970	1	6000	
280.7	5.3	3302	1.8	3.6	3605	1.3	1.8	4167	0.78	6000	
314.4	4.8	4334	2.2	3.2	4711	1.6	1.6	5022	0.84	6000	
364.8	4.1	2542	1.1	2.7	2788	0.8	1.4	3244	0.47	6000	
JRP4N...2											
404.7	3.7	5051	2	2.5	5245	1.4	1.2	5615	0.73	6000	
441	3.4	5312	1.9	2.3	5418	1.3	1.1	5684	0.68	6000	
510.1	2.9	5382	1.7	2	5439	1.1	0.98	5803	0.6	6000	
551.3	2.7	5393	1.5	1.8	5449	1	0.91	5867	0.56	6000	
639.8	2.3	5270	1.3	1.6	5470	0.9	0.78	5992	0.49	6000	
696.2	2.2	5425	1.2	1.4	5495	0.83	0.72	6000	0.45	6000	
773.1	1.9	4524	0.92	1.3	4698	0.64	0.65	5463	0.37	6000	
913.5	1.6	4595	0.79	1.1	4866	0.56	0.55	5662	0.33	6000	
1011	1.5	5477	0.85	0.99	5796	0.6	0.49	6000	0.31	6000	
1140	1.3	5565	0.77	0.88	5895	0.54	0.44	6000	0.28	6000	6
1222	1.2	4743	0.61	0.82	5190	0.45	0.41	6021	0.26	6000	
1442	1	5337	0.58	0.69	5652	0.41	0.35	6226	0.23	6000	
1599	0.94	5036	0.5	0.63	5502	0.36	0.31	6366	0.21	6000	
1849	0.81	5200	0.44	0.54	5676	0.32	0.27	6559	0.19	6000	
1995	0.75	4415	0.35	0.5	4530	0.24	0.25	4730	0.12	6000	
2315	0.65	5124	0.35	0.43	5257	0.24	0.22	5489	0.12	6000	
2623	0.57	4633	0.28	0.38	5013	0.2	0.19	5720	0.11	6000	
2798	0.54	5687	0.32	0.36	6000	0.23	0.18	6000	0.11	6000	
3301	0.45	5997	0.29	0.3	6000	0.19	0.15	6000	0.09	6000	

Radial force (Output shafts)



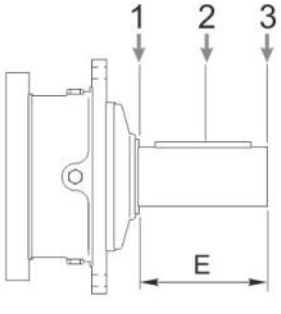


Axial force (Output shafts)

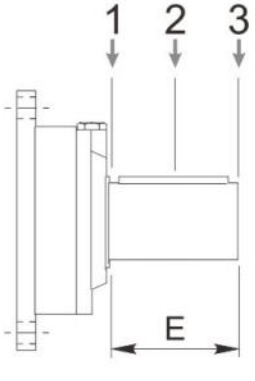


	Flange-mounted
Fa min(N)	35000
Fa max(N)	60000

Radial force (Input shafts)



	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200

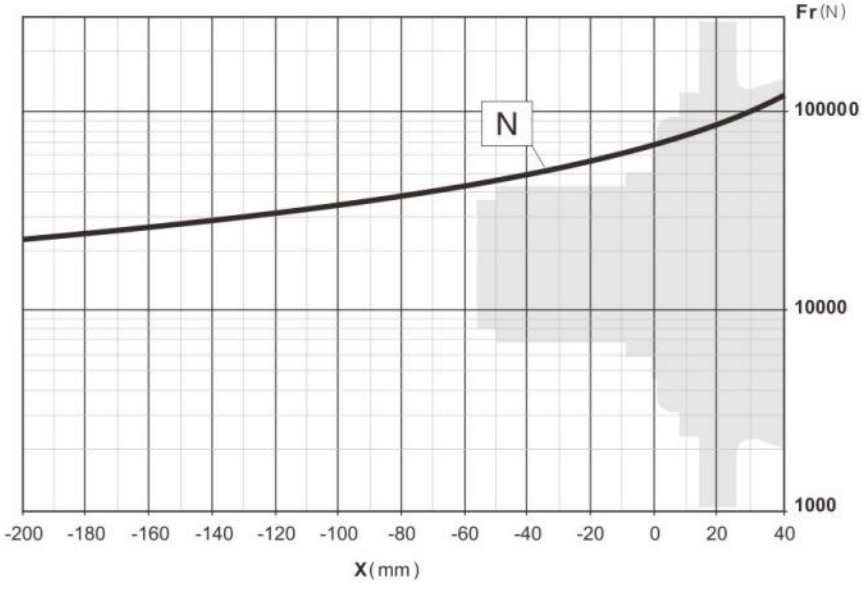


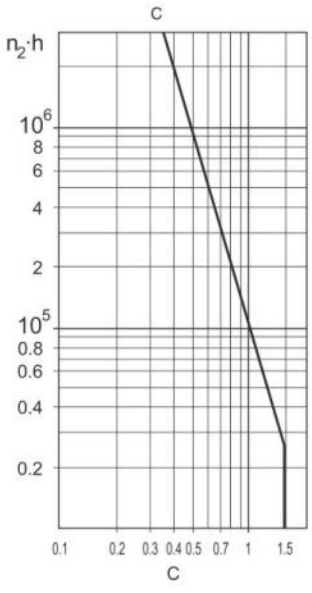
	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

JRP...3

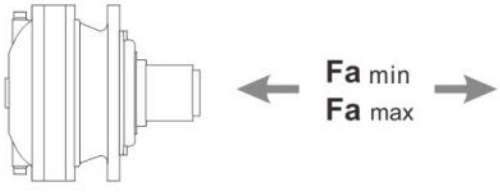
i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP1N...3											
3.5	429	1565	70	286	1767	53	143	2175	32.6	6000	20
4.13	363	1617	62	242	1827	46.3	121	2249	28.5	6000	
5.17	290	1682	51	193	1900	38.5	97	2339	23.7	6000	
6	250	1732	45.4	167	1956	34.1	83	2173	19	6000	
7.25	207	1582	34.3	138	1695	24.5	69	1868	13.5	6000	
JRP2N...3											
10.78	139	2193	32	93	2476	24.1	46.4	3049	14.8	6000	15
12.25	122	2278	29.2	82	2573	22	40.8	3168	13.5	6000	
14.46	104	2394	26	69	2704	19.6	34.6	3329	12.1	6000	
17.06	88	2475	22.8	59	2795	17.2	29.3	3393	10.4	6000	
18.1	83	2561	22.2	55	2893	16.7	27.6	3562	10.3	6000	
21	71	2678	20	47.6	3025	15.1	23.8	3724	9.3	6000	
25.38	59	2835	17.6	39.4	3202	13.2	19.7	3553	7.3	6000	
29.94	50	2931	15.4	33.4	3310	11.6	16.7	3583	6.3	6000	
31.02	48.4	2582	13.1	32.2	2698	9.1	16.1	2893	4.9	6000	
36	41.7	2358	10.3	27.8	2463	7.2	13.9	2640	3.8	6000	
43.5	34.5	2407	8.7	23	2511	6	11.5	2689	3.2	6000	
52.56	28.5	2070	6.2	19	2161	4.3	9.5	2319	2.3	6000	
JRP3N...3											
53.78	27.9	3552	10.4	18.6	3961	7.7	9.3	4314	4.2	6000	10
63.46	23.6	3732	9.2	15.8	4022	6.6	7.9	4469	3.7	6000	
73.5	20.4	3901	8.3	13.6	4077	5.8	6.8	4609	3.3	6000	
79.44	18.9	3955	7.8	12.6	4106	5.4	6.3	4684	3.1	6000	
92.19	16.3	4010	6.8	10.8	4174	4.7	5.4	4831	2.7	6000	
100.3	15	4042	6.3	10	4250	4.4	5	4915	2.6	6000	
108.6	13.8	4071	5.9	9.2	4323	4.2	4.6	4996	2.4	6000	
125.6	11.9	4125	5.2	8	4459	3.7	4	5146	2.1	6000	
145.7	10.3	4221	4.6	6.9	4601	3.3	3.4	5088	1.8	6000	
152.3	9.9	3846	4	6.6	4014	2.8	3.3	4302	1.5	6000	
176.1	8.5	3907	3.5	5.7	4074	2.4	2.8	4363	1.3	6000	
207.8	7.2	3970	3	4.8	4326	2.2	2.4	4941	1.2	6000	
224.2	6.7	4035	2.8	4.5	4395	2.1	2.2	4798	1.1	6000	
260.2	5.8	4165	2.5	3.8	4532	1.8	1.9	4970	1	6000	
280.7	5.3	3302	1.8	3.6	3605	1.3	1.8	4167	0.78	6000	
314.4	4.8	4334	2.2	3.2	4711	1.6	1.6	5022	0.84	6000	
364.8	4.1	2542	1.1	2.7	2788	0.8	1.4	3244	0.47	6000	
JRP4N...3											
404.7	3.7	5051	2	2.5	5245	1.4	1.2	5615	0.73	6000	6
441	3.4	5312	1.9	2.3	5418	1.3	1.1	5684	0.68	6000	
510.1	2.9	5382	1.7	2	5439	1.1	0.98	5803	0.6	6000	
551.3	2.7	5393	1.5	1.8	5449	1	0.91	5867	0.56	6000	
639.8	2.3	5270	1.3	1.6	5470	0.9	0.78	5992	0.49	6000	
696.2	2.2	5425	1.2	1.4	5495	0.83	0.72	6000	0.45	6000	
773.1	1.9	4524	0.92	1.3	4698	0.64	0.65	5463	0.37	6000	
913.5	1.6	4595	0.79	1.1	4866	0.56	0.55	5662	0.33	6000	
1011	1.5	5477	0.85	0.99	5796	0.6	0.49	6000	0.31	6000	
1140	1.3	5565	0.77	0.88	5895	0.54	0.44	6000	0.28	6000	
1222	1.2	4743	0.61	0.82	5190	0.45	0.41	6021	0.26	6000	
1442	1	5337	0.58	0.69	5652	0.41	0.35	6226	0.23	6000	
1599	0.94	5036	0.5	0.63	5502	0.36	0.31	6366	0.21	6000	
1849	0.81	5200	0.44	0.54	5676	0.32	0.27	6559	0.19	6000	
1995	0.75	4415	0.35	0.5	4530	0.24	0.25	4730	0.12	6000	
2315	0.65	5124	0.35	0.43	5257	0.24	0.22	5489	0.12	6000	
2623	0.57	4633	0.28	0.38	5013	0.2	0.19	5720	0.11	6000	
2798	0.54	5687	0.32	0.36	6000	0.23	0.18	6000	0.11	6000	
3301	0.45	5997	0.29	0.3	6000	0.19	0.15	6000	0.09	6000	

Radial force (Output shafts)



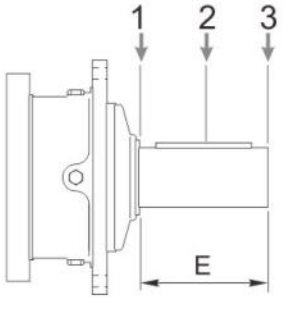


Axial force (Output shafts)

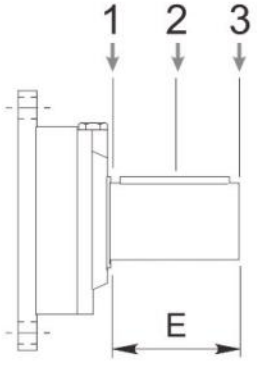


	Flange–mounted
Fa min(N)	45000
Fa max(N)	80000

Radial force (Input shafts)



	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200

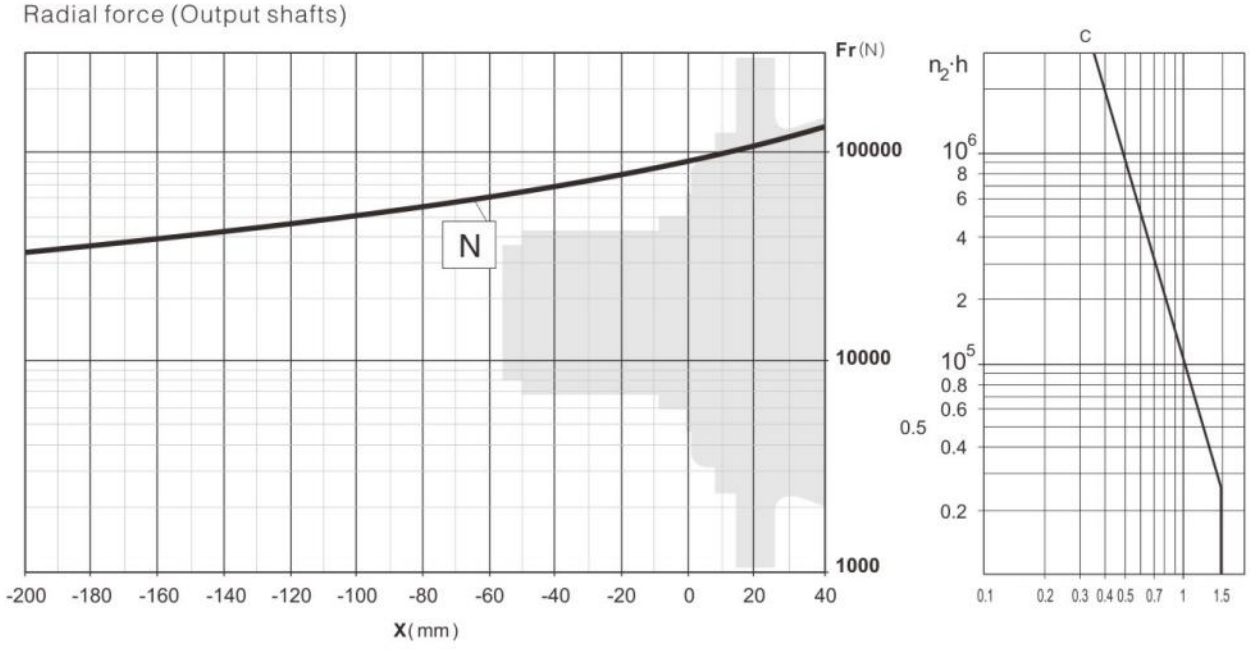


	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

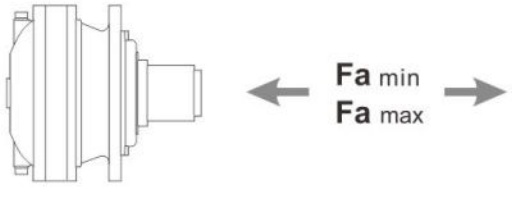
JRP...4

i	1500			1000			500			T_{2max} (Nm)	P_1 (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP1N...4											
3.5	429	2241	101	286	2531	76	143	3116	46.6	10000	30
3.86	389	2307	94	259	2605	71	130	3207	43.5	10000	
4.33	346	2346	85	231	2650	64	115	3262	39.5	10000	
5	300	2401	75	200	2712	57	100	3338	35	10000	
6	250	2502	66	167	2826	49.3	83	3480	30.4	10000	
JRP2N...4											
10.78	139	3110	45.3	93	3512	34.1	46.4	4324	21	9800	18
12.25	122	3264	41.9	82	3686	31.5	40.8	4538	19.4	9800	
13.51	111	3359	39.1	74	3794	29.4	37	4671	18.1	10000	
15.16	99	3417	35.4	66	3859	26.7	33	4751	16.4	10000	
17.88	84	3590	31.5	56	4055	23.8	28	4992	14.6	10000	
20.65	73	3674	28	48.4	4150	21	24.2	5109	13	10000	
22.39	67	3841	27	44.7	4338	20.3	22.3	5340	12.5	10000	
25.98	58	4016	24.3	38.5	4536	18.3	19.2	5140	10.4	10000	
27.99	54	3334	18.7	35.7	3567	13.3	17.9	3918	7.3	10000	
30	50	4110	21.5	33.3	4642	16.2	16.7	5479	9.6	10000	
36.25	41.4	4319	18.7	27.6	4620	13.3	13.8	5075	7.3	10000	
43.5	34.5	3971	14.3	23	4137	10	11.5	4422	5.3	10000	
JRP3N...4											
51.22	29.3	4924	15.1	19.5	5561	11.4	9.8	6150	6.3	10000	14
53.78	27.9	5087	14.9	18.6	5745	11.2	9.3	7073	6.9	10000	
60.44	24.8	5174	13.4	16.5	5844	10.1	8.3	6246	5.4	10000	
73.5	20.4	5058	10.8	13.6	5549	7.9	6.8	6254	4.5	10000	
78.51	19.1	5597	11.2	12.7	6005	8	6.4	6603	4.4	10000	
90.93	16.5	5849	10.1	11	6085	7	5.5	6810	3.9	10000	
98.27	15.3	5841	9.3	10.2	6112	6.5	5.1	6560	3.5	10000	
110.6	13.6	6079	8.6	9	6361	6	4.5	7297	3.5	10000	
123.9	12.1	5642	7.2	8.1	5851	4.9	4	6651	2.8	10000	
134.3	11.2	6051	7.1	7.4	6315	4.9	3.7	6760	2.6	10000	
155.1	9.7	5757	5.8	6.4	6024	4.1	3.2	6968	2.4	10000	
180	8.3	5834	5.1	5.6	6219	3.6	2.8	7170	2.1	10000	
208.2	7.2	5910	4.5	4.8	6413	3.2	2.4	7269	1.8	10000	
217.5	6.9	5495	4	4.6	5735	2.8	2.3	6146	1.5	10000	
251.6	6	5581	3.5	4	5821	2.4	2	6233	1.3	10000	
272.8	5.5	5375	3.1	3.7	5552	2.1	1.8	5838	1.1	10000	
JRP4N...4											
322.7	4.6	7604	3.7	3.1	7906	2.6	1.5	9121	1.5	10000	8
373.2	4	7704	3.2	2.7	8152	2.3	1.3	9392	1.3	10000	
411.6	3.6	7683	2.9	2.4	8332	2.1	1.2	9537	1.2	10000	
441	3.4	6873	2.4	2.3	7218	1.7	1.1	7800	0.93	10000	
510.1	2.9	6998	2.2	2	7341	1.5	0.98	7923	0.81	10000	
555.3	2.7	7619	2.2	1.8	7992	1.5	0.9	8626	0.81	10000	
631.1	2.4	8077	2	1.6	8750	1.5	0.79	9802	0.81	10000	
696.2	2.2	7397	1.7	1.4	7774	1.2	0.72	8406	0.63	10000	
771.8	1.9	7348	1.5	1.3	7688	1	0.65	8274	0.56	10000	
892.7	1.7	6595	1.2	1.1	6907	0.81	0.56	7448	0.44	10000	
994.6	1.5	8119	1.3	1	8789	0.93	0.5	10000	0.52	10000	
1104	1.4	8159	1.2	0.91	8545	0.81	0.45	9215	0.44	10000	
1303	1.2	9309	1.1	0.77	10000	0.81	0.38	10000	0.4	10000	
1445	1	7916	0.86	0.69	8637	0.63	0.35	9973	0.36	10000	
1631	0.92	8185	0.79	0.61	8905	0.57	0.31	10000	0.32	10000	
1884	0.8	9194	0.77	0.53	9932	0.55	0.27	10000	0.26	10000	
2095	0.72	7243	0.54	0.48	7839	0.39	0.24	8946	0.22	10000	
2186	0.69	8653	0.62	0.46	9419	0.45	0.23	10000	0.24	10000	
2468	0.61	5462	0.35	0.41	5604	0.24	0.2	5852	0.12	10000	
2850	0.53	6307	0.35	0.35	6471	0.24	0.18	6757	0.12	10000	
3170	0.47	7852	0.39	0.32	8486	0.28	0.16	9665	0.16	10000	

Radial force (Output shafts)

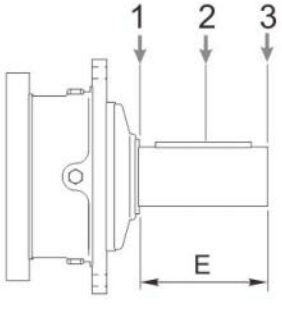


Axial force (Output shafts)

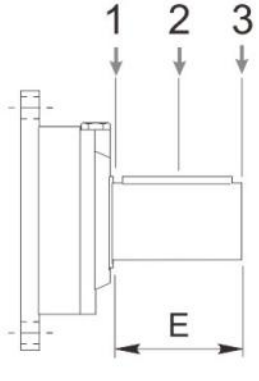


	Flange-mounted
Fa min(N)	50000
Fa max(N)	90000

Radial force (Input shafts)



	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200

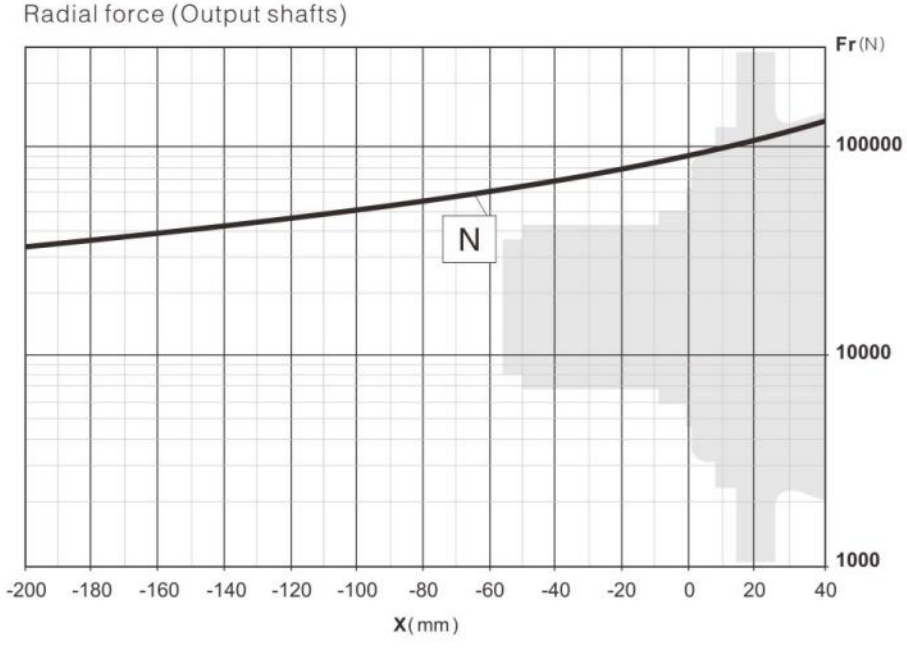


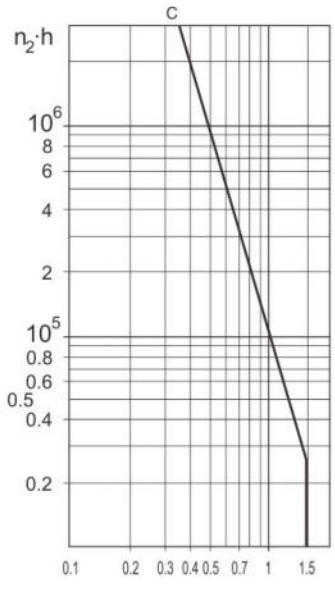
	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

JRP...5

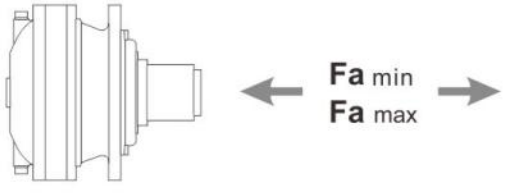
i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP2N...5											
12.25	122	3264	41.9	82	3686	31.5	40.8	4538	19.4	9800	18
14.46	104	3430	37.3	69	3874	28.1	34.6	4769	17.3	9800	
15.16	99	3417	35.4	66	3859	26.7	33	4751	16.4	10000	
18.1	83	3669	31.9	55	4144	24	27.6	5102	14.8	10000	
21	71	3837	28.7	47.6	4333	21.6	23.8	5335	13.3	10000	
22.39	67	3841	27	44.7	4338	20.3	22.3	5340	12.5	10000	
25.38	59	4061	25.1	39.4	4586	18.9	19.7	5646	11.7	10000	
27.99	54	4179	23.5	35.7	4720	17.7	17.9	5811	10.9	10000	
31.39	47.8	4251	21.3	31.9	4801	16	15.9	5885	9.8	10000	
36.25	41.4	4350	18.9	27.6	4913	14.2	13.8	5575	8.1	10000	
43.5	34.5	3971	14.3	23	4137	10	11.5	4422	5.3	10000	
JRP3N...5											
50.59	29.6	4995	15.5	19.8	5641	11.7	9.9	6945	7.2	10000	14
55.8	26.9	5141	14.5	17.9	5806	10.9	9	6373	6	10000	
63.33	23.7	5343	13.3	15.8	6034	10	7.9	7366	6.1	10000	
73.5	20.4	5587	11.9	13.6	6310	9	6.8	7597	5.4	10000	
78.35	19.1	5593	11.2	12.8	6004	8	6.4	6600	4.4	10000	
88.81	16.9	5914	10.5	11.3	6678	7.9	5.6	7898	4.7	10000	
104.8	14.3	6215	9.3	9.5	7018	7	4.8	8169	4.1	10000	
108.6	13.8	5968	8.6	9.2	6188	6	4.6	7082	3.4	10000	
126	11.9	6568	8.2	7.9	7358	6.1	4	8478	3.5	10000	
144.7	10.4	6227	6.8	6.9	6734	4.9	3.5	7766	2.8	10000	
152.3	9.8	6180	6.4	6.6	6649	4.6	3.3	7668	2.6	10000	
184	8.2	6297	5.4	5.4	6860	3.9	2.7	7901	2.2	10000	
202.9	7.4	6639	5.1	4.9	7224	3.7	2.5	8308	2.1	10000	
227.6	6.6	6556	4.5	4.4	7134	3.3	2.2	8205	1.9	10000	
262.8	5.7	6183	3.7	3.8	6733	2.7	1.9	7753	1.5	10000	
315.4	4.8	4894	2.4	3.2	5343	1.8	1.6	6175	1	10000	

Radial force (Output shafts)



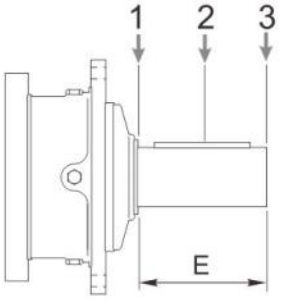


Axial force (Output shafts)

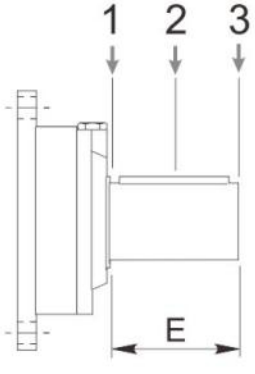


	Flange–mounted
Fa min(N)	50000
Fa max(N)	90000

Radial force (Input shafts)



	E	Fr					
		n1 · h=107			n1 · h=108		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200

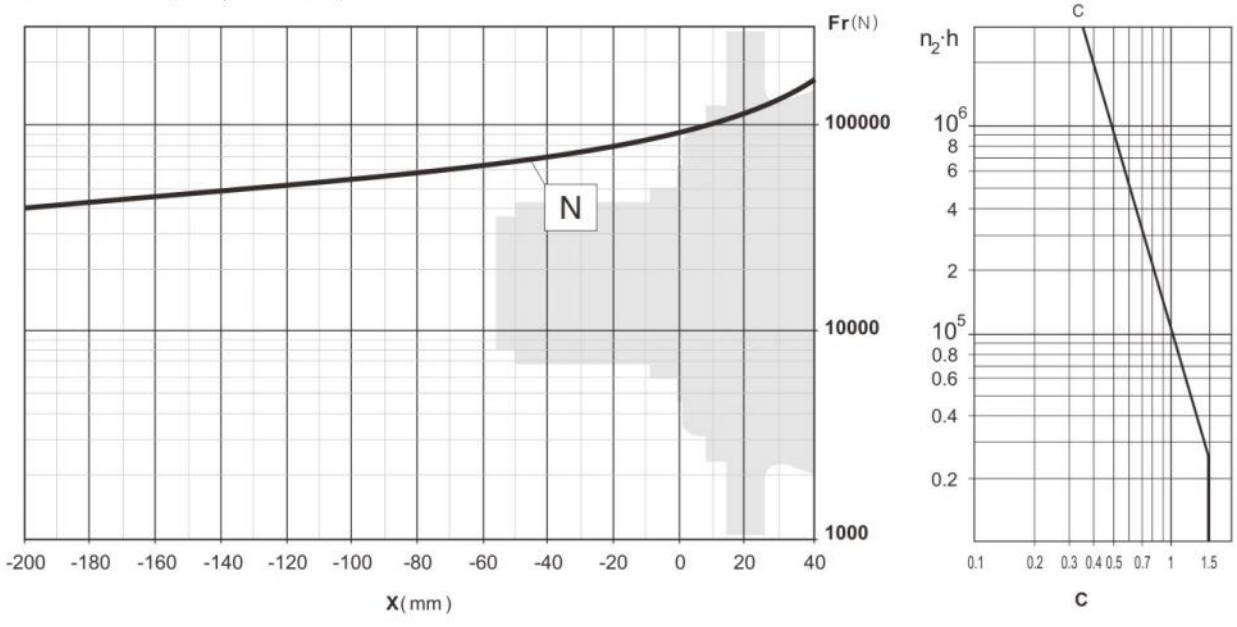


	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

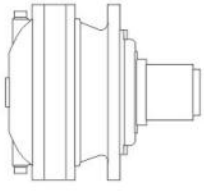
JRP...6

i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP1N...6											
4.08	368	2936	113	245	3316	85	123	4082	52	15000	
5.05	297	3054	95	198	3449	72	99	4246	44	15000	
5.81	258	3122	84	172	3526	64	86	4341	39.1	15000	40
6.92	217	3246	74	145	3666	55	72	4514	34.2	15000	
8.7	172	2868	52	115	3077	37	57	3396	20.4	15000	
JRP2N...6											
14.28	105	4276	47	70	4829	35.4	35	5945	21.8	15000	
16.85	89	4493	41.9	59	5075	31.5	29.7	6248	19.4	15000	
17.68	85	4447	39.5	57	5022	29.8	28.3	6184	18.3	15000	
21.09	71	4807	35.8	47.4	5428	27	23.7	6683	16.6	15000	
24.48	61	5026	32.3	40.8	5676	24.3	20.4	6989	14.9	15000	
29.58	51	5320	28.3	33.8	6008	21.3	16.9	7397	13.1	15000	23
30.3	49.5	5228	27.1	33	5904	20.4	16.5	7269	12.6	15000	
36.61	41	5533	23.7	27.3	6249	17.9	13.7	7693	11	15000	
41.52	36.1	4902	18.5	24.1	5107	12.9	12	5456	6.9	15000	
44.98	33.3	3629	12.7	22.2	3800	8.8	11.1	4092	4.8	15000	
50.17	29.9	4998	15.7	19.9	5202	10.9	10	5552	5.8	15000	
JRP3N...6											
58.98	25.4	6543	17.4	17	7390	13.1	8.5	9098	8.1	15000	
61.86	24.2	6476	16.4	16.2	7314	12.4	8.1	8304	7	15000	
73.83	20.3	7000	14.9	13.5	7905	11.2	6.8	9732	6.9	15000	
75.4	19.9	7044	14.7	13.3	7955	11.1	6.6	9794	6.8	15000	
87.12	17.2	7356	13.3	11.5	8308	10	5.7	10228	6.1	15000	
101.1	14.8	7692	12	9.9	8687	9	4.9	10384	5.4	15000	
109.1	13.8	7869	11.3	9.2	8887	8.5	4.6	10941	5.3	15000	
126.6	11.9	8228	10.2	7.9	9293	7.7	4	11441	4.7	15000	
146.9	10.2	8604	9.2	6.8	9717	6.9	3.4	10774	3.8	15000	15
152.9	9.8	8709	8.9	6.5	9835	6.7	3.3	12023	4.1	15000	
177.5	8.5	9107	8.1	5.6	10248	6	2.8	10973	3.2	15000	
209.2	7.2	7381	5.5	4.8	7820	3.9	2.4	8994	2.3	15000	
219.7	6.8	8429	6	4.6	9159	4.4	2.3	10512	2.5	15000	
252.7	5.9	7502	4.7	4	8129	3.4	2	9337	1.9	15000	
265.4	5.7	8765	5.2	3.8	9515	3.8	1.9	10906	2.2	15000	
305.4	4.9	7776	4	3.3	8446	2.9	1.6	9689	1.7	15000	
363.7	4.1	6105	2.6	2.7	6649	1.9	1.4	7657	1.1	15000	
JRP4N...6											
409.3	3.7	11701	4.5	2.4	12828	3.3	1.2	13665	1.7	15000	
443	3.4	11982	4.2	2.3	12979	3.1	1.1	13813	1.6	15000	
512.4	2.9	12392	3.8	2	13025	2.7	0.98	14090	1.4	15000	
555.6	2.7	12244	3.5	1.8	12716	2.4	0.9	14246	1.3	15000	
654.3	2.3	12434	3	1.5	13023	2.1	0.76	14565	1.2	15000	
718.5	2.1	13004	2.8	1.4	13423	2	0.7	14750	1.1	15000	
779.1	1.9	11377	2.3	1.3	11906	1.6	0.64	13853	0.93	15000	
878.3	1.7	12778	2.3	1.1	13797	1.6	0.57	15000	0.9	15000	
1019	1.5	11665	1.8	0.98	12638	1.3	0.49	14664	0.75	15000	
1145	1.3	13474	1.8	0.87	14304	1.3	0.44	15000	0.69	15000	11
1232	1.2	12047	1.5	0.81	13170	1.1	0.41	15000	0.64	15000	
1329	1.1	13813	1.6	0.75	14595	1.2	0.38	15000	0.6	15000	
1606	0.93	14174	1.4	0.62	14973	0.98	0.31	15000	0.49	15000	
1864	0.8	13195	1.1	0.54	14389	0.81	0.27	15000	0.42	15000	
1988	0.75	12975	1	0.5	13987	0.74	0.25	15000	0.39	15000	
2307	0.65	13340	0.91	0.43	14375	0.65	0.22	15000	0.35	15000	
2524	0.59	9025	0.56	0.4	9751	0.41	0.2	11100	0.23	15000	
2787	0.54	13815	0.78	0.36	14880	0.56	0.18	15000	0.28	15000	
3207	0.47	12288	0.6	0.31	13240	0.43	0.16	15000	0.25	15000	

Radial force (Output shafts)



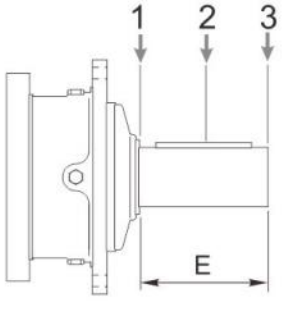
Axial force (Output shafts)



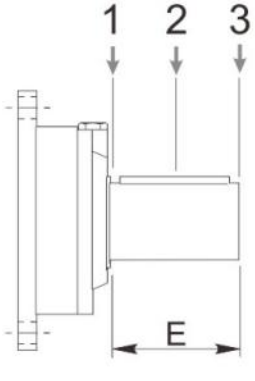
Fa min
Fa max

	Flange-mounted
Fa min(N)	48000
Fa max(N)	60000

Radial force (Input shafts)

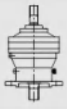


	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200



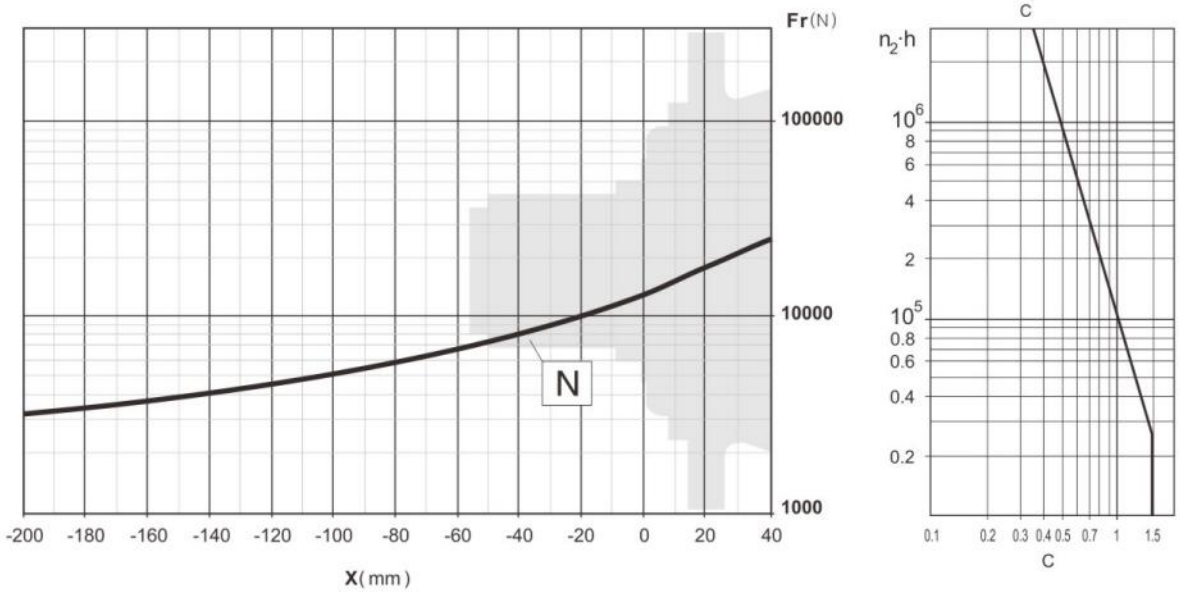
	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

JRP...7



i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP1N...7											
3.9	385	4758	192	256	5374	144	128	6616	89	20000	40
5.14	292	5006	153	195	5654	115	97	6961	71	20000	
6.27	239	5178	130	159	5847	98	80	7199	60	20000	
JRP2N...7											
13.65	110	6103	70	73	6893	53	36.6	8486	32.6	20000	23
16.11	93	6309	62	62	7125	46.3	31	8772	28.5	20000	
17.99	83	7290	64	56	8233	47.9	27.8	9317	27.1	20000	
20.16	74	6563	51	50	7412	38.5	24.8	9125	23.7	20000	
21.95	68	7540	54	45.6	8220	39.2	22.8	8771	20.9	20000	
26.57	56	8195	48.4	37.6	9057	35.7	18.8	9649	19	20000	
28.28	53	6170	34.3	35.4	6613	24.5	17.7	7286	13.5	20000	
30.84	48.6	8570	43.7	32.4	9185	31.2	16.2	9776	16.6	20000	
37.27	40.3	8132	34.3	26.8	8716	24.5	13.4	9603	13.5	20000	
45.46	33	8477	29.3	22	8799	20.3	11	9353	10.8	20000	
JRP3N...7											
47.78	31.4	8888	29.2	20.9	10037	22	10.5	12357	13.5	20000	15
56.37	26.6	9340	26	17.7	10548	19.6	8.9	12986	12.1	20000	
62.96	23.8	9448	23.6	15.9	9794	16.3	7.9	10392	8.6	20000	
70.57	21.3	9991	22.2	14.2	11283	16.7	7.1	13892	10.3	20000	
81.9	18.3	10447	20	12.2	11799	15.1	6.1	14526	9.3	20000	
93.01	16.1	9781	16.5	10.8	10129	11.4	5.4	11021	6.2	20000	
98.96	15.2	11058	17.6	10.1	12488	13.2	5.1	13856	7.3	20000	
107.9	13.9	9908	14.4	9.3	10258	10	4.6	11354	5.5	20000	
127.4	11.8	10050	12.4	7.9	10402	8.6	3.9	11733	4.8	20000	
137.4	10.9	10115	11.6	7.3	10468	8	3.6	11910	4.5	20000	
159.4	9.4	10244	10.1	6.3	10684	7	3.1	12263	4	20000	
185	8.1	10374	8.8	5.4	11010	6.2	2.7	12623	3.6	20000	
192.7	7.8	10409	8.5	5.2	11099	6	2.6	12722	3.5	20000	
223.6	6.7	10539	7.4	4.5	11434	5.4	2.2	13093	3.1	20000	
235	6.4	9797	6.5	4.3	10399	4.6	2.1	11934	2.7	20000	
270.2	5.6	10643	6.2	3.7	11112	4.3	1.9	11921	2.3	20000	
329.6	4.6	10258	4.9	3	11128	3.5	1.5	12743	2	20000	
JRP4N...7											
359.5	4.2	15642	6.8	2.8	16279	4.7	1.4	18842	2.7	20000	11
391.2	3.8	15764	6.3	2.6	16578	4.4	1.3	19172	2.6	20000	
461.7	3.2	14336	4.9	2.2	14970	3.4	1.1	17336	2	20000	
491.4	3.1	16094	5.1	2	17403	3.7	1	19575	2.1	20000	
568.4	2.6	16464	4.6	1.8	17944	3.3	0.88	19845	1.8	20000	
645.5	2.3	12997	3.2	1.5	14044	2.3	0.77	15988	1.3	20000	
700.7	2.1	15008	3.4	1.4	16365	2.4	0.71	18879	1.4	20000	
810.4	1.9	15486	3	1.2	16872	2.2	0.62	19271	1.2	20000	
883.9	1.7	13803	2.5	1.1	14900	1.8	0.57	16938	1	20000	
1039	1.4	15905	2.4	0.96	16561	1.7	0.48	17700	0.89	20000	
1110	1.4	14412	2	0.9	15418	1.5	0.45	17656	0.83	20000	
1226	1.2	16903	2.2	0.82	18375	1.6	0.41	19586	0.84	20000	
1342	1.1	14755	1.7	0.75	16075	1.3	0.37	18272	0.71	20000	
1552	0.97	15177	1.5	0.64	16539	1.1	0.32	18757	0.63	20000	
1875	0.8	13067	1.1	0.53	14330	0.8	0.27	16674	0.47	20000	
2023	0.74	16117	1.3	0.49	17360	0.9	0.25	19669	0.51	20000	
2348	0.64	16565	1.1	0.43	17836	0.8	0.21	20000	0.44	20000	
2468	0.61	15148	0.96	0.41	16325	0.69	0.2	18512	0.39	20000	
2837	0.53	14358	0.8	0.35	15701	0.58	0.18	18194	0.34	20000	
3460	0.43	16125	0.73	0.29	17364	0.53	0.14	19665	0.3	20000	

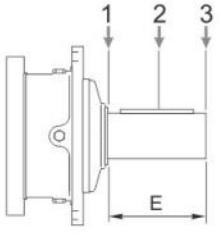
Radial force (Output shafts)



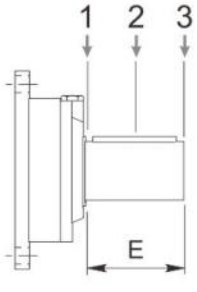
Axial force (Output shafts)

	Flange-mounted
Fa min(N)	68000
Fa max(N)	68000

Radial force (Input shafts)



	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200

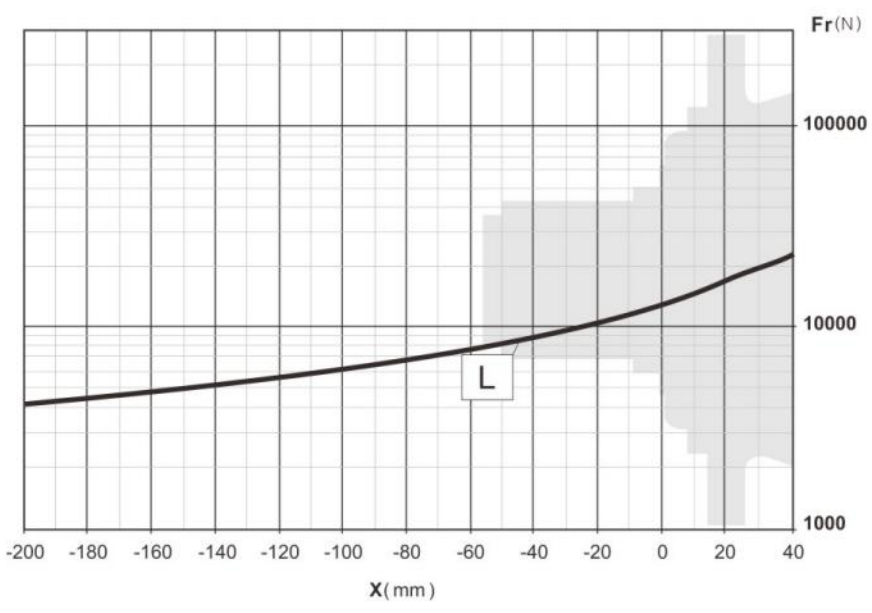


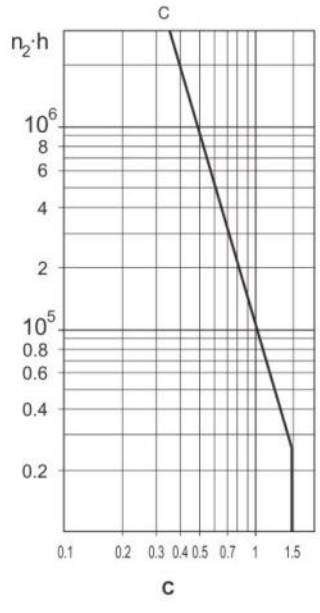
	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

JRP...8

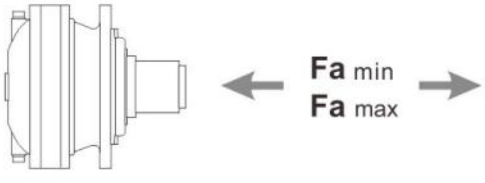
i	1500			1000			500			T_{2max} (Nm)	P_T (kW)
	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)	n_2(r/min)	T_2(Nm)	P_2(kW)		
JRP2N...8											
19.5	77	7712	62	51	8709	46.8	25.6	10722	28.8	20000	23
23.4	64	8145	55	42.7	9199	41.2	21.4	11325	25.3	20000	
JRP3N...8											
47.78	31.4	10090	33.2	20.9	11395	25	10.5	13411	14.7	20000	15
56.37	26.6	10604	29.5	17.7	11976	22.2	8.9	13721	12.7	20000	
62.17	24.1	10920	27.6	16.1	12333	20.8	8	13992	11.8	20000	
70.57	21.3	11343	25.3	14.2	12810	19	7.1	14349	10.6	20000	
80.54	18.6	11802	23	12.4	13221	17.2	6.2	14727	9.6	20000	
87.31	17.2	12091	21.8	11.5	13310	16	5.7	14962	9	20000	
100.8	14.9	12624	19.7	9.9	13471	14	5	15388	8	20000	
109.1	13.7	12928	18.6	9.2	13631	13.1	4.6	15627	7.5	20000	
122.4	12.3	13236	17	8.2	13949	11.9	4.1	15978	6.8	20000	
141.4	10.6	13396	14.9	7.1	14353	10.6	3.5	16425	6.1	20000	
161.4	9.3	10255	10	6.2	10710	7	3.1	12291	4	20000	
169.7	8.8	13729	12.7	5.9	14878	9.2	2.9	17006	5.3	20000	
185	8.1	10374	8.8	5.4	11010	6.2	2.7	12623	3.6	20000	
196.8	7.6	9651	7.7	5.1	10030	5.3	2.5	11526	3.1	20000	
223.6	6.7	10539	7.4	4.5	11434	5.4	2.2	13093	3.1	20000	
272.7	5.5	9920	5.7	3.7	10715	4.1	1.8	12286	2.4	20000	

Radial force (output shafts)



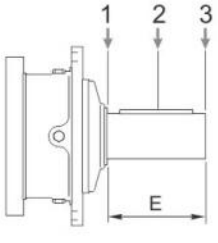


Axial force (output shaft)

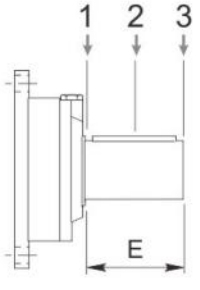


	Flange-mounted
Fa min(N)	68000
Fa max(N)	68000

Radial force (input shafts)



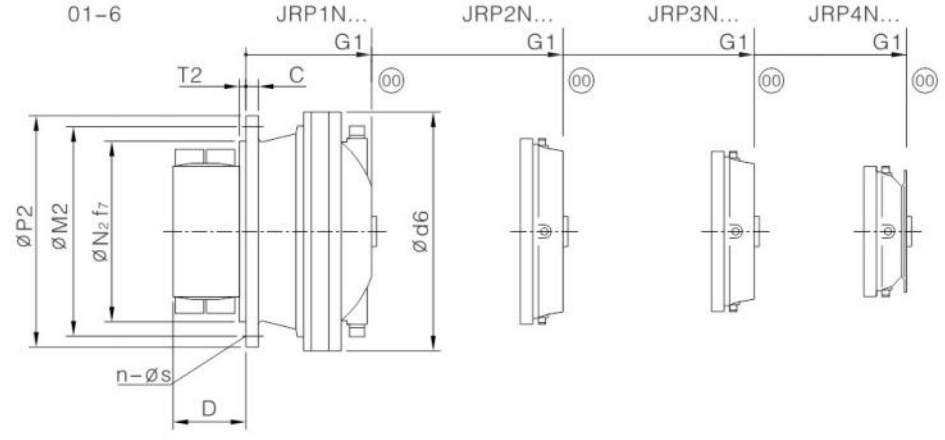
	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
ADM1	105	10000	6000	4000	5000	3000	2000
ADM2	105	14000	8800	6400	7000	4400	3200

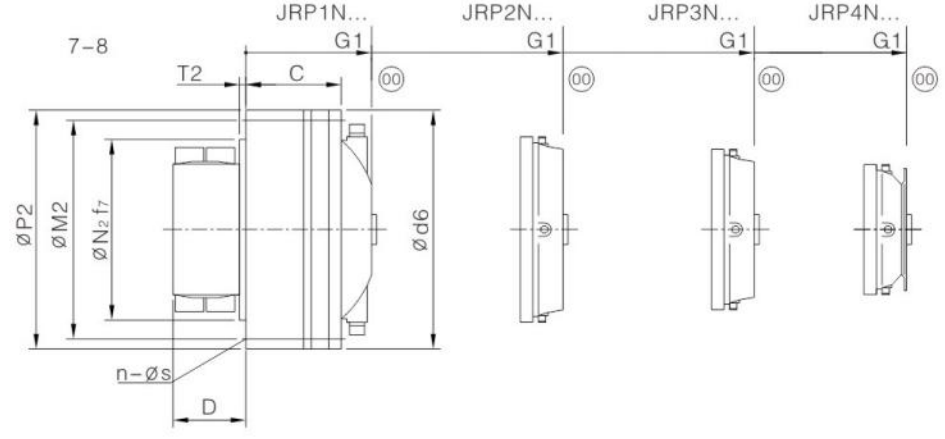


	E	Fr					
		$n_1 \cdot h=10^7$			$n_1 \cdot h=10^8$		
		1	2	3	1	2	3
AD2	58	3000	2000	1500	1400	1000	700

8.Dimensions & Weight

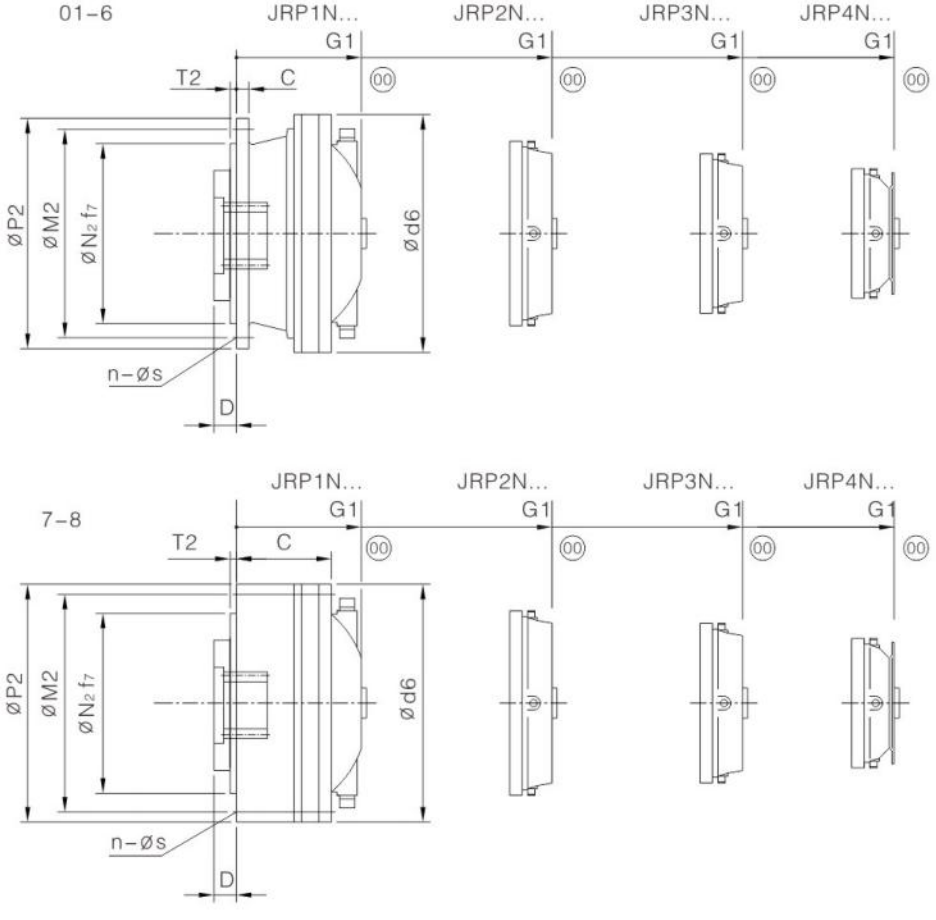
Type JRP..NA





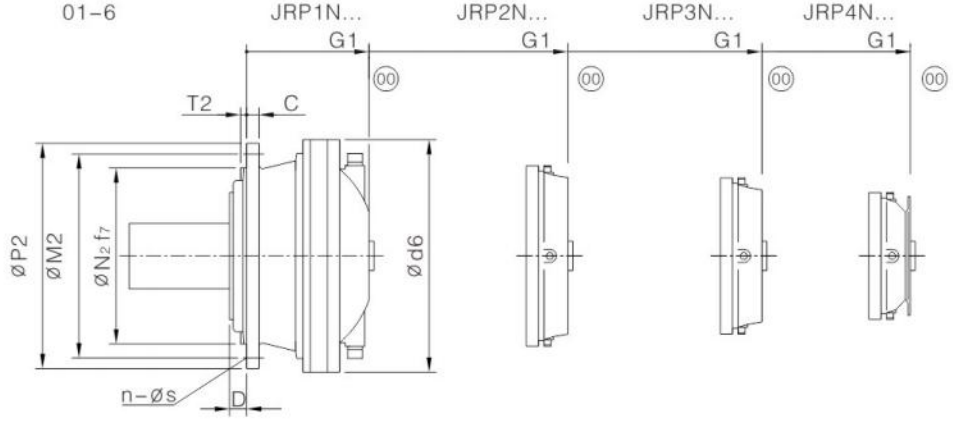
NA	T_N (Nm)	G1				D	P_2	C	M_2	N_2f_7	T_2	d_6	Flange bolts		Weight (kg)			
		1N	2N	3N	4N								n	s	1N	2N	3N	4N
01	1000	164	204	243		55	180	13	165	110	6	183	8	9	20	27	31	
02	2100	192	245	284	324	85	220	16	195	150	5	240	10	14	37	41	46	52
03	3800		245	284	324	85	220	16	195	150	5	240	10	14		45	47	57
1	3800																	
2	3800	192	260	312	352	85	220	16	195	150	5	240	10	14	40	56	61	67
3	3800																	
4	6400	259	323	375	415	133	280	20	250	200	20	280	12	16	77	86	93	98
5	6400		330.5	398		133	280	20	250	200	20	280	12	16		92	107	
6	9200	280	347	414	467	140	325	25	295	230	12	355	10	18	118	131	148	152
7	13000	186	246	314	366.5	245	340	125	314	278	18	340	12	16	118	135	151	155
8	13000		263	326.5		245	340	125	314	278	18	340	12	16		137	153	

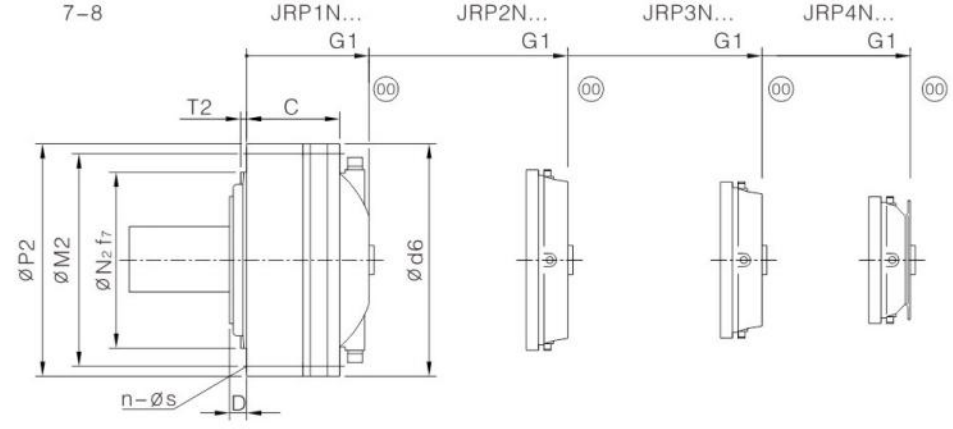
Type JRP..NC



NC	T_N (Nm)	G1				D	P_2	C	M_2	N_2f_7	T_2	d_6	Flange bolts		Weight (kg)			
		1N	2N	3N	4N								n	s	1N	2N	3N	4N
01	1000	164	204	244		39	180	13	165	110	6	183	8	9	19	25	30	
02	2100	192	245	284	324	38	220	16	195	150	5	240	10	14	35	40	44	50
03	3800		245	284	324	38	220	16	195	150	5	240	10	14		43	45	55
1	3800																	
2	3800	192	260	312	352	38	220	16	195	150	5	240	10	14	38	54	59	65
3	3800																	
4	6400	259	323	375	415	103	280	20	250	200	20	280	12	16	73	82	89	94
5	6400		330.5	398		103	280	20	250	200	20	280	12	16		87	102	
6	9200	280	347	414	467	111	325	25	295	230	12	355	10	18	111	125	141	146
7	13000	186	246	314	366.5	215	340	125	314	278	18	340	12	16	113	132	147	152
8	13000		263	326.5		215	340	125	314	278	18	340	12	16		135	150	

Type JRP..NB,Type JRP..ND

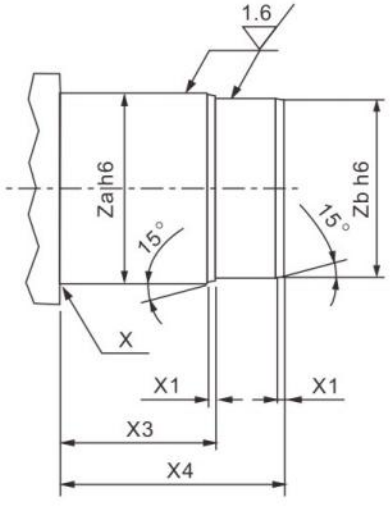


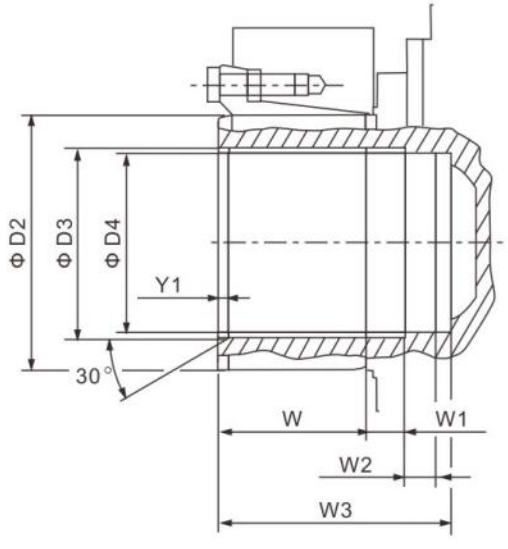


NB ND	T_N (Nm)	G1				D	P_2	C	M_2	N_2f_7	T_2	d_6	Flange bolts		Weight (kg)			
		1N	2N	3N	4N								n	s	1N	2N	3N	4N
01	1000	164	204	243		7	180	13	165	110	6	183	8	9	20	26	31	
02	2100	192	245	284	324	15	220	16	195	150	5	240	10	14	37	42	47	53
03	3800		245	284	324	15	220	16	195	150	5	240	10	14		45	48	58
1	3800		261	301	341	39	272	20	245	175	10	240	10	14		56	64	69
2	3800	192	260	312	352	15	220	16	195	150	5	240	10	14	41	57	62	68
3	3800	209	277	329	369	39	272	20	245	175	10	240	10	14	54	67	72	77
4	6400	259	323	375	415	40	280	20	250	200	20	280	12	16	77	86	92	98
5	6400		330.5	398		40	280	20	250	200	20	280	12	16		91	106	
6	9200	280	347	414	467	36	325	25	295	230	12	355	10	18	114	128	144	149
7	13000	186	246	314	366.5	143	340	125	314	278	18	340	12	16	120	140	155	158
8	13000		263	326.5		143	340	125	314	278	18	340	12	16		141	157	

9. Output Shaft Dimension

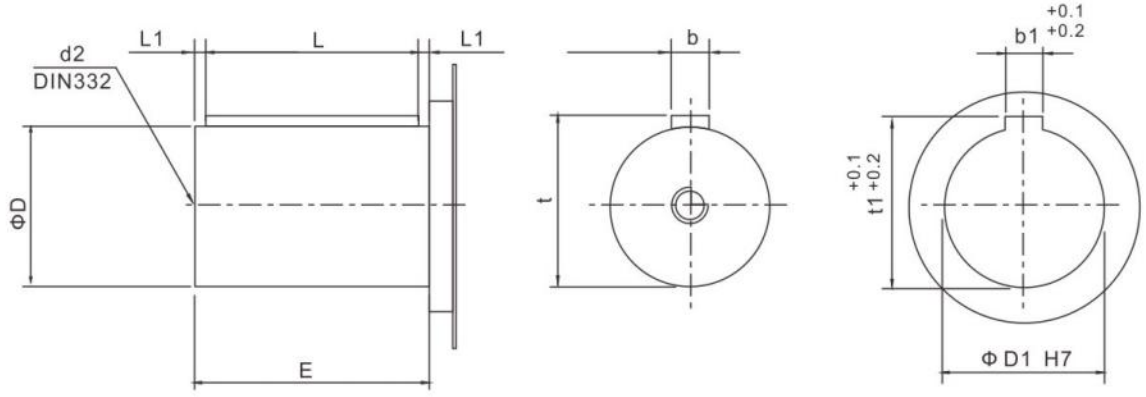
A–Hollow Shaft Output with Shrink disc





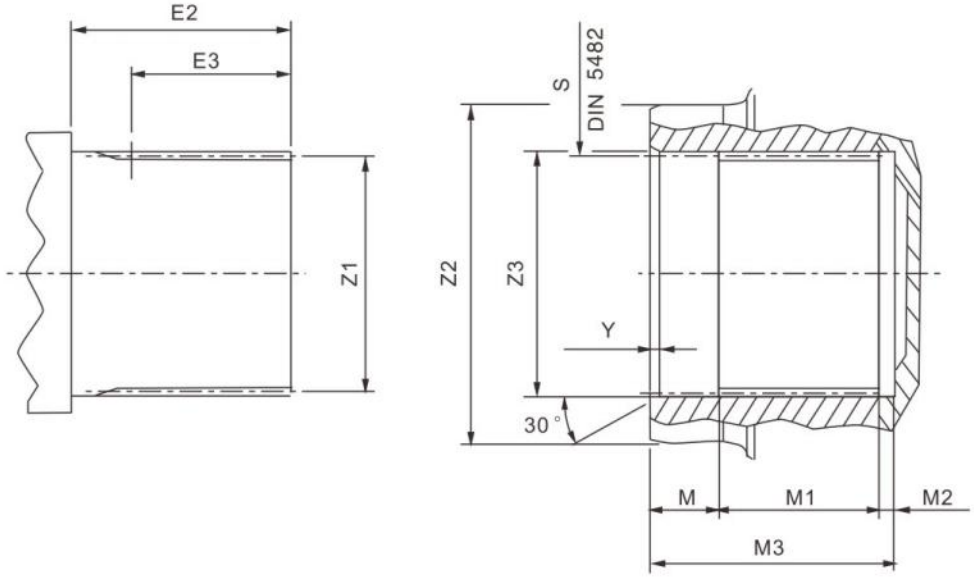
	W	W1	W2	W3	D2	D3	D4	Y1	X	X1	X3	X4	Za	Zb
01	29	9	10	50	62 f7	50 H7	30 H7	2	R2	3	33	48	48	30
02	54	16	23	95	100 f7	75 H7	40 H7	2	R2	3	52	92	75	40
03	54	16	23	95	100 f7	75 H7	40 H7	2	R2	3	52	92	75	40
2	54	16	23	95	100 f7	75 H7	40 H7	2	R2	3	52	92	75	40
4–5	80	20	33	135	125 f7	90 H7	50 H7	2	R2	3	62	132	90	50
6	80	20	33	140	140 f7	100H7	60 H7	2	R2	3	69	135	100	60
7–8	79	6	47	135	165 f7	120 H7	80 H7	5	R2	3	79	130	120	80

B–Solid Shaft Output with Flat Key



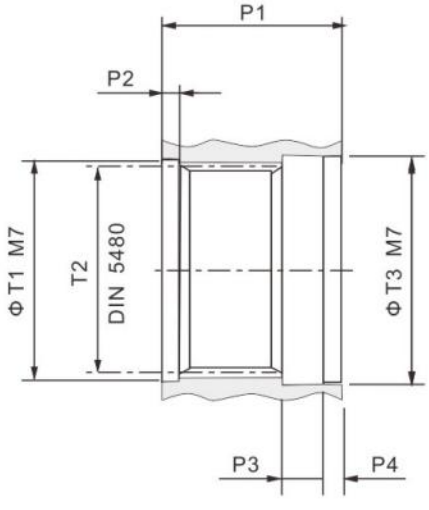
	D	E	L	L1	t	b	d2	D1	t1	b1
01	42 k6	82	70	6	45	12	M16	42	45	12
02	65 m6	105	90	7.5	69	18	M20	65	69	18
03	65 m6	105	90	7.5	69	18	M20	65	69	18
1	65 m6	105	90	7.5	69	18	M20	65	69	18
2	65 m6	105	90	7.5	69	18	M20	65	69	18
3	65 m6	105	90	7.5	69	18	M20	65	69	18
4–5	80 m6	130	110	10	85	22	M20	80	85	22
6	90 m6	170	160	5	95	25	M24	90	95	25
7–8	100 m6	210	200	5	106	28	M24	100	106	28
	100 m6	210	200	5	106	28	M24	100	106	28

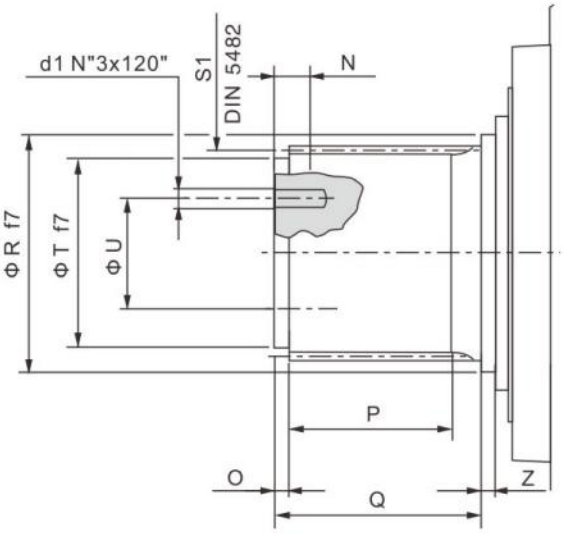
C–Hollow Shaft Output with Involute Spline



	M3	M	M1	M2	Y	S	Z2	Z3	Z1	E2	E3
01	34.7	5	24.7	5	0.5	A40×36 H10	50 f8	42 H11	B40×36 c9	32.7	22.7
02	57	8	43.6	–	1.0	A58×53 H10	80 f7	60 H7	B58×53 c9	49.5	41.5
03	57	8	36	–	1.5	A58×53 H10	80 f7	60 H7	B58×53 c9	42	34
2	57	8	36	–	1.5	A58×53 H10	80 f7	60 H7	B58×53 c9	42	34
4-5	73	9	56	8	1.0	A70×64 H10	90 g7	72 H7	B70×64 c9	65	48
6	80	5	62	8	1.0	A70×64 H10	96 h8	72 H7	B70×64 c9	73	60
7-8	87	7	70	–	1.5	A80×74 H10	110 f7	88 H7	B80×74 c9	75	68

D–Solid Shaft Output with Involute Spline

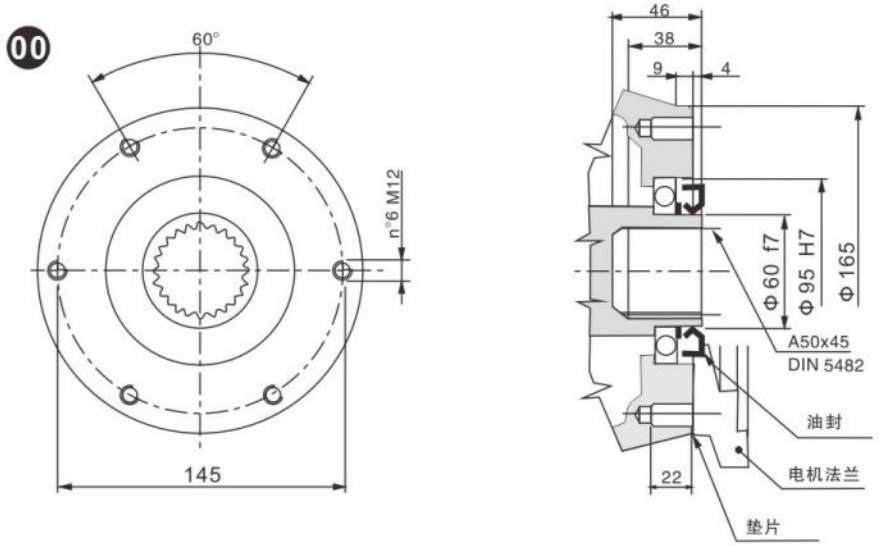




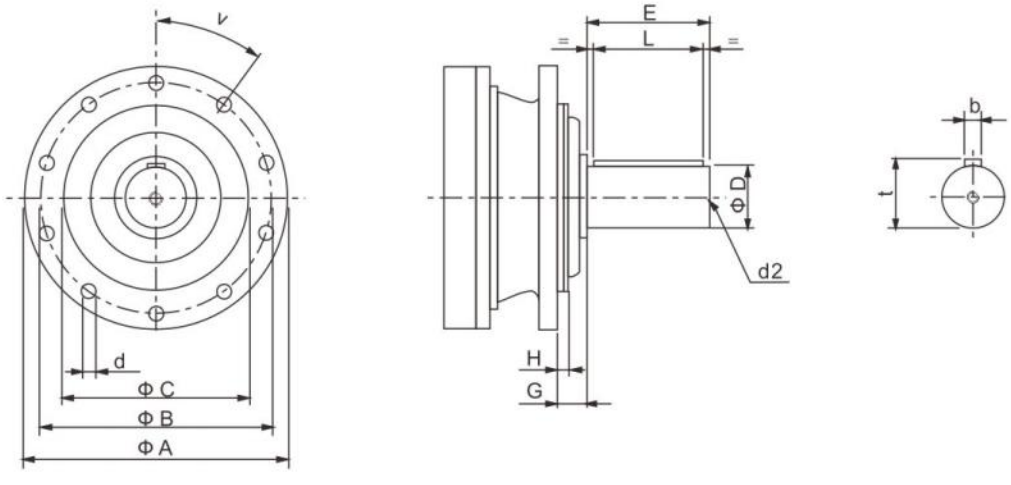
	d1	N	O	P	P1	P2	P3	P4	Q	R	S1	T	T1	T2	T3	U	Z
01	M6	20	5	30	55	5	14	7	48	42	B40×36h9	35 f7	42	A40×36	42	24	7
02	M10	20	8	38	68	8	13	10	58	60	B58×53h9	50 f7	60	A58×53	60	32	8
03	M10	20	8	38	68	8	13	10	58	60	B58×53h9	50 f7	60	A58×53	60	32	8
1	M10	20	8	50	68	8	13	10	58	60	B58×53h9	50 f7	60	A58×53	60	32	8
2	M10	20	8	38	68	8	13	10	58	60	B58×53h9	50 f7	60	A58×53	60	32	8
3	M10	20	8	50	80	8	16	7	73	60	B58×53h9	50 f7	60	A58×53	60	32	7
4–5	M10	20	10	50	90	10.5	21	10	80	72g6	B70×64h9	62 g6	72	A70×64	72	40	10
6	M10	25	10	50	90	10.5	22	10	80	85	B80×74h9	70 f7	80	A80×74	80	45	10
7–8	M10	25	10	50	90	10.5	22	10	80	85f6	B80×74h9	70 f6	80	A80×74	80	45	10
	M14	30	12	65	110	12	22	15	97	105	B100×94h9	85 f7	105	A100×94	105	52	12

10. Input Shaft Dimension

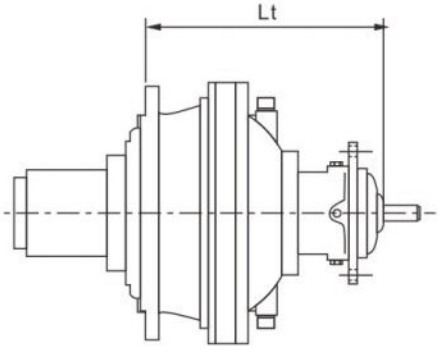
Greneral Input Cofiguration:Accessory Code 00



Accessory:ADM flang solid shaft input interface

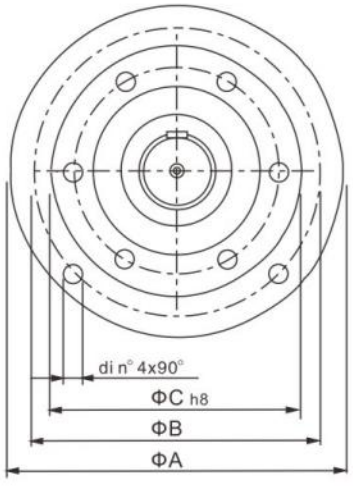


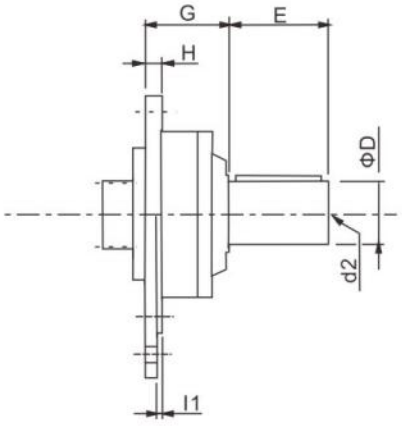
Accessories Code	A	B	C f7	D m6	E	G	H	I	L	b	d	d2 DIN332	t
ADM1	220	195	150	65	105	15	5	16	90	18	14	M20 × 42	69
ADM2	272	245	175	65	105	39	10	18	90	18	14	M20 × 42	69



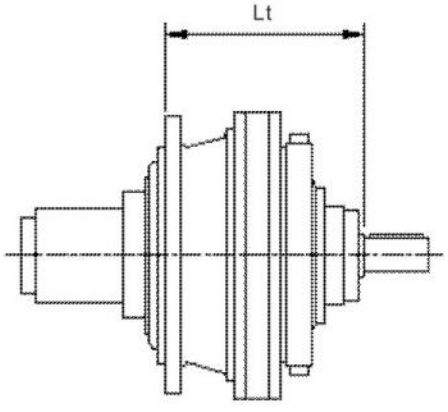
Type	Slages	Lt	
		ADM1	ADM2
02	1	255	296
2	1	255	296
	2	323	364
3	1	272	313
	2	340	381
4	1	---	363
	2	386	427
5	2	394	435
	3	461	502
6	2	410	451
	3	477	518
7	1	Please Consult JIE	
	2		
	3		
8	2		
	3		

Accessory:AD2 Solid shaft input interface





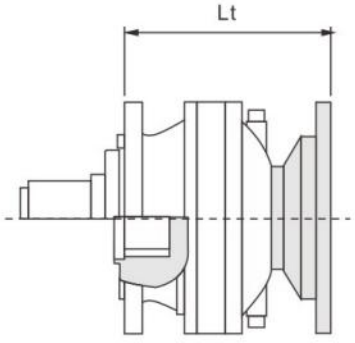
Accessories Code	A	B	C	D	d1	d2	E	G	H	l1
AD1	--	--	--	28	--	M10×22	50	60	12	--
AD2	--	--	--	40	--	M10×22	58	60	14	--



Type	Slages	Lt AD2	Type	Series	Lt AD2
01	1	187	4	1	319
	2	227		2	383
	3	266		3	435
02	1	252		4	475
	2	305	5	2	383
	3	344		3	435
	4	384	6	1	301
03	2	305		2	368
	3	344		3	436
	4	401		4	488
1	2	321	7	1	246
	3	372		2	323
	4	412		3	391
2	1	252		4	443
	2	320	8	2	323
	3	372		3	391
	4	429	Please Consult JIE		
3	1	269			
	2	337			
	3	389			
	4	429			

Accessory:IEC electric motor input interface

Accessories Code	Corresponding IEC Motor
IEC63	IEC63
IEC71	IEC71
IEC80	IEC80
IEC90	IEC90
IEC100	IEC100
IEC112	IEC112
IEC132	IEC132
IEC160	IEC160
IEC180	IEC180
IEC200	IEC200
IEC225	IEC225



Type	Slages	Lt							
		IEC63	IEC71	IEC80 IEC90	IEC100 IEC112	IEC132	IEC160 IEC180	IEC200	IEC225
01	1	147	149	154	155	222	Please Consult JIE		
	2	187	189	194	195	262			
	3	226	228	233	234	301			
02	1	212	214	219	220	287			
	2	265	267	272	273	340			
	3	304	306	311	312	379			
	4	344	346	351	352	419			
03	2	265	267	272	273	340			
	3	304	306	311	312	379			
	4	344	346	351	352	419			
1	2	281	283	288	289	356			
	3	321	323	328	329	396			
	4	361	363	368	369	436			
2	1	212	214	219	220	287			
	2	280	282	287	288	355			
	3	332	334	339	340	407			
	4	372	374	379	380	447			
3	1	229	231	236	237	304			
	2	297	299	304	305	372			
	3	349	351	356	357	424			
	4	389	391	396	397	464			
4	1	278	280	285	286	353			
	2	343	345	350	351	418			
	3	395	397	402	403	470			
	4	435	437	442	443	510			
5	2	--	--	--	359	425			
	3	418	420	425	426	493			
6	1	261	263	268	269	336			
	2	328	330	335	336	403			
	3	396	389	403	404	471			
	4	448	450	455	456	523			
7	2	283	285	290	291	358			
	3	351	353	358	359	426			
	4	403	405	410	411	478			
8	2	--	--	299	300	367			
	3	365	367	372	373	440			

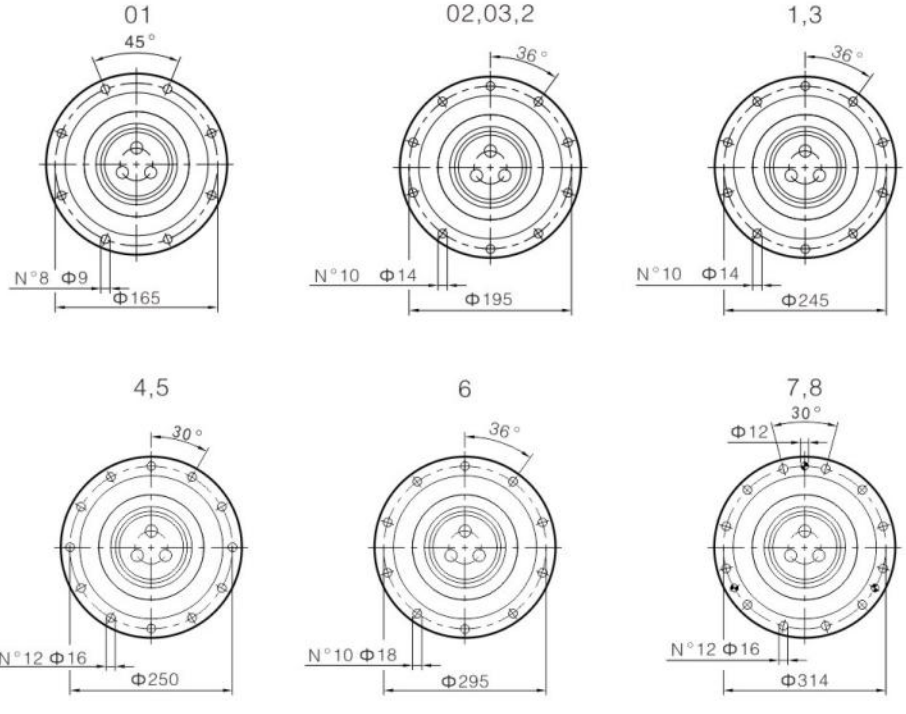
11. Installation

Gear unit flange connection, the bolt grade is not lower than 10.9 tightening torque as the following table.

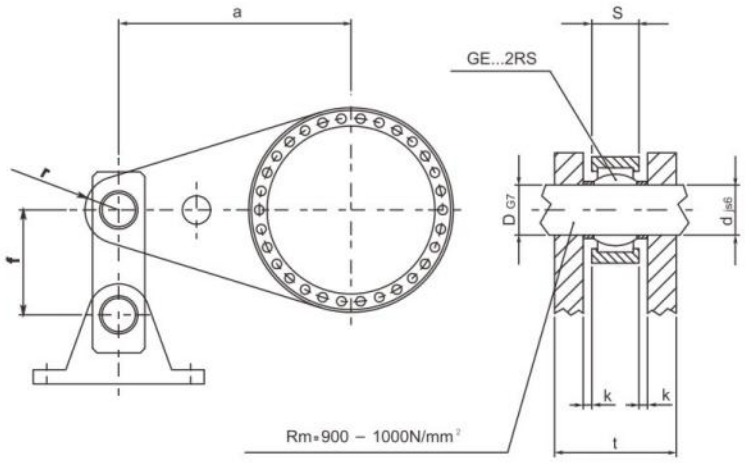
Gear unit size	Bolt specification	Tightening torque (Nm)
01	M8	37
02	M12	127
03	M12	127
1	M12	127
2	M12	127
3	M12	127
4	M14	201
5	M14	201
6	M16	314
7	M14	201
8	M14	201

During assembly, violent axial impacts to prerenf the permanent damage of bearings.Recommend the couplings recover misalignment to connect the gearbox and motoe. To in case of the mechanical comention please pay special care to the alignment between gearbox and motor during saaemnling operations.

Flange-mounted Dimension Chart



12. Torque Arm



	a min (mm)	s (mm)	r min (mm)	f min (mm)	D d (mm)	k (mm)	t min (mm)
01	200	15	20	80	20	2	35
02	300	15	20	80	20	2	35
03–2	300	20	25	100	25	3	46
4	400	20	25	100	25	3	46
6	500	25	30	150	30	3	55
7	600	25	30	150	30	3	55

13. Lubricant Oil

Gear units are supplied with lubricant, therefore the lubricant must be checked before the work.
Fundamental characterisics of the oil:
The important parameters to conside when choosing the type of oil are:

- Viscosity at nominal operating conditions
- Additives

Viscosity
Viscosity ususlly the rinemation is the standarel on the a temperature of 40℃, but decreases with an increase in temperature. If the operating temperature is between 50℃ and 70℃ the ciscositu can be chosen as the following table.

n_2 (r/min)	50℃	70℃
$n_2 > 20$	VG150	VG220
$20 \geqslant n_2 > 5$	VG220	VG320
$n_2 \leqslant 5$	VG320	VG460

Special attention must be paid to heary loaded output stages and with very low speeds(<1 r/min). With EP additives suggest to use high viscosity oils.

Additives

In addition to the normal antifoaming and antioxidant additives, it is important to use lubricating oils with additives that provide extreme pressure and antiwear properties. Therefore it will be necessary to find products with extreme pressure characteristics all the stronger (type Mobil Gear SHC)the lower the gear unit speed.

Types of oils

The oils available generally belong to three big families.

- Mineral oils(MIN–oils)
- Poly– α Olefin (PAO– oils)
- Poly–Glycol synthetic oils

Compared with mineral oil, the synthetic oil has a higher temperature range and higher viscosity index,which is the temperature change curve of viscosity.

Temperature range reference value:

If it is mineral oil,it is about –10℃~90℃(The instant 100℃)
If it is a synthetic oil,it is about –20℃~100℃(Theinstant 110℃)

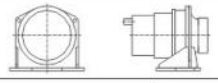
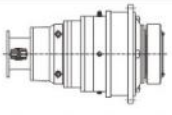
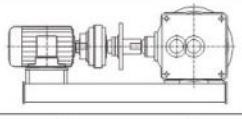
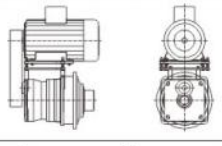
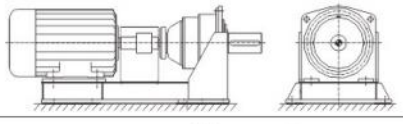
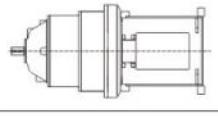
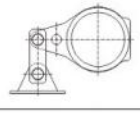
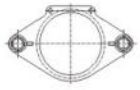
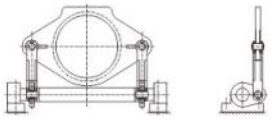
Description:limit values on the use of all kinds of lubricating oil temperature could be different from the describled value when usage are outside the temperature ranges,we must pay attention to the ignition point and pour point of lubricant oil.

Selection of Oil Table

Oil	Mineral oil			PAO–oil			PG–oil		
	VG150	VG220	VG320	VG150	VG220	VG320	VG150	VG220	VG320
BP	Energol GR –XP 150	Energol GR –XP 220	Energol GR –XP 320	Enersyn EPX 150	Enersyn EPX 220	Enersyn EPX 320	Enersyn SG 150	Enersyn SG –XP 220	Enersyn SG –XP 320
Castrol	Alpha SP 150	Alpha SP 220	Alpha SP 320	Alphasyn EP 150	Alphasyn EP 220	Alphasyn EP 320	Alphasyn PG 150	Alphasyn PG 220	Alphasyn PG 320
Fuchs	Renolin CKC 150	Renolin CKC 220	Renolin CKC 320	RenolinUnisyn CKC 150	RenolinUnisyn CKC 220	RenolinUnisyn CKC 320	Renolin PG 150	Renolin PG 220	Renolin PG 320
Kluber	Kluberoil GEM 1–150	Kluberoil GEM 1–220	Kluberoil GEM 1–320	Klubersynth EG 4–150	Klubersynth EG 4–220	Klubersynth EG 4–320	Klubersynth GH 6–150	Klubersynth GH 6–220	Klubersynth GH 6–320
Mobil	Mobilgear XMP 150	Mobilgear XMP 220	Mobilgear XMP 320	Mobilgear SHC XMP 150	Mobilgear SHC XMP 220	Mobilgear SHC XMP 320	Glygoyle 22	Glygoyle 30	Glygoyle HE320
Shell	Omala 150	Omala 220	Omala 320	Omala HD 150	Omala HD 220	Omala HD 320	Tivela S 150	Tivela S 220	Tivela S 320
Total	Carter EP 150	Carter EP 220	Carter EP 320	Carter SH 150	Carter SH 220	Carter SH 320	Carter SY 150	Carter SY 220	Carter SY 320
长城		CKD220	CKD320						
昆仑		CKD220	CKD320						

14. Add-on Pieces

Table of Add-on Pieces

Identific Cation	Add-on Piece		Representation
00	Without add-on Piece		
01	Gear housing base	Please Consult JIE	
70 1)	Motor bell housing (input)	see page55-59	
71 1)	Motor bracket(motor,coupling)	Please Consult JIE	
72	电机支架 Motor bracket	Please Consult JIE	
73 1)	Motor floating base(motor,coupling,gear unit)	Please Consult JIE	
74 1)	Flange-mounting(output)	Please Consult JIE	
75	Torque reaction arm(on one side)	see page 60	
76	Torque reaction arm(on both side)	Please Consult JIE	
77	Torsion shaft support	Please Consult JIE	
78	Special design		

1)Not for rigid couplings

15.Oil Level of Gear unit

Horizontal mounting

Position of levels

With horizontal mounting of the gear unit, the normal level for guaranteeing correct lubrication islocated at the center line, Fig.(A). For applications with very low output rotation speed ($n_2 < 5$r/min) , it is advisable to fix the level at a value higher than 50–100mm, Fig.(B).

If the output speed is extremely low($n_2 \leq 1$r/min),or if long gear unit downtimes are foreseen, it is advisable to fill the entire box.In this case a special auxiliary tank must be provided.

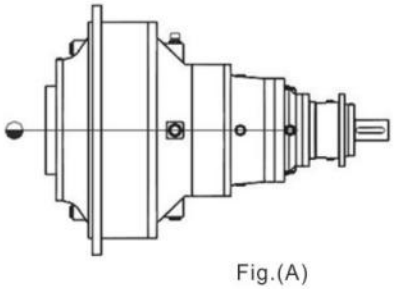


Fig.(A)

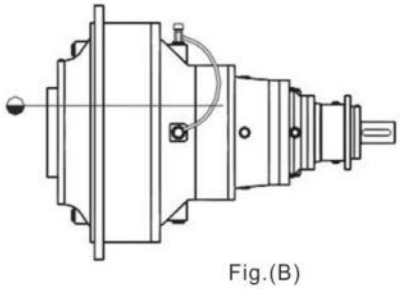
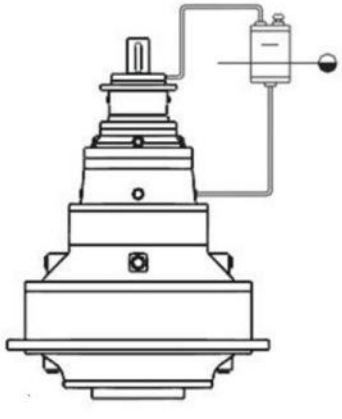
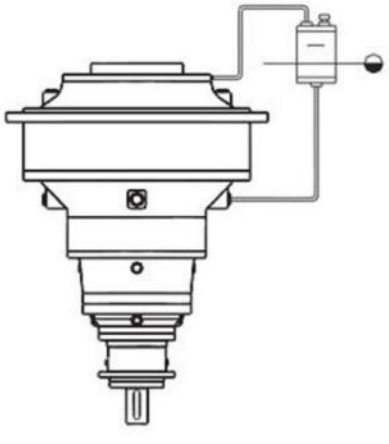


Fig.(B)

Vertical mounting

Several rules must be followed witg vertical mounting,and in any case whenever the gear unit hasto be completely filled. During filling,an air bubble can form in the upper part,and which must be eliminated in order to acoid insufficient lubrication of the seal. Also,since the volume of oil increaseswith the temperaure,an auxiliary tank must be provided to allow the oil to expand without creating dangerous pressures inside the gear unit.



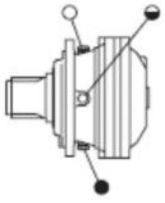
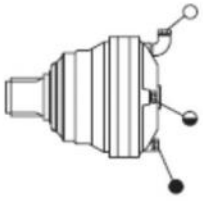
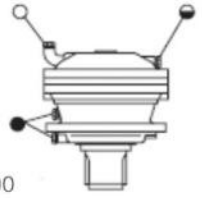
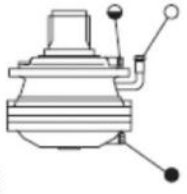
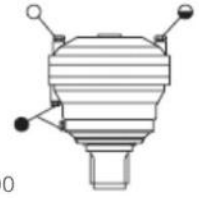
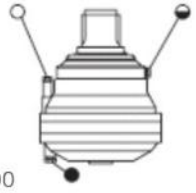
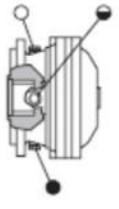
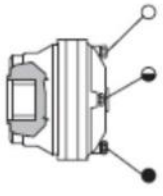
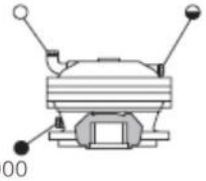
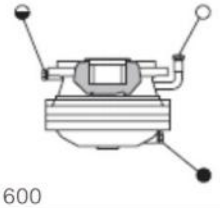
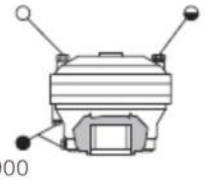
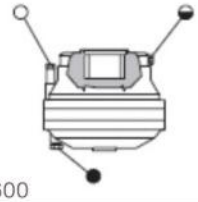
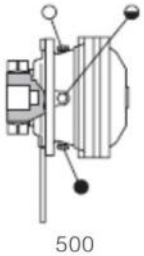
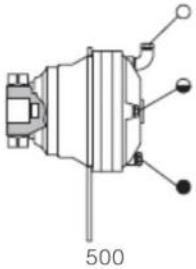
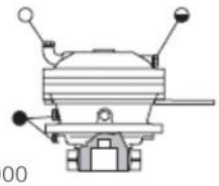
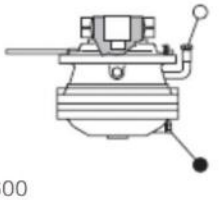
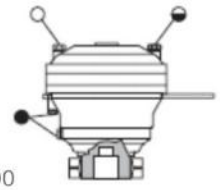
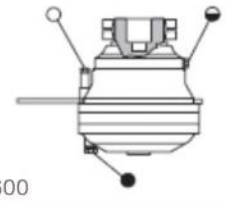


16. Oil Quantity

The following table data of oil guantity is for horizontal mounting(500) of gear unit. if the mounting type of gear unit is vertical mounting, the oil guantity is twice as much as the following table data.

Type	output shaft	oil guantity(L)	Type	output shaft	oil guantity(L)	Type	output shaft	oil guantity(L)
JRP1N..01	A-B-C-D	0.5	JRP1N..3	B-D	1.2	JRP3N..6	A-B-C-D	3.3
JRP2N..01	A-B-C-D	0.8	JRP2N..3	B-D	2	JRP4N..6	A	4
JRP3N..01	A-B-C-D	0.9	JRP3N..3	B-D	1.8		B-D	5
JRP1N..02	A-B-D	1	JRP4N..3	B-D	2.2		C	3.8
	C	1.2	JRP1N..4	A-B-D	1.6	JRP2N..7	A	2.5
JRP2N..02	A-B-D	1.2		C	1.8		B-D	4.5
	C	1.5	JRP2N..4	A-B-D	2.4		C	2.5
JRP3N..02	A-B-D	1.6		C	2.6	JRP3N..7	A	3.5
	C	1.7	JRP3N..4	A-B-D	2.3		B-D	5.3
JRP4N..02	A-B-D	1.7		C	2.5		C	3
	C	1.8	JRP4N..4	A-B-D	2.5	JRP4N..7	A	3.7
JRP2N..03	A-B-D	1.3		C	2.8		B-D	5.5
	C	1.1	JRP1N..5	A-B-D	1.6		C	3.5
JRP3N..03	A-B-C-D	1.6		C	1.8	JRP2N..8	A	2.5
JRP4N..03	A-B-C-D	1.7	JRP2N..5	A-B-D	2.4		B-D	4.5
JRP2N..1	B-D	1.7		C	2.6		C	2.5
JRP3N..1	B-D	1.7	JRP3N..5	A-B-D	2.3	JRP3N..8	A	3.5
JRP4N..1	B-D	1.8		C	2.5		B-D	5.3
JRP1N..2	A-B-D	1	JRP4N..5	A-B-D	2.5		C	3
	C	1.1		C	2.8			
JRP2N..2	A-B-D	1.6	JRP1N..6	A-C	2.2			
	C	1.5		B-D	3			
JRP3N..2	A-B-C-D	1.6	JRP2N..6	A	2.2			
JRP4N..2	A-B-D	2.2		B-D	3.5			
	C	2.5		C	3.2			

17.Mounting Positions

	01–6	7–8	01–6	7–8
Output shaft B、D	 500	 500	 900  600	 900  600
Output shaft C	 500	 500	 900  600	 900  600
Output shaft A	 500	 500	 900  600	 900  600

● Drain plug　　◒ oil level plug　　○ breather and filling plug

5. JRP 9~36 Planetary Gear Units

SUB-CONTENTS

1. Product Description

1.1 Product Characteristics

JRP planetary gear units, with independent intellectual property rights, is featured with no oil leakage, long service life, high torque, high speed ratio and intelligence. It includes JRP..N planetary gear units , JRP..S parallel shaft planetary gear units, JRP..L Bevel helical planetary gear units, JRP..K bevel helical – parallel shaft planetary gear units, and other JRP series product.

JRP planetary gear units promotes lean production, builds intelligent factories, and realizes the integration of research, production, supply, marketing and service, so as to meet customers' demand for rapid response through complete product planning and design such as “core product-extreme technology, peripheral product-extreme service, external product-extreme experience” and the implementation of the optimal plan of lean production in the whole value chain such as “product planning, design validation, processing test, assembly test, warehouse logistics, sales service, information system, HR, operation plan, strategy planning”.

JRP planetary gear units follows the concept of modular and optimized design. The whole-series product comprises AD2 solid shaft input interface, ADM flange solid shaft input interface, IEC electric motor input interface, A type shrink disc output module, B type solid shaft output module, C type hollow shaft with spline output module, D type solid shaft with spline output module, base installation, flange installation, torque arm installation and other input interfaces, output modules and installation types. This product supports the modular combination and integration of multi-stage gearbox with different types adapters. And available for customized base on customer requirement.

JIE Drive provides great products to great partners across the world!

1.2 General Information

Attention!

- Illustiations are examples only and not structly binding.JIE reserves the ringht to change the dimensions
- The weights are average values and not strictly binding.
- To prevent the accidents,all rotanting parts should be guarded according to local and national safety regulations and be protected by cover.
- Prior to caommissioning,the operating instructions must be read.The gear units are on the ready–operational condition while delivery, the luhicent should be filled before operation.
- Oil quantities given are just for reference only.The exact quantity of oil will follow the oil dipstick.
- The oil ciscosity should be accord with the data given on the name plate.
- The gear units are supplied with radial shaft seals.For other typpes of oil seal, pleass inquine.
- Directions of rotation refev to output shaft d2.
- Illustration of symbols as following.

 =Oil dipstick

 =Breather

 =Oil drain

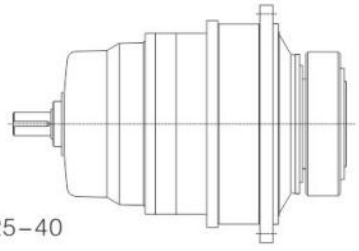
 =Oil filler

1.3 Summary of Basic Types

2 Stages Planetary unit

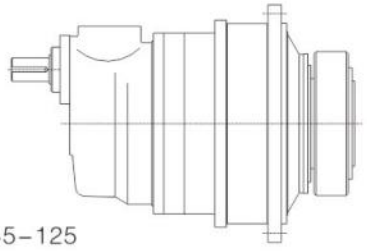
Example

JRP	2	N	A



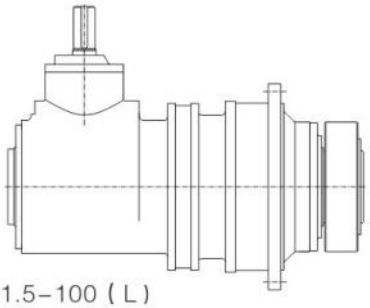
Ratio:25–40

JRP	2	S	A



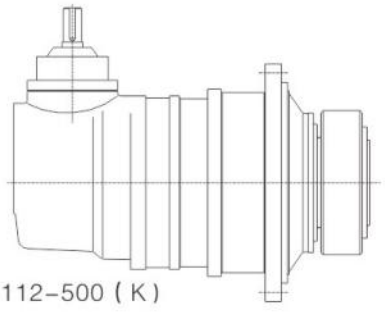
Ratio:45–125

JRP	2	L	A



Ratio:31.5–100 (L)

JRP	2	K	A



Ratio:112–500 (K)

A= Hollow Shaft Output With Shrink Disc
B= Solid Shaft Output With Flat Key.
C= Hollow Shaft Output With Involute Spline
D= Solid Shaft Output With Involute Spline

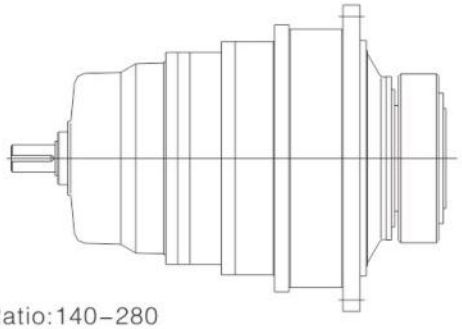
N= Standard (coaxial)
S= One stage Helical gear panall shaft
L = One stage Bevel gear rectargblar shaft
K= One stage Bevel–helical gear finst stage

2 = Stages of planetary gear
JRP = JIE Planetary gear units

3 Stages Planetary unit

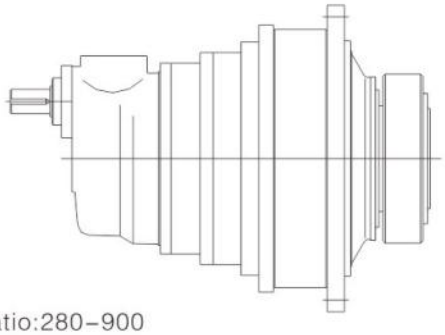
Example

JRP	3	N	A



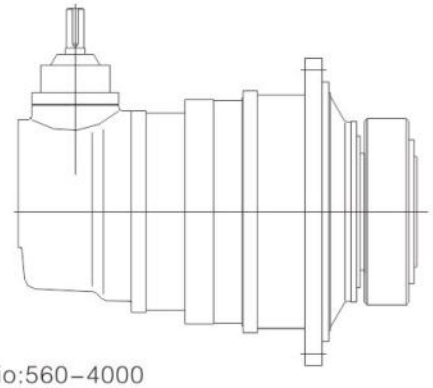
Ratio:140–280

JRP	3	S	A



Ratio:280–900

JRP	3	K	A



Ratio:560–4000

- A= Hollow Shaft Output With Shrink Disc
- B = Solid Shaft Output With Flat Key.
- C = Hollow Shaft Output With Involute Spline
- D= Solid Shaft Output With Involute Spline

- N = Standard (coaxial)
- S = Helical gear stage
- K = Bevel–helical gear stage

- 3 = Number of planetary gear stages
- JRP = JIE Planetary gear units

2. Model Description

J	RP	3	N	A	12	160	500	00
1	2	3	4	5	6	7	8	9

1 Enterprise Code

J–JIE Drive

2 Product Code

RP – Planetary Gear Units

3 Planetary

gear stages
2,3

4 Type of planetary gear

N –Standard(coaxial)
S–Helical gear stage
L–Bevel gear stage
K–Bevel–helical gear stage

5 Output shaft design

A–Hollow Shaft Output with shrink disc
B–Solid Shaft Output with Flat Key
C–Hollow Shaft Output with Involute Spline
D–Solid Shaft Output with Involute Spline

6 Size

9...36

7 Ratio

page 93–95

8 Shaft Arrangements

page 116

9 Accessory

page 100–116

Example JRP3NA12–160–500–00

JIE Series products,Coaxial planetary gear units,3 stages,Hollow shaft wih shrink disk,Size12,Nominal ratio 160,

Horizontal mouting position,Without Accessory.

3. Selection Description

3.1 Illustration Symbols

E_D = Operating cycle per hour %,e.g. E_D =60%/h
f_1 = Factor for driven machine(table 1),page 75
f_2 = Factor for prime mover(table 2),page 76
f_3 = Peak torque factor(table 3),page 76
f_4 = Thermal factor(table 4),page 76
f_5 = Utilization factor(table 5),page 76
f_6 = Actitude factor(table 6),page 76
F_{r2} = Permissible radial forces(KN)on shaft D2

i = Actual ratio
i_n = Nominal ratio
i_s = Required ratio
n_1 = Input speed(r/min)
n_2 = Output speed(r/min)
P_G = Required thermal capacity(kW)
P_{G1} = Thermal capacity(kW)for gear units without auxiliary cooling
P_N = Nominal power rating of gear unit(kW), See rating tables
P_{erf} = Required power rating(kW)
P_2 = Power rating of driven machine(kW)
P_{st} = Starting power rating(kW)
t = Ambient temperature(℃)
T_A = Max.torque of input shaft,e.g.peak torque, starting–or braking torque(Nm)
T_{2N} = Nominal output torque (Nm)
T_2 = Torque (Nm) of driven machine

P_{2eq} = Equivalent power (kW)
$P_{Ⅰ}$,$P_{Ⅱ}$,P_n = Fractions of power rating(kW) obtained from service classification
T_{2eq} = Equivalent torque(Nm)
$T_{Ⅰ}$,$T_{Ⅱ}$,T_n= Fractions of torque (Nm) obtained from Service classification
$X_{Ⅰ}$,$X_{Ⅱ}$,X_n= Fractions of time(%) obtained from Service classification

3.2 Guidelines for the Selection

3.2.1 Constant Power Rating

1. Type and size	1.1 Determine the ratio $i_s = \frac{n_1}{n_2}$ 1.2 Determine the nominal power rating of the gear unit $P_N \geq P_{erf} = P_2 \times f_1 \times f_2$ 1.3 Verity that the following conditions. If not, please coutacfus: $3.33 \times P_2 \geq P_N$ 1.4 Check the maximum torque,e.g.peak torque,starting–or braking orque $P_N \geq P_{st} = \frac{T_A \times n_1}{9550} \times f_3$ Confirm the sizes and stages according to the i_n andP_n in the power table.
2. Determination of gear unit utilization and required thermal capacity P_G	2.1 Gear unit load utilization coefficont to colcatafe the thermal capacity load utilization coefficont % = P_2 / P_N × 100 Factor can be selected from table5, page 76,as per the loading utilization cefficont 2.2 The gear unit can meet the repuirement without auxiliary cooling,if: $P_2 \leq P_G = P_{G1} \times f_4 \times f_5 \times f_6$ 2.3 For higher thermal capcaities, through the air–oil or water–oil cooling

3.2.2 Variable Power Rating

For driven machines with constant speeds and cariable power ratings,the gear unit can be designed according to the equicalent power rating. During one,a working cycle, phases I,II···n require power P_I,P_{II},···Pn and the respective time weight are X_I,X_{II},···X_n .

The equicalent power rating can be calculated from following paranetor and formula .

$$P_{2eq} = \sqrt[6.6]{P_I^{6.6} \times \frac{X_I}{100} + P_{II}^{6.6} \times \frac{X_{II}}{100} + \ldots + P_n^{6.6} \times \frac{Xn}{100}}$$

The size of the gear unit can then be determined anper 1.1...1.5 and 2.1...2.3, need to bemet.

$$P_N \geq P_{erf} = P_{2eq} \times f_1 \times f_2$$

Then,when Pn has been determined,the power and time fracions must be checked by following corditions:

1)The indicidual power fractions PI,PII ···Pn must be greater than 0.4 × Pn.

2)The indicidual power fractions PI,PII ···Pn must not exceed 1.4 × Pn.

3)The fraction greater than Pn if among the power fractions PI,PII ···Pn ,the sum of the respective time fractions XI,XII···Xn,must not exceed 10%.

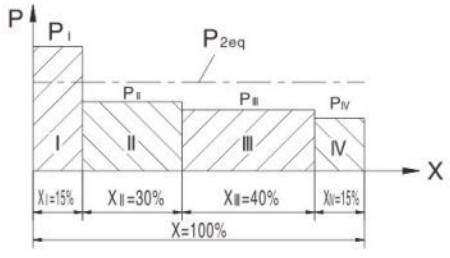
If any one of the three conditions is not met,P2eq and Perf,must be recalculated again.

If should be noted in particular that a brief peak power rating nor included in the calculation of P2eq must not be greater than Pmax=2 × Pn.

In applications where the torque is cariable but the speed is constant the gear unit camn be designed on the basis of the so–called equivalent torque.

A gear unit design according to anti–fatique can be sufficient for certain applications,for examplem,sopradic operation(lock–gate drives) or slow output speeds(n2<4 r/min)

Example:
Load specfium



3.3 Service Factors

Table 1	Factor for driven machine			f_1
Driven machines	Effective daily operating period under load in hours			
	0.5	>0.5–10	>10	
Waste water treatment				
Thickeners(central drive)	–	–	1.2	
Filter presses	1.0	1.3	1.5	
Flocculation apparata	0.8	1.0	1.3	
Aerators	–	1.8	2.0	
Raking equipment	1.0	1.2	1.3	
Combined longitudinal and rotary rakes	1.0	1.3	1.5	
Pre–thickeners	–	1.1	1.3	
Screw pumps	–	1.4	1.6	
Wate turbines	–	–	2.0	
Pumps				
Centrifugal pumps	1.1	1.3	1.5	
Positive–displacement pumps				
1 piston	1.3	1.4	1.8	
>1 piston	1.2	1.4	1.5	
Dredgers				
Bucket conveyors	–	1.6	1.8	
Carterpillar travelling gears	1.2	1.6	1.8	
Bucket wheel excavators				
as pick-up	–	1.7	1.7	
for primitive material	–	2.2	2.2	
Cutter heads	–	2.2	2.2	
Slewing gears*	–	1.4	1.8	
Plate bending machines*	–	1.0	1.0	
Chemical industry				
Extruders	–	–	1.6	
Dough mills	–	1.8	1.8	
Rubber calenders	–	1.5	1.5	
Cooling drums	–	1.3	1.4	
Mixers for uniform media	1.0	1.3	1.5	
non–uniform media	1.4	1.6	1.7	
Agitators for media with uniform density	1.0	1.3	1.5	
non–uniform density	1.2	1.5	1.7	
non–uniform gas absorption	1.4	1.6	1.8	
Toasters	1.0	1.3	1.5	
Centrifuges	1.0	1.2	1.3	
Metal working mills				
Plate tilters	1.0	1.0	1.2	
Ingot pushers	1.0	1.2	1.2	
Winding machines	–	1.6	1.6	
Cooling bed transfer frames	–	1.5	1.5	
Roller straighteners	–	1.6	1.6	
Roller tables				
continuous	–	1.5	1.5	
intermittent	–	2.0	2.0	
Reversing tube mills	–	1.8	1.8	
Shears				
continuous	–	1.5	1.5	
crank type	1.0	1.0	1.0	
Continuous casting drivers	–	1.4	1.4	
Rolls				
Reversing blooming mills	–	2.5	2.5	
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	–	

Driven machines	Effective daily operating period under load in hours		
	0.5	>0.5–10	>10
Conveyors			
Bucket conveyors	–	1.5	1.8
Hauling winches	1.4	1.6	1.8
Hoists	–	1.5	1.8
Belt conveyors 150kW	1.0	1.3	1.5
Belt conveyors 150kW	1.1	1.3	1.6
Goods lifts	–	1.2	1.5
Passenger lifts	–	1.5	1.8
Apron conveyors	–	1.2	1.5
Escalators	1.0	1.2	1.4
Rail traveling gears	–	1.6	–
Frequency converters	–	1.8	2.0
Reciprocating compressors	–	1.8	1.9
Cranes			
Slewing gears	1.0	1.4	1.8
Luffing gears	1.0	1.1	1.4
Travelling gears	1.1	1.6	2.0
Hoisting gears	1.0	1.2	1.5
Derricking jib cranes	1.0	1.2	1.6
Cooling towers			
Cooling tower fans	–	–	2.0
Blowers(axial and radial)	–	1.4	1.6
Food industry			
Cane sugar production			
Cane knives	–	–	1.7
Cane mills	–	–	1.7
Beet sugar production			
Beet cossettes macerators, Extraction plants,Mechanical refrigerators,Juice boilers, Sugar beet washing machines, Sugar beet cutters	–	–	1.2
	–	–	1.4
	–	–	1.5
Paper machines			
of all kind	–	1.8	2.0
Pulper drives	On request		
Centrifugal compressors	–	1.4	1.5
Cableways			
Material ropeways	–	1.3	1.4
To–and fro system aerial ropeways	–	1.6	1.8
T–bar lifts	–	1.3	1.4
Continuous ropeways	–	1.4	1.6
Cement industry			
Concrete mixers	–	1.5	1.5
Breakers	–	1.2	1.4
Rotary kilns	–	–	2.0
Tube mills	–	–	2.0
Separators	–	1.6	1.6
Roll crushers	–	–	2.0

1.Design for power rating of driven machine P_2

*)Designed power corresponding to max.torque

**)Load can be exactly classified.

***)A check for thermal capacity is absolutely essential

2.The listed factors are empirical values.Prerequisite for their application is thatthe machinery and equipment mentioned correspond to generally accepted design and load specifications.In case of deviations from standard conditions,please refer to us.

3.For driven machines which are not listed in this table,please refer to us.

Table 2 Factor for prime mover 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

Table 3 Peak torque factor 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
Altemating direction of load	0.7	0.95	1.10	1.25

Table 4 Thermal factor f_4					
Without auxiliary cooling					
Ambient temperature	Operating cycle per hour(ED) in %				
	100	80	60	40	20
10℃	1.14	1.20	1.32	1.54	2.04
20℃	1.00	1.06	1.16	1.35	1.79
30℃	0.87	0.93	1.00	1.18	1.56
40℃	0.71	0.75	0.82	0.96	1.27
50℃	0.55	0.58	0.64	0.74	0.98

Table 5 Utilization factor f_5							
30%	40%	50%	60%	70%	80%	90%	100%
0.66	0.77	0.83	0.90	0.90	0.95	1.0	1.0

Table 6 Factor for altitude f_6					
Without auxiliary cooling					
Factor	Altitude(metres above MSL)				
	up to 1000	up to 2000	up to 3000	up to 4000	up to 5000
f_6	1.0	0.95	0.90	0.85	0.80

3.4 Selection Example 1

Known criteria
Prime mover
Electric motor: P_1 = 55kW
Motor speed: n_1 = 1500 r/min
Max.starting torque: T_A = 660 Nm
Driven machine
Apron conveyor : T_2 = 300 000 Nm
Speed: n_2 = 1.65 r/min
Duty: 24h / day
Starts per hour: 7
Operating cycle per hour: E_D = 100%
Ambient temperature: 30℃
I nsallation in the open
Altitude: 800m

1. Selection of gear unit type

1.1 Calculation of transmission ratio

$i_s = n_1 / n_2 = 1500/1.65 = 909.09$ $i_s = 900$

1.2 Determination of gear unit type

Type JRP3K.. selected (for actual ratio,see page99)

2. Determination of gear unit size

2.1 Determination of power rating of driven machine

$P_2 = T_2 \times n_2 /9550 = 300\,000 \times 1.65/9550 = 51.83$ kW

2.2 Determination of nominal power rating of gear unit

$P_N \geqslant P_{erf} = P_2 \times f_1 \times f_2 = 51.83 \times 1.5 \times 1 = 77.75$ kW $P_N = 80$kW $> P_{erf} = 77.75$kW

Selected from power rating table:type JRP3K.., gear unit size 22, with PN=80kW.(See Page94)

$3.33 \times P_2 = 3.33 \times 51.83 = 172.59$ kW $> P_N = 80$ kW

It is not necessary to consult us.

2.3 Checking the starting power rating

$P_N \geqslant P_{st} = T_A \times n_1 \times f_3 /9550 = 660 \times 1500 \times 0.65/9550 = 67.38$kW $P_N = 80$kW $> P_{st} = 67.38$ kW

3. Determination of thermal capacity

3.1 Gear unit utilization

Utilization in % = $P_2/P_N \times 100 = 51.83/80 \times 100 = 65\%$

3.2 Thermal capacity acc. To table for type JRP3K.. (See Page 94)

$P_G = P_{G1} \times f_4 \times f_5 \times f_6 = 128 \times 0.87 \times 0.9 \times 1 = 100.22$kW $P_2 = 51.83$kW $< P_G = 100.22$ kW

So auxiliary cooling device is unnecessary.

4. Determination of gear unit arrangment. Bevel–helical planetary gear unit: JRP3KA

Variant : "00"

Mounting position: horizontal

Pos.of the input shaft d1: e.g. "522" (See Page 120)

Direct. of rotation of output shaft d2 : ccw , viewing on shaft end face

Design d2: hollow shaft with shrink disk

JRP3KA22–900–522–00 Model: JRP3KA22–900–522–00

2.Selection Example

Known criteria:
Prime mover
Electric motor: P_1=130kW
Motor speed: n_1=1000 r/min
Max.starting torque: T_A=2000 Nm
Driven machine
Mixer, uniform media
Speed: n_2=12.5 r/min
Duty: 12h / day
Operating cycle per hour: E_D=60%
Ambient temperature: 20℃
Installation in the open
Altitude: 600m
Service classification
T_I 47 000 Nm at 20% of time
T_{II} 50 000 Nm at 40% of time
T_{III} 53 000 Nm at 30% of time
T_{IV} 100 000 Nm at 10% of time

1. Selection of gear unit type

1.1 Calculation of transmission ratio

1.2 Determination of gear unit type
Type JRP2S.. selected (for actual ratio See Page97)

2. Determination of gear unit size

2.1 Determination of equivalent torque from the given service classification

$$T_{2eq} = \sqrt[6.6]{T_I^{6.6} \times \frac{X_I}{100} + T_{II}^{6.6} \times \frac{X_{II}}{100} + \ldots + T_n^{6.6} \times \frac{X_n}{100}}$$

$$T_{2eq} = \sqrt[6.6]{47000^{6.6} \times \frac{20}{100} + 50000^{6.6} \times \frac{40}{100} + 53000^{6.6} \times \frac{30}{100} + 100000^{6.6} \times \frac{10}{100}} = 71577.84 \text{ Nm}$$

Observe conditions 1),2),3),of the guidelines for The selection ,page 73

T_{II}
T_{III}
T_{IV}

2.2 Determination of power rating of driven machine

$P_{2eq} = T_{2eq} \times n_2 / 9550 = 71577.84 \times 12.5 / 9550 = 93.69$ kW

2.3 Determination of nominal power rating of gear unit

$P_{erf} = P_{2eq} \times f_1 \times f_2 = 93.69 \times 1.4 \times 1.0 = 131.17$kW $P_N = 153$ kW > $P_{erf} = 131.17$kW

Selected from power rating table: type JRP2S.., gear unit size 14, with P_N = 153kW , (See Page 86)

$3.33 \times P_{2eq} = 3.33 \times 93.69 = 311.99$ Kw > $P_N = 153$ kW

It is not necessary to consult us.

2.4 Checking the starting torque

$P_N \geq P_{st} = T_A \times n_1 \times f_3 / 9550 = 2000 \times 1000 \times 0.5 / 9550 = 104.71$kW $P_N = 153$kW > $P_{st} = 104.71$kW

3. Determination of thermal capacity

3.1 Gear unit utilization

Utilization in % = P_{2eq} / P_N × 100 = 93.69 / 153 × 100 = 61%

3.2 Thermal capacity acc. To table for type JRP2S.. (See Page 86)

$P_G = P_{G1} \times f_4 \times f_5 \times f_6 = 94 \times 1.16 \times 0.9 \times 1 = 98.13$ kW $P_{2eq} = 93.69$ kW < P_G = 98.13 kW

No auxiliary cooling required !

4. Determination of the design

Helical planetary gear unit: JRP2SA

Variant : "00"

Mounting position: horizontal

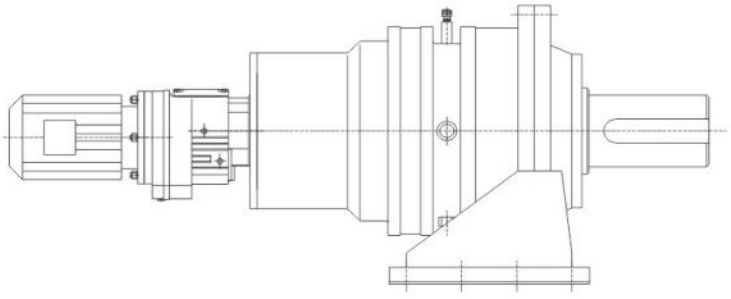
Pos.of the input shaft d1: e.g. "512"
(See Page 120)

Direct. of rotation of output shaft d2 : in both directions

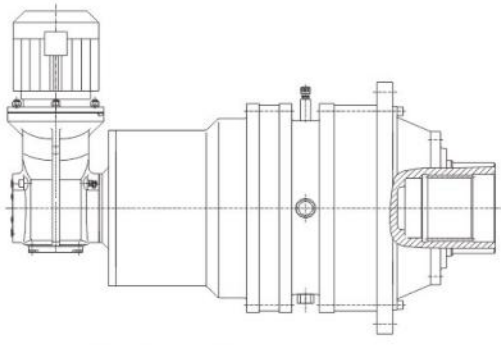
Design d2: hollow shaft with
shrink disc

Model: JRP2SA14–80–512–00

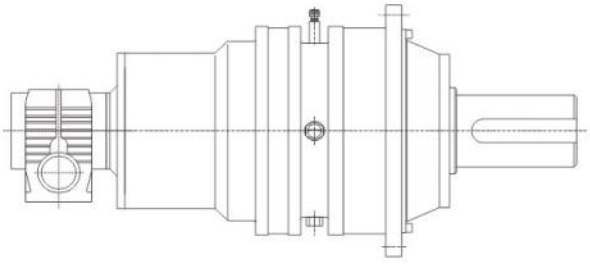
4. Combinations



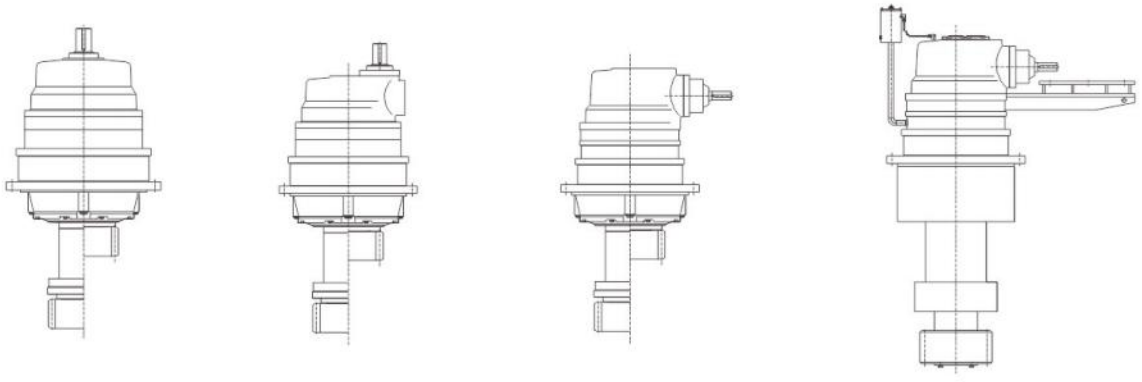
JRP.../R combination upon request



JRP.../K combination upon request



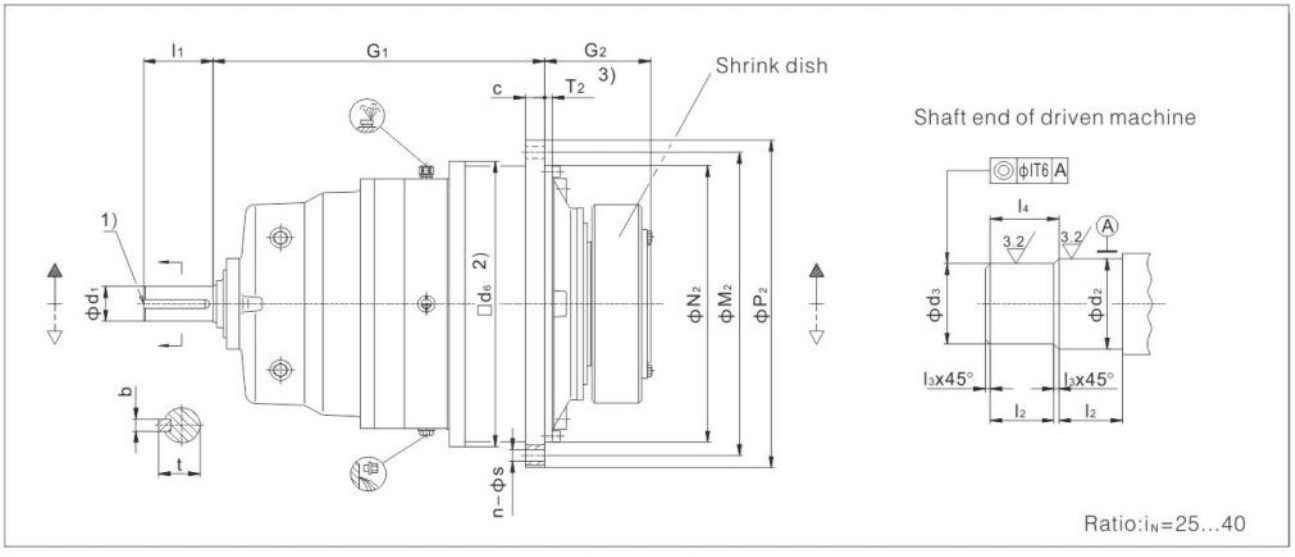
JRP.../S combination upon request



JRP.../H combination (Slewing Gears)upon request

5. Technical Data

Dimension and Weight
Type JRP2NA..



JRP2NA.. Size	Nominal Output Torques T_{2N} (Nm)	Input shaft Dimension (mm)					d_2	d_3	l_2	l_3	l_4	P_2	C	M_2	N_2	T_2	G_2	d_6	Flange bolts		Weight (kg) 4)
		d_1	l_1	G_1	b	t													n	s	
9	22000	55m6	90	469	16	59	120h6	115h6	65	2.5	67.5	428	24	388	350h7	6 ± 1.5	165	356	24	18	240
10	31000	55m6	90	489	16	59	130h6	125h6	70	2.5	72.5	472	28	436	394h7	8 ± 1.5	174	400	28	18	290
11	42000	70m6	120	579	20	74.5	140h6	135h6	82.5	2.5	85	525	32	485	425h7	8 ± 1.5	204	436	20	22	350
12	60000	70m6	120	593	20	74.5	160h6	155h6	90	2.5	92.5	605	34	555	495h7	9 ± 1.5	224	510	20	26	490
13	83000	80m6	140	714	22	85	180g6	175g6	95	2.5	97.5	645	39	595	535h7	11 ± 1.5	241	554	24	26	590
14	117000	80m6	140	737	22	85	210g6	205g6	105	2.5	107.5	720	42	665	610h7	9	278	629	32	26	820
16	160000	95m6	160	851	25	100	230g6	225g6	110	2.5	112.5	770	44	715	660h7	10	285	680	36	26	1030
17	202000	95m6	160	877	25	100	250g6	245g6	120	2.5	122.5	895	50	830	750h7	10	294	775	24	33	1500
18	244000	110n6	180	1006	28	116	260g6	255g6	120	2.5	122.5	930	50	865	785h7	10	303	815	32	33	1900
19	295000	110n6	180	1029.5	28	116	280g6	275g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2000
20	354000	110n6	180	1029.5	28	116	300g6	295g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2100
21	392000	120n6	210	1046	32	127	310g6	305g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	2650
22	450000	120n6	210	1046	32	127	330g6	325g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	2800
23	513000	130n6	210	1150	32	137	350g6	345g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	3450
24	592000	130n6	210	1150	32	137	360g6	355g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	3900
25	684000	140n6	240	1241	36	148	380g6	375g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	4750
26	763000	140n6	240	1241	36	148	400g6	395g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5150
27	852000	150n6	240	1379	36	158	430g6	425g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	6100
28	950000	150n6	240	1379	36	158	450g6	445g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	6550
29	1060000	160n6	270	1457	40	169	460g6	450g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	7800
30	1200000	160n6	270	1457	40	169	480g6	470g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8300
31	1330000	170n6	270	1607	40	179	480g6	470g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	10200
32	1500000	170n6	270	1607	40	179	510g6	500g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	10700
33	1680000	180n6	310	1683	45	190	530g6	520g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	12350
34	1920000	180n6	310	1683	45	190	570g6	560g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	13150
35	2240000	190n6	310	1899	45	200	600g6	590g6	272	5	277	1945	112	1825	1685h7	40	656	1720	40	62	17300
36	2600000	190n6	310	1899	45	200	640g6	630g6	272	5	277	1945	112	1825	1685h7	40	656	1720	40	62	18400

1) For shaft end d1 with centre hole, see page 96
2) Space required.
3) Observe bolted connection and boss.
4)Weight without shrink disc and oil.

Ratio,Speed,Power Rating
Type JRP2N..

Ratio i_N, speeds n_1 and n_2, nominal power ratings P_N																														
i_N	n_1	n_2	Gear unit sizes																											
			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	35	36
	r/min		Nominal power ratings P_N in (kW)																											
25	1500	60	137	193	261	373	516	728	995	1256	1517	1834	2201	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1000	40	91	129	174	249	344	485	663	837	1012	1223	1468	1625	1866	2127	2454	2863	3163	3532	3938	4394	4975	5514	6218	6965	7960	9286	10779
	750	30	68	96	131	187	258	364	497	628	759	917	1101	1219	1399	1595	1841	2127	2372	2649	2954	3296	3731	4135	4664	5223	5970	6965	8084
28	1500	54	123	173	235	336	465	655	895	1131	1366	1651	1981	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	1000	36	82	116	157	224	310	437	597	754	910	1101	1321	1463	1679	1914	2209	2552	2847	3179	3544	3955	4477	4962	5597	6268	7164	8358	9701
	750	27	62	87	118	168	232	327	448	565	683	825	991	1097	1259	1436	1657	1914	2135	2384	2658	2966	3358	3722	4197	4701	5373	6268	7276
31.5	1500	48	109	154	209	298	413	582	796	1005	1214	1468	1761	1950	2239	2552	2945	3403	3796	4238	4726	5273	5970	6616	7462	8358	9551	11143	12934
	1000	32	73	103	139	199	275	388	531	670	809	978	1174	1300	1492	1701	1963	2268	2530	2826	3151	3515	3980	4411	4975	5572	6368	7429	8623
	750	24	55	77	104	149	206	291	398	502	607	734	881	975	1119	1276	1473	1701	1898	2129	2363	2637	2985	3308	3731	4179	4776	5572	6467
35.5	1500	42	96	135	183	261	361	509	696	879	1062	1284	1541	1706	1959	2233	2577	2977	3321	3709	4135	4614	5223	5789	6529	7313	8358	9750	11317
	1000	28	64	90	122	174	241	340	464	586	708	856	1027	1138	1306	1489	1718	1985	2214	2472	2757	3076	3482	3860	4353	4875	5572	6500	7545
	750	21	48	67	91	131	181	255	348	440	531	642	770	853	979	1117	1288	1489	1661	1854	2068	2307	2612	2895	3265	3656	4179	4875	5659
40	1500	38	87	122	165	236	327	461	630	796	961	1162	1394	1544	1772	2020	2331	2694	3005	3355	3741	4175	4726	5238	5907	6616	7562	8822	10240
	1000	25	57	80	109	155	215	303	415	523	632	764	917	1016	1166	1329	1534	1772	1977	2208	2461	2746	3109	3446	3886	4353	4975	5804	6737
	750	19	43	61	83	118	163	230	315	398	480	581	697	772	886	1010	1166	1347	1502	1678	1871	2087	2363	2619	2954	3308	3781	4411	5120

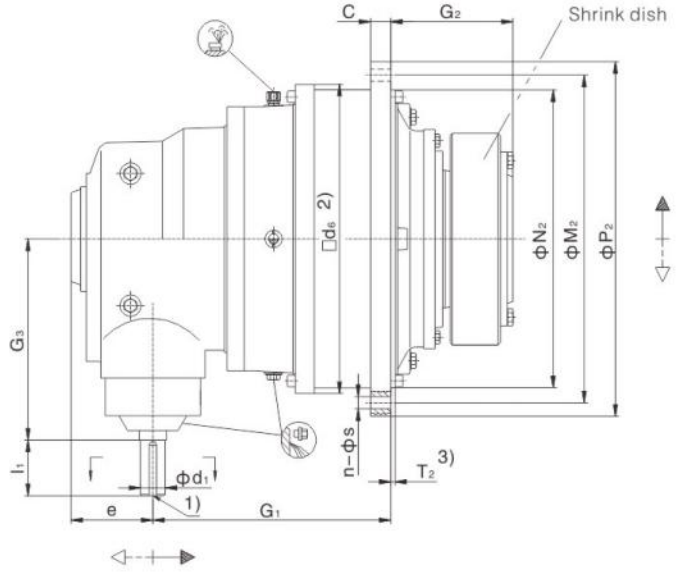
– = On request

Thermal capacities P_{G1} in (kW) *)																			
	Gear unit sizes																		
	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	35/36	
	Thermal capacities P_{G1} in (kW)																		
1) P_{G1} for small confined spaces	21	26	32	42	49	65	75	92	100	119	142	174	201	242	287	326	366	437	
2) P_{G1} for large halls, workshops etc.	29	37	45	60	69	92	106	130	147	169	201	246	285	343	406	462	519	619	
3) P_{G1} in the open	39	50	60	80	93	125	143	175	191	228	272	333	386	464	550	626	702	838	

*) Values apply to horizontal mounting position. For other mounting positions please refer to us.

1) Wind velocity≥0.5m/s
2) Wind velocity≥1.4m/s
3) Wind velocity≥3.7m/s

Dimension and Weight
Type JRP2LA..



Ratio:i_N=31.5..100

JRP2LA.. Size	Nominal Output Torques T_{2N} (Nm)	Input shaft Dimension (mm)								G_1	G_3	e	d_2	d_3	l_2	l_3	l_4	P_2	C	M_2	N_2	T_2	G_2	d_6	Flange bolts		Weight (kg) 4)
		$i_N \leq 90$				$i_N \geq 100$																			n	s	
		d_1	l_1	b	t	d_1	l_1	b	t																		
9	22000	45m6	100	14	48.5	35m6	80	10	38	426	305	185	120h6	115h6	65	25	67.5	428	24	388	350h7	6±1.5	165	356	24	18	260
10	31000	45m6	100	14	48.5	35m6	80	10	38	446	305	185	130h6	125h6	70	25	72.5	472	28	436	394h7	8±1.5	174	400	28	18	310
11	42000	55m6	110	16	59	40m6	100	12	43	501	350	210	140h6	135h6	82.5	25	85	525	32	485	425h7	8±1.5	204	436	20	22	380
12	60000	55m6	110	16	59	40m6	100	12	43	515	350	210	160h6	155h6	90	25	92.5	605	34	555	495h7	9±1.5	224	510	20	26	520
13	83000	70m6	135	20	74.5	50m6	110	14	53.5	619	415	250	180g6	175g6	95	25	97.5	645	39	595	535h7	11±1.5	241	554	24	26	650
14	117000	70m6	135	20	74.5	50m6	110	14	53.5	630	415	250	210g6	205g6	105	25	107.5	720	42	665	610h7	9	278	629	32	26	910
16	160000	80m6	165	22	85	60m6	140	18	64	705	490	295	230g6	225g6	110	25	112.5	770	44	715	660h7	10	285	680	36	26	1140
17	202000	80m6	165	22	85	60m6	140	18	64	739	490	295	250g6	245g6	120	25	122.5	895	50	830	750h7	10	294	775	24	33	1660
18	244000	90m6	165	25	95	70m6	140	20	74.5	882	605	350	260g6	255g6	120	25	122.5	930	50	865	785h7	10	303	815	32	33	2100
19	295000	90m6	165	25	95	70m6	140	20	74.5	905.5	605	350	280g6	275g6	135	25	137.5	980	56	915	840h7	12	327.5	870	36	33	2200
20	354000	90m6	165	25	95	70m6	140	20	85	905.5	700	350	300g6	295g6	135	25	137.5	980	56	915	840h7	12	327.5	870	36	33	2300
21	392000	110n6	205	28	116	80m6	170	22	85	996	700	400	310g6	305g6	152	25	154.5	1115	62	1025	935h7	24	354	960	32	39	2930
22	450000	110n6	205	28	116	80m6	170	22	85	996	700	400	330g6	325g6	152	25	154.5	1115	62	1025	935h7	24	354	960	32	39	3100
23	513000	110n6	205	28	116	80m6	170	22	85	1055	700	400	350g6	345g6	164	25	166.5	1210	68	1120	1025h7	28	380	1056	36	39	3800
24	592000	110n6	205	28	116	80m6	170	22	106	1055	700	400	360g6	355g6	164	25	166.5	1210	68	1120	1025h7	28	380	1056	36	39	4300
25	684000	130n6	245	32	137	100m6	210	28	106	1138	835	475	380g6	375g6	180	25	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5250
26	763000	130n6	245	32	137	100m6	210	28	106	1138	835	475	400g6	395g6	180	25	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5660
27	852000	130n6	245	32	137	100m6	210	28	106	1272	835	475	430g6	425g6	191	25	193.5	1460	81	1345	1215h7	31	453	1150	32	52	6680
28	950000	130n6	245	32	137	100m6	210	28	106	1272	835	475	450g6	445g6	191	25	193.5	1460	81	1345	1215h7	31	453	1248	32	52	7180
29	1060000	150n6	245	36	158	110n6	210	28	116	1367	945	530	460g6	450g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8500
30	1200000	150n6	245	36	158	110n6	210	28	116	1367	945	530	480g6	470g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	9070
31~36	Please consult JIE																										

1) For shaft end d_1 with centre hole, see page 96
2) Space required.
3) Observe bolted connection and boss.
4)Weight without shrink disc and oil.

Ratio,Speed,Power Rating

Type JRP2L..

Ratio i_N,speeds n_1 and n_2,nominal power ratings P_N																									
i_N	n_1	n_2	Gear unit sizes																						
			9	10	11	12	13	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31-36
	r/min		Nominal power ratings P_N in (kW)																					
31.5	1500	47.6	111	156	212	302	418	510	806	865	1230*	1487*	1517*	1976*	2268*									Please consult JIE
	1000	31.7	74	104	141	202	279	340	538	577	820	991	1011	1317*	1512*	1724*	1989*	2298*	2564*	2863*	2937*			
	750	23.8	55	78	106	151	209	255	403	433	615	743	758	988	1134	**1293**	**1492**	1724	1923	2147	2203			
35.5	1500	42.3	98	139	188	268	345	487	716	858	1091*	1319*	1504*	1753*	2013*									
	1000	28.2	66	92	125	179	247	324	477	572	728	880	1003	1169*	1342*	1530*	1712*	2040*	2275*	2540*	2833*			
	750	21.1	49	69	94	134	173	243	358	429	546	660	752	877	1006	1147	1284	1530	1706	1905	2124			
40	1500	37.5	87	123	167	238	306	432	635	802	969*	1171*	1405*	1556*	1786*									
	1000	25.0	58	82	111	159	204	288	423	535	646	781	937	1037*	1191*	1358*	1567*	1810*	2019*	2255*	2514*			
	750	18.8	44	62	83	119	153	216	318	401	484	585	703	778	883	1018	1175	1358	1514	1691	1885			
45	1500	33.3	78	109	148	212	293	413	565	713	861*	1041*	1249*	1383*	1588*	1810*	2089*							
	1000	22.2	52	73	99	141	195	275	376	475	574	694	833	922*	1059*	1207*	1393*	1609*	1795*	2004*	2235*			
	750	16.7	39	55	74	106	146	206	282	356	430	520	625	692	794	905	1044	1207	1346	1503	1676	**1870**	**2117**	
50	1500	30.0	70	98	133	191	264	372	508	641	775	937	1124	1245*	1429*	1629*	1880*							
	1000	20.0	47	66	89	127	176	248	339	428	517	625	749	830	953	1086	1253	1448*	1615*	1804*	2011*			
	750	15.0	35	49	67	95	132	186	254	321	387	468	562	622	714	815	940	1086	1211	1353	1508	**1683**	**1905**	
56	1500	26.8	62	88	119	170	235	332	454	573	692	836	1004	1111*	1276*	1455*	1678*							
	1000	17.9	42	59	79	113	157	221	302	382	461	558	669	741	851	970	1119	1293*	1442*	1610*	1796*	2004*	2268*	
	750	13.4	31	44	60	85	118	166	227	286	346	418	502	556	638	727	839	970	1082	1208	1347	1503	1701	
63	1500	23.8	55	78	106	151	209	295	403	509	615	743	892	988	1134	1293	1492	1724*	1923*	2147*	2394*			
	1000	15.9	37	52	71	101	139	197	269	339	410	496	595	659	756	862	995	1149	1282	1432	1596	1781*	2016*	
	750	11.9	28	39	53	76	105	147	202	255	307	372	446	494	567	646	746	862	961	1074	1197	1336	1512	
71	1500	21.1	49	69	94	134	186	262	358	452	546	660	792	877	1006	1147	1324	1530	1706	1905	2124			
	1000	14.1	33	46	63	89	124	174	239	301	364	440	528	584	671	765	883	1020	1138	1270	1416	1580*	1789*	
	750	10.6	25	35	47	67	93	131	179	226	273	330	396	438	503	574	662	765	853	953	1062	1185	1342	
80	1500	18.8	44	62	83	119	165	232	318	401	484	585	703	778	893	1018	1175	1358	1514	1691	1885			
	1000	12.5	29	41	56	79	110	155	212	267	323	390	468	519	595	679	783	905	1010	1127	1257	1403*	1588*	
	750	9.4	22	31	42	60	82	116	159	200	242	293	351	389	447	509	587	679	757	845	943	1053	1191	
90	1500	16.7	39	55	74	106	146	206	282	356	430	520	625	692	794	905	1044	1207	1346	1503	1676	1870	2117	
	1000	11.1	26	36	49	71	98	138	188	238	287	347	416	461	529	603	696	804	897	1002	1117	1247	1411	
	750	8.3	19	27	37	53	73	103	141	178	215	260	312	346	397	453	522	603	673	752	838	935	1059	
100	1500	15.0	35	49	67	95	132	186	254	321	387	468	562	622	714	815	940	1086	1211	1353	1508	1683	1905	
	1000	10.0	23	33	44	64	88	124	169	214	258	312	375	415	476	543	627	724	808	902	1006	1122	1270	
	750	7.5	17	25	33	48	66	93	127	160	194	234	281	311	357	407	470	543	606	676	754	842	953	

* Forced lubrication required

Thermal capacities P_{G1} in (kW) *)																	
	Gear unit sizes																
	9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/36	
	Thermal capacities P_{G1} in (kW)																
1) P_{G1} for small confined spaces	14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	Please consult JIE	
2) P_{G1} for large halls, workshops etc.	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284		
3) P_{G1} in the open	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384		

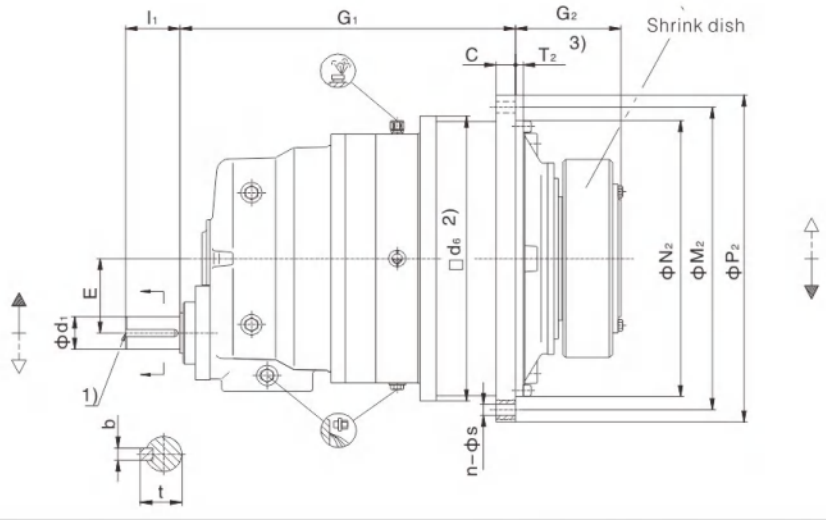
*) Values apply to horizontal mounting position.
For other mounting positions please refer to us.

1) Wind velocity≥0.5m/s

2) Wind velocity≥1.4m/s

3) Wind velocity≥3.7m/s

Dimension and Weight
Type JRP2SA..



JRP2SA.. Size	Nominal Output Torques T_{2N} (Nm)	Input shaft Dimension (mm)						d_2	d_3	l_2	l_3	l_4	P_2	C	M_2	N_2	T_2	G_2	d_6	Flange bolts		Weight (kg) 4)
		d_1	l_1	G_1	b	t	E													n	s	
9	22000	38m6	60	469	10	41	90	120h6	115h6	65	2.5	67.5	428	24	388	350h7	6±1.5	165	356	24	18	260
10	31000	38m6	60	489	10	41	90	130h6	125h6	70	2.5	72.5	472	28	436	394h7	8±1.5	174	400	28	18	310
11	42000	55m6	90	579	16	59	115	140h6	135h6	82.5	2.5	85	525	32	485	425h7	8±1.5	204	436	20	22	380
12	60000	55m6	90	593	16	59	115	160h6	155h6	90	2.5	92.5	605	34	555	495h7	9±1.5	224	510	20	26	520
13	83000	70m6	120	714	20	74.5	140	180g6	175g6	95	2.5	97.5	645	39	595	535h7	11±1.5	241	554	24	26	660
14	117000	70m6	120	737	20	74.5	140	210g6	205g6	105	2.5	107.5	720	42	665	610h7	9	278	629	32	26	920
16	160000	80m6	140	851	22	85	170	230g6	225g6	110	2.5	112.5	770	44	715	660h7	10	285	680	36	26	1150
17	202000	80m6	140	877	22	85	170	250g6	245g6	120	2.5	122.5	895	50	830	750h7	10	294	775	24	33	1650
18	244000	90m6	160	1006	25	95	200	260g6	255g6	120	2.5	122.5	930	50	865	785h7	10	303	815	32	33	1950
19	295000	90m6	160	1029.5	25	95	200	280g6	275g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2400
20	354000	90m6	160	1029.5	25	95	200	300g6	295g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2500
21	392000	100m6	180	1076	28	106	230	310g6	305g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	2900
22	450000	100m6	180	1076	28	106	230	330g6	325g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	3100
23	513000	120n6	210	1175	32	127	265	350g6	345g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	3800
24	592000	120n6	210	1175	32	127	265	360g6	355g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	4100
25	684000	130n6	210	1291	32	137	300	380g6	375g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	4950
26	763000	130n6	210	1291	32	137	300	400g6	395g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5350
27	852000	140n6	240	1429	36	148	320	430g6	425g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	6800
28	950000	140n6	240	1429	36	148	320	450g6	445g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	7200
29	1060000	150n6	240	1507	36	158	360	460g6	450g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8500
30	1200000	150n6	240	1507	36	158	360	480g6	470g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	9000
31	1330000	160n6	270	1662	40	169	400	480g6	470g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	10500
32	1500000	160n6	270	1662	40	169	400	510g6	500g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	11200
33	1680000	170n6	270	1743	40	179	400	530g6	520g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	12700
34	1920000	170n6	270	1743	40	179	400	570g6	560g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	13500
35	2240000	180n6	310	1960	45	190	442	600g6	590g6	272	5	277	1945	112	1825	1685h7	40	656	1720	40	62	17800
36	2600000	180n6	310	1960	45	190	442	640g6	630g6	272	5	277	1945	112	1825	1685h7	40	656	1720	40	62	18900

1) For shaft end d1 with centre hole, see page 96
2) Space required.
3) Observe bolted connection and boss.
4)Weight without shrink disc and oil.

Ratio,Speed,Power Rating

Type JRP2S..

Ratio i_N, speeds n_1 and n_2, nominal power ratings P_N																															
i_N	n_1 / n_2 r/min		Gear unit sizes 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	35	36
			Nominal power ratings P_N in (kW)																												
45	1500	33.3	77	108	147	209	290	408	558	705	852	1030	1236	1368	1571	1790	2066	2387	2663	–	–	–	–	–	–	–	–	–	–
	1000	22.2	51	72	98	140	193	272	372	470	568	686	824	912	1047	1194	1377	1592	1775	1982	2210	2466	2792	3095	3490	3909	4467	5212	6050
	750	16.7	38	54	73	105	145	204	279	353	426	515	618	684	785	895	1033	1194	1332	1487	1658	1850	2094	2321	2618	2932	3351	3909	4537
50	1500	30.0	69	97	132	188	261	368	503	635	766	927	1112	1231	1414	1611	1860	2149	2397	–	–	–	–	–	–	–	–	–	–
	1000	20.0	46	65	88	126	174	245	335	423	511	618	741	821	942	1074	1240	1432	1598	1784	1989	2220	2513	2785	3141	3518	4021	4691	5445
	750	15.0	35	49	66	94	130	184	251	317	383	463	556	616	707	806	930	1074	1198	1338	1492	1665	1885	2089	2356	2639	3016	3518	4084
56	1500	26.8	62	87	118	168	233	328	449	567	684	827	993	1099	1262	1439	1660	1918	2140	–	–	–	–	–	–	–	–	–	–
	1000	17.9	41	58	79	112	155	219	299	378	456	552	662	733	841	959	1107	1279	1427	1593	1776	1982	2244	2487	2805	3141	3590	4188	4861
	750	13.4	31	43	59	84	116	164	224	283	342	414	496	550	631	719	830	959	1070	1195	1332	1486	1683	1865	2103	2356	2692	3141	3646
63	1500	23.8	55	77	105	150	207	292	399	504	608	735	883	977	1122	1279	1476	1705	1902	–	–	–	–	–	–	–	–	–	–
	1000	15.9	37	52	70	100	138	194	266	336	406	490	588	651	748	853	984	1137	1268	1416	1579	1762	1994	2210	2493	2792	3171	3723	4321
	750	11.9	27	39	52	75	103	146	199	252	304	368	441	489	561	639	738	853	951	1062	1184	1321	1496	1658	1870	2094	2393	2792	3241
71	1500	21.1	49	69	93	133	184	259	354	447	540	653	783	687	995	1135	1310	1513	1688	–	–	–	–	–	–	–	–	–	–
	1000	14.1	32	46	62	88	122	173	236	298	360	435	522	578	664	757	873	1009	1125	1256	1401	1563	1770	1961	2212	2478	2831	3303	3834
	750	10.6	24	34	46	66	92	129	177	223	270	326	392	434	498	567	655	757	844	942	1051	1172	1327	1471	1659	1858	2124	2478	2876
80	1500	18.8	43	61	82	118	163	230	314	397	479	579	695	770	883	1007	1162	1343	1498	–	–	–	–	–	–	–	–	–	–
	1000	12.5	29	41	50	79	109	153	209	264	319	386	463	513	589	671	775	895	999	1115	1243	1387	1571	1741	1963	2199	2513	2932	3403
	750	9.4	22	30	41	59	81	115	157	198	240	290	347	385	442	504	581	671	749	836	933	1041	1178	1306	1472	1649	1885	2199	2552
90	1500	16.7	38	54	73	105	145	204	279	353	426	515	618	684	785	895	1033	1194	1332	–	–	–	–	–	–	–	–	–	–
	1000	11.1	26	36	49	70	97	136	186	235	284	343	412	456	524	597	689	796	888	991	1105	1233	1396	1547	1745	1954	2234	2606	3025
	750	8.3	19	27	37	52	72	102	140	176	213	257	309	342	393	448	517	597	666	743	829	925	1047	1160	1309	1466	1675	1954	2269
100	1500	15.0	35	49	66	94	130	184	251	317	383	463	556	616	707	806	930	1074	1198	–	–	–	–	–	–	–	–	–	–
	1000	10.0	23	32	44	63	87	123	168	212	255	309	371	410	471	537	620	716	799	892	995	1110	1256	1393	1571	1759	2010	2345	2722
	750	7.5	17	24	33	47	65	92	126	159	192	232	278	308	353	403	465	537	599	669	746	832	942	1044	1178	1319	1508	1759	2042
112	1500	13.4	31	43	59	84	116	164	224	283	342	414	496	550	631	719	830	959	1070	–	–	–	–	–	–	–	–	–	–
	1000	8.9	21	29	39	56	78	109	150	189	228	276	331	366	421	480	553	639	713	797	888	991	1122	1243	1402	1571	1795	2094	2431
	750	6.7	15	22	29	42	58	82	112	142	171	207	248	275	316	360	415	480	535	597	666	743	841	933	1052	1178	1346	1571	1823
125	1500	12.0	28	39	53	75	104	147	201	254	307	371	445	493	565	645	744	859	959	–	–	–	–	–	–	–	–	–	–
	1000	8.0	18	26	35	50	70	98	134	169	204	247	297	328	377	430	496	573	639	714	796	888	1005	1114	1256	1407	1608	1876	2178
	750	6.0	14	19	26	38	52	74	101	127	153	185	222	246	283	322	372	430	479	535	597	666	754	836	942	1055	1206	1407	1633

– = On request

Thermal capacities P_{G1} in (kW) *)																			
	Gear unit sizes 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	35/36
	Thermal capacities P_{G1} in (kW)																	
1) P_{G1} for small confined spaces	15	20	24	32	36	49	56	69	75	89	106	130	151	182	215	245	275	328
2) P_{G1} for large halls, workshops etc.	22	28	34	45	52	69	79	97	106	127	151	185	214	257	305	347	389	464
3) P_{G1} in the open	29	38	45	60	70	94	107	132	143	171	204	250	289	348	412	469	527	628

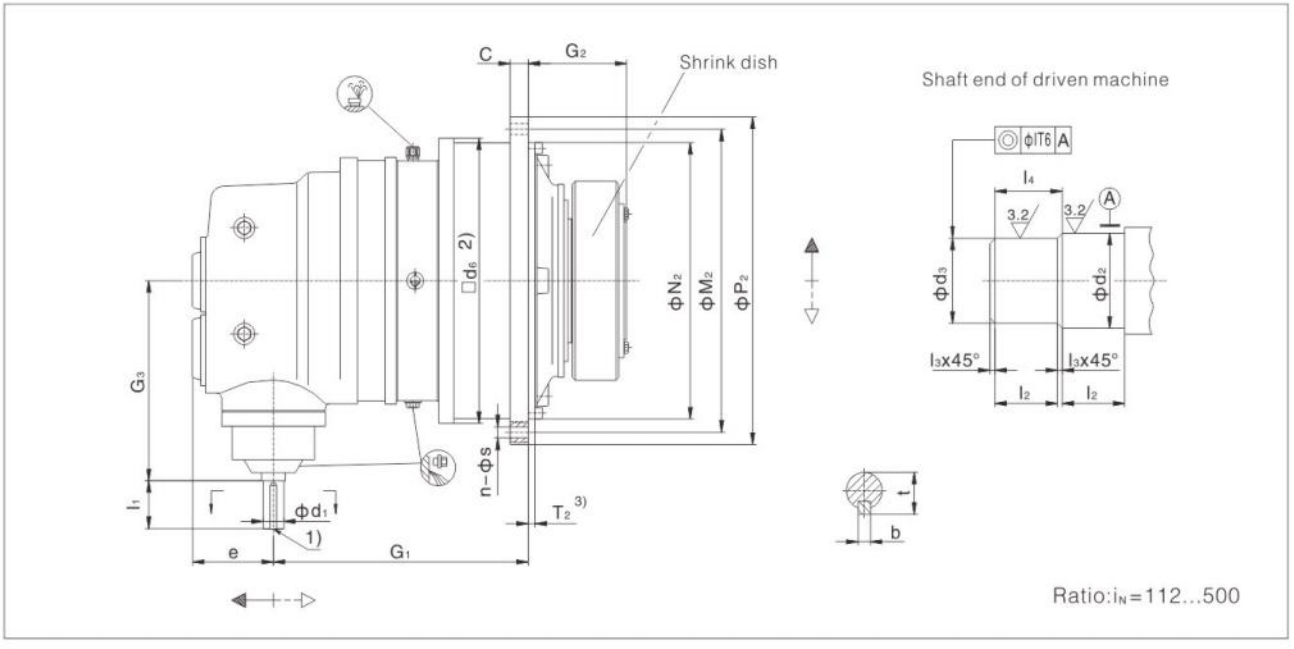
*) Values apply to horizontal mounting position.
For other mounting positions please refer to us.

1) Wind velocity≥0.5m/s

2) Wind velocity≥1.4m/s

3) Wind velocity≥3.7m/s

Dimension and Weight
Type JRP2KA..



JRP2KA.. Size	Nominal Output Torques T2N (Nm)	Input shaft Dimension (mm) iN≤360 d1	l1	b	t	iN≥400 d1	l1	b	t	G1	G3	e	d2	d3	l2	l3	l4	P2	C	M2	N2	T2	G2	d6	Flange bolts n	s	Weight (kg) 4)
9	22000	30m6	70	8	33	25k6	60	8	28	339	320	119	120h6	115h6	65	2.5	67.5	428	24	388	350h7	6±1.5	165	356	24	18	270
10	31000	30m6	70	8	33	25k6	60	8	28	359	320	119	130h6	125h6	70	2.5	72.5	472	28	436	394h7	8±1.5	174	400	28	18	320
11	42000	35m6	80	10	38	28m6	60	8	31	419	375	137	140h6	135h6	82.5	2.5	85	525	32	485	425h7	8±1.5	204	436	20	22	390
12	60000	35m6	80	10	38	28m6	60	8	31	433	375	137	160h6	155h6	90	2.5	92.5	605	34	555	495h7	9±1.5	224	510	20	26	540
13	83000	45m6	100	14	48.5	35m6	80	10	38	518.5	445	172	180g6	175g6	95	2.5	97.5	645	39	595	535h7	11±1.5	241	554	24	26	690
14	117000	45m6	100	14	48.5	35m6	80	10	38	541.5	445	172	210g6	205g6	105	2.5	107.5	720	42	665	610h7	9	278	629	32	26	950
16	160000	55m6	110	16	59	40m6	100	12	43	632	520	194	230g6	225g6	110	2.5	112.5	770	44	715	660h7	10	285	680	36	26	1200
17	202000	55m6	110	16	59	40m6	100	12	43	658	520	194	250g6	245g6	120	2.5	122.5	895	50	830	750h7	10	294	775	24	33	1700
18	244000	70m6	135	20	74.5	50m6	110	14	53.5	741.5	615	240	260g6	255g6	120	2.5	122.5	930	50	865	785h7	10	303	815	32	33	2010
19	295000	70m6	135	20	74.5	50m6	110	14	53.5	764.5	615	240	280g6	275g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2470
20	354000	70m6	135	20	74.5	50m6	110	14	53.5	764.5	615	240	300g6	295g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2550
21~26	Please consult JIE																										

1) For shaft end d1 with centre hole, see page 96
2) Space required.
3) Observe bolted connection and boss.
4)Weight without shrink disc and oil.

Ratio,Speed,Power Rating
Type JRP2K..

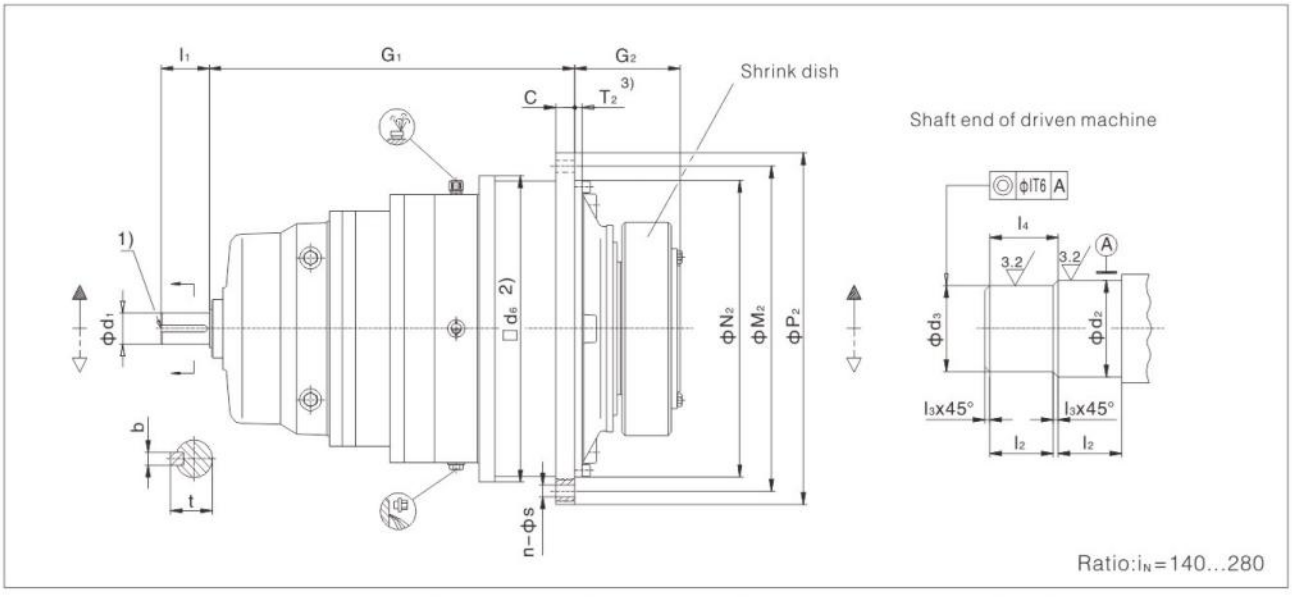
Ratio i_N, speeds n_1 and n_2, nominal power ratings P_N													
i_N	n_1 r/min	n_2 r/min	Gear unit sizes 9	10	11	12	13	14	16	17	18	19	20
			Nominal power ratings P_N in (kW)										
112	1500	13.4	30.9	43.6	59.0	84	117	164	225	284	343	415	498
	1000	8.9	20.6	29.0	39.4	56	78	110	150	189	229	276	332
	750	6.7	15.5	21.8	29.5	42	58	82	112	142	171	207	249
125	1500	12.0	27.7	39.0	52.9	76	105	147	201	254	307	372	446
	1000	8.0	18.5	26.0	35.3	50	70	98	134	170	205	248	297
	750	6.0	13.9	19.5	26.4	38	52	74	101	127	154	186	223
140	1500	10.7	24.7	34.9	47.2	67	93	132	180	227	274	332	398
	1000	7.1	16.5	23.2	31.5	45	62	88	120	151	183	221	265
	750	5.4	12.4	17.4	23.6	34	47	66	90	114	137	166	199
160	1500	9.4	21.6	30.5	41.3	59	82	115	157	199	240	290	348
	1000	6.3	14.4	20.3	27.5	39	54	77	105	132	160	193	232
	750	4.7	10.8	15.3	20.7	30	41	58	79	99	120	145	174
180	1500	8.3	19.2	27.1	36.7	52	73	102	140	177	213	258	310
	1000	5.6	12.8	18.1	24.5	35	48	68	93	118	142	172	206
	750	4.2	9.6	13.6	18.4	26	36	51	70	88	107	129	155
200	1500	7.5	17.3	24.4	33.1	47	65	92	126	159	192	232	279
	1000	5.0	11.5	16.3	22.0	31	44	61	84	106	128	155	186
	750	3.8	8.7	12.2	16.5	24	33	46	63	79	96	116	139
225	1500	6.7	15.4	21.7	29.4	42	58	82	112	141	171	206	248
	1000	4.4	10.3	14.5	19.6	28	39	55	75	94	114	138	165
	750	3.3	7.7	10.8	14.7	21	29	41	56	71	85	103	124
250	1500	6.0	13.9	19.5	26.4	38	52	74	101	127	154	186	223
	1000	4.0	9.2	13.0	17.6	25	35	49	67	85	102	124	149
	750	3.0	6.9	9.8	13.2	19	26	37	50	64	77	93	111
280	1500	5.4	12.4	17.4	23.6	34	47	66	90	114	137	166	199
	1000	3.6	8.2	11.6	15.7	22	31	44	60	76	91	111	133
	750	2.7	6.2	8.7	11.8	17	23	33	45	57	69	83	100
320	1500	4.7	10.8	15.3	20.7	30	41	58	79	99	120	145	174
	1000	3.1	7.2	10.2	13.8	20	76	38	52	66	80	97	116
	750	2.3	5.4	7.6	10.3	15	20	29	39	50	60	73	87
360	1500	4.2	9.6	13.6	18.4	26	36	51	70	88	107	129	155
	1000	2.8	6.4	9.0	12.2	17	24	34	47	59	71	86	103
	750	2.1	4.8	6.8	9.2	13	18	26	35	44	53	64	77
400	1500	3.8	8.7	12.2	16.5	24	33	46	63	79	96	116	139
	1000	2.5	5.8	8.1	11.0	16	22	31	42	53	64	77	93
	750	1.9	4.3	6.1	8.3	12	16	23	31	40	48	58	70
450	1500	3.3	7.7	10.8	14.7	21	29	41	56	71	85	103	124
	1000	2.2	5.1	7.2	9.8	14	19	27	37	47	57	69	83
	750	1.7	3.8	5.4	7.3	10	15	20	28	35	43	52	62
500	1500	3.0	6.9	9.8	13.2	19	26	37	50	64	77	93	111
	1000	2.0	4.6	6.5	8.8	13	17	25	34	42	51	62	74
	750	1.5	3.5	4.9	6.6	9	13	18	25	32	38	46	56
560	Please consult JIE												

Thermal capacities P_{G1} in (kW) *)										
	Gear unit sizes 9	10	11	12	13	14	16	17	18	19/20
	Thermal capacities P_{G1} in (kW)									
1) P_{G1} for small confined spaces	12	15	18	24	28	38	44	53	58	69
2) P_{G1} for large halls, workshops etc.	17	22	26	35	40	54	62	76	82	98
3) P_{G1} in the open	23	29	35	47	54	73	83	102	111	133

*) Values apply to horizontal mounting position.
For other mounting positions please refer to us.

1) Wind velocity≥0.5m/s
2) Wind velocity≥1.4m/s
3) Wind velocity≥3.7m/s

Dimension and Weight
Type JRP3NA..



JRP3NA.. Size	Nominal Output Torques T_{2N} (Nm)	Input shaft Dimension (mm)					d_2	d_3	l_2	l_3	l_4	P_2	C	M_2	N_2	T_2	G_2	d_6	Flange bolts		Weight (kg) 4)
		d_1	l_1	G_1	b	t													n	s	
9	22000	55m6	90	565	16	59	120h6	115h6	65	2.5	67.5	428	24	388	350h7	6±1.5	165	356	24	18	250
10	31000	55m6	90	585	16	59	130h6	125h6	70	2.5	72.5	472	28	436	394h7	8±1.5	174	400	28	18	300
11	42000	55m6	90	616	16	59	140h6	135h6	82.5	2.5	85	525	32	485	425h7	8±1.5	204	436	20	22	370
12	60000	55m6	90	630	16	59	160h6	155h6	90	2.5	92.5	605	34	555	495h7	9±1.5	224	510	20	26	500
13	83000	55m6	90	688	16	59	180g6	175g6	95	2.5	97.5	645	39	595	535h7	11±1.5	241	554	24	26	620
14	117000	55m6	90	711	16	59	210g6	205g6	105	2.5	107.5	720	42	665	610h7	9	278	629	32	26	880
16	160000	70m6	120	853	20	74.5	230g6	225g6	110	2.5	112.5	770	44	715	660h7	10	285	680	36	26	1100
17	202000	70m6	120	879	20	74.5	250g6	245g6	120	2.5	122.5	895	50	830	750h7	10	294	775	24	33	1580
18	244000	80m6	140	1013.5	22	85	260g6	255g6	120	2.5	122.5	930	50	865	785h7	10	303	815	32	33	2000
19	295000	80m6	140	1037	22	85	280g6	275g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2100
20	354000	80m6	140	1037	22	85	300g6	295g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2200
21	392000	80m6	140	1093	22	85	310g6	305g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	2785
22	450000	80m6	140	1093	22	85	330g6	325g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	2950
23	513000	95m6	160	1222	25	100	350g6	345g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	3625
24	592000	95m6	160	1222	25	100	360g6	355g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	4100
25	684000	95m6	160	1284.5	25	100	380g6	375g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5000
26	763000	95m6	160	1284.5	25	100	400g6	395g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5400
27	852000	110n6	180	1470	28	116	430g6	425g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	6400
28	950000	110n6	180	1470	28	116	450g6	445g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	6875
29	1060000	110n6	180	1516.5	28	116	460g6	450g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8190
30	1200000	110n6	180	1516.5	28	116	480g6	470g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8715
31	1330000	120n6	210	1585	32	127	480g6	470g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	10700
32	1500000	120n6	210	1585	32	127	510g6	500g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	11200
33	1680000	130n6	210	1710	32	137	530g6	520g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	12950
34	1920000	130n6	210	1710	32	137	570g6	560g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	13800
35+36	Please consult JIE																				

1) For shaft end d1 with centre hole, see page 96
2) Space required.
3) Observe bolted connection and boss.
4)Weight without shrink disc and oil.

Ratio,Speed,Power Rating
Type JRP3N..

Ratio i_N, speeds n_1 and n_2, nominal power ratings P_N																															
i_N	n_1	n_2	Gear unit sizes																												
	r/min		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	35	36		
			Nominal power ratings P_N in (kW)																												
140	1500	10.7	24.8	34.9	47.3	68	94	132	180	228	275	332	399	442	507	578	667	711	860	–	–	–	–	–	–	–	–	–	–		
	1000	7.1	16.5	23.3	31.5	45	62	88	120	152	183	222	266	294	338	385	445	514	573	640	714	796	901	999	1127	1262	1442	1682	1953		
	750	5.4	12.4	17.5	23.7	34	47	66	90	114	137	166	199	221	253	289	333	385	430	480	535	597	676	749	845	946	1082	1262	1465		
160	1500	9.4	21.7	30.6	41.4	59	82	115	158	199	241	291	349	386	444	506	584	674	752	–	–	–	–	–	–	–	–	–	–		
	1000	6.3	14.5	20.4	27.6	39	55	77	105	133	160	194	233	258	296	337	389	450	501	560	624	697	789	874	986	1104	1262	1472	1709		
	750	4.7	10.8	15.3	20.7	30	41	58	79	100	120	145	174	193	222	253	292	337	376	420	468	522	591	656	739	828	946	1104	1281		
180	1500	8.3	19.3	27.2	36.8	53	73	103	140	177	214	258	310	343	394	450	519	599	669	–	–	–	–	–	–	–	–	–	–		
	1000	5.6	12.9	18.1	24.5	35	48	68	93	118	143	172	207	229	263	300	346	400	446	498	555	619	701	777	876	981	1122	1309	1519		
	750	4.2	9.6	13.6	18.4	26	36	51	70	88	107	129	155	172	197	225	259	300	334	373	416	464	526	583	657	736	841	981	1139		
200	1500	7.5	17.3	24.4	33.1	47	65	92	126	159	192	233	279	309	355	405	467	539	602	–	–	–	–	–	–	–	–	–	–		
	1000	5.0	11.6	16.3	22.1	32	44	62	84	106	128	155	186	206	237	270	311	360	401	448	499	557	631	699	789	883	1009	1178	1367		
	750	3.8	8.7	12.2	16.6	24	33	46	63	80	96	116	140	155	177	202	233	270	301	336	375	418	473	524	591	662	757	883	1025		
225	1500	6.7	15.4	21.7	29.4	42	58	82	112	142	171	207	248	275	315	360	415	479	535	597	666	743	841	932	1051	1178	1346	1570	1823		
	1000	4.4	10.3	14.5	19.6	28	39	55	75	94	114	138	165	183	210	240	277	320	357	398	444	495	561	622	701	785	897	1047	1215		
	750	3.3	7.7	10.9	14.7	21	29	41	56	71	86	103	124	137	158	180	207	240	267	299	333	372	421	466	526	589	673	785	911		
250	1500	6.0	13.9	19.6	26.5	38	52	74	101	127	154	186	223	247	284	324	373	432	481	538	599	669	757	839	946	1060	1211	1413	1640		
	1000	4.0	9.3	13.0	17.7	25	35	49	67	85	103	124	149	165	189	216	249	288	321	358	400	446	505	559	631	707	808	942	1094		
	750	3.0	6.9	9.8	13.2	19	26	37	50	64	77	93	112	124	142	162	187	216	241	269	300	334	379	420	473	530	606	707	820		
280	1500	5.4	12.4	17.5	23.7	34	47	66	90	114	137	166	199	221	253	289	333	385	430	480	535	597	676	749	845	946	1082	1262	1465		
	1000	3.6	8.3	11.6	15.8	23	31	44	60	76	92	111	133	147	169	193	222	257	287	320	357	398	451	499	563	631	721	841	976		
	750	2.7	6.2	8.7	11.8	17	23	33	45	57	69	83	100	110	127	144	167	193	215	240	268	299	338	375	422	473	541	631	732		

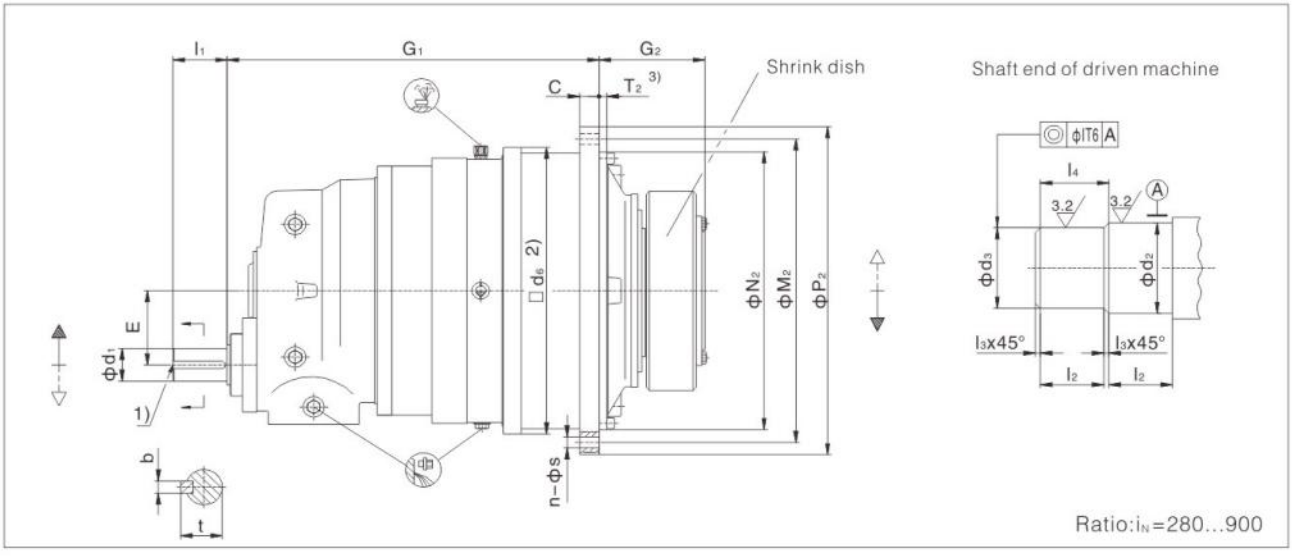
– = On request

Thermal capacities P_{G1} in (kW) *)																			
	Gear unit sizes																		
	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	35/36	
	Thermal capacities P_{G1} in(kW)																		
1) P_{G1} for small confined spaces	14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	228	256	305	
2) P_{G1} for large halls, workshops etc.	20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	323	362	432	
3) P_{G1} in the open	28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	437	490	585	

*) Values apply to horizontal mounting position.
For other mounting positions please refer to us.

1) Wind velocity≥0.5m/s
2) Wind velocity≥1.4m/s
3) Wind velocity≥3.7m/s

Dimension and Weight
Type JRP3SA..



JRP3SA.. Size	Nominal Output Torques T_{2N} (Nm)	Input shaft Dimension (mm)						d_2	d_3	l_2	l_3	l_4	P_2	C	M_2	N_2	T_2	G_2	d_6	Flange bolts		Weight (kg) 4)
		d_1	l_1	G_1	b	t	E													n	s	
9	22000	38m6	60	565	10	41	90	120h6	115h6	65	2.5	67.5	428	24	388	350h7	6±1.5	165	356	24	18	270
10	31000	38m6	60	585	10	41	90	130h6	125h6	70	2.5	72.5	472	28	436	394h7	8±1.5	174	400	28	18	320
11	42000	38m6	60	616	10	41	90	140h6	135h6	82.5	2.5	85	525	32	485	425h7	8±1.5	204	436	20	22	390
12	60000	38m6	60	630	10	41	90	160h6	155h6	90	2.5	92.5	605	34	555	495h7	9±1.5	224	510	20	26	540
13	83000	38m6	60	688	10	41	90	180g6	175g6	95	2.5	97.5	645	39	595	535h7	11±1.5	241	554	24	26	670
14	117000	38m6	60	711	10	41	90	210g6	205g6	105	2.5	107.5	720	42	665	610h7	9	278	629	32	26	930
16	160000	55m6	90	853	16	59	115	230g6	225g6	110	2.5	112.5	770	44	715	660h7	10	285	680	36	26	1115
17	202000	55m6	90	879	16	59	115	250g6	245g6	120	2.5	122.5	895	50	830	750h7	10	294	775	24	33	1625
18	244000	70m6	120	1013.5	20	74.5	140	260g6	255g6	120	2.5	122.5	930	50	865	785h7	10	303	815	32	33	2060
19	295000	70m6	120	1037	20	74.5	140	280g6	275g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2160
20	354000	70m6	120	1037	20	74.5	140	300g6	295g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2260
21	392000	70m6	120	1093	20	74.5	140	310g6	305g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	2870
22	450000	70m6	120	1093	20	74.5	140	330g6	325g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	3040
23	513000	80m6	140	1222	22	85	170	350g6	345g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	3730
24	592000	80m6	140	1222	22	85	170	360g6	355g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	4220
25	684000	80m6	140	1284	22	85	170	380g6	375g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5150
26	763000	80m6	140	1284	22	85	170	400g6	395g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5560
27	852000	90m6	160	1470	25	95	200	430g6	425g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	6580
28	950000	90m6	160	1470	25	95	200	450g6	445g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	7080
29	1060000	90m6	160	1516.5	25	95	200	460g6	450g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8400
30	1200000	90m6	160	1516.5	25	95	200	480g6	470g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8970
31	1330000	100m6	180	1617	28	106	230	480g6	470g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	11000
32	1500000	100m6	180	1617	28	106	230	510g6	500g6	232	5	237	1665	94	1545	1400h7	36	538	1443	32	62	11500
33	1680000	120n6	210	1735	32	127	265	530g6	520g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	13300
34	1920000	120n6	210	1735	32	127	265	570g6	560g6	242	5	247	1755	100	1635	1495h7	36	573	1536	36	62	14200
35+36	Please consult JIE																					

1) For shaft end d1 with centre hole, see page 96
2) Space required.
3) Observe bolted connection and boss.
4)Weight without shrink disc and oil.

Ratio,Speed,Power Rating
Type JRP3S..

Ratio i_N, speeds n_1 and n_2, nominal power ratings P_N																															
i_N	n_1	n_2	Gear unit sizes																												
			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	35	36		
	r/min		Nominal power ratings P_N in (kW)																												
280	1500	5.4	13.5	17.6	24	34	47	67	91	115	139	168	202	223	256	292	337	389	434	485	541	603	683	757	854	956	1093	1275	1480		
	1000	3.6	8.3	12	16	23	31	44	61	77	93	112	134	149	171	195	225	260	290	323	361	402	455	505	569	638	729	850	987		
	750	2.7	6.3	8.8	12	17	24	33	46	57	69	84	101	112	128	146	168	195	217	242	270	302	342	379	427	478	546	638	740		
315	1500	4.8	11	16	21	30	42	59	81	102	123	149	179	198	228	260	300	346	386	431	481	536	607	673	759	850	971	1133	1316		
	1000	3.2	7.4	10.5	14	20	28	39	54	68	82	100	119	132	152	173	200	231	257	287	320	358	405	449	506	567	648	756	877		
	750	2.4	5.6	7.8	11	15	21	30	40	51	62	75	90	99	114	130	150	173	193	216	240	268	304	336	379	425	486	567	658		
355	1500	4.2	10	14	19	27	37	53	72	91	110	132	159	176	202	230	266	307	343	383	427	476	539	597	673	754	862	1006	1167		
	1000	2.8	6.7	9.3	13	18	25	35	48	60	73	88	106	117	135	154	177	205	228	255	284	317	359	398	449	503	575	670	778		
	750	2.1	5	7	9	13	19	26	36	45	55	66	79	88	101	115	133	154	171	191	213	238	269	299	337	377	431	503	584		
400	1500	3.8	8.8	12.4	17	24	33	47	64	80	97	118	141	156	179	204	236	273	304	339	379	422	478	530	598	669	765	893	1036		
	1000	2.5	5.8	8.2	11	16	22	31	43	54	65	78	94	104	120	136	157	182	203	226	252	282	319	353	398	446	510	595	691		
	750	1.9	4.4	6.2	8	12	17	23	32	40	49	59	71	78	90	102	118	136	152	170	189	211	239	265	299	335	383	446	518		
450	1500	3.3	7.8	11	15	21	29	41	57	72	86	104	125	139	159	182	210	242	270	302	336	375	425	471	531	595	680	793	921		
	1000	2.2	5.2	7.3	10	14	20	28	38	48	58	70	84	93	106	121	140	162	180	201	224	250	283	314	354	397	453	529	614		
	750	1.7	3.4	5.5	7.4	11	15	21	28	36	43	52	63	69	80	91	105	121	135	151	168	188	213	236	266	298	340	397	460		
500	1500	3.0	7	10	13.4	19	26	37	51	64	78	94	113	125	143	164	189	218	243	272	303	338	383	424	478	536	612	714	829		
	1000	2.0	4.7	6.6	8.9	13	18	25	34	43	52	63	75	83	96	109	126	145	162	181	202	225	255	283	319	357	408	476	553		
	750	1.5	3.5	5	6.7	10	13	19	26	32	39	47	56	62	72	82	94	109	122	136	151	169	191	212	239	268	306	357	414		
560	1500	2.7	6.3	8.8	12	17	24	33	46	57	69	84	101	112	128	146	168	195	217	242	270	302	342	379	427	478	546	638	740		
	1000	1.8	4.2	6	8	11	16	22	30	38	46	56	67	74	85	97	112	130	145	162	180	201	228	252	285	319	364	425	493		
	750	1.3	3.1	4.4	6	9	12	17	23	29	35	42	50	56	64	73	84	97	109	121	135	151	171	189	213	239	273	319	370		
630	1500	2.4	5.6	7.8	10.6	15	21	30	40	51	62	75	90	99	114	130	150	173	193	216	240	268	304	336	379	425	486	567	658		
	1000	1.6	3.7	5.2	7	10	14	20	27	34	41	50	60	66	76	87	100	115	129	144	160	179	202	224	253	283	324	378	439		
	750	1.2	2.8	3.9	5.3	8	10	15	20	26	31	37	45	50	57	65	75	87	97	108	120	134	152	168	190	213	243	283	329		
710	1500	2.1	4.5	7	9.4	13	19	26	36	45	55	66	79	88	101	115	133	154	171	191	213	238	269	299	337	377	431	503	584		
	1000	1.4	3.3	4.5	6.3	9	12	18	24	30	37	44	53	59	67	77	89	102	114	128	142	159	180	199	224	251	287	335	389		
	750	1.1	2.5	3.5	4.7	7	9	13	18	23	27	33	40	44	51	58	66	77	86	96	107	119	135	149	168	189	215	251	292		
800	1500	1.9	4.4	6.2	8.4	12	17	23	32	40	49	59	71	78	90	102	118	136	152	170	189	211	239	265	299	335	383	446	518		
	1000	1.3	2.9	4.1	5.6	8	11	16	21	27	32	39	47	52	60	68	79	91	110	113	126	141	159	177	199	223	255	298	345		
	750	0.9	2.2	3.1	4.2	6	8	12	16	20	24	29	35	39	45	51	59	68	76	85	95	106	120	132	149	167	191	223	259		
900	1500	1.7	3.4	5.5	7.4	11	15	21	28	36	43	52	63	69	80	91	105	121	135	151	168	188	213	236	266	298	340	397	460		
	1000	1.1	2.6	3.7	5	7	10	14	19	24	29	35	42	46	53	61	70	81	90	101	112	125	142	157	177	198	227	264	307		
	750	0.8	1.9	2.7	3.7	5	7	10	14	18	22	26	31	35	40	45	52	61	68	75	84	94	106	118	133	149	170	198	230		

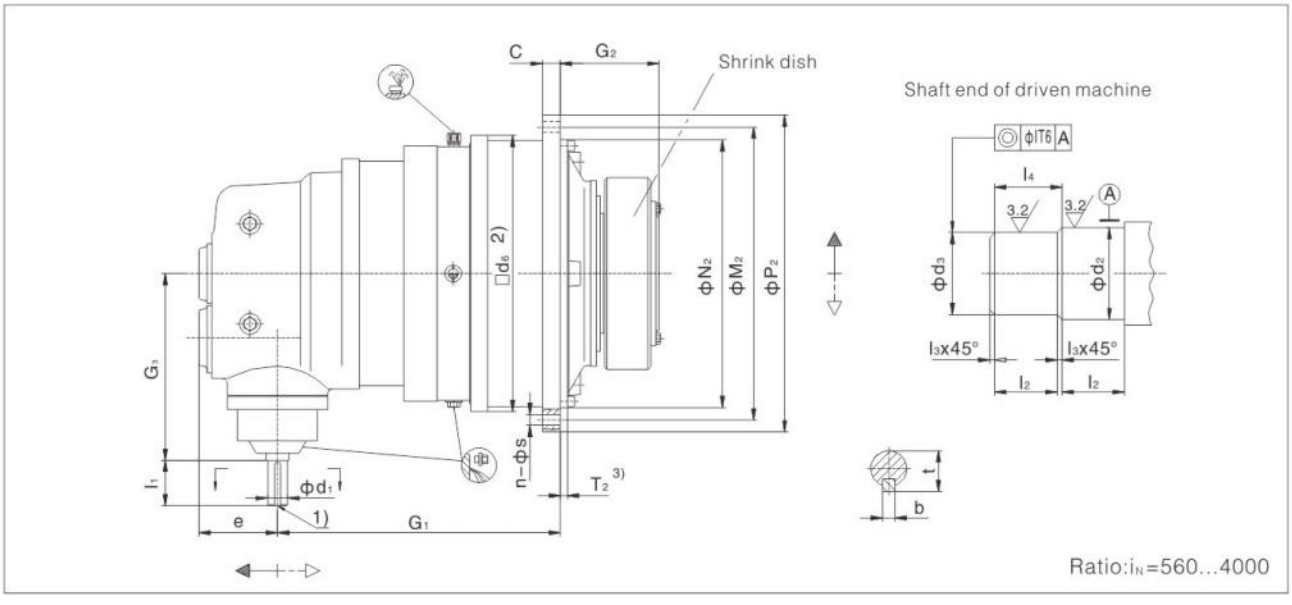
– = On request

Thermal capacities P_{G1} in (kW) *)																			
	Gear unit sizes																		
	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	35/36	
	Thermal capacities P_{G1} in (kW)																		
1) P_{G1} for small confined spaces	12	15	18	24	28	40	43	53	57	69	82	100	116	139	165	188	211	252	
2) P_{G1} for large halls, workshops etc.	17	21	26	34	40	53	61	75	81	97	116	142	164	197	234	266	298	356	
3) P_{G1} in the open	23	29	35	46	54	72	82	101	110	131	156	192	222	267	316	360	404	482	

*) Values apply to horizontal mounting position.
For other mounting positions please refer to us.

1) Wind velocity≥0.5m/s
2) Wind velocity≥1.4m/s
3) Wind velocity≥3.7m/s

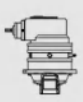
Dimension and Weight
Type JRP3KA..



JRP3KA.. Size	Nominal Output Torques T_{2N} (Nm)	Input shaft Dimension (mm)											d_2	d_3	l_2	l_3	l_4	P_2	C	M_2	N_2	T_2	G_2	d_6	Flange bolts		Weight (kg) 4)
		$i_N \leq 2000$				$i_N \geq 2240$				G_1	G_3	e														n	s	
		d_1	l_1	b	t	d_1	l_1	b	t																			
9	22000	30m6	70	8	33	25k6	60	8	28	435	320	119	120h6	115h6	65	2.5	67.5	428	24	388	350h7	6±1.5	165	356	24	18	280
10	31000	30m6	70	8	33	25k6	60	8	28	455	320	119	130h6	125h6	70	2.5	72.5	472	28	436	394h7	8±1.5	174	400	28	18	330
11	42000	30m6	70	8	33	25k6	60	8	28	486	320	119	140h6	135h6	82.5	2.5	85	525	32	485	425h7	8±1.5	204	436	20	22	390
12	60000	30m6	70	8	33	25k6	60	8	28	500	320	119	160h6	155h6	90	2.5	92.5	605	34	555	495h7	9±1.5	224	510	20	26	530
13	83000	30m6	70	8	33	25k6	60	8	28	558	320	119	180g6	175g6	95	2.5	97.5	645	39	595	535h7	11±1.5	241	554	24	26	670
14	117000	30m6	70	8	33	25k6	60	8	28	581	320	119	210g6	205g6	105	2.5	107.5	720	42	665	610h7	9	278	629	32	26	940
16	160000	35m6	80	10	38	28m6	60	8	31	693	375	137	230g6	225g6	110	2.5	112.5	770	44	715	660h7	10	285	680	36	26	1137
17	202000	35m6	80	10	38	28m6	60	8	31	719	375	137	250g6	245g6	120	2.5	122.5	895	50	830	750h7	10	294	775	24	33	1660
18	244000	45m6	100	14	48.5	35m6	80	10	38	818	445	172	260g6	255g6	120	2.5	122.5	930	50	865	785h7	10	303	815	32	33	2100
19	295000	45m6	100	14	48.5	35m6	80	10	38	841.5	445	172	280g6	275g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2200
20	354000	45m6	100	14	48.5	35m6	80	10	38	841.5	445	172	300g6	295g6	135	2.5	137.5	980	56	915	840h7	12	327.5	870	36	33	2300
21	392000	45m6	100	14	48.5	35m6	80	10	38	897.5	445	172	310g6	305g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	2930
22	450000	45m6	100	14	48.5	35m6	80	12	38	897.5	445	172	330g6	325g6	152	2.5	154.5	1115	62	1025	935h7	24	354	960	32	39	3100
23	513000	55m6	110	16	59	40m6	100	12	43	1003	520	194	350g6	345g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	3800
24	592000	55m6	110	16	59	40m6	100	12	43	1003	520	194	360g6	355g6	164	2.5	166.5	1210	68	1120	1025h7	28	380	1056	36	39	4300
25	684000	55m6	110	16	59	40m6	100	12	43	1065.5	520	194	380g6	375g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5250
26	763000	55m6	110	16	59	40m6	100	12	43	1065.5	520	194	400g6	395g6	180	2.5	182.5	1320	74	1220	1115h7	29	407	1150	36	45	5660
27	852000	70m6	135	20	74.5	50m6	110	14	53.5	1205.5	615	240	430g6	425g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	6680
28	950000	70m6	135	20	74.5	50m6	110	14	53.5	1205.5	615	240	450g6	445g6	191	2.5	193.5	1460	81	1345	1215h7	31	453	1248	32	52	7180
29	1060000	70m6	135	20	74.5	50m6	110	14	53.5	1252	615	240	460g6	450g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	8500
30	1200000	70m6	135	20	74.5	50m6	110	14	53.5	1252	615	240	480g6	470g6	197.5	5	202.5	1565	87	1450	1320h7	34	483	1355	36	52	9070
31~36	Please consult JIE																										

1) For shaft end d1 with centre hole, see page 96
2) Space required.
3) Observe bolted connection and boss.
4)Weight without shrink disc and oil.

Ratio,Speed,Power Rating
Type JRP3K..



Ratio i_N, speeds n_1 and n_2, nominal power ratings P_N																										
i_N	n_1 r/min	n_2 r/min	Gear unit sizes 9	10	11	12	13	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31-36
			Nominal power ratings P_N in (kW)																					
560	1500	2.68	6.3	9	12	17	24	33	46	58	70	84	101	112	128	146	169	195	218	243	271	303	342	Please consult JIE
	1000	1.79	4.2	6	8	11	16	22	30	38	46	56	67	75	86	98	113	130	145	162	181	202	228	
	750	1.34	3.1	4.4	6	9	12	17	23	29	35	42	51	56	64	73	84	98	109	122	136	151	171	
630	1500	2.38	5.6	7.8	11	15	21	30	41	51	62	75	90	99	114	130	150	174	194	216	241	269	304	
	1000	1.59	3.7	5.2	7	10	14	20	27	34	41	50	60	66	76	87	100	116	129	144	161	179	203	
	750	1.19	2.8	3.9	5	8	11	15	20	26	31	37	45	50	57	65	75	87	97	109	121	134	152	
710	1500	2.11	5.0	7	9	14	19	26	36	45	55	66	80	88	101	115	133	154	172	192	214	239	270	
	1000	1.41	3.3	4.5	6	9	12	18	24	30	37	44	53	59	68	77	89	103	115	128	143	159	180	
	750	1.06	2.5	3.5	5	7	9	13	18	23	27	33	40	44	51	58	67	77	86	96	107	119	135	
800	1500	1.88	4.4	6	8	12	17	23	32	40	49	59	71	78	90	102	118	137	152	170	190	212	240	
	1000	1.25	2.9	4	6	8	11	16	21	27	32	39	47	52	60	68	79	91	102	113	127	141	160	
	750	0.94	2.2	3	4	6	8	12	16	20	24	29	35	39	45	51	59	68	76	85	95	106	120	
900	1500	1.67	3.9	5.5	7.5	11	15	21	28	36	43	52	63	70	80	91	105	121	136	151	169	188	213	
	1000	1.11	2.6	3.7	5	7	10	14	19	24	29	35	42	46	53	61	70	81	90	101	112	125	142	
	750	0.83	2.0	2.7	3.7	5	7	10	14	18	22	26	31	35	40	46	53	61	68	76	84	94	107	
1000	1500	1.50	3.5	5	6.7	10	13	19	26	32	39	47	57	63	72	82	95	109	122	136	152	169	192	
	1000	1.00	2.3	3.3	4.5	6	9	12	17	22	26	31	38	42	48	55	63	73	81	91	101	113	128	
	750	0.75	1.8	2.5	3.4	5	7	9	13	16	19	24	28	31	36	41	47	55	61	68	76	85	96	
1120	1500	1.34	3.1	4.4	6	9	12	17	23	29	35	42	51	56	64	73	84	98	109	122	136	151	171	
	1000	0.89	2.1	2.9	4	6	8	11	15	19	23	28	34	37	43	49	56	65	73	81	90	101	114	
	750	0.67	1.6	2.2	3	4.5	6	8	11	14	17	21	25	28	32	37	42	49	54	61	68	76	86	
1250	1500	1.20	2.8	4.0	5.4	8	11	15	20	26	31	38	45	50	58	66	76	87	98	109	121	136	153	
	1000	0.80	1.9	2.6	3.6	5	7	10	14	17	21	25	30	33	38	44	50	58	65	73	81	90	102	
	750	0.60	1.4	2.0	2.7	4	5	7	10	13	16	19	23	25	29	33	38	44	49	54	61	68	77	
1400	1500	1.07	2.5	3.5	4.8	7	9	13	18	23	28	34	40	45	51	59	68	78	87	97	108	121	137	
	1000	0.71	1.7	2.4	3.2	5	6	9	12	15	19	22	27	30	34	39	45	52	58	65	72	81	91	
	750	0.54	1.3	1.8	2.4	3.5	4.5	7	9	12	14	17	20	22	26	29	34	39	44	49	54	61	68	
1600	1500	0.94	2.2	3.1	4.2	6	8	12	16	20	24	29	35	39	45	51	59	68	76	85	95	106	120	
	1000	0.63	1.5	2.1	2.8	4	6	8	11	13	16	20	24	26	30	34	39	46	51	57	63	71	80	
	750	0.47	1.1	1.5	2.1	3	4	6	8	10	12	15	18	20	22	26	30	34	38	43	47	53	60	
1800	1500	0.83	2.0	2.8	3.7	5	7	10	14	18	22	26	31	35	40	46	53	61	68	76	84	94	107	
	1000	0.56	1.3	1.8	2.5	4	5	7	9	12	14	17	21	23	27	30	35	40	45	50	56	63	71	
	750	0.42	1.0	1.4	1.9	2.7	3.7	5.2	7.1	9	11	13	16	17	20	23	26	30	34	38	42	47	53	
2000	1500	0.75	1.8	2.5	3.4	4.8	6.6	9.4	12.8	16	19	24	28	31	36	41	47	55	61	68	76	85	96	
	1000	0.50	1.2	1.7	2.2	3.2	4.4	6.2	8.5	11	13	16	19	21	24	27	32	36	41	45	51	56	64	
	750	0.38	0.9	1.2	1.7	2.4	3.3	4.7	6.4	8	10	12	14	16	18	20	24	27	30	34	38	42	48	
2240	1500	0.67	1.6	2.2	3.0	4.3	5.9	8.3	11.4	14	17	21	25	28	32	37	42	49	54	61	68	76	86	
	1000	0.45	1.0	1.5	2.0	2.9	3.9	5.6	7.6	10	12	14	17	19	21	24	28	33	36	41	45	50	57	
	750	0.33	0.8	1.1	1.5	2.1	3.0	4.2	5.7	7.2	8.7	10.5	12.6	14	16	18	21	24	27	30	34	38	43	
2500	1500	0.60	1.4	2.0	2.7	3.8	5.3	7.5	10.2	12.9	16	19	23	25	29	33	38	44	49	54	61	68	77	
	1000	0.40	0.9	1.3	1.8	2.6	3.5	5.0	6.8	8.6	10.4	12.6	15.1	17	19	22	25	29	33	36	20	45	51	
	750	0.30	0.7	1.0	1.3	1.9	2.7	3.7	5.1	6.5	7.8	9.4	11.3	13	14	16	19	22	24	27	30	34	38	
2800	1500	0.54	1.3	1.8	2.4	3.4	4.7	6.7	9.1	12	14	17	20	22	26	29	34	39	44	49	54	61	68	
	1000	0.36	0.8	1.2	1.6	2.3	3.2	4.5	6.1	7.7	9.3	11.2	13.5	15	17	20	23	26	29	32	36	40	46	
	750	0.27	0.6	0.9	1.2	1.7	2.4	3.3	4.6	5.8	7.0	8.4	10.1	11.2	13	15	17	20	22	24	27	30	34	
3150	1500	0.48	1.1	1.6	2.1	3.0	4.2	5.9	8.1	10.2	12	15	18	20	23	26	30	35	39	43	48	54	61	
	1000	0.32	0.7	1.0	1.4	2.0	2.8	4.0	5.4	6.8	8.3	10.0	12	13.3	15	17	20	23	26	29	32	36	41	
	750	0.24	0.6	0.8	1.1	1.5	2.1	3.0	4.1	5.1	6.2	7.5	9	9.9	11	13	15	17	19	22	24	27	30	
3550	1500	0.42	1.0	1.4	1.9	2.7	3.7	5.3	7.2	9.1	11	13	16	18	20	23	27	31	34	38	43	48	54	
	1000	0.28	0.7	0.9	1.3	1.8	2.5	3.5	4.8	6.1	7.3	8.9	10.6	11.8	14	15	18	21	23	26	29	32	36	
	750	0.21	0.5	0.7	0.9	1.4	1.9	2.6	3.6	4.5	5.5	6.6	8	8.8	10	12	13	15	17	19	21	24	27	
4000	1500	0.38	0.9	1.2	1.7	2.4	3.3	4.7	6.4	8.1	9.7	12	14	16	18	20	24	27	30	34	38	42	48	
	1000	0.25	0.6	0.8	1.1	1.6	4.2	3.1	4.3	5.4	6.5	7.9	9.4	10.4	12	14	16	18	20	23	25	28	32	
	750	0.19	0.4	0.6	0.8	1.2	1.7	2.3	3.2	4.0	4.9	5.9	7.1	7.8	9	10	12	14	15	17	19	21	24	

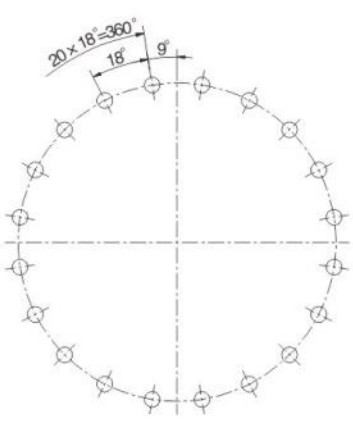
Thermal capacities P_{G1} in (kW) *)																	
	Gear unit sizes 9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31~36
	Thermal capacities P_{G1} in (kW)															
1) P_{G1} for small、confined spaces	10	12	15	20	23	31	35	43	47	56	67	82	95	109	125	Please consult JIE
2) P_{G1} for large halls,workshops etc.	14	17	21	28	33	44	50	61	66	79	95	116	106	125	144	
3) P_{G1} in the open	19	24	28	38	44	59	67	83	90	107	128	157	166	195	225	

*) Values apply to horizontal mounting position.
For other mounting positions please refer to us.

1) Wind velocity≥0.5m/s
2) Wind velocity≥1.4m/s
3) Wind velocity≥3.7m/s

Hole Patterns on Output Flanges

Viewing on input shaft



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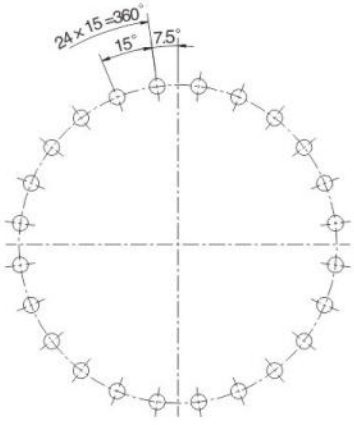
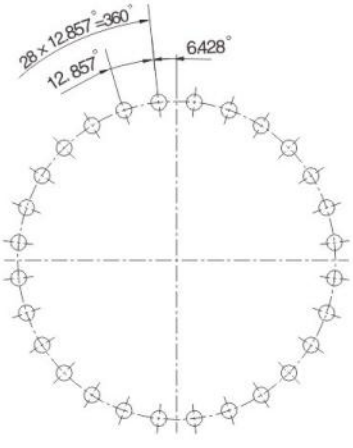
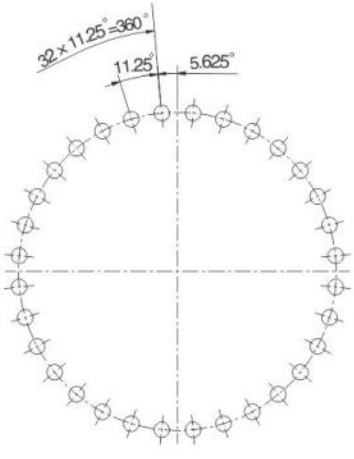


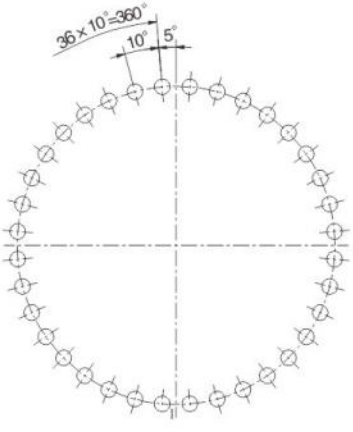
Size:9,13,17



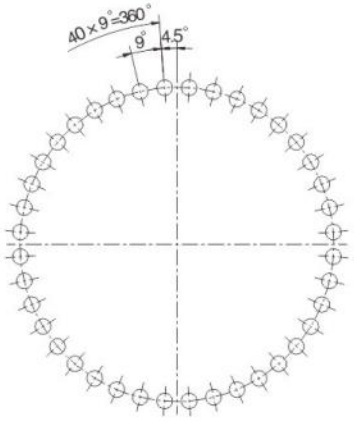
Size:10



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



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

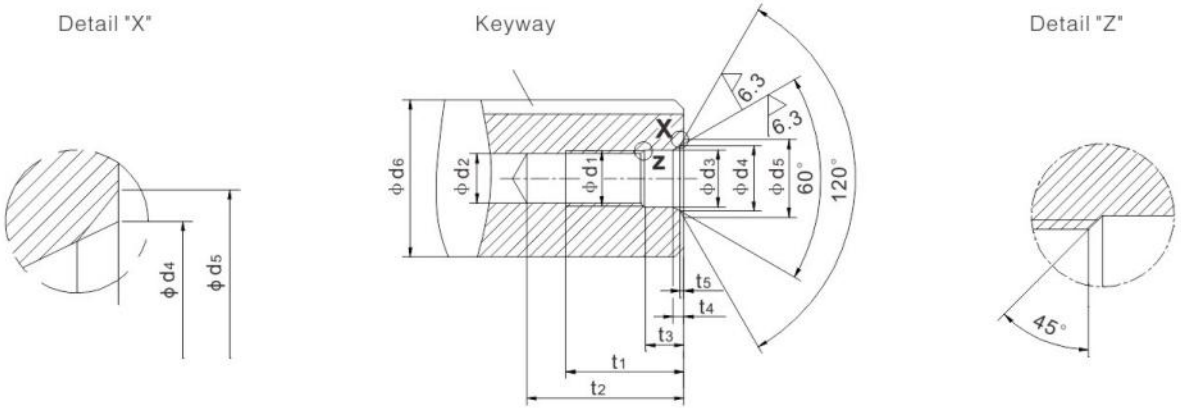


Size:35,36

Centre Holes, Form DS On Shaft Ends

Form DS

Tapped hole, with straight running face and counterbore



Recommended diameters d_6 [1] above	to	Form DS DS Centering	d_1	d_2 [2]	d_3	d_4	d_5	t_1 +2	t_2 min.	t_2 max.	t_3 +1	t_4 ≈	t_5 ≈
mm			mm										
16	21	DS 6	M6	5	6.4	9.6	10.5	16	20	22	5	2.8	0.4
21	24	DS 8	M8	6.8	8.4	12.2	13.2	19	25	28	6	3.3	0.4
24	30	DS 10	M10	8.5	10.5	14.9	16.3	22	30	34	7.5	3.8	0.6
30	38	DS 12	M12	10.2	13	18.1	19.8	28	37	42	9.5	4.4	0.7
38	50	DS 16	M16	14	17	23	25.3	36	45	50	12	5.2	1.0
50	85	DS 20	M20	17.5	21	28.4	31.3	42	53	59	15	6.4	1.3
85	130	DS 24	M24	21	25	34.2	38	50	63	68	18	8	1.6
130 [3]	225 [3]	DS 30	M 30 [3]	26.5	31	44	48	60	77	83	17	11	1.9
225 [3]	320 [3]	DS 36	M36 [3]	32	37	55	60	74	93	99	22	15	2.3
320 [3]	500 [3]	DS 42	M42 [3]	37.5	43	65	71	84	105	111	26	19	2.7
500 [3]	710 [3]	DS 48	M48 [3]	43	49	76	83	94	115	121	30	23	3.2

1) Diameter of the finished work piece

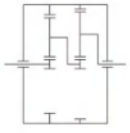
2) Drill diameters for tapping–size holes acc.to DIN 336Pt.1

3) Dimensions not acc.to DIN332

6. Actual Ratios

Types JRP2N..and JRP2S..

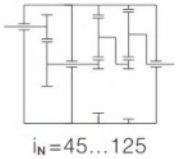
JRP2N..



i_N=25...40

JRP2N.. Size	Actual ratios i				
	25	28	31.5	35.5	40
9	25.634	28.058	31.142	35.201	40.781
10	25.634	28.058	31.142	35.201	40.781
11	25.875	28.233	31.207	35.072	40.302
12	24.983	27.260	30.130	33.863	38.912
13	24.958	27.318	30.321	34.272	39.706
14	24.958	27.318	30.321	34.272	39.706
16	24.750	27.090	30.068	33.987	39.375
17	24.750	27.090	30.068	33.987	39.375
18	24.958	27.318	30.321	34.272	39.706
19/20	26.622	29.139	32.342	36.557	42.353
21/22	26.622	29.139	32.342	36.557	42.353
23/24	26.872	29.321	32.409	36.424	41.855
25/26	26.872	29.321	32.409	36.424	41.855
27/28	26.622	29.139	32.342	36.557	42.353
29/30	26.622	29.139	32.342	36.557	42.353
31/32	26.872	29.321	32.409	36.424	41.855
33/34	26.622	29.139	32.342	36.557	42.353
35/36	26.872	29.321	32.409	36.424	41.855

JRP2S..

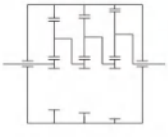


i_N=45...125

JRP2S.. Size	Actual ratios i									
	45	50	56	63	71	80	90	100	112	125
9	45.601	51.544	59.715	61.953	71.775	78.782	91.272	99.735	115.55	124.74
10	45.601	51.544	59.715	61.953	71.775	78.782	91.272	99.735	115.55	124.74
11	43.209	48.561	55.802	63.399	72.853	81.303	93.426	99.678	114.54	123.14
12	41.719	46.887	53.878	61.213	70.340	78.499	90.205	96.241	110.59	118.90
13	43.797	49.505	57.353	59.977	69.485	78.827	91.324	95.963	111.18	119.12
14	43.797	49.505	57.353	59.977	69.485	78.827	91.324	95.963	111.18	119.12
16	42.318	47.833	55.417	61.438	71.178	78.788	91.278	96.594	111.91	120.59
17	42.318	47.833	55.417	61.438	71.178	78.788	91.278	96.594	111.91	120.59
18	42.867	48.454	56.136	60.320	69.882	78.976	91.496	95.963	111.18	119.12
19/20	45.725	51.684	59.878	64.341	74.541	84.841	97.596	102.36	118.59	127.06
21/22	46.357	52.399	60.706	66.084	76.561	84.746	98.182	103.90	120.37	129.41
23/24	45.373	50.993	58.597	64.442	74.051	82.781	95.124	101.60	116.75	125.56
25/26	45.373	50.993	58.597	64.442	74.051	82.781	95.124	101.60	116.75	125.56
27/28	46.948	53.067	61.480	66.345	76.863	84.241	97.596	102.36	118.59	127.06
29/30	46.948	53.067	61.480	66.345	76.863	84.241	97.596	102.36	118.59	127.06
31/32	45.575	51.221	58.858	66.102	75.958	83.932	96.448	104.30	119.86	127.56
33/34	45.481	51.409	59.559	66.345	76.863	84.241	97.596	104.69	121.28	129.08
35/36	45.373	50.993	58.597	65.562	75.338	81.252	93.368	100.53	115.52	129.20

Types JRP3N..and JRP3S..

JRP3N..

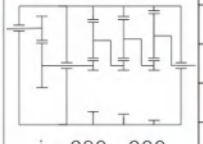


i_N=140...280*)

JRP3N.. Size	Actual ratios i						
	140	160	180	200	225	250	280
9	146.81	165.95	192.25	210.43	233.57	264.01	305.86
10	146.81	165.95	192.25	210.43	233.57	264.01	305.86
11	147.12	165.34	189.99	207.96	230.82	260.90	302.26
12	142.04	159.64	183.44	200.79	222.86	251.90	291.84
13	142.94	161.57	187.19	204.88	227.41	257.04	297.79
14	142.94	161.57	187.19	204.88	227.41	257.04	297.79
16	143.08	161.73	187.37	204.45	225.98	253.97	291.84
17	143.08	161.73	187.37	204.45	225.98	253.97	291.84
18	142.94	161.57	187.19	204.88	227.41	257.04	297.79
19/20	152.47	172.34	199.66	218.54	242.57	274.18	317.65
21/22	152.47	172.34	199.66	218.54	242.57	274.18	317.65
23/24	152.79	171.71	197.32	215.97	239.71	270.95	313.91
25/26	152.79	171.71	197.32	215.97	239.71	270.95	313.91
27/28	152.47	172.34	199.66	218.54	242.57	274.18	317.65
29/30	152.47	172.34	199.66	218.54	242.57	274.18	317.65
31/32	152.79	171.71	197.32	215.97	239.71	270.95	313.91
33/34	153.90	173.96	201.54	219.91	243.07	273.18	313.91
35/36	154.22	173.33	199.17	217.32	240.21	269.96	310.22

*)Rations 90...140 on request

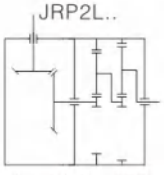
JRP3S..



i_N=280...900

JRP3S.. Size	Actual ratios i										
	280	315	355	400	450	500	560	630	710	800	900
9	295.21	333.68	386.58	401.07	464.65	510.01	590.87	645.65	748.01	807.55	935.57
10	295.21	333.68	386.58	401.07	464.65	510.01	590.87	645.65	748.01	807.55	935.57
11	295.82	332.46	382.03	399.60	459.18	508.15	583.92	643.29	739.21	798.04	924.56
12	285.62	320.99	368.86	385.82	443.35	490.62	563.78	621.11	713.72	770.53	892.68
13	287.42	324.88	376.39	390.49	452.40	496.56	575.29	628.63	728.29	786.25	910.90
14	287.42	324.88	376.39	390.49	452.40	496.56	575.29	628.63	728.29	786.25	910.90
16	268.53	303.53	351.65	396.27	459.10	508.18	588.75	623.03	721.81	776.02	891.73
17	268.53	303.53	351.65	396.27	459.10	508.18	588.75	623.03	721.81	776.02	891.73
18	283.53	320.48	371.29	388.27	449.83	510.30	591.20	621.23	719.72	771.13	893.38
19/20	302.43	341.84	396.04	414.16	479.82	544.32	630.61	662.65	767.70	822.54	952.94
21/22	302.43	341.84	396.04	414.26	479.82	544.32	630.61	662.65	767.70	822.54	952.94
23/24	295.28	331.86	381.34	426.24	489.80	546.62	628.12	670.15	770.08	829.80	961.35
25/26	295.28	331.86	381.34	416.52	489.80	546.62	628.12	670.15	770.08	829.80	961.35
27/28	296.01	334.59	387.63	426.24	482.56	545.35	631.81	662.65	767.70	822.54	952.94
29/30	296.01	334.59	387.63	416.52	482.56	545.35	631.81	662.65	767.70	822.54	952.94
31/32	300.72	337.97	388.37	426.24	489.80	546.61	628.12	670.15	770.08	827.92	959.17
33/34	292.05	330.11	382.45	417.18	483.31	535.90	620.86	657.74	762.02	819.53	941.73
35/36	292.66	328.90	377.95	415.65	477.63	533.94	613.55	655.34	753.05	809.89	930.65

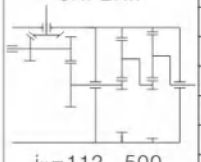
Types JRP2L..,JRP2K..and JRP3K..



JRP2L..

i_N=31.5...100

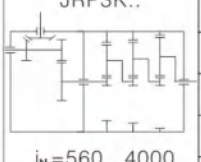
JRP2L.. Size	Actual ratios i										
	31.5	35.5	40	45	50	56	63	71	80	90	100
9	32.5353	35.6114	39.5264	43.8820	50.4204	55.7278	60.4521	69.6115	79.0528	86.2394	98.2171
10	32.5353	35.6114	39.5264	43.8820	50.4204	55.7278	60.4521	69.6115	79.0528	86.2394	98.2171
11	32.8413	35.8344	39.6083	43.4177	50.5248	55.8432	60.5773	69.7557	79.9667	86.4180	98.4205
12	31.7089	34.5987	38.2424	41.9206	48.7826	53.9176	58.4884	67.3503	77.2092	83.4380	95.0266
13	31.6775	34.6723	38.4842	42.1856	49.0910	54.2585	62.3263	67.7761	77.6973	83.9656	95.6275
14	31.6775	34.6723	38.4842	42.1856	49.0910	54.2585	62.3263	67.7761	77.6973	83.9656	95.6275
16	31.4135	34.3835	38.1635	41.8340	48.6818	53.8063	61.8069	67.2113	77.0498	83.2658	94.8305
17	31.4135	34.3835	38.1635	41.8340	48.6818	53.8063	61.8069	67.2113	77.0498	83.2658	94.8305
18	31.4286	34.3999	38.1819	43.1490	49.0910	54.8664	62.3263	67.7761	77.6973	83.9656	95.6275
19/20	33.5237	34.6933	40.7272	46.0254	52.3636	58.5240	66.4812	72.2943	82.8769	89.5630	102.0023
21/22	33.5237	34.6933	40.7272	46.0254	52.3636	58.5240	66.4812	72.2943	82.8769	89.5630	102.0023
23/24	33.8391	34.9231	40.8116	46.1208	52.4720	58.6452	66.6189	72.4441	83.0486	89.7486	102.2136
25/26	33.8391	34.9231	40.8116	46.1208	52.1365	58.6452	66.6189	72.4441	83.0486	89.7486	102.2136
27/28	33.5237	36.6933	40.7272	46.0254	52.0288	58.5240	66.4812	72.2943	82.8769	89.5630	102.0023
29/30	33.5237	36.6933	40.7272	46.0254	52.0288	58.5240	66.4812	72.2943	82.8769	89.5630	102.0023



JRP2K..

i_N=112...500

JRP2K.. Size	Actual ratios i													
	112	125	140	160	180	200	225	250	280	320	360	400	450	500
9	111.25	125.75	145.69	157.28	175.77	203.53	223.22	242.15	278.84	316.65	345.44	393.42	442.27	487.63
10	111.25	125.75	145.69	157.28	175.77	203.53	223.22	242.15	278.84	316.65	345.44	393.42	442.27	487.63
11	111.83	125.68	144.42	155.27	173.52	200.92	220.36	239.04	275.26	312.60	341.01	388.38	436.60	481.38
12	107.97	121.35	139.44	149.91	167.54	193.99	212.76	230.80	265.77	301.82	329.25	374.98	421.54	464.78
13	107.97	121.80	141.11	151.19	167.85	192.86	213.16	231.23	266.26	302.38	329.86	375.68	422.33	465.64
14	107.76	121.80	141.11	151.19	167.85	192.86	213.16	231.23	266.26	302.38	329.86	375.68	422.33	465.64
16	108.47	122.60	142.04	153.05	167.77	195.23	215.79	234.08	269.55	309.00	333.93	380.31	427.53	471.38
17	108.47	122.60	142.04	153.05	167.77	195.23	215.79	234.08	269.55	309.00	333.93	380.31	427.53	471.38
18	107.76	121.80	141.11	151.19	165.73	192.86	213.16	244.85	266.26	305.24	329.86	375.68	422.33	465.64
19/20	114.94	129.92	150.52	161.27	176.78	205.71	227.37	261.18	284.01	325.59	351.86	400.72	450.48	496.68



JRP3K..

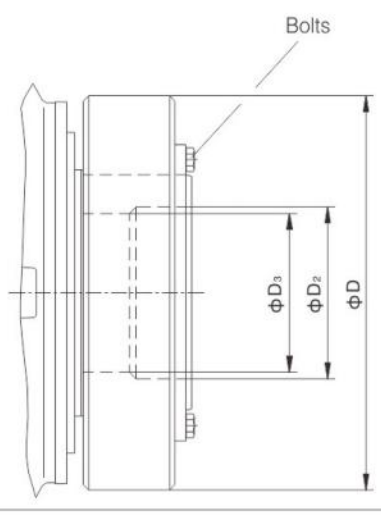
i_N=560...4000

JRP3K.. Size	Actual ratios i																	
	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	4000
9	566.22	640.02	700.53	777.54	878.88	982.19	1137.3	1247.3	1353.1	1558.1	1769.4	1930.3	2198.4	2471.3	2724.8	3105.0	3597.2	4167.5
10	566.22	640.02	700.53	777.54	878.88	982.19	1137.3	1247.3	1353.1	1558.1	1769.4	1930.3	2198.4	2471.3	2724.8	3104.9	3597.2	4167.5
11	567.40	637.68	697.96	774.70	875.66	978.60	1133.1	1242.8	1348.1	1552.4	1762.9	1923.2	2190.3	2462.3	2714.8	3093.6	3584.1	4118.5
12	547.83	615.69	673.90	747.98	845.46	944.85	1094.0	1199.9	1301.6	1498.9	1702.1	1856.9	2114.8	2377.4	2621.2	2986.9	3460.5	3976.5
13	551.29	623.14	682.06	757.04	855.70	956.30	1107.3	1214.4	1317.4	1517.0	1722.8	1879.4	2140.4	2406.1	2652.9	3023.1	3502.4	4057.6
14	551.29	623.14	682.06	757.04	855.70	956.30	1107.3	1214.4	1317.4	1517.0	1722.8	1879.4	2140.4	2406.1	2652.9	3023.1	3502.4	4057.6
16	551.25	623.09	679.88	751.48	844.56	943.84	1092.9	1198.6	1300.2	1497.3	1700.3	1854.9	2112.5	2374.8	2618.4	2983.8	3428.7	3972.2
17	551.25	623.09	679.88	751.48	844.56	943.84	1092.9	1198.6	1300.2	1497.3	1700.3	1854.9	2112.5	2374.8	2618.4	2983.8	3428.7	3972.2
18	544.28	615.21	673.37	747.40	844.81	937.90	1077.6	1191.1	1292.1	1487.8	1689.6	1843.2	2099.2	2359.9	2601.9	2965.0	3435.0	3979.6
19/20	580.56	656.22	718.27	797.23	901.13	1000.4	1149.5	1270.5	1378.2	1587.0	1802.3	1966.1	2239.2	2517.2	2775.4	3162.6	3664.0	4244.9
21/22	580.56	656.22	718.27	797.23	901.13	1000.4	1149.5	1270.5	1378.2	1587.0	1802.3	1966.1	2239.2	2517.2	2775.4	3162.6	3664.0	4244.9
23/24	593.88	667.44	730.55	810.87	916.54	1004.7	1169.1	1292.2	1401.8	1614.2	1850.4	1999.7	2277.5	2560.2	2822.8	3216.7	3726.7	4282.4
25/26	593.88	667.44	730.55	810.87	916.54	1004.7	1169.1	1292.2	1401.8	1614.2	1850.4	1999.7	2277.5	2560.2	2822.8	3216.7	3726.7	4282.4
27/28	580.56	656.22	718.27	797.23	901.13	987.8	1149.5	1270.5	1459.4	1587.0	1819.3	1966.1	2239.2	2517.2	2775.4	3162.6	3664.0	4244.9
29/30	580.56	656.22	718.27	797.23	901.13	987.8	1149.5	1270.5	1459.4	1587.0	1819.3	1966.1	2239.2	2517.2	2775.4	3162.6	3664.0	4244.9

7. Variants of Output Shafts

Hollow Shaft for Shrink Disk

JRP..A
Variant: A

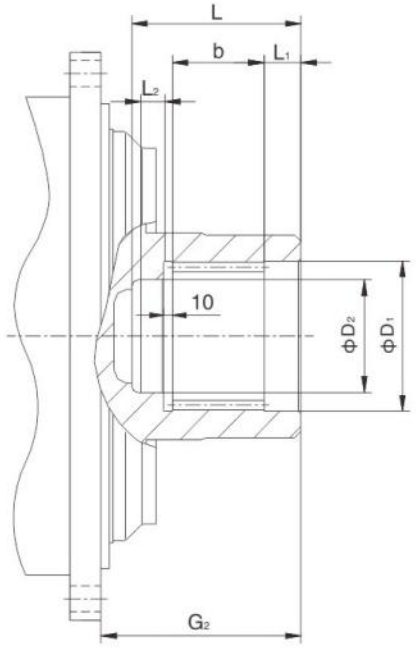


(mm)

Dimensions and weiths							
Planetary gear unit Size	Nominal Output Torques T_{2N} (Nm)	Hollow shaft bore diameter (mm)		Shrink disc			
		D_2	D_3	Size (mm)	D (mm)	Bolts 1)	Weight (kg)
9	22000	120H7	115H7	155	263	M14	15.2
10	31000	130H7	125H7	165	290	M16	21.5
11	42000	140H7	135H7	185	330	M16	32.7
12	60000	160H7	155H7	220	370	M20	53
13	83000	180H7	175H7	240	405	M20	66
14	117000	210H7	205H7	280	460	M20	103
16	160000	230H7	225H7	300	485	M24	120
17	202000	250H7	245H7	320	520	M24	138
18	244000	260H7	255H7	340	570	M24	189
19	295000	280H7	275H7	360	590	M24	207
20	354000	300H7	295H7	380	640	M27	244
21	392000	310H7	305H7	390	650	M27	249
22	450000	330H7	325H7	420	670	M27	285
23	513000	350H7	345H7	440	720	M27	357
24	592000	360H7	355H7	460	760	M27	402
25	684000	380H7	375H7	480	800	M30	492
26	763000	400H7	395H7	500	835	M30	537
27	852000	430H7	425H7	530	865	M30	636
28	950000	450H7	445H7	560	920	M30	725
29	1060000	460H7	450H7	560	920	M30	725
30	1200000	480H7	470H7	590	960	M30	835
31	1330000	480H7	470H7	590	960	M30	835
32	1500000	510H7	500H7	620	970	M30	903
33	1680000	530H7	520H7	660	1040	M33	1073
34	1920000	570H7	560H7	700	1100	M33	1196
35	2240000	600H7	590H7	750	1150	M33	1346
36	2600000	640H7	630H7	800	1230	M33	1646

1) For assembly and disassembly,see operating instructions

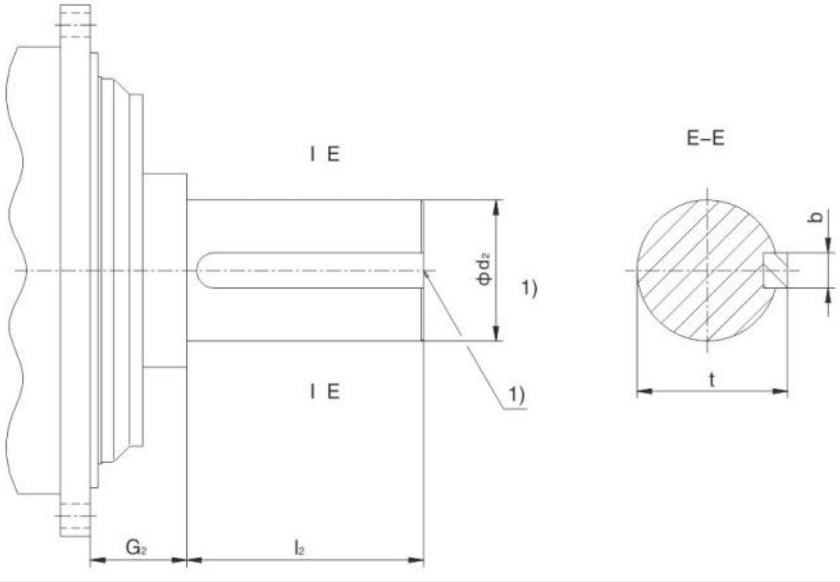
JRP..C
Variant: C



Dimensions									
Planetary gear unit Size	Nominal Output Torques T_{2N} (Nm)	Involute splines acc to DIN5480	Facewidth b (mm)	Centre hole dimension D_1 (mm)	Centre hole dimension L_1 (mm)	Centre hole dimension D_2 (mm)	Centre hole dimension L_2 (mm)	Overall dimension L (mm)	G_2 (mm)
9	22000	N120x5x30x22x9H	70	122H7	40	107H7	20	150	165
10	31000	N130x5x30x24x9H	80	132H7	40	117H7	20	160	174
11	42000	N140x5x30x26x9H	90	142H7	45	125H7	25	180	204
12	60000	N160x5x30x30x9H	100	162H7	45	145H7	25	190	223
13	83000	N180x5x30x34x9H	110	182H7	45	165H7	25	200	237
14	117000	N210x5x30x40x9H	125	212H7	45	195H7	25	215	264
16	160000	N240x8x30x28x9H	140	242H7	50	220H7	25	235	285
17	202000	N250x8x30x30x9H	150	252H7	50	230H7	30	250	290
18	244000	N260x8x30x31x9H	160	262H7	50	240H7	30	260	303
19	295000	N280x8x30x34x9H	170	282H7	50	260H7	30	270	327.5
20	354000	N300x8x30x36x9H	180	302H7	50	282H7	30	280	327.5
21	392000	N310x8x30x37x9H	190	312H7	60	290H7	40	310	354
22	450000	N330x8x30x40x9H	200	332H7	60	310H7	40	320	354
23	513000	N340x8x30x41x9H	200	342H7	60	320H7	40	320	348
24	592000	N360x8x30x44x9H	220	362H7	60	340H7	40	340	368
25	684000	N380x8x30x46x9H	230	382H7	60	360H7	40	350	372
26	763000	N400x8x30x48x9H	240	402H7	60	380H7	40	360	382
27	852000	N440x8x30x54x9H	250	442H7	60	420H7	40	370	423
28	950000	N450x8x30x55x9H	260	452H7	65	430H7	40	385	428
29	1060000	N460x8x30x56x9H	270	462H7	65	440H7	45	400	433
30	1200000	N480x8x30x58x9H	285	482H7	65	460H7	45	415	448

Solid Shaft with Parallel key

JRP..B
Variant：B

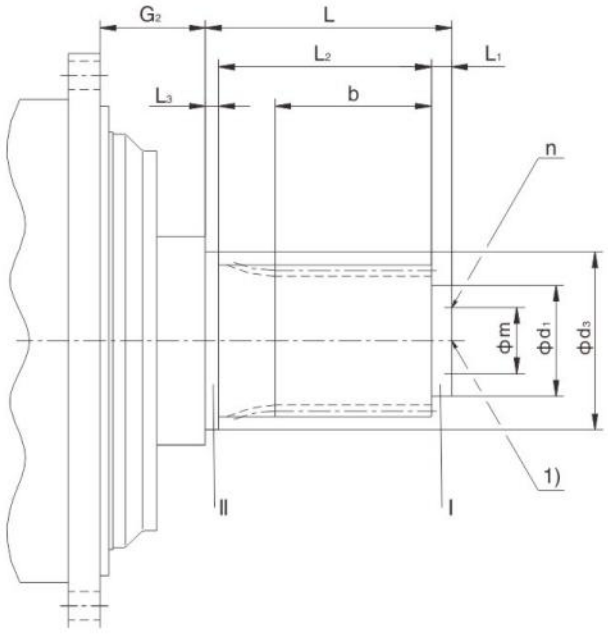


Dimensions						
Planetary gear unit 规格 Size	Nominal Output Torques T_{2N} (Nm)	Solid shaft (mm)				
		d_2	l_2	G_2	b	t
9	22000	120 n6	210	95	32	127
10	31000	130 n6	210	95	32	137
11	42000	150 n6	240	109	36	158
12	60000	160 n6	270	106	40	169
13	83000	180 n6	310	118	45	190
14	117000	210 n6	350	139	50	221
16	160000	230 n6	350	142	50	241
17	202000	250 n6	400	139	56	262
18	244000	260 n6	400	134	56	272
19	295000	280 n6	450	148.5	63	292
20	354000	300 n6	500	148.5	70	314
21	392000	310 n6	500	158	70	324
22	450000	330 n6	500	158	70	344
23	513000	350 n6	550	175	80	365
24	592000	360 n6	590	175	80	375
25	684000	380 n6	590	182	80	395
26	763000	400 n6	650	182	90	417
27	852000	430 n6	690	196.5	90	447
28	950000	450 n6	750	196.5	100	469
29	1060000	460 n6	750	209	100	479
30	1200000	480 n6	790	209	100	499
31	1330000	500 n6	790	232	100	519
32	1500000	510 n6	850	232	Please consult JIE	
33	1680000	530 n6	900	251		
34	1920000	570 n6	950	251		
35	2240000	600 n6	1000	276		
36	2600000	640 n6	1000	276		

1)For shaft end with centre hole , see page

Solid Shaft with Involute Spline

JRP..D
Variant：D

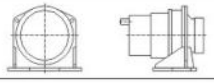
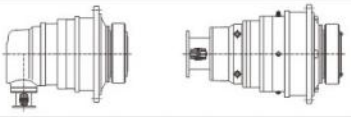
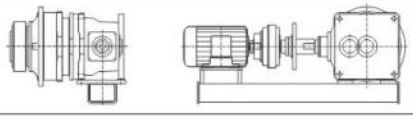
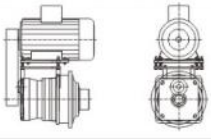
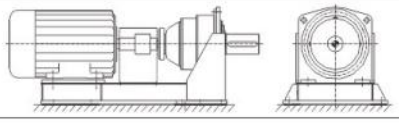
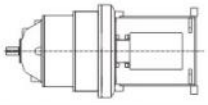
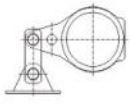
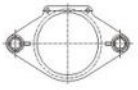
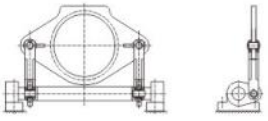
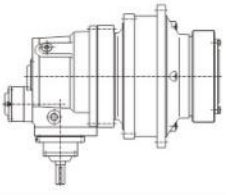


Dimensions												
Planetary gear unit	Nominal Output Torques	Involute splines acc to	Facewidth		Shaft I dimension		Shaft II dimension					
Size	T_{2N} (Nm)	DIN5480	b (mm)	G_2 (mm)	d_1 (mm)	L_1 (mm)	d_3 (mm)	L_3 (mm)	L_2 (mm)	L (mm)	m (mm)	n
9	22000	W130x5x30x24x8m	70	95	110k6	20	132k6	20	80	120	80	3xM16x24
10	31000	W140x5x30x26x8m	80	95	120k6	20	142k6	20	90	130	90	3xM16x24
11	42000	W160x5x30x30x8m	90	109	140k6	25	162k6	25	100	150	110	3xM16x24
12	60000	W180x5x30x34x8m	100	106	90k6	25	182k6	25	110	160	130	3xM16x24
13	83000	W200x5x30x38x8m	110	118	100k6	30	202k6	25	120	175	140	3xM16x24
14	117000	W220x5x30x42x8m	125	139	120k6	30	222k6	30	135	195	160	3xM16x24
16	160000	W250x8x30x30x8m	140	142	140k6	35	252k6	30	155	220	185	3xM20x30
17	202000	W260x8x30x31x8m	150	139	155k6	40	262k6	35	165	240	200	3xM20x30
18	244000	W280x8x30x34x8m	160	134	170k6	40	282k6	35	175	250	215	3xM20x30
19	295000	W300x8x30x36x8m	170	148.5	180k6	40	302k6	35	185	260	225	3xM20x30
20	354000	W310x8x30x37x8m	180	148.5	190k6	40	312k6	35	195	270	235	6xM20x30
21	392000	W320x8x30x38x8m	190	158	200k6	40	322k6	35	205	280	250	6xM20x30
22	450000	W340x8x30x41x8m	200	158	210k6	40	342k6	35	215	290	265	6xM20x30
23	513000	W360x8x30x44x8m	200	175	230k6	40	362k6	35	215	290	275	6xM20x30
24	592000	W380x8x30x46x8m	220	175	245k6	40	382k6	35	235	310	290	6xM20x30
25	684000	W400x8x30x48x8m	230	182	260k6	40	402k6	35	245	320	310	6xM24x36
26	763000	W420x8x30x51x8m	240	182	280k6	40	422k6	35	255	330	330	6xM24x36
27	852000	W440x8x30x54x8m	250	196.5	310k6	40	442k6	35	265	340	370	6xM24x36
28	950000	W450x8x30x55x8m	260	196.5	330k6	45	452k6	40	275	360	380	6xM24x36
29	1060000	W460x8x30x56x8m	270	209	340k6	45	462k6	40	285	370	390	6xM24x36
30	1200000	W480x8x30x58x8m	285	209	360k6	45	482k6	40	300	385	410	6xM24x36

1)For shaft end with centre hole , see page 96

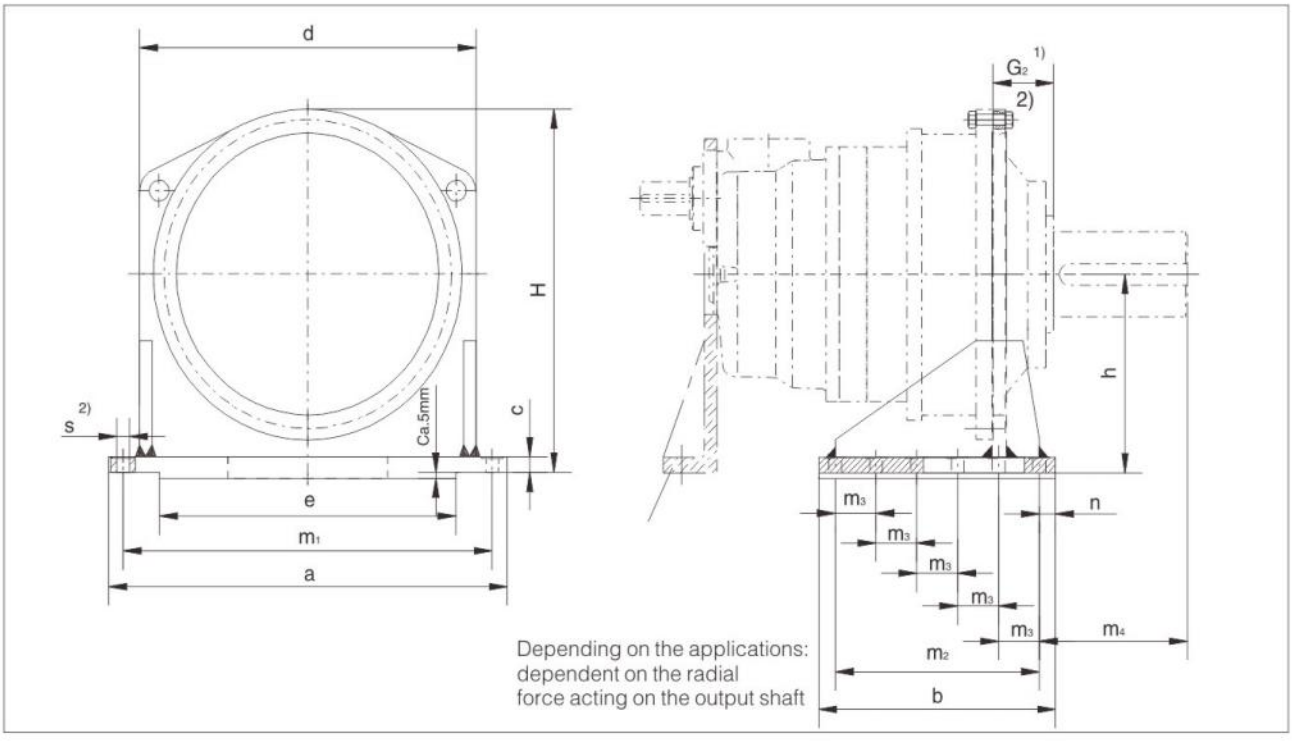
8. Add-on Pieces

Table of Add-on Pieces

Identific Cation	Add-on Piece		Representation
00	Without add-on Piece		
01	Gear housing base	see page 105	
70 1)	Motor bell housing (input)	see page 111-116	
71 1)	Motor bracket(motor,coupling)	see page 109	
72	Motor bracket	see page 109	
73 1)	Motor floating base(motor,coupling,gear unit)	see page 109	
74 1)	Tlange mounting(output)	Please consult JIE	
75	Torque arm(singheside)	see page 106	
76	Torque arm(two sides)	see page 107	
77	Torsion shaft support	see page 108	
78	Backstop (JRP2K../JRP3K..)	Please consult JIE	
79	Special design	Please consult JIE	

1)Not for rigid couplings

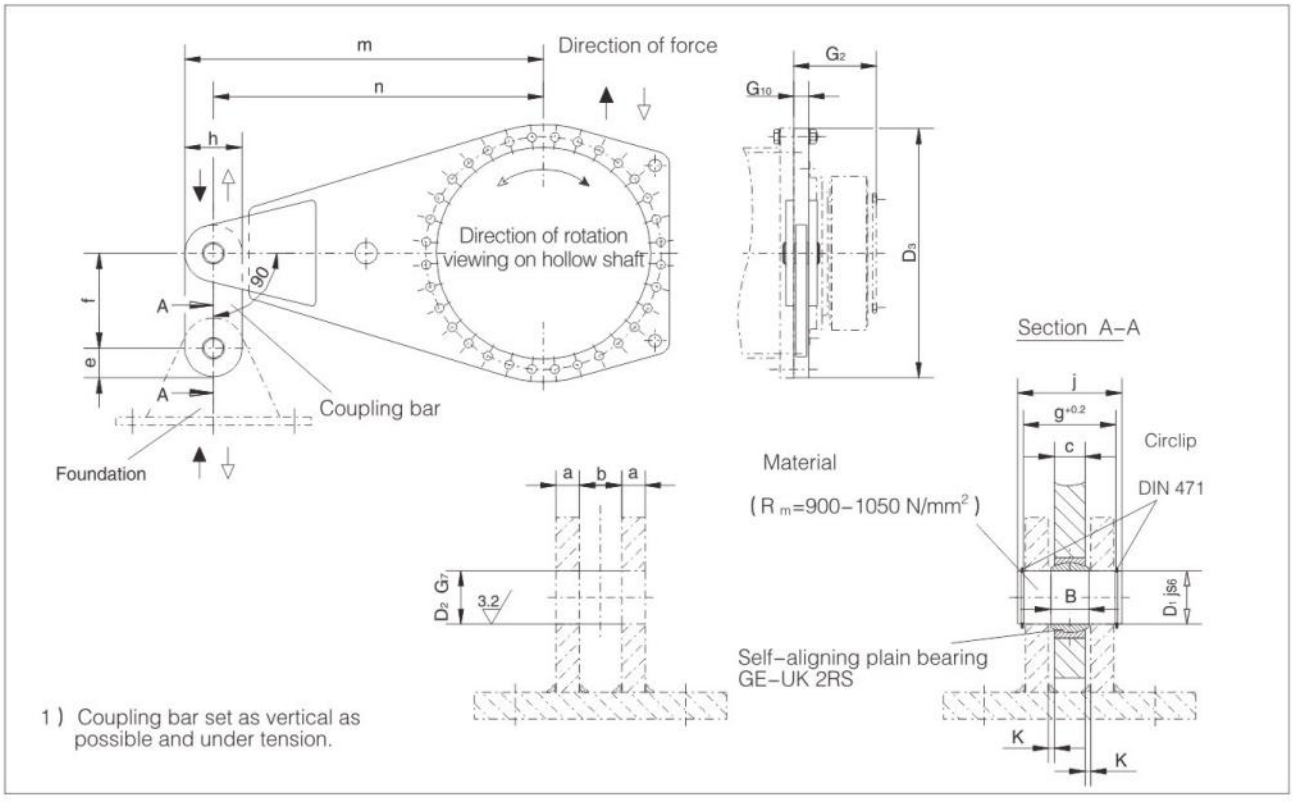
Add–on Piece: Gear Housing Base



Dimensions															
Planetary gear unit Size	a (mm)	b (mm)	c (mm)	d (mm)	e (mm)	h (mm)	H (mm)	m_1 (mm)	m_2 (mm)	m_3 (mm)	m_4 (mm)	n (mm)	Foundation bolt s 2)	Foundation bolt No.	Weight ca. (kg)
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
35+36	Please consult JIE														

1) For output shaft dimensions, see page102
2) See page 110

Add-on Piece: Torque Arms on One Sides for Coupling Bar

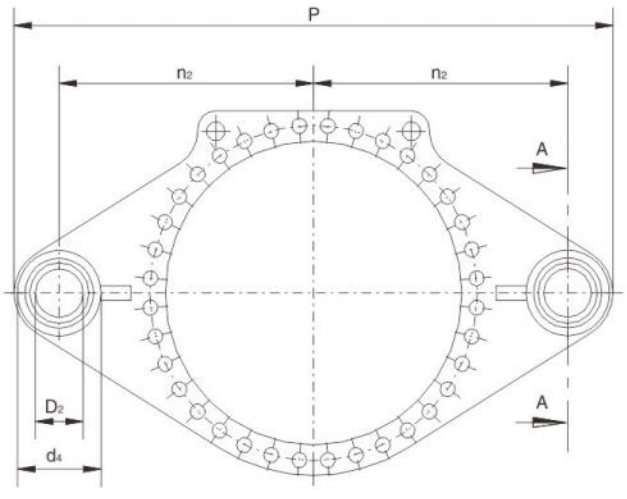


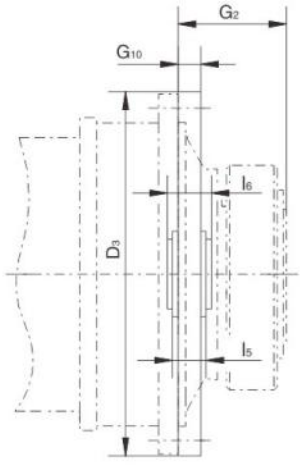
1) Coupling bar set as vertical as possible and under tension.

Dimensions																				
Planetary gear unit Size	Nominal Output Torques T_{2N} (Nm)	D_1 js6	D_2 G7	D_3	G_2	G_{10}	a min.	b	B 2)	c	e	f	g +0.2	h	j	Clear-ance K	m	n	Self-aligning plain bearing GE.. UK-2RS	Weight ca. (kg)
		(mm)																		
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	115	280	120	210	135	7.5	1315	1210	70	365
19	295000	80	1005	327.5	60	30	60	55	45	115	320	125	210	145	7.5	1405	1300	80	423
20	354000	80	1005	327.5	60	30	60	55	45	115	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
31~36	Please consult JIE																			

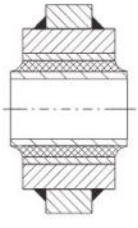
2) Nominal size B=22-35⇒ tolerance-0.12
Nominal size B=44-55⇒ tolerance-0.15
Nominal size B=60-70⇒ tolerance-0.20

Add–on Piece: Torque Arms on Two Sides with Rubber Bushes





Section A–A

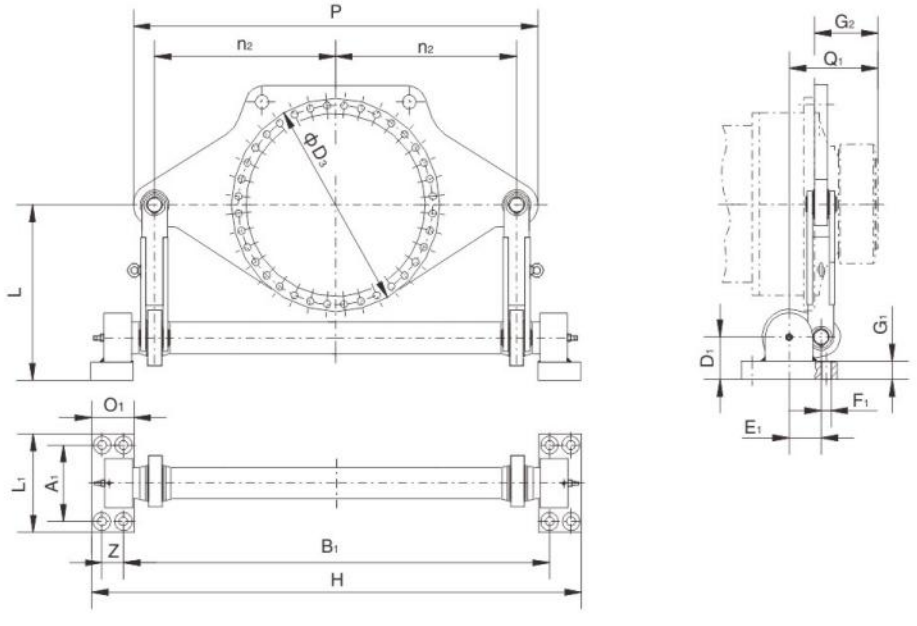


Freudenberg Metalastic bush

Dimensions											
Planetary gear unit Size	Nominal Output Torques T_{2N} (Nm)	D_2 1) ϕ H9	D_3	d_4	G_2	G_{10}	l_5	l_6	n_2	P	Weight ca. (kg)
		(mm)									
9	22000	50	440	115	165	30	100	110	500	1140	58
10	31000	50	485	115	174	30	100	110	550	1240	72
11	42000	100	540	180	204	30	110	120	575	1355	95
12	60000	100	620	180	224	35	110	120	625	1455	120
13	83000	110	665	210	241	35	170	180	600	1435	145
14	117000	110	740	210	278	40	170	180	650	1535	170
16	160000	124	790	240	285	40	220	230	700	1670	230
17	202000	124	915	240	288	40	220	230	750	1770	300
18	244000	124	955	240	303	50	220	230	900	2070	400

1) Pin: ϕ h8

Add–on Piece: Torsion Shaft Support

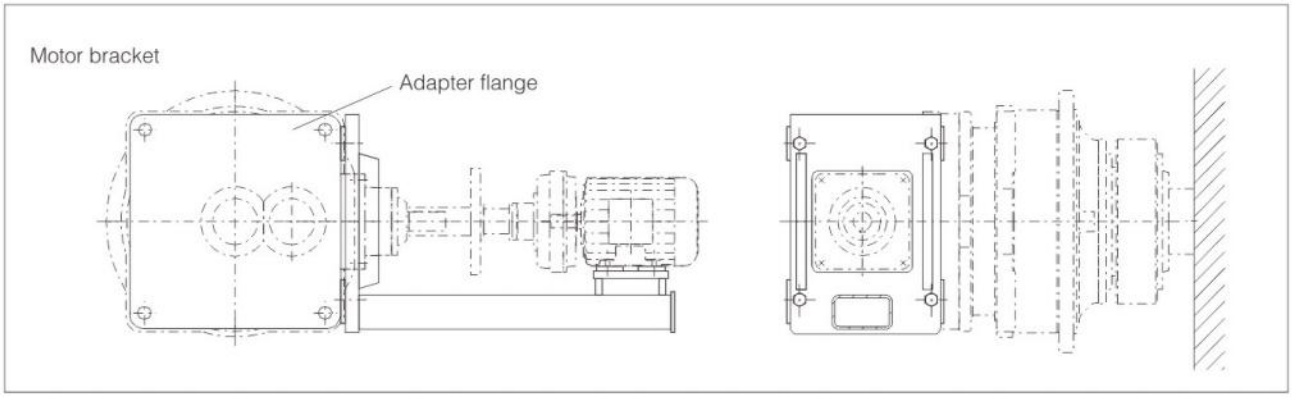


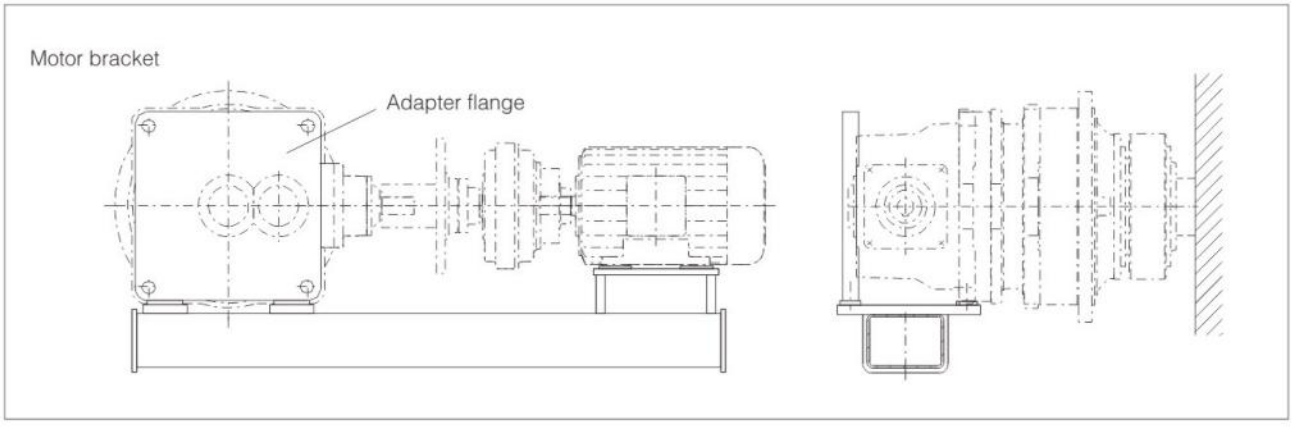
Dimensions																			
Planetary gear unit Size	Nominal Output Torques T_{2N} (Nm)	A_1	B_1	D_3	D_1	E_1	F_1 2)	No.	G_1	G_2	H	L 1)	L_1	n_2	O_1	P	Q_1	Z	Weight ca. (kg)
		(mm)																	
9	22000	250	1320	610	120	105	33	8	48.5	165	1525	560	330	550	140	1230	247.5	65	325
10	31000	250	1320	610	120	105	33	8	48.5	174	1525	560	330	550	140	1230	256.5	65	325
11	42000	250	1320	610	120	105	33	8	48.5	204	1525	560	330	550	140	1230	286.5	65	325
12	60000	250	1320	610	120	105	33	8	48.5	224	1525	560	330	550	140	1230	306.5	65	325
13	83000	280	1547	775	155	145	39	8	68.5	241	1780	620	380	650	158	1450	358.5	75	620
14	117000	280	1547	775	155	145	39	8	68.5	278	1780	620	380	650	158	1450	395.5	75	620
16	160000	280	1547	775	155	145	39	8	68.5	285	1780	620	380	650	158	1450	402.5	75	620
17	202000	315	1777	955	170	165	39	8	73.5	294	2041	700	400	750	180	1680	431.5	84	900
18	244000	315	1777	955	170	165	39	8	73.5	303	2041	700	400	750	180	1680	440.5	84	900
19	295000	350	2000	985	195	175	45	8	83.5	327.5	2300	860	450	850	200	1900	470.5	100	1200
20	354000	350	2000	985	195	175	45	8	83.5	327.5	2300	860	450	850	200	1900	470.5	100	1200
21	392000	400	2254	1120	210	190	45	8	88.5	354	2591	900	530	950	225	2110	506.5	113	1500
22	450000	400	2254	1120	210	190	45	8	88.5	354	2591	900	530	950	225	2110	506.5	113	1500
23	513000	450	2496	1215	235	220	45	8	98.5	380	2871	1060	590	1063	250	2385	562.5	125	2150
24	592000	450	2496	1215	235	220	45	8	98.5	380	2871	1060	590	1063	250	2385	562.5	125	2150
25	684000	500	2816	1350	275	245	52	8	118.5	407	3236	1200	650	1150	280	2600	614.5	140	2650
26	763000	500	2816	1350	275	245	52	8	118.5	407	3236	1200	650	1150	280	2600	614.5	140	2650
27	852000	530	2887	1490	300	255	52	8	128.5	453	3327	1250	700	1250	290	2820	670.5	150	3250
28	950000	530	2887	1490	300	255	52	8	128.5	453	3327	1250	700	1250	290	2820	670.5	150	3250
29	1060000	560	3200	1565	300	280	62	8	128.5	483	3673	1350	750	1360	315	3080	718	158	3900
30	1200000	560	3200	1565	300	280	62	8	128.5	483	3673	1350	750	1360	315	3080	718	158	3900
31	1330000	590	3408	1695	340	300	70	8	148.5	538	3906	1400	790	1450	330	3260	788	168	5050
32	1500000	590	3408	1695	340	300	70	8	148.5	538	3906	1400	790	1450	330	3260	788	168	5050
33	1680000	620	3588	1785	375	320	70	8	158.5	573	4116	1500	840	1550	350	3520	840.5	178	6800
34	1920000	620	3588	1785	375	320	70	8	158.5	573	4116	1500	840	1550	350	3520	840.5	178	6800
35+36	Please consult JIE																		

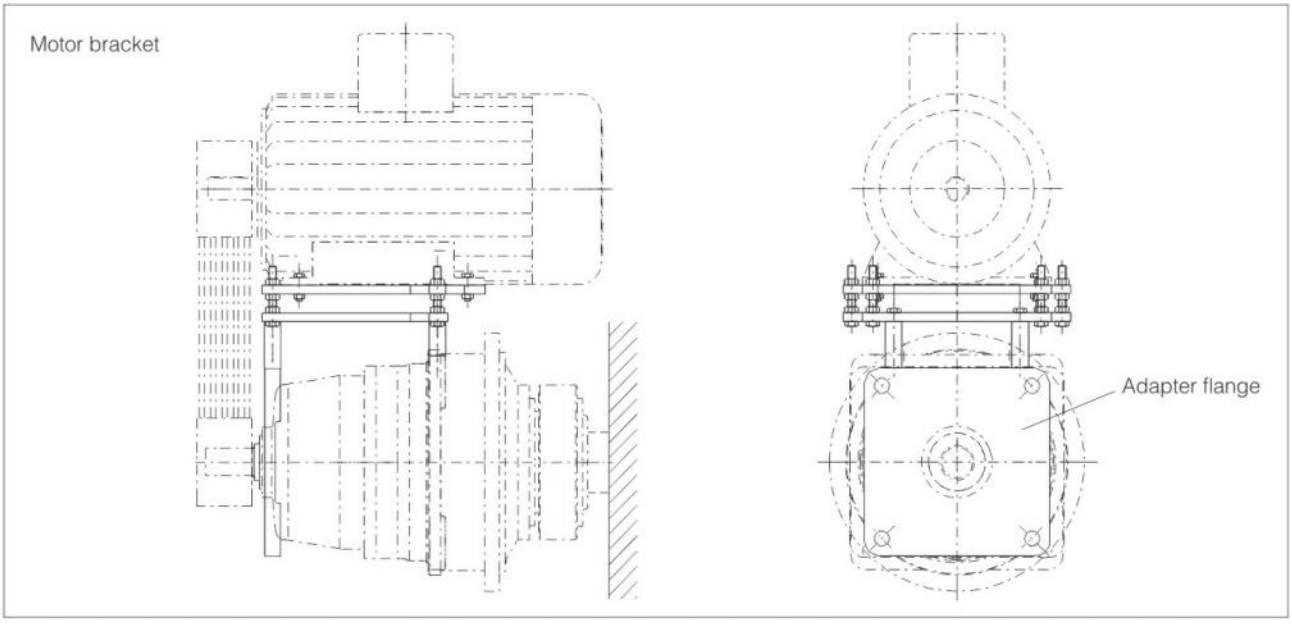
1) Standard dimension, overall height modifiable up to 2000 mm.
2)Use bolts of property class 6.8 acc. to DIN 898.

With the standard design, type DSD, maintenance–free self–aligning plain bearings with integrated seal are used. Where there are special requirements or special ambient conditions, the self–aligning plain bearings can be protected with an additional seal. In this case. the DDA design is required.

Add–on Piece: Motor Bracket





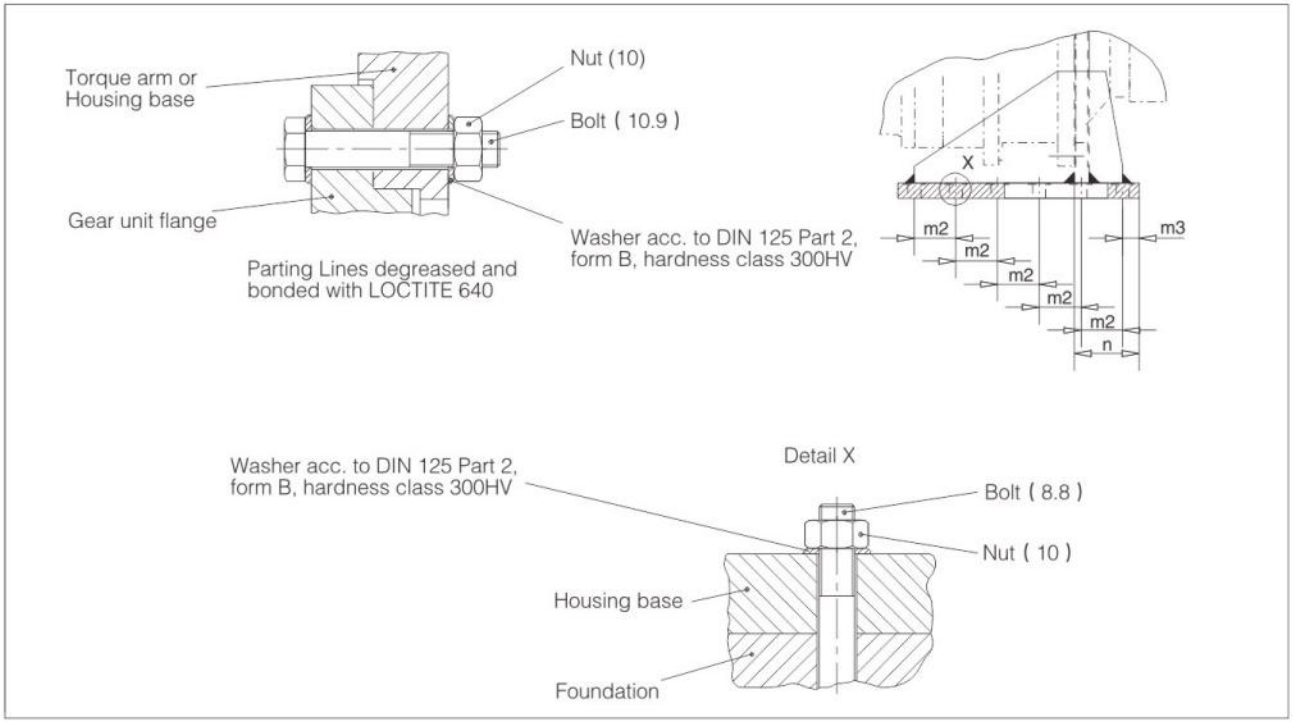


In cases where no motor motor tlanges are provided we use an adapter flange to attachmotor brachets.

The standard housings and intermediate flanges are specially prepared for comentionand machined to order specifications.

Examples of the type and design of bracket comention are shown in the above drawings.The permissible motor size for each gear unit size and design is to be agreed upon from case to case with the design department.

Tightening Torques for Flange Connections and Foot – mounted Design



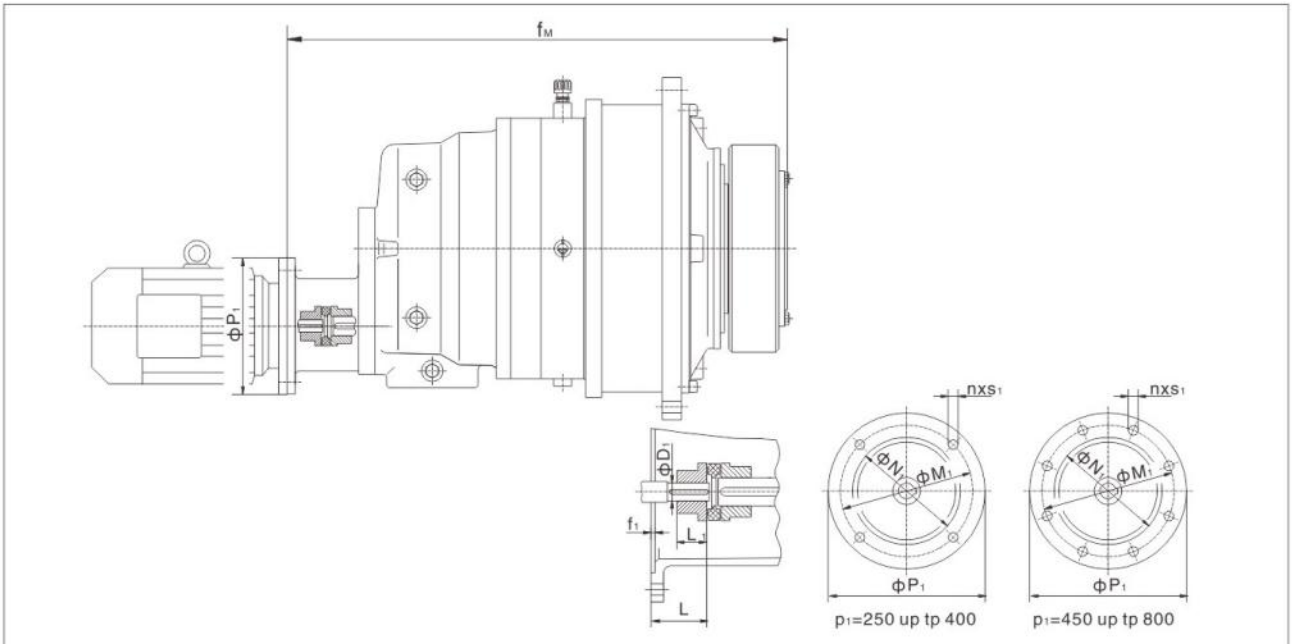
Dimensions				
Gear unit size	Flange attachment		Base attachment [1]	
	Thread Strength class(10.9)	Tightening torque [2] (N•m)	Thread Strength class(8.8)	Tightening torque [2] (N•m)
9	M16	295	M24	710
10	M16	295	M24	710
11	M20	580	M24	710
12	M24	1000	M24	710
13	M24	1000	M24	710
14	M24	1000	M30	1450
16	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
35/36	M56	13850	M72	20800

1) The bolts must be checked by the user to ensure that they are suitable for the foundation design.

2) Tightening torques relate to friction values 0.14 in the thread and 90% utilization of yield point.

9. Input Flange Dimension

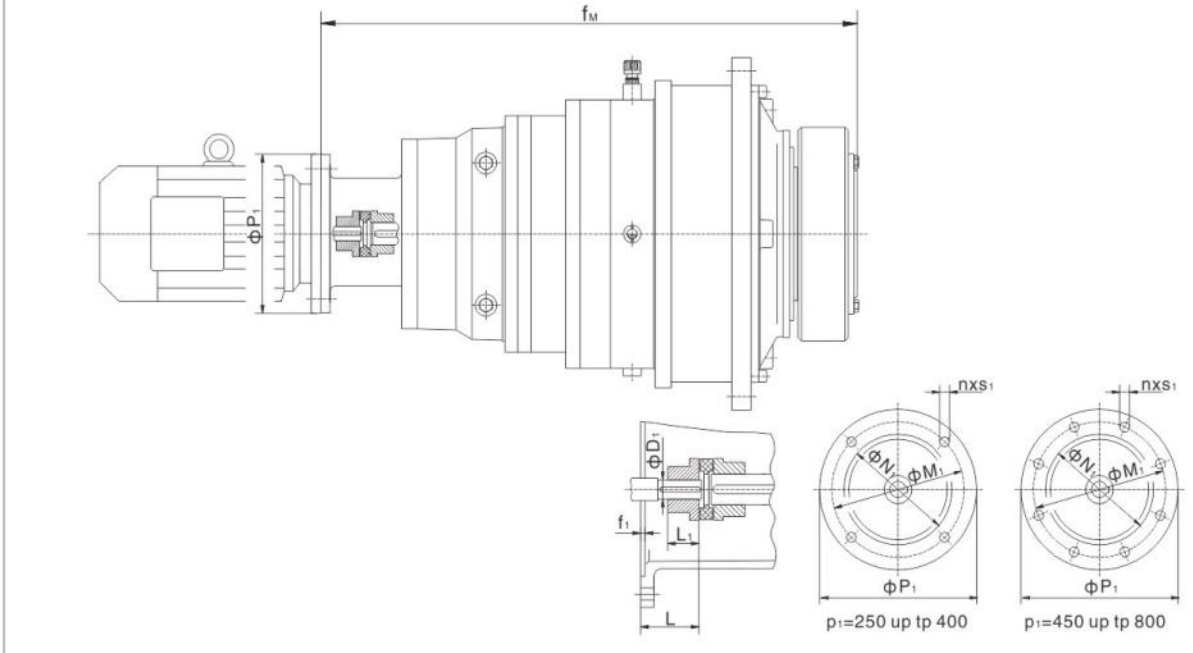
Type: JRP2S..



JRP2S..	Motor (Y)*	Flange (F)**	D1	f1	fM	L	L1	M1	n	N1	P1	S1
9	160		42	6	832	110	75	300	4	250h7	350	M16
	180		48	6	832	110	75	300	4	250h7	350	M16
10	160		42	6	861	110	75	300	4	250h7	350	M16
	180		48	6	861	110	75	300	4	250h7	350	M16
11	160		42	6	1010	110	75	300	4	250h7	350	M16
	180		48	6	1010	110	75	300	4	250h7	350	M16
	200		55	7	1010	110	75	350	4	300h7	400	M16
12	160		42	6	1044	110	75	300	4	250h7	350	M16
	180		48	6	1044	110	75	300	4	250h7	350	M16
	200		55	7	1044	110	75	350	4	300h7	400	M16
13	225		60	7	1247	140	90	400	8	350h7	450	M16
	250		65	8	1247	140	90	500	8	450h7	550	M16
14	225		60	7	1307	140	90	400	8	350h7	450	M16
	250		65	8	1307	140	90	500	8	450h7	550	M16
16	250		65	7	1452	140	100	500	8	450h7	550	M16
	280		75	8	1452	140	100	500	8	450h7	550	M16
17	250		65	7	1487	140	100	500	8	450h7	550	M16
	280		75	8	1487	140	100	500	8	450h7	550	M16
18	315		80	11	1680	140	110	600	8	550h7	660	M20
19–20	315		80	11	1728	140	110	600	8	550h7	660	M20

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

Type: JRP3N..



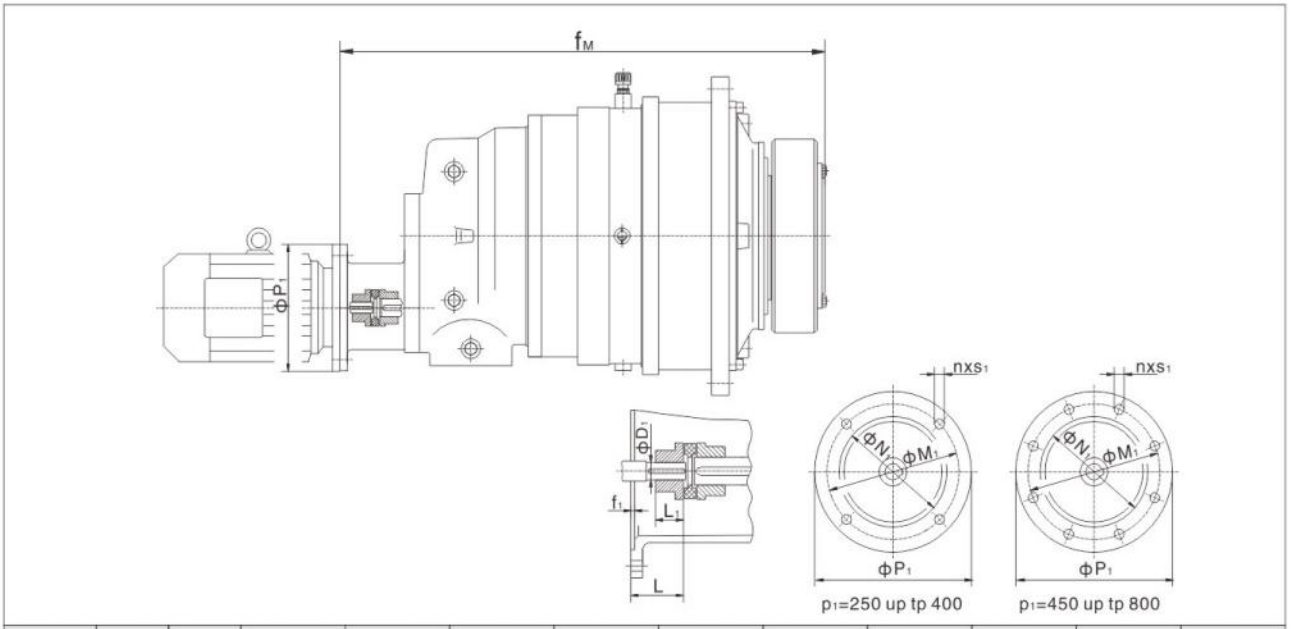
JRP3N..	Motor (Y)*	Flange (F)**	D1	f1	fM	L	L1	M1	n	N1	P1	S1
9	132		38	5	912	80	56	265	4	230h7	300	M12
	160		42	6	960	110	80	300	4	250h7	350	M16
	180		48	6	960	110	80	300	4	250h7	350	M16
10	132		38	5	941	80	56	265	4	230h7	300	M12
	160		42	6	989	110	80	300	4	250h7	350	M16
	180		48	6	989	110	80	300	4	250h7	350	M16
11	132		38	5	1002	80	56	265	4	230h7	300	M12
	160		42	6	1050	110	80	300	4	250h7	350	M16
	180		48	6	1050	110	80	300	4	250h7	350	M16
12	132		38	5	1036	80	56	265	4	230h7	300	M12
	160		42	6	1084	110	80	300	4	250h7	350	M16
	180		48	6	1084	110	80	300	4	250h7	350	M16
13	160		42	6	1159	110	80	300	4	250h7	350	M16
	180		48	6	1159	110	80	300	4	250h7	350	M16
	200		55	7	1159	110	80	350	4	300h7	400	M16
14	160		42	6	1219	110	80	300	4	250h7	350	M16
	180		48	6	1219	110	80	300	4	250h7	350	M16
	200		55	7	1219	110	80	350	4	300h7	400	M16
16	200		55	7	1400	110	90	350	4	300h7	400	M16
	225		60	7	1430	140	90	400	8	350h7	450	M16
17	200		55	7	1435	110	90	350	4	300h7	400	M16
	225		60	7	1465	140	90	400	8	350h7	450	M16
18	250		65	7	1636.5	140	100	500	8	450h7	550	M16
	280		75	8	1636.5	140	100	500	8	450h7	550	M16
19,20	250		65	7	1685	140	100	500	8	450h7	550	M16
	280		75	8	1685	140	100	500	8	450h7	550	M16

Note: (1) "*" the power of the coupled motor in selection must be sufficient for the transmission capacity requirements;

"**" the flanges listed in the table are standard. Consult us if any deviation exists.

(2) For combinations with side torque arm, please consult us.

Type: JRP3S..



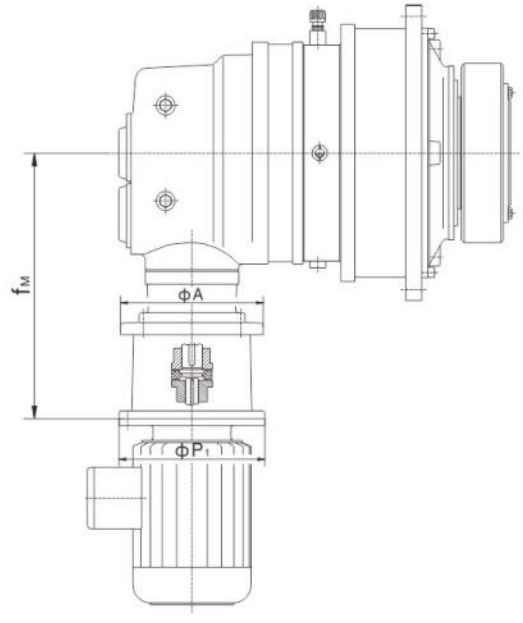
JRP3S..	Motor (Y)*	Flange (F)**	D1	f1	fM	L	L1	M1	n	N1	P1	S1
9	100		28	5	865	60	45	215	4	180h7	250	M12
	112		28	5	865	60	45	215	4	180h7	250	M12
	132		38	5	896	80	70	265	4	230h7	300	M12
	160		42	6	931	110	75	300	4	250h7	350	M16
10	100		28	5	894	60	45	215	4	180h7	250	M12
	112		28	5	894	60	45	215	4	180h7	250	M12
	132		38	5	925	80	70	265	4	230h7	300	M12
	160		42	6	957	110	75	300	4	250h7	350	M16
11	112		28	5	955	60	45	215	4	180h7	250	M12
	132		38	5	986	80	70	265	4	230h7	300	M12
	160		42	6	1018	110	75	300	4	250h7	350	M16
	180		48	6	1018	110	75	300	4	250h7	350	M16
12	112		28	5	989	60	45	215	4	180h7	250	M12
	132		38	5	1020	80	70	265	4	230h7	300	M12
	160		42	6	1052	110	75	300	4	250h7	350	M16
	180		48	6	1052	110	75	300	4	250h7	350	M16
13	132		38	5	1095	80	70	265	4	230h7	300	M12
	160		42	6	1127	110	75	300	4	250h7	350	M16
	180		48	6	1127	110	75	300	4	250h7	350	M16
14	132		38	5	1155	80	70	265	4	230h7	300	M12
	160		42	6	1187	110	75	300	4	250h7	350	M16
	180		48	6	1187	110	75	300	4	250h7	350	M16
16	160		42	6	1365	110	75	300	4	250h7	350	M16
	180		48	6	1365	110	75	300	4	250h7	350	M16
	200		55	7	1365	110	75	350	4	300h7	400	M16
17	160		42	6	1390	110	75	300	4	250h7	350	M16
	180		48	6	1390	110	75	300	4	250h7	350	M16
	200		55	7	1400	110	75	350	4	300h7	400	M16
18	180		48	6	1558.5	110	90	300	4	250h7	350	M16
	200		55	7	1570.5	110	90	350	4	300h7	400	M16
	225		60	7	1608.5	110	90	400	8	350h7	450	M16
	250		65	7	1608.5	110	90	500	8	450h7	550	M16
19,20	180		48	6	1606	110	90	300	4	250h7	350	M16
	200		55	7	1618	110	90	350	4	300h7	400	M16
	225		60	7	1656	110	90	400	8	350h7	450	M16
	250		65	7	1656	110	90	500	8	450h7	550	M16

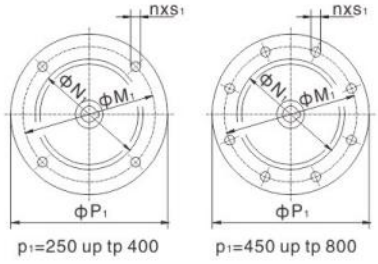
Note: (1) "*" the power of the coupled motor in selection must be sufficient for the transmission capacity requirements;

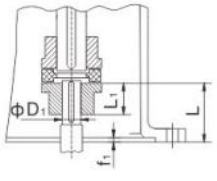
"**" the flanges listed in the table are standard. Consult us if any deviation exists.

(2) For combinations with side torque arm, please consult us.

Type: JRP2K..







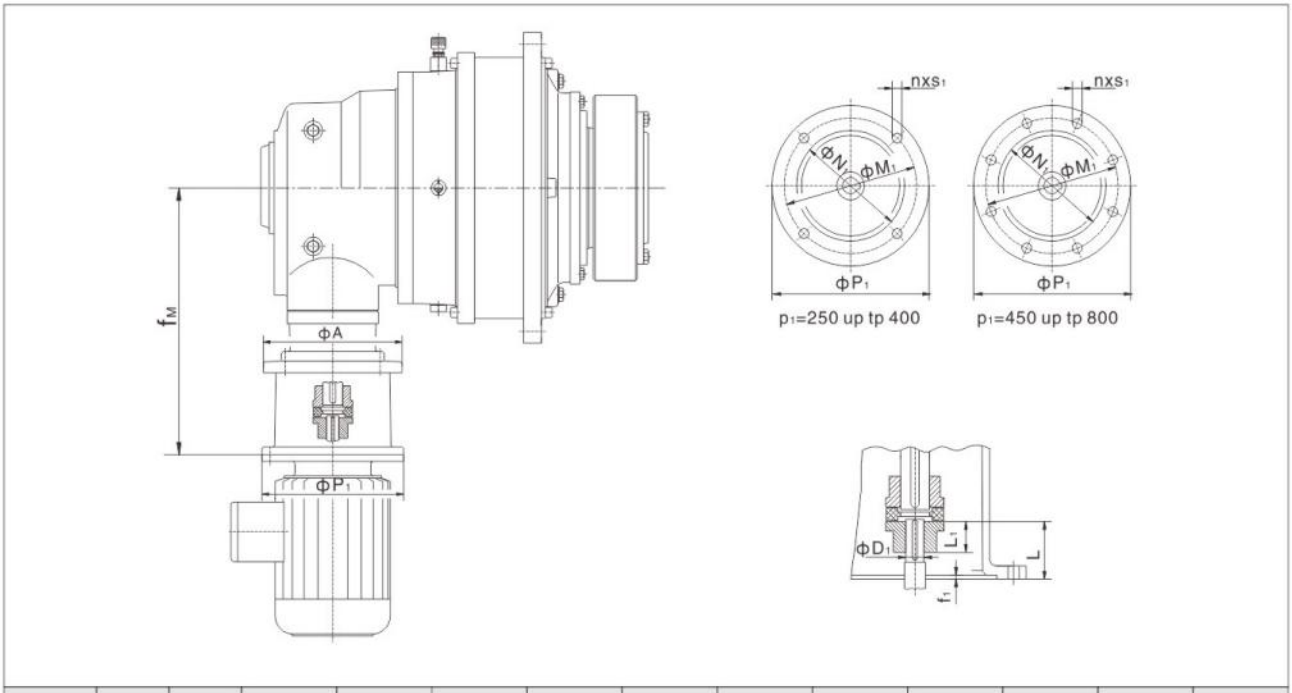
JRP2K..	Motor (Y)*	Flange (F)**	A	D1	f1	fM	L	L1	M1	n	N1	P1	S1
9,10	132		250	38	5	486	80	70	265	4	230h7	300	M12
	160		250	42	6	528	110	75	300	4	250h7	350	M16
11,12	160		300	42	6	593	110	75	300	4	250h7	350	M16
	180		350	48	6	593	110	75	300	4	250h7	350	M16
	200		350	55	7	593	110	75	350	4	300h7	400	M16
13,14	160		440	42	6	663	110	75	300	4	250h7	350	M16
	180		440	48	6	663	110	75	300	4	250h7	350	M16
	200		440	55	7	663	110	75	350	4	300h7	400	M16
	225		440	60	7	695	140	80	400	8	350h7	450	M16
	250		440	65	8	707	140	85	500	8	450h7	550	M16
16,17	200		440	55	7	770	110	80	350	4	300h7	400	M16
	225		440	60	7	800	140	80	400	8	350h7	425	M16
	250		440	65	8	812	140	85	500	8	450h7	550	M16
	280		440	75	8	812	140	85	500	8	450h7	550	M16
18,19,20	225		440	60	7	932	140	80	400	8	350h7	450	M16
	250		440	65	8	932	140	85	500	8	450h7	550	M16
	280		440	75	8	932	140	85	500	8	450h7	550	M16
	315*		440	80	11	967	170	100	600	8	550h7	660	M20

Note: (1) "*" the power of the coupled motor in selection must be sufficient for the transmission capacity requirements;

"**" the flanges listed in the table are standard. Consult us if any deviation exists.

(2) For combinations with side torque arm, please consult us.

Type: JRP2L..



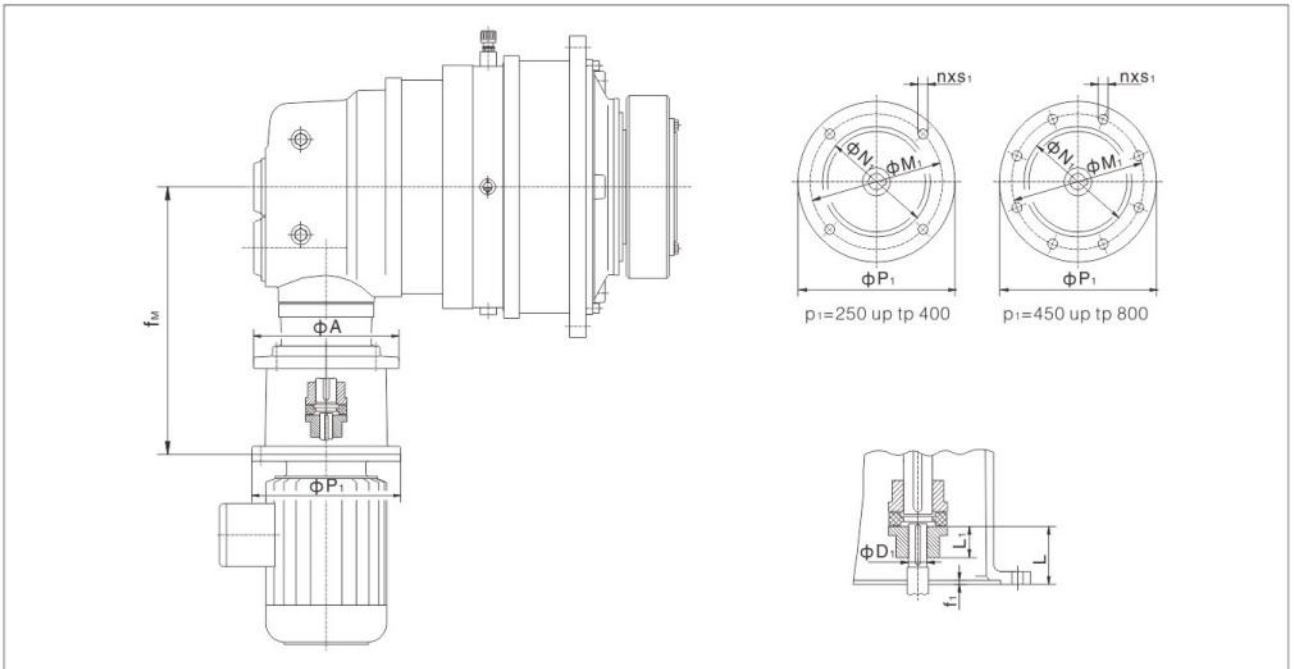
JRP2L..	Motor (Y)*	Flange (F)**	A	D1	f1	fM	L1	L	M1	n	N1	P1	S1
9,10	160		440	42	6	543	75	110	300	4	250h7	350	M16
	180		440	48	6	543	75	110	300	4	250h7	350	M16
	200		440	55	7	543	75	110	350	4	300h7	400	M16
	225		440	60	7	575	80	140	400	8	350h7	450	M16
11,12	200		440	55	7	600	75	110	350	4	300h7	400	M16
	225		440	60	7	630	80	140	400	8	350h7	450	M16
	250		440	65	8	642	85	140	500	8	450h7	550	M16
13,14	225		440	60	7	732	85	140	400	8	350h7	450	M16
	250		440	65	8	732	85	140	500	8	450h7	550	M16
	280		440	75	8	732	85	140	500	8	450h7	550	M16
16,17	280		600	75	8	842	100	140	500	8	450h7	550	M16
	315*		650	80	11	872	100	170	600	8	550h7	660	M20
18,19,20	315*		650	80	11	987	100	170	600	8	550h7	660	M20
21,22,23,24	315		650	80	11	1122	125	170	600	8	550h7	660	M20
	355		650	95	11	1122	125	170	740	8	680h7	800	M20

Note: (1) "*" the power of the coupled motor in selection must be sufficient for the transmission capacity requirements;

"**" the flanges listed in the table are standard. Consult us if any deviation exists.

(2) For combinations with side torque arm, please consult us.

Type: JRP3K..



JRP3K..	Motor (Y)*	Flange (F)**	A	D1	f1	fM	L	L1	M1	N1	n	P1	S1
9,10,11 12,13,14	132		250	38	5	486	80	70	265	230h7	4	300	M12
	160		250	42	6	528	110	75	300	250h7	4	350	M16
	180		250	48	6	528	110	75	300	250h7	4	350	M16
16,17	160		350	42	6	593	110	75	300	250h7	4	350	M16
	180		350	48	6	593	110	75	300	250h7	4	350	M16
	200		350	55	7	593	110	75	350	300h7	4	400	M16
18,19,20 21,22	160		440	42	6	663	110	75	300	250h7	4	350	M16
	180		440	48	6	663	110	75	300	250h7	4	350	M16
	200		440	55	7	663	110	75	350	300h7	4	400	M16
	225		440	60	7	695	140	80	400	350h7	8	450	M16
	250		440	65	8	707	140	85	500	450h7	8	550	M16
23,24 25,26	200		440	55	6	770	110	80	350	300h7	4	400	M16
	225		440	60	7	800	140	80	400	350h7	8	450	M16
	250		440	65	7	812	140	85	500	450h7	8	550	M16
	280		440	75	8	812	140	85	500	450h7	8	550	M16
27,28 29,30	225		440	60	7	932	140	80	400	350h7	8	450	M16
	250		440	65	7	932	140	85	500	450h7	8	550	M16
	280		440	75	8	932	140	85	500	450h7	8	550	M16
	315*		440	80	11	967	170	100	600	550h7	8	660	M20

Note: (1) "*" the power of the coupled motor in selection must be sufficient for the transmission capacity requirements;

"**" the flanges listed in the table are standard. Consult us if any deviation exists.

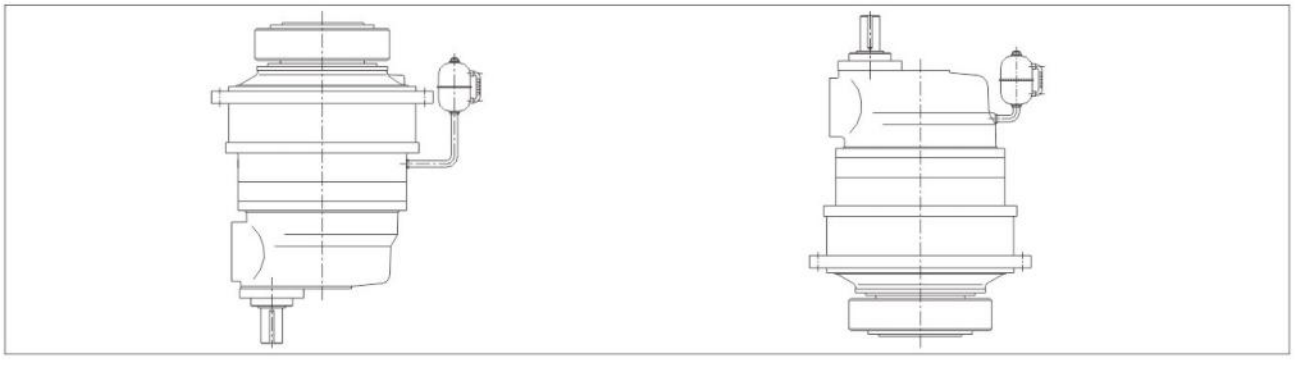
(2) For combinations with side torque arm, please consult us.

10. Lubricant Oil

Oil Compensating Tank for Vertical Mounting Position

Oil supply by compensating tank for verti–cal mounting position

–900/600,910/610,920/620,930/630



In case of vertical mounting position,no forced lubrication is provided as standard to feed the overhead rolling bearings.

To ensure the lubricant supply,the oil level is increased accordingly.

For horizontal mounting position of the gear unit,please derive the oil quantity,depending on the type,from the respective page of the brochure.

For vertical mounting position,approximately twice the oil quantity is required.

The oil level is checked via an oil compensating tank fitted separately. The dimensions are set to accommodate the antic–ipated change in the volume of the oil in the operating condition.The unit is also vented via the tank.The oil tank can be attached either to the gear unit or to the customer's machine frame.

The bottom of the oil compensating tank is set at approximately the following level: if

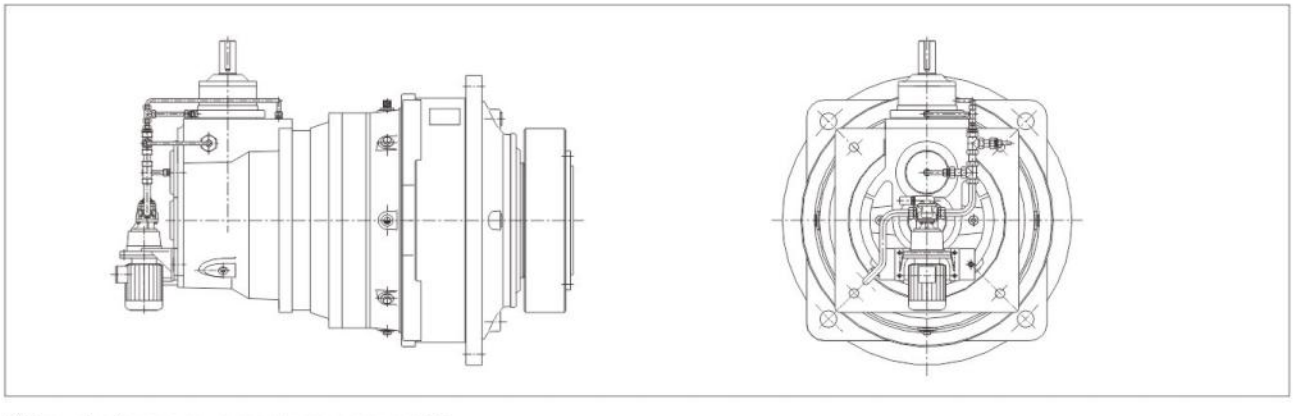
D2 upwards: Mounting surface output flange
D1 upwards: Upper edge primary gear housing

The actual dimension and final position will be decided when the order is placed

Oil supply by motor pumps for horizontal mounting position and drive from above

–521, 531[1] (all sizes)

and 511[1] (above size 21)



1)For shaft arrangement,see page 120

Oil quantity：

Oil level (L)							
Type	JRP2N..	JRP2L..	JRP2S..	JRP2K..	JRP3N..	JRP3S..	JRP3K..
9	6	6	6	6	7	7	7
10	8	8	8	8	9	9	9
11	12	12	12	12	13	13	13
12	16	16	16	16	17	17	17
13	20	20	20	20	21	21	21
14	32	32	32	32	33	33	33
16	40	40	40	40	42	42	42
17	56	56	56	56	60	60	60
18	66	66	66	73	70	70	70
19	82	82	82	82	85	85	85
20	75	75	75	75	75	75	75
21	110	110	110		115	115	115
22	95	95	95		105	105	105
23	130	130	130		140	140	140
24	125	125	125		135	135	135
25	190	190	190		195	195	195
26	160	160	160		170	170	170
27	245	245	245		250	250	250
28	205	205	205		220	220	220
29	305	305	305		310	310	310
30	255	255	255		280	280	280
31	380		380		390	390	
32	315		315		360	360	
33	460		460		470	470	
34	380		380		430	430	
35	645		645				
36	535		535				

Note:1)When ambient temperature is between −10℃~+40℃,VG320 (ISO viscosity class)shou be used for JRP series and accessory code is V32.
2)The above oil levels are for JRP..N in mounting position 500 and JRP. K/ JRP.L/JRP.S in mounting position 5xx Other positions on request.

Selection of Oil Table

Oil	Viscosity ISO-VG At40℃ in mm^2/s, standard DIN 51519	Oil selection example					
		TOTAL	Mobil	Shell	bp		KunLun
合成油 Synthetic oil	VG680	TOTAL CARTER SH680	GLYGOYLE HE 680	SHELL OMALA HD680			
	VG460	TOTAL CARTER SH460	GLYGOYLE HE 460	SHELL OMALA HD460	ENERSYN SG-XP460		
	VG320	TOTAL CARTER SH320	GLYGOYLE HE320	SHELL OMALA HD320			
	VG220	TOTAL CARTER SH220	GLYGOYLE 30	SHELL OMALA HD220	ENERSYN SG-XP220		
	VG150		GLYGOYLE 22				
	VG100						
矿物油 Mineral oil	VG680	TOTAL CARTER EP680	MOBIL GEAR 636	SHELL OMALA 680	ENERGOL GR-XF680	CKD680	CKD680
	VG460	TOTAL CARTER EP460	MOBIL GEAR 634	SHELL OMALA 460	ENERGOL GR-XF460	CKD460	CKD460
	VG320	TOTAL CARTER EP320	MOBIL GEAR 632	SHELL OMALA 320	ENERGOL GR-XF320	CKD320	CKD320
	VG220	TOTAL CARTER EP220	MOBIL GEAR 630	SHELL OMALA 220	ENERGOL GR-XF220	CKD220	CKD220
	VG150		MOBIL GEAR 629				
	VG100						

11. Identifications of Shaft Arrangements

		Horizontal gear unit position 5...	Vertical gear unit position 9...	Vertical gear unit position 1) 6...
Coaxial planetary gear units	0	JRP.N. 500	900	600
Combined helical gear planetary gear units	1	JRP.S. 1) 511, 512, 513, 514	910	610
Combined bevel-helical gear planetary gear units	2	JRP.K. 1) 521, 522, 523, 524	920	620
Combined bevel gear planetary gear units	3	JRP.L. 1) 531, 532, 533, 534	930	630
Torque reaction arm	5	551, 552, 553, 554, 555, 556	*)Viewing on input shaft **)please consult us	

1)Lubricant supply must be checked

12. Explosion Protection

Explosion protection
according to ATEX 95

JRP planetary gear units are certified according to directive 94/9/EC and may be used in hazardous locations.

Surface application:categories 2+3

Description of the surroundings			Assignment of equipment categories to safety requirements		
Explosive atmospheres occurring:	Explosive atmospheres caused by:		特性类型： Category:	安全要求： Safety requirements:	在下列情况下安全： Safe if taking into account
The quantification serves for orientation only.	Gases,vapours, mists	Dust			
Continuously,frequently,for more than 1,000 h/yr	Zone 0	Zone 20	Category 1	very high	Rarely occurring disturbances
Occasionally,for a short term, between 10 and 1,000 h/yr	Zone 1	Zone 21	Category 2	high	Normally occurring disturbances
Infrequently,for a short term, less than 10 h/yr	Zone 2	Zone 22	Category 3	normal	Normal operating conditions

6. RPH Planetary Gear Units

Product application:

This series of products mainly used in slew-driven system. Compact structure, small installation space, high drive torque, and is widely used in tower cranes, wind power, hoisting equipment and other devices. The driving force for the importation of products can have a variety of motor and pump drive configurations to meet various requirements of different users.

Product performance characteristics :

This product is designed with the introduction of European technology, follow modular and optimization design concept.Special modification of gear technology and carburizing quenching by grinding to ensure that the products low-noise, low vibration and high load, long-life requirements. Bearings, oil seals using a world-renowned brands, ensuring the effective performance of the machine.

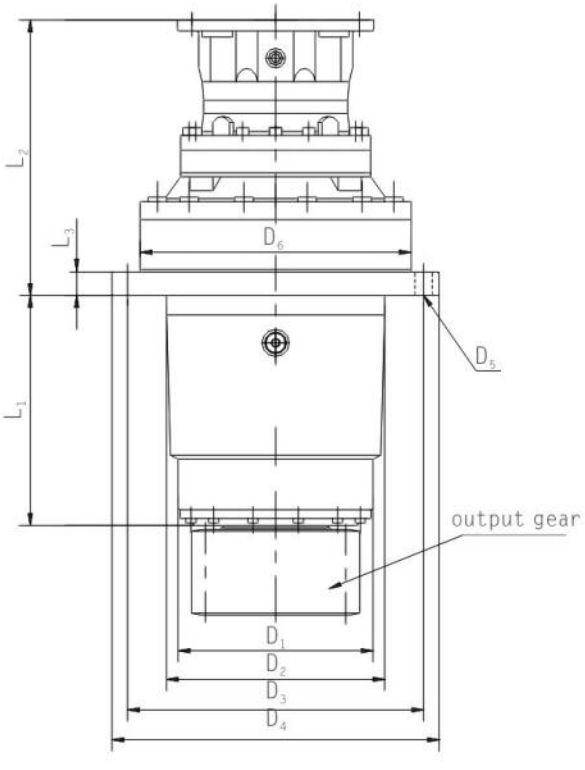
Technical parameters:

Model	Rated output torque (Nm)	Max. output torque (Nm)	Ratio range
JRPH08	8000	15000	Can be made as per user requirements
JRPH12	12000	25000	
JRPH18	18000	30000	
JRPH25	25000	50000	
JRPH35	35000	80000	
JRPH40	40000	90000	
JRPH50	50000	100000	
JRPH80	80000	140000	
JRPH100	100000	180000	

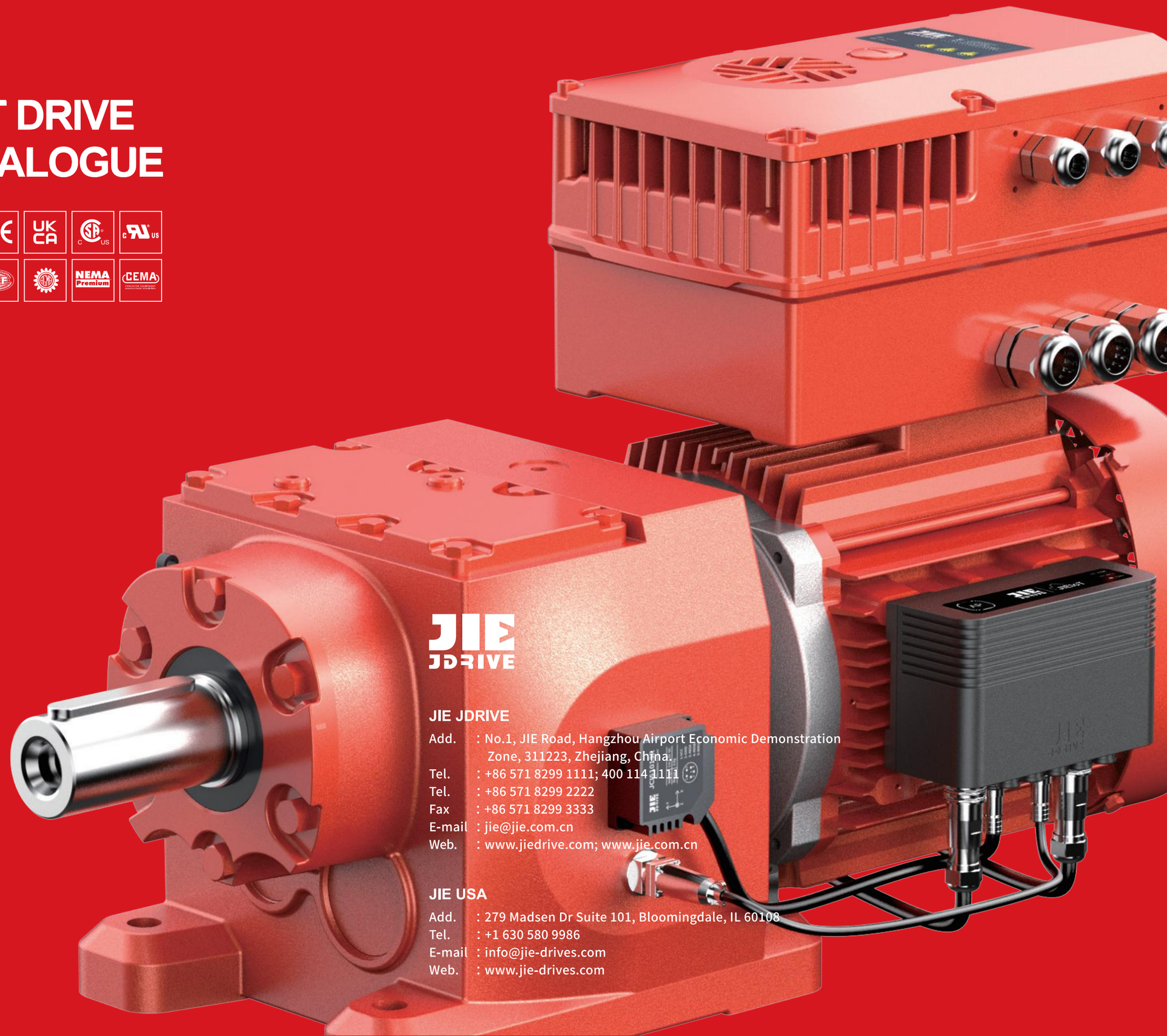
Overall dimensions :

Model	D1	D2	D3	D4	D5	D6	L1	L2	L3	Output gear parameters
JRPH08	184	290	325	350	14.5	290	289	196	26	Output gear can be made as per user requirements.
JRPH12	230	280	314	348	17	348	300	360	98	
JRPH18	250	280	380	420	17	348	295	353	30	
JRPH25	300	425	450	500	22	400	360	500	40	
JRPH35	300	425	460	500	22	428	350	520	40	
JRPH40	—	400	445	490	21	428	110	700	40	
JRPH50	340	400	510	560	22	445	430	630	30	
JRPH80	370	470	600	640	22	542	470	670	36	
JRPH100	—	555	600	645	28	542	100	1100	40	

Note: above dimensions for reference, detail dimensions refer to JIE,JIE also can be made as perusers requirements.



JIE INTELLIGENT DRIVE SOLUTIONS CATALOGUE



JIE JDRIVE

JIE JDRIVE

Add. : No.1, JIE Road, Hangzhou Airport Economic Demonstration Zone, 311223, Zhejiang, China.
Tel. : +86 571 8299 1111; 400 114 1111
Tel. : +86 571 8299 2222
Fax : +86 571 8299 3333
E-mail : jie@jie.com.cn
Web. : www.jiedrive.com; www.jie.com.cn

JIE USA

Add. : 279 Madsen Dr Suite 101, Bloomingdale, IL 60108
Tel. : +1 630 580 9986
E-mail : info@jie-drives.com
Web. : www.jie-drives.com

JRT GEAR UNITS & GEARMOTORS

JRTR
Helical Inline Gearmotors
Size: 09-189
Ratio: 3.37-289.74
Input power: 0.09-250kW
Output torque: 2.4-56494N.m

JRTF
Parallel Shaft Helical Gearmotors
Size: 29-169
Ratio: 3.77-281.71
Input power: 0.12-250kW
Output torque: 3.5-37125N.m

JRTK
Helical-Bevel Gearmotors
Size: 39-189
Ratio: 3.98-197.37
Input power: 0.12-200kW
Output torque: 10-62800N.m

JRTS
Helical-Worm Gearmotors
Size: 39-99
Ratio: 3.97-288
Input power: 0.12-22kW
Output torque: 10-4900N.m

JRTW
Helical Face Gearmotor
Size: 10-30
Ratio: 6.57-75
Input power: 0.09-1.1kW
Output torque: 25-70N.m

JRH INDUSTRIAL GEAR UNITS

JRHH
Parallel Shaft Gear Units
Size: 3-28
Ratio: 1.25-450
Input power: 4.3-10515kW
Output torque: 2300-1400000N.m

JRHB
Helical Bevel Gear Units
Size: 4-28
Ratio: 5-400
Input power: 2.8-4908kW
Output torque: 5500-1400000N.m

JRHD
Bucket Elevator Gear Units
Size: 5-16
Ratio: 25-71
Input power: 16-1305kW
Output torque: 11000-173000N.m

JRHO
Palm Oil Gear Units
Size: 310
Ratio: 56, 80
Input power: 106,141kW
Output torque: 75000N.m

JRHA
Cooling Tower Gear Units
Size: 166
Ratio: 14
Input power: 228kW
Output torque: 21000N.m

JRP PLANETARY GEAR UNITS

JRP
Planetary Gear Units
Size: 9-36
Ratio: 25-4000
Input power: 0.4-12934kW
Output torque: 22000-2600000N.m

JRP
Planetary Gear Units
Size: 01-8
Ratio: 3.08-3460
Input power: 0.02-192kW
Output torque: 1000-13000N.m

JRPH
Rotary Planetary Gear Units
Size: 08-100
Ratio: 3.4-2000
Input power: 75-250kW
Output torque: 8000-100000N.m

JRP RV
Inline Planetary Gear Units
Ratio: 3-100
Backlash: 1-3/3-5/5-7arc-min
Torque: 6-3300N.m

JRP RE
Right Angle Planetary Gear Units
Ratio: 3-100
Backlash: 4-9/6-11arc-min
Torque: 12-1920N.m

JRW WORM GEAR UNITS

JRSTD
IEC Worm Gear Units
Size: 25-150
Ratio: 5-100
Input power: 0.06-15kW
Output torque: 13-1550N.m

JRWND
NEMA Worm Gear Units
Size: 30-150
Ratio: 5-100
Input power: 0.06-15kW
Output torque: 13-1550N.m

JRWNED
Double Reduction Units
Size: 25/30-63/150
Ratio: 100-5000
Input power: 0.06-1.5kW
Output torque: 29-2670N.m

JRKM, JRKB
Hypoid Gear Units
Size: 28-68
Ratio: 7.5-300
Input power: 0.07-11.1kW
Output torque: 80-750N.m

WPA
Worm Gears
Size: 40-250
Ratio: 10-60
Input power: 0.12-3.2KW
Output torque: 19-2745N.m

JD THREE PHASE ASYNCHRONOUS MOTORS

JDC, JCS Servo Motors & Drives
Power: 0.4-7.5kW
Output Torque: 1.3-48N.m
Input power: 1AC 220V/3AC 380V
Communication:
Pulse, EtherCAT, Profinet

JDL
Asynchronous Servo Motor
Torque: 2.5-200N.m
Speed: 1200r/min-3000r/min

JD-IEC
IEC Standard Motors
Size: 63-315
Power: 0.12-200kW
Efficiency: IE3 IE4 IE5

JD-NEMA
NEMA Standard Motors
Size: 56C-365TC
Power: 0.16-30HP
Efficiency: NEMA Premium

JD-B
Explosion-Proof Motors
Size: 80-315
Power: 0.55-200kW
Explosion-Proof Grade:
Exib II BT4
Efficiency: IE3 IE4 IE5

JC INTELLIGENT DRIVE SOLUTIONS

JC
Intelligent Drive Solutions
Industrial Drive Solutions incl Reducers, Motors, Converters, Sensors, Internet of Things, etc.

JCMC VFD Gearmotors
Size: 175-255
Power: 0.75-5.5kW
Input Power: 3AC 380-440V
Output Frequency: 0-200Hz
Communication:
ModbusRTU, Profinet, ASi

JCI Intelligent Monitoring System
Power: AC220V, DC24V
Communication: Wifi, 4G, RS485
Items:
Vibration, Temperature, Pressure, Current
Deployment:
Public Cloud, Private Cloud

JCME Distributed VFDS
Size: 175-255
Power: 0.75-5.5kW
Input power: 3*AC380-440V
Output Frequency: 0-200Hz
Communication:
Profinet, ModbusRTU, ASi

JCF VFDS
Size: 175-355
Power: 0.75-55kW
Input power:
1*AC220/3*AC400V
Communication:
Profinet, EtherCAT, CANOPEN

MORE OPTIONS

JRES(R、K)
Stainless Steel Helical Gearmotos
Size: 37-67
Ratio: 3.41-199.81
Input power: 0.18-7.5kW
Output torque: 12-910N.m

JRES
Stainless Steel Worm Gearmotors
Size: 30-90
Ratio: 7.5-100
Input power: 0.06-4kW
Output torque: 2.6-458N.m

JRTH、JRTV
Front&Rear Roller Gearboxes
Size: 18-60
Ratio: 3-1800
Input power: 0.1-7.5kW
Output torque: 1.6-3292N.m

JRSS
Screw Lifters
Size: 35-150
Ratio: 5-40
Input power: 0.19-16.3kW
Lift Capacity: 500-26050kg

JRTM
Spiral Bevel Right Angle Units
Size: 2-25
Ratio: 1-5
Input power: 0.014-335kW
Input Speed: 10-1450r/min

JRGC
Transfer Case
Size: 0401, 1501
Ratio: 0.589, 0.659, 0.756, 0.825
Max. Output Torque(Pump): 1390N.m
Max. Output Torque(Working Shift)
40000N.m

JN
Agricultural Machinery Gear Units
Ratio: 0.364-2.33
Input Speed: 800r/min
Efficiency: ≥96%

JPF
Front&Rear Roller Gearboxes
Size: 1706-2012
Ratio: 3.04-33.568
Input power: 1.5-3kW
Output torque: 110-272N.m

JEC
Escalator Units
Size: 2-15, 2-25
Ratio: 24.5
Efficiency: ≥96%
Working Life: 146000h
Output torque: 3530-5150N.m

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(Metric)

JIE Drive Intelligent Factory

"12345" Plan of JIE Drive Intelligent Factory: 1 Scene, i.e. JIE Intelligent Drive Solutions; 2 Platforms, i.e. Offline JIE Intelligent Drive Industrial Platform and Online JIE New Manufacturing Platform; 3 Functions, i.e. Office Area, Production Area and Living Area; 4 Standards, i.e. Chinese Standard, American Standard, German Standard and Japanese Standard; 5 Intelligences, i.e. Intelligent Plants, Intelligent Products, Intelligent Services, Intelligent Experiences and Intelligent Talents.We are dedicated to building a professional, Intelligent and Global JIE on the basis of environment-friendly, sustainable development, and global service.

JIE Intelligent Factory Office Area


Building A Business Center


Building B Innovation Center


Building C Operation Center

JIE Intelligent Factory Production Area

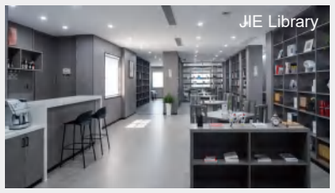

JIE Drive Intelligent Factory


Operations Command Center


Nationally Recognized Laboratory

JIE Intelligent Factory Living Area


JIE Common Area


JIE Library


JIE Fitness Center

JIE Intelligent Drive Situational Application

Drive solutions include Intelligent Central Stereoscopic Warehouse, Intelligent Plant of Housings, Intelligent Plant of Gears, Intelligent Plant of Motors, Intelligent Plant of Assembly and Intelligent Testing.


JIE Intelligent Drive Solutions for Stackers


JIE Intelligent Drive Solutions for RGVs


JIE Intelligent Drive Solutions for Conveyor Systems


JIE Intelligent Drive Solutions for Elevators


JIE Intelligent Drive Solutions for Cranes


JIE Intelligent Drive Solutions for Industrial Ceiling Fans


JIE Intelligent Drive Solutions for Housings Cleaning Lines


JIE Intelligent Drive Solutions for Heat Treatment Lines


JIE Intelligent Drive Solutions for Motors Winding & Embedding


JIE Intelligent Drive Solutions for Product Assembly Lines

JIE Intelligent Drive Top 10 Industry Case Applications

JIE provides Intelligent Drive Solutions and Digital Technologies to the top 10 enterprises in manufacturing, clothing, food, housing, automotive, energy, transportation, agriculture, Petrochemical, and maritime industries.


JIE Intelligent Drive Solutions for Logistics Equipment Industry


JIE Intelligent Drive Solutions for Textile Machinery Industry


JIE Intelligent Drive Solutions for Food and Beverage Industry


JIE Intelligent Drive Solutions for Construction Machinery Industry


JIE Intelligent Drive solutions for Automotive Engineering Industry


JIE Intelligent Drive Solutions for Power and Energy Industry


JIE Intelligent Drive Solutions for Lifting and Transportation Industry


JIE Intelligent Drive Solutions for Agricultural and Animal Husbandry Machinery Industry


JIE Intelligent Drive Solutions for Petrochemical Industry

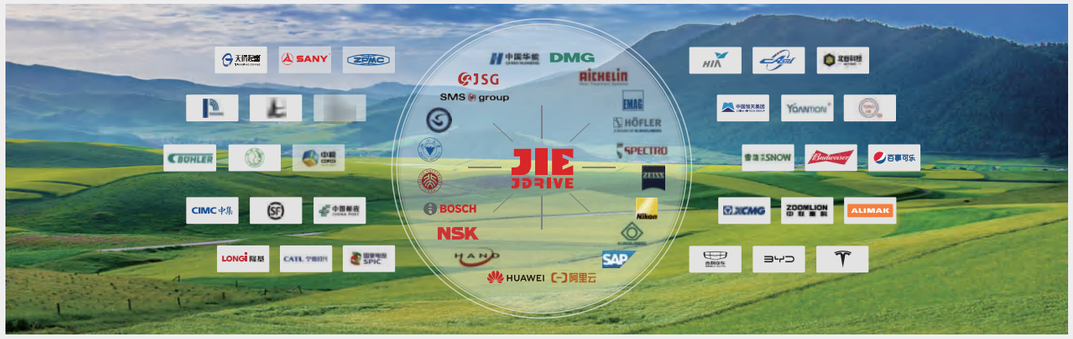

JIE Intelligent Drive Solutions for Marine Industry

JIE Intelligent Drive Industrial Platform

Using intelligent products, to build intelligent plants and produce intelligent products, serving customers with intelligent products, intelligent services and intelligent experiences. To build an industrial platform and achieve win-win cooperation.

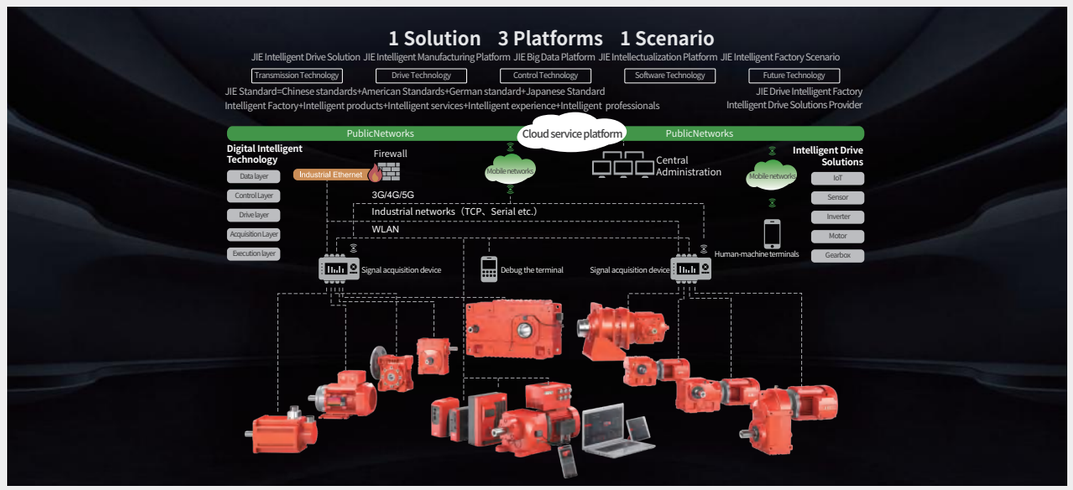
JIE Intelligent Drive Ecosystem

From supply chain management, Innovation chain integration, industrial chain development, value chain synergy to ecological chain construction, JIE focuses on Supply-chain enhancement & complement to achieve win-win cooperation through Three Hundred-Thousand-Ten Thousand Project, namely Cultivating Excellent Employees, Integrating Excellent Suppliers and Serving Excellent Customers.



JIE Intelligent Dirve Digital Products

JIE Intelligent Drive “131” Digital Product System: 1 Solution - JIE Intelligent Drive Solution; 3 Platforms - JIE Intelligent Manufacturing Platform, JIE Big Data Platform and JIE Intellectualization Platform; 1 Scenario - JIE Intelligent Factory Scenario, incl.JRT Intelligent Gearmotors JRH Intelligent Industrial Gear Units JRP Intelligent Planetary Gear Units JRW High-efficiency Worm Reducers JD High-efficiency Motors JC Intelligent Drive Solutions. JIE is dedicated to serving our valued customers with great products and providing excellent services with a strong team.



JIE Intelligent Drive Research Institute + Innovation Center + Intelligent Factory

JIE Intelligent Drive “Research Institute + Innovation Center + Intelligent Factory” 111 Innovative Development Model: Take the Research Institute as the lead to create talent hub, Take Science & Innovation Park as a platform to build industrial ecosystem. Based on business entities, positioning "Specialization, Refinement, Differentiation, Innovation".

China Manufacturing Center Global Assembly Factories

JIE based in China, serves the World, including Europe, JIE China, JIE USA, and JIE Europe provide localized service, face-to-face service, and one-on-one service in the global market.