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一. 选型步骤 Selection Guide



1

选择杰牌传动产品

例: JRESR 不锈钢齿轮减速机、JRESK 锥齿轮-不锈钢齿轮减速机、JRESSD 不锈钢蜗杆减速机等信息。

Select JIE Drive product

Example: Pick the right model, JRESR helical inline stainless steel gearmotor, JRESK helical bevel stainless steel gearmotor, JRESSD stainless worm gearmotor.

2

输入现用产品品牌

例: 杰牌传动、欧美日品牌、中国品牌等信息。

Enter current product brand

Example: JIE Drive or competitors.

3

输入现用产品参数

例: JRESR 不锈钢齿轮减速机、JRESK 锥齿轮-不锈钢齿轮减速机, 规格 37~67, 传动比 3.41~199.81, 输入功率 0.18~7.5kW, 输出扭矩 26~910Nm; JRESSD 不锈钢蜗杆减速机, 规格 40~63, 速比 7.5~100, 输入功率 0.09~1.5kW, 输出扭矩 11~167Nm 等型号规格信息。

Enter current product specifications

Example: JRESR helical inline stainless steel gearmotor, JRESK helical bevel stainless steel gearmotor, size 37~67, ratio 3.41~199.81, input power 0.18~7.5kW, output torque 26~910Nm, JRESSD stainless worm gearmotor, size 40~63, ratio 7.5~100, input power 0.09~1.5kW, output torque 11~167Nm and other specifications.

4

生成杰牌产品型号规格

例: JRESR37SS80-4P-15.60-0°, JRESKA37SS80-4P-28.83-A-0°, JRESSD63-7.5-71B14 等型号规格信息。

Generate JIE Drive model and specifications

Example: JRESR37SS80-4P-15.60-0°, JRESKA37SS80-4P-28.83-A-0°, JRESSD63-7.5-71B14 and other models.

5

生成杰牌产品2D/3D图

例: JRESR37SS80-4P-15.60-0°, JRESKA37SS80-4P-28.83-A-0°, JRESSD63-7.5-71B14 等产品2D/3D图信息。

Generate 2D/3D drawings of JIE Drive products

Example: 2D/3D drawings of JRESR37SS80-4P-15.60-0°, JRESKA37SS80-4P-28.83-A-0°, JRESSD63-7.5-71B14 and other models.

6

确认技术质量标准

例: 技术质量标准按杰牌相关标准和双方协议约定的标准执行, 质保期自发货之日起18个月或实际使用之日起12个月, 以先到为准等信息确认。

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

确认交期服务标准

例: 首次合作按双方协议约定时间交货; 提供1+3滚动计划时7天交货, 包括总用量、年用量、月用量、批用量、试用装; 售前服务、售中服务、售后服务和订单管理等信息确认。

Confirm delivery standard

Example: Delivery shall be made according to the time agreed by both parties for the first cooperation; 7 days 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

确认结算价格标准

例: 30%定金款到后订单生效, 余款款到后发货; 价格按双方协议约定的价格执行等信息确认。

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

确认产品订单信息

例: 产品名称、型号规格、技术参数、订单数量、包装形式、运输方式、下单时间、交付时间、交付地点、收货单位等信息确认。

Confirm order information

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

10

确认产品交付信息

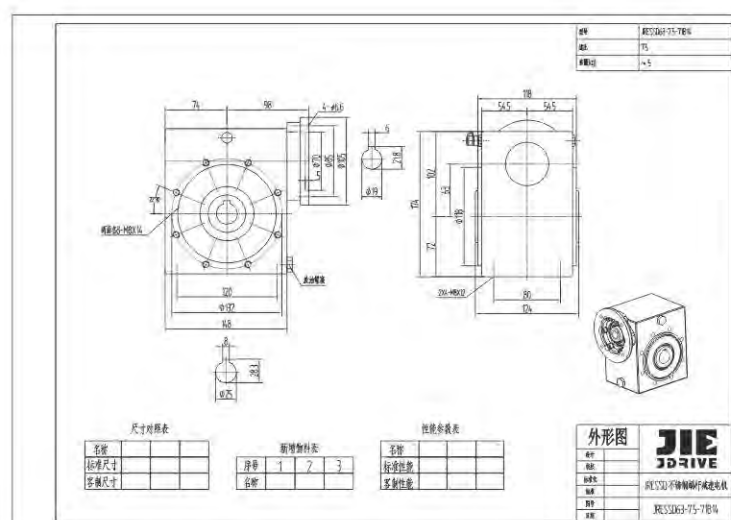
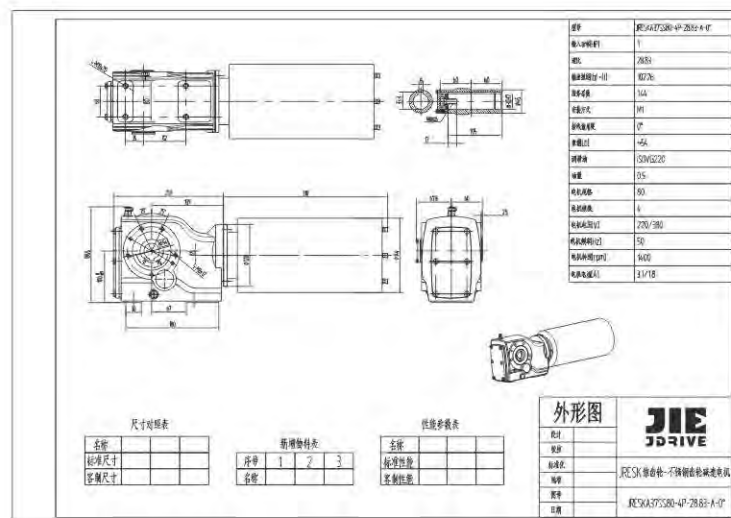
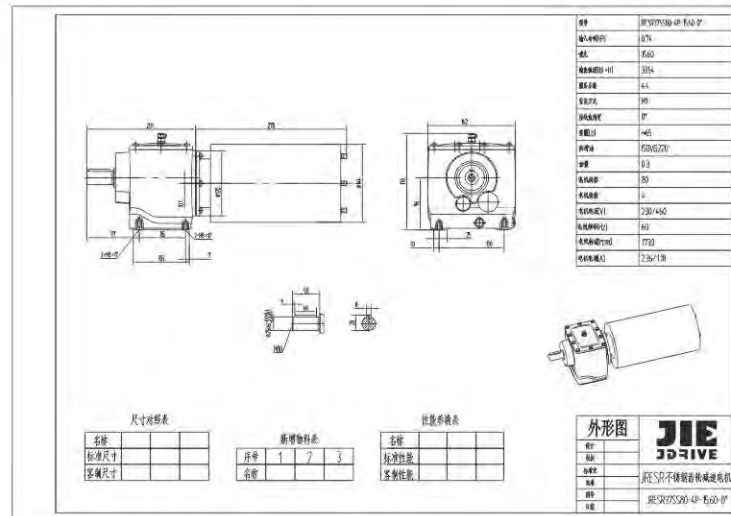
例: 样机订单交付、小批订单交付、批量订单交付等信息确认。

Confirm product delivery information

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

5. 生成杰牌产品2D/3D图

Generate 2D/3D drawing of JIE products



二. 产品图片

Product Pictures

**JRESR****JRESK****JRESSD**

三. 产品说明

Product Description

杰牌JRES不锈钢减速电机, 拥有自主知识产权, 产品采用不锈钢铸造箱体, 符合欧盟食品机械卫生设计指引系列标准, 具有外观美、低噪音、不漏油、易清洗、高防护和安全环保等亮点, 包括JRESR不锈钢齿轮减速电机、JRESK锥齿轮—不锈钢齿轮减速电机、JRESSD不锈钢蜗杆减速机等全系列产品。所有外露金属件均采用不锈钢304, 箱体表面工艺有: 加工、抛光和铸造三种工艺可供选择。

杰牌JRES不锈钢减速电机, 通过完整产品策划与设计 and 全价值链精益生产最优方案实施, 推进精益生产、建设智能工厂, 实现研产供销服一体化, 以满足客户对快速响应的需求。

杰牌JRES不锈钢减速电机, 遵循模块化和最优化设计理念, 其中JRESR不锈钢齿轮减速电机、JRESK锥齿轮—不锈钢齿轮减速电机产品包括减速电机、实心轴输出模块、空心轴输出模块、底脚安装等输入接口、输出模块和安装形式。JRESSD不锈钢蜗杆减速电机产品包括IEC电机法兰输入接口、实心轴输出模块、空心轴输出模块、底脚安装、扭矩臂安装等输入接口、输出模块和安装形式。并可根据客户需要进行个性化的设计与制造。

杰牌为全球好客户做好产品!

JRES stainless steel gearmotor with independent intellectual property rights. The product adopts the stainless steel casting housing, which conforms to the European Union EHEDG Guidelines Hygienic equipment design criteria. It has beautiful appearance and features low noise, no oil leakage, easy to clean, high protection grade and safety and environmental protection. It includes JRESR helical inline stainless steel gearmotor, JRESK helical bevel stainless steel gearmotor, JRESSD stainless worm gearmotor. All parts of outside all use stainless steel 304 material, and the processing of the gear housing surface have 3 choices, it has machining, polishing and casting.

JRES stainless steel gearmotor 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".

JRES stainless steel gearmotor follows the concept of modular and optimized design. For JRESR helical inline stainless steel gearmotor, JRESK helical bevel stainless steel gearmotor includes gearmotor, solid shaft output module, hollow shaft output module, foot mounting and other input interface, output module and installation types. For JRESSD stainless worm gearmotor includes IEC electric motor interface, solid shaft output module, hollow shaft output module, foot mounting, torque arm mounting and other input interface, output module and installation types. And it can be customized in design and manufacturing according to customer needs.

JIE Drive provides great products for great clients across the world!



3. JRESSD 不锈钢蜗杆减速电机型号说明

JRESSD Stainless Worm Gearmotor Model Description

J **RESS** **D** **63** - **100** - **E** - **71B14**

1 **2** **3** **4** **5** **6** **7**

1

企业代码
J-杰牌传动
Enterprise code
J-JIE Drive

2

产品代码
RESS-不锈钢蜗杆减速机
Product code
RESS- Stainless steel worm gear reducer

3

入轴连接方式D:
带电机法兰
Input shaft connecting mode D:
with motor flange

4

产品规格: 63,
以蜗杆副中心距表示
Product specification: 63,
Named by center distance of worm gear pair

5

传动比: 100
Ratio:100

6

附件
A-单输出轴
B-双输出轴
E-带扭力臂
无代码-不带扭力臂
Accessory
A-Single output shaft
B-Double output shaft
E-With torque arm
no code-No torque arm

7

法兰规格
71-与之匹配电机机座号
B5、B14-电机法兰结构
Flange Specification
71-Matching motor size number
B5、B14- Flange structure of motor

五. 选型说明

Selection Description

1. 使用系数

Service Factor

JRESR不锈钢齿轮减速电机、JRESK锥齿轮-不锈钢齿轮减速电机是按载荷平稳, 每天工作时间一定和少量起停次数的情况设计的, 而在实际使用中往往不是处于此种理想状况, 因此必须按照实际情况的载荷类型、运行时间、起动频率来确定工作机数 f_{B1} 、原动机系数 f_{B2} 、起动系数 f_{B3} 。使用小于或等于选型表中的使用系数 f_B , 即 $f_{B1} \times f_{B2} \times f_{B3} \leq f_B$ 。或将工作机所需的扭矩乘以使用系数 ($f_{B1} \times f_{B2} \times f_{B3}$) 应小于或等于齿轮减速电机的许用扭矩。

Gear units are designed under the circumstance of steady load, stated operating time per day and a few starting times. But the practical condition will be not as perfect as the designed circumstance. So we must confirm driven machine factor f_{B1} , prime mover factor f_{B2} , starting factor f_{B3} according to actual load type, operating time, starting frequency. Let it less than or equal to the service factor f_B of selection table, viz $f_{B1} \times f_{B2} \times f_{B3} \leq f_B$. The needed torque of service machine multiply the service factor ($f_{B1} \times f_{B2} \times f_{B3}$) should less than or equal to gear units' permissible torque.

即 $M_a \geq M_d \times f_{B1} \times f_{B2} \times f_{B3}$

f_{B1} —工作机系数 (见表1) f_{B1} —driven machine factor (see table 1)
 f_{B2} —原动机系数 (见表2) f_{B2} —prime mover factor (see table 2)
 f_{B3} —起动系数 (见表3) f_{B3} —starting factor (see table 3)
 M_d —工作机所需转矩 M_d —the needed torque of driven machine
 M_a —齿轮减速电机许用转矩 M_a —gear units' permissible torque

表1 Table 1		工作机系数	Factor for driven machine			f_{B1}
	工作机 Driven machines		日工作小时数 The day work hours			
			$\leq 0.5h$	0.5-10h	$> 10h$	
污水处理 Waste water treatment	浓缩器 (中心传动)	Thickeners (central drive)	-	-	1.2	
	压滤器	Fitter presses	1.0	1.3	1.5	
	絮凝器	Flocculation apparata	0.8	1.0	1.3	
	曝气机	Aerators	-	1.8	2.0	
	搂集设备	Raking equipment	1.0	1.2	1.3	
	纵向、回转组合搂集装置	Combined longitudinal and rotary rakes	1.0	1.3	1.5	
	预浓缩器	Pre-thickeners	-	1.1	1.3	
	螺杆泵	Screw pumps	-	1.3	1.5	
	水轮机	Water turbines	-	-	2.0	
	离心泵	Centrifugal pumps	1.0	1.2	1.3	
	1个活塞容积式泵	1 piston positive-displacement pumps	1.3	1.4	1.8	
	> 1 个活塞容积式泵	> 1 piston positive displacement pumps	1.2	1.4	1.5	
挖泥机 Dredgers	斗式运输机	Bucker conveyors	-	1.6	1.6	
	倾卸装置	Dumping devices	-	1.3	1.5	
	Carteypillar行走机构	Carterpillar travelling gears	1.2	1.6	1.8	
	斗轮式挖掘机 (用于捡拾)	Bucket wheel excavators as pick-up	-	1.7	1.7	
	斗轮式挖掘机 (用于粗料)	Bucket wheel excavators for primitive material	-	2.2	2.2	
	切碎机	Cutter heads	-	2.2	2.2	
	行走机构*	Traversing gears*	-	1.4	1.8	
化学工业 Chemical industry	弯板机*	Plate bending machines	-	1.0	1.0	
	挤压机	Extnuders	-	-	1.6	
	调浆机	Dough mills	-	1.8	1.8	
	橡胶研光机	Rubber calenders	-	1.5	1.5	
	冷却圆筒	Cooling drums	-	1.3	1.4	
	混料机, 用于均匀介	Mixers for uniform media	1.0	1.3	1.4	
	混料机, 用于非均匀介	Mixers for non-uniform media	1.4	1.6	1.7	
	搅拌机, 用于密度均匀介质	Agitators for media with uniform density	1.0	1.3	1.5	
	搅拌机, 用于非均匀介质	Agitators for media with non uniform density	1.2	1.4	1.6	
	搅拌机, 用于不均匀气体吸收	Agitators for media with non uniform gas absorption	1.4	1.6	1.8	
	烘炉	Toasters	1.0	1.3	1.5	
起重机械 Cranes	离心机	Centrifuges	1.0	1.2	1.3	
	回转机构	Slewing gears	2.5	2.5	3.0	
	俯仰机构	Luffing gears	2.5	2.5	3.0	
	行走机构	Travelling gears	2.5	3.0	3.0	
	提升机构	Hoisting gears	2.5	2.5	3.0	
	转臂式起重机	Derricking jib cranes	2.5	2.5	3.0	



工 作 机 Driven machines			日工作小时数 The day work hours		
			≤0.5h	0.5-10h	>10h
金属加工 设备 Metal working mills	翻板机	Plate titers	1.0	1.0	1.2
	推钢机	Ingot pushers	1.0	1.2	1.2
	绕线机	Winding machines	-	1.6	1.6
	冷床横移架	Cooling bed transfer frames	-	1.5	1.5
	辊式矫直机	Roller straighteners	-	1.6	1.6
	辊道 (连续式)	Roller tables continuous	-	1.5	1.5
	辊道 (间歇式)	Roller tables intermittent	-	2.0	2.0
	可逆式轧管机	Roller tables Reversing tube mills	-	1.8	1.8
	剪切机 (连续机)*	Shears continuous*	-	1.5	1.5
	剪切机 (曲柄式)*	Shears crank type*	1.0	1.0	1.0
	连铸机驱动装置	Continuous casting drivers	-	1.4	1.4
	可逆式开坯机	Reversing blooming mills	-	2.5	2.5
	可逆式板坯轧机	Reversing slabbing mills	-	2.5	2.5
	可逆式线材轧机	Reversing wire mills	-	1.8	1.8
	可逆式薄板轧机	Reversing sheet mills	-	2.0	2.0
	可逆式中厚板轧机	Reversing plate mills	-	1.8	1.8
	辊缝调节驱动装置	Roll adjustment drives	0.9	1.0	-
输送机械 Conveyors	斗式输送机	Bucket conveyors	-	1.2	1.5
	绞车	Hauling winches	1.4	1.6	1.6
	卷扬机	Hoists	-	1.5	1.8
	皮带输送机<150kw	Belt conveyors<150kw	1.0	1.2	1.3
	皮带输送机≥150kw	Belt conveyors≥150kw	1.1	1.3	1.5
	货用电梯*	Goods lifts*	-	1.2	1.5
	客用电梯*	Passenger lifts*	-	1.5	1.8
	刮板式输送机	Apron conveyors	-	1.2	1.5
	自动扶梯	Escalators	-	1.2	1.4
	轨道行走机构	Rail travelling gears	-	1.5	-
冷却塔 Cooling towers	变频装置	Frequency converters	-	1.8	2.0
	往复式压缩机	Reciprocating compressors	-	1.8	1.9
	冷却塔风扇	Cooling tower fans	-	-	2.0
蔗糖生产 Cane sugar production	风机 (轴流和离心式)	Blowers(axial and radial)	-	1.4	1.5
	甘蔗切碎机*	Cane knives*	-	-	1.7
	甘蔗碾磨机	Cane mills	-	-	1.7
甜菜糖生产 Beet sugar production	甜菜绞碎机	Beet cossettes macerators	-	-	1.2
	榨取机, 机械致冷机, 蒸煮机	Extraction plants, Mechanical refrigerators, Juice boilers	-	-	1.4
	甜菜清洗机	Sugar beet washing machines	-	-	1.5
	甜菜切碎机	Sugar beet cutters	-	-	1.5
造纸机械 Paper machines	各种类型**	Of all-kind**	-	1.8	2.0
	碎浆机驱动装置	Pulper drives	2.0	2.0	2.0
	离心式压缩机	Centrifugal compressors	-	1.4	1.5
索道缆车 Cableways	运货索道	Material ropeways	-	1.3	1.4
	往返系统空中索道	To-and fro system aerial ropeways	-	1.6	1.8
	T型杆升降机	T-barlifts	-	1.3	1.4
	连续索道	Continuous ropeways	-	1.4	1.6
水泥工业 Cement industry	混凝土搅拌器	Concrete mixers	-	1.5	1.5
	破碎机*	Breakers*	-	1.2	1.4
	回转窑	Rotary kilns	-	-	2.0
	管式磨机	Tube mills	-	-	2.0
	选粉机	Separators	-	1.6	1.6
	辊压机	Roll crushers	-	-	2.0

表2 Table 2 原动机系数 Factor for prime mover f _{B2}	
电机, 液压马达, 汽轮机 Electric motos, hydraulic motors, turbines	1.0
4-6缸活塞发动机 Piston engines 4-6 cylinders	1.25
1-3缸活塞发动机 Piston engines 1-3 cylinders	1.5

表3 Table 3 起动系数 Start factor f _{B3}	
启停次数/每小时 Number of starts and stop/hour	
<10	1
10<f _{B3} <100	1.15
100<f _{B3} <500	1.25

为正确选择JRESSD不锈钢蜗杆减速电机,敬请用户首先了解以下几点:
Please understand the following at first in order to select the model of JRST worm gear reducer properly:

- 负荷条件。
Load condition.
- 使用转速范围或传动比(与双级组合可获得超低输出转速)。
Speed scope or ratio in application.
- 工作运转情况及环境(温度、湿度、腐蚀等)。
Working condition and environment.
- 安装空间。
Installation space.

确定使用系数f1及使用系数f2。
Define working condition Coefficient

- 根据表1, 决定机械负荷种类A、B、C。
Ensure machinery load types A, B, C according to table 1.
- 根据运转时间(小时/天)和启动频率(次数/小时)从图1中求得使用系数f1。
Get the working condition coefficient K1 from diagram 1 according to turning time (hour/day) and start frequency (times/hour).
- 根据表2, 查取使用系数f2。
Inspect working condition and select coefficient

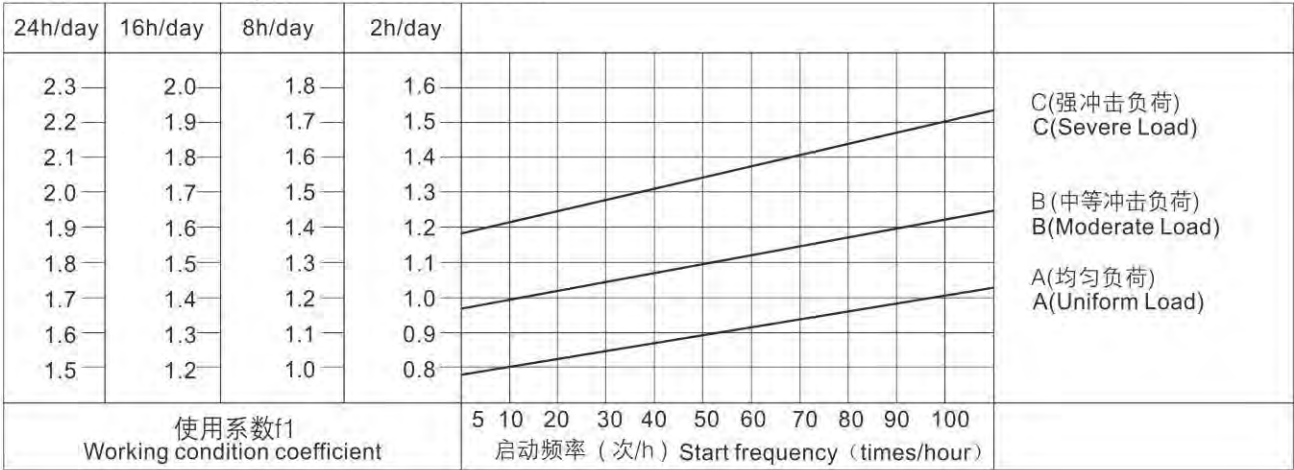
机械负荷种类选定(表1)
Table 1 Machinery load classification selection

使用情况 Using situation	示例 Example	负荷种类 Load type
无冲击均匀负荷 Uniform load	传送带(均速输送) Convey band/uniform conveying	A(均匀负荷) A(Uniform load)
中等冲击负荷 Moderate Load	传送带(变速输送) Speed changed conveying	B(中等冲击负荷) B(Moderate load)
强烈冲击负荷 Severe Load	压缩机、粉碎机等 Compressor, pulverizer, etc.	C(强冲击负荷) C(Severe load)

使用系数f2选定(表2)
Table 2 Working condition coefficient

环境温度 Ambient temperature	使用系数f2 Working condition coefficient
-10℃~ 30℃	1
30℃~ 40℃	1.1~ 1.2

使用系数f1选定(图1)
Diagram 1 working condition coefficient



选定JRESSD不锈钢蜗杆减速电机

Reducer selected



- 用户须先确定工作机输入机械负荷T(转矩)，以T乘以使用系数f1, 再乘以使用系数f2, 即获得 不锈钢蜗杆减速电机应有的输出转矩值，以此为据，并结合传动比值或输出转速值，选定所需JRESSD不锈钢蜗杆减速电机规格。
At first it is better to make sure the value of input machinery load T(torque) and then you can get the output torque through T multiply with work situation coefficient K1 and work situation revise coefficient K2 .The required model can be gained by the above and connecting ratio or output speed.
- 用户也可以根据已知的输入功率，结合传动比值或输出转速 值，计算输出转矩，选定JRESSD不锈钢蜗杆减速电机。
You can also select the reducer as followings:calculate output torque according to known input power and then select the reducer in accordance with output torque and rotate speed.
- 本公司JRESSD不锈钢蜗杆减速电机均为右旋螺牙，根据右手定则，确定输入轴、输出轴回转方向。
Our standard reducers all have right-hand helical tooth,deciding the rotating direction of input shaft and output shaft according to the right-hand criterion.

2. 径向和轴向负载 Overhung and Axial loads

径向负载

Determining overhung load

确定径向负载时,要考虑安装在轴端传动部件的影响, 传动部件系数 f_z 列于下表:

When determining the overhung load, the type of transmission element mounted on the shaft end must be considered. The transmission element factors f_z are listed as follows.

传动部件 Transmission element	传动部件系数 f_z Transmission element factor f_z	备注 Comments
齿轮 Gears	1.15	> 17齿 >17teeth
链轮 Chain sprockets	1.40	> 13齿 >13teeth
链轮 Chain sprockets	1.25	> 20齿 >20teeth
窄V型带 Narrow V-belt pulleys	1.75	预应力影响 Pre-tensioning influence
宽平皮带 Flat belt pulleys	2.50	预应力影响 Pre-tensioning influence
齿型皮带 Toothed belt pulleys	2.5	预应力影响 Pre-tensioning influence

作用在电机或不锈钢齿轮减速电机轴伸上的径向力按下式计算:

The overhung load exerted on the motor or gear shaft is then calculated as follows:

$$F_R = \frac{M_d \cdot 2000}{d_o} \cdot f_z$$

F_R 径向载荷(N)
Overhung load in N

M_d 力矩(Nm)
Torque in Nm

d_o 节圆直径(mm)
Mean diameter of the mounted transmission element in mm

f_z 传动部件系数
Transmission element factor

作用的径向载荷

Permitted overhung load

根据耐磨轴承额定寿命 L_{H10} 来确定许用径向载荷。

对于特殊的运行条件, 许用径向载荷根据所要求的修正寿命 L_{na} 来确定。

对于地脚安装实心轴输出的不锈钢齿轮减速电机许用径向载荷列于不锈钢齿轮减速电机的选型表中。

According the rate service life L_{H10} of the anti-friction bearings to define the permitted overhung loads.

For the special operating conditions, the permitted overhung loads can be determined by the modified service life L_{na} .

The permitted overhung loads F_{Ra} for the output shafts of foot-mounted gear units with a solid shaft are listed in the selection tables for geared motors. Please contact JIE in case of other types.

选型表中的径向力数值按照力作用于轴伸的中点 (JRESK锥齿轮-不锈钢齿轮减速电机按照A端输出轴考虑)。径向力作用角度 α 和旋转方向已经按最不利的条件给予考虑。

The data refer to the radial force acting midway on the shaft end (with right-angle gear units on the A-side output). Worst case conditions have been assumed for the force application angle α and the direction of rotation.



更高的许用径向载荷

Higher approved overhung loads

对于JRESR不锈钢齿轮减速电机、JRESK锥齿轮-不锈钢齿轮减速电机，安装重载轴承可提高许用径向载荷。另外，精确考虑旋转方向和力作用角 α ，也可提高许用径向载荷，在此情况下，请和杰牌联系。

It possible to achieve a higher overhung load by exactly considering the force application angle α and the direction of rotation. In addition, higher output shaft loads are permitted if heavy duty bearings are installed, especially with R, F and K gear units. Please contact JIE in this case.

所受力的定义

Definition of force application

所受力根据下图来定义

Force application is defined according to the following diagram:

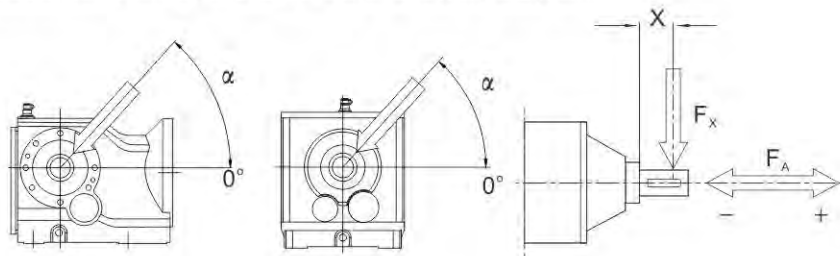


图: 受力定义

Fig: Definition of force application

F_x = 在X点的许用径向载荷(N)
Approved overhung load at point X [N]

F_A = 许用轴向载荷(N)
Approved axial load [N]

许用轴向载荷

Approved axial loads

如果没有径向载荷，那么轴向载荷 F_A (+表示拉力，-表示压紧力)依据表中径向负荷的50%给定是允许的，这适用于

If there is no overhung load, then an axial load F_A (tension or compression) amounting to 50% of the overhung load given in the selection tables is approved. This applies to the following gear-d motors:

- JRESR不锈钢齿轮减速电机
Helical geared motors
- JRESK锥齿轮-不锈钢齿轮减速电机(实心轴)
Parallel shaft and helical bevel geared motors with solid shaft

偏离中心点的径向力

Overhung load conversion for off-center force application

对于受力点不在轴端中点的允许径向载荷要根据下面的公式计算。 F_{XL} 和 F_{XW} 中的较小值是在X点允许数值，所计算的数值应用于 M_{amax}

The approved overhung loads given in the selection tables must be calculated using the following formulae in the event of force application not in the center of the shaft end. The smaller of the two values F_{XL} (according to bearing service life) and F_{XW} (according to shaft strength) is the approved value for the overhung load at point x. Note that the calculations apply to M_{amax} .

根据轴承寿命 F_{XL}

F_{XL} acc.to bearing service life

根据输出轴强度 F_{XW}

F_{XW} from the shaft strength

$$F_{XL} = F_{ra} \cdot \frac{a}{b+x} \quad [N]$$

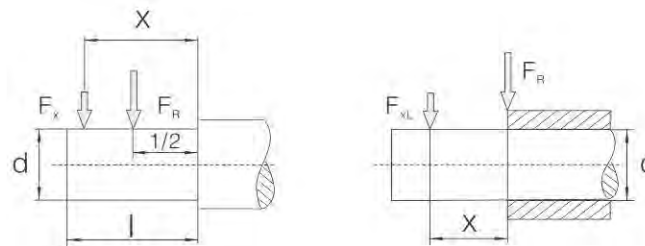
$$F_{XW} = \frac{c}{f+x} \quad [N]$$

F_{Ra} = 对于底脚安装不锈钢齿轮减速电机的允许径向载荷（选型表中所列值）单位：N
Approved overhung load ($x=1/2$) for foot-mounted gear units according to the selection tables in [N]

X = 从轴肩到受力点的距离
Distance from the shaft shoulder to the force application point in [mm]

a, b, f = 对于径向负载转化的不锈钢齿轮减速电机常量
Gear unit constants for overhung load conversion [mm]

c = 对于径向负载转化的不锈钢齿轮减速电机常量
Gear unit constant for overhung load conversion [Nmm]



图：偏离中心点的径向力 F_x

Fig: Overhung load F_x for off-center force application

据径向负载转化所得的不锈钢齿轮减速电机常量

Gear unit constants for overhung load conversion

不锈钢齿轮减速电机常量 Gear unit type	a [mm]	b [mm]	c [Nmm]	f [mm]	d [mm]	l [mm]
JRESR37	118	93	1.24×10^5	0	25	50
JRESR47	137	107	2.44×10^5	15	20	60
JRESR57	147.5	112.5	3.77×10^5	18	35	70
JRESR67	168.5	133.5	2.51×10^5	0	35	70
JRESK37	123.5	98.5	1.41×10^5	0	25	50
JRESK47	153.5	123.5	1.78×10^5	0	30	60
JRESK57	169.7	134.7	6.8×10^5	31	35	70
JRESK67	181.3	141.3	4.12×10^5	0	40	80

对于没有列出的类型的值据需要给定。

Values for types not listed are available on request.



3. 选型示例

Examples for Model Chosen



例1 通用传送带 (均匀负荷)

EX1 Common convey band(uniform load)

扭矩: 20Nm, 运转时间: 8小时/天,
 转速: 约55r/min, 启动频率: 10次/小时,
 不锈钢蜗杆减速机传动比: 1/25, 环境温度: 室内25℃, 电机直联

Torque: 20Nm Turning time: 8hours/day
 Speed: About 55r/min Start frequency: 10times/hour
 Ratio: 1/25 Environment temperature: indoor 25℃ Connect with motor directly

- 根据表1, 决定负荷种类: 无冲击均匀负荷, 选A;
 Load classification: Uniform load, choose A. Select load classification according to table 1.
- 根据图1, 在A线上取频率10次/小时的交点; 查出运转时间8小时/天的使用系数 $f_1=1$;
 As per cross point of 10 times/hour frequency on line A in diagram 1, get coefficient K_1 value is 1 that turning time is 8 hours/day;
- 根据表2, 查得使用系数 $f_2=1$;
 Get the coefficient K_2 according to table 2;
- 则扭矩值为 $20 \times f_1 \times f_2 = 20 \times 1 \times 1 = 20\text{Nm}$, 可选择最接近20Nm的减速机。
 So the torque value is 20Nm.

选定结果: JRESSD40-1/25

Choose model: JRESSD40-1/25

输入功率0.18kW, 输出转速56转/分, 输出扭矩23Nm;

Input power is 0.18kW, output speed is 56r/min, output torque is 23Nm;

校核: 实际输出扭矩=输出扭矩 $\times$ 使用系数(f_s)= $23 \times 1.0 = 23\text{Nm} > 20\text{Nm}$, 满足使用要求。

You can get the actual output torque through the nominal output torque 23Nm multiply with the coefficient f_s 1, so the actual output torque is $23\text{Nm} > 20\text{Nm}$. The selected model is suitable for use.

例2 输送带(中等冲击负荷)

EX2 Covey band(moderate load)

扭矩: 65Nm, 运转时间: 16小时/天,
 转速: 约21r/min, 启动频率: 100次/小时,
 不锈钢蜗杆减速机传动比: 1/60, 环境温度: 室内35℃ 电机直联

Torque: 65Nm Turning time: 16 hours/day
 Speed: About 21r/min Start frequency: 100 times/hour
 Ratio: 1/60 Environment temperature: indoor 35℃ Connect with motor directly

- 根据表1, 决定负荷种类: 中等冲击负荷, 选B;
 As per load classification table 1 : moderate load, choose B;
- 根据图1, 在B线上取频率100次/小时的交点; 查出运转时间16小时/天的使用系数 $f_1=1.65$;
 As per cross point of 100 times/hours frequency on line B in diagram 1, get coefficient K_1 value is 1.65 that turning time is 16 hours/day;
- 根据表2, 查得使用系数 $f_2=1.15$;
 Get the coefficient K_2 1.15 according to table 2;
- 则扭矩值为 $65 \times K_1 \times K_2 = 65 \times 1.65 \times 1.15 = 123\text{Nm}$, 可选择最接近123Nm的减速机。
 So the torque value is 65Nm. You can select the model that torque value is the closest to 123 Nm.

选定结果: JRESSD63-1/60

Choose model: JRESSD63-1/60

输入功率0.55kW, 输出转速23.3转/分, 输出扭矩140Nm;

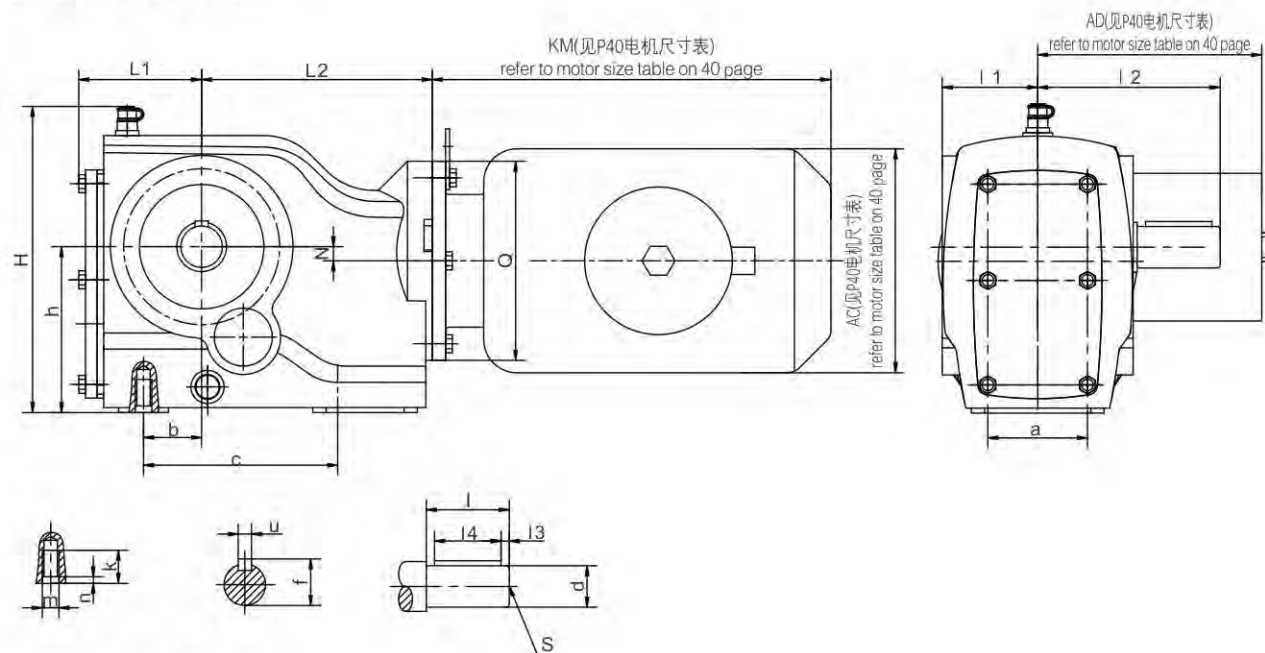
Input power is 0.55 kW, output speed is 23.3r/min, output torque is 140Nm;

校核: 实际输出扭矩=输出扭矩 $\times$ 使用系数(f_s)= $140 \times 0.9 = 126\text{Nm} > 123\text{Nm}$, 满足使用要求。

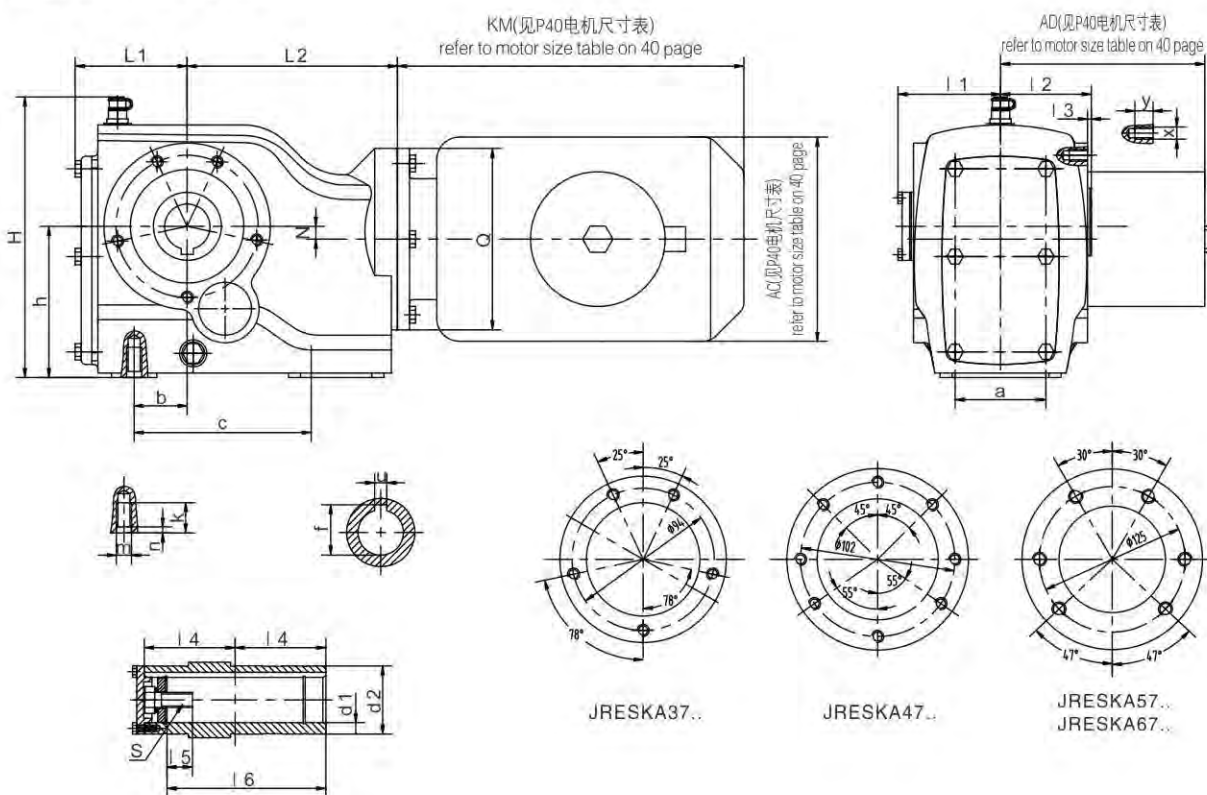
You can get the actual output torque through the nominal output torque 140Nm multiply with the coefficient f_s 0.9, so the actual output is $126\text{Nm} > 123\text{Nm}$. The selected model is suitable for use.

3. 安装尺寸 Installation Dimensions

JRESK37...~JRESK67..



JRESKA37...~JRESKA67..



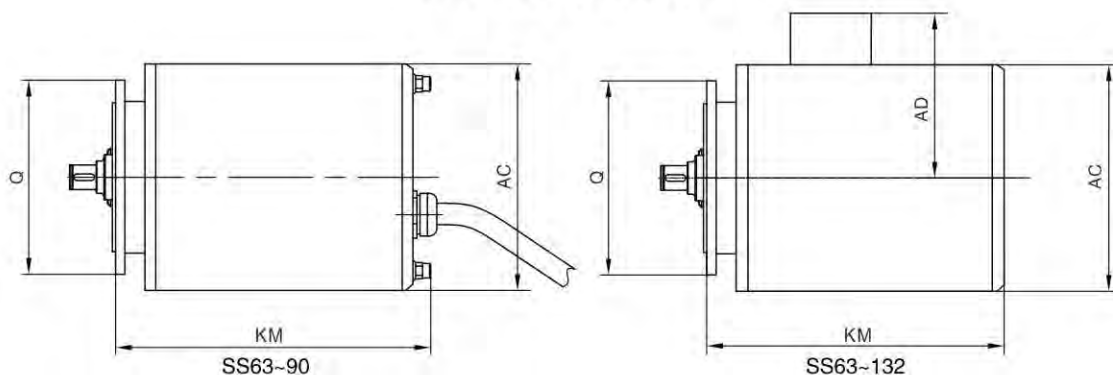
注: SS63-90 不锈钢电机可提供尾出线, 具体请咨询杰牌。

Notice: SS63-90 stainless steel electric motor can also provide the tail outlet, please consult JIE for details.

型号Model	a	k	h	N	Q	L1	l1	轴伸尺寸 Axial Extension						
	b	m	H			L2	l2	d	l	$\frac{l}{3}$ $\frac{l}{4}$	S	t u		
JRESK37..	60	20	100	8.5	120	74	57.5	25k6	50	5	M10	28		
	35	M10	187			139	110			40		8		
	117	4												
JRESK47..	70	20	112	7.2	160	77	72	30k6	60	3.5	M10	33		
	40	M10	205			166	135			50		8		
	140	4												
JRESK57..	88	25	132	13.1	160	93.2	80	35k6	70	7	M12	38		
	47	M12	235			173	153			56		10		
	152	5												
JRESK67..	88	25	140	20	160	94	86.5	40k6	80	5	M16	43		
	42	M12	249.5			179	171			70		12		
	152	5												
型号Model	a	k	h	N	X	L1	l1	空心轴尺寸 Hollow Shaft Size						
	b	m	H			L2	l2	d1 d2	l5	$\frac{l}{4}$ $\frac{l}{6}$	S	t u		
JRESKA37..	60	20	100	8.5	M8	74	68	30H7	17	60	M10	33.3		
	35	M10	187			120	60	45		105		8		
	117	4				139	2.5							
JRESKA47..	70	20	112	7.2	M8	77	83	35H7	22	75	M12	38.3		
	40	M10	205			160	75	50		132		10		
	140	4				166	3							
JRESKA57..	88	25	132	13.1	M12	93.2	91	40H7	29	83	M16	43.3		
	47	M12	235			160	20	173		83		55	142	12
	152	5												
JRESKA67..	88	25	140	20	M12	94	98	40H7	29	90	M16	43.3		
	42	M12	249.5			160	20	179		90		55	156	12
	152	5												



4. 电机尺寸表 The Size of Motor



型号	规格	Q	KM	AC	AD
SS63	M1	120	215	114	--
	M2		240		
		160			
SS71	M1	120	236	134	--
	M2		246		
	M1	160	230		
	M2		240		
		200			
SS80	M1	120	287	144	--
	M2		327		
	M1	160	280		
	M2		327		
		200			
SS90		250		164	--
		120	340		
		160	340		
		200			
		250			
SS100		300		203	169
		120			
		160			
		200			
		250			
SS112		300		218	174
		350			
		160			
		200			
		250			
SS132		300		256	192
		350			
		160			
		200			
		250			
		400			

注： 1.未注明尺寸请咨询杰牌。

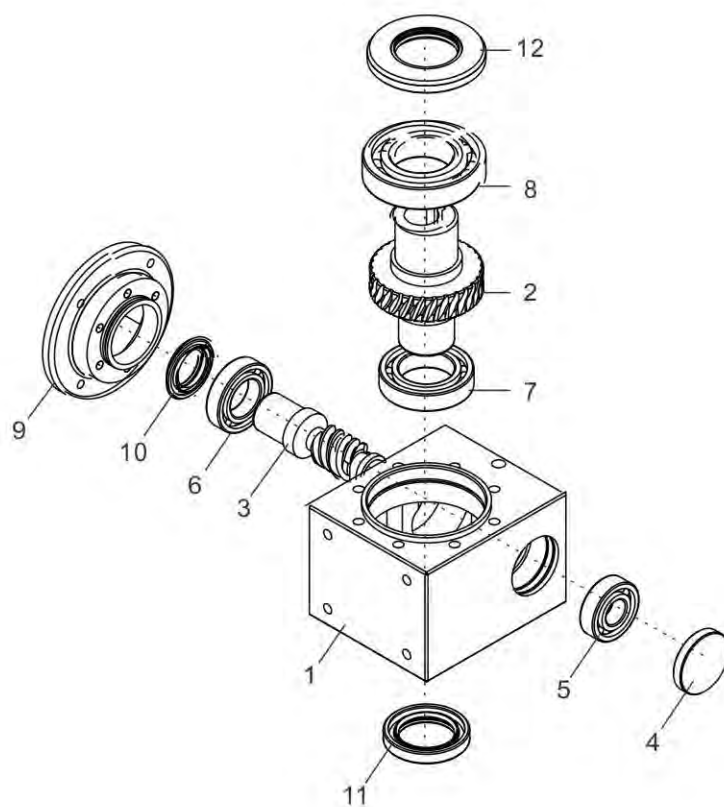
Notice: Those not remarked sizes, please consult JIE

2.电机绝缘等级F级, 按105K考核, 若有特殊要求, 请咨询杰牌。

Motor insulation class: F(105K standand), if any other special requirement, please consult JIE.

八. JRESSD 不锈钢蜗杆减速机 JRESSD Stainless Worm Gearmotor

1. 产品结构 Product Structure



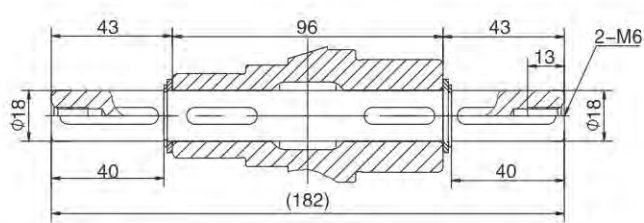
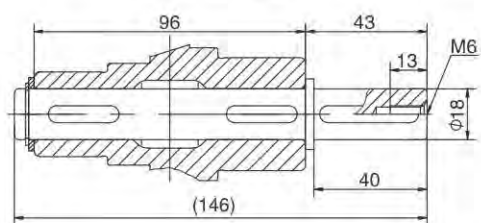
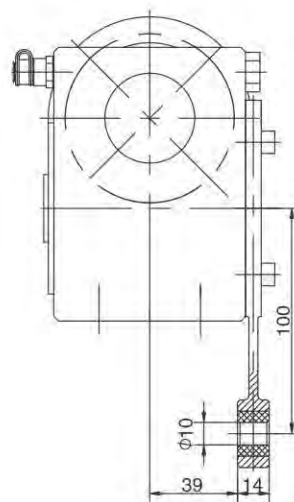
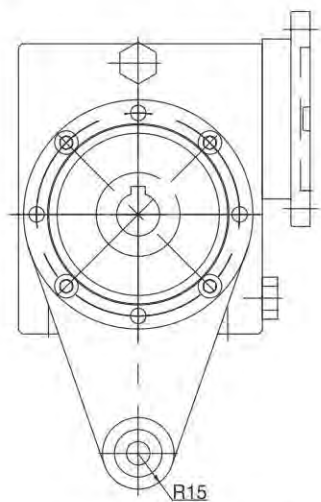
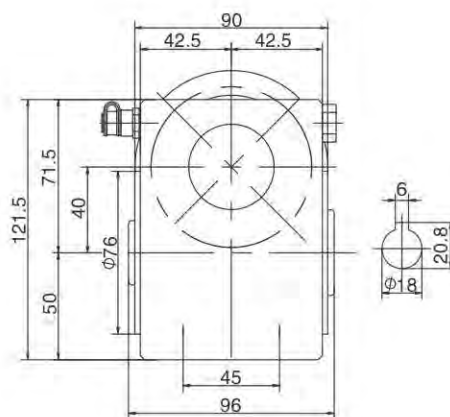
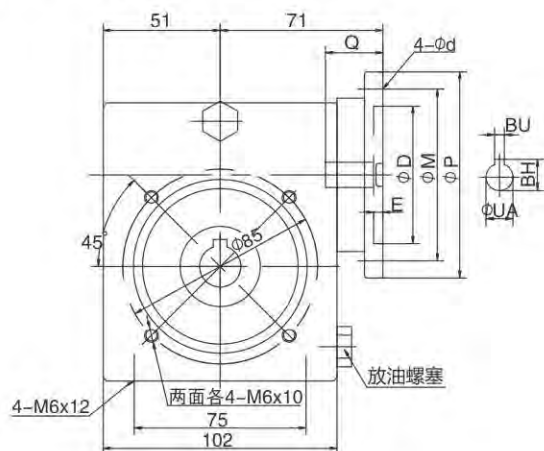
序号	名称	Name
1	箱体	Housing
2	蜗轮	Worm Wheel
3	蜗杆	Worm Shaft
4	密封端盖	Closing Cover
5	轴承	Bearing
6	轴承	Bearing
7	轴承	Bearing
8	轴承	Bearing
9	输入法兰	Input Flange
10	油封	Oil Seal
11	油封	Oil Seal
12	油封	Oil Seal

2. 选型参数表 Parameter for Model Chosen

输出转速 Output speed r/min	输出扭矩 Output torque N m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用系数 fs	机型代号 Model code	输出转速 Output speed r/min	输出扭矩 Output torque N m	传动比 Transmission ratio i	输出轴径 向力 Output radial force kN	使用系数 fs	机型代号 Model code	
0.09kW						0.37kW						
28	19	50	2.47	2.0	JRESSD40	56	47	25	1.96	0.8	JRESSD40	
23.3	21	60	2.63	1.7		46.7	53	30	2.08	0.8		
17.5	26	80	2.89	1.3		JRESSD50	140	21	10	1.98	3.3	
14	29	100	3.11	1.0			93.3	31	15	2.27	2.4	
0.12kW							70	40	20	2.5	1.8	
46.7	17.2	30	2.08	2.6	56		48	25	2.69	1.5		
35	21	40	2.29	1.9	46.7		55	30	2.86	1.5		
28	25	50	2.47	1.5	35		68	40	3.15	1.1		
23.3	28	60	2.63	1.3	28		80	50	3.39	0.9		
17.5	34	80	2.89	1.0	23.3		89	60	3.61	0.8		
14	38	100	3.11	0.8	0.55kW							
0.18kW						35	70	40	4.12	2.1	JRESSD63	
23.3	29	60	3.61	2.3	28	83	50	4.44	1.6			
17.5	35	80	3.97	1.9	23.3	94	60	4.71	1.4			
14	40	100	4.28	1.4	17.5	115	80	5.19	1.1			
0.25kW						14	129	100	5.59	0.9	JRESSD50	
70	19	20	1.82	2.0	0.75kW							
56	23	25	1.96	1.7	186.7	25	7.5	1.8	2.9			
46.7	26	30	2.08	1.7	140	32	10	1.98	2.2			
35	32	40	2.29	1.3	93.3	46	15	2.27	1.6			
28	38	50	2.47	1.0	70	59	20	2.5	1.2			
23.3	43	60	2.63	0.8	56	71	25	2.69	1.0			
0.37kW						46.7	81	30	2.86	1.0		
186.7	11	7.5	1.31	3.6	35	80	40	3.15	0.9	JRESSD63		
140	14	10	1.44	2.8	70	60	20	3.27	2.2			
93.3	21	15	1.65	1.9	56	73	25	3.52	1.8			
70	27	20	1.82	1.5	46.7	83	30	3.74	1.9			
56	32	25	1.96	1.2	35	105	40	4.12	1.4			
46.7	36	30	2.08	1.3	28	124	50	4.44	1.1	JRESSD50		
35	44	40	2.29	0.9	23.3	140	60	4.71	0.9			
28	37	50	2.47	0.8	1.1kW							
0.55kW						186.7	49	7.5	2.35		2.6	
70	26	20	2.5	2.7	140	65	10	2.59	2.1			
56	32	25	2.69	2.2	93.3	93	15	2.97	1.5	JRESSD63		
46.7	37	30	2.86	2.3	1.5kW							
35	46	40	3.15	1.7	186.7	67	7.5	2.35	1.9			
28	54	50	3.39	1.4	140	88	10	2.59	1.5			
23.3	60	60	3.61	1.1	93.3	127	15	2.97	1.1			
17.5	72	80	3.97	0.9	70	166	20	3.27	0.8	JRESSD63		
0.75kW						1.1kW						
70	26	20	2.5	2.7	186.7	67	7.5	2.35	1.9			
56	32	25	2.69	2.2	140	88	10	2.59	1.5			
46.7	37	30	2.86	2.3	93.3	127	15	2.97	1.1			
35	46	40	3.15	1.7	70	166	20	3.27	0.8	JRESSD63		
28	54	50	3.39	1.4	1.5kW							
23.3	60	60	3.61	1.1	186.7	67	7.5	2.35	1.9			
17.5	72	80	3.97	0.9	140	88	10	2.59	1.5			
0.9kW						93.3	127	15	2.97		1.1	
70	26	20	2.5	2.7	70	166	20	3.27	0.8	JRESSD63		
56	32	25	2.69	2.2	1.5kW							
46.7	37	30	2.86	2.3	186.7	67	7.5	2.35	1.9			
35	46	40	3.15	1.7	140	88	10	2.59	1.5			
28	54	50	3.39	1.4	93.3	127	15	2.97	1.1			
23.3	60	60	3.61	1.1	70	166	20	3.27	0.8	JRESSD63		
17.5	72	80	3.97	0.9	1.5kW							
1.1kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8	JRESSD63		
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27	0.8	JRESSD63	
1.5kW						186.7	67	7.5	2.35	1.9		
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9	JRESSD63		
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5	JRESSD63		
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5	JRESSD63		
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1	JRESSD63		
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1	JRESSD63		
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8	JRESSD63		
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27	0.8	JRESSD63	
1.5kW						186.7	67	7.5	2.35	1.9		
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9	JRESSD63		
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5	JRESSD63		
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5	JRESSD63		
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1	JRESSD63		
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1	JRESSD63		
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8	JRESSD63		
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27	0.8	JRESSD63	
1.5kW						186.7	67	7.5	2.35	1.9		
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9	JRESSD63		
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5			
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5	JRESSD63		
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1			
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			
35	46	40	3.15	1.7	1.5kW							
28	54	50	3.39	1.4	186.7	67	7.5	2.35	1.9			
23.3	60	60	3.61	1.1	140	88	10	2.59	1.5	JRESSD63		
17.5	72	80	3.97	0.9	93.3	127	15	2.97	1.1			
1.1kW						70	166	20	3.27		0.8	
1.5kW						186.7	67	7.5	2.35		1.9	
70	26	20	2.5	2.7	140	88	10	2.59	1.5			
56	32	25	2.69	2.2	93.3	127	15	2.97	1.1	JRESSD63		
46.7	37	30	2.86	2.3	70	166	20	3.27	0.8			

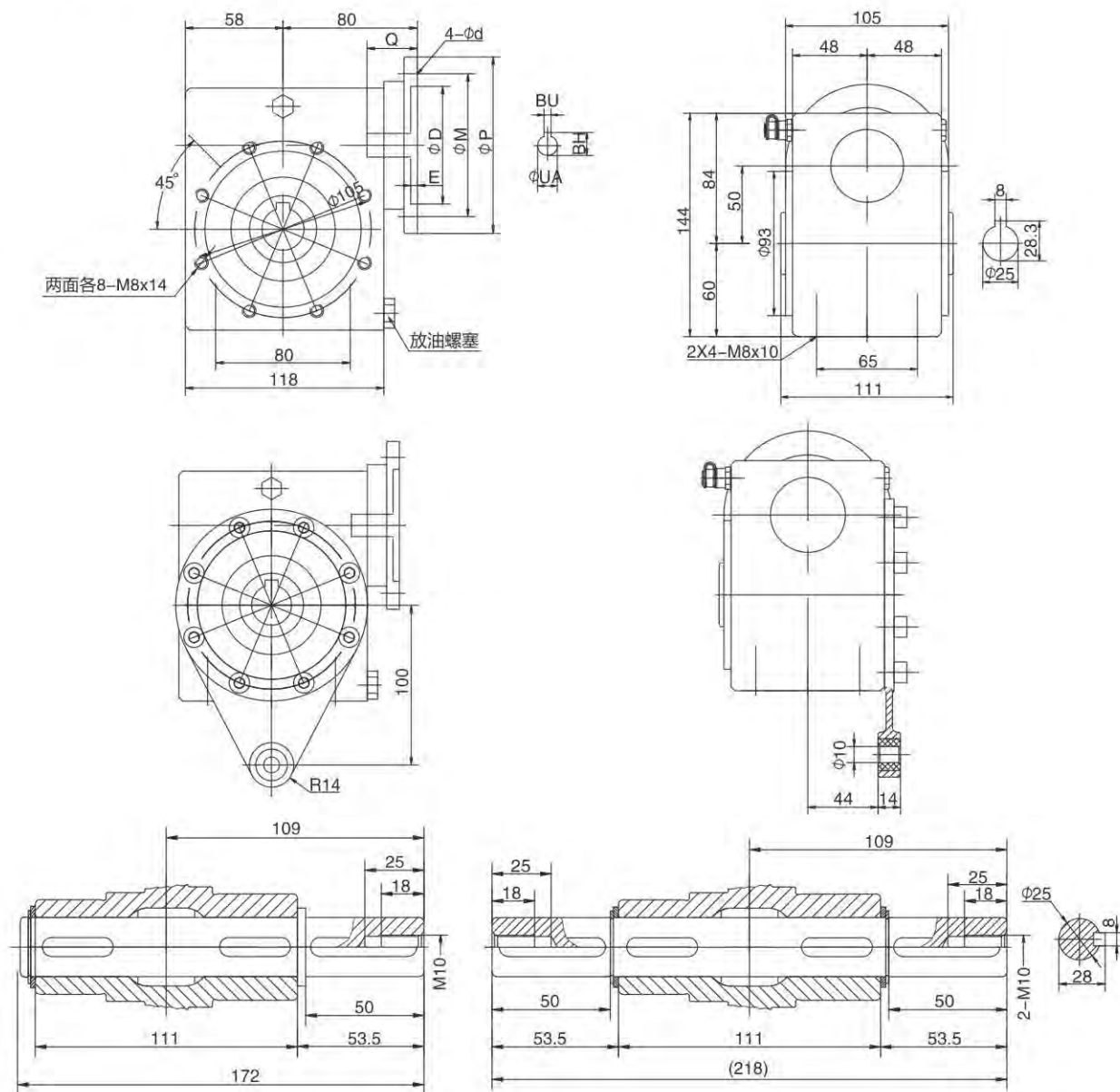
3. 安装尺寸 Installation Dimensions

JRESSD40..



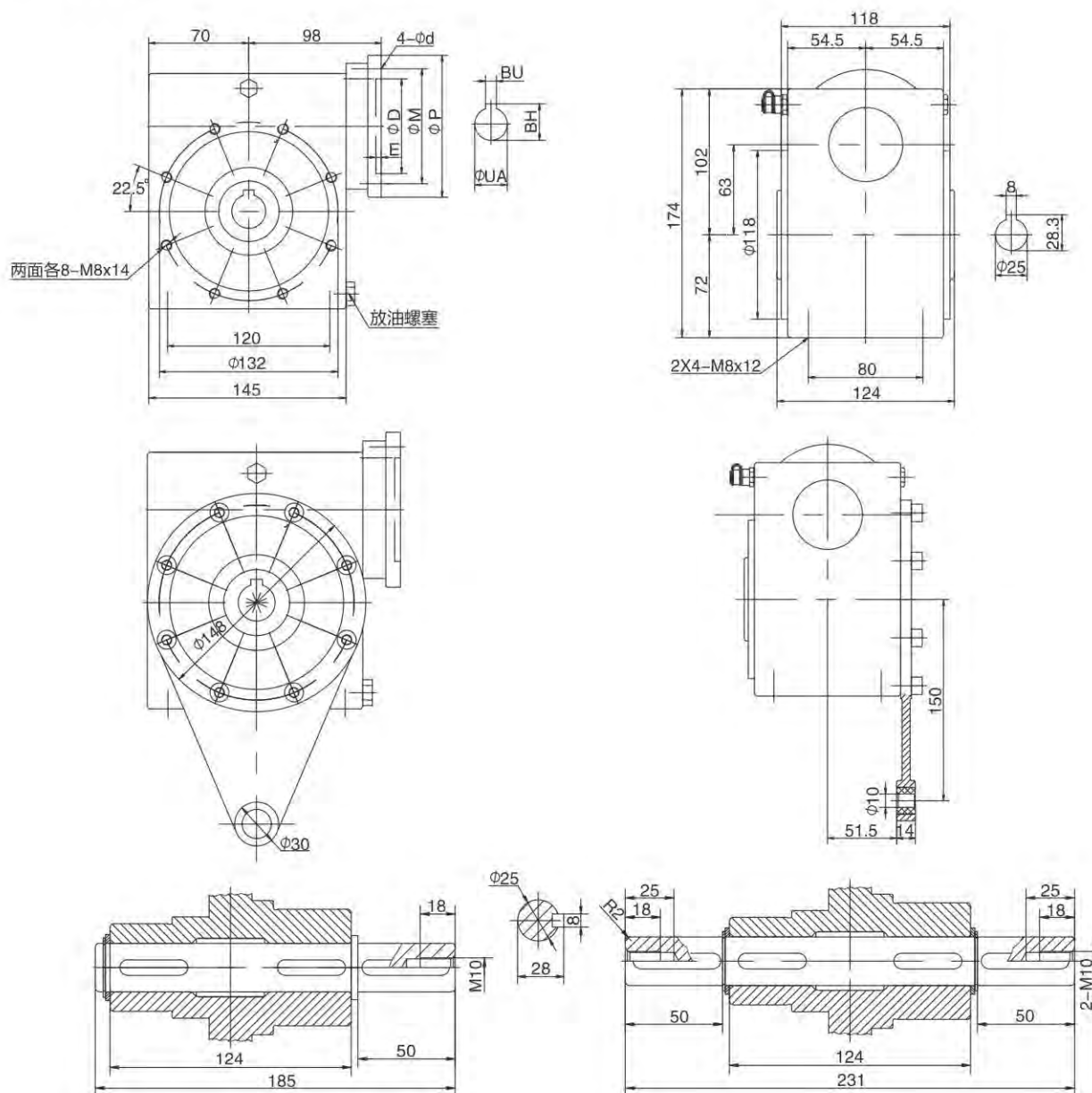
代号 Model 法兰规格 Flange Specification	D	M	P	d	BH	BU	E	Q	输入孔径Input Aperture UA										
									速比Ratio i										
									7.5	10	15	20	25	30	40	50	60	80	100
71B5	110	130	160	9	16.3	5	5	30	14	14	14	14	14	14	14	-	-	-	-
71B14	70	85	105	6.6	16.3	5	5	30	-	-	-	-	-	-	-	-	-	-	-
63B5	95	115	140	9	12.8	4	5	23	-	-	-	11	11	11	11	11	11	11	-
63B14	60	75	90	5.5	12.8	4	5	23	-	-	-	-	-	-	-	9	9	9	9
56B5	80	100	120	6.6	10.4	3	4	19	-	-	-	-	-	-	-	9	9	9	9

JRESSD50..



代号 Model 法兰规格 Flange Specification	D	M	P	d	BH	BU	E	Q	输入孔径Input Aperture UA										
									速比Ratio i										
									7.5	10	15	20	25	30	40	50	60	80	100
80B5	130	165	200	11	21.8	6	6	40	19	19	19	19	19	19	—	—	—	—	—
80B14	80	100	120	6.6	21.8	6	6	40											
71B5	10	130	160	9	16.3	5	5	30	—	14	14	14	14	14	14	14	14	14	—
71B14	70	85	105	6.6	16.3	5	5	30											
63B5	95	115	140	9	12.8	4	5	23	—	—	—	—	—	—	11	11	11	11	—
63B14	60	75	90	5.5	12.8	4	5	23											

JRESSD63..



代号 Model 法兰规格 Flange Specification	D	M	P	d	BH	BU	E	Q	输入孔径Input Aperture UA										
									速比Ratio i										
									7.5	10	15	20	25	30	40	50	60	80	100
90B5	130	165	200	11	21.8	6	6	50	24	24	24	24	24	24	-	-	-	-	-
90B14	95	115	140	9	27.3	8	6	50	-	-	19	19	19	19	19	19	19	-	-
80B5	130	165	200	11	21.8	6	5	40	-	-	-	-	-	-	14	14	14	14	14
80B14	80	100	120	6.6	21.8	6	5	40	-	-	-	-	-	-	-	-	-	-	-
71B5	110	130	160	9	16.3	5	5	30	-	-	-	-	-	-	-	-	-	-	-
71B14	70	85	105	6.6	16.3	5	5	30	-	-	-	-	-	-	-	-	-	-	-