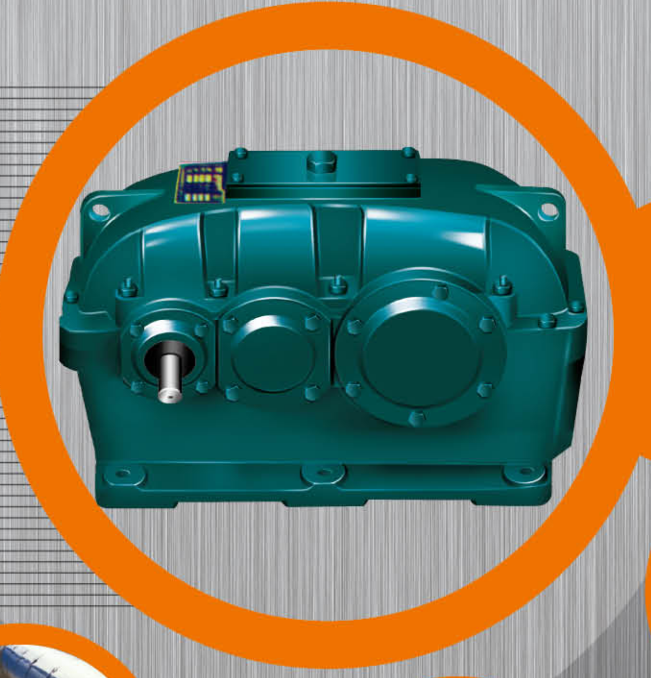
CA-004B-2013

中国名牌产品 CHINA TOP BRAND

国家大型企业 NATIONAL LARGE ENTERPRISE

中国驰名商标
CHINA WELL-KNOWN TRADEMARK



硬齿面圆柱齿轮减速器

TAILONG MACHINERY

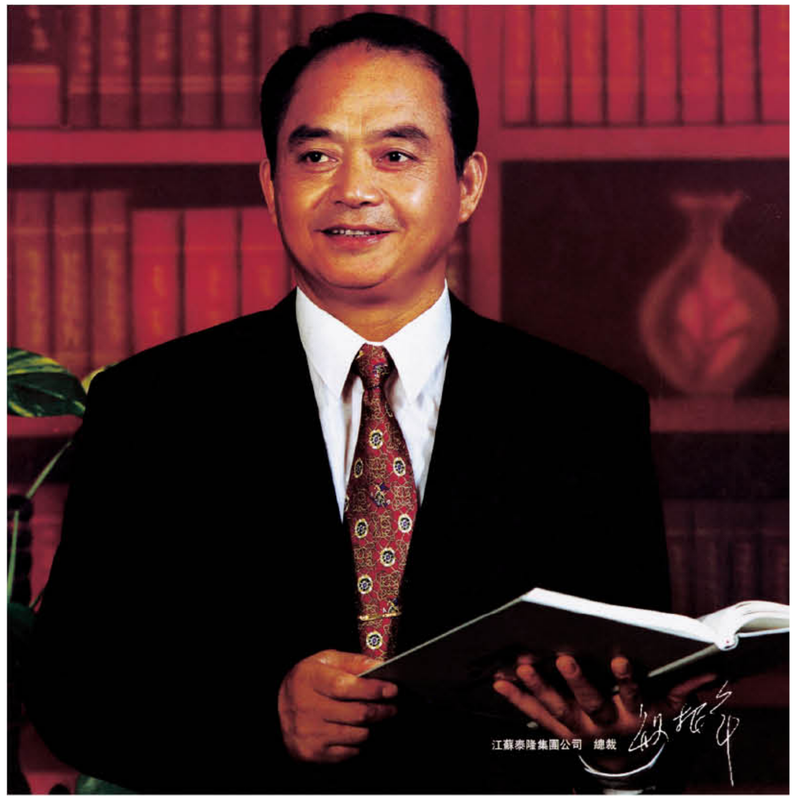
江苏泰隆机械集团公司
JIANGSU TAILONG MACHINERY GROUP COMPANY

江苏泰隆减速机股份有限公司
JIANGSU TAILONG DECELERATOR MACHINERY CO.,LTD.

中国驰名商标
CHINA WELL-KNOWN TRADEMARK

TAILONG

地址(ADD):江苏省泰兴市大庆东路88号
NO.88,Daqing Rd.(E)TaiXing City,Jiangsu Province, China
电话(TEL)：0086-523-87635698 87668018 87668028
传真(FAX)：0086-523-87662169 87665426 87665000
邮编(P.C)：225400
网址：http://www.tailong.com E-mail：tloffice@tailong.com



公司简介

泰隆集团地处扬子江畔的泰兴市区，是泰兴人引以为豪的国家大型企业。泰隆集团东临沪宁高速，西靠南京禄口机场，南有江阴大桥，交通便捷，物流畅通，具有得天独厚的区位优势。

集团在全国优秀企业家、江苏省劳动模范董事长殷根章的领导下，经过20多年的悉心经营，昂首迈进了中国机械工业500强，成为全国减变行业排头兵企业。集团现拥有总资产12.06亿元，固定资产6.92亿元，占地面积80万平方米，员工3162人，专业工程技术人员991人。拥有美国、德国、日本、俄罗斯、奥地利等国家引进的大型数控磨齿机、大型数控镗铣床、蜗杆磨床、加工中心、碳氮共渗炉等一批高精尖的生产设备和检测设备达48%。建立了全国同行业中检测功能最全、仪器最先进的2000kW测试中心，创建了江苏省技术中心、江苏省传动机械与控制工程技术研究中心、泰隆集团-哈工大工程技术研究中心、博士后科研工作站。公司的主导产品减速机在原有十几个系列，几十万种规格的基础上，采用先进的模块化、点线啮合等技术开发出了TL模块化齿轮减速电机、TXP行星模块化减速器、重载模块化齿轮减速器、点线啮合减速器、立式磨机及边缘传动磨机齿轮箱、铝冶行业的联合开卷卷取齿轮箱、三环减速器、星轮减速器、风电齿轮箱、水力发电变速装置、核电循环水泵驱动变速装置等高新技术产品，以及各类特殊非标齿轮箱。泰隆工业园区已经成为国内最大的钢帘线设备生产基地，双叶、三叶罗茨风机及高温风机批量出口东南亚及欧美。

我们的产品成功应用于中华世纪坛、三峡大坝、嫦娥一号发射、杭州湾跨海大桥、北京奥体馆、上海世博会等国家重点工程。重点客户有宝钢集团、首钢集团、上海振华港机、燕山石化、葛州坝集团、北京水工、中国铝业、伊拉克泵站、桂林橡塑、乐山成发、三一重工等。

公司现为全国减速机标准化技术委员会秘书处单位，荣获“全国首批守合同重信用企业”，“国家重点高新技术企业”、“全国机械工业质量效益型先进企业”、“全国机械工业质量管理奖”、“全国用户满意服务”、“全国机械工业质量管理小组活动优秀企业”等殊誉。在同行业中率先通过了国家AAAA标准化良好行为企业认证、一级安全质量标准化机械制造企业认证、GB/T19022-2003完善计量检测体系认证、ISO9001-2008质量体系认证、ISO14001-2004环境体系认证、OHSAS18001-1999职业健康安全认证。产品通过矿用产品安全标志认证、起重行业型式试验认可认证，泰隆牌商标被国家工商总局认定为中国驰名商标，泰隆牌减速机被评为中国名牌产品。

泰隆人将遵循自己一贯的质量承诺、服务承诺和信誉承诺，把顾客满意当作我们的最高追求！

Company Brief

Tailong Group, located in Taixing city along riverside of the Yangzi River, is a national giant enterprise which Taixing people are proud of. Tailong Group is east to Highway of Shanghai-Nanjing, west to Nanjing Lukou airport and south to the Jiangyin Bridge. Convenient transportation and smooth physical distribution build the unparalleled location advantages for Tailong Group.

With effortful operation for over 20 years, Tailong Group, under leadership of national outstanding entrepreneur, chairman Mr. Yin genzhang, a model worker of Jiangsu Province, has developed in one of top 500 machinery industrial enterprises in China, playing a leading role in domestic reducer/transmission industry.

At present, the group has total assets of RMB1206million, and fixed assets of RMB 692 million, and it covers an area of 800,000 square meters and more than 3000 employees, where professional technicians account for 991. 48% of our equipments are sophisticated and advanced manufacturing equipments and testing equipments such as large CNS gear grinding machine, large CNC boring and milling machine, worm grinder, machining centre, and carbonitriding furnace that are imported from USA, Germany, Japan, Russia, Australia and so on. Diameter of machining work piece reaches 5m to the maximum. Single reducer we produced reaches 120 tons to the maximum. We have established a 2000kW testing center with most complete testing function and most advanced instruments of the industry national wide, and established a provincial engineering technical center, mechanical transmission and control Engineering Research Center of Jiangsu Province, Tailong Group - Harbin Technology Engineering Research Center and a post-doctoral research station. The dominant product, the reducer is available in decades of series and several hundred thousand specifications. Equipped with advanced modular and dot line engagement technology, we have additionally developed series of high tech products such as TL modular gear retarded machine, TXP modular planet reducer, heavy load modular gear retarded machine, dot line engaged reducer, vertical grinder and edge drive grinder gearbox, joint, open-book, take-up gearbox used for aluminum metallurgy industry, three ring gear reducer, planetary wheel speed reducer, wind driven gearbox, transmission for hydro-power generation, nuclear circling pump driven gearbox, and various special non-standard gearboxes. Tailong Industrial Park has become the largest steel cord production base of national wide. Our two-vane and three-vane Roots blowers and high temperature blower are exported to South East Asia, Europe and America in batches.

Our products are successfully used in the China Millennium Monument, the Three Gorges Dam, the Chang'e launch, Hangzhou Bay Bridge, Beijing Olympic Gymnasium, the Shanghai World Expo and other national key projects. Key customers include Baosteel Group, Shougang Group, Shanghai Zhenhua Port Machinery, Yanshan Petrochemical, Gezhouba Group, Beijing hydraulic, China aluminium, Iraqi pump station, Guilin Rubber, Leshan Chengfa, Sany Heavy Industry and so on.

The company is now a secretariat unit for national technical committee for standardization of reducer. We are ever granted as “national first contract respecting and credit-keeping enterprise”, “national key high-tech enterprise”, “national high quality and efficiency unit in machinery industry”, “quality management award of national machinery industry”, “national custom satisfied service”, “excellent enterprise of quality management team activity of national machinery industry” and so on. We are certified as the good enterprise with better standardization with national AAAA certification and the first grade safety quality standardized machinery manufacturing enterprise and have passed such certifications as GB/T 19022-2003 perfect measurement test system, ISO 9001-2008 quality system, ISO 14001-2004 environment system, and OHSAS 18001-1999 occupational health and safety. Our products are certified with safety marks for mining products and recognized pass lifting industry type test. Tailong brand is recognized as the Chinese famous brand by national industrial and commercial bureau and Tailong reducer is awarded as the Chinese famous brand product.

Tailong people will keep to its persistent quality guarantee, service guarantee and credit, satisfying customer as our topmost pursuit.

本册目录

Catalogue

硬齿面圆柱齿轮减速器

Series of Carbide-Faced Cylindrical Gear Decelerators

一、概述 Brief

硬齿面减速器主要包括平行轴系列和垂直轴系列，平行轴减速器是按国家标准（JB/T8853-2001)生产，产品经优化设计，具有国际先进水平，它主要包括ZDY（单级）、ZLY（两级）、ZSY（三级）和ZFY（四级）四大系列，垂直轴减速器是按国家标准（JB/T9002-1999)生产，用于输入轴与输出轴呈垂直方向布置的传动装置，它主要包括DBY、DCY和DFY三大系列。

Decelerator with hard tooth surface includes parallel shaft and vertical shaft series. Parallel shaft decelerator is manufactured according to national standard (JB/T8853-2001) . The products are optimized designed to advanced level in national. It includes 4 series of ZDY (single stage), ZLY (2-stage),ZSY (3-stage) and ZFY (4-stage). Vertical shaft decelerator is manufactured according to national standard (JB/T9002-1999) and used as driving device that has vertical arrangement of input and output shaft, and it includes 3 series of DBY、DCY and DFY.

1.性能特点 Properties

(1) 中心距，公称传动比等主要参数均经优化设计，主要零、部件互换性好。

(2) 齿轮均采用优质合金钢经渗碳、淬火而成，齿面硬度达54～62HRC。

(3) 体积小、重量轻、精度高、承载能力大、效率高，寿命长，可靠性高、传动平稳、噪声低。

(4) 一般采用油池润滑，自然冷却，当热功率不能满足时，可采用循环油润滑或风扇，冷却盘管冷却。

(1) Preferential design is applied in main parameter such as center distance and nominal drive ratio, which guarantee good interconnection between key parts and components.

(2) All gears are made of quality alloy steel and treated with carburising and quenching，with tooth surface hardness up to 54-62HRC.

(3) Small size, light weight, high precision, large carrying capacity, high efficiency, long service life, high reliability, stable driving, and low noise.

(4) Normally oil sump lubrication is used, with cooling naturally. If thermal power can not be achieved, circular oil lubrication or fan may be used, and cooled with cooling coil pipe.

2、应用范围 Application

(1) 输入转速一般 $n_1 \leqslant 1500$r/min.

(2)齿轮传动圆周速度不大于20m/s。

(3)工作环境-40~50℃，如果低于0℃，启动前润滑油应预热至0℃以上，本减速器可用于正反两个方向运转。

(4) 广泛应用于冶金、矿山、化工、建材、起重、运输、纺织、造纸、仪器、塑料、橡胶、工程机械、能源等工业部门。

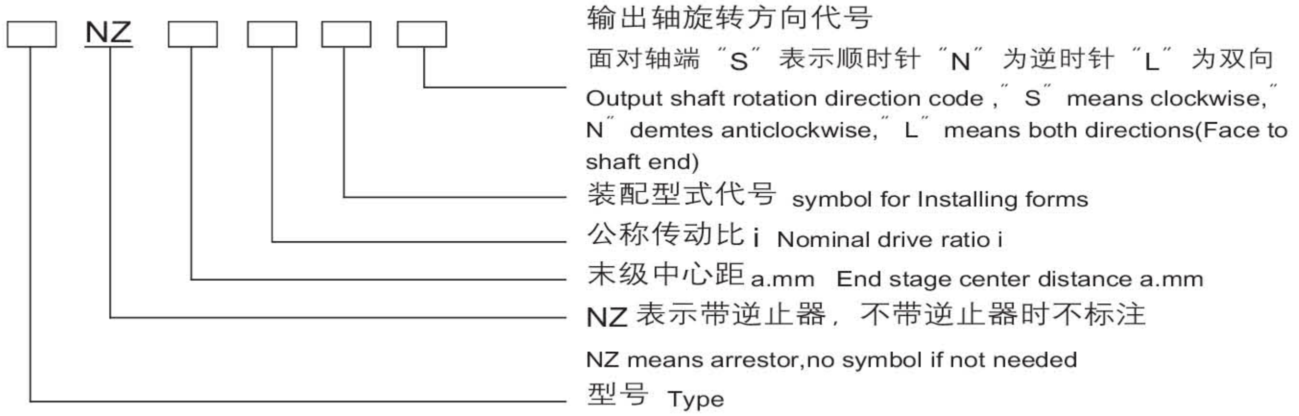
(1) Input rotate speed n_1 is $\leqslant$ 1500r/min.

(2) Gear wheel driving peripheral speed is $\leqslant$ 20m/sec.

(3) Ambient temperature is -40~50℃. If it is < 0℃, lubricant should be preheated to > 0℃ before startup. Running both forward and backward are available for this decelerator.

(4) Applicable for the industries such as metallurgy, mine, chemical industry, construction materials,hoisting, transportation,textile, paper making, paper making, food, plastic, rubber, engineering machinery,and energy industry.

3、标记示例 Example of mark



说明：用户带逆止器时，若需长轴系列，请在订货时注明，订货未注明者视为按标准（样本）制造。

Note: The products would be manufactured according to standard(or sample) unless specifical condition is listed in the related order when a holdback is needed to be connected to shaft series.

二、选用方法 Selection procedure

1、已知参数和条件 Given following information

原动机名称，功率 P_1= kW 转速 n_1= r/min

工作机名称，功率 P_2= kW 转速 n_2= r/min

要求的传动比 $i=n_1/n_2$

每天工作小时数 h，每小时启动次数 次，每小时运转周期 %，

负荷特点（平稳、冲击、严重冲击），可靠度要求（一般、较高、高）

环境温度 ℃，现场散热条件，冷却水温度 ℃

联轴器型式，齿轮轴轴伸上是否还要承受其他附加力

装配方式 型，输出轴旋向（双向旋转时请说明主旋向）

有无其他特殊要求

Type of prime mover, power P_1 in kW, speed n_1 in r/min

Type of driven machine, power P_2 in kW, speed n_2 in r/min

Required transmission ratio $i=n_1/n_2$

Average daily operating time in hours, starts per hour, operating cycle per hour in %

Loading nature (uniform, moderate shock, heavy shock).requirement reliability (normal, high, higher).

Ambient temperature in ,elimination of heat in work spot, cooling water temperature in ℃.

Type of coupling.

Any additional force acting on shaft extension.

Assemble style, direction fo rotation of output shaft (of both directions, please show the main direction).

Any other special requirements.

2、按额定功率选择规格型号 Selecting the size according to nom

平行轴系列齿轮箱的公称输入功率 P_A(表 9-20)按载荷平稳，每天工作时间小于或等于 10h，每小时启动不超过 5 次，允许启动转矩为工作转矩的 2 倍，单向运转，单对齿轮的接触强度安全系数约为 1，失效概率小于或等于 1% 等条件计算确定的。齿轮箱双向运转时，需视情况将 P_A 乘上 0.8-1.0 的系数，当反向载荷大，换向频繁、选用的可靠度系数 K_R 较低时，系数取较小值，反之取较大值。

The nom.power ratings P_A of parallel gear units (table 9 to 20) are valid for shock-free operation of no more than 10hrs/day and up to 5 starts per hour, permitting a starting torque of two times to the running tourque, unidirectional rotation, the safe factor of contact strenth of single of gears is about 1,and failure probability ≤ 1%. For both directional rotation, P_A shoud be multiplied by a factor of 0.8 to 1.0, in accordance with the actual conditions. A lower factor is selected if the reverse load is selected. While the reverse load is high, the change of direction is requent and a low reliability factor K_R taken; otherwise a higher value should be selected.

所选齿轮箱的额定功率必须满足：$P_C=P_2K_AK_SK_R \leqslant P_A$

The nom. power of gear must meet:

式中：

P_C- 计算功率 Calculated power

P_2- 工作机功率 Driven machine power

K_A- 使用系数，见表 1 Service factor, see table 1

K_S- 启动系数，见表 2 Start factor, see table 2

K_R- 可靠度系数，见表 3 Reliability factor, see table 3

3、按许用热功率校核 Check on thermal power rating

平行轴系列齿轮箱的许用热功率 P_t 适用于环境温度 20℃，每小时 100% 连续运转和功率利用率($P_2/P_1 \cdot 100\%$)为 100% 的情况，条件不同时，须进行修正。

The themal capacities Pt of vertical series gear units is valid for an ambient temperature of 20℃, an operating cycle of 100% per hour and a gear utilization of 100%(P2/P1100%=utilization in %)

所选齿轮箱应满足：$P_{ct}=P_2K_TK_WK_P \leqslant P_T$

Otherwise they must be corrected for the selected gear unit, the following formula shoule be neet:

式中

P_{Ct}- 计算热功率 Calculated power

K_T- 环境温度系数，见表 4 Factor for ambient temperature, see table 4

K_W- 运转周期系数，见表 5 Factor for operating cycle, see table 5

K_P- 功率利用系数，见表 6 Factor for utilization, see table 6

4、校核、轴伸部位承受的径向载荷 Check radial load on shaft extension

齿轮箱的输入轴和输出轴中间部位承受的径向载荷 F_{1r} 应低于表 7 的数值

The overhang radial force Fr on input shaft or output shaft should not exceeded the values listed in table 7

表 1 使用系数 K_A Table1 Service factor K_A

原动机 Prime mover	每天工作小时数 Daily service hours	工作机载荷符号 * Load symbol for the driven machine		
		U	M	H
电动机 Eleceric motors 涡轮机 turbines 液压马达 hydrailic motors	≤10	1	1.25	1.75
	>10	1.25	1.5	2
4-6气缸活塞发动机周期性变化 $\frac{1}{100}$-$\frac{1}{200}$ Piston engines 4-6 cy1,cyclic variation $\frac{1}{100}$-$\frac{1}{200}$	≤10	1.25	1.5	2
	>10	1.5	1.75	2.25
1-3气缸活塞发动机周期性变化至 $\frac{1}{100}$ Piston engines 1-3 cy1,cyclic variation $\frac{1}{100}$	≤10	1.5	1.75	2.25
	>10	1.75	2	2.5

表 2 启动系数 K_S Table2 Start factor K_S

Ks \ KA 每小时启动次数 Starts Per hour	0.8-1	1.25-1.75	2
≤5	1	1	1
6~25	1.2	1.12	1.06
26~60	1.3	1.2	1.12
61~180	1.5	1.3	1.2
>180	1.7	1.5	1.3

表 3 可靠度系数 K_R Table3 Reliability factor K_R

可靠度要求 Requied reliability	K_R
一般 normal	1.3
较高 high	1.6
高 higher	2.55

表 4 环境温度系数 K_T Table4 Factor for ambient temperature K_T

环境温度 Ambient temperature / 环境温度系数 K_T Factor K_T / 冷却方式 Cooling method	10°C	20°C	30°C	40°C	50°C
无冷却措施或用风扇冷却 For units fan cooling or without cooling	0.8	1	1.15	1.35	1.65
带冷却盘管或同时带风扇和冷却盘管 For units with cooling coil or with fan and cooling coil	0.9	1	1.10	1.20	1.30

表 5 运转周期系数 K_W Table5 Factor for operatin cycle K_W

每小时运转周期(%) Operating cycle per hour	100	80	60	40	20
运转周期系数Kw Fctor Kw	1	0.94	0.86	0.74	0.56

表 6 功率利用系数 K_P Table6 Factor for ratio of utilization K_P

利用率 Utilization (%) / 功率利用系数 Factor Kp / 型号 Type	40%	50%	60%	70%	80~100%
平行轴系列 Parlle series	1.25	1.15	1.1	1.05	1
垂直轴系列 Vertical series	1.20	1.10	1.05	1	1

表 7 轴伸中间部位允许最大径向载荷 Table7 Allowed Overhang load, Max.radially

齿轮箱级数 No. of stages	Frmax(N)	
	输入轴 input shaft	输出轴 output shaft
单级 single	$50\sqrt{T_1}$	$125\sqrt{T_2}$
2~4 级 2 to 4	$125\sqrt{T_1}$	$250\sqrt{T_2}$

式中: T_1: 许用输入转矩 N.m
T_2: 许用输出转矩 N.m

Where: T_1-Allowed input torque, in N.m
T_2-Allowed input torque, in N.m

TAILONG MACHINERY

表 8 工作机载荷性质分类 Table 8 load ciassification aymbois listed by applications and industries

	风机 BLOWERS,VENTILATORS	
U	鼓风机（轴向和径向） Blowers(axial and radial)	
M	冷却塔风机 Cooling tower fans	
M	引风机 Induced draught fans	
M	旋转活塞鼓风机 Rotary piston blowers	
U	透平鼓风机 Turbo blowers	
	建筑机械 BUILDING MSCHINERY	
M	混凝土搅抖机 Concrete mixers	
M	起重机 Hoists	
M	筑路机械 Road construction machinery	
	化工机械 CHEMICAL INDUSTRY	
U	搅拌机（液状物） Agitators(liquid material)	
M	搅拌机（半液状物） Agitaors(semi-liquid material)	
M	离心机（轻型） Centrifuges(light)	
U	离心机（重型） Centrifuges(heavy)	
M	冷却滚筒 Cooling drums	**
M	干燥滚筒 Drying drums	**
M	搅拌机 Mixers	
	压缩机 COMPRESSORS	
H	活塞式压缩机 Piston compressors	
M	涡轮压缩机 Turbo compressors	
	运输机械 CONVEYORS	
M	坂式输送机 Spron conveyors	
M	压载升降机 Ballast elevators	
oM	袋式输送机 Band oicjet cibvetirs	
M	皮带式运输机（散状物） Belt conveyors (bulk material)	
H	皮带式运输机（块状物） Belt conveyors (piece goods)	
U	粉料链门提升机 Bucket conveyors for flour	
M	链条输送机 Chain conveyors	
M	回旋输送机 Circular conveyors	
M	运贷升降机 Goods lifts	
H	卷扬机 Hoists	**
H	倾斜绞车 Lnclined hoists	**
M	链条输送机 Link conveyors	
M	（乘客）电梯 Passenger lifts	
M	螺旋输送机 Screw conveyors	
M	钢带输送机 Steel belt conveyors	
M	漕式链条输送机 Trough chain conveyors	
M	拖泄式绞车 Winches hauling	
	起重机 CRANES	
M	摇摆机构 Derricking jib gear	
U	提升装置 Hoist gear	
U	伸缩装置 Luffing gear	
M	回转装置 Slewing gear	
H	行走装置 Travelling gear	
	挖掘机 DREDGERS	
H	门式提升机 Bucket conveyors	
H	戽轮铲 Bucket wheels	
H	铲子 Cutter heads	
M	机动绞车 Manoeuvring Winches	
M	泵 Pumps	
M	回转式征重机 Slewing gear	
H	行走机构（链轨） Travelling gear (caterpil)	
M	行走机构（铁轨） Travelling gear (rails)	

	食品机械 FOOD INDUSTRY MACHINERY	
U	灌瓶机和装箱机 Bottiing and container filling machines	
M	甘蔗压榨机 Cane crushers	**
M	甘蔗切割器 Cane knives	**
H	甘蔗碾磨机 Cane mills	
M	捏和机 Kneding machines	
M	结晶器，搅拌器 Mash tubs,Crystallizers	
U	打包机 Packaging machines	
M	甜菜切碎机 Sugar beet crtters	
M	甜菜清洗机 Sugar beet washing machines	
	发电机，变换器 GENERATORS、TRANSDORMERS	
H	频率变换器 Frequency transformers	
H	发电机 Generators	
H	电焊发电机 Welding generators	
	清洗机 LAUNDRIES	
M	干燥机 Tumblers	
M	清洗机 Washing machines	
	金属轧钢机 METAL ROLLING MILLS	
H	钢坏剪切机 Billet shears	
		**
M	链式传送机 Chain transfers	**
H	冷轧机 Cold rolling mills	**
H	连续铸造设备 Continuous casting plant	**
M	冷床 Cooling beds	**
H	剪料头机 Cropping shears	**
M	横向输送设备 Cross transters	**
H	除鳞机 Descaling machines	**
H	中型轧板机 Heavy and medium plate mills	**
H	钢锭初轧机 Ingot and blooming mills	**
H	钢锭装卸机械 Ingot bandling machinery	**
M	推锭机 Ingot pushers	**
H	机械手 Manipulators	**
M	剪板机 Plate shears	**
H	板材翻转装置 Plate titers	**
H	轧辊调整装置 Roller adjustment drives	
H	辊式矫直线 Roller straighteners	**
H	辊道（重型） Roller tables(heavy)	**
H	辊道（轻型） Roller tables (light)	**
H	薄板轧机 Sheet mills	**
H	修边机 Trinning shears	**
M	焊管机 Tube welding machines	
M	绕线机（带材和线材） Winding machines(strip and wire)	
M	拉线机 Wire drawing benches	
	金属加工机床 METSL WORKING MACHINES	
U	副轴（天轴） Counterhafts, line shafts	
H	锻压机 Forging presses	
U	锻锤 Hammers	
U	机床、辅助传动装置 Machine tools auxiliary drives	
M	机床、主传动装置 Machine tools,main drives	
	金属刨床 Metal planing machines	
H	板材矫直线 Piate straighting machines	
H	压机 Presses	
H	冲压机 Punch presses	
M	剪切机 Shears	
M	金属板折弯机 Sheet metal bending machines	

	石油工业 OIL INDUSTRY	
M	管线泵 Pipeline pumps	**
H	旋转式锁孔设备 Rotary drlling equipnebt	
	造纸机 PAPER MACHINES	**
H	压光机 Calenders	**
H	吊坂层叠机 Couches	**
H	干燥滚筒 Drying cylinders	**
H	上光滚筒 Giazing cylinders	**
H	碎浆机 Pulpers	**
H	木浆研磨机 Pulp trinders	**
H	吸水辊 Sictopm presses	**
H	吸水压榨 sucting presses	**
H	吊坂机 Wet presses	**
H	威罗机 Willows	**
	塑料工业机械[;ASTOC OMDISTRU ,ACROMERU	
M	压延机 Calenders	**
M	挤压机 Crushers	**
M	挤塑机 Extriders	**
M	搅拌机 Micers	**
	泵 PUMPS	
M	离心泵（轻液） centrifudal pumps(light liquids)	
U	离心泵（半液体） Centritugal pumps(semli-liquids)	
M	活塞泵 Piston pumps	**
H	柱塞泵 Plunger pumps	**
H	压力泵 Pressure pumps	
	橡胶机械 RUBBER MACHINERY	
M	压延机 Calenders	**
H	挤压 Extruders	**
M	揉和机 Mixers	**
H	搅拌机 Pug mills	**
H	浪轧机 Rolling mills	**
	石头胶粘土加式机 STONE AND CLAYWORKING MACHINES	
H	球磨机 Ball mills	**
H	冲击式碾磨机 Beater mills	**
H	破碎机 Breakers	
H	压砖机 Brick presses	
H	锤磨机 Hammer mills	**
H	旋转炉 Rotary ovens	**
H	管磨机 Tube mills	**
H	纺织机 TEXTILE MSCHINES	
M	给料机 Batchers	
M	织布机 Looms	
M	印布机 Printing and dyeing machines	
M	揉瓮 Tanning vats	
M	威罗机 Willows	
	软水处理 WATER TREATMENT	
M	松砂机 Aerators	**
M	螺杆泵 Screw pumps	
	木工机床 WOOD WOEKING MSCHINES	
H	剥皮机 Barkers	
M	刨床 Planing machines	
H	锯框 Saw frames	**
U	木工机床 Wood working machines	

注: U= 均布载荷 None U=uniform load:; M= 中等冲击载荷 M= Medium shock load; H= 较大 冲击载荷 H=Heavy shock load; ** 仅以全天工作为条件 Onyl on the basis of 24 hrs daily service.
表中列出的载荷分类符号在工作机的工作情况的详情给出后，可以修改 Listed load classification symbols may be modified after givning exact details of operating conditions

5.选用举例 Selection examples

例 1： 选一链条输送机用圆柱齿减速器。已知：电动机功率 P_1 = 350kW，电动机输入转速 750r/min 链条输送机功率 P_2 = 300KW，公称传动比 i=4.5，每天工作 8h，每小时启动 3 次，环境温度 50℃，每小时运转周期为 100%，要求有较高可靠度，装配型式 Ⅰ型，输出轴为逆时针旋向，输入轴轴伸中部作用的径向为力 1000N。

Example 1: Required: a cylindrical gear reducer for the drive of a chain conveyor.Given: Electric motor "power" P_1=350kW,motor speed n_1=750r/min,chain conveyor P_2=300kW , nom .transmission ratio i_N=4.5,daily operating period =8hrs,starts per hour=3, ambient temperature=50 operating cycle per hour=100 ,high reliability required,assemble style: Idirection of rotation for output shaft:CCw, overhang radial load on input shaft:1000N

解： a .确定齿轮轴箱的规格

由表 8 查得链条输送机载荷代号为 M，查表 1，K_A=1.25，查表 2，K_s=1;查表 3,K_R=1.6;

因此：

$$P_C=P_2 \cdot K_A \cdot K_s \cdot K_R=300 \times 1.25 \times 1 \times 1.6=600(kW)$$

According to given condisions,enter the appropriate tables,from table8,the load aymbol is M for chain conveyor,from table 1,K_A=1.25,from from table 2, K_S =1,and from table 3,K_R=1.6.

Thus,

$$P_C=P_2 \cdot K_A \cdot K_s \cdot K_R=300 \times 1.25 \times 1 \times 1.6=600(kW)$$

查表 9，ZDY 型规格为 355 齿轮箱的公称功率 P_A=738kW>P_C,

By entering table 9,the nom .power rating for gear box type YND size 355 is P_A=738kW >P_C

b.校核热功率 Check for thermal capacity

在给定条件下，查表 4，K_T=1.65 ；查表 5，K_W = 1; 由功率利用率

$P_2/P_A \times$ 100%=300/738x100%=41%;查表 6，K_P = 1.25; 因此：

$$P_{ct}=P_2 \cdot K_T \cdot K_W \cdot K_P=300 \times 1.65 \times 1.25=619(kW)$$

Acirding to given conditions, enter the appropriate tables.from table 4,K_T=1.65 ,frp, table 5,K_W = 1,and on the basis of $P_2/P_A \times$ 100=300/738=41,from table 6,K_P = 1.25, thus,

$$P_{ct}=P_2 \cdot K_T \cdot K_W \cdot K_P=300 \times 1.65 \times 1 \times 1.25=619(kW)$$

查表 10，规格为 355，没有冷却措施时许用功率 P_{G1}=320kW，不能满足散热要求，改为带盘状管冷却或循环油润滑许用功率 P_{2G}=790kW,再查表 4，K_t=1.3,P_{ct}=300 × 1.3 × 1 × 1.5=585(kW) <P_{2G}

From table 10, the thermal capacity Pt for gear unit size 320 with fan cooling of 320kW, which means fan cooling is not sufficient and a cooling coil must be added, then the corresponding thermal capacity Pt=730kW, and from table 5,K_t=1.3, thus, P_{CT}=300 × 1.3 × 1 × 1.5 =585kW<P_{2G}

C.校核所承受的径向载荷　Check radial load

输入轴轴伸中部允许的最大载荷为：

$$Frmax= 50\sqrt{T_1}=50 \times \sqrt{9549 \times P_A/n_1}=50 \times \sqrt{9549 \times 738/750}=4846N > 1000N$$

The allowed overhang radial load on input shaft:

$$Frmax= 50\sqrt{T_1}=50 \times \sqrt{9549 \times P_A/n_1}=50 \times \sqrt{9549 \times 738/750}=4846N > 1000N$$

经上述计算，确定所选齿轮箱的代号为 ZDY355-4.5-I。

According to the above calculations, type ZDY355-4.5-I gear box is chosen.

例 2： 选一台皮带输送机用圆锥圆柱齿轮减速器。要求输出轴为空心轴。已知：电动机功率 P_1=40kW,转速 n_1=1500r/min,公称传动比 i=40,皮带输送散料，功率未作详细计算，略小于电机功率，每天工作 8h，每小时启动次数少于 3 次，安装于大车间内，散热条件好，环境温度 30℃，装配型式 Ⅰ型，输出轴旋向为顺时针方向，要求较高可靠度。

Example 2: Required: a bevel-cylindrical gear reducer wiht hollow shaft as output shaft to drive a belt conveyor for bulk material.given:Electric motor: P_1 = 40KW,motor speed n_1 = 1500r/min.Nom.transmission ratio i_N = 40.Driven machine power is light less than that of motor,without detailed calculation.Daily operating perild:8 hours.Starts per hour:less than 3.Installation in a large workshop with good elimination of heat.Ambient temperature:30℃。Assembly style:I.Direction of outut shaft rotation:CW.High reliability required.

解：a.确定齿轮箱的规格。　Solution:a.Determine size:

由表 8 查得散料皮带输送机的载荷为 M,查表 1,K_A = 1.25;查表 2,K_S = 1,查表 3,K_R = 1.6 以电机功率代工作机功率，P_2 = 40KW,

因此：

$$P_C = P_2 \cdot K_A \cdot K_S \cdot K_R = 40 \times 1.25 \times 1 \times 1.6 = 80KW.$$

According to given conditions,enter the appropriate tables.From table 8,the load for belt conveyor is M,from table1,K_A = 1.25,from table 2.K_S = 1,from table3,K_R = 1.6.By taking motor power as driven machine power,P_2 = 40KW,

Thus,

$$P_C = P_2 \cdot K_A \cdot K_S \cdot K_R = 40 \times 1.25 \times 12.5 \times 6 = 80KW.$$

查表 10,选 DCYK280,公称为 98KW.实际可靠度系数

$$K_R = P_A/(P_2 \cdot K_A \cdot K_S) = 98/(40 \times 1.25 \times 1) = 1.96$$

From table 10,select the reducer size DCTR280 which nom.power rating is 98KW. The actual reliability factor

$$K_R = P_A/(P_2 \cdot K_A \cdot K_S) = 98/(40 \times 1.25 \times 1) = 1.96$$

b.校核热功率　Check for thermal capacity

在给定条件下，查表 4，K_T = 1.15;查表 5,K_W = 0.94;由功率利用率 $P_2/P_A \times$ 100% = 40/98 × 100% = 41%,查表 6,K_P=1.2;

因此

$$P_{ct}=P_2 \cdot K_T \cdot K_W \cdot K_p=40 \times 1.15 \times 0.94 \times 1.2=52KW$$

According to given conditions,enter the appropriate tables.From table 4,K_T = 1.15, from table 5,K_W=0.94.On the basis of power utilization factor $P_2/P_A \times$ 100%=40/98 × 100%,from table 6,K_P=1.2;

Thus,

$$P_{Ct}=P_2K_TK_WK_P=40 \times 1.15 \times 0.94 \times 1.2=52KW.$$

查表 20，DCYK280 齿轮箱安装于大车间时的许用功率为 91KW〉P_{Ct}.经上述计算，确定所选齿轮箱代号为 DCYK280-IS.

Refer to table 20 and find the thermal capacity for gear box type DCYK280 is 91KW〉P_{Ct}.

According to calculations above,gear box type DCYK280-IS.is selected.

三、减速器的承载能力　Decelerator carrying capacity

1、ZDY 减速器，按机械强度计算的公称功率 P_A 见表 9，按润滑油允许最高平衡温度计算的公称热度 P_{G2}、P_{G2} 见表 10.

For ZDY decelerator,nominal power calculated according to mechanical strength $P_A$is shown in Table 9,and nominal thermal power calculated according to maximum equilibrium temperature of lubricant P_{G1}.P_{G2} are showm in Table 10.

2.ZLY 减速器，按机械强度计算的公称功率 P_A 见表 11.按润滑油允许最高平衡温度计算的公称热度 P_{G2}、P_{G2} 见表 12.

For ZDY decelerator,nominal power calculated according to mechanical strength $P_A$is shown in Table 11,and nominal thermal power calculated according to maximum equilibrium temperature of lubricant P_{G1}.P_{G2} are shown in Table 12.

3.ZSY 减速器，按机械强度计算的公称功率 P_A 见表 13.按润滑油允许最高平衡温度计算的公称热度 P_{G2}、P_{G2} 见表 14.

For ZDY decelerator,nominal power calculated according to mechanical strength $P_A$is shown in Table 13,and nominal thermal power calculated according to maximum equilibrium temperature of lubricant P_{G1}.P_{G2} are shown in Table 14.

4.ZFY 减速器，按机械强度计算的公称功率 P_A 见表 15.按润滑油允许最高平衡温度计算的公称热度 P_{G2}、P_{G2} 见表 16.

For ZFY decelerator,nominal power calculated according to mechanical strength $P_A$is shown in Table 15,and nominal thermal power calculated according to maximum equilibrium temperature of lubricant P_{G1}.P_{G2} are shown in Table 16.

5.DBY、DBYK 型减速器公称功率 P_A 见表 17,热功率 P_{G1} 见表 18.

For Type DBY and DBYK decelerators, nominal power P_A is shown in Table 17,nominal thermal power P_{G1} is shown in Table 18.

6.DCY、DCYK 型减速器公称功率 P_A 见表 19，热功率 P_{G1} 见表 20.

For Type DCY and DCYK decelerators, nominal power P_A is shown in Table 19,nominal thermak power P_{G1} is shown in Table 20.

表 9 ZDY 减速器功率 P_A Table 9 ZDY decelerator power P_A

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r/min		规格 Specs												
	输入n_1 Input n_1	输出n_2 Output n_2	80	100	125	160	200	250	280	315	355	400	450	500	560
			公称输入功率kw Nominal input power P_A kw												
1.25	1500	1200	57	103	205	360	633	1121	-	-	-	-	-	-	-
	1000	800	40	69	140	260	446	807	-	-	-	-	-	-	-
	750	600	31	52	105	190	348	636	-	-	-	-	-	-	-
1.4	1500	1070	53	96	194	326	616	1109	-	-	-	-	-	-	-
	1000	715	37	65	132	240	433	794	-	-	-	-	-	-	-
	750	535	29	48	102	180	337	624	-	-	-	-	-	-	-
1.6	1500	940	49	92	180	310	587	1068	1473	1996	2766	-	-	-	-
	1000	625	34	63	125	217	410	760	1051	143	1992	-	-	-	-
	750	470	27	50	98	168	319	595	824	1124	1569	-	-	-	-
1.8	1500	835	45	87	173	290	557	1024	1411	1925	2663	-	-	-	-
	1000	555	31	62	120	206	389	726	1002	1372	1906	-	-	-	-
	750	415	24	48	95	160	302	567	784	1074	1479	-	-	-	-
2	1500	750	39	80	158	278	526	970	1339	1827	2536	-	-	-	-
	1000	500	27	55	110	194	367	684	946	1296	1806	2547	3578	4793	-
	750	375	21	43	85	150	284	534	738	1013	1414	1999	2821	3775	5169
2.24	1500	670	36	70	141	264	484	914	1236	1711	2377	-	-	-	-
	1000	445	25	49	98	183	337	645	874	1207	1683	2402	3397	4512	-
	750	335	19	38	76	142	262	503	682	941	1314	1878	2667	3538	4833

续表 9 Table 9 continued

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min		规格 Specs												
	输入n_1 Input n_1	输出n_2 Input n_2	80	100	125	160	200	250	280	315	355	400	450	500	560
			公称输入功率 kW Nominal input power P_A kW												
2.5	1500	600	32	64	127	245	447	885	1154	1617	2264	-	-	-	-
	1000	400	22	45	88	170	311	601	812	1136	1595	2235	3182	4353	-
	750	300	17	35	68	132	241	468	633	884	1243	1742	2492	3406	4645
2.8	1500	535	27	53	115	224	409	789	1063	1489	2068	-	-	-	-
	1000	360	19	37	80	155	284	552	745	1048	1456	2049	2945	4000	-
	750	270	15	29	62	120	220	429	580	816	1134	1593	2296	3118	4232
3.15	1500	475	23	47	96	203	375	709	990	1359	1924	2658	3790	5036	6666
	1000	315	16	33	67	140	260	496	695	952	1352	1817	2681	3067	4807
	750	235	13	25	52	109	202	385	540	740	1052	1458	2084	2802	3747
3.55	1500	425	20	41	85	179	337	639	898	1210	1730	2410	3407	4460	6119
	1000	280	14	28	59	124	234	446	628	845	1210	1694	2396	3196	4395
	750	210	11	22	46	96	181	346	488	655	940	1312	1856	2483	3419
4	1500	375	17	34	69	155	300	570	774	1095	1555	2146	2981	3985	5651
	1000	250	12	24	48	107	208	396	539	764	1088	1501	2090	2838	4033
	750	187	9	18	37	83	161	307	418	590	844	1160	1618	2199	3128
4.5	1500	335	14	29	55	137	260	495	703	997	1367	1878	2619	3635	4912
	1000	220	9.5	20	38	95	180	344	488	694	953	1311	1832	2582	3485
	750	166	7	15	30	73	139	266	378	536	738	1015	1416	1997	2694
5	1500	300	11	25	48	121	229	451	608	864	1179	1680	2340	3149	4400
	1000	200	8	17	33	84	159	313	442	599	820	1168	1629	2231	3152
	750	150	6	13	26	65	123	242	326	462	633	900	1257	1742	2418
5.6	1500	270	10	20	40	109	211	389	531	779	1031	1564	2038	2791	3778
	1000	180	7	14	27	75	146	270	368	540	716	1088	1417	1969	2670
	750	134	5	11	21	59	113	208	285	416	554	838	1092	1519	2061
6.3	1500	240	-	16	36	90	175	353	465	651	944	1313	1804	2547	3342
	1000	160	-	11	25	63	121	244	322	451	655	911	1252	1795	2356
	750	120	-	9	19	49	94	189	249	349	507	704	964	1388	1817

注：本表内功率均为名义功率，选用时请严格按照选用方法：一般配套电机功率：P <表中 s 功率 ÷ (2 ~ 3)。
Note:In table,power means nominal Power,strictly according to select method:in usual,fitted motor power should smaller than a half to a third of nominal power.

表 10 ZDY 减速器热功率 P_{G1}、P_{G2} Table 10 ZDY decelerator thermal power P_{G1}、P_{G2}

散热冷却条件 radiating and cooling condition			规格 Specs												
没有冷却措施 Without cooling measurement	环境条件 Environmental condition	环境气流速度w Ambient air current speed w m/s	80	100	125	160	200	250	280	315	355	400	450	500	560
			P_{G1} kW												
	空间小、厂房小 Small space, and plant	⩾0.5	13	20	31	48	77	115	145	182	228	286	365	440	542
	较大的房间、车间 Larger room and plant	⩾1.4	18	29	43	68	110	160	210	270	320	415	515	620	770
	在户外露天 outdoor	⩾3.7	24	38	58	92	145	220	275	360	425	550	690	840	1020
盘状管冷却或循环油润滑 Discoid cooling	环境条件 Environmental condition	水管内径d Inner diameter of water pipe d(dm)	0.08	0.08	0.08	0.12	0.12	0.15	0.15	0.20	0.20	0.20	0.20	0.20	0.20
		环境气流速度W Ambient air current speed w m/s	P_{G2} kW												
	空间小、厂房小 Small space, and plant	⩾0.5	43	65	90	180	300	415	490	610	695	870	1010	1190	1300
	较大的房间、车间 Larger room and plant	⩾1.4	48	75	100	200	330	465	550	695	790	1000	1160	1380	1530
	在户外露天 outdoor	⩾3.7	54	90	120	220	365	520	625	790	900	1140	1340	1600	1780

注：当采用循环油润滑时，可按 润滑系统计算适当提高 P_{G1}

Note: If circular oil is used, P_{G1} may be increased according to lubricating calculation.

TAILONG MACHINERY

表 11 ZLY 减速器功率 P_A Table 11 ZLY decelerator power P_A

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min 输入n_1 Input n_1	输出n_2 Input n_2	112	125	140	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			规格 Specs 公称输入功率 kW Nominal input power P_A kW																
6.3	1500	240	37.4	54	73	114	157	221	305	424	578	791	1156	1650	2192	3132	4310	-	-
	1000	160	26.4	37.4	50	78	109	153	211	294	400	548	802	1146	1558	2181	3000	4347	6229
	750	120	19.54	28.6	38.5	60	84	119	163	227	308	422	618	884	1213	1685	2320	3357	4884
7.1	1500	210	34	49	66	104	143	201	277	385	525	719	1051	1500	1993	2847	3817	-	-
	1000	140	24	34	45.5	71	99	139	192	267	364	498	729	1042	1416	1983	2731	3952	5663
	750	106	17.7	26	35	54.5	76	108	148	206	280	384	562	804	1103	1532	2109	3052	4440
8	1500	185	32	43	61	94.5	130	181.5	250	347	469	678	932	1309	1869	2489	3520	-	-
	1000	125	21.5	29.5	42.4	64	93	126	173	241	325	470	646	908	1298	1730	2447	3398	5019
	750	94	17	23	33	49	69	97	133	186	251	362	498	700	1000	1333	1887	2619	3881
9	1500	167	29	38.5	56	81	119	165.5	227	315	423	612	841	1182	1689	2248	3183	-	-
	1000	111	20	27	38.5	55	82.5	115	157	218	293	424	583	819	1172	1561	2210	3068	4537
	750	83	15	20.5	30	42	64	88	121	168	226	327	449	631	903	1202	1703	2363	3502
10	1500	150	26	35	50	73	109	149	204	284	383	555	762	1070	1530	2038	2883	-	-
	1000	100	18	24	35	50	75	103	142	197	266	384	528	742	1061	1414	2001	2777	4112
	750	75	14	18.5	26.6	38	58	80	109	152	204	296	407	571	817	1088	1541	2139	3172
11.2	1500	134	23	31.5	45	66	96	133	184	255	346	500	688	966	1381	1839	2604	-	-
	1000	89	16	22	31	45	67	92	127	177	240	347	477	669	957	1275	1806	2506	3711
	750	67	12	17	24	35	51	71	98	136	185	267	367	516	737	982	1391	1930	2862

TAILONG MACHINERY

续表 11 Table 11 continued

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r/min 输入n_1 Input n_1	输出n_2 Input n_2	规格 Specs 112	125	140	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW																
12.5	1500	120	21	28	40	59	83	116.5	165	229	311	450	618	869	1242	1654	2341	-	-
	1000	80	14	19.5	28	40	57	81	114	159	216	312	428	601	860	1146	1621	2251	3338
	750	60	11	15	21	31	44	63	88	122	166	240	330	463	663	882	1249	1734	2573
14	1500	107	18.5	25	36	52.5	74	105	148	206	279	404	555	779	1115	1485	2162	2918	4318
	1000	71	12.5	17.6	25	36	51	73	102	142	193	280	384	540	772	1028	1455	2020	2996
	750	54	9.8	13	19	27.6	39	56	79	110	149	216	296	416	594	792	1120	1555	2310
16	1500	94	16	22	31	47.5	70.5	98	133	185	251	362	498	700	1000	1333	1887	2619	3879
	1000	62	11	15	21.5	32	49	68	92	128	174	251	345	484	693	923	1306	1812	2690
	750	47	8	11.5	17	25	38	53	71	99	134	193	266	373	533	711	1005	1395	2073
18	1500	83	14	19.5	28	42.5	60.5	86	115	161	225	326	448	629	899	1197	1697	2353	3487
	1000	56	10	13.5	19.6	29	42	59.5	80	111	156	226	310	435	622	829	1175	1628	2417
	750	42	7.5	10.5	15	22	32	46	61	86	120	174	239	335	479	638	905	1252	1861
20	1500	75	13	18	25.5	38	59	77	103	142	205	296	418	587	839	1120	1580	2200	3260
	1000	50	9	12	18	26.5	41	53.5	72	95	142	205	279	392	560	746	1050	1460	2170
	750	38	6.8	9.5	14	20	32	41	55	76	109	158	210	295	420	562	735	1120	1635

注：本表内功率均为名义功率，选用时请严格按照选用方法：一般配套电机功率：P＜表中功率÷(2~3)。
Note:In table,power means nominal Power,strictly according to select method:in usual,fitted motor power should smaller than a half to a third of nominal power.

表 12 ZLY 减速器热功率 P_{G1}、P_{G2} Table 12 ZLY decelerator thermal power P_{G1}、P_{G2}

散热冷却条件 radiating and cooling condition			规格 Specs 112	125	140	160	180	200	224	250	280	315	355	400	450	500	560	630	710
没有冷却措施 Without cooling measurement	环境条件 Environmental condition	环境气流速度w Ambient air current speed w m/s	P_{G1} kW																
	空间小、厂房小 Small space, and plant	≥0.5	16	20	24	30	38	48	60	74	92	115	145	181	226	276	345	430	540
	较大的房间、车间 Larger room and plant	≥1.4	20	28	35	43	54	67	87	105	130	165	210	255	320	405	485	620	760
	在户外露天 outdoor	≥3.7	30	38	47	57	73	88	115	140	175	220	275	345	420	530	650	810	1000
盘状管冷却或循环油润滑 Discoid cooling		水管内径d Inner diameter o water pipe d(dm	0.08	0.08	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	环境条件 Environmental condition	环境气流速度w Ambient air current speed w m/s	P_{G2} kW																
	空间小、厂房小 Small space, and plant	≥0.5	34	41	98	104	150	170	200	225	266	280	305	365	415	490	550	680	800
	较大的房间、车间 Larger room and plant	≥1.4	38	50	109	116	170	190	225	260	305	330	370	440	510	620	690	870	1010
	在户外露天 outdoor	≥3.7	48	60	120	130	200	210	250	295	350	385	435	530	610	750	860	1060	1250

注：当采用循环油润滑时，可按润滑系统计算适当提高 P_{G2}
Note: If circular oil is used, P_{G2} may be increased according to lubricating calculation.

表 13 ZSY 减速器功率 P_A　Table 13 ZSY decelerator power P_A

公称转动比 i Nominal drive ratio i	输入 n_1 Input n_1 r/min	输出 n_2 Output n_2 r/min	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW													
22.4	1500	67	34	51	68	98	131	182	270	400	530	780	1065	1450	1865	-
	1000	44	24	35	48	68	91	128	185	262	355	540	750	1025	1325	1905
	750	33	18	27	37	52	70	97	135	215	275	415	580	800	1030	1458
25	1500	60	32	46	63	96	115	157	240	365	470	705	1020	1405	1865	-
	1000	40	22	31	43	66	80	108	163	250	315	465	705	975	1325	1905
	750	30	16	24	33	51	60	84	122	195	240	350	540	750	1030	1485
28	1500	54	29	42	58	86	113	142	220	325	425	625	945	1260	1800	-
	1000	36	20	29	41	60	75	98	148	215	280	420	650	870	1245	1760
	750	27	15	22	31	46	56	76	114	160	210	310	500	670	960	1355
31.5	1500	48	26	37	51	79	95	127	197	290	395	560	840	1140	1600	-
	1000	32	17	26	35	55	63	86	132	195	260	370	585	790	1110	1565
	750	24	14	20	27	42	49	65	100	145	200	280	450	605	855	1200
35.5	1500	42	23	34	47	70	88	117	178	275	350	510	755	1025	1450	-
	1000	28	15	23	32	48	59	80	118	180	235	340	520	710	1000	1410
	750	21	12	18	25	37	44	61	90	140	175	255	405	545	750	1090
40	1500	38	21	30	42	64	79	107	158	235	325	465	675	930	1300	-
	1000	25	17	21	29	40	53	71	108	160	210	315	465	640	900	1315
	750	19	11	16	22	31	41	55	80	125	155	235	360	465	680	1015
45	1500	33	17	24	34	46	70	96	142	215	280	410	615	850	1130	1700
	1000	22	12	16	24	32	47	64	95	145	185	280	425	590	770	1150
	750	17	9	12	18	25	36	50	74	110	140	210	320	450	600	885
50	1500	30	15	22	32	46	63	85	128	195	245	360	540	750	1030	1490
	1000	20	11	15	22	31	43	59	85	130	165	240	370	520	710	1030
	750	15	8	12	17	24	32	43	65	95	125	180	290	400	550	795

TAILONG MACHINERY

续表 13　Table 13 continued

公称转动比 i Nominal drive ratio i	输入 n_1 Input n_1 r/min	输出 n_2 Output n_2 r/min	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW													
56	1500	27	15	21	31	43	56	76	112	170	220	310	480	675	955	1340
	1000	18	10	15	22	30	38	52	77	115	145	210	330	470	660	930
	750	13.4	8	11	17	23	28	40	58	90	110	160	255	360	510	715
63	1500	24	12	17	23	37	45	61	102	145	195	280	425	605	860	1170
	1000	16	8	12	16	25	30	42	70	100	130	190	290	420	600	810
	750	12	6	9	12	20	23	32	52	75	100	140	225	325	460	620
71	1500	21	11	17	23	33	40	56	90	130	185	245	390	540	770	1045
	1000	14	8	11	15	23	27	38	60	90	115	170	270	370	540	725
	750	10.6	6	9	12	18	21	29	45	65	90	125	210	285	410	555
80	1500	18.8	9	13	18	26	36	51	80	115	155	225	340	470	675	960
	1000	12.5	6	9	12	18	24	34	54	80	100	150	240	330	470	665
	750	9.4	4	7	10	14	19	27	42	60	80	110	185	250	360	510
90	1500	16.7	8	12	18	25	33	46	74	105	140	200	305	395	590	765
	1000	11.1	6	8	12	17	22	30	49	70	95	130	200	278	405	530
	750	8.3	4	6	9	13	17	23	37	55	70	100	160	210	300	405
100	1500	5	8	11	16	24	30	43	60	-	-	-	-	-	-	-
	1000	10	5	7	11	16	21	29	40	-	-	-	-	-	-	-
	750	7.5	4	6	8	13	16	22	30	-	-	-	-	-	-	-

注：本表内功率均为名义功率，选用时请严格按照选用方法：一般配套电机功率：P ＜表中功率 ÷ (2 ~ 3)。
Note:In table,power means nominal Power,strictly according to select method:in usual,fitted motor power should smaller than a half to a third of nominal power.

表 14 ZSY 减速器热功率 P_{G1}、P_{G2} Table 14 ZSY decelerator thermal power P_{G1}、P_{G2}

散热冷却条件 radiating and cooling condition	环境条件 Environmental condition	环境气流速度 w Ambient air current speed w m/s	160	180	200	224	250	280	315	355	400	450	500	560	630	710
没有冷却措施 Without cooling measurement			P_{G1} kW													
	空间小、厂房小 Small space, and plant	≥0.5	24	30	37	45	56	69	86	110	135	165	208	253	322	400
	较大的房间、车间 Larger room and plant	≥1.4	34	42	52	64	80	98	116	155	190	235	300	365	450	570
	在户外露天 outdoor	≥3.7	46	57	69	87	108	132	162	205	250	310	400	475	600	760
盘状管冷却或循环油润滑 Discoid cooling		水管内径d Inner diameter of water pipe d(dm)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	环境条件 Environmental condition	环境气流速度 w Ambient air current speed w m/s	P_{G2} kW													
	空间小、厂房小 Small space, and plant	≥0.5	70	77	92	106	150	160	180	210	350	370	430	480	700	770
	较大的房间、车间 Larger room and plant	≥1.4	80	89	107	125	175	190	210	255	400	440	520	590	820	940
	在户外露天 outdoor	≥3.7	90	105	124	148	200	225	255	310	460	510	620	700	970	1150

TAILONG MACHINERY

表 15 ZFY 减速器功率 P_A Table 15 ZFY decelerator thermal power P_A

公称转动比 i Nominal drive ratio i	减速器规格 输入 n_1 Input n_1 r/min	输出 n_2 Output n_2 r/min	180	200	225	250	280	320	360	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW												
100	1500 1000 750	15 10 7.5							99 66 50	130 87 65	190 125 95	290 195 145	400 265 205	540 360 270	780 520 400
112	1500 1000 750	13.4 8.9 6.7	9.2 6.1 4.6	15 10 7.5	21 14 11	29 20 15	40 27 20	59 40 29	88 59 44	115 78 59	170 115 85	255 170 130	360 240 185	480 320 245	690 470 355
125	1500 1000 750	12 8 6	9.2 6.1 4.6	12 8 6	18.5 12.5 9.3	26 17.5 13	36 24 18	52 35 26.5	81 54 41	105 70 53	150 100 75	230 155 115	320 215 165	430 285 215	610 410 310
140	1500 1000 750	10.7 7.1 5.4	8.4 5.9 4.2	11 7.3 5.5	16.5 11 8.3	23 16 12	32 21.5 16	46 31 23	72 48 36	92 61 46	135 90 68	205 135 105	290 195 145	380 255 190	550 370 280
160	1500 1000 750	9.4 6.3 4.7	7.5 5 3.8	9.6 6.4 4.8	14.5 9.7 7.6	20 14 10	28 18.5 14	41 27.5 21	64 43 32	81 54 41	120 80 60	180 120 92	255 170 130	340 255 170	490 330 250
180	1500 1000 750	8.3 5.6 4.2	6.6 4.4 3.3	8.4 5.6 4.2	13 8.7 6.5	19 12.5 9.5	25 17 13	37 25 18.5	57 38 29	70 47 35	105 70 53	160 105 82	225 150 115	300 200 155	440 295 220
200	1500 1000 750	7.5 5 3.8	5.6 3.7 2.8	7.5 5 3.8	12 8 6	15.5 10.5 8	22 14.5 11.5	33 22 17	51 34 26	64 43 32	95 63 48	145 97 73	205 135 105	275 180 135	390 260 200
224	1500 1000 750	6.7 4.5 3.3	4.8 3.2 2.4	6.7 4.5 3.4	10.5 7 5.3	14 9.3 7	20 13.5 10.5	29 20 15	45 30 23	57 38 28.5	83 55 42	130 87 66	185 125 94	240 160 120	360 240 180
250	1500 1000 750	9 4 3	4.5 3 2.3	6.1 4.1 3.1	9.5 6.3 4.8	12.5 8.5 6.5	17.5 12 9	26 17.5 13	41 27.5 20.5	51 34 25.5	73 49 37	115 77 58	165 110 83	215 145 110	320 215 160
280	1500 1000 750	5.4 3.6 2.7	3.9 2.6 2	5.3 3.5 2.7	8.2 5.6 4.2	11 7.5 5.6	15.5 10.5 8	23 17.5 12	37 24.5 19	46 31 23	66 44 34	100 67 51	145 97 73	195 130 96	280 185 140
315	1500 1000 750	4.8 3.2 2.4	3.5 2.3 1.8	4.7 3.1 2.4	7.5 5.1 3.8	9.5 6.5 5	13.5 9 7	21 14 10.5	32 21.5 16.5	42 28 21	59 39 30	92 61 47	130 87 66	175 115 88	250 165 125
355	1500 1000 750	4.2 2.8 2.1	2.9 1.8 1.5	4 2.7 2	6.5 4.5 3.3	8.5 6 4.5	12 8.5 6.5	18 12 9.5	29 19.5 14.5	37 24.5 18.5	52 35 26.5	83 55 42	135 77 59	155 105 78	225 150 115
400	1500 1000 750	3.8 2.5 1.9	2.6 1.7 1.3	3.6 2.4 1.8	6 4 3	8 5.3 4	11 7.5 5.6	16.5 11 8.3	26 17.5 13.5	33 22 16.5	46 31 23.5	73 48 37	100 68 52	115 90 68	195 130 99
450	1500 1000 750	3.3 2.2 1.7	2.3 1.5 1.2	3.2 2.1 1.6	5 3.5 2.6	7 4.7 3.5	10 6.6 5.1	13.5 9 6.8	21.5 14.5 11	29 19.5 14.5	40 26.5 20	65 44 33	93 62 47	125 83 63	175 115 89
500	1500 1000 750	3 2 1.5	2.1 1.4 1.1	2.9 1.9 1.5	4.2 2.8 2.1	6 4 3	9.1 6.1 4.6	12 8 6	19.5 13 9.6	26 17.5 13	36 24 18	59 36 30	82 55 42	110 73 55	155 105 79

注：本表内功率均为名义功率，选用时请严格按照选用方法：一般配套电机功率：P ＜表中功率 ÷ (2 ~ 3)。
Note:In table,power means nominal Power,strictly according to select method:in usual,fitted motor power should smaller than a half to a third of nominal power.

表 16 ZFY 减速器热功率 P_{G1}

Table 16 ZFY decelerator thermal power P_{G1}

环境、冷却情况 Environment cooling situation	空气流速 Air circulation (w)	齿轮箱规格 Gearbox specs											
		180	200	225	250	280	320	360	400	450	500	560	630	710
		热功率 kW Thermal power P_{G1} kW											
安装场地小，无冷却装置 Installation site is small without cooling device	W ⩾0.5m/s	27	33	41	52	64	78	99	120	150	190	230	290	360
安装场地大，(车间大等)无冷却装置 Installation site is large without cooling device	W ⩾1.4m/s	39	47	59	74	90	110	140	170	210	265	330	410	510
室外无冷却装置 Outdoor without cooling device	W ⩾3.7m/s	52	62	78	98	120	145	190	230	280	360	430	550	680

注：如果按照〝热功率校核计算〞需要采用冷却装置，必须加以说明。

Note: If cooling device is needed according to 〝Thermal power verifying calculation〞,it should be specified.

TAILONG MACHINERY

表 17 DBY, DBYK 型减速器功率 P_A Table 17 DBY, DBYK decelerator power P_A

公称转动比 i Nominal drive ratio i	公称转速 Nominal speed r/min		名义中心距 Nominal center momtent											
			160	180	200	224	250	280	315	355	400	450	500	560
	输入 n_1 Input n_1	输出 n_2 Output n_2	公称输入功率 Nominal input power P_A kw											
8	1500	188	81	115	145	205	320	435	610	750	1080	1680△	2100△	-
	1000	125	56	86	110	155	245	325	465	560	810	1260	1700	2200
	750	94	42	55	88	125	185	250	340	465	660	950	1400	1800
10	1500	150	67	92	130	165	255	345	480	610	910	1370	1900△	-
	1000	100	44	69	94	125	195	260	360	465	620	950	1270	1710
	750	75	34	46	73	105	155	210	295	380	510	710	950	1300
11.2	1500	134	59	81	115	150	235	325	450	560	840	1200	1550	-
	1000	89	40	61	84	130	175	245	340	430	630	810	1030	1380
	750	67	31	41	65	98	140	185	240	350	470	610	780	1040
12.5	1500	120	53	75	105	140	210	285	390	500	760	980	1260	1550△
	1000	80	36	56	74	105	145	215	265	380	480	660	850	1110
	750	60	27	36	56	76	110	150	190	270	365	500	640	840
14	1500	107	48	66	81	125	190	260	345	465	580	780	1000	1150△
	1000	71	31	42	54	84	110	165	205	310	415	520	680	900
	750	53	23	31	38	60	80	115	145	235	310	400	510	690

注：1) △需采用循环油润滑

2)本表内功率均为名义功率，选用时请严格按照选用方法：一般配套电机功率：P＜表中功率÷(2～3)。

Note: 1)△ Circular oil lubrication is needed

2)In table,power means nominal Power,strictly according to select method:in usual,fitted motor power should smaller than a half to a third of nominal power.

表 18 DBY, DBYK 型减速器热功率 P_{G1}

Table 18 DBY, DBYK decelerator thermal power P_{G1}

环境条件 Environmental condition	空气流速 Air circulation m/s	名义中心距 a Nominal center moment a											
		160	180	200	224	250	280	315	355	400	450	500	560
		减速器不附加冷却装置的热功率 P_{G1} kW Thermal power of decelerator without additional cooling device P_{G1} kW											
狭小空间内 Within narrow space	⩾0.5	32	40	50	61	76	95	118	143	180	225	279	355
中、大型车间内 Within large and middle space	⩾1.4	45	57	71	85	106	133	165	201	252	316	391	497
室外 Outdoor	⩾3.7	62	77	96	116	144	181	224	272	342	429	531	675

注：减速器附装冷却管时的热功率 P_{G2}，可根据需要进行设计。

Note: Thermal power of decelerator with additional cooling device P_{G2} ,may be designed on client′s demand.

表 19 DCY, DCYK 型减速器公称功率 P_A Table 19 DCY, DCYK decelerator power P_A

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min 输入n_1 Input n_1	输出n_2 Input n_2	160	180	200	224	250	280	315	355	400	450	500	560	630	710	800
			名义中心距 Nominal center moment — 公称输入功率 kW Nominal input power P_A kW														
16	1500	94	45	61	80	120	160	230	305	440	600△	830△	1350△	1850△	-	-	-
	1000	63	30	43	60	85	115	170	230	330	440	630	1010	1420△	2200△	2500△	2850
	750	47	24	35	45	70	85	140	185	270	360	510	830	1180	1600	2300△	2600
18	1500	83	42	58	75	110	150	210	290	440	560	780△	1350△	1850△	-	-	-
	1000	56	30	40	53	75	105	155	215	330	420	590	1000	1400	1860△	2500△	2850△
	750	42	23	32	42	65	80	120	175	260	345	480	790	1120	1460	2180△	2500
20	1500	75	39	53	68	100	135	195	270	430	550	780△	1320△	1800△	-	-	-
	1000	50	27	36	48	70	95	140	200	315	380	550	880	1240△	1640△	2400△	2850△
	750	38	20	28	38	55	75	110	160	245	310	445	700	1000	1290	1920	2500
22.4	1500	67	34	50	65	94	130	175	250	400	510	730	1170△	1540△	-	-	-
	1000	45	23	34	48	65	90	130	185	290	360	520	780	1100	1450△	2120△	2600△
	750	33	17	25	36	49	70	95	140	220	275	400	620	880	1140	1710	2460
25	1500	60	30	44	62	83	115	160	225	350	460	650	1030	1460△	-	-	-
	1000	40	20	30	42	57	80	110	165	255	315	460	730	1040	1350△	2010△	2600△
	750	30	15	23	32	43	60	85	125	195	240	350	550	780	1010	1510	2180△
28	1500	54	22	37	48	75	92	140	215	320	405	590	910	1290△	-	-	-
	1000	36	15	25	34	52	66	94	150	225	285	420	640	910	1190	1770△	2500△
	750	27	12	19	26	39	50	71	115	170	215	315	490	690	890	1330	1920△
31.5	1500	48	20	33	44	69	85	120	195	290	385	550	820	1170	-	-	-
	1000	32	14	22	31	46	59	83	130	200	255	370	580	920	1070	1600△	2310△
	750	24	10	17	23	34	44	62	100	150	190	280	440	620	800	1200	1740△
35.5	1500	42	18	30	40	62	77	110	180	260	345	500	770	1100	1430	2120	-
	1000	28	12	20	28	42	53	75	120	180	230	340	510	720	950	1410	2030△
	750	21	9	15	21	31	40	56	90	135	175	250	385	540	710	1060	1540△
40	1500	38	17	27	36	56	69	98	160	235	310	450	690	990	1290△	1920	-
	1000	25	11	18	25	41	47	67	120	160	225	330	465	660	860	1280△	1850△
	750	19	8.5	14	19	29	36	52	82	125	155	230	350	495	640	960	1390△
45	1500	33.5	15	24	33	50	64	90	145	215	275	400	620	880	1150	1720△	2100△
	1000	22	10	16	22	33	42	60	95	145	180	265	455	640	840	1250	1810
	750	16.6	7.5	12	17	26	32	46	74	110	140	205	320	455	600	870	1260
50	1500	30	13	21	30	44	57	80	130	195	245	360	550	780	1030	1540△	2050△
	1000	20	9	14	20	31	38	54	87	130	165	240	365	520	680	1020	1480
	750	15	7	11	15	23	29	41	65	99	120	180	290	410	540	780	1130

注：1) △需采用循环油润滑
2)本表内功率均为名义功率，选用时请严格按照选用方法：一般配套电机功率：P＜表中功率÷(2~3)。
Note: 1)△ Circular oil lubrication is needed
2)In table,power means nominal Power,strictly according to select method:in usual,fitted motor power should smaller than a half to a third of nominal power.

TAILONG MACHINERY

表 20 DCY, DCYK 型减速器热功率 P_{G1}
Table 20 DCY, DCYK decelerator thermal power P_{G1}

环境条件 Environmental condition	空气流速 Air circulation m/s	160	180	200	224	250	280	315	355	400	450	500	560	630	710	800
		名义中心距 α Nominal center moment α — 减速器不附加冷却装置的热功率P_{G1} kW Thermal power of decelerator without additional cooling device P_{G1} kW														
狭小空间内 Within narrow space	≥0.5	22	27	34	41	52	65	81	99	124	156	192	245	299	384	482
中、大型车间内 Within large and middle space	≥1.4	31	38	48	58	73	91	114	139	174	218	270	343	419	537	675
室外 Outdoor	≥3.7	42	52	65	79	99	124	155	189	237	296	366	465	568	730	910

注：减速器附装冷却管时的热功率 P_{G2}，可根据需要进行设计。
Note: Thermal power of decelerator with additional cooling device P_{G2} ,may be designed on client' s demand.

DFY, DFYK 型减速器额定功率表 Rated power of DFY , DFYK decelerator

额定功率P_{IN} kW 传动比i_N转速n_{IN}及n_{2N}
Rated power P.kw transmission ratio,in wheeling speed n_{IN} and n_{2N}

公称转动比i Nominal drive ratio i	n_1 公称转速 Nominal speed r/min r.p.m	n_2	160	180	200	225	250	280	320	360	400	450	500	560	630	710
			减速器规格 Specs — 额定功率P_A kW Rated Power													
90	1500 1000 750	16.7 11.1 8.3								105 71 53	145 98 73	205 140 105	300 205 155	420 285 210	560 370 280	800 530 400
100	1500 1000 750	15 10 7.5	7.4 5 3.7	10.5 7.1 5.3	14.5 9.8 7.3	22 15 11.5	29.5 20 15	42 28 21	66 45 34	99 66 51	130 88 66	185 125 93	290 195 145	400 270 205	540 360 270	780 520 390
112	1500 1000 750	13.4 8.9 6.7	6.5 4.4 3.3	9.5 7 5	13.5 9.5 7	21 14.5 10.5	27.5 18.5 14	38 25.5 19.5	59 39 30	87 60 45	115 78 58	170 115 86	255 170 130	360 240 185	480 320 240	690 470 355
125	1500 1000 750	12 8 6	5.8 3.9 2.9	9 6.1 4.6	12.5 8.6 6.5	18.5 12.5 9.1	24.5 16.5 12.5	34 23 17.5	52 35 26.5	79 54 41	100 68 51	150 100 75	230 155 115	320 215 165	430 285 215	610 410 310
140	1500 1000 750	10.7 7.1 5.4	5.2 3.5 2.6	8 5.6 4.2	11.5 7.6 5.7	16.5 11.5 8.1	22.5 15.5 11.5	30 21 16	47 32 24	71 49 36	89 60 45	135 91 68	205 140 105	295 195 150	380 255 195	550 365 275
160	1500 1000 750	9.4 6.3 4.7	4.6 3.1 2.3	7.3 5 3.7	10 7.1 5.1	14.5 9.5 7.4	20 13.5 10.5	27.5 18.5 14	42 27.5 21.5	63 42 32	81 55 41	115 77 58	180 120 92	260 175 135	340 225 170	490 330 250
180	1500 1000 750	8.3 5.6 4.2	4.1 2.8 2.1	6.4 4.3 3.2	9.1 6.1 4.6	13 8.6 6.6	17.5 12 9	24.5 16.5 12.5	38 25.5 19.5	57 38 29	72 48 36	100 69 52	160 105 82	225 150 115	295 200 150	440 295 220
200	1500 1000 750	7.5 5 3.8	3.6 2.4 1.9	5.8 3.9 2.9	8.1 5.5 4.3	12 8.1 6.1	15.5 10.5 8	22.5 14.5 11.5	23 22.5 17	51 34 26.5	64 43 32	92 61 46	145 97 73	205 135 105	270 180 135	390 260 260
224	1500 1000 750	6.7 7.5 3.3	3.2 2.2 1.7	5.1 3.5 2.6	7.1 4.8 3.8	10.5 7.1 5.3	14 9.3 7.1	19.5 13.5 10	30 20.5 15.5	46 31 23.5	57 38 27	83 55 42	130 87 66	185 125 94	240 160 120	360 240 180
250	1500 1000 750	6 4 3	2.9 2 1.5	4.7 3.2 2.4	6.6 4.5 3.4	9.2 6.1 4.6	12.5 8.5 6.5	17.5 12 9	26.5 17.5 13.5	40 27 20.5	51 34 26	72 49 37	115 77 58	165 110 83	215 145 110	320 215 160
280	1500 1000 750	5.4 3.6 2.7	2.6 1.8 1.3	3.5 2.4 1.8	5.6 3.9 2.8	8.1 5.6 4.2	11.5 7.6 5.6	16 11 8.1	13.5 16 12	36 24 18.5	46 31 23	66 47 33	100 67 51	145 97 73	195 130 98	280 185 140
315	1500 1000 750	4.8 3.2 2.4	2.4 1.6 1.2	3.2 2.2 1.6	5.1 3.5 2.6	7.5 4.9 3.8	9.6 6.6 5	14 9.1 7.1	21 14 11	33 21.5 16.5	40 27 20.5	58 39 29.5	92 61 47	130 87 66	170 115 86	250 165 125
355	1500 1000 750	4.2 2.8 2.1	2.2 1.5 1.1	2.9 2 1.5	4.6 3 2.3	6.6 4.4 3.3	8.6 6.1 4.4	12 8.1 6.1	18 12 9.1	24 16.5 12.5	36 24 18	46 31 23.5	83 54 42	115 77 59	155 105 78	210 140 105
400	1500 1000 750	3.8 2.5 1.9	1.8 1.2 0.9	2.5 1.7 1.3	2.9 2.6 2	5.7 3.9 2.9	7.5 5.1 3.8	10 6.8 5.1	15.5 10.5 7.8	22 14.5 11.5	30 20 5.5	41 27.5 20.5	72 48 37	100 68 52	125 84 63	175 115 88
450	1500 1000 750	3.3 2.2 1.7	1.5 1 0.8	2.2 1.5 1.2	3.1 2.1 1.6	5 3.3 2.5	6.8 4.6 3.5	9 6.1 4.6	13.5 9.1 6.8	19.5 13.5 10	28 19 14	37 25 18.5	58 39 29.5	88 59 45	110 74 56	155 105 78
500	1500 1000 750	3 2 1.5		1.9 1.3 1	2.6 1.8 1.3	3.9 2.6 2	6.1 4.1 3.1	7.3 4.9 3.7	10.5 7.1 5.3	17 11.5 8.6	24 16 12	33 22.5 16.5	50 34 25.5	71 47 36	97 65 49	150 100 76

注：本表内功率均为名义功率，选用时请严格按照选用方法：一般配套电机功率：P＜表中功率÷(2~3)。
Note: In table,power means nominal Power,strictly according to select method:in usual,fitted motor power should smaller than a half to a third of nominal power.

热容量表　Heat Capacity

环境、冷却情况 Environment cooling situation			空气流速 Air circulation (w)	减速器规格 specs 160	180	200	225	250	280	320	360	400	450	500	560	630	710
				热容量PG1 kW													
PG1	不带冷却	窄小空间	W≥ 0.5m/s	17	21	26	32	40	50	63	78	96	120	150	185	230	290
		大厂房、车间等	W≥ 1.4m/s	23	30	37	45	57	72	96	110	140	170	210	260	330	410
		室外	W≥ 3.7m/s	32	40	48	60	76	96	115	145	185	225	285	350	430	540

如热容量大于上表数值应附加冷却

Additional cooling equipment is needed if heat capacity exceeds values above.

四、规格及基本参数　Specificaltions and basic parameters

1. ZDY, ZDZ 减速器的装配型式及外形尺寸见图 1,表 21

Installing forms and outer size of ZDY and ZDZ reducer see figure 1, table 21

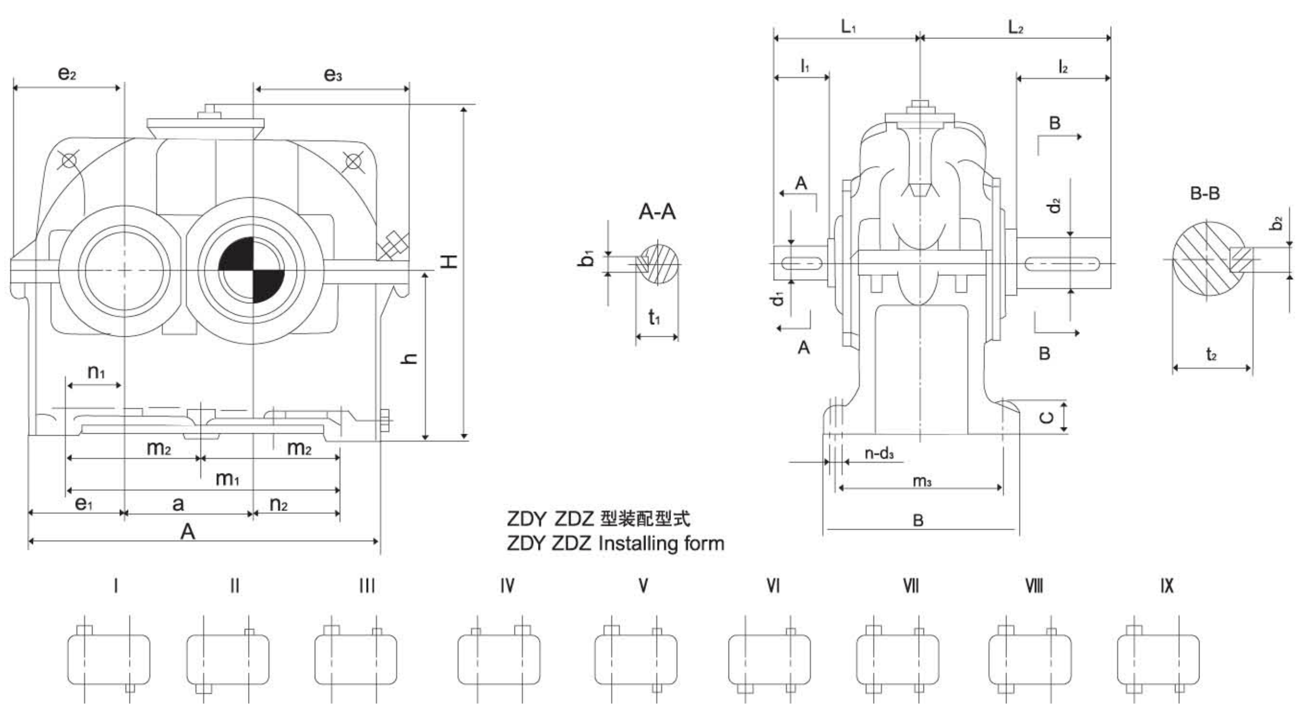


图 1　Figure 1

表 21　Table 21

mm

规格 Specification	A	B	H ≈	a	i=1.25 ~ 2.8 d_1 (m_6)	l_1	L_1	b_1	t_1	i=3.15 ~ 4.5 d_1 (m_6)	l_1	L_1	b_1	t_1	i=5 ~ 5.6 d_1 (m_6)	l_1	L_1	b_1	t_1
80	235	150	210	80	28	42	112	8	31	24	36	106	8	27	19	28	98	6	21.5
100	290	175	260	100	42	82	167	12	45	28	42	127	8	31	22	36	121	6	24.5
125	355	195	330	125	48	82	182	14	51.5	38	58	158	10	41	28	42	142	8	31
160	445	245	403	160	65	105	225	18	69	48	82	202	14	51.5	38	58	178	10	41
200	545	310	507	200	80	130	275	22	85	60	105	250	18	64	48	82	227	14	51.5
250	680	370	662	250	100	165	340	28	106	80	130	305	22	85	60	105	280	18	64
280	755	450	722	280	110	165	385	28	116	85	130	350	22	90	65	105	325	18	69
315	840	500	770	315	130	200	445	32	137	95	130	375	25	100	75	105	350	20	79.5
355	930	550	930	355	140	200	470	36	148	100	165	435	28	106	90	130	400	25	95
400	1040	605	982	400	150	200	485	36	158	110	165	450	28	116	95	130	415	25	100
450	1150	645	1090	450	160	240	545	40	169	120	165	470	32	127	100	165	470	28	106
500	1290	710	1270	500	180	240	580	45	190	130	200	540	32	137	120	165	505	32	127
560	1440	780	1360	560	200	280	660	45	210	150	200	580	36	158	130	200	580	32	137

规格 Specification	d_2 (m_6)	l_2	L_2	b_2	t_2	C	m_1	m_2	m_3	n_1	n_2	e_1	e_2	e_3	h	地脚螺栓孔 Anchor d_3	n	重量 Weigh kg	润滑油量 Lubricant volum L
80	32	58	128	10	35	18	180	-	120	40	60	67.5	81	101	100	12		14	0.9
100	48	82	167	14	51.5	22	225	-	140	52.5	72.5	85	102	122	125	15	4	35	1.6
125	55	82	182	16	59	25	290	-	160	65	100	97.5	119	155	160	15		76	3.2
160	70	105	225	20	74.5	32	355	-	200	73	122	118	141	190	200	18.5	4	115	6.5
200	90	130	275	25	95	40	425	-	255	80	145	140	169	235	250	24	4	228	12.5
250	110	165	340	28	116	50	550	275	305	110	190	175	214	295	315	28	6	400	23
280	130	200	420	32	137	50	620	310	380	120	220	187.5	228	328	355	28		540	36
315	140	200	445	36	148	63	700	350	420	137.5	247.5	207.5	254	364	400	35	6	800	45
355	150	200	470	36	158	63	770	385	470	142.5	272.5	222.5	269	397	450	35		870	70
400	160	240	525	40	169	80	850	425	510	150	300	245	304	454	500	42		1640	90
450	170	240	545	40	179	80	950	475	550	165	335	265	331	501	560	42	6	2100	125
500	190	280	620	45	200	100	1080	540	610	190	390	295	418	618	630	42		3100	180
560	240	330	790	56	252	100	1200	600	680	205	435	325	432	662	710	48	6	3730	250

2. ZLY, ZLZ 减速器的装配型式及外形尺寸见图 2,表 22

Installing forms and outer size of ZLY and ZLZ reducer see figure 2, table 22

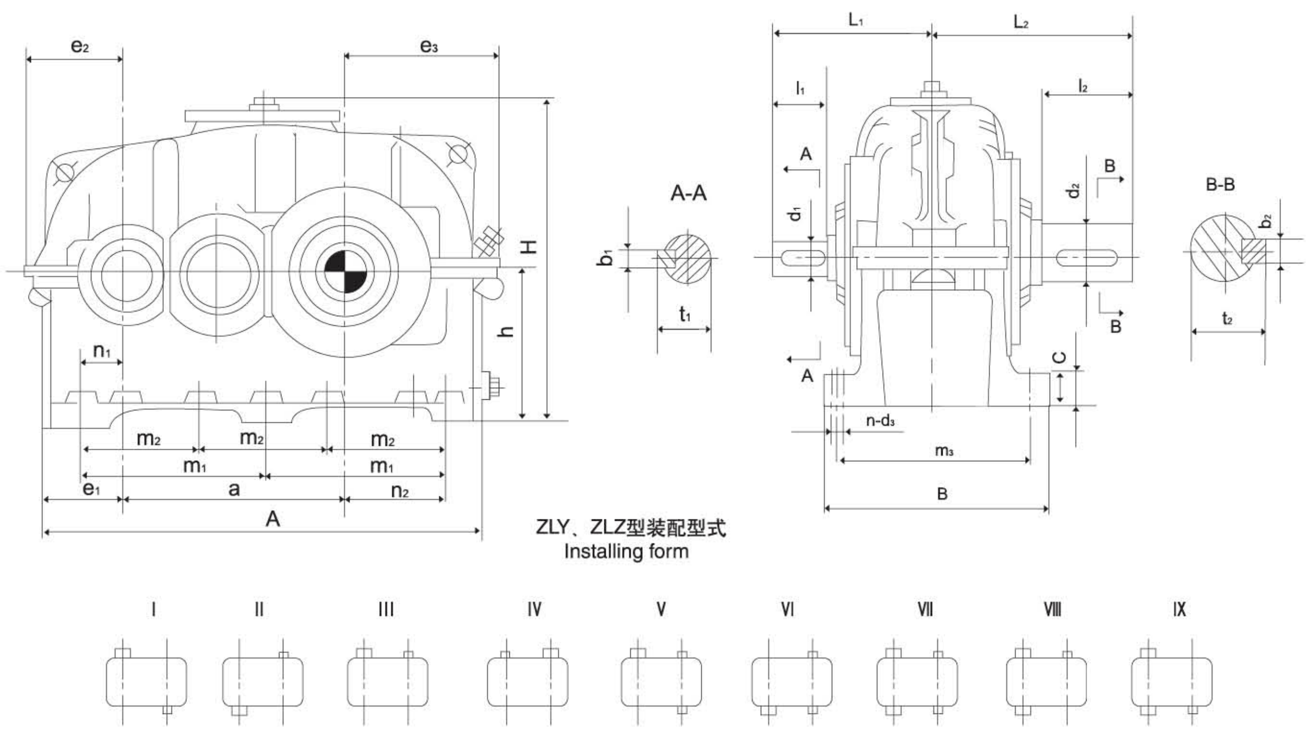


图 2 Figure 2

表 22 Table 22

mm

规格 Specs	A	B	H ≈	a	i=6.3~11.2 d_1 (m_6)	l_1	L_1	b_1	t_1	i=12.5~20 d_1 (m_6)	l_1	L_1	b_1	t_1	d_2 (m_6)	l_2	L_2	b_2	t_2
112	385	215	265	192	24	36	141	8	27	22	36	141	6	24.5	48	82	192	14	51.5
125	425	235	309	215	28	42	157	8	31	24	36	151	8	27	55	82	207	16	59
140	475	245	335	240	32	58	185	10	35	28	42	167	8	31	65	105	230	18	69
160	540	290	375	272	38	58	198	10	41	32	58	198	10	35	75	105	245	20	79.5
180	600	320	435	305	42	82	232	12	45	32	58	208	10	35	85	130	285	22	90
200	665	355	489	340	48	82	247	14	51.5	38	58	223	10	41	95	130	300	25	100
224	755	390	515	384	48	82	267	14	51.5	42	82	267	12	45	100	165	355	28	106
250	830	450	594	430	60	105	315	18	64	48	82	292	14	51.5	110	165	380	28	116
280	920	500	670	480	65	105	340	18	69	55	82	317	16	59	130	200	440	32	137
315	1030	570	780	539	75	105	365	20	79.5	60	105	365	18	64	140	200	470	36	148
355	1150	600	870	605	85	130	410	22	90	70	105	385	20	74.5	170	240	530	40	179
400	1280	690	968	680	90	130	440	25	95	80	130	440	22	85	180	240	560	45	190
450	1450	750	1065	765	100	165	515	28	106	85	130	480	22	90	220	280	640	50	231
					i=6.3~12.5					i=14~20									
500	1600	830	1190	855	110	165	555	28	116	95	130	520	25	100	240	330	730	56	252
560	1760	910	1320	960	120	165	575	32	127	110	165	575	28	116	280	380	820	63	292
630	1980	1010	1480	1080	140	200	660	36	148	120	165	625	32	127	300	380	880	70	314
710	2220	1110	1653	1210	160	240	740	40	169	140	200	700	36	148	340	450	990	80	355

TAILONG MACHINERY

续表 22 Table 22

规格 Specs	C	m_1	m_2	m_3	n_1	n_2	e_1	e_2	e_3	h	地脚螺栓孔 Anchor bolt d_3	n	重量 Weight kg	润滑油量 Lubricant volume L
112	22	160	-	180	43	85	75.5	92	134	125			60	3
125	25	180	-	200	45	100	77.5	98	153	140	15	6	69	4.3
140	25	200	-	210	47.5	112.5	85	106	171	160			105	6
160	32	225	-	245	58	120	103	126	188	180	18.5		155	8.5
180	32	250	-	275	60	135	110	134	209	200	18.5	6	185	11.5
200	40	280	-	300	65	155	117.5	148	238	225	24		260	16.5
224	40	310	-	335	70	165.5	137.5	168	263	250	24		370	23
250	50	350	-	380	80	190	145	184	293	280	28	6	527	32
280	50	380	-	430	75	205	155	195	325	315	28		700	46
315	63	420		490	78	223	173	219	364	355	35		845	65
355	63	475	-	520	92.5	252.5	192.5	238	398	400	35	6	1250	90
400	80	520	-	590	95	265	215	275	445	450	42		1750	125
450	80	-	400	650	117.5	317.5	242.2	305	505	500	42	8	2650	180
500	100	-	440	710	120	345	262.5	337	557	560	48		3400	250
560	100	-	490	790	120	390	265	354	624	630	48	8	4500	350
630	125	-	540	870	115	425	295	384	694	710	56		6800	350
710	125	-	610	950	140	480	335	440	780	800	56		8509	520

3. ZSY, ZSZ 减速器的装配型式及外形尺寸见图 3,表 23

Installing forms and outer size of ZSY and ZSZ reducer see figure 3, table 31

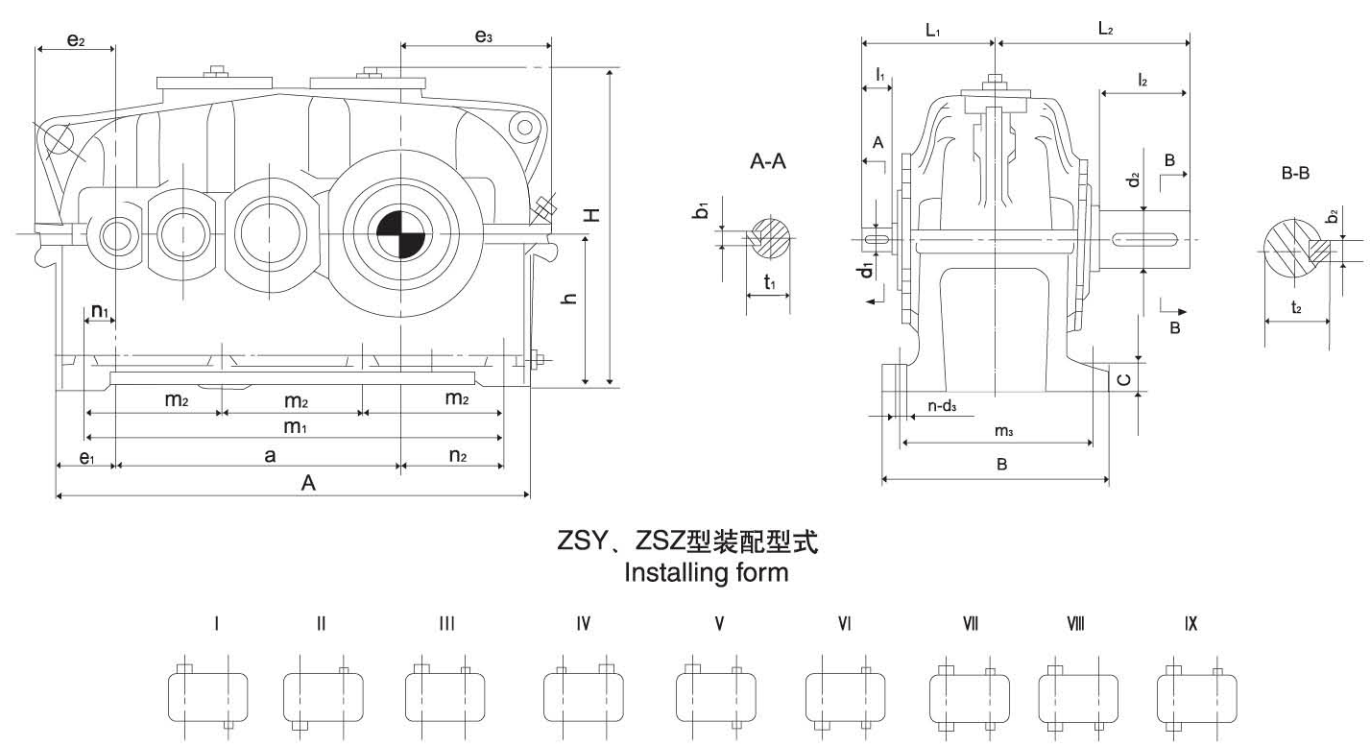


图 3 Figure 3

TAILONG MACHINERY

表 23 Table 23 mm

规格 Specs	A	B	H ≈	a	i=22.4~71 d_1 (m_6)	l_1	L_1	b_1	t_1	i=80~100 d_1 (m_6)	l_1	L_1	b_1	t_1	d_2 (m_6)	l_2	L_2	b_2	t_2
160	600	290	375	352	24	36	166	8	27	19	28	158	6	21.5	75	105	245	20	79.5
180	665	320	435	395	28	42	187	8	31	22	36	181	6	24.5	85	130	285	22	90
200	745	355	492	440	32	58	218	10	35	22	36	196	6	24.5	95	130	300	25	100
224	840	390	535	496	38	58	233	10	41	24	36	211	8	27	100	165	355	28	106
250	930	450	589	555	42	82	282	12	45	32	58	258	10	35	110	165	380	28	116
280	1025	500	662	620	48	82	307	14	51.5	38	58	283	10	41	130	200	440	32	137
315	1160	570	749	699	48	82	337	14	51.5	42	82	337	12	45	140	200	470	36	148
					i=22.4~35.5					i=40~90									
355	1280	600	870	785	60	105	380	18	64	48	82	357	14	51.5	170	240	530	40	179
400	1420	690	968	880	65	105	410	18	69	55	82	387	16	59	180	240	560	45	190
450	1610	750	1067	989	70	105	450	20	74.5	60	105	450	18	64	220	280	640	50	231
					i=22.4~45					i=50~90									
500	1790	830	1170	1105	80	130	515	22	85	65	105	490	18	69	240	330	730	56	252
560	2010	910	1320	1240	95	130	530	25	100	75	105	505	20	79.5	280	380	820	63	292
630	2260	1030	1480	1395	110	165	625	28	116	85	130	590	22	90	300	380	880	70	314
710	2540	1160	1655	1565	120	165	685	32	127	90	130	650	25	95	340	450	1010	80	355

规格 Specs	C	m_1	m_2	m_3	n_1	n_2	e_1	e_2	e_3	h	地脚螺栓孔 Anchor bolt d_3	n	重量 weight kg	润滑油量 Lubricant volume L
160	32	510	170	245	38	120	83	107	188	180	18.5		170	10
180	32	570	190	275	37.5	137.5	85	109	209	200	18.5	8	205	14
200	40	630	210	300	40	150	97.5	128	238	225	24		285	19
224	40	705	235	335	43.5	165.5	110.5	141	263	250	24		395	26
250	50	810	270	380	60	195	120	158	293	280	28	8	540	36
280	50	855	285	430	35	200	120	160	325	315	28		750	53
315	63	960	320	490	40	221	143	189	364	355	35		940	75
355	63	1080	360	520	42.5	252.5	143	188	398	400	35		1400	115
400	80	1200	400	590	45	275	155	215	445	450	42	8	1950	160
450	80	1350	450	650	48	313	178	240	505	500	42		2636	220
500	100	1500	500	710	57.5	337.5	202.5	277	557	560	48		3800	300
560	100	1680	560	790	70	370	235	324	624	630	48	8	5100	450
630	125	1890	630	890	72.5	422.5	255	344	694	710	56		7060	520
710	125	2130	710	1000	92.5	472.5	297.5	400	780	800	56		9205	820

4. ZFY 减速器的装配型式及外形尺寸见图 4,表 24

Installing forms and outer size of ZFY reducer figure 4, table 24

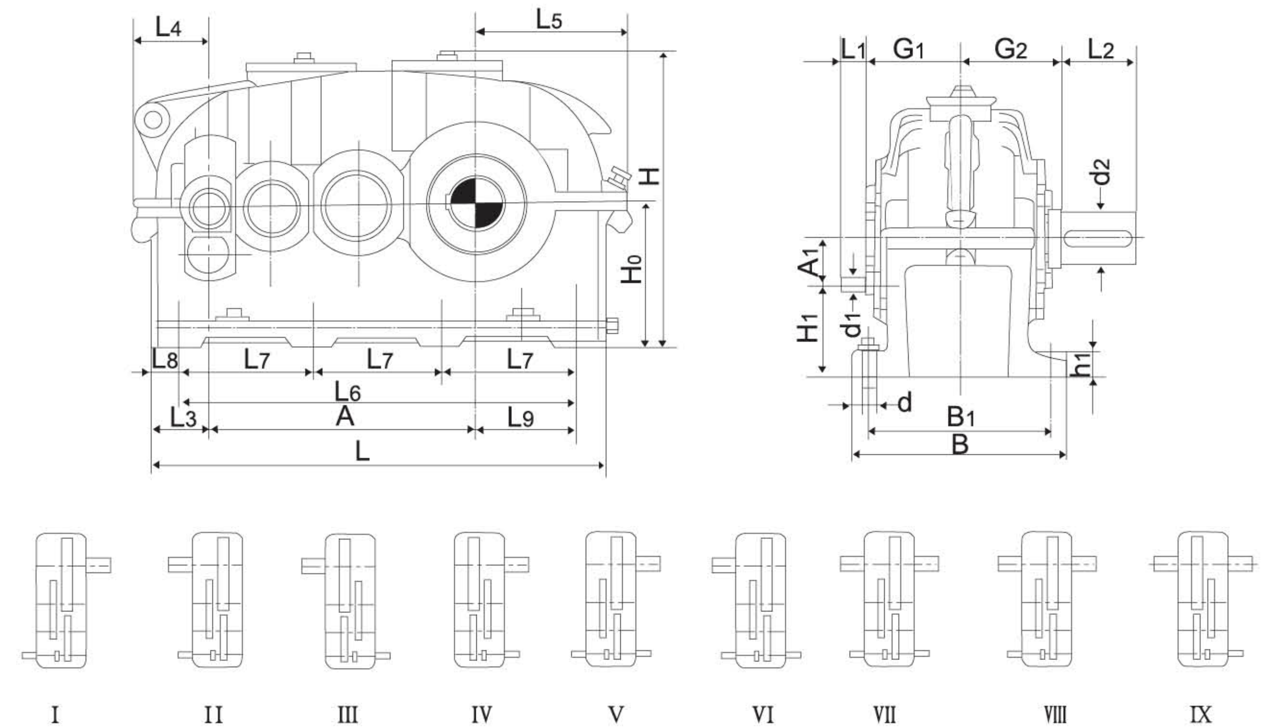


图 4 Figure 4

表 24 Table 24 mm

规格 Specs	L	B	h_1	轴端 Shaft end d_1	L_1	d_1	L_1	d_1	L_1	d_2	L_2	A	A_1	L_3	L_4 ≈	L_5 ≈
				i=112～280		i=315～500										
180	665	320	32	16k6	30	14k6	30	-	-	85m6	140	395	63	85	109	209
200	745	355	40	19k6	35	16k6	30	-	-	95m6	160	440	70	97.5	128	238
225	840	390	40	22k6	35	19k6	35	-	-	100m6	180	497	80	110.5	141	263
250	930	450	50	24k6	40	22k6	35	-	-	110n6	180	555	90	120	158	293
280	1025	500	50	28m6	50	24k6	40	-	-	130n6	210	620	100	120	160	325
320	1160	570	63	32m6	60	28m6	50	-	-	140n6	240	705	112	140	189	364
				i=100～140		i=160～250		i=280～500								
360	1280	600	63	38m6	60	32m6	60	28m6	50	170n6	270	790	125	140	188	398
400	1420	690	80	42m6	70	38m6	60	32m6	60	180n6	310	880	140	155	215	445
450	1610	750	80	48m6	80	42m6	70	38m6	60	210n6	350	995	160	175	240	505
				i=100～160		i=180～250		i=280～500								
500	1790	830	100	48m6	80	42m6	70	38m6	60	240n6	400	1110	180	200	277	557
560	2010	910	100	60m6	105	55m6	90	48m6	80	270n6	450	1240	200	235	324	624
630	2260	1030	125	65m6	105	60m6	105	48m6	80	300n6	500	1400	225	255	344	694
710	2540	1160	125	75m6	120	65m6	105	55m6	90	340n6	550	1570	250	295	400	780

续表 24　Table 24 continued

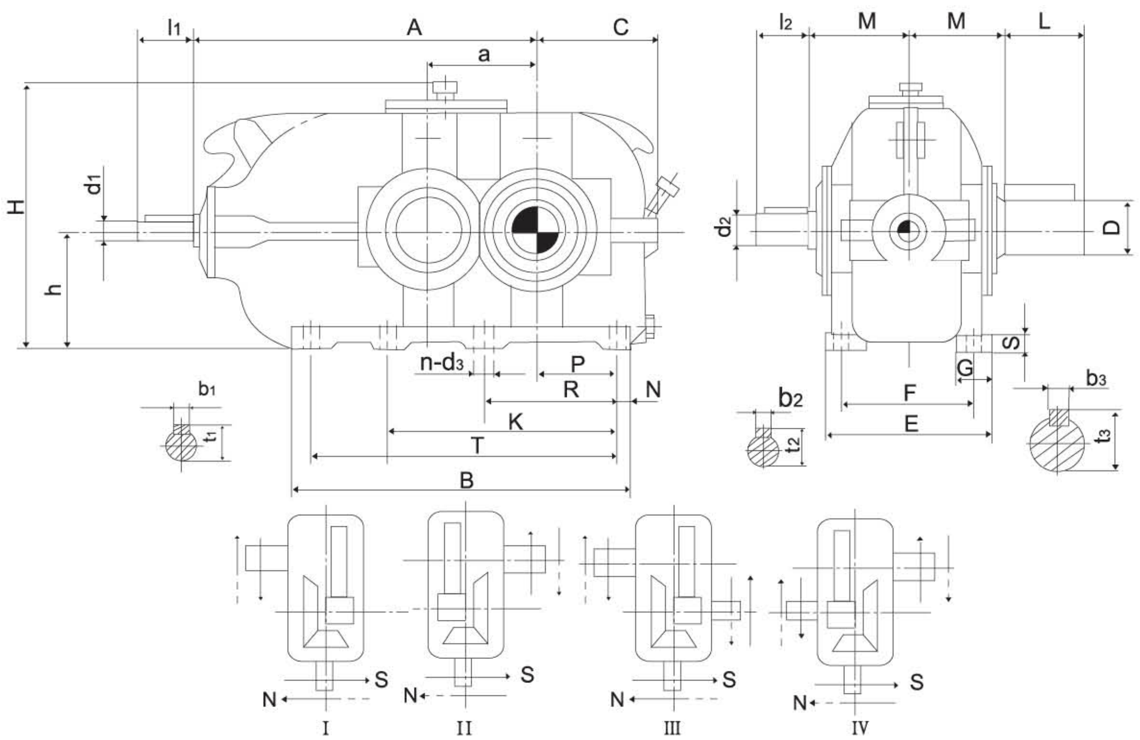
规格 Specs	G_1	G_2	H_1	H_0	H ≈	L_6	L_7	B_1	L_8	L_9	底脚螺栓 Anchor bolt		平均重量 Average weight (kg)	最大油量 Maximum oil mass (L)
											d	数量 Quantity		
180	145	155	137	200	415	570	190	275	47.5	137.5	M16	8	205	16
200	160	170	155	225	462	630	210	300	57.5	150	M20	8	290	21
225	170	190	170	250	511	705	235	335	67.5	165	M20	8	400	29
250	190	215	190	280	570	810	270	380	60	195	M24	8	550	40
280	210	240	215	315	644	855	285	430	85	200	M24	8	760	58
320	230	270	243	355	719	960	320	490	100	215	M30	8	1100	82
360	255	290	275	400	806	1080	360	520	100	250	M30	8	1450	140
400	290	320	310	450	906	1200	400	590	110	275	M36	8	2000	185
450	320	360	340	500	1006	1350	450	650	130	310	M36	8	2700	260
500	355	400	380	560	1121	1500	500	710	145	335	M42	8	3900	360
560	400	440	430	630	1260	1680	560	790	165	370	M42	8	5200	530
630	450	500	485	710	1406	1890	630	890	185	420	M48	8	7300	570
710	500	560	550	800	1581	2130	710	1000	205	470	M48	8	11000	900

注：大规格齿轮箱需向厂方 咨询。1.轴端配键按 GB1096-2003 选用。

Note: For gear box with large specs client should consult the manufacturer. 1.Shaft end dative band is selected according to GB1096-2003.

5. DBY, DBZ 减速器的装配型式及外形尺寸见图 5,表 25

Installing forms and outer size of DBY and DBZ reducer see figure 5, table 25



DBY、DBZ型装配型式　Installing form of DBY, DBZ type

图 5　Figure 5

TAILONG MACHINERY

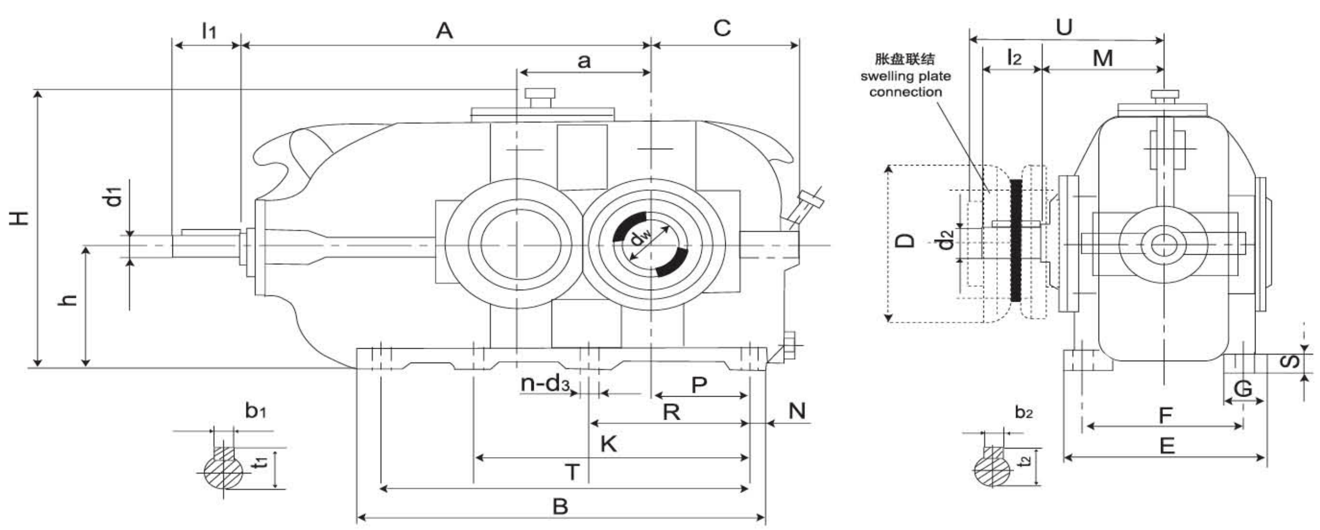
表 25 Table 25　mm

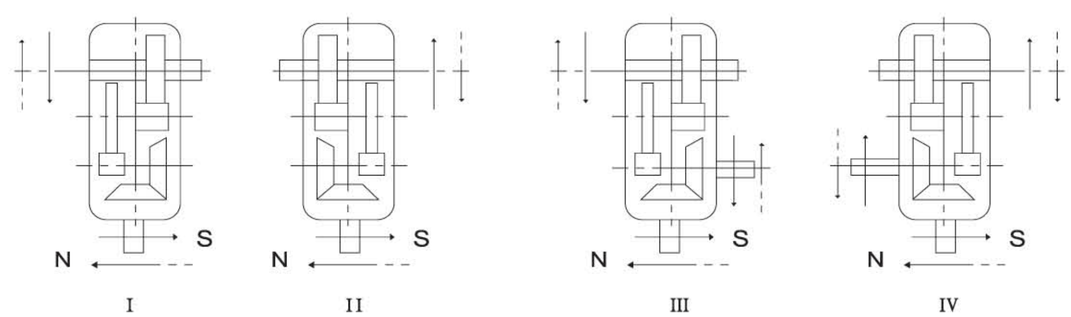
名义中心距a Nominal center space	d_1	l_1	d_2	l_2	D	L	A	B	C	E	F	G	s	h	H	M
160	40	110	48	110	70	170	500	500	190	250	210	65	35	180	430	145
180	42		50		80		565	565	215	270	230	70		200	475	160
200	50		55		90		625	625	240	300	250	75	40	225	520	175
224	55		65	140	100		705	705	260	320	270	80	45	250	570	190
250	60	140	75		110	210	785	785	290	370	310	90	50	280	626	210
280	65		85	170	120		875	875	325	400	340	100	55	315	702	230
315	75		95		140	250	975	975	355	450	380	110	60	355	809	260
355	90	170	100	210	160	300	1085	1085	390	480	410	120	65	400	900	285
400	100		110		170		1215	1215	440	530	460	130	70	450	970	305
450	110	210	130	250	190	350	1365	1365	490	600	510	140	80	500	1071	345
500	120		150		220		1525	1525	570	650	560	150	90	560	1210	435
560	130	250	160	300	250	410	1705	1705	610	750	640	160	100	630	1325	475

名义中心距a Nominal center space	n-d_3	N	P	R	K	T	b_1	t_1	b_2	t_2	b_3	t_3	平均重量 Average weight kg	油量 Volum of oil	图号 Number of graph no
160	6-18	30	115	210	-	440	12	43	14	51.5	20	74.5	173	7	DBY160.0(DBZ160.0)
180			135	240		505		45		53.5	22	85	232	9	DBY180.0(DBZ180.0)
200	6-23	35	145	255		555	14	53.5	16	59	25	95	305	13	DBY200.0(DBZ200.0)
224			165	290		635	16	59	18	69	28	106	415	18	DBY224.0(DBZ224.0)
250	6-27	40	180	315		705	18	64	20	79.5		116	573	25	DBY250.0(DBZ250.0)
280		45	200	355		785		69	22	90	32	127	760	36	DBY280.0(DBZ280.0)
315	6-33	50	220	405		875	20	79.5	25	100	36	148	1020	51	DBY315.0(DBZ315.0)
355		55	245	450		975	25	95	28	106	40	169	1436	69	DBY355.0(DBZ355.0)
400			280	510		1105	28	106		116		179	1966	95	DBY400.0(DBZ400.0)
450	8-39	60	315	575	940	1245		116	32	137	45	200	2532	130	DBY450.0(DBZ450.0)
500		70	350	645	1050	1385	32	127	36	158	50	231	3633	185	DBY500.0(DBZ500.0)
560	8-45	80	390	715	1165	1545		137	40	169	56	262	5020	260	DBY560.0(DBZ560.0)

6.DBYK 减速器的装配型式及外形尺寸见图 6. 表 26

Installing forms and outer size of DBYK reducer see figure 6,table 26





DBYK 型装配型式　Installing form of DBYK type

图 6 Figure 6

表 26 Table 26

mm

名义中心距a Nominal center space	d_1	l_1	d_2	l_2	dw	u	A	B	C	E	F	G	S	h	H	M
160	40	110	48	110	80	225	500	500	190	250	210	65	35	180	430	145
180	42		50		90	250	565	565	215	270	230	70		200	475	160
200	50		55		100	275	625	625	240	300	250	75	40	225	520	175
224	55		65	140	110	295	705	705	260	320	270	80	45	250	570	190
250	60	140	75		120	325	785	785	290	370	310	90	50	280	626	210
280	65		85	170	135	360	875	875	325	400	340	100	55	315	702	230
315	75		95		160	420	975	975	355	450	380	110	60	355	809	260
355	90	170	100	210	180	450	1085	1085	390	480	410	120	65	400	900	285
400	100	210	110		200	490	1215	1215	440	530	460	130	70	450	970	305
450	110		130	250	220	550	1365	1365	490	600	510	140	80	500	1071	345
500	120		150		280	715	1525	1525	570	650	560	150	90	560	1210	435
560	130	250	160	300	310	760	1705	1705	610	750	640	160	100	630	1325	475

TAILONG MACHINERY

续表 26　Table 26 continued

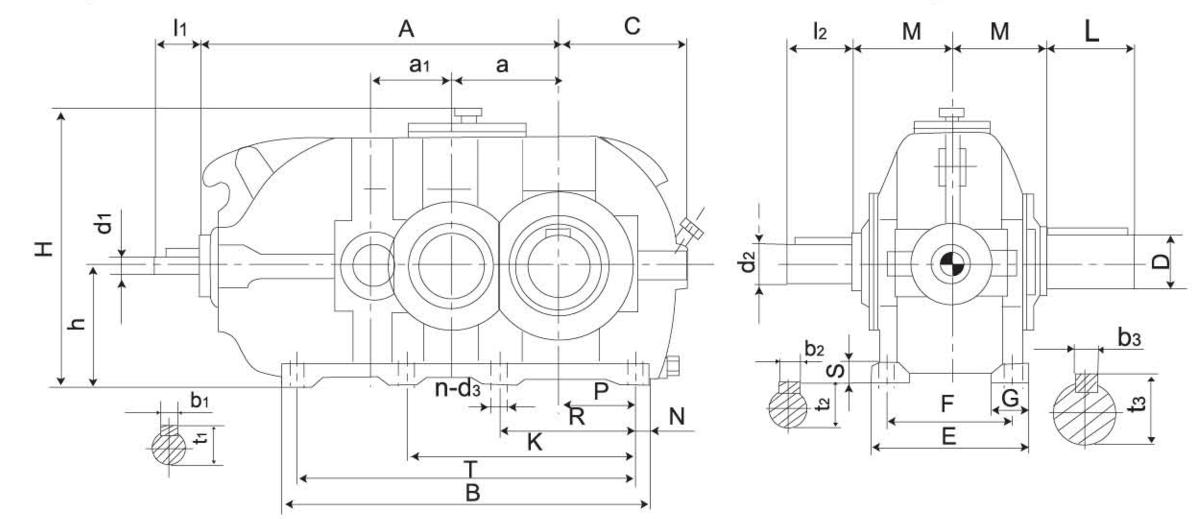
名义中心距 a Nominal center space	n-d_3	N	P	R	K	T	b_1	t_1	b_2	t_2	D	平均重量 Average weight kg	油量l Volum of oil	图号 Number of graph no
160	6-18	30	115	210	-	440	12	43	14	51.5	185	173	7	DBYK160.0
180			135	240		505		45		53.5	215	232	9	DBYK180.0
200	6-23	35	145	255		555	14	53.5	16	59	230	305	13	DBYK200.0
224			165	290		635	16	59	18	69	263	415	18	DBYK224.0
250	6-27	40	180	315		705	18	64	20	79.5	290	573	25	DBYK250.0
280		45	200	355		785		69	22	90	300	760	36	DBYK280.0
315	6-33	50	220	405		875	20	79.5	25	100	370	1020	51	DBYK315.0
355		55	245	450		975	25	95	28	106	405	1436	69	DBYK355.0
400			280	510		1105	28	106		116	430	1966	95	DBYK400.0
450	8-39	60	315	575	940	1245		116	32	137	460	2532	130	DBYK450.0
500		70	350	645	1050	1385	32	127	36	158	570	3633	185	DBYK500.0
560	8-45	80	390	715	1165	1545		137	40	169	660	5020	260	DBYK560.0

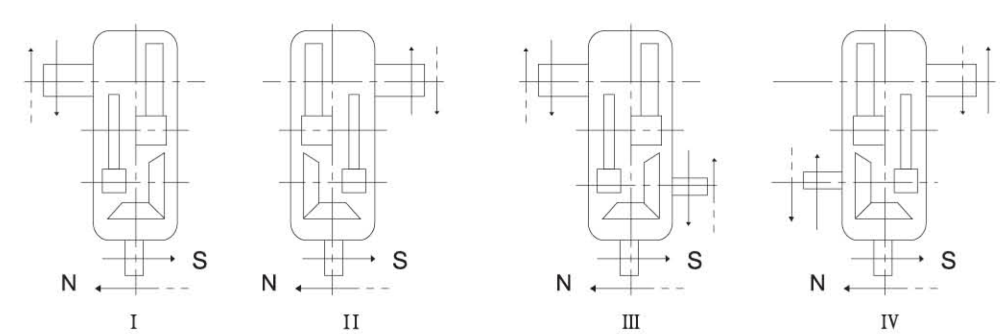
注：承载能力及选用方法与 DBY 型相同。

Note: Carrying capacity and selection method are the same as those of Type DBY.

7.DCY, DCZ 减速器的装配型式及外形尺寸见图 7,表 27

Installing forms and outer size of DCY and DCZ reducer see figure 7,table 27





DCY、DCZ 型装配型式　Installing form

图 7　Figure 7

表 27 Table 27

mm

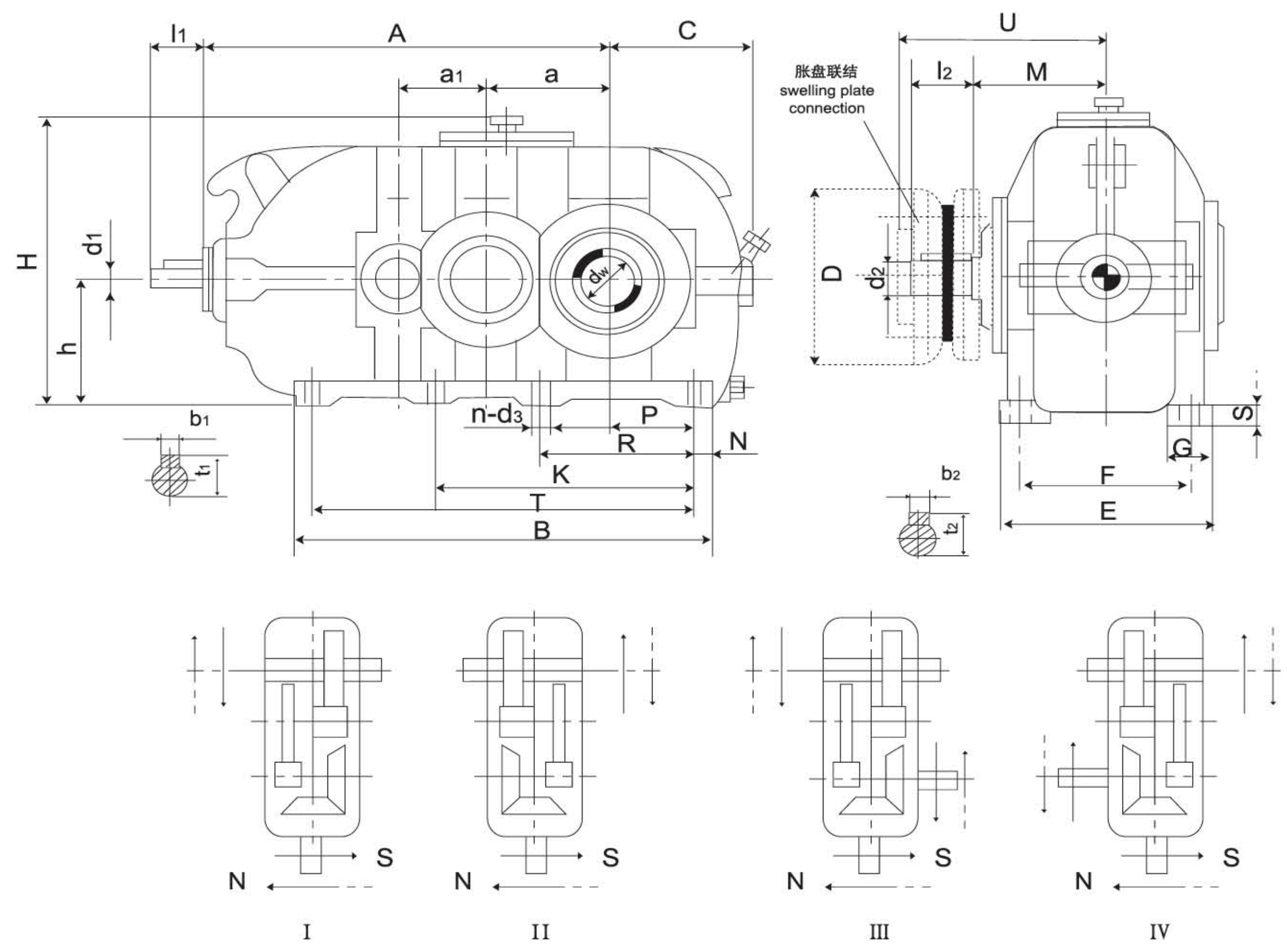
名义中心距a Nominal center space	a_1	d_1	l_1	d_2	l_2	D	L	A	B	C	E	F	G	S	h	H	M
160	112	25	60	32	80	70	140	510	555	190	250	210	65	35	180	423	145
180	125	30		38		80		575	625	215	270	230	70		200	468	160
200	140	35	80	42		90	170	640	685	240	300	250	75	40	225	520	175
224	160	40		48	110	100		725	775	260	320	270	80	45	250	570	190
250	180	42		50		110	210	815	860	290	370	310	90	50	280	626	210
280	200	50	110	55		120		905	970	325	400	340	100	55	315	702	230
315	224	55		65	140	140	250	1020	1085	355	450	380	110	60	355	809	260
355	250	60		75		160	300	1140	1220	390	480	410	120	65	400	900	285
400	280	65	140	85	170	170		1275	1355	440	530	460	130	70	450	970	305
450	315	75		95		190	350	1425	1520	490	600	510	140	80	500	1065	345
500	355	90	170	100	210	220		1585	1690	570	650	560	150	90	560	1208	435
560	400	100		110		250	410	1775	1895	610	750	640	160	100	630	1325	475
630	450	110	210	130	250	300	470	1995	2145	675	800	690	170	110	710	1460	525
710	500	120		150		340	550	2235	2400	760	900	770	190	125	800	1665	570
800	560	130	250	160	300	400	650	2505	2700	840	1000	870	200	140	900	1870	625

名义中心距a Nominal center space	$n\text{-}d_3$	N	P	R	K	T	b_1	t_1	b_2	t_2	b_3	t_3	平均重量 Average weight kg	油量L Volume of oil	图号 Number of graph no
160	6-ø18	30	115	210		495	8	28	10	35	20	74.5	200	9	DCY160.0(DCZ160.0)
180			135	240		565		33		41	22	85	255	13	DCY180.0(DCZ180.0)
200	6-ø23	35	145	255	-	615	10	38	12	45	25	95	325	18	DCY200.0(DCZ200.0)
224			165	290		705	12	43	14	51.5	28	106	453	26	DCY224.0(DCZ224.0)
250	6-ø27	40	180	315		780		45		53.5		116	586	33	DCY250.0(DCZ250.0)
280		45	200	355		880	14	53.5	16	59	32	127	837	46	DCY280.0(DCZ280.0)
315	8-ø33	50	220	405	655	985	16	59	18	69	36	148	1100	65	DCY315.0(DCZ315.0)
355		55	245	450	740	1110	18	64	20	79.5	40	169	1550	90	DCY3550.0(DCZ355.0)
400			280	510	840	1245		69	22	90		179	1967	125	DCY400.0(DCZ400.0)
450	8-ø39	60	315	575	940	1400	20	79.5	25	100	45	200	2675	180	DCY450.0(DCZ450.0)
500		70	350	645	1050	1550	25	95	28	106	50	231	4340	240	DCY500.0(DCZ500.0)
560	8-ø45	80	390	715	1165	1735	28	106		116	56	262	5320	335	DCY560.0(DCZ560.0)
630			445	800	1305	1985		116	32	137	70	314	7170	480	DCY630.0(DCZ630.0)
710		90	500	900	1490	2220	32	127	36	158	80	355	9600	690	DCY710.0(DCZ710.0)
800			560	1100	1680	2520		137	40	169	90	417	13340	940	DCY800.0(DCZ800.0)

TAILONG MACHINERY

8.DCYK 减速器的装配型式及外形尺寸见图 8,表 28

Installing forms and outer size of DCYK reducer see figure 8,table 28



DCYK 型装配型式　　Installing form

图 8　Figure 8

表 28 Table 28

mm

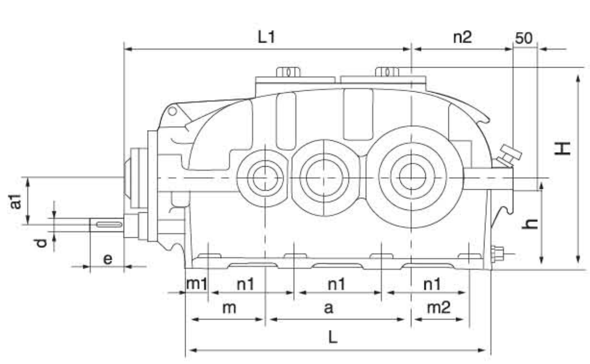
名义中心距 Nominal center space	$n\text{-}d_3$	N	p	R	K	T	b_1	t_1	b_2	t_2	D	平均重量 Average weight	油量L Volume of oil	图号 Number of graph no
160	6-18	30	115	210		495	8	28	10	35	185	200	9	DCYK160.0
180			135	240		565		33		41	215	255	13	DCYK180.0
200	6-23	35	145	255	-	615	10	38	12	45	230	325	18	DCYK200.0
224			165	290		705	12	43	14	51.5	263	453	26	DCYK224.0
250	6-27	40	180	315		780		45		53.5	290	586	33	DCYK250.0
280		45	200	355		880	14	53.5	16	59	300	837	46	DCYK280.0
315	8-33	50	220	405	655	985	16	59	18	69	370	1100	65	DCYK315.0
355		55	245	450	740	1110	18	64	20	79.5	405	1550	90	DCYK355.0
400			280	510	840	1245		69	22	90	430	1967	125	DCYK400.0
450	8-39	60	315	575	940	1400	20	79.5	25	100	460	2675	180	DCYK450.0
500		70	350	645	1050	1550	25	95	28	106	570	4340	240	DCYK500.0
560	8-45	80	390	715	1165	1735	28	106		116	660	5320	335	DCYK560.0
630			445	800	1305	1985		116	32	137	690	7170	480	DCYK630.0
710		90	500	900	1490	2220	32	127	36	158	770	9600	690	DCYK710.0
800			560	1100	1680	2520		137	40	169	850	13340	940	DCYK800.0

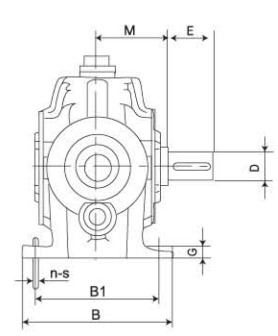
名义中心距 Nominal center space	a_1	d_1	l_1	d_2	l_2	d_W	U	A	B	C	E	F	G	S	h	H	M
160	112	25	60	32	80	80	225	510	555	190	250	210	65	35	180	423	145
180	125	30	80	38		90	250	575	625	215	270	230	70		200	468	160
200	140	35		42	110	100	275	640	685	240	300	250	75	40	225	520	175
224	160	40	110	48		110	295	725	775	260	320	270	80	45	250	570	190
250	180	42		50		120	325	815	860	290	370	310	90	50	280	626	210
280	200	50		55		135	360	905	970	325	400	340	100	55	315	702	230
315	224	55		65	140	160	420	1020	1085	355	450	380	110	60	355	809	260
355	250	60	140	75		180	450	1140	1220	390	480	410	120	65	400	900	285
400	280	65		85	170	200	490	1275	1355	440	530	460	130	70	450	970	305
450	315	75		95		220	550	1425	1520	490	600	510	140	80	500	1065	345
500	355	90	170	100	210	280	715	1585	1690	570	650	560	150	90	560	1208	435
560	400	100		110		310	760	1775	1895	610	750	640	160	100	630	1325	475
630	450	110	210	130	250	340	840	1995	2145	675	800	690	170	110	710	1460	525
710	500	120		150		380	890	2235	2400	760	900	770	190	135	800	1665	570
800	560	130	250	160	300	420	955	2505	2700	840	1000	870	200	140	900	1870	625

注：承载能力及选用方法与 DCY 型相同。

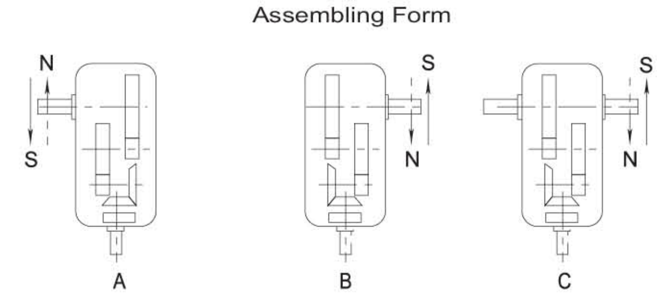
Note: Carrying capacity and selection method are the same as those of Type DCY.

DFY 型减速器尺寸重量油量表　Size、weight and oil volume of DFY reducer





安装形式
Assembling Form



机座号 360 以上底座带起缝螺拴，下箱体前端面为找正面。

Screw is applied for any reducers with stand no above 360.

mm

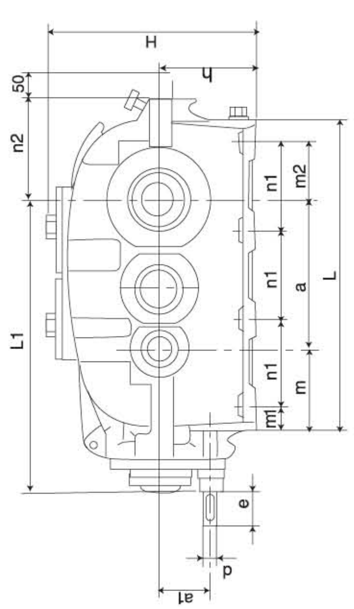
尺寸、重量及油量 Size, weight and oil volume

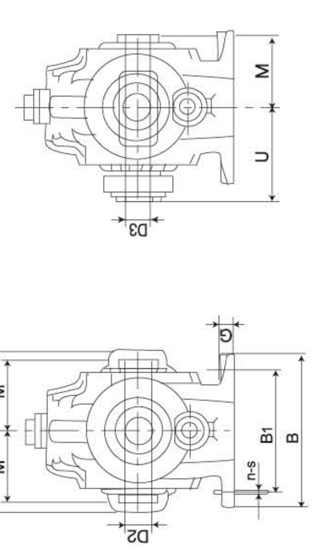
型号 DFY 规格 Spec	L	B	G	轴端[1] Shaft end d (iN=100-200)	e	d (iN=224-500)	e	D	E	a	a1	m	n2	L1	M	h	H	n1	B1	m1	m2	地脚螺栓 Lower mangie n-s	平均重量 Average weight kg	最大油量 Maximum oil volume 升 L
160	600	290	32	16K6	30	14K6	30	75m6	120	272	63	163	188	507	140	180	375	170	245	45	120	8-M16	160	12
180	665	320	32	19K6	35	16K6	30	85m6	140	305	70	175	209	565	155	200	415	190	275	47.5	137.5	8-M16	225	16
200	745	355	40	22K6	35	19K6	35	95m6	160	340	80	197.5	238	622	170	225	462	210	300	57.5	150	8-M20	320	22
225	840	390	40	24K6	40	22K6	35	100m6	180	385	90	222.5	263	700	190	250	511	235	335	67.5	165	8-M20	430	32
250	930	450	50	28m6	50	24K6	40	110n6	180	430	100	245	293	778	215	280	570	270	380	60	195	8-M24	580	45
280	1025	500	50	32m6	60	28m6	50	130n6	210	480	112	260	325	862	240	315	644	285	430	85	200	8-M24	820	63
320	1160	570	63	32m6	60	28m6	50	140n6	240	545	125	300	364	970	270	355	719	320	490	100	215	8-M30	1150	90
				iN=90-160		iN=180-500																		
360	1280	600	63	38m6	60	28m6	50	170n6	270	610	140	320	398	1070	290	400	806	360	520	100	250	8-M30	1500	140
400	1420	690	80	42m6	70	32m6	60	180n6	310	680	160	355	445	1195	320	450	906	400	590	110	275	8-M36	2150	190
450	1610	750	80	48m6	80	38m6	60	210n6	350	770	180	400	505	1330	360	500	1006	450	650	130	310	8-M36	2900	265
				iN=90-280		iN=315-500																		
500	1790	830	100	55m6	90	42m6	70	240n6	400	860	200	450	557	1480	400	560	1121	500	710	145	335	8-M42	4200	370
560	2010	910	100	60m6	105	42m6	70	270n6	450	960	225	515	624	1680	440	630	1261	560	790	165	370	8-M42	5600	560
630	2260	1030	125	65m6	105	48m6	80	300n6	500	1080	250	575	694	1895	500	710	1406	630	890	185	420	8-M48	7700	570
710	2540	1160	125	75m6	120	60m6	105	340n6	550	1210	280	655	780	2120	560	800	1581	710	1000	205	470	8-M48	10500	900

一）带平键的轴端，按 GB1096-2003

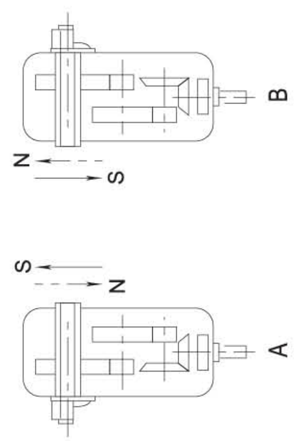
一）The shaft edge with flat key is produced under standard of GB1096-2003

DFYK 型减速器尺寸重量油量表　Size、weight and oil volume of DFYK reducer





安装形式
Assembling Form



机座号 360 以上底座带起缝螺拴，下箱体前端面为找正面。
Screw is applied for any reducers with stand no above 360.

平键联接
Flat key connection

锁紧盘联接
Fastening plate connection

mm

尺寸、重量及油量 Size, weight and oil volume

型号 DFYK 规格 Spec	L	B	G	轴端[1] Shaft end d	e	d	e	空心轴[2] Hollow shaft D2	D3	a	a1	m	n2	L1	M	锁紧盘 Swelling plate U	型号 Type HSD	L3	h	H	n1	B1	m1	m2	地脚螺栓 Lower mangle n-s	平均重量 Average weight kg	最大油量 Maximum oil volume 升 L
				iN=100-200		iN=224-500																					
160	600	290	32	16K6	30	14K6	30	75H7	80H7	272	63	163	188	507	145	225	110-72	170	180	375	170	245	45	120	8-M16	160	12
180	665	320	32	19K6	35	16K6	30	90H7	90H7	305	70	175	209	565	160	250	125-72	185	200	415	190	275	47.5	137.5	8-M16	225	16
200	745	355	40	22K6	35	19K6	35	105H7	100H7	340	80	197.5	238	622	175	275	140-71	200	225	462	210	300	57.5	150	8-M20	320	22
225	840	390	40	24K6	40	22K6	35	110H7	110H7	385	90	222.5	263	700	190	295	155-71	215	250	511	235	335	67.5	165	8-M20	430	32
250	930	450	50	28m6	50	24K6	40	120H7	120H7	430	100	245	293	778	210	325	165-71	240	280	570	270	380	60	195	8-M24	580	45
280	1025	500	50	32m6	60	28m6	50	-	135H7	480	112	260	325	862	230	360	175-71	-	315	644	285	430	85	200	8-M24	820	63
320	1160	570	63	32m6	60	28m6	50	-	160H7	545	125	300	364	970	260	420	220-71	-	355	719	320	490	100	215	8-M30	1150	90
				iN=90-160		iN=180-500																					
360	1280	600	63	38m6	60	28m6	50	-	180H7	610	140	320	398	1070	285	450	240-71	-	400	806	360	520	100	250	8-M30	1500	140
400	1420	690	80	42m6	70	32m6	60	-	200H7	680	160	355	445	1195	305	490	260-71	-	450	906	400	590	110	275	8-M36	2150	190
450	1610	750	80	48m6	80	38m6	60	-	220H7	770	180	400	505	1330	345	550	280-71	-	500	1006	450	650	130	310	8-M36	2900	265
				iN=90-280		iN=315-500																					
500	1790	830	100	55m6	90	42m6	70	-	280H7	860	200	450	557	1480	475	715	350-71	-	560	1121	500	710	145	335	8-M42	4200	370
560	2010	910	100	60m6	105	42m6	70	-	310H7	960	225	515	624	1680	525	760	390-71	-	630	1261	560	790	165	370	8-M42	5600	540
630	2260	1030	125	65m6	105	48m6	80	-	340H7	1080	250	575	694	1895	560	840	420-71	-	710	1406	630	890	185	420	8-M48	7700	570
710	2540	1160	125	75m6	120	60m6	105	-	380H7	1210	280	655	780	2120	600	890	460-71	-	800	1581	710	1000	205	470	8-M48	10500	900

一）带平键的轴端，按 GB1096-2003
二）空心轴的联接见 DBY、DCYK

一）The shaft edge with flat key is produced under standard of GB1096-2003
二）Hollow shaft connection please see DBY、DCYK.

TAILONG MACHINERY

五、附录 Appendix

1.DBYK, DCYK 型减速器空心轴套及联接轴结构（参考）尺寸见图 9,表 29 of DBYK, DCYK decelerator hollow shaft and connecting shaft structure (reference) see figure 9, table 29.

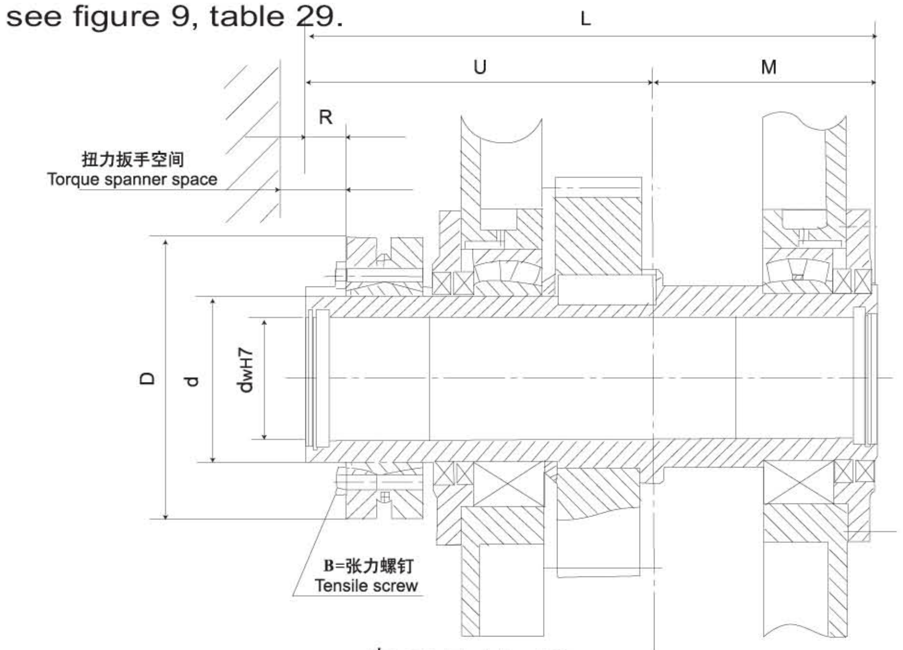


表 29 Table 29

图 9　Figure 9

mm

减速器名义中心距a Nominal center space	空心轴套 Hollow xle casing dw	L	M	R	U	胀盘 Swelling plate 型号 Type SD	D	d	T_t N.M	螺钉Screw B	T_a N.M	重量 kg
160	80	370	145	26	225	110-72	185	110	9000	M10	58	5.9
180	90	410	160	27	250	125-72	215	125	13000	M10	58	8.3
200	100	450	175	32	275	140-71	230	140	17600	M12	100	10
224	110	485	190	33	295	155-71	263	155	25000	M12	100	15
250	120	535	210	37	325	165-71	290	165	35000	M12	240	22
280	135	590	230	35	360	175-71	300	175	48000	M16	240	22
315	160	680	260	37	420	220-71	370	220	100000	M16	240	54
355	180	735	285	38	450	240-71	405	240	138000	M20	470	67
400	200	795	305	46	490	260-71	430	260	184000	M20	470	82
450	220	895	345	48	550	280-71	460	280	245000	M20	470	102
500	280	1190	475	61	715	350-71	570	350	500000	M20	470	204
560	310	1270	510	67	760	390-71	660	390	710000	M20	470	260
630	340	1400	560	71	840	420-71	690	420	840000	M20	470	316
710	380	1490	600	73	890	460-71	770	460	1140000	M20	470	420
800	420	1600	645	82	955	500-71	850	500	1600000	M20	470	575

注：T_a= 紧固轴所需转矩；T_t= 胀紧盘可传达之最大转矩。
Note: T_a=turning moment needed by fastened axle; T_t=the biggest turning moment of swelling flate

2.DBYK, DCYK 型减速器联接轴（参考）尺寸见表 30

Connecting axles of DBYK, DCYK decelerator(reference) size see table 30

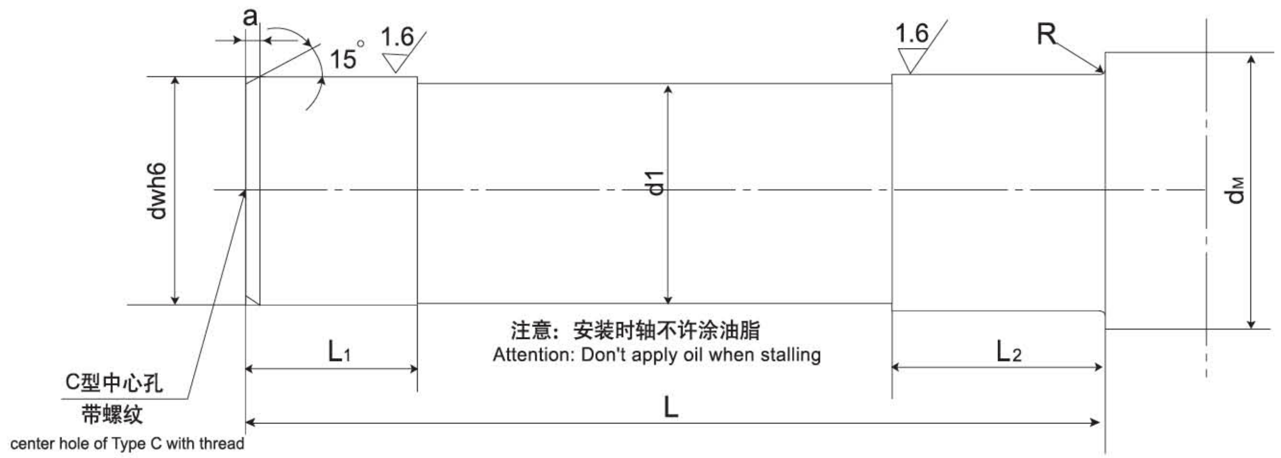


图 10 胀盘联接的轴　　Figure 10 Swelling-plate connecting axle

表 30 胀盘联接的轴尺寸　Table 30 Axle size of swelling-plate connection

减速器 名义中心距 Nominal center space	a	d_M (min)	d_w	d_1	L	L_1	L_2	R
160	5	100	80	78	355	65	90	1.6
180	5	110	90	88	395	70	100	1.6
200	5	125	100	98	430	75	110	1.6
224	5	135	110	108	465	80	120	1.6
250	6	150	120	118	510	90	130	2.5
280	6	165	135	133	565	100	140	2.5
315	6	190	160	158	655	120	160	2.5
355	6	210	180	178	710	125	170	2.5
400	8	240	200	198	765	145	190	4
450	8	260	220	218	860	150	200	4
500	10	320	280	278	1145	240	290	4
560	10	350	310	308	1225	260	310	4
630	12	380	340	338	1355	280	330	6
710	12	430	380	378	1440	300	350	6
800	12	470	420	418	1550	320	380	6

注：dw ＞ 160mm 时配合公差采用 g6

Note: adopt coordinative tolerance g6 when dw ＞ 160mm

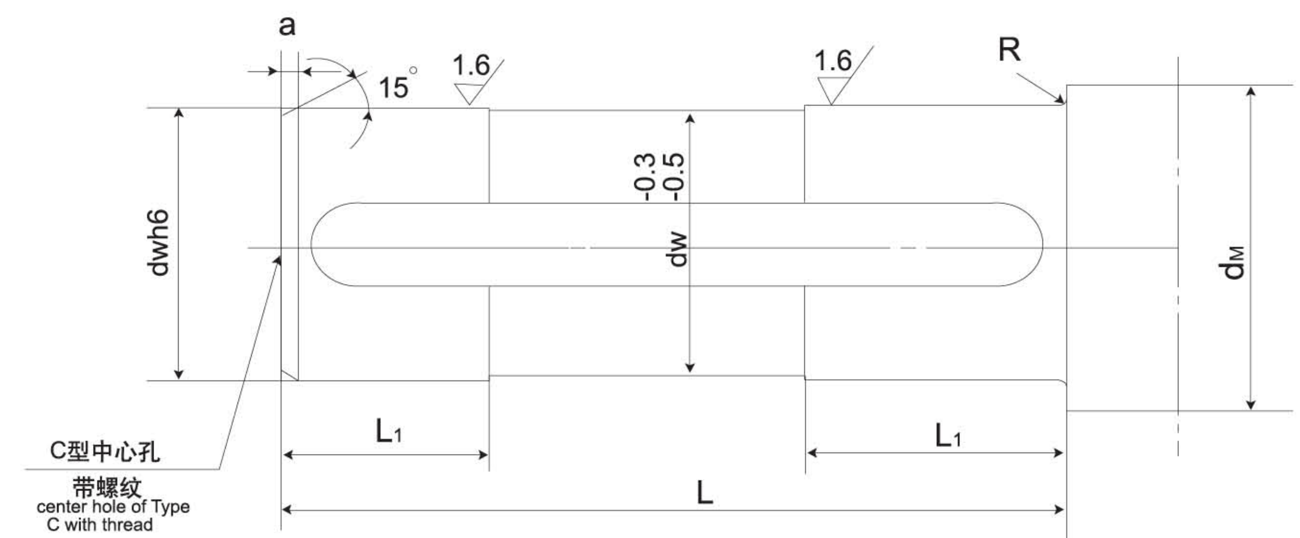


图 11 平键联接的轴　　Figure 11 Flat key connecting axle

表 31 键联接的轴头尺寸　Table 31Axle size of key connection

名义中心距 Nominal center space	a	$d_{m(min)}$	d_w	L	L_1	R
160	5	95	75	287	75	4
180	5	110	90	317	90	4
200	5	125	105	347	105	4
224	5	135	110	377	115	4
250	6	150	120	417	130	6

订货须知　Purchase Note

1.订购圆锥圆柱齿轮减速器时，请务必按规定填写型号，规格（即名义中心距），公称传动比，装配型式和输入轴旋转方向等标记。

When purchase taper and cylinder gear reducers, please symble the type, specification,(nominal center space)， nominal transmission ratio,installing form and wheeling direction of imput axle.

2.除已有图的常用规格外，选用其它规格时应与本厂商定。

Consult with us when select other particular specification besides formal reducers.

3.DBYK,DCYK 型（空心轴式）选用时应与本厂商定。

Consult with us when select DBYK,DCYK reducers with hollow axle.

4.各种型号减速器均无附加冷却装置，如热功率校核后，需要附加冷却装置时，应与本厂设计部门联系。

The series reducers are designed without additional cooling apperatus.If it′ s needed after collating the heat power, please contact our design department.

3.ZDZ 型减速器功率 P_A 见表 32　ZDZ decelerator power P_A see table 32

表 32 Table 32

公称传动比 i Nominal drive ratio i	公称转速 Nominal speed r / min 输入 n_1 Input n_1	输出 n_2 Input n_2	规格 Specs 80	100	125	160	200	250	280	315	355	400	450	500	560
			公称输入功率 kw Nominal input power P_A kw												
1.25	1500	1200	12.24	26.09	49.77	92.68	170.9	323.0	-	-	-	-	-	-	-
	1000	800	8.52	18.35	35.38	66.58	128.6	246.9	-	-	-	-	-	-	-
	750	600	6.63	14.32	27.07	48.95	101.2	202.9	-	-	-	-	-	-	-
1.4	1500	1070	11.81	25.35	48.68	89.83	172.9	330.5	-	-	-	-	-	-	-
	1000	715	8.19	17.75	34.42	64.04	128.8	249.6	-	-	-	-	-	-	-
	750	535	6.36	13.82	26.26	50.27	100.7	202.9	-	-	-	-	-	-	-
1.6	1500	940	11.14	23.92	46.42	86.70	171.7	332.9	457	605	816	-	-	-	-
	1000	625	7.70	16.64	32.57	61.26	125.9	247.0	340	457	617	-	-	-	-
	750	470	5.96	12.91	24.76	45.42	97.7	198.6	273	365	485	-	-	-	-
1.8	1500	835	10.45	22.52	41.48	82.73	167.2	327.7	451	601	780	-	-	-	-
	1000	555	7.20	15.60	29.59	58.11	121.4	240.4	331	443	581	-	-	-	-
	750	415	5.57	12.09	23.61	43.21	93.7	192.0	264	355	452	-	-	-	-
2	1500	750	9.48	20.82	41.69	73.09	160.6	317.2	437	547	762	-	-	-	-
	1000	500	6.51	14.37	28.97	52.16	115.5	230.2	317	397	559	854	1208	1548	-
	750	375	5.03	11.11	21.92	41.03	88.7	183.6	251	315	432	684	967	1236	1174
2.24	1500	670	8.72	18.83	38.25	67.94	164.4	297.5	396	539	764	-	-	-	-
	1000	445	5.98	12.95	26.46	48.55	105.1	214.7	287	387	554	812	1160	1474	-
	750	335	4.61	10.00	19.96	38.24	80.6	169.9	228	305	426	646	922	1167	1667
2.5	1500	600	8.06	17.67	34.66	63.73	136.9	279.9	374	523	726	-	-	-	-
	1000	400	5.52	12.13	23.91	45.20	97.4	199.9	269	372	520	760	1096	1383	-
	750	300	4.26	9.36	17.99	35.45	74.5	157.2	212	291	397	600	866	1090	1602
2.8	1500	535	7.00	14.60	32.41	58.73	125.9	258.5	348	460	652	-	-	-	-
	1000	360	4.78	10.02	22.28	41.37	88.9	182.9	247	328	466	697	1018	1317	-
	750	270	3.69	7.75	16.74	32.33	67.7	143.1	194	257	356	548	798	1032	1457

TAILONG MACHINERY

续表 32 Table 32 continued

公称传动比 i Nominal drive ratio i	公称转速 Nominal speed r / min 输入 n_1 Input n_1	输出 n_2 Input n_2	规格 Specs 80	100	125	160	200	250	280	315	355	400	450	500	560
			公称输入功率 kW Nominal input power P_A kW												
3.15	1500	475	6.00	13.42	28.00	53.23	113.4	229.7	327	421	590	871	1267	1619	2145
	1000	315	4.09	9.20	19.18	37.25	80.0	162.7	231	297	420	622	908	1158	1550
	750	235	3.16	7.10	14.38	20.00	60.9	127.4	180	232	320	476	697	887	1193
3.55	1500	425	5.37	11.77	23.71	49.05	102.0	211.4	290	375	530	785	1143	1387	1960
	1000	280	3.66	8.05	16.26	33.67	71.5	148.7	204	263	374	557	810	994	1408
	750	210	2.82	6.21	12.19	25.39	54.2	116.0	159	204	284	425	618	762	1080
4	1500	375	4.32	9.96	19.97	41.99	90.0	183.0	251	342	467	698	986	1242	1828
	1000	250	2.95	6.80	13.64	28.72	62.7	127.9	177	239	329	491	695	880	1297
	750	187	2.28	5.24	10.20	22.10	47.4	99.3	138	186	250	373	530	670	989
4.5	1500	335	3.60	8.07	16.36	36.65	79.0	160.8	219	305	420	612	859	1067	1523
	1000	220	2.45	5.50	11.15	25.10	54.7	112.0	153	213	294	430	606	752	1084
	750	166	1.89	4.24	8.3	19.34	41.3	86.9	119	166	222	327	462	572	828
5	1500	300	2.87	6.88	13.73	31.26	67.9	143.7	188	269	355	536	754	988	1343
	1000	200	1.95	4.69	9.37	21.35	47.0	99.8	131	187	248	373	527	694	946
	750	150	1.51	3.62	6.99	16.43	35.5	77.4	101	145	188	283	400	527	719
5.6	1500	270	2.54	5.69	11.77	28.22	62.3	123.0	166	231	304	495	664	850	1177
	1000	180	1.73	3.88	8.02	19.25	43.1	84.9	115	160	211	344	461	591	821
	750	134	1.34	3.00	5.97	14.81	32.5	65.6	88.5	124	160	259	348	447	621
6.3	1500	240	-	4.59	10.62	22.18	52.6	109.7	148	187	277	410	596	773	1029
	1000	160	-	3.13	7.24	15.13	35.9	75.6	102	129	192	283	412	535	715
	750	120	-	2.42	5.39	11.65	26.9	58.4	78.8	99.5	145	213	311	404	540

4. ZLZ 型减速器功率 P_A 见表 33　　ZLZ decelerator power P_A see table 32

表 33 Table 33

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min 输入n_1 Input n_1	输出n_2 Input n_2	规格 Specs 112	125	140	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW																
7.1	1500	210	8.8	13	18	29	39	55	78	112	158	213	322	452	601	924	1341	-	-
	1000	140	6	9	12.4	20	27	39	56	80	114	155	232	327	437	672	988	1428	1990
	750	106	4.6	6.9	9.5	15	21	29	43	63	87	120	179	251	339	520	770	1121	1558
8	1500	185	8.4	12	17.7	27	36	50	72	102	152	208	308	430	573	892	1296	-	-
	1000	125	5.8	8.2	12	18	25	35	51	73	105	152	220	313	418	645	942	1274	1859
	750	94	4.4	6.3	9.3	14	19	26	39	57	80	117	166	237	323	488	711	975	1431
9	1500	167	7.9	11	16	24	33	46	66	95	138	201	282	382	571	852	1211	-	-
	1000	111	5.4	7.4	11	16	23	32	47	68	96	142	197	278	408	583	845	1149	1681
	750	83	4.2	5.7	8.4	13	17	24	37	53	72	107	149	213	309	441	638	877	1291
10	1500	150	7.1	9.8	14	22	30	42	61	86	125	183	257	258	530	766	1122	-	-
	1000	100	4.8	6.7	9.5	15	21	29	43	61	86	127	178	256	370	524	766	1044	1532
	750	75	3.7	5.2	7.3	11.4	16	22	33	47	65	96	134	193	280	396	578	796	1174
11.2	1500	134	6	8.8	13	19	27	37	57	74	113	168	235	323	453	693	1008	-	-
	1000	89	4.1	6.1	8.8	13	18	26	39	52	78	115	161	228	326	474	688	941	1383
	750	67	3.1	4.7	6.8	10	14	19	30	40	59	87	121	172	250	358	519	717	1058

TAILONG MACHINERY

续表 33 Table 33 continued

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min 输入n_1 Input n_1	输出n_2 Input n_2	规格 Specs 112	125	140	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW																
12.5	1500	120	5.5	7.9	11.4	17	22.6	32	51	70	101	149	209	300	413	612	870	-	-
	1000	80	3.8	5.4	7.8	12	15	22	35	49	69	102	144	205	295	424	601	847	1247
	750	60	2.9	4.1	5.9	9.1	12	16	26	37	53	77	108	155	224	320	466	644	953
14	1500	107	4.5	6.9	10	15	20	28	45	64	91	134	188	269	371	554	779	1226	1791
	1000	71	3.1	4.7	6.9	10.4	14	19	31	44	62	92	129	184	262	387	537	752	1115
	750	54	2.4	3.6	5.3	8.0	10.5	15	23	34	47	69	97	139	200	286	416	571	850
16	1500	94	4.3	6.1	8.8	13.7	19	28	40	58	81	120	168	239	344	495	721	1091	1605
	1000	62	2.9	4.2	6	9.4	13	19	27	39	56	82	115	164	238	338	491	673	1001
	750	47	2.2	3.2	4.6	7.1	10	14	20	30	42	62	87	124	180	255	371	511	763
18	1500	83	3.7	5.4	8	12	17	25	33	46	73	110	151	216	312	448	642	978	1446
	1000	56	2.5	3.7	5.4	8.4	12	17	22	32	50	75	103	147	213	305	437	606	902
	750	42	1.9	2.9	4.1	6.4	9.3	13	17	24	38	57	78	111	161	230	330	460	687
20	1500	75	3.1	4.5	6.6	10	17	23	32	45	63	90	135	194	280	403	575	880	1301
	1000	50	2.1	3.1	4.5	6.8	12	16	22	30.5	44	63	92	132	191	274	393	545	811
	750	38	1.6	2.4	3.4	5.2	9.4	12	16.5	23	33	47	68	98	142	205	290	450	655

5. ZSZ 减速器功率 P_A 见表 34 ZSZ decelerator power P_A see table 34

表 34 Table 34

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min		规格 Specs													
	输入n_1 Input n_1	输出n_2 Input n_2	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW													
22.4	1500	67	8.9	13.5	17	29.4	37	51	74	115	153	209	259	447	567	-
	1000	44	6.1	9.2	12	20.7	25	36	53	83	113	157	190	322	411	627
	750	33	4.6	7.0	8.8	16.0	19	27	41	65	89	118	147	252	318	484
25	1500	60	7.6	11	15	27.2	33	49	74	111	146	199	250	433	549	-
	1000	40	5.2	7.6	10	19.2	22	33	50	79	108	149	183	312	399	610
	750	30	4.0	5.8	7.7	14.8	17	25	38	60	85	113	143	243	307	465
28	1500	54	6.9	10	14	24.1	31	45	67	101	132	186	254	384	544	-
	1000	36	4.7	7.0	9.5	17.0	22	29	46	73	98	139	173	278	393	587
	750	27	3.6	5.4	7	13.1	16	22	34	55	77	104	128	215	301	445
31.5	1500	48	6.1	9.1	12	21.8	27	38	60	94	125	175	228	364	511	-
	1000	32	4.1	6.2	8.3	15.4	19	26	41	64	92	129	155	256	357	523
	750	24	3.2	4.8	6.1	11.9	14	20	30	48	70	94	115	194	267	393
35.5	1500	42	5.4	8.1	11	19.4	24	35	53	85	116	164	202	339	448	-
	1000	28	3.7	5.5	7.6	13.7	17	24	36	58	82	116	137	230	321	474
	750	21	2.8	4.2	5.7	10.6	13	18	27	44	63	84	102	175	246	355
40	1500	38	4.9	7.1	10	17.2	22	32	47	73	101	149	182	305	401	-
	1000	25	3.3	4.9	6.9	12.1	15	22	32	50	73	103	123	207	285	435
	750	19	2.5	3.7	5.1	9.3	11	17	24	38	56	75	91	157	218	327
45	1500	33	4.3	6.2	8.7	13.9	18	26	40	66	87	127	163	268	342	-
	1000	22	2.9	4.2	6	9.7	12	18	27	45	63	91	110	185	241	369
	750	17	2.2	3.2	4.5	7.5	9	14	20	34	49	66	82	142	183	281

TAILONG MACHINERY

续表 34 Table 34 continued

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min		规格 Specs													
	输入n_1 Input n_1	输出n_2 Input n_2	160	180	200	224	250	280	315	355	400	450	500	560	630	710
			公称输入功率 kW Nominal input power P_A kW													
50	1500	30	3.6	5.2	7.3	12.9	17	24	35	57	79	117	139	242	330	488
	1000	20	2.4	3.6	5	9.1	12	16	24	39	56	82	94	164	224	330
	750	15	1.9	2.7	3.7	7.0	8.6	13	18	30	43	59	70	124	168	247
56	1500	27	3.4	4.9	6.8	12.0	16	23	32	51	70	101	123	208	287	407
	1000	18	2.3	3.3	4.6	8.5	11	16	22	34	49	70	84	147	204	288
	750	13.4	1.8	2.5	3.5	6.6	8	12	16	26	38	51	62	112	153	220
63	1500	24	2.8	4.3	5.8	10.6	12	19	29	43	58	87	107	194	272	368
	1000	16	1.9	2.9	4	7.4	8.4	13	20	29	41	61	72	131	183	248
	750	12	1.5	2.2	3	5.7	6.3	7.9	15	22	32	44	54	100	136	184
71	1500	21	2.6	3.9	5.3	8.8	11	17	26	38	52	77	97	159	226	322
	1000	14	1.8	2.7	3.6	6.2	7.5	11	18	26	37	54	66	112	160	219
	750	10.6	1.4	2.0	2.7	4.8	5.6	8.8	13	20	28	39	49	87	122	163
80	1500	18.8	2.2	3.3	4.7	7.7	9.2	14	22	33	43	67	80	147	204	294
	1000	12.5	1.5	2.3	3.2	5.4	6.3	9.6	15	22	30	47	54	99	134	198
	750	9.4	1.2	1.7	2.4	4.1	4.7	7.3	12	17	23	34	40	75	100	155
90	1500	16.7	2.0	2.9	4.1	7.1	8.6	13	21	30	39	60	71	118	173	230
	1000	11.1	1.4	2.0	2.8	5.0	6	8.8	14	20	27	42	48	83	122	163
	750	8.3	1.1	1.5	2.1	3.9	4.4	6.7	10	15	21	30	36	64	90	125
100	1500	15	1.0	2.3	3.5	6.1	7.4	11	17	-	-	-	-	-	-	-
	1000	10	1.1	1.6	2.4	4.4	5	7.8	11	-	-	-	-	-	-	-
	750	7.5	0.85	1.2	1.8	3.4	3.8	6.0	8.5	-	-	-	-	-	-	-

6. DBZ 型减速器功率 P_A 见表 35　　DBZ decelerator power P_A see table 35

表 35　Table 35

公称传动比i Nominal drive ratio i	公称转速 Nominal speed r / min		规格 Specs											
	输入n_1 Input n_1	输出n_2 Input n_2	160	180	200	224	250	280	315	355	400	450	500	560
			公称输入功率 kW Nominal input power P_A kW											
8	1500	188	29.0	39.0	55.0	80	120	170	215	320	490	600	930	-
	1000	125	18.8	26.0	36.0	55	78	110	150	220	320	450	650	930
	750	94	14.0	21.0	28.5	42	59	84	110	165	240	365	485	690
10	1500	150	18.0	32.0	45.0	65	90	130	180	260	370	550	760	-
	1000	100	12.0	21.0	29.0	42	62	87	120	175	250	370	510	680
	750	75	8.5	16.0	22.0	32	46	66	90	130	185	280	370	480
11.2	1500	134	17.5	126.0	36.0	57	75	115	150	215	330	480	670	-
	1000	89	10.5	17.0	24.0	38	51	74	100	150	220	325	440	650
	750	67	8.1	12.5	18.0	28	38	56	71	105	165	250	320	460
12.5	1500	120	14.0	24.0	32.0	52	70	105	140	205	300	430	600	800
	1000	80	9.0	15.0	22.0	34	49	69	95	140	200	295	400	550
	750	60	6.5	12.0	16.5	25	36	52	68	100	145	220	290	380
14	1500	107	13.5	20.0	28.0	45	61	91	120	170	205	390	510	770
	1000	71	8.8	12.0	18.0	30	40	60	85	115	175	260	350	500
	750	53	6.3	9.5	14.0	23	30	44	60	80	130	200	250	360

TAILONG MACHINERY

7.DCZ 型减速器功率 P_A 见表 36　DCZ decelerator power P_A see tble 36

表 36　DCZ 型减速器 P_A　Table 36 DCZ Decelerator power

公称转动比i Nominal drive ratio i	减速器规格		规格 Specs														
	输入n_1 Imput n_1	输出n_2 Output n_2	160	180	200	224	250	280	315	355	400	450	500	560	630	710	800
			公称输入功率 Nominal input power P_A kW														
16	1500	94	14.0	20.0	28.0	42.0	60.0	85	120	165	240	350	490	710	-	-	-
	1000	63	9.4	13.5	18.7	28.0	40.0	56	80	110	160	235	330	490	670	980	1450
	750	47	7.0	10.0	13.9	21.0	30.3	41	60	85	120	175	250	350	500	730	1050
18	1500	83	12.0	18.0	26.0	35.0	50.0	75	105	150	215	320	440	630	-	-	-
	1000	56	8.2	12.0	17.3	22.0	35.0	49	70	95	145	215	305	420	590	860	1300
	750	42	6.1	8.8	12.8	18.0	26.0	36	51	73	110	160	225	320	440	640	950
20	1500	75	9.4	15.7	23.0	29.0	48.0	65	85	130	190	28	0395	540	-	-	-
	1000	50	6.0	10.2	15.1	18.0	31.0	43	57	90	130	185	270	370	515	760	1050
	750	38	4.4	7.2	11.1	13.5	23.0	32	41	65	95	135	200	260	390	600	780
22.4	1500	67	9.1	14.0	19.0	28.0	39.0	53	75	110	155	210	260	450	-	-	-
	1000	45	6.1	9.3	13.0	17.5	26.0	37	50	75	105	159	190	320	420	630	900
	750	33	4.5	6.9	9.0	13.0	20.0	27	40	55	80	117	145	240	315	480	670
25	1500	60	8.0	10.7	16.0	26.5	35.0	50	68	105	140	200	250	430	-	-	-
	1000	40	5.5	6.9	11.0	17.5	23.0	33	45	70	93	145	175	290	395	580	795
	750	30	4.0	5.3	8.0	13.0	17.5	25	34	50	70	110	130	215	300	440	580
28	1500	54	7.0	10.5	15.0	22.5	32.0	45	63	90	130	190	245	380	-	-	-
	1000	36	4.8	7.3	10.4	14.0	21.0	29	41	62	87	135	165	255	365	540	750
	750	27	3.6	5.4	7.8	10.5	16.5	22	30	48	65	100	120	190	270	140	550
31.5	1500	48	6.3	8.9	12.5	21.0	28.0	40	56	82	115	180	225	150	-	-	-
	1000	32	4.2	5.7	8.8	14.0	19.0	27	38	54	80	125	145	235	330	490	665
	750	24	3.2	4.4	6.5	10.5	14.0	20	28	40	61	90	110	170	245	360	480
35.5	1500	42	5.6	8.3	12.0	18.0	26.0	35	48	70	100	160	190	300	420	650	-
	1000	28	3.9	5.5	8.0	11.5	17.0	23	33	48	70	105	125	195	275	435	575
	750	21	2.8	4.2	6.2	8.5	13.0	17	24	35	51	78	95	145	205	325	430
40	1500	38	5.1	6.9	10.5	17.0	23.0	32	43	65	91	145	170	270	390	590	-
	1000	25	3.4	4.6	7.2	11.5	15.5	21	29	42	61	97	115	175	250	400	520
	750	19	2.5	3.4	5.3	8.5	11.5	16	22	31	48	70	80	130	185	300	375
45	1500	33.5	4.5	6.7	9.0	13.7	19.0	27	39	55	80	121	150	240	330	530	685
	1000	22	2.9	4.3	6.2	9.0	13.0	18	28	36	55	85	98	155	225	345	450
	750	16.6	2.1	3.2	4.6	6.5	10.0	14	19	25	41	60	73	115	165	300	345
50	1500	30	3.8	5.1	7.8	13.0	18.0	25	34	51	71	112	130	215	310	465	610
	1000	20	2.6	3.3	5.2	8.7	12.0	17	23	33	48	76	87	140	200	300	405
	750	15	2.0	2.5	4.0	6.5	8.5	12	17	25	36	55	65	105	145	220	300

ZJY 型轴装式圆柱齿轮减速器

Type ZJY Shaft Assembly Cylindrical Gear decelerators

一、概述 Brief

ZJY 系列轴装式减速器采用直接悬挂在配套主机动力输入轴上的安装方式，省略了两者间的联接附件和减速器安装平台，适用于斗式提升机、皮带输送机、刮板输送机等设备的机械传动，也可与其他有此安装要求的主机配套。

产品按 JB/T9050.1-1999 标准制造。主要传动零件采用优质合金钢材质。齿轮经渗碳淬火磨齿工艺加工，精度为(GB10095.1-2001)6 级。产品体积小，承载能力高，寿命长，噪音低，效率高。与 ZJ 系列轴装和减速器比较，相同的输出扭矩，ZJY 重量只有 ZJ 的 30% 左右，因而对配套主机的机架刚性要求大大下降，传动平衡。

产品除可双向运转外，可以根据用户需要配置逆止装置，实现单向制动。

Series ZJY shaft assembly decelertor is mounted directly in a way of hanging on the dynamic input shaft of matching master machine, which dispenses with the connecting accessory and decelerator erection platform. It is applicable for the mechanical drive of bucket elevator , belt conveyor, and flight conveyor, as well as matching with other similar master machine.

The product is manufactured according to ZBJI9009-88 standard, and main drive components are made of quality alloy steels. Gar wheel is processed with carburizing and quenching and grinding teeth with precision of Class (GB10095-88) 6. The product is compact size with high carrying capacity, long service life, low noise, and high efficiency. ZJY has the same output torgue as that of ZJ shaft assemblage decelerator. ZJY weights only 30% weight of ZJ, therefore, the rigidity required for the master machine frame is significantly decreased, and ZJY dreves stable.

Not only can this product be operated bouble direction, but also it can be equipped with antirunback device to achieve oneway braking.

二、减速器的型号与标记 Type and symbol of decelerator

全系列减速器以低速级中心距（mm）为单位，共有 106、125、150，180、212、250、300 七种规格。每一规格的传动比有 10、11.2、12.5、14、16、18、20、22.4、25 九种。

减速器的标记代号中包括型号、低速级中心距、公称传动比和旋向。

The unit for the complete series decelerator is low-speed class center distance (mm), in total 7 specs of 106,125,150,and 300 each specs has 7 drive ratios of 10,11.2,12.5,14,16,18,20,22.4,and 25.

Decelerator earmark is composed of type, low-speed class center distance,nominal drive ratio and direction of rotation.

标记示例 Example of earmark

轴装式减速器 Shaft assembly edcelerator

ZJY 106 - 20 - L(N.S)

两向旋转 （带逆止器时，N 逆时针旋转、S 顺时针旋转；旋转方向：是指面对输出轴端）

Anticlockwise rotation (Output shaft rotation direction code ,N means twoway, S means clockwise)

公称传动比 i=20

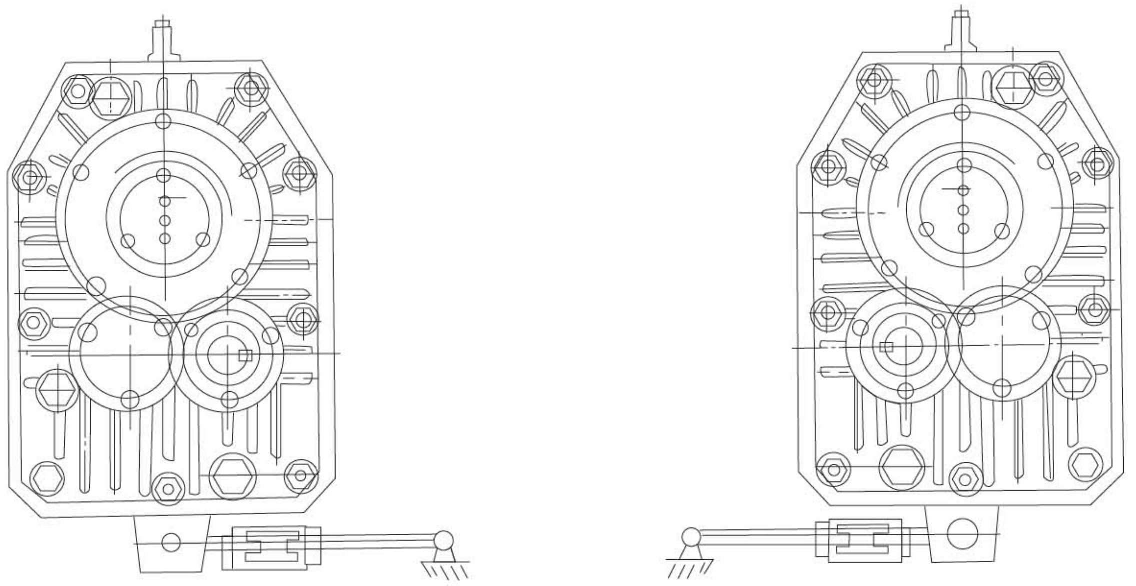
Nominal drive ratio i=20

低速级中心距 106mm

Low-speed class center distance 106mm

硬齿面轴装式减速器

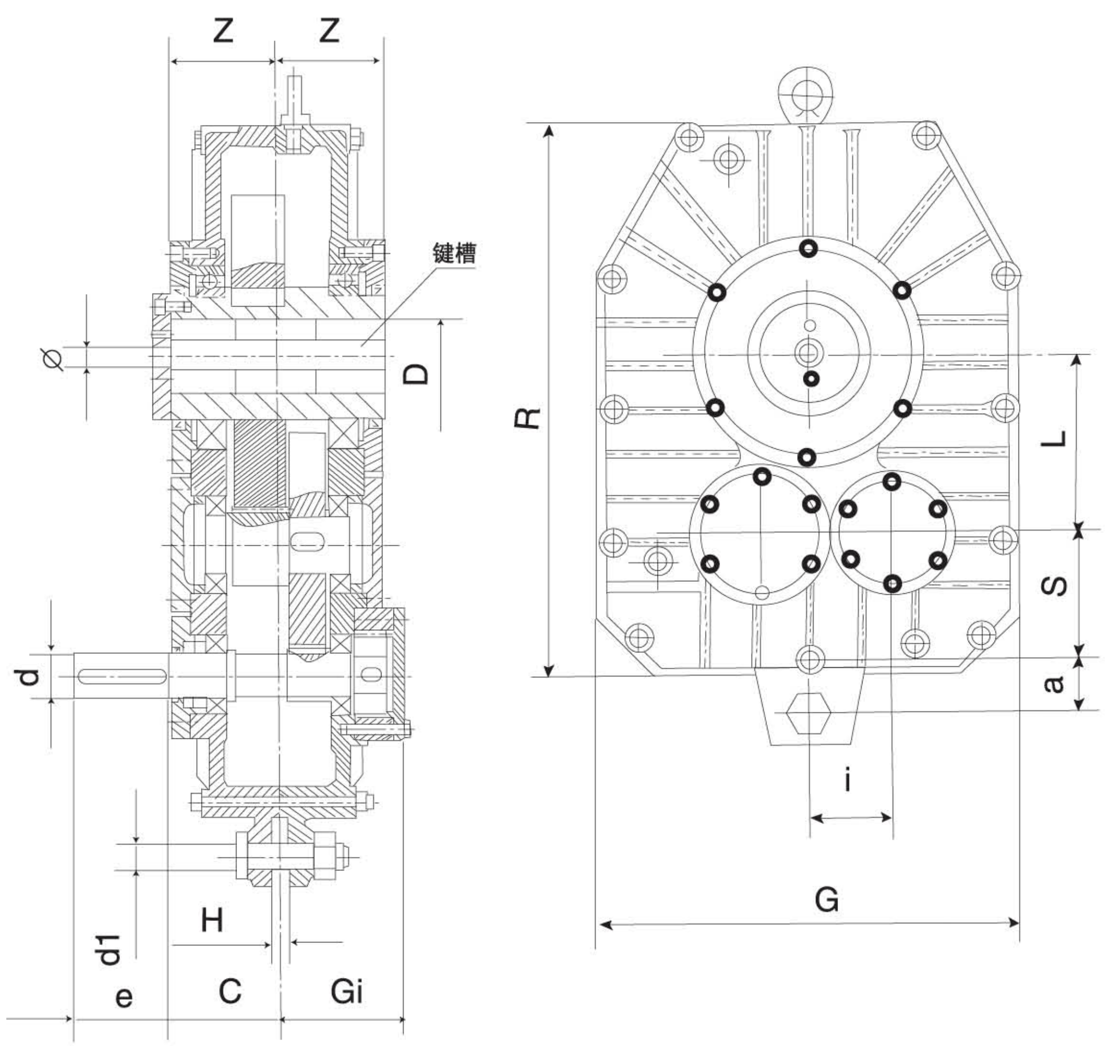
Hard teeth surface shaft assembly decelerator



图一：减速器旋向和防扭拉杆安装位置示意图

Figure 1 decelerator rotoation direction and skefch map of anti-twise pullrod installaction position.

三、减速器的外形尺寸 contour size of decelerator



机型 Type	Z	ø	D	d	d1	H	e	c	Gi	R	L	G	S	a	i
ZJY106	67	13	45	24	14	16	50	83	88	315	103.0	240	80	40	50
ZJY125	76	13	55	28	20	16	60	78	100	378	120.0	270	102	48	55
ZJY150	85	13	60	38	20	20	80	98	110	445	144.3	330	105	53	65
ZJY180	100	17	70	42	25	24	110	117	133	539	174.3	396	145	65	80
ZJY212	120	22	85	48	25	30	110	121	156	625	204.7	477	160	70	95
ZJY250	150	26	100	55	28	30	110	165	164.5	740	241.4	570	195	70	125
ZJY300	164	32	120	65	28	36	140	182	185	840	288.6	660	210	75	130

注：入轴和空心轴配键按 GB/T1096-2003 选用

Note:The key of input shaft and hollow shaft is awording to GB/T1096-2003

TAILONG MACHINERY

四、减速器的承载能力 Decelerator carrying capacity

额定输出扭矩 Rated output torque

规格 Specs	106	125	150	180	212	250	300
扭矩(N.m) Torque(N.m)	750	1250	2120	3550	6000	10000	14720
重量(kg) Weight(kg)	27	40	67	110	173	250	380

公称输入功率 P_1 Nominal input power P_1

公称传动比 i Nominal drive ratio i	公称转速 Nominal speed r/min		规 格 Specs						
	输入n_1 Input n_1	输出n_2 Output n_2	106	125	150	180	212	250	300
			公称输入功率kW Nominal input power P_A kW						
10	1500 1000 750	150 100 75	12 8.2 6.2	19 13 9.8	33 22 17	56 38 29	92 62 47	157 105 79	225 150 113
11.2	1500 1000 750	134 89 67	11 7.4 5.6	17 11 8.5	30 20 15	51 34 26	83 56 42	137 92 69	206 138 104
12.5	1500 1000 750	120 80 60	9.7 6.5 4.9	15 10 7.6	27 18 14	46 31 23	76 51 39	125 83 63	179 119 90
14	1500 1000 750	107 71 54	8.2 5.5 4.1	14 9.4 7.1	24 16 12	39 26 20	65 43 33	107 71 54	162 108 82
16	1500 1000 750	94 62 47	7.3 4.9 3.7	12 8.5 6.1	21 14 11	35 24 18	58 39 30	98 64 48	148 98 74
18	1500 1000 750	83 56 42	6.4 4.3 3.3	11 7.3 5.5	18 12 9.0	31 21 16	51 34 26	86 58 44	131 88 66
20	1500 1000 750	75 50 38	6.0 4.0 3.1	10 6.7 5.1	17 11 8.6	27 18 14	45 30 23	77 52 39	117 78 59
22.4	1500 1000 750	67 44 33	5.2 3.5 2.6	8.7 5.9 4.4	15 10 7.5	25 17 13	42 28 21	72 48 36	103 69 52
25	1500 1000 750	60 40 30	4.6 3.1 2.3	7.6 5.1 3.8	14 9.4 7.1	22 15 11	37 25 19	63 42 32	90 60 46

五、减速器的选用 Decelerator selection

1.减速器的选用 Decelerator selection

(1)查〝减速器载荷分类〞表，确定载荷类型。

Identify load type from tableof 〝Decelerator load classification〞.

减速器的载荷分类表 Decelerator Load Classification

化工类	Chemical industry				
搅拌机（液体）	Blender(fluid)	U	载人升降机	Elevator for people	M
搅拌机（半体）	Blender(semi-fluid)	M	螺旋式传送机	Spiral conveyor	M
离心机（重型）	Centrifuger(heavy-duty)	M	钢带式传送机	Steel belt conveyor	M
离心机（轻型）	Centrifuger(light-duty)	U	链式槽型传送机	Chain groove conveyor	M
冷却滚筒	Cooling roller	M	铰车运输	Hoisting winch transport	M
干燥滚筒	Drying roller	M	洗衣机类	Washing machine type	
			滚筒	Roller	M
传送运输机类	Transfer conveyor type	M	洗衣机	Washing machine	M
平板传送机	Flat conveyor	M	制纸机类	Paper machine type	
平衡块升降机	Balance lump elevator	M	压光机	Plating press	H
槽式传送机	Groove conveyor	M	多层纸板机	Multi-layer blard machine	H
带式传送机（大件）	Belt conveyor(article with big size)	H	干燥滚筒	Drying roller	H
带式传送机（块状物）	Belt conveyor(lumpy article)	U	上光滚筒	Glazing roller	H
筒式面粉传送机	Cylinder flour conveyor	M	搅浆机	Pulp blender	H
斗式提升机	Buket elevator	M	纸浆擦碎机	Paper pulper	H
货物升降机	Cargo elevator	M	吸水滚	Water absorbing roller	H
卷扬机	Hoister	H	吸水 滚压机	Water absirbing roller press	H
倾斜卷扬机	Slant hoister	H	潮纸滚压机	Wet paper roller press	H
连杆式传送机	Connecting bar conveyor	M	威罗机	Box willow	H

注：U 为均匀载荷；M 为中等冲击载荷；H 为强冲击载荷。

Note:U for unifom load, M for middle impact load, H for heavy impact load.

TAILONG MACHINERY

(2)确定工况系数 K_A。

Identify work status factor K_A.

减速器的工况系数 K_A Decelerator Word status factor K_A

原动机 Prime mover	每日工作时间 Work time perday 小时 Hour	K_A 轻微冲击 Slight impact 均匀载荷 Uniform load	中等冲击 Middle impact 载荷 load	强冲击 Heavy impact 载荷 load
电动机 Electromotor 汽轮机 Steam turbine 水力机 Water motor	≤ 10	1	1.25	1.75
	＞10	1.25	1.5	2

(3)确定安全系数 K_s Identify safety factor K_s

因减速器失效所造成的后果 Aftereffect caused by decelerator failure	一般损失 单台主机停产 主要设备不能运行等 General loss single master machine stops production,main equipment fails to operate	严重损失 整条生产线停产设备损坏等 Serious loss whole production stops production and equipment failure	重大损失 人身伤亡、电厂停电、钢包停浇起吊装置失灵等 Significant loss personnel injuries, power plant ouearmarkes, molten steel container stops moulding
K_S	1.3～1.5	1.6～1.8	1.8～2

(4)1.按 $P_{2M}=P_2\cdot K_A\cdot K_S\leqslant P_1$,确定减速器规格。

P_{2M} －计算功率

P_2 －传递功率

P_1 －公称输入功率，当减速器输入功率不是 1500.1000.750r/min 时，可按最近表列转速的一档，折算 P_2

According to $P_{2M}=P_2\cdot K_A\cdot K_S\leqslant P_1$,determine the specs of decelerator.

P_{2M} － calculating power;

P_2 － transmitting power

P_1 － nominal imput power, If decelerator input power is not 1500, 1000, or 750r/min, nominal imput power is converted according to the latest rotate speed listed in the table.

2.例 For example:

有一斗式提升机，用电动机通过三角带驱动减速器传动；减速器输入转速为 1100r/min 输出转速为 55r/min，传递功率 P_2=2kw，每日工作超过 10 小时，减速器损坏会引起主要设备不能运行，应选用何减速器？

For a bucker elevator, motor is used to drive decelerator transmission through triangle belt. Decelerator imput rotate speed is 1100r/min, output rotate speed is 55r/min,transmission power is P2=2kw, work time per day is more than 10 hours, and decelerator failure would result in main equipment non-operable.How to select decelerator?

解 Solution:

(1)、查表，斗提机属中等冲击；查表 K_s=1.5，查表 K_s=1.4

Check with table, bucker elevator is of middle impact; check with table, K_A=1.5 is found, check, K_s=1.4 is found.

(2)、$P_2=2\times\frac{1000}{1100}=1.82kW$

(3)、$P_{2M}=1.82\times1.5\times1.4=3.82kW$

(4)、i=1100/55=20

查表，知 ZJY106; i=20 1000r/min 时 P=4kW P2M=3.82〈4kW，

Check with table,identify ZJX106-20 can be selected

所以可选用 ZJY106-20 Therefore, ZJY106-20 can be selected

3.按输入转速选用逆止器 Select holdback according to input rotate speed

本系列产品配置有常接触和非常接触两种逆止器。常接触逆止器的许用最高输入转速见表。

This series product is equipped with frequent contact and non-frequent contact holdbacks. Maximum allowable imput rotate speed for frequent contact holdback is shown in table.

常接触逆止器许用转速及许用逆止扭矩

Allowed rotate speed and allowable holdback torque for frequent contact holdback.

减速器规格 Specs of decelerator	ZJY106	ZJY125	ZJY150	ZJY180	ZJY212	ZJY250	ZJY300
许用转速r/min Allowable rotate speed	1430	1250	1050	910	690	625	500
许用逆止扭矩N.m Allowable holdback torque	80	135	180	385	550	745	1460

附：防扭杆规格（一般由用户自行购置）Specs of anti-twist bar (usually bought by user)

防扭杆可外购〝开式索具螺旋扣〞00 型（沪产 Q/JB43-66）

Type 00 〝Open rigging turnbuckle〞 (made in Shanghai/JB43-66)may be purchased for anti-twist bar.

减速器规格 Specs of decelerator	螺旋扣号码 Turnbuckle number	调节长度L(mm) Adjustable length L(mm)
ZJY106	0.4	310～416
ZJY125.150	0.8	380～582
ZJY180.212.250.300	1.7	540～860

TY 系列同轴式硬齿面齿轮减速器

TY Series of Carbide-Faced Coaxial Decelerators

一、概述 Brief

TY系列同轴式硬齿面齿轮减速器是理想的动力传送装置，它广泛适用于冶金、矿山、能源、建材、运输、化工、纺织等行业。减速器的齿轮圆周速度不大于 20m/s 允许正、反转；适用于水平卧式安装，前后倾斜角不大于 20°；直联电机为 Y 系列三相异步四级电动机，电机的安装型式为 B5 或 B35；工作环境温度为 0℃-40℃

TY series similar-axle carbide-faced gear decelerators are ideal dyramic transporting mechanics, which are widely used in metallurgy, mining erergy, building materl, chemical industry and light industry. The gear velocity is no more than 20m/s and right or inversy direction allowed. The decelerators are horizontal installed with an sloping angle no more than 20℃; The vertical moters are Y series of three-phase asynchronous moter,the installing forms of moters are B5 or B35.

The actuating tanperatures range from 0℃-40℃.

二、减速器的型号与标记 Type and symbol of decelerator

减速器的标记代号中包括减速器型号、公称中心距、公称传动比和公称输入功率。

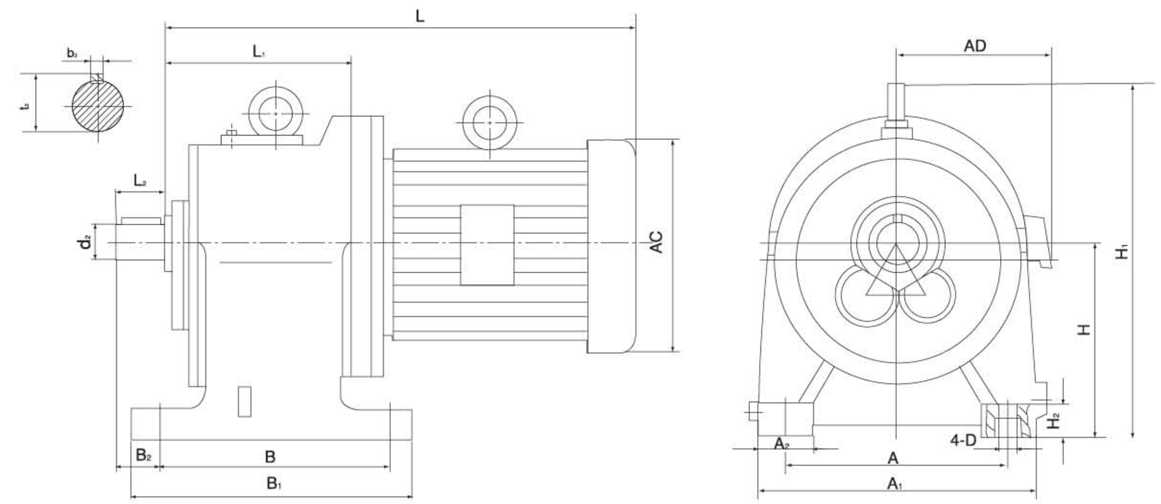
The symbol of edcelerator ehcloses type of decelerator,nominal center space, nominal transmission ratio and nominal imput power.

标记示例 Symbol example

TY 140 - 31.5 - 7.5

- 7.5 — 公称输入功率 P_1=7.5kW nominal imput power P_1=7.5kW
- 31.5 — 公称传动比 i=31.5 nominal trnsmission ratio i=31.5
- 140 — 公称中心距 a=140mm nominal center space a=140mm
- TY — 同轴式硬齿面齿轮减速器 same-axle carbide-faced gear decelerator

三、减速器的外形尺寸 Outer size of decelerator



三、减速器的外形尺寸及安装尺寸

Outlook and assemble size of decelerator

规格 specification	d_2 (m6)	L_2	b_2	t_2	H	L_1	H_1	B_2	B	B_1	A	A_1	A_2	H_2	D	重量 (kg) weight	润滑油量(L) volume of lubricating oil
50	24	36	8	27	112	178	230	47	180	220	160	200	40	25	12	25	0.6
63	25	42	8	28	132	206	271	60	205	245	160	200	40	25	14.5	32	0.9
80	35	58	10	38	180	238	362	81	240	290	210	260	50	30	18.5	46	1.6
100	45	82	14	48.5	200	261	398	103	275	330	260	320	60	40	24	75	1.8
112	50	82	14	53.5	225	273	438	98	285	350	285	350	65	40	24	88	2.5
125	55	82	16	59	250	295	480	99	320	390	310	385	75	50	28	99	3.1
140	65	105	18	69	265	312	492	127	350	420	350	420	75	50	35	155	3.8
160	75	105	20	79.5	315	337	585	118	385	480	380	480	100	60	42	184	5.9
180	85	130	22	90	355	368	638	141	405	500	425	535	110	70	42	257	7.5
200	95	130	25	100	375	394	689	147	425	530	480	590	110	70	42	315	9.2
224	100	165	28	106	425	440	770	185	460	560	515	655	140	80	48	428	12
250	110	165	28	116	475	472	875	191	480	580	585	725	140	80	48	593	18.3

代号 type		电机机座号 motor pedestal no																
		80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
AC		165	175	175	205	250	270	270	325	325	360	360	400	450	450	495	555	555
AD		150	155	155	180	190	210	210	255	255	285	285	310	345	345	385	410	410
L	50	413	428	463	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	63	445	456	481	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L	80	-	483	508	554	574	-	-	-	-	-	-	-	-	-	-	-	-
L	100	-	499	524	581	601	644	704	-	-	-	-	-	-	-	-	-	-
L	112	-	503	528	573	593	633	708	793	838	863	-	-	-	-	-	-	-
L	125	-	-	-	591	611	685	730	803	853	877	945	-	-	-	-	-	-
L	140	-	-	-	602	622	712	747	824	869	894	934	999	-	-	-	-	-
L	160	-	-	-	621	641	696	741	847	892	917	957	1091	1067	1092	-	-	-
L	180	-	-	-	654	674	744	789	874	919	944	984	1047	1094	1119	-	-	-
L	200	-	-	-	685	704	776	821	930	975	1010	1050	1115	1160	1185	1395	1480	1530
L	224	-	-	-	-	-	802	857	965	1010	1045	1085	1150	1223	1243	1431	1516	1566
L	250	-	-	-	-	-	842	897	1006	1051	1076	1116	1181	1265	1285	1473	1572	1622

四、减速器的公称传动比和公称输入功率 P_1 (N_1=1500r/min)

Nominal transmission ratio and nominal imput power of decelerator P_1 (N_1=1500r/min)

公称转动比i Nominal transmission ratio	规格 Specs											
	50	63	80	100	112	125	140	160	180	200	224	250
	公称输入功率P_1 (kW) Nominal input power P_1 (kW)											
14	1.1	1.5	3	5.5	7.5	11	15	22	37	45	55	90
16	0.75	1.5	2.2	5.5	7.5	11	15	18.5	30	37	55	75
18	0.75	1.1	2.2	4	5.5	7.5	11	15	30	37	45	75
20	0.75	1.1	1.5	4	5.5	7.5	11	15	22	30	45	55
22.4	0.55	1.1	1.5	3	5.5	7.5	11	15	22	30	45	55
25	0.55	0.75	1.5	3	5.5	7.5	11	11	22	30	37	55
28	0.55	0.75	1.5	3	4	5.5	7.5	11	18.5	22	30	45
31.5	-	0.75	1.5	2.2	4	5.5	7.5	11	15	22	30	37
35.5	-	0.55	1.1	2.2	3	5.5	7.5	11	15	18.5	22	37
40	-	0.55	1.1	2.2	3	4	5.5	7.5	11	15	22	30
45	-	-	-	1.5	3	4	5.5	7.5	11	15	22	30
50	-	-	-	1.5	2.2	3	4	5.5	11	15	18.5	22
56	-	-	-	1.5	2.2	3	4	5.5	7.5	11	15	22
63	-	-	-	-	1.5	2.2	4	5.5	7.5	11	15	18.5
71	-	-	-	-	1.5	2.2	3	4	7.5	-	11	18.5
80	-	-	-	-	1.5	2.2	3	4	5	7.5	11	15
90	-	-	-	-	-	-	3	4	4	7.5	11	15
100	-	-	-	-	-	-	-	3	4	5.5	7.5	11

TAILONG MACHINERY

CJ 系列齿轮减速器

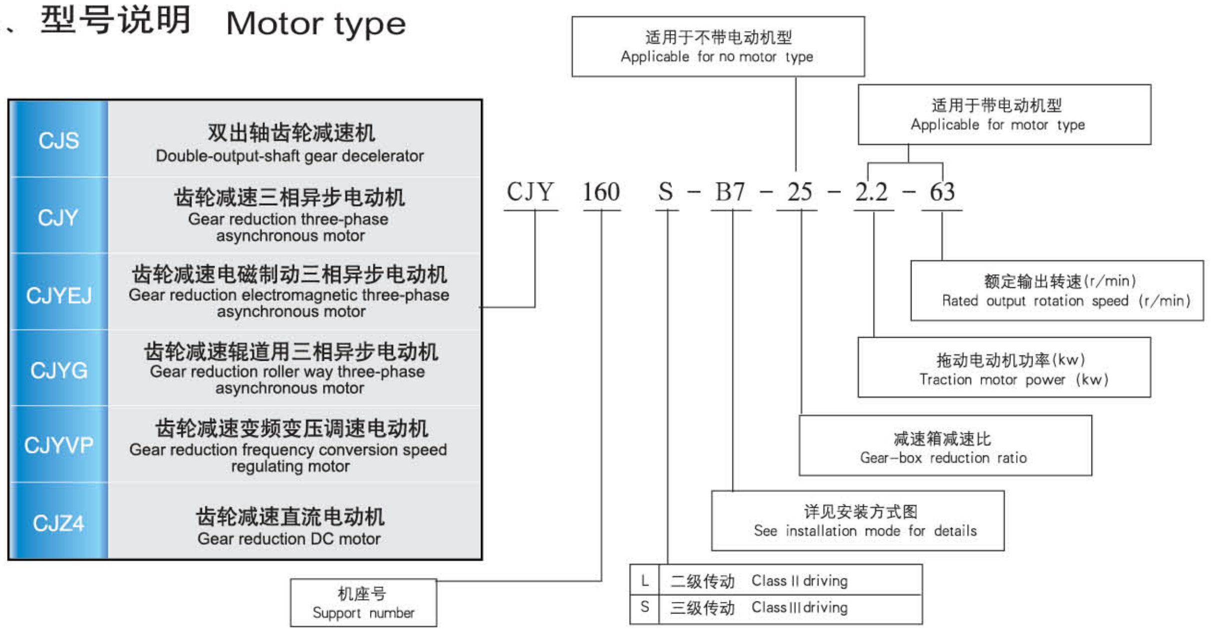
Series CJ Gear Decelerators

一、特点 Features

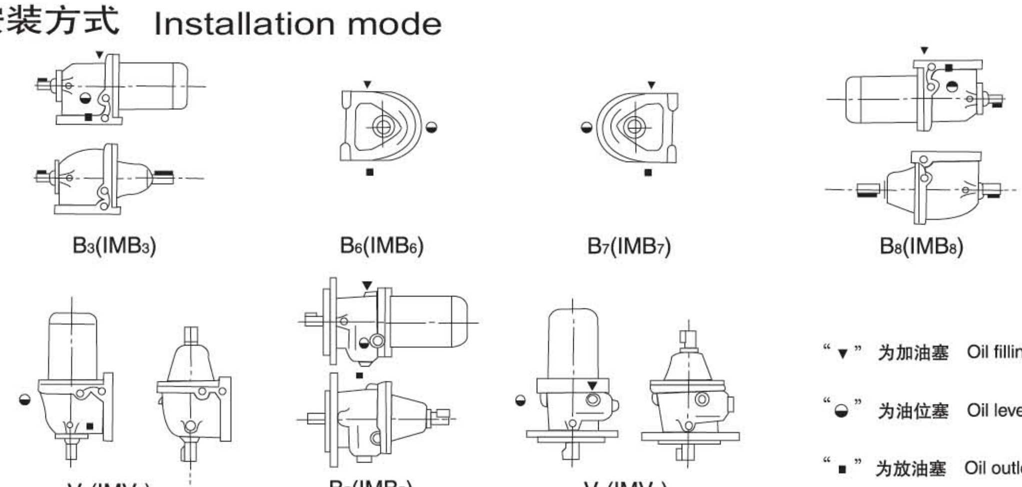
CJ 系列齿轮减速器是理想的动力传动装置，设计全部符合 ISO、IEC 国际标准，具有设计先进结构紧凑、体积小、运转平稳、噪声低、速比级差小、效率高、使用可靠、寿命长等特点。广泛适用于冶金、矿山、建筑、起重、印刷、水泥等行业的配套设备，也可用于引进设备的配套和维修。并可根据用户需要配置三相异步电动机、电磁制动三相异步电动机、辊道用电动机、变频变压调速电动机、直流电动机等各种规格的电动机。

Series CJ gear decelerator is a perfect power driving device with all of its designing compliant with ISO and IEC international standards, featured by well-knit design, compact structure, small size, stable operation, low noise, low speed-ratio grading, high efficiency, reliable application and long service life. It is widely used as matching equipment for metallurgy,mining ,construction, hoisting, printing, and cement industries, and also used for the matching and maintenance of imported equipment.It can be equipped with various motors such as three-phase asynchronous motor, electromagnetic brake three-phase asynchronous motor, roller way motor, frequency conversion speed regulating motor, and DC motor as requested by customer.

二、型号说明 Motor type



三、安装方式 Installation mode

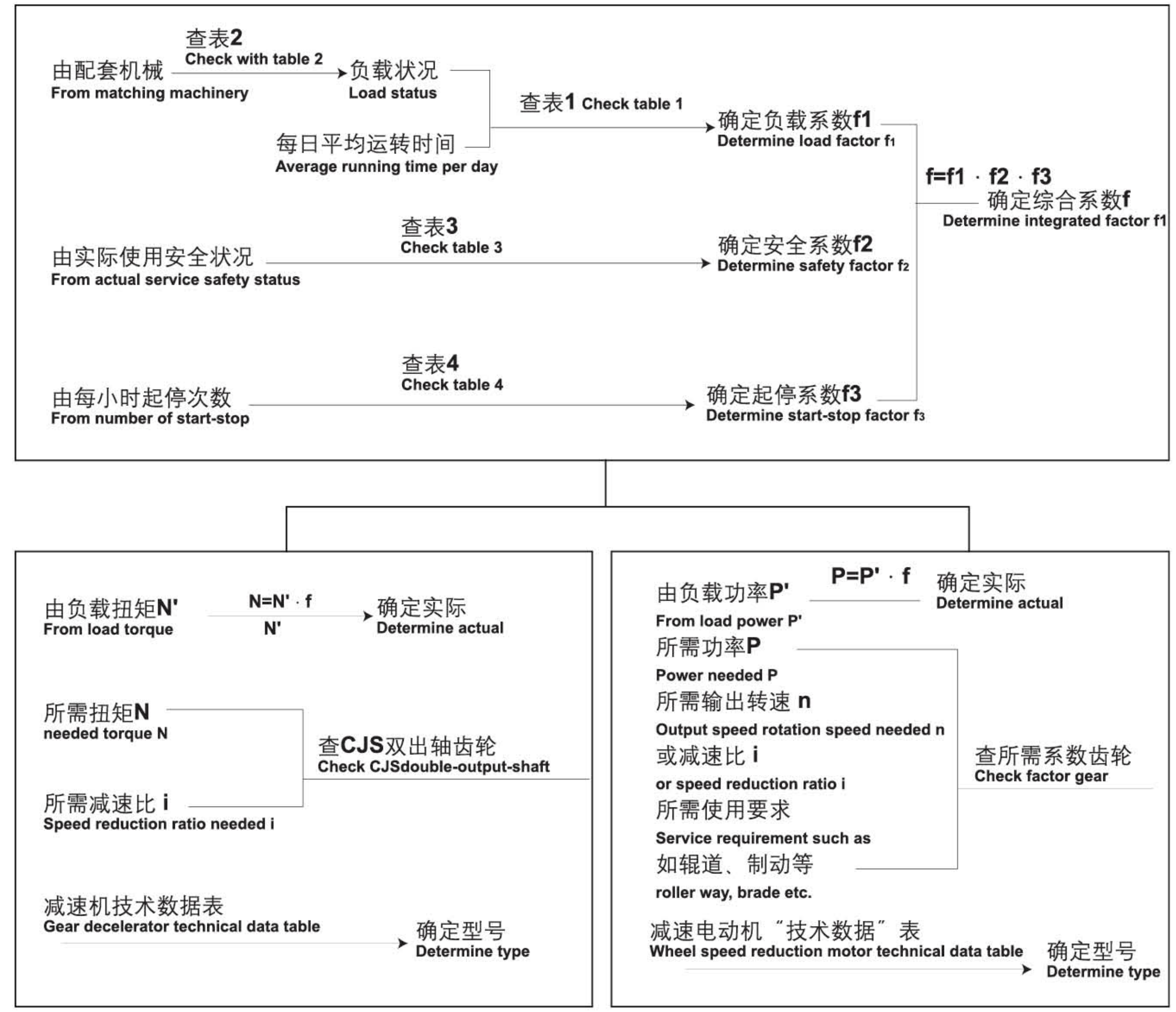


"▼" 为加油塞 Oil filling plug

"●" 为油位塞 Oil level plug

"■" 为放油塞 Oil outlet plug

四、选型方法 Type selection method



负载系数 f_1 Load fctor f_1 / 负载状况 Load status / 运转时间(小时/每天) Service hours(hour/day)	U 均匀负载 Uniform load	M 中等负载 Medium load	H 重冲击负载 Heavy impact load
0.5	0.6	0.9	1.25
3	0.9	1.05	1.5
10	1	1.3	1.7
24	1.3	1.5	1.96

注：1.若运转中常有短暂间断，则可选用此表中型号小一号机型、

Note: 1.If there is aways a transitory stop during operation, a smaller type machine in this table is to be selected.

2.若运转中需频繁启动或有重载冲击，可能需要特殊加固及其它的措施，请向我公司技术部门咨询。

2.If there is frequent startup during operating, the heavy impact load is applicable, and special bonding and other precautions may be needed, which is to be consulted with our technicl department.

TAILONG MACHINERY

表 2 负载类型表 Table2 Load type table

钢铁工业 Steel industry	链式传送机 Chain conveyor	M	工业 Industry	皮带式运输机（散状物） Belt conveyor (dispersed material)	M	工业 Industry	冷却滚筒 Cooling roller	M
	绕线机（带材和线材） Winder (belt and wire)	M		皮带式运输机（块状物） Belt conveyor (lumpy material)	H		干燥滚筒 Drying roller	M
	拉丝机 Drawbench	M		斗式提升机 Bucket hoister	M		搅拌机（块状物） Blender (lumpy material)	M
	辊道（重的） Roller way (lheavy)	H		链式提升机 Chain hoister	H		离心机 Centrifuger	M
	辊道（轻的） Roller way (light)	M		螺旋输送机 Spiral conveyor	M	橡胶工业 Rubber industry	压延机 Calender	M
	横向移动设备 Horizontal moving equipment	M		运货升降机 Freight elevator	M		挤压机 Extruder	M
	连续铸造设备 Continuous forging equipment	H		回旋输送机 Whirling conveyor	H		搅拌机 Blender	H
	铸锭装卸机械 Casting ingot loading & unloading equipment	H	食品工业化学 Food industry chemistry	粉碎机 Pulverizer	H		滚轧机 Roll machine	H
	滚轮调整传动装置 Idler wheel adjustment driving device	M		甘蔗切碎机 Sugar cane cutting machine	M	木工建筑 Carpentry construction industry	剥皮机 Barker	H
	辊式拉伸矫直机 Roller stretching straightener	M		甜菜切碎机 Sugar beet cutting machine	M		刨床 Planer	M
运输 Transportation	板式输送机 Platform conveyor	M		甜菜清洗机 Sugar beet rinsing machine	M		木工机床 Timber working machine	U
	压载升降机 Ballast elevator	M		搅拌机（液状物） Blender (fluid)	U		混凝土搅拌机 Concrete mixer	M
	斗式输送机 Bucket conveyor	M		搅拌机（半液状物） Blender (semi-fluid)	M		筑路机械 Road building machine	M

表 3 安全系数 f_2 Table 3 Safety factor f_2

因减速机失效所造成的后果 Effects caused by decelerator failure	一般损失 General loss	严重损失 Serious loss	重大损失 Significant loss
	单台主机停产，主要设备不能运行等 Single master machine shutdown,main equipment not operable	整条线停产，设备损坏等 Whole production line shutdown, equipment damaged	人身伤亡、电厂停电钢包停浇、起吊装置失灵 Personal injury, power station outage,molten steel container stop casting,hoisting failure
安全系数 f_2 Start-stop factor f_2	1.3-1.5	1.6-1.8	1.8-2

表 4 起停系数 f_3 Table 4 Start-stoop factor f_3

每小时起停次数 Number of start-stop	≤100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
起停系数 Start-stop factor f_3	1	1.02	1.03	1.04	1.05	1.07	1.09	1.11	1.13	1.15	1.17	1.18	1.19	1.21	1.25

注：每次正反运转等价于 2 次起停运转。

Note: Each forward and backward running is equivalent to twice start-stop running.

径向力校核 Radial force verification

减速机: Decelerator:

由负载扭矩 N(N.m)
Form load torque N(N.m)
由作用力节圆半径 R(m)
From acting force pitch radius R(m)

$F=N/R$

→ 确定实际所受径向力 F(N)
Determine actual radial force under stress F(N)

减速电动机: Decelerator motor:

由负载功率 P(kW)
From load power P(kW)
由输出轴转速 n_2(r/min)
From output axle speed
由作用力节圆半径 R(m)
From acting force pitch radium R(m)
由联接系数 K
From jointing factor K

$$F=K\frac{9550 \times P}{n_2 \times R}$$

→ 确定实际所受径向力 F(N)
Determine actul rdial force under stress F(N)

联接系数 K
Jointing factor K

联轴器: K=0　　正齿轮: K=1.1
链轮: K=1　　皮带轮: K=1.5

Coupling:K=0　　Positive gear wheel:K=1.1
Chain wheel:K=1　　Belt wheel:K=1.5

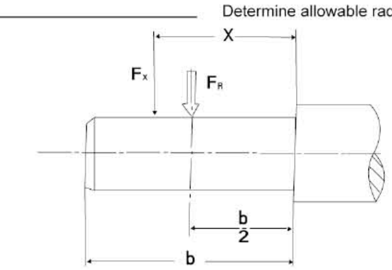
由实际受力点到轴伸台阶平面距离 X (mm)
Plane distance from actul stressed point to shaft extension step X (mm)

根据机座号 —查表 5 Cheek with Table 5→ 确定 a(mm)及 b(mm)
Based on support number　　determine a(mm and b(mm)

由机座号及输出轴转速 n_2(r/min) —查表 5 Cheek with Table 5→ 确定 F_R(N)
From support number and output shaft rotation speed n_2(r/min)　　determine F_R(N)

$$F_x=F_R\frac{X+b}{a}$$

确定许用径向力 F_x(N)
Determine allowable radial force F_x(N)



校验 F ≤ Fx
verification ≤ Fx

表 5 径向载荷参数 Table 5 Radial load paramenter

机座号 Pedestal No.	a (mm)	b (mm)	F_R(N) $N_2\le 16$	$N_2\le 25$	$N_2\le 40$	$N_2\le 63$	$N_2\le 100$	$N_2\le 160$	$N_2\le 250$	$N_2\le 355$
100	44	24	1620	1520	1350	1190	1050	930	820	730
112	49.5	24.5	2900	2680	2300	1960	1665	1420	1210	1055
132	60	30	6820	5860	5160	4550	4010	3540	3130	2790
160	77	37	9950	9265	8230	7320	6500	5780	5130	4455
180	93	38	13900	12970	11565	10270	9115	8115	7200	6480
200	93.7	38.7	18100	17150	15250	13555	12035	10685	9500	8510
225	97.5	42.5	23300	21620	19280	17120	15220	13510	11990	10660
250	115	45	28600	26575	23455	20675	18230	16070	14170	12680
280	115	45	33500	30910	26755	23050	19855	17105	14740	12970
315	158.5	71	38800	35960	30680	25920	21900	18510	15635	13465
355	167.5	80	45000	41725	35010	28895	23870	19710	16285	13750
400	165	60	52150	48485	39975	32265	26050	21030	16980	14050

F_R:减速箱输出轴许用径向力(N)　decelertor output shaft allowable radial force (N)
n_2:减速箱输出轴转速(r/min)　decelerator output shaft rotation speed (r/min)
a:与减速箱结构尺寸有关的参数(mm)　parameter related to decelerator gear box structurl dimension (mm)
b:与减速箱结构尺寸有关的参数(mm)　parameter related to decelerator gear box structurl dimension (mm)

CJS 双出轴齿轮减速机

CJS Double-Output-Shaft Gear Decelerators

机座号 Pedestal No.	减速比 i Reduction ratio i 最大输出扭矩 T_2(N.m) Maximun output torque T_2(N.m)											
132L	3.89	4.45	4.97	5.68	6.25	7.23	7.98	8.83	9.98	11.12		
	128	134	140	150	175	190	200	210	220	228		
132S	12.56	14.13	15.55	18.03	19.94	22.12	25.20	28.35	31.31	35.85	39.90	44.61
	236	240	246	252	256	262	266	272	274	276	278	280
	50.13	56.71	64.67									
	282	284	286									
160L	4.13	4.58	5.14	5.70	6.40	7.10	7.89	8.98	10.04	11.28		
	212	228	246	270	290	305	320	328	338	348		
160S	12.37	13.83	15.68	17.61	20.22	22.60	24.77	27.70	31.40	35.25	40.48	45.13
	368	382	400	405	410	415	420	425	428	432	438	442
	50.58	57.08	64.94									
	448	452	456									
180L	4.08	4.67	5.23	5.80	6.32	7.22	8.03	8.96	10.02	11.27		
	316	335	355	380	400	420	440	458	482	495		
180S	12.69	14.22	15.67	17.91	19.90	22.53	25.40	27.95	31.38	35.86	39.85	
	515	535	555	568	580	590	600	610	620	630	640	
	45.19	50.68	56.36	64.18	69.73	79.57						
	646	652	658	664	670	678						
200L	4.12	4.63	5.18	5.87	6.35	7.14	7.99	8.05	10.17	11.26		
	495	515	532	545	565	585	605	660	710	760		

TAILONG MACHINERY

机座号 Pedestal No.	减速比 i Reduction ratio i 最大输出扭矩 T_2(N.m) Maximun output torque T_2(N.m)												
200S	12.41	14.07	16.02	18.06	19.84	22.84	25.24	28.15	31.38	35.61	40.31	45.10	
	800	836	866	895	915	935	950	970	980	990	1000	1010	
	49.91	55.54	62.18	79.89									
	1020	1030	1040	1050	1060								
225L	4.16	4.68	5.23	5.84	6.44	7.25	8.10	9.20	10.17	11.46			
	672	700	725	750	780	810	850	885	925	955			
225S	12.53	14.23	15.78	17.79	20.51	22.74	25.31	28.75	31.87	35.93	40.04	45.76	
	1000	1050	1100	1150	1200	1230	1250	1275	1295	1315	1340	1360	
	50.79	56.70	63.72	72.25	78.17								
	1380	1400	1420	1440	1460								
250L	4.18	4.65	5.22	5.81	6.45	7.17	8.05	9.24	10.33	11.80			
	1000	1060	1125	1175	1225	1270	1320	1375	1425	1475			
250S	13.00	14.52	15.88	18.30	20.40	22.56	25.66	28.67	31.37	35.13	39.69	44.98	
	1530	1585	1632	1682	1712	1748	1776	1800	1826	1866	1910	1950	
	50.71	53.33	64.57	71.80	80.40	90.76							
	1990	2030	2070	2110	2132	2152							
280L	4.14	4.69	5.20	5.84	6.38	7.24	8.03	9.00	10.33	11.35	12.71	14.08	
	1410	1540	1595	1685	1780	1860	1952	2040	2130	2240	2346	2446	
280S	16.37	18.36	20.67	22.64	25.68	28.62	31.98	35.85	40.37	45.71	49.85	57.16	
	2545	2618	2678	2745	2808	2865	2870	2875	2880	2890	2900	2920	
	62.97	70.52	78.60	92.95	100.12								
	2940	2960	2980	3000	3010								
315L	4.09	4.58	5.12	5.80	6.40	7.17	8.05	9.08	10.28	11.35	12.81	14.26	
	2450	2570	2650	2750	2810	2980	3020	3050	3080	3110	3140	3170	
315S	16.03	18.16	20.20	23.01	25.30	28.78	32.17	36.43	40.53	45.29	50.89	55.78	
	3210	3250	3300	3340	3400	3500	3600	3620	3660	3690	3720	3750	
	62.81	72.86	80.45	89.42	100.18								
	3800	3850	3920	4000	4000								
355L	4.20	4.68	5.27	5.89	6.48	7.22	8.13	9.09	10.34	11.44	12.71	14.19	16.17
	3200	3330	3480	3530	3640	3830	3970	4100	4250	4450	4600	4900	4920
355S	17.87	20.04	22.81	25.63	28.41	32.31	36.09	40.48	45.65	50.90	56.63		
	4950	4970	4990	5010	5030	5050	5070	5110	5150	5200	5290		
	62.83	72.18	80.39	90.23	102.26								
	5340	5400	5400	5450	5450								
400L	4.09	4.52	5.97	5.61	6.53	7.22	7.95	8.97	10.17	11.59	12.68	14.62	16.15
	4000	4260	4390	4500	4700	4900	5060	5300	5460	5700	5860	6150	6350
400S	18.64	20.61	22.94	25.07	28.07	31.98	35.91	40.08	45.15	50.74	56.89		
	7480	7630	7780	7860	7950	7950	8020	8020	8090	8190	8150		
	62.21	70.62	80.30	89.29	99.13								
	8150	8180	8180	8260	8260								

CJY CJYEJ 齿轮减速三相异步电动机

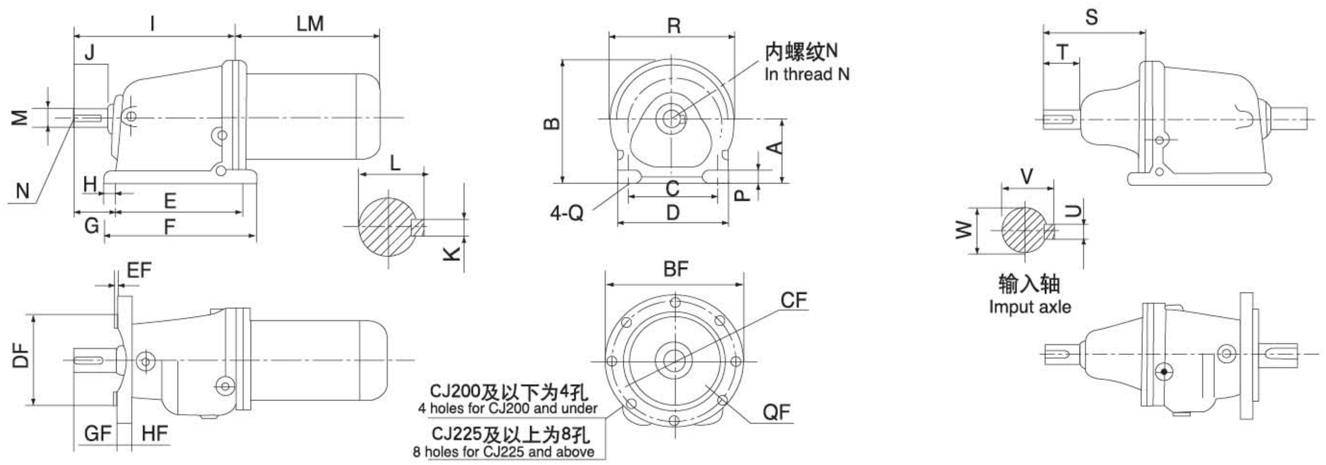
CJY CJYEJ Gear Decelerator Three-Phase Asynchronous Motor

机座号 Pedestal No.	电动机功率kW Motor power	输出转速(r/min) Out rotation speed (r/min)							
132L	1.5	125	140	160	180	200			
	2.2	160	180	200	224	250	280	315	355
	3	160	180	200	224	250	280	315	355
	4	280	315	355					
132S	0.55	28	31.5	36	40	45			
	0.75	28	31.5	36	40	45	50	56	63
	1.1	50	56	63	71	80	90	100	112
	1.5	71	80	90	100	112			
	2.2	112	125	140					
160L	3	125	140						
	4	140	160	180	200	224	250		
	5.5	224	250	280	315	355			
160S	0.55	22.4	25						
	0.75	22.4	25	28					
	1.1	28	31.5	36	40	45			
	1.5	40	45	50	56	63			
	2.2	63	71	80	90	100			
	3	90	100	112					
180L	5.5	160	180	200					
	7.5	200	224	250	280	315	355		
180S	0.55	18	20						
	0.75	18	20						
	1.1	22.4	25						
	1.5	28	31.5	36					
	2.2	40	45	50	56				
	3	56	63	71	80				
200L	7.5	125	140	160	180	200			
	11	224	250	280	315	355			
	15	355							
200S	1.1	18	20						
	1.5	20	22.4	25					
	2.2	25	28	31.5	36				
	3	36	40	45	50				
	4	50	56	63	71				
	5.5	80	90	100	112				
	7.5	112							
225L	11	125	140	160	180	200			
	15	224	250	280	315				
	18.5	315	355						
225S	1.1	18							
	1.5	18							
	2.2	18	20	22.4					
	3	25	28	31.5					
	4	36	40	45					
	5.5	50	56	63					
	7.5	71	80	90	100				
	11	112							

TAILONG MACHINERY

机座号 Pedesta N.o	电动机功率kW Motoropwer	输出转速 (r/min) Out rotation apeed (r/min)						
250L	11	125						
	15	125	140	160	180	200		
	18.5	160	180	200	224	250	280	
	22	200	224	250	280	315	355	
	30	315	355					
250S	11	16						
	1.5	16						
	3	18	20	22.4				
	4	22.4	25	28	31.5			
	5.5	31.5	36	40	45			
	7.5	50	56	63				
	11	80	90	100	112			
	15	112						
280L	18.5	112	125	140				
	22	112	125	140	160	180		
	30	180	200	224	250	280		
	37	250	280	315	355			
280S	2.2	16						
	3	16						
	4	16	18	20				
	5.5	22.4	25	28				
	7.5	31.5	36	40	45			
	11	50	56	63	71			
	15	63	71	80	90	100		
	18.5	90	100					
315L	30	112	125	140	160			
	37	140	160	180	200	224		
	45	180	200	224	250	280	315	355
315S	5.5	16	18	20				
	7.5	22.4	25	28				
	11	36	40	45				
	15	50	56					
	18.5	63	71	80				
	22	80	90	100				
355L	30	100						
	37	100	112	125				
	45	112	125	140	160			
355S	7.5	16	18	20				
	11	25	28	31.5				
	15	36	40	45				
	18.5	40	45	56				
	22	56	63	71				
	30	71	80	90				
	37	90						
400L	45	112						
400S	11	16	18	20	22.4			
	15	25	28	31.5				
	18.5	28	31.5	36	40			
	22	36	40	45	50			
	30	45	50	56	63			
	37	56	63	71	80			
	45	71	80	90				

五、安装及外形尺寸 Installation dimension and formal dimension



机座号 Pedestal No.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
100	100	195	150	180	145	171	57	13	193	40	6h9	21.5	19j6	M6	16
112	112	215	170	196	170	200	66	13	227	50	8h9	27	24j6	M8	16
132	132	257	205	240	190	228	88	19	265	60	8h9	31	28j6	M10	20
160	160	310	240	290	215	255	107	20	309	80	10h9	41	38k6	M12	30
180	180	345	270	320	235	285	145	25	370	110	12h9	45	42k6	M12	30
200	200	380	300	350	260	310	145	25	387	110	14h9	51.5	48k6	M12	30
225	225	425	335	390	280	340	153	30	420	110	16h9	59	55m6	M16	35
250	250	450	380	450	315	385	177	35	471	140	18h9	69	65m6	M20	40
280	280	490	430	500	340	410	183	35	491	140	20h9	79.5	75m6	M24	40
315	315	565	440	520	440	520	220	40	640	175	22h9	90	85m6	M24	50
355	355	630	490	580	480	560	220	40	680	175	25h9	100	95m6	M24	50
400	400	700	540	640	520	600	255	40	750	210	28h9	116	110m6	M24	60

机座号 Pedestal No.	Q	R	S	T	U	V	W	BF	CF	DF	EF	GF	HF	QF	重量 Weight(kg)
100	10	190	140	40	6h9	21.5	19j6	250	215	180j6	4	40	13	14	20
112	10	206	140	40	6h9	21.5	19j6	250	215	180j6	4	50	13	14	25
132	12	250	160	50	8h9	27	24j6	300	265	230j6	4	60	14	14	37
160	14	300	190	60	8h9	31	28j6	350	300	250j6	5	80	16	18	62
180	18	330	220	80	10h9	35	32k6	350	300	250j6	5	110	18	18	92
200	18	360	255	80	10h9	41	38k6	400	350	300j6	5	110	18	18	118
225	22	400	255	80	10h9	41	38k6	450	400	350j6	5	110	20	18	155
250	26	440	265	110	12h9	45	42k6	550	500	450j6	5	140	22	18	190
280	26	480	275	110	14h9	51.5	48k6	550	500	450j6	5	140	22	18	250
315	30	500	300	110	16h9	59	55m6								360
355	33	550	340	140	18h9	64	60m6								500
400	33	600	370	140	20h9	74.5	70m6								625

注：所列重量是 CJS 的净重，带电机时应另加相应的电机重量。

Note:the weight listed is the net weight of CJS, and appropriate motor weight should be added for with-motor type.

TLC 型立式齿轮减速机

TLC Vertical Cylindrical Gear Decelerators

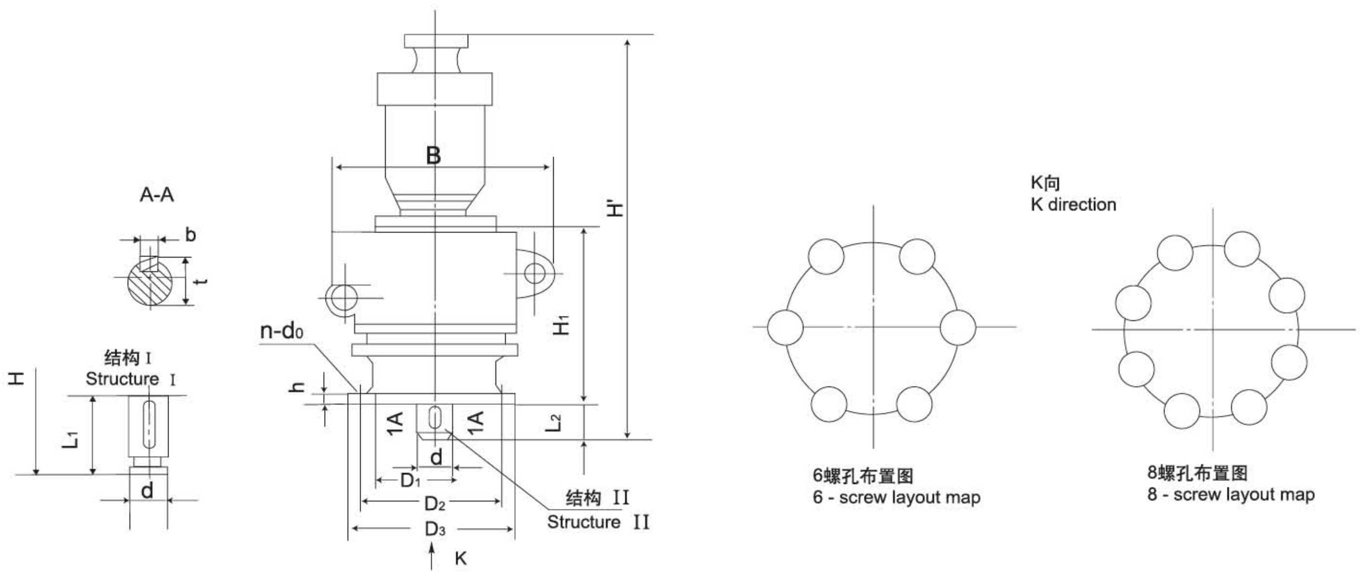
一、基本参数表 Main Technical Data

减速机型号 Type of decelerator	许用出轴转矩T（公斤、米）Turning moment (kg.m)	传动比i Transmission ratio	出轴公称转速（转/分）Output wheeling (ring,min)	电动机功率(K.W) Motor power	不带电机的重量 Weight without motor
TLC75-1	4.66	12	125	0.55	37.2
TLC75-2	6.25			0.75	
TLC75-3	3.65	10	150	0.55	37.2
TLC75-4	4.88			0.75	
TLC75-5	6.6			1.1	37.3
TLC75-6	9.13			1.5	
TLC75-7	2.91	7.5	200	0.55	37.3
TLC75-8	3.90			0.75	
TLC75-9	5.35			1.1	
TLC75-10	7.30			1.5	
TLC75-11	2.33	6	250	0.55	37.2
TLC75-12	3.12			0.75	
TLC75-13	4.28			1.1	
TLC75-14	5.84			1.5	37.3
TLC100-1	8.55	12	125	1.1	64.2
TLC100-2	11.68			1.5	
TLC100-3	17.12			2.2	
TLC100-4	23.36			3.0	
TLC100-5	13.38	10	150	2.2	64.2
TLC100-6	18.25			3.0	
TLC100-7	24.34			4.0	
TLC100-8	33.50			5.5	65.3
TLC100-9	10.70	7.5	200	2.2	64.1
TLC100-10	14.60			3.0	
TLC100-11	19.47			4.0	65.2
TLC100-12	26.8			5.5	
TLC100-13	2.56	6	250	2.2	64.1
TLC100-14	11.68			3.0	
TLC100-15	18.47			4.0	65.2
TLC100-16	21.44			5.0	

减速机型号 Type of decelerator	许用出轴转矩T（公斤、米）Turning moment (kg.m)	传动比i Transmission ratio	出轴公称转速（转/分）Output wheeling (ring,min)	电动机功率(K.W) Motor power	不带电机的重量 Weight without motor
TLC125-1	36.94	12	125	4.0	114.2
TLC125-2	42.88			5.5	
TLC125-3	5.84			7.5	
TLC125-4	77.92			11	
TLC125-5	45.63	10	150	7.5	113.9
TLC125-6	60.88			11	
TLC125-7	79.00			15	116.7
TLC125-8	36.5	7.5	200	7.5	113.6
TLC125-9	48.7			11	
TLC125-10	63.2			15	116.4
TLC125-11	82.7			18.5	
TLC125-12	29.2	6	250	7.5	113.9
TLC125-13	38.96			11	116.7
TLC125-14	50.56			15	
TLC125-15	66.16			18.5	
TLC150-1	101.12	12	125	15	191.8
TLC150-2	132.32			18.5	191.8
TLC150-3	171.20			22.0	186.1
TLC150-4	233.6			30.0	186.1
TLC150-5	103.38	10	150	18.5	191.2
TLC150-6	133.75			22.0	185.5
TLC150-7	182.52			30.0	185.5
TLC150-8	107.00	7.5	200	22.0	185.8
TLC150-9	146.0			30.0	
TLC150-10	85.6	6	250	22.0	185.3
TLC150-11	116.8			30.0	

二、外形及装尺寸 Outlook and installing size

结构：6螺孔布置图 L_1 ＋ H_1 ＋电机 Structure: 6-screw layout map, L_1 ＋ H_1 ＋ motor



减速机型号 Type of decelerator	中心距 center space	轴径 shaft diameter	外形尺寸 outlook size			安装尺寸 installing size										
	a	d	D	B	H1	D1	D2	D3	n	d0	h	c	L1	L2	b	t
TLc75	75	30	252	309	272	200	230	260	6	14	16	5	75	55	8	33
TLc100	100	40	316	398	326	230	260	290	6	14	16	5	95	75	12	43
TLc125	125	55	390	495	402.5	270	305	340	8	18	18	6	125	95	16	59
TLc150	150	65	470	595	457	320	360	400	8	18	25	6	145	115	18	59.5

三、标记示例 Symbol sample

TLC 125 - 5 - Ⅰ

输出轴结构（Ⅰ型用于夹壳联轴器，Ⅱ型用于弹性联轴器）

output axle symbol (Type Ⅰ for shell coupling, and type Ⅱ for resilient coupling)

顺序号（P/n 代号为 5）

Sequence number (P/n code is 5)

中心距（单位毫米）Center space

类型代号 type

塑料挤出机专用减速机
ZLYJ 系列高强度硬齿面减速机

Special decelerator for Plastic Extruder
Series ZLYJ Decelerator with High Strength and Hard Tooth Surface

一、概述 Brief

ZLYJ系列减速器是为塑料螺杆挤出机配套设计的高精度硬齿面带推力座的传动部件。产品设计采用了JB/T9050.1-1999所规定的各项技术规范。其特点是齿轮和轴类零件采用了高强度合金钢材质。齿轮经渗碳、淬火、磨齿工艺加工。齿轮精度为 GB10095.1-2001 级。齿面硬度 HRC54-62。在空心输出轴前端配置有超规格的推力轴承，承受螺杆的工作后座力。轴承和油封等主要标准件皆采用国内优质产品，也可按用户需要，配装进口产品。整机具有体积小、承载能力高、传动平稳、噪声低、效率高等特点。产品性能已达到国际先进水平，可替代同类进口产品使用。

本系列产品中的规格和传动比为现有用户的常用数据。用户在选用时，可将螺杆的实际传动扭矩与表（2）所列许用输出扭矩相比较（表列扭矩已计入工况系数和安全系数，可 1:1 直选），以输出扭矩为准选型。若需与橡胶挤出机配套，因橡胶挤出机冲击力较塑料强，请用户提出具体技术参数，向我厂咨询再确定选型。

Series ZLYJdecelerator is a drive with high-precision and hard tooth surface and thrust bearing designed to match with screw extruder.It is designed according to the specifications in code ZBJ19009-88,featured with high-strength alloy steels for gear wheel and shaft parts.The gear is treated with carburation,quenching and gear grinding. Gear wheel precision is GB10095-88, class 6.Tooth surface hardness is HRC54-62.A thrust bearing with over-specification is mounted on the front end of the hollow output shaft to carry back blow of screw.Domestic quality products are selected for the standard parts such as bearing and oil seal that may also use imported products as required by customer.the whole unit is compact,has high carry capacity,provide stable drive with low noise and high efficiency.the performance of this product is upto the advanced level and a good substiute for imported products of the same kind.

The specifications and drive ratio for these series products is based on the common data currently used by users. To select the desirable product,user may compare the actual screw drive torque with the allowed output torque listed in table 2(The listed torque has allowed for work status factor safety factor and may be selected as 1:1),and use output torque as standard selection.If rubber estruder is needed for the matching,user is required to present detail specifications and consult with us before selection due to the fact that impact of rubber extruder is higher than that of plastic ones.

二、适用条件 Service condition

1、减速器高速轴转速不大于 1500r/min;

1、Rotate speed of decelerator high-speed shaft no more than 1500r/min;

2、工作环境温度为 0-35℃。当温度范围超出本规定时，可按用户要求，另行配置加热或冷却装置。

2、Ambient service temperature is 0-35℃. If the temperature is beyond this range, the lubricating heating or cooling device is supplied as required by user.

三、减速器代号和标志 Decelerator code and earmark

在减速器代号中，包括型号、输出级中心距、公称传动比、装配型式。

Decelerator code is composed of type, output stage center distance;nominal drive ratio and assemblage mode.

标记示例 Example of earmark

ZLYJ 225 - 12.5 - Ⅰ(Ⅱ)

装配型式 Assemblage mode

公称传动比 Nominal drive ratio

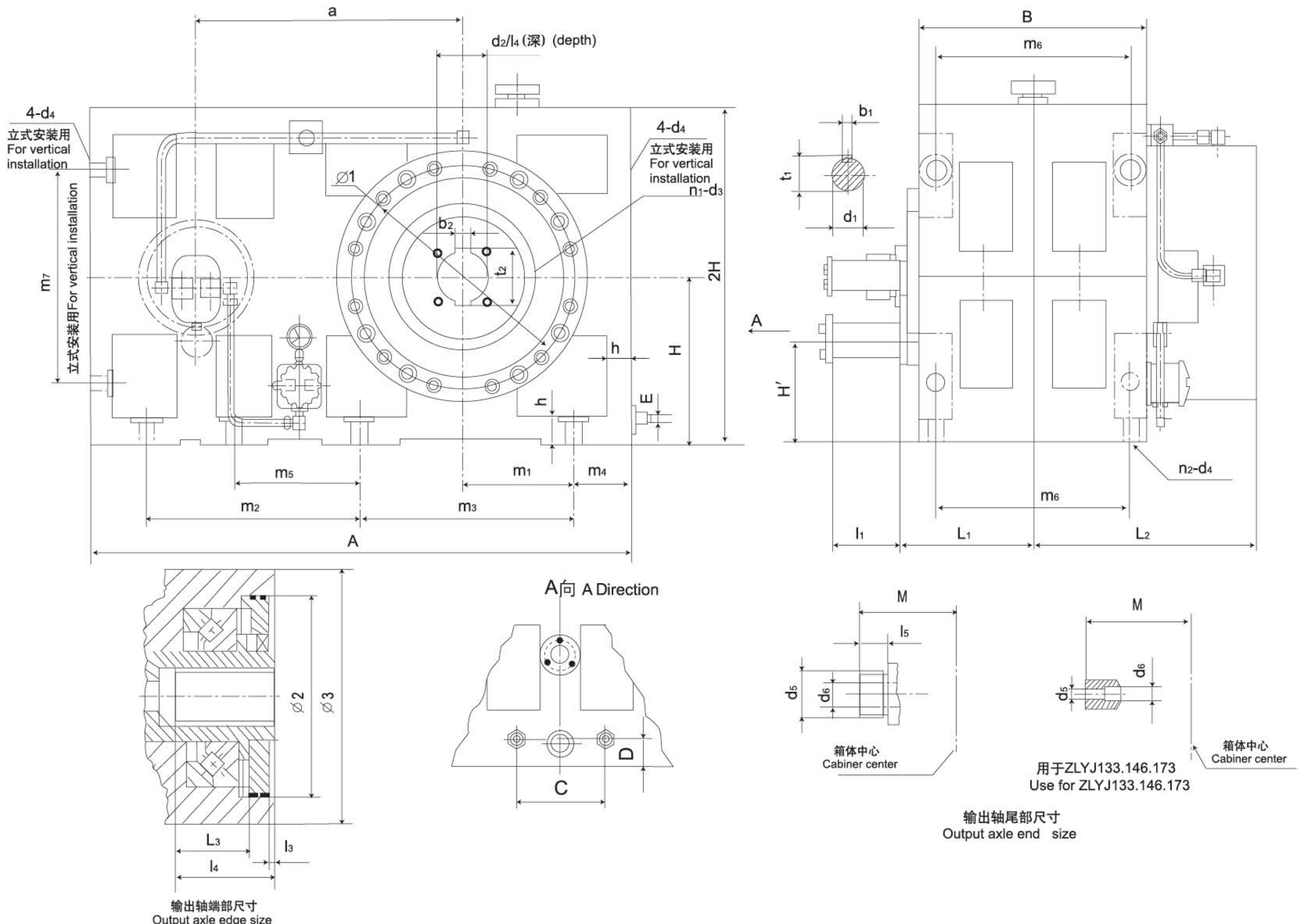
输出级中心距 Output stage center distance(mm)

型号 Type

TAILONG MACHINERY

四、外型尺寸及装配型式 Dimension and assemblage mode

1.外型尺寸见图(1) 表(1) See Figure (1) and table (1) for dimension



图(1) Figure (1)

表 1 Table 1

规格 Specs	a	H	H'	h	A	B	L1	l1	L2	L3	d1(m6)	t1	b1	d2(H8)	14	t2	b2(F9)	d3	n1	ø1
ZLYJ112	184	130	/	18	426	170	106	60	203	/	28	31	8	35	52	38.3	10	M10	6	185
ZLYJ133	218	140	/	20	478	215	125	60	205	65	28	31	8	38	80	41.3	10	M12	8	205
ZLYJ146	256	160	/	22	560	250	148	70	245	83	32	35	10	45	120	48.8	14	M12	8	230
ZLYJ173	285	170	/	22	576	256	148	80	250	120	38	41	10	50	140	57.6	14x2	M16	8	260
ZLYJ200	340	240	/	36	750	340	200	80	330	140	45	48.5	14	60	170	68.8	16x2	M16	12	300
ZLYJ225	385	250	/	36	800	360	205	110	355	140	55	59	16	70	175	78.8	18x2	M20	12	370
ZLYJ250	430	280	/	45	930	380	220	110	380	145	60	64	18	80	180	90.8	22x2	M20	12	370
ZLYJ280	480	300	/	50	970	410	240	125	405	148	65	69	18	90	180	100.8	25x2	M24	12	400
ZLYJ315	539	350	/	55	1160	450	250	140	440	167	75	79.5	20	100	200	112.8	28x2	M24	12	405
ZLYJ330	575	350	/	60	1160	450	260	170	445	/	85	90	22	110	220	122.8	28x2	M24	12	450
ZLYJ375	625	400	/	60	1280	466	265	170	445	220	85	90	22	110	255	122.8	28x2	M24	12	450
ZLYJ420	695	460	/	60	1420	550	310	130	535	220	95	100	25	120	270	134.8	32x2	M30	12	580
ZLYJ450	765	500	/	60	1550	600	350	130	600	220	100	106	28	170	250	188.8	40x2	M30	12	610
ZLYJ630	1070	630	/	80	2000	770	430	165	760	280	120	127	32	180	340	200.8	45x2	M36	12	720
ZSYJ450	765	500	276	60	1550	600	350	105	600	220	75	79.5	20	170	250	188.8	40x2	M36	12	610
ZSYJ560	960	580	324	80	1850	610	355	130	670	260	95	100	25	160	300	178.8	40x2	M36	12	720
ZSYJ630	1070	630	350	80	2000	770	430	165	760	280	110	116	28	180	340	200.8	45x2	M36	12	720

规格 Specs	ø2(H7)	l3	ø3	d4	n2	m1	m2	m3	m4	m5	m6	m7	C	D	E	d5	d6	l5	M
ZLYJ112	160	8	210	14	4	96	/	326	50	/	136	170	/	/	/	M16	18	/	125
ZLYJ133	180	8	230	16	6	104	185	185	61	/	180	184	80	38	/	M18	20	/	137
ZLYJ146	200	8	250	16	6	118	190	235	72	/	210	210	85	38		M18	20	/	167
ZLYJ173	230	8	300	18	6	113.5	220	220	68	/	225	214	/	/		M20	25	/	147
ZLYJ200	270	8	350	18	6	150	275	275	100	/	290	310	120	40			40		250
ZLYJ225	330	8	420	26	6	165	310	310	90	/	315	330	140	50	ZG3/8"				265
ZLYJ250	330	8	420	26	6	205	360	360	105	/	330	340	160	50		M85*4	55	50	285
ZLYJ280	360	8	450	30	6	200	385	385	100	/	355	380	160	50					300
ZLYJ315	365	8	450	30	6	261	450	450	130	/	390	460	160	55					335
ZLYJ330	400	10	500	30	6	225	450	450	130	/	390	425	160	55			60	60	350
ZLYJ375	400	10	500	32	8	250	475	500	165	265	400	500	160	55					330
ZLYJ420	500	10	660	32	8	305	580	540	150	328	480	/	200	60					370
ZLYJ450	500	15	700	32	8	300	600	600	190	300	520	/	200	60					425
ZLYJ630	650	25	805	48	8	400	850	800	200	450	670	/	300	80	ZG3/4"	M90*4	60	60	520
ZSYJ450	500	15	700	32	8	300	600	600	190	300	520	/	200	60					425
ZSYJ560	620	25	805	48	8	390	730	780	170	/	510	/	270	80					435
ZSYJ630	650	25	805	48	8	400	850	800	200	450	670	/	300	80					520

注：450、560、630三种规格，输出联接方式及尺寸，仅供参考。具体方式可在订货时确定。

Note: For 3 specs of 450 、560 and 630，output linkage mode and dimension are for reference only.specific mode may be determined when the product is ordered.

TAILONG MACHINERY

2 装配型式见图 2 See Figure 2 for assemblage mode

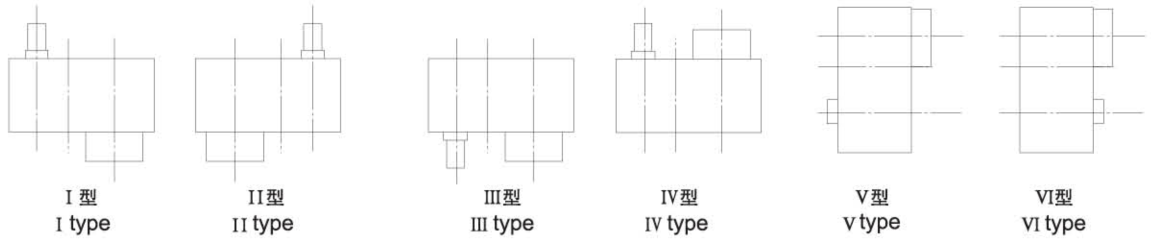


图 2 Figure 2

五、减速器的承载能力 Decelerator carrying capacity

型号 Type	ZLYJ															ZSYJ		
规格 Specs	△	△	△	△	△	△	△	※	※	※	※	※	※	※	※	※	※	※
	112	133	146	173	200	225	250	280	315	330	375	420	450	560	630	450	560	630
速比	-8	-8	-10	-10	-12.5	-12.5	-16	-16	-16	-16	-16	-16	-16	-20	-20	-32	-57	-44
	公称输入功率 (KW) Nominal input power KW N = 1500r/min																	
一般可靠 General reliability	15	22	30.8	39	55	82.5	75	116	171	210	260	315	303	600	825	240	240	370
高可靠 High reliability	8	15	18.3	30.8	45	67	60	75	116	160	207	250	266	550	675	200	220	315
	许用输出扭矩 (N.m) Allowable output torque N.m																	
一般可靠 General reliability	790	1165	1962	2484	4379	6568	7643	11822	17427	21523	26497	32102	38599	76433	105095	48917	87134	103694
高可靠 High reliability	420	764	1165	1962	3583	5334	6306	7643	11822	16459	21096	25478	33885	70063	85978	40764	79873	88280
	许用输出轴轴向推力 (KN) Allowable output axle impetus KN																	
轴向推力 Axle inpetus	25	39	54	110	155	180	192	250	287	330	390	430	500	700	770	500	700	770
$n_{出}$out r/min	90	90	90	90	80	70	70	60	60	60	60	60	60	60	60	60	60	60

注: 1 △ – 带冷却，* – 带冷却和强制循环。133、146、173 按高可靠选用时不需带冷却。

Note: 1.△-equipped with cooling device, * -equipped with cooling and forcible circulation.for type 133、146 and 173,no cooling device is needed if pre-selection is made according to high reliability.

2. 表列输入功率和输出扭矩已考虑工况系数，可直接选用。

2.Imput power and output torque listed in the table has allowed for work status factor and may be selected directly.

3.表列输出扭矩是主要选型依据。传动比可按用户需要调整。

ZLYJ 的 i 为 6.3-20; ZSYJ 的 i 为 22.4-100.

3.output torque listed in the table is a primary basis for selection .Drive ratio may be adjusted as required by user.

For ZLYJ,i=6.3-20; for ZSYJ,i=22.4-100

4.当取轴承负荷系数 f=1.5 时，按表列许用轴向推力和输出轴给定转速计算，推力轴承的理论计算寿命，除 133、146 两型为 1.2 万小时左右，其各型皆在 2.5 万小时左右。

4.If bearing load factor is f_d=1.5, calculation is made according to allowable axial thrust and output shaft given rotate speed listed in the table.theoretical calculating life of thrust bearing is about 12.000 hours for type 133 or 146, and about 25,000 hours for all of the rest types.

5.用户按表列数据作初步选型。在订货时，我厂将对每一例选型作详细校核，以提高选用的可靠性。

5.User is to make preliminary selection according to the listed data .when products are ordered,we will make detail and careful verification for each of user´s selection to enhance the applicability of the selection.

六、润滑与冷却、加热 Lubrication ,cooling and heating

齿轮和轴承皆用油池润滑和飞溅润滑。ZLYJ280 及以上规格的轴承除飞溅润滑而外，还增加了油泵润滑系统强制循环供油润滑。

润滑油牌号为中极压齿油 N150 或其它粘度相似的优质齿轮油。

当环境温度低于 0 ℃时，需在油池中增加电热管，对润滑油进行了预热。

当环境 温度高于 35℃时，制造厂应按照用户提供的温度值进行热平衡计算，以确定是否增加冷却装置。

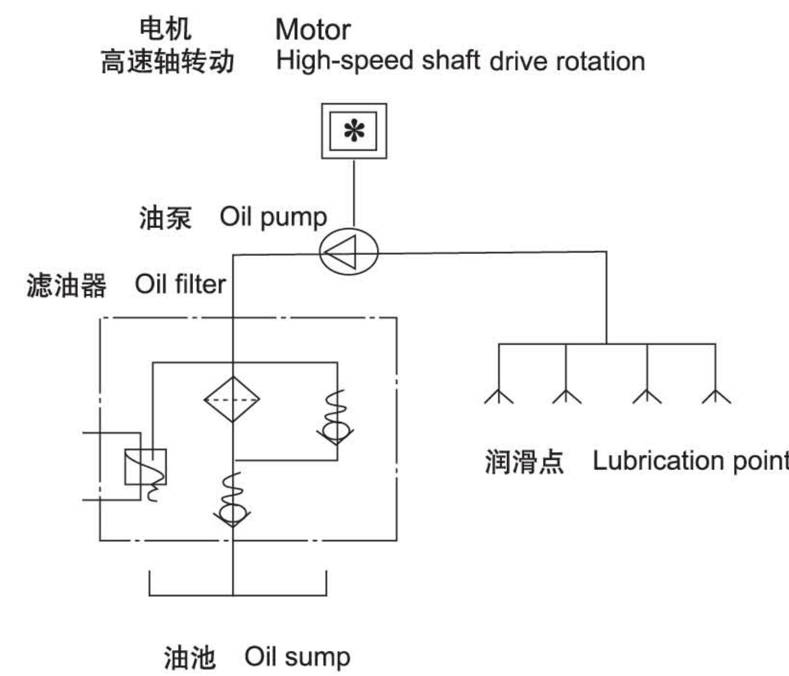
Oil sump submergence and splash lubrication are used for gear wheel and bearing.for bearing type ZLYJ280 and aborve ,oil pump lubrication system is added for forcible circulation feed lubrication,except for splash lubrication.

Lubricant brand is mild extreme, pressure gear; lubricant N150 or other quality gear lubricant with similar viscosity.

If ambient temperature is <0℃ ,electrical heating pipe should be mounted in oil sump to preheat lubricant oil.

If ambient temperature is >35℃, the manufacturer should make proper calculation in terms of heat balancing based on the temperature data supplied by user and decide whether a cooling device is needed.

强制润滑油路的示意图见图3。See Figure 3 for sketch map of forcible lubrication oilway



图(3) Figure(3)