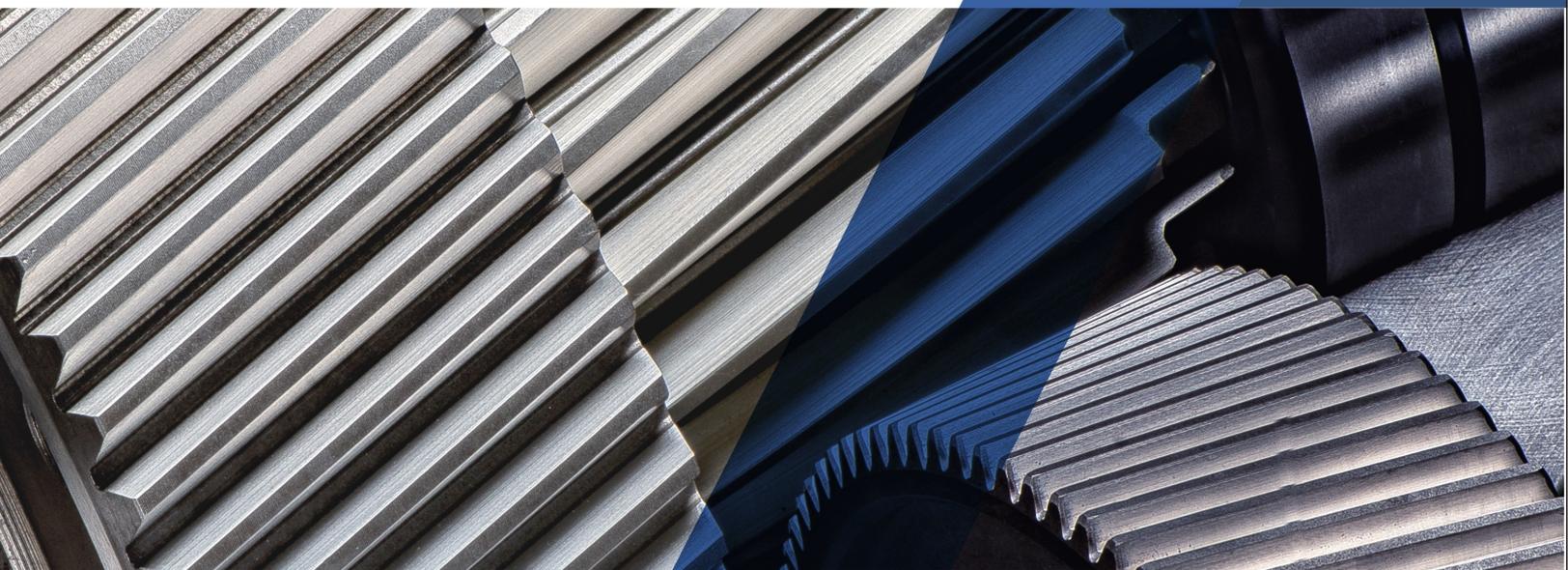


TONGLI
股票代码 301255

减速机选型样本

GEAR UNITS MODEL SELECTION SAMPLE



二〇二四年
(总第十版)

入选《机械设计手册》选型标准
(化工工业出版社/机械工业出版社)

Listed in 《Handbook of mechanical design》
as guideness of gearbox selection

STANDARD
PRODUCTS

标准产品



I TR系列斜齿齿轮硬齿面减速机
TR series Rigid Tooth Flank
Helical Gear Reducer



I TS系列斜齿-蜗轮蜗杆减速机
TS series Helical-worm
Gear Reducer



I TF系列平行轴斜齿齿轮减速机
TF series Parallel Shaft
Helical Gear Reducer



I TK系列螺旋锥齿减速机
TK series Helical-bevel
Gear Reducer



I TH系列硬齿面齿轮减速机
TH series Rigid Tooth Flank
Gearbox



I TB系列硬齿面齿轮减速机
TB series Rigid Tooth Flank
Gearbox



I SJ系列涡轮丝杆升降机
SJ series Worm Screw
elevators



I Z系列螺旋锥齿减速机
Z series Spiral Bevel
Gear Reducer



I TP系列行星齿轮减速机
TP series Planetary
Gear Units

通力产品模块化组合体系

TONGLI Modulation Combination System





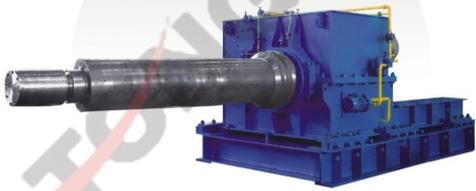
| 粗轧卷取机用减速机
Uncoiler Specialized
Gearbox



| 粗轧机用主减速机
Rolling Mill
Specialized Gearbox



| 刮板输送机用减速机
Scraper Conveyor
Specialized Gearbox



| 开收卷机用减速机
Uncoiler
Specialized Gearbox



| 棕榈油专用减速机
Palm Oil Specialized
Gearbox



| 干燥窑用减速机
Dry Kiln Specialized
Gearbox



| 精轧卷取机用减速机
Precision Uncoiler
Specialized Gearbox



| 颗粒机专用减速机
Granulator Specialized
Gearbox



| 启闭机用减速机
Hoist Specialized
Gearbox

ENTERPRISE
PROFILE

公司简介

浙江通力传动科技股份有限公司创建于2008年，是一家专业从事减速机研发生产、销售及服务的国家高新技术企业、国家级绿色工厂、国家专精特新“小巨人”企业，下辖通用减速机、工业齿轮箱两大生产基地。公司于2022年12月27日在深交所创业板上市（股票简称:通力科技，股票代码:301255），经过十余年的稳健发展和技术积累，公司现已成为中国减速机行业的知名企业之一，在技术、装备、产品性能等方面均处于国内先进水平。近年来，通力作为起草单位参与制定了4项减速机国家标准与行业标准;拥有多项核心技术专利，自主研发多个系列减速机(齿轮箱)产品，其中部分产品被列为国家重点新产品和国家火炬计划项目。

通力主导产品通用减速机、工业齿轮箱广泛应用于冶金、化工、环保、能源、制药、起重、输送、建材、粮油等国民经济的支柱产业领域。先后为中国一重、中国二重、中国中冶、中粮集团、青山控股、齐鲁制药、宁德时代、中央电视台春晚舞台、北京冬奥会、杭州亚运会等国内大型工业企业及国家重点工程项目提供高性能的配套减速机，并出口东南亚、南美、中东等国家和地区，获得国内外众多客户的首肯和赞许。

Zhejiang TONGLI Transmission Technology Co., LTD. established in 2008 and is a National High-tech Enterprise and National Specialized New Little Giant Enterprise which engaged in gearbox R & D, manufacturing, sales and service. At present, TONGLI has two production bases for general reducer and industrial gearbox. On 27th Dec. 2022, TONGLI was floated on GEM of Shenzhen Stock Exchange (Stock for short: TONGLI Tech., Stock code: 301255). After more than 10 years of steady development and technical accumulation, TONGLI has become one of the well-known enterprises in China reducer industry, and in the domestic advanced level in technology, equipment, product performance and other aspects. In recent years, as a drafting unit, TONGLI has participated in the formulation of four national and industry standards for reducer, owns a number of core technology patents and independently developed a number of series of reducer and gearbox. Some products have been listed as national key new products and national torch plan projects. TONGLI's leading products are widely used in Metallurgy, Chemical, Environmental protection, Energy, Pharmaceutical, Hoist, Transportation, Building materials, Grain and oil and other pillar industries of the national economy. At the same time, TONGLI successively provide high performance matching gearbox for CFHI, CNEG, MCC Group, COFCO, Tsingshan Holding, QILU Pharmaceutical, CATL, the CCTV Spring Festival Gala stage, Beijing Winter Olympics and other large domestic industrial enterprises and national key projects. TONGLI gearbox exported to Southeast Asia, South America, the Middle East and other countries and regions, and obtained many approvals and praises from home and abroad customers.



通力产品选型信息：

客户：			浙江通力传动科技股份有限公司		
联系人		电话		销售员	
E-MAIL		传真		电 话	
地址			时 间	年 月 日	
工作机	设备名称：				
额定功率：	kw	工作扭矩：	N.m	转速：	r/min
日工作制：(1) ≤ 0.5h (2) 0.5-10h (3) > 10h					
环境温度：	°C	海拔高度：	m	起动扭矩：	N.m
起动频率：				次/h	
冲击载荷：(1) 强烈冲击 (2) 中等冲击 (3) 轻微冲击 (4) 没有冲击				冲击载荷频率：	
冲击频率：			次/h		
安装空间 (1) 狭小空间 风速 ≤ 0.5m/s (2) 大厅或大车间 风速 ≥ 1.4 m/s (3) 室外 风速 ≥ 4 m/s			使用场合：(1) 普通 (2) 腐蚀 (3) 盐雾 (4) 粉尘		
原动机	原动机名称		原动机型号		
原动机描述 (如功率、转速、制动等)					
电机型号：			类别：(1) 普通电机 (2) 辊道电机 (3) 其他电机		
功能特性 (可多选)：(1) 制动 (2) 防爆 (3) 变频调速 (4) 其他					
参数及性能		电机功率：	KW	电机极数	基准频率：
额定电压：		V	额定电流：	A	防护等级：
其他：		注：用户自配电机时请提供电动机的联接尺寸图			
减速机要求	要求的产品系列：		安装型式 (根据样本选取)		
输出轴方式：(1) 单向实心轴 (2) 双向实心轴 (3) 平键空心轴 (4) 锁紧盘空心轴 (5) 内花键空心轴 (6) 外花键实心轴					
原动机与减速机的联接方式：(1) 直联 (无联接法兰) (2) 直联 (有联接法兰) (3) 联轴器 (4) 皮带轮 (5) 链轮					
工作机与减速机的联接方式：(1) 直联 (2) 齿轮 (3) 联轴器 (4) 皮带轮 (5) 链轮					
输出轴与输入轴之间的结构形式：(1) 平行轴 (2) 直交轴 (3) 同轴					
电机接线盒位置 (根据样本选取)：(1) I (0°) (2) II (270°) (3) III (180°) (4) IV (90°) (5) V (0°) (6) VI (270°) (7) VII (180°) (8) VIII (90°)					
附件及其他要求：					
输入轴、输出轴法兰及锁紧盘方向：					
输入轴旋转方向①：				输出轴旋转方向①：	
输入轴外部径向力及作用点：					
输出轴外部径向力及作用点：					
输入轴外部轴向力及方向：			输出轴外部轴向力及方向：		
减速机的其他特殊要求：					
预选型号：					

①TB、TP..L、TP..K型减速机必须填写，TK系列只需填输出轴旋向，其他可不填。

②本选型信息表适用于TH、TB、TP、TR、TK、TF、TS系列减速机。

注：请在数字下面打√

轴端螺纹孔，配合公差，平键和键槽

Centre Holes in Shaft Ends, Fit tolerance and Parallel Key and Keyway

轴端螺纹孔		Centre holes in shaft end								
		mm								
轴径 Φd Diameter	$\geq 16\sim 21$	$> 21\sim 24$	$> 24\sim 30$	$> 30\sim 38$	$> 38\sim 50$	$> 50\sim 85$	$> 85\sim 130$	$> 130\sim 225$	$> 225\sim 320$	$> 320\sim 500$
螺孔尺寸 Screw	M6 \times 12	M8 \times 16	M10 \times 20	M12 \times 20	M16 \times 30	M20 \times 35	M24 \times 40	M30 \times 50	M36 \times 60	M42 \times 70

配合公差 Selection of ISO Fits		
轴径 Shaft d/mm	轴径公差 Shaft tolerance	孔公差 Bore tolerance
≤ 25	k6	H7
> 25	m6	H7
> 100	n6	H7

平键和键槽		Parallel key and keyway				
		mm				
平键紧固采用无锥度联接。 平键和键槽根据GB/T1095-1979标准确定 Drive type fastening without taper action. Parallel key and keyway acc. to GB/T 1095-1979		直径 Diameter d	宽度 Width b	高度 Height h	轴键槽深度 Depth of keyway in shaft t ₁	轮毂键槽深度 Depth of keyway in hub d + t ₂
		$> 8-10$	3	3	1.8	d+1.4
$> 10-12$	4	4	2.5	d+1.8		
$> 12-17$	5	5	3	d+2.3		
$> 17-22$	6	6	3.5	d+2.8		
$> 22-30$	8	7	4	d+3.3		
$> 30-38$	10	8	5	d+3.3		
$> 38-44$	12	8	5	d+3.3		
$> 44-50$	14	9	5.5	d+3.8		
$> 50-58$	16	10	6	d+4.3		
$> 58-65$	18	11	7	d+4.4		
$> 65-75$	20	12	7.5	d+4.9		
$> 75-85$	22	14	9	d+5.4		
$> 85-95$	25	14	9	d+5.4		
$> 95-110$	28	16	10	d+6.4		
$> 110-130$	32	18	11	d+7.4		
$> 130-150$	36	20	12	d+8.4		
$> 150-170$	40	22	13	d+9.4		
$> 170-200$	45	25	15	d+10.4		
$> 200-230$	50	28	17	d+11.4		
$> 230-260$	56	32	20	d+12.4		
$> 260-290$	63	32	20	d+12.4		
$> 290-330$	70	36	22	d+14.4		
$> 330-380$	80	40	25	d+15.4		
$> 380-440$	90	45	28	d+17.4		
$> 440-500$	100	50	31	d+19.4		

注：配合公差仅为推荐值

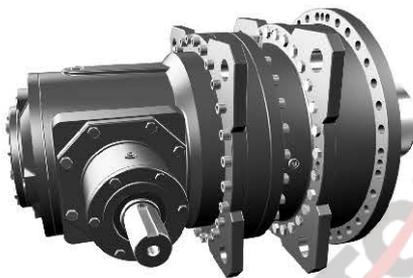
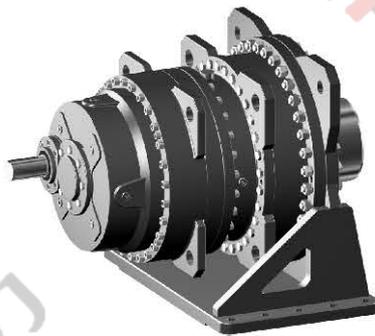
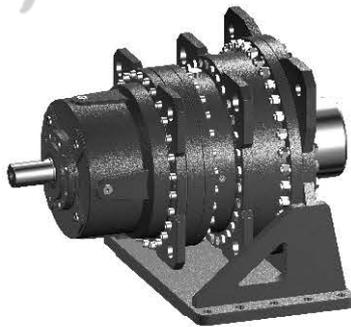
TP系列行星减速机 TP Series Planetary gear units



TP系列行星减速器类型 TP series planetary gear units type

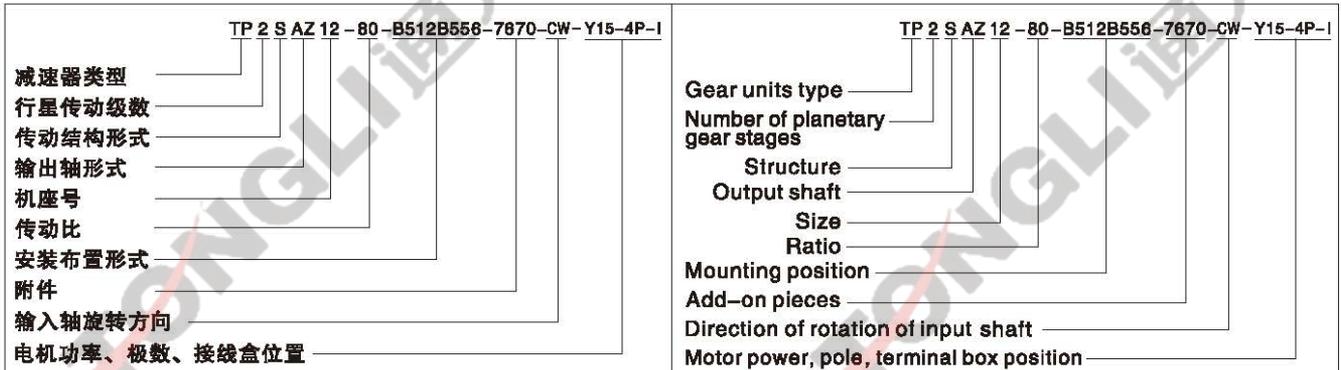
类型说明 / Explanation of types

TP2N — 二级行星齿轮传动;	TP2N — 2-stage planetary gear units ;
TP2L — 直交轴、二级行星齿轮传动;	TP2L — Bevel,2-stage planetary gear units;
TP2S — 平行轴、二级行星齿轮传动;	TP2S — Helical,2-stage planetary gear units;
TP2K — 直交轴、平行轴、二级行星齿轮传动;	TP2K — Bevel-helical,2-stage planetary gear units;
TP3N — 三级行星齿轮传动;	TP3N — 3-stage planetary gear units;
TP3S — 平行轴、三级行星齿轮传动;	TP3S — Helical,3-stage planetary gear units;
TP3K — 直交轴、平行轴、三级行星齿轮传动;	TP3K — Bevel-helical,3-stage planetary gear units;



选型指南
Guidelines for the selection

型号表示方法 / Type Designations



型号说明	上例说明	Explanation of types	Explanation of the above example
减速器类型: TP系列行星减速器	TP系列行星减速器	Gear units type: TP series planetary gear units	TP series planetary gear units
行星传动级数: 2 二级传动 3 三级传动	二级行星传动	Number of planetary gear stages: 2 two stages 3 three stages	Two planetary gear stages
传动结构形式: N 标准型 L 带直交轴传动 S 带平行轴传动 K 带直交轴、平行轴传动	带平行轴传动	Structure: N Standard L Bevel gear stage S Helical gear stage K Bevel-helical gear stage	Helical gear stage
输出轴形式: AZ 胀紧盘空心轴 AH 渐开线花键空心轴(DIN 标) AH.G 渐开线花键空心轴(国标) BS 平键实心轴 BH 渐开线花键实心轴(DIN 标) BH.G 渐开线花键实心轴(国标)	胀紧盘空心轴输出	Output shaft: AZ hollow shaft with shrink disk AH hollow shaft with involute splines(DIN) AH.G hollow shaft with involute splines(GB) BS solid shaft with parallel key BH solid shaft with involute splines(DIN) BH.G solid shaft with involute splines(GB)	Hollow shaft with shrink disk
机座号: 9~36 (见选型表)	12号机座号	Size: 9~36(see selection table)	Size 12
传动比: (见选型表) (实际传动比见TP21~23页)	公称传动比 $i_n=80$	Ratio: (see selection table) (for the actual ratio see pages TP21~23)	Nominal ratio $i_n=80$
安装布置形式 (见TP40页): B500~B534 水平 B551~B556 扭转支撑臂方向 V100~V130 立式 (低速轴向下) V300~V330 立式 (低速轴向上)	安装布置形式为B512B556 水平安装输入轴在右边 扭转支撑臂水平	Mounting position (see page TP40): B500~B534 Horizontal B551~B556 Torque arm direction V100~V130 Vertical(output shaft is downward) V300~V330 Vertical(output shaft is upward)	Mounting form B512B556 horizontal, input shaft at the right side, torque reaction arm horizontal
附件: 97 输入支架 99 无附件 96 减速器底座 70 电机钟形支座(输入) 71 电机托架 72 电机支架 73 摆动底座 74 钟形支座 (输出) 75 扭矩支撑臂 (一侧) 76 扭矩支撑臂 (二侧) 77 扭力轴支撑 见TP41页	76 扭矩支撑臂 70 电机钟形支座(输入)	Add-on pieces: 99 without add-on piece 96 gear housing base 70 motor bell housing(input) 71 motor bracket 72 motor bracket 73 motor swing-base 74 bell-housing(output) 75 torque reaction arm(on one side) 76 torque reaction arm(on both sides) 77 torsion shaft support see page TP41	76 torque reaction arm 70 motor bell housing (input)
带直交轴传动输入轴旋转方向代号 (面对输入轴方向看): CW 顺时针 CCW 逆时针 其它省略	同轴、平行轴传动省略	Direction code of rotation of input shaft for bevel gear stage (viewing on input shaft): CW Clockwise CCW Counter clockwise The others can be omitted	Coaxial and Helical gear stage omitted
电机 (参见四大系列)	15kW4极电机 接线盒位置I	Motor (see TR, TF, TS, TK series)	15kW, 4 pole, terminal box position I



要求和说明

- ★ 为选择合适的TP系列行星减速机请按样本中的详细说明进行。
- ★ 提供行星减速机可以直接安装。但不提供润滑油。
- ★ 给出的加油量只作为参考值，实际加油量应以油标的标记为准。
- ★ 减速机若未注明要求时一般为浸油润滑，若需要采用强制润滑请联系我们。
- ★ 对于B521、B531安装形式的全部规格和B511安装形式的21号规格以上的减速机，为了润滑输入部分轴承需加油泵润滑。
- ★ 对于V100/V300、V110/V310、V120/V320、V130/V330安装形式的减速机，为了确保润滑，必须相应提高油位，需加装补偿油箱。补偿油箱可装在减速器上也可装在用户主机上确定该项时请联系我们。
- ★ 使用环境温度低于0℃时润滑油应预热到0℃以上。环境温度高于40℃以上时应采取隔热和冷却措施。使用场地应避免恶劣的环境比如：盐水、含盐的空气、刺激性物质、灰尘、泥、落石或飞石、过重的压力、强烈振动和冲击载荷等。
- ★ 胀紧盘空心输出轴减速机按标准不提供胀紧盘，也不提供防护装置。为防止发生事故，所有旋转部位应按安全规定加罩防护。
- ★ 基础螺栓的最低性能等级为8.8级，有水平垫板并进行防腐处理。
- ★ 样本中的附图只属范例，并不要求严格一致，所注尺寸可能有所变动。有关参数可能改进。
- ★ 所注重量仅为平均值，不要求严格一致。

有关符号说明如下：



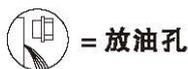
=油标



=通气孔



=加油孔

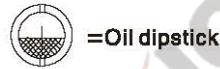


=放油孔

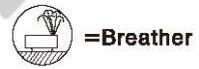
Requirement and Specification

- ★ For selection of suitable TP series planetary gear units please observe the details given in this brochure.
- ★ The gear units supplied can be mounted directly. But the oil is not supplied.
- ★ Oil quantities given are guide values only, the exact Quantity of oil depends on the marks on the oil dipstick.
- ★ The gear units are supplied with dip lubrication without requirement, if required forced lubrication please refer to us.
- ★ For all sizes of B521、B531 and above size 21 of B511, a motor pump is required for lubrication of the input bearing.
- ★ For V100/V300、V110/V310、V120/V320、V130/V330, the oil level must be increased for ensure lubricant supply, it should mount a oil compensating tank. The oil compensating tank can be mounted on the gear units or the user's driven machine, please refer to us for choice.
- ★ Where ambient temperatures are lower than 0℃, the oil must be pre-heated above 0℃. Where ambient temperatures are higher than 40℃, the heat insulation and cooling should be considered. Environmental conditions such as salt water, salt-laden air, aggressive substances, dust, mud, falling or flying stones, excessive pressure, heavy vibrations and extreme shock loads must be disclosed.
- ★ Shrink disk is not supplied for the gear units of hollow output shaft for shrink disk, and not supply the guard. To prevent accidents, all rotating parts should be guarded according to safety regulations.
- ★ Foundation bolts of min. property class 8.8, it has levelling pads and treated with anti-corrosion.
- ★ The attached picture is only example, not strictly binding, the noted dimension may be changed. Some parameters referring to may be improved.
- ★ The noted weights are only mean values, not strictly binding.

The signs specification is as following:



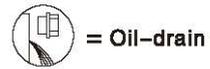
=Oil dipstick



=Breather



=Oil-filler



= Oil-drain



选型指南

例：胶带输送机用行星齿轮减速器

电机功率	$P_1 = 75 \text{ KW}$
电机转速	$n_1 = 1500 \text{ r/min}$
最大起动转矩	$T_A = 950 \text{ Nm}$
输送机转矩	$T_2 = 105000 \text{ Nm}$
输送机转速	$n_2 = 6.6 \text{ r/min}$
每日工作12小时	
每小时起动次数5次	
每小时工作周期ED=60%	
工作环境温度30℃	

安装在大车间使用，水平布置，要求减速器

胀紧盘空心输出轴带扭矩臂，一般设备

(1) 计算传动比:

$$i_s = \frac{n_1}{n_2} = \frac{1500}{6.6} = 227.27$$

则选减速器类型为: TP3N $i_N = 225$

(2) 确定减速器规格

输送机功率:

$$P_2 = \frac{T_2 \times n_2}{9550} = 105000 \times \frac{6.6}{9550} = 72.57 \text{ KW}$$

额定功率应为:

$$P_N \geq P_2 \times f_1 \times f_2 \times f_3 \times f_4 = 72.57 \times 1.3 \times 1 \times 1.3 \times 1 = 122.64 \text{ KW}$$

确定规格为17号 $P_N = 142 \text{ kW} > 122.64 \text{ kW}$

(3) 校核热功率

功率利用系数:

$$\frac{P_2}{P_N} \times 100\% = \frac{72.57}{142} \times 100\% = 51.1\%$$

则功率利用系数: $f_9 = 0.83$

减速器不带辅助冷却装置时:

$$P_2 = 72.57 \text{ KW} < P_G = P_{G1} \times f_6 \times f_9 = 91 \times 1.27 \times 0.83 = 95.92 \text{ KW}$$

满足要求

其它计算略

选用的减速器应为:

TP3NAZ-17-225-B500-76

Guidelines for the Selection

Example: planetary gear units used for glue feeding machine

Motor power rating	$P_1 = 75 \text{ KW}$
Motor speed	$n_1 = 1500 \text{ r/min}$
Max. starting torque	$T_A = 950 \text{ Nm}$
Torque for feeding machine	$T_2 = 105000 \text{ Nm}$
Speed for feeding machine	$n_2 = 6.6 \text{ r/min}$
Operating 12 hours per day	
Starting 5 times per hour	
Operating cycle per hour ED=60%	
Ambient temperature 30℃	

Installation in a large hall, horizontal, hollow output shaft for shrink disk, add-on housing base required, ordinary equipment

(1) Calculate the transmission ratio:

$$i_s = \frac{n_1}{n_2} = \frac{1500}{6.6} = 227.27$$

Select gear unit type: TP3N $i_N = 225$

(2) Determine the gear units size

Power rating for feeding machine:

$$P_2 = \frac{T_2 \times n_2}{9550} = 105000 \times \frac{6.6}{9550} = 72.57 \text{ KW}$$

Nom. Power rating should be:

$$P_N \geq P_2 \times f_1 \times f_2 \times f_3 \times f_4 = 72.57 \times 1.3 \times 1 \times 1.3 \times 1 = 122.64 \text{ KW}$$

Determine size 17 $P_N = 142 \text{ kW} > 122.64 \text{ kW}$

(3) Checking the thermal capacities

Utilization factor:

$$\frac{P_2}{P_N} \times 100\% = \frac{72.57}{142} \times 100\% = 51.1\%$$

The utilization factor is: $f_9 = 0.83$

When the gear unit without auxiliary cooling:

$$P_2 = 72.57 \text{ KW} < P_G = P_{G1} \times f_6 \times f_9 = 91 \times 1.27 \times 0.83 = 95.92 \text{ KW}$$

It meets the requirement.

Else calculations omitted

The gear units selected is:

TP3NAZ-17-225-B500-76



减 速 器 服 务 系 数

工 作 机	日工作小时数			工 作 机	日工作小时数				
	≤0.5h	0.5-10h	>10h		≤0.5h	0.5-10h	>10h		
污 水 处 理	浓缩器(中心传动)	-	-	1.2	金 属 加 工 设 备	可逆式板坯轧机	-	2.5	2.5
	压滤器	1.0	1.3	1.5		可逆式线材轧机	-	1.8	1.8
	絮凝器	0.8	1.0	1.3		可逆式薄板轧机	-	2.0	2.0
	曝气机	-	1.8	2.0		可逆式中厚板轧机	-	1.8	1.8
	捞渣设备	1.0	1.2	1.3	辊缝调节驱动装置	0.9	1.0	-	
	纵向、回转组合捞渣装置	1.0	1.3	1.5	输 送 机 械	斗式输送机	-	1.2	1.5
	预浓缩器	-	1.1	1.3		绞车	1.4	1.6	1.6
	螺杆泵	-	1.3	1.5		卷扬机	-	1.5	1.8
	水轮机	-	-	2.0		皮带输送机<150kw	1.0	1.2	1.3
	离心泵	1.0	1.2	1.3		皮带输送机≥150kw	1.1	1.3	1.5
1个活塞容积式泵	1.3	1.4	1.8	货用电梯*		-	1.2	1.5	
>1个活塞容积式泵	1.2	1.4	1.5	客用电梯*		-	1.5	1.8	
挖 泥 机	斗式运输机	-	1.6	1.6		刮板式输送机	-	1.2	1.5
	倾卸装置	-	1.3	1.5		自动扶梯	-	1.2	1.4
	Carteypillar行走机构	1.2	1.6	1.8		轨道行走机构	-	1.5	-
	斗轮式挖泥机(用于捡拾)	-	1.7	1.7	变频装置	-	1.8	2.0	
	斗轮式挖泥机(用于粗料)	-	2.2	2.2	往复式压缩机	-	1.8	1.9	
	切碎机	-	2.2	2.2	起 重 机 械	回转机构*	1.0	1.4	1.8
行走机构*	-	1.4	1.8	俯仰机构		1.0	1.25	1.5	
弯板机*	-	1.0	1.0	行走机构		1.5	1.75	2.0	
挤压机	-	-	1.6	提升机构*		1.0	1.25	1.5	
调浆机	-	1.8	1.8	转臂式起重机*		1.0	1.25	1.6	
化 学 工 业	橡胶研光机	-	1.5	1.5	冷却塔	冷却塔风扇	-	-	2.0
	冷却圆筒	-	1.3	1.4	蔗 糖 生 产	风机(轴流和离心式)	-	1.4	1.5
	混料机,用于均匀介质	1.0	1.3	1.4	甘蔗切碎机*	-	-	1.7	
	混料机,用于非均匀介质	1.4	1.6	1.7	甘蔗碾磨机	-	-	1.7	
	搅拌机,用于密度均匀介质	1.0	1.3	1.5	甜菜切碎机	-	-	1.2	
	搅拌机,用于非均匀介质	1.2	1.4	1.6	甜菜清洗机	-	-	1.5	
	搅拌机,用于不均匀气体吸收	1.4	1.6	1.8	甜菜切碎机	-	-	1.5	
	烘炉	1.0	1.3	1.5	甜菜清洗机	-	-	1.5	
	离心机	1.0	1.2	1.3	榨取机,机械致冷机,蒸煮机	-	-	1.4	
	翻板机	1.0	1.0	1.2	甜菜清洗机	-	-	1.5	
金 属 加 工 设 备	推钢机	1.0	1.2	1.2	甜菜切碎机	-	-	1.5	
	绕线机	-	1.6	1.6	各种类型**	-	1.8	2.0	
	冷床横移架	-	1.5	1.5	碎浆机驱动装置	2.0	2.0	2.0	
	辊式矫直机	-	1.6	1.6	离心式压缩机	-	1.4	1.5	
	辊道(连续式)	-	1.5	1.5	索道	运货索道	-	1.3	1.4
	辊道(间歇式)	-	2.0	2.0	缆 车	往返系统空中索道	-	1.6	1.8
	可逆式轧管机	-	1.8	1.8	水 泥 工 业	T型杆升降机	-	1.3	1.4
	剪切机(连续式)*	-	1.5	1.5	连续索道	-	1.4	1.6	
	剪切机(曲柄式)*	1.0	1.0	1.0	混凝土搅拌机	-	1.5	1.5	
	连铸机驱动装置	-	1.4	1.4	破碎机*	-	1.2	1.4	
可逆式开坯机	-	2.5	2.5	回转窑	-	-	2.0		
					管式磨机	-	-	2.0	
					选粉机	-	1.6	1.6	
					辊压机	-	-	2.0	

工作机额定功率P₂的确定

-)按最大扭矩确定额定功率。
- **)检验热功率是绝对必要的。

Gear Units Service Factor

Driven machines		Effective daily operating period under load in hours			Driven machines		Effective daily operating period under load in hours		
		≤ 0.5h	0.5-10h	>10h			≤ 0.5h	0.5-10h	>10h
Waste water treatment	Thickeners(central drive)	-	-	1.2	Metal working mills	Reversing slabbing mills	-	2.5	2.5
	Filter presses	1.0	1.3	1.5		Reversing wire mills	-	1.8	1.8
	Flocculation apparata	0.8	1.0	1.3		Reversing sheet mills	-	2.0	2.0
	Aerators	-	1.8	2.0		Reversing plate mills	-	1.8	1.8
	Raking equipment	1.0	1.2	1.3		Roll adjustment drives	0.9	1.0	-
	Combined longitudinal and rotary rakes	1.0	1.3	1.5	Conveyors	Bucket conveyors	-	1.2	1.5
	Pre-thickeners	-	1.1	1.3		Hauling winches	1.4	1.6	1.6
	Screw pumps	-	1.3	1.5		Hoists	-	1.5	1.8
	Water turbines	-	-	2.0		Belt conveyors <150 kw	1.0	1.2	1.3
	Centrifugal pumps	1.0	1.2	1.3		Belt conveyors ≥ 150 kw	1.1	1.3	1.5
1piston positive-displacement pumps	1.3	1.4	1.8	Goods lifts *		-	1.2	1.5	
>1 piston positive-displacement pumps	1.2	1.4	1.5	Passenger lifts *		-	1.5	1.8	
Dredgers	Bucket conveyors	-	1.6	1.6		Apron conveyors	-	1.2	1.5
	Dumping devices	-	1.3	1.5		Escalators	-	1.2	1.4
	Caterpillar travelling gears	1.2	1.6	1.8		Rail travelling gears	-	1.5	-
	Bucket wheel excavators as pick-up	-	1.7	1.7	Frequency converters	-	1.8	2.0	
	Bucket wheel excavators for primitive material	-	2.2	2.2	Reciprocating compressors	-	1.8	1.9	
	Cutter heads	-	2.2	2.2	Cranes	Slewing gears *	1.0	1.4	1.8
Traversing gears *	-	1.4	1.8	Luffing gears		1.0	1.25	1.5	
Plate bending machines *	-	1.0	1.0	Travelling gears		1.5	1.75	2.0	
	-	1.0	1.0	Hoisting gears *		1.0	1.25	1.5	
Chemical industry	Extruders	-	-	1.6	Cooling towers	Derricking jib cranes *	1.0	1.25	1.6
	Dough mills	-	1.8	1.8		Cooling tower fans	-	-	2.0
	Rubber calenders	-	1.5	1.5	Cane sugar production	Blowers(axial and radial)	-	1.4	1.5
	Cooling drums	-	1.3	1.4		Cane knives *	-	-	1.7
	Mixers for uniform media	1.0	1.3	1.4	Beet sugar production	Cane mills	-	-	1.7
	Mixers for non-uniform media	1.4	1.6	1.7		Beet cossettes macerators	-	-	1.2
	Agitators for media with uniform density	1.0	1.3	1.5	Paper machines	Extraction plants, Mechanical refrigerators, Juice boilers,	-	-	1.4
	Agitators for media with non-uniform density	1.2	1.4	1.6		Sugar beet washing machines	-	-	1.5
	Agitators for media with non-uniform gas absorption	1.4	1.6	1.8		Sugar beet cutters	-	-	1.5
	Toasters	1.0	1.3	1.5	Cableways	Of all-kind **	-	1.8	2.0
Centrifuges	1.0	1.2	1.3	Pulper drives		2.0	2.0	2.0	
Metal working mills	Plate tilters	1.0	1.0	1.2	Cement industry	Centrifugal compressors	-	1.4	1.5
	Ingot pushers	1.0	1.2	1.2		Material ropeways	-	1.3	1.4
	Winding machines	-	1.6	1.6	To-and fro system aerial ropeways	-	1.6	1.8	
	Cooling bed transfer frames	-	1.5	1.5	T-bar lifts	-	1.3	1.4	
	Roller straighteners	-	1.6	1.6	Continuous ropeways	-	1.4	1.6	
	Roller tables continuous	-	1.5	1.5	Concrete mixers	-	1.5	1.5	
	Roller tables intermittent	-	2.0	2.0	Breakers *	-	1.2	1.4	
	Roller tables Reversing tube mills	-	1.8	1.8	Rotary kilns	-	-	2.0	
	Shears continuous *	-	1.5	1.5	Tube mills	-	-	2.0	
	Shears crank type *	1.0	1.0	1.0	Separators	-	1.6	1.6	
Continuous casting drivers	-	1.4	1.4	Roll crushers	-	-	2.0		
Reversing blooming mills	-	2.5	2.5						

Design for power rating of driven machine P₂
 *)Designed power corresponding to max.torque.
 **)A check for thermal capacity is absolutely essential.



减速器 Gear Units

服务系数 Service Factor

表 2 原动机系数 f_2
Table 2 Factor for prime mover f_2

电机, 液压马达, 汽轮机 Electric motors, hydraulic motors, turbines	1.0
4-6缸活塞发动机 Piston engines 4-6 cylinders	1.25
1-3缸活塞发动机 Piston engines 1-3 cylinders	1.5

表 5 峰值扭矩系数 f_5 Table 5 Peak torque factor f_5

	每小时峰值负荷次数 Load peak per hour			
	1-5	6-30	31-100	>100
单向载荷 Steady direction of load	0.5	0.65	0.7	0.85
交变载荷 Alternating direction of load	0.7	0.95	1.10	1.25

表 3 减速器安全系数 f_3
Table 3 Safety factor f_3

重要性 与安全 要求	一般设备, 减速器失效仅引起单机停产且易更换备件	重要设备, 减速器失效引起机组、生产线或全厂停产。	高度安全要求, 减速器失效引起设备、人身事故
Importance and safety request	Ordinary equipment, malfunction only cause accident of single-machine and easily replaced.	Important equipment, malfunction cause the accident of assembling unit, production-line or whole factory.	Safety request highly, malfunction cause the accident of equipment and personal injury.
f_3	1.25-1.5	1.5-1.75	1.75-2.0

表 6 环境温度系数 f_6 Table 6 Thermal factor f_6

不带辅助冷却装置或仅带冷却风扇 Without auxiliary cooling or with fan cooling					
环境温度 Ambient temperature	每小时工作周期(ED)百分比 % Operating cycle per hour (ED) in %				
	100	80	60	40	20
10°C	1.11	1.31	1.60	2.14	3.64
20°C	1.00	1.18	1.44	1.93	3.28
30°C	0.88	1.04	1.27	1.70	2.89
40°C	0.75	0.89	1.08	1.45	2.46
50°C	0.63	0.74	0.91	1.22	2.07

表 4 起动系数 f_4 Table 4 Start factor f_4

每小时起动次数 Starts per hour	$f_1 \times f_2 \times f_3$			
	1	1.25 - 1.75	2 - 2.75	≥ 3
	f_4			
≤ 5	1	1	1	1
6-25	1.2	1.12	1.06	1
26-60	1.3	1.2	1.12	1.06
61-180	1.5	1.3	1.2	1.12
>180	1.7	1.5	1.3	1.2

表 7 海拔高度系数 f_7 Table 7 Factor for altitude f_7

不带辅助冷却装置或仅带冷却风扇 Without auxiliary cooling or with fan cooling					
系数 Factor	海拔高度(m) Altitude (meters)				
	高达 Up to 1000	高达 Up to 2000	高达 Up to 3000	高达 Up to 4000	高达 Up to 5000
f_7	1.0	0.95	0.90	0.85	0.80

表 8 立式安装减速器供油系数。对于卧式安装 $f_8=1$; 当采用强制润滑时, $f_8=1.05$
Table 8 Oil supply factors for vertical gear units. For horizontal gear units $f_8=1.0$, and in case of forced lubrication $f_8=1.05$

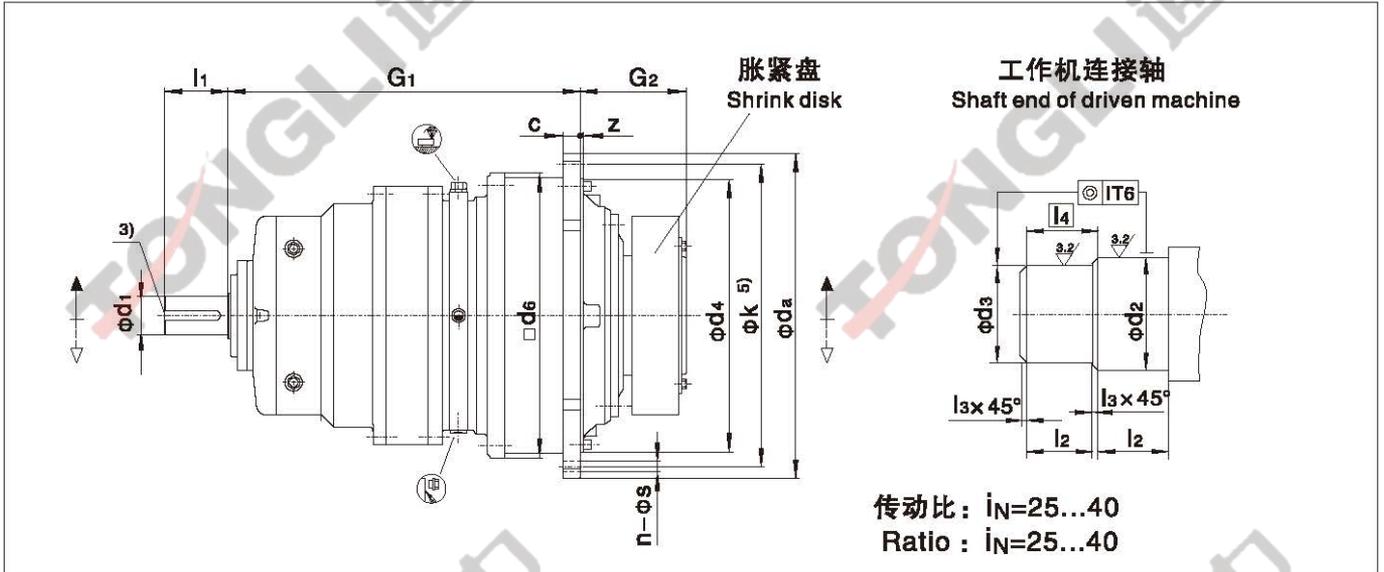
类型 Type	供油方式 Oil supply	规格 1...12 Sizes 1...12				规格 13...18 Sizes 13...18			
		不带辅助冷却装置 Without auxiliary cooling	带冷却风扇 With fan cooling	带冷却盘管 With cooling coil	带风扇和冷却盘管 With fan and cooling coil	不带辅助冷却装置 Without auxiliary cooling	带冷却风扇 With fan cooling	带冷却盘管 With cooling coil	带风扇和冷却盘管 With fan and cooling coil
TH2.V TH3.V TH4.V	浸油润滑 Dip lubrication	0.95	....	....	....	....	....	....	....
	强制润滑 Forced lubrication	1.15	....	....	....	1.15	....	....	....
TB2.V TB3.V TB4.V	浸油润滑 Dip lubrication	0.95	0.95	....	....	....	....	....	....
	强制润滑 Forced lubrication	1.15	1.10	....	....	1.15	1.10	....	....

....) 根据用户要求供货) On request

表 9 功率利用率系数 f_9 Table 9 Utilization factor f_9

30%	40%	50%	60%	70%	80%	90%	100%
0.66	0.77	0.83	0.90	0.90	0.95	1.0	1.0

型号 TP2NAZ / 规格 9...36 / Type TP2NAZ / Sizes 9... 36

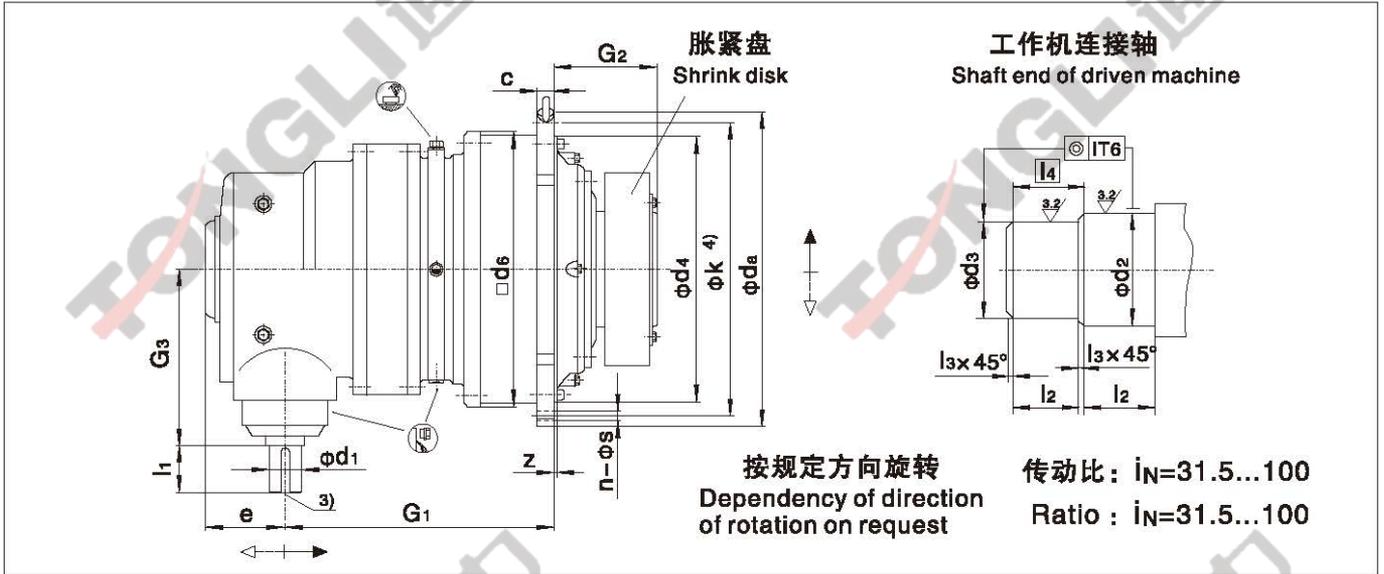


TP2NAZ 机座号 Size	额定输出扭矩 Nom. output torque T_{2N} (N.m)	输入轴尺寸 Input shaft dimension		工作机连接轴 Shaft end of driven machine							c	da	d4 h7	d6	G1	G2	k	z	法兰孔 Flange bolts		重量 Weight (kg)	油量 Oil quantity (l)
		d1 ¹⁾	l1	d2 ⁴⁾ g6	d3 ⁴⁾ g6	l2	l3	l4	孔径 Dia- meter s	数量 Qty. n												
9	22000	55	90	120	115	65	2.5	67.5	24	428	350	356	469	165	388	6±1.5	18	24	240	6		
10	31000	55	90	130	125	70	2.5	72.5	28	472	394	400	489	174	436	8±1.5	18	28	290	8		
11	42000	70	120	140	135	82.5	2.5	85.0	32	525	425	436	579	204	485	8±1.5	22	20	350	12		
12	60000	70	120	160	155	90	2.5	92.5	34	605	495	510	593	224	555	8±1.5	26	20	490	16		
13	83000	80	140	180	175	95	2.5	97.5	39	645	535	554	714	241	595	11±1.5	26	24	590	20		
14	117000	80	140	210	205	105	2.5	107.5	42	720	610	629	737	278	665	9	26	32	820	32		
16	160000	95	160	230	225	110	2.5	112.5	44	770	660	680	851	285	715	10	26	36	1030	40		
17	202000	95	160	250	245	120	2.5	122.5	50	895	750	765	877	294	830	10	33	24	1500	56		
18	244000	110	180	260	255	120	2.5	122.5	50	930	785	815	1006	303	865	10	33	32	1900	66		
19	295000	110	180	280	275	135	2.5	137.5	56	980	840	870	1029.5	327.5	915	12	33	36	2000	82		
20	354000	110	180	300	295	135	2.5	137.5	56	980	840	870	1029.5	327.5	915	12	33	36	2100	82		
21	392000	120	210	310	305	152	2.5	154.5	62	1115	935	960	1046	354	1025	24	39	32	2650	110		
22	450000	120	210	330	325	152	2.5	154.5	62	1115	935	960	1046	354	1025	24	39	32	2800	110		
23	513000	130	210	350	345	164	2.5	166.5	68	1210	1025	1050	1150	380	1120	28	39	36	3450	150		
24	592000	130	210	360	355	164	2.5	166.5	68	1210	1025	1050	1150	380	1120	28	39	36	3900	150		
25	684000	140	240	380	375	180	2.5	182.5	74	1320	1115	1150	1241	407	1220	29	45	36	4750	190		
26	763000	140	240	400	395	180	2.5	182.5	74	1320	1115	1150	1241	407	1220	29	45	36	5150	190		
27	852000	150	240	430	425	191	2.5	193.5	81	1460	1215	1250	1379	453	1345	31	52	32	6100	245		
28	950000	150	240	450	445	191	2.5	193.5	81	1460	1215	1250	1379	453	1345	31	52	32	6550	245		
29	1060000	160	270	460	450	197.5	5	202.5	87	1565	1320	1355	1457	483	1450	34	52	36	7800	305		
30	1200000	160	270	480	470	197.5	5	202.5	87	1565	1320	1355	1457	483	1450	34	52	36	8300	305		
31	1330000	170	270	480	470	232	5	237.0	94	1665	1400	1443	1607	538	1545	36	62	32	10200	380		
32	1500000	170	270	510	500	232	5	237.0	94	1665	1400	1443	1607	538	1545	36	62	32	10700	380		
33	1680000	180	310	530	520	242	5	247.0	100	1755	1495	1536	1683	573	1635	36	62	36	12350	460		
34	1920000	180	310	570	560	242	5	247.0	100	1755	1495	1536	1683	573	1635	36	62	36	13150	460		
35	2240000	190	310	600	590	272	5	277.0	112	1945	1685	1720	1899	656	1825	40	62	40	17300	645		
36	2600000	190	310	640	630	272	5	277.0	112	1945	1685	1720	1899	656	1825	40	62	40	18400	645		

1) 当 $d_1 \leq 100$ 时公差为 m6, 当 $d_1 > 100$ 时公差为 n6
 2) 不含胀紧盘与润滑油的重量
 3) 有关平键 (符合 GB/T1095-1979) 与中心孔请参 2 页
 4) 当尺寸 ≤ 160 时公差为 h6
 5) 孔的分布类型见 TP20 页

1) Shaft diameter $d_1 \leq 100$, tolerance m6; shaft diameter $d_1 > 100$, tolerance n6
 2) Weight without shrink disk and oil
 3) For parallel key (GB/T1095-1979) and centre hole see page 2
 4) ≤ 160 h6
 5) For hole pattern, see page TP20

型号 TP2LAZ / 规格 9...36 / Type TP2LAZ / Sizes 9... 36



TP2LAZ 机座号 Size	额定输出扭矩 Nom. output torque T_{2N} (N.m)	输入轴尺寸 Input shaft dimension				工作机连接轴 Shaft end of driven machine							c	d_a	d_4 h7	d_6	e	G_1	G_2	G_3	k	z	法兰孔 Flange bolts		重量 Weight (kg)	油量 Oil quantity (l)
		$i_N \leq 90$		$i_N \geq 100$		d_2 g6	d_3 g6	l_2	l_3	l_4	孔径 Dia- meter S	数量 Qty. n														
9	22000	45	100	35	80	120	115	65	2.5	67.5	24	428	350	356	185	425	165	305	388	6 ± 1.5	18	24	260	6		
10	31000	45	100	35	80	130	125	70	2.5	72.5	28	472	394	400	185	445	174	305	436	8 ± 1.5	18	28	310	8		
11	42000	55	110	40	100	140	135	82.5	2.5	85	32	525	425	436	210	501	204	350	485	8 ± 1.5	22	20	380	12		
12	60000	55	110	40	100	160	155	90	2.5	92.5	34	605	495	510	210	515	224	350	555	8 ± 1.5	26	20	520	16		
13	83000	70	135	50	110	180	175	95	2.5	97.5	39	645	535	554	250	619	241	415	595	11 ± 1.5	26	24	650	20		
14	117000	70	135	50	110	210	205	105	2.5	107.5	42	720	610	629	250	642	278	415	665	9	26	32	910	32		
16	160000	80	165	60	140	230	225	110	2.5	112.5	44	770	660	680	295	705	285	490	715	10	26	36	1140	40		
17	202000	80	165	60	140	250	245	120	2.5	122.5	50	895	750	765	295	731	294	490	830	10	33	24	1660	56		
18	244000	90	165	70	140	260	255	120	2.5	122.5	50	930	785	815	350	882	303	605	865	10	33	32	2100	66		
19	295000	90	165	70	140	280	275	135	2.5	137.5	56	980	840	870	350	905.5	327.5	605	915	12	33	36	2200	82		
20	354000	90	165	70	140	300	295	135	2.5	137.5	56	980	840	870	350	905.5	327.5	605	915	12	33	36	2300	82		
21	392000	110	205	80	170	310	305	152	2.5	154.5	62	1115	935	960	400	996	354	700	1025	24	39	32	2930	110		
22	450000	110	205	80	170	330	325	162	2.5	154.5	62	1115	935	960	400	996	354	700	1025	24	39	32	3100	110		
23	513000	110	205	80	170	350	345	164	2.5	166.5	68	1210	1025	1050	400	1055	380	700	1120	28	39	36	3800	150		
24	592000	110	205	80	170	360	355	164	2.5	166.5	68	1210	1025	1050	400	1055	380	700	1120	28	39	36	4300	150		
25	684000	130	245	100	210	380	375	180	2.5	182.5	74	1320	1115	1150	475	1138	407	835	1220	29	45	36	5250	190		
26	763000	130	245	100	210	400	395	180	2.5	182.5	74	1320	1115	1150	475	1138	407	835	1220	29	45	36	5660	190		
27	852000	130	245	100	210	430	425	191	2.5	193.5	81	1480	1215	1250	475	1272	453	835	1345	31	52	32	6680	245		
28	950000	130	245	100	210	450	445	191	2.5	193.5	81	1480	1215	1250	475	1272	453	835	1345	31	52	32	7180	245		
29	1060000	150	245	110	210	460	450	197.5	5	202.5	87	1565	1320	1355	530	1367	483	945	1450	34	52	36	8500	305		
30	1200000	150	245	110	210	480	470	197.5	5	202.5	87	1565	1320	1355	530	1367	483	945	1450	34	52	36	9070	305		
31~36																										

- 1) 当 $d_1 \leq 100$ 时公差为m6, 当 $d_1 > 100$ 时公差为n6
- 2) 不含胀紧盘与润滑油的重量
- 3) 有关平键 (符合GB/T1095-1979) 与中心孔请参 2 页
- 4) 孔的分布类型见TP20页
- 5) 当尺寸 ≤ 160 时公差为h6

- 1) Shaft diameter $d_1 \leq 100$, tolerance m6; shaft diameter $d_1 > 100$, tolerance n6
- 2) Weight without shrink disk and oil
- 3) For parallel key (GB/T1095-1979) and centre hole see page 2
- 4) For hole pattern, see page TP20
- 5) ≤ 160 h6

TP系列行星减速机
TP Series Planetary gear units



型号 TP2L.. / 规格 9...36 / Type TP2L.. / Sizes 9...36

		额定功率 P _N												Nominal power ratings (KW)										
in	n ₁ r/min	n ₂	规格												Sizes									
			9	10	11	12	13	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31-36
31.5	1500	47.6	111	156	212	302	418	510	806	865	1230*	1487*	1517*	1976*	2268*									
	1000	31.7	74	104	141	202	279	340	538	577	820	991	1011	1317*	1512*	1724*	1989*	2298*	2564*	2863*	2937*			
	750	23.8	55	78	106	151	209	255	403	433	615	743	758	988	1134	1293	1492	1724	1923	2147	2203			
35.5	1500	42.3	98	139	188	268	345	487	716	858	1091*	1319*	1504*	1753*	2013*									
	1000	28.2	66	92	125	179	247	324	477	572	728	880	1003	1169*	1342*	1530*	1712*	2040*	2275*	2540*	2833*			
	750	21.1	49	69	94	134	173	243	358	429	546	660	752	877	1006	1147	1284	1530	1706	1905	2124			
40	1500	37.5	87	123	167	238	306	432	635	802	969*	1171*	1405*	1556*	1786*									
	1000	25.0	58	82	111	159	204	288	423	535	646	781	937	1037*	1191*	1358*	1567*	1810*	2019*	2255*	2514*			
	750	18.8	44	62	83	119	153	216	318	401	484	585	703	778	883	1018	1175	1358	1514	1691	1885			
45	1500	33.3	78	109	148	212	293	413	565	713	861*	1041*	1249*	1383*	1588*	1810*	2089*							
	1000	22.2	52	73	99	141	195	275	376	475	574	694	833	922*	1059*	1207*	1393*	1609*	1795*	2004*	2235*			
	750	16.7	39	55	74	106	146	206	282	356	430	520	625	692	794	905	1044	1207	1346	1503	1676	1870	2117	
50	1500	30.0	70	98	133	191	264	372	508	641	775	937	1124	1245*	1429*	1629*	1880*							
	1000	20.0	47	66	89	127	176	248	339	428	517	625	749	830	953	1086	1253	1448*	1615*	1804*	2011*			
	750	15.0	35	49	67	95	132	186	254	321	387	468	562	622	714	815	940	1086	1211	1353	1508	1683	1905	
56	1500	26.8	62	88	119	170	235	332	454	573	692	836	1004	1111*	1276*	1455*	1678*							
	1000	17.9	42	59	79	113	157	221	302	382	461	558	669	741	851	970	1119	1293*	1442*	1610*	1796*	2004*	2268*	
	750	13.4	31	44	60	85	118	166	227	286	346	418	502	556	636	727	839	970	1082	1208	1347	1503	1701	
63	1500	23.8	55	78	106	151	209	295	403	509	615	743	892	988	1134	1293	1492	1724*	1923*	2147*	2394*			
	1000	15.9	37	52	71	101	139	197	269	339	410	496	595	659	756	862	995	1149	1282	1432	1596	1781*	2016*	
	750	11.9	28	39	53	76	105	147	202	255	307	372	446	494	567	646	746	862	961	1074	1197	1336	1512	
71	1500	21.1	49	69	94	134	186	262	358	452	546	660	792	877	1006	1147	1324	1530	1706	1905	2124			
	1000	14.1	33	46	63	89	124	174	239	301	364	440	528	584	671	765	883	1020	1136	1270	1416	1580*	1789*	
	750	10.6	25	35	47	67	93	131	179	226	273	330	396	438	503	574	662	765	853	953	1062	1185	1342	
80	1500	18.8	44	62	83	119	165	232	318	401	484	585	703	778	893	1018	1175	1358	1514	1691	1885			
	1000	12.5	29	41	56	79	110	155	212	267	323	390	468	519	595	679	783	905	1010	1127	1257	1403*	1588*	
	750	9.4	22	31	42	60	82	116	159	200	242	293	351	389	447	509	587	679	757	845	943	1052	1191	
90	1500	16.7	39	55	74	106	146	206	282	356	430	520	625	692	794	905	1044	1207	1346	1503	1676	1870	2117	
	1000	11.1	26	36	49	71	98	138	188	238	287	347	416	461	529	603	696	804	897	1002	1117	1247	1411	
	750	8.3	19	27	37	53	73	103	141	178	215	260	312	346	397	453	522	603	673	752	838	935	1059	
100	1500	15.0	35	49	67	95	132	186	254	321	387	468	562	622	714	815	940	1086	1211	1353	1508	1683	1905	
	1000	10.0	23	33	44	64	88	124	169	214	258	312	375	415	476	543	627	724	808	902	1006	1122	1270	
	750	7.5	17	25	33	48	66	93	127	160	194	234	281	311	357	407	470	543	606	676	754	842	953	

根据用户要求供货

On request

* 要求强制润滑 * Forced lubrication required

		热功率 P _{G1} *												Thermal capacities P _{G1} *					(kW)				
安装类型 Settings		规格												Sizes									
		9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31-36						
狭小空间 Small confined spaces ¹⁾		14	18	22	29	34	46	52	64	70	83	99	121	141	169	200							
室内大厅 大车间 Large halls, workshops ²⁾		20	26	31	41	48	64	74	91	99	118	140	172	199	240	284							
室外 In the open ³⁾		28	35	42	56	65	87	100	123	133	159	190	233	269	324	384							On request

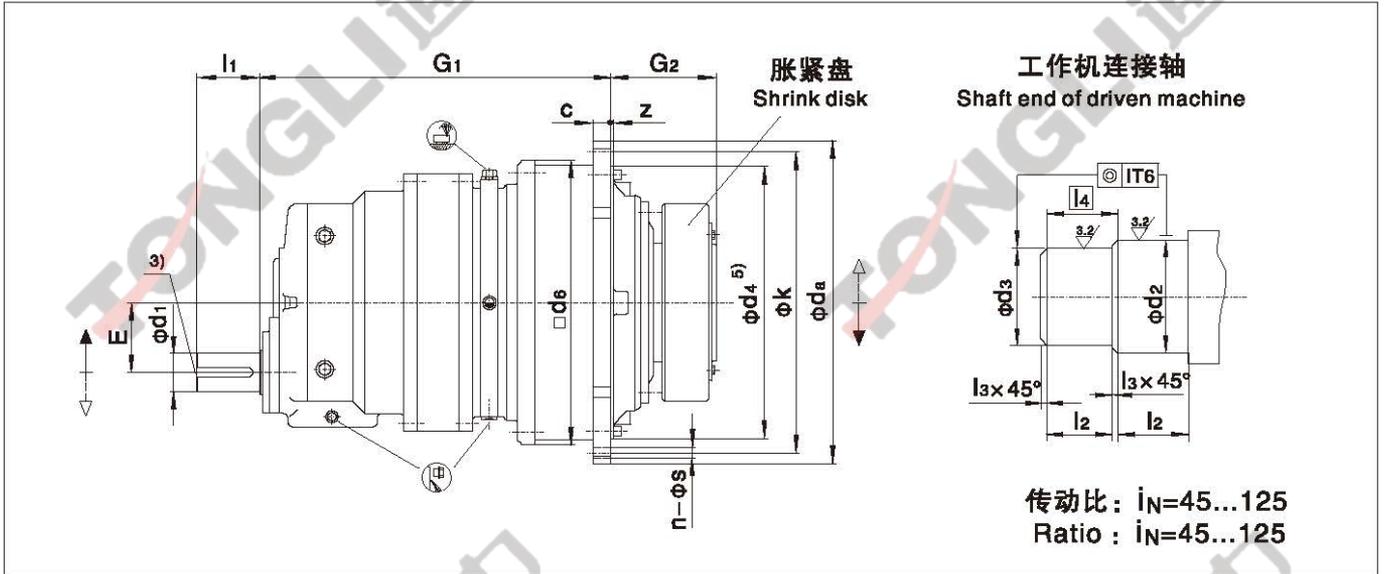
* 用于水平安装形式，其它安装形式请与我们联系。

- 1) 风速 ≥ 0.5m/s
- 2) 风速 ≥ 1.4m/s
- 3) 风速 ≥ 3.7m/s

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

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

型号 TP2SAZ / 规格 9...36 / Type TP2SAZ / Sizes 9... 36

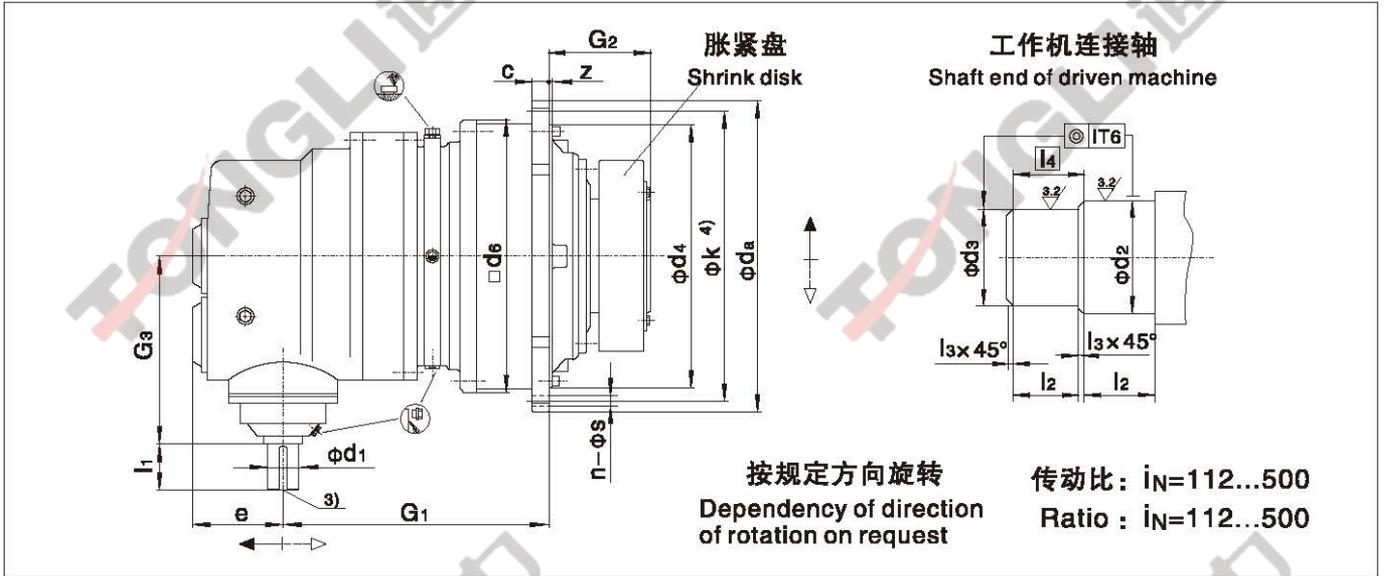


TP2SAZ 机座号 Size	额定输出扭矩 Nom. output torque T _{2N} (N.m)	输入轴尺寸 Input shaft dimension		工作机连接轴 Shaft end of driven machine					c	d _a	d ₄ h7	d ₆	E	G ₁	G ₂	k	z	法兰孔 Flange bolts		重量 ²⁾ Weight (kg)	油量 Oil quantity (l)
		d ₁ ¹⁾	l ₁	d ₂ ⁴⁾ g6	d ₃ ⁴⁾ g6	l ₂	l ₃	l ₄										孔径 Dia- meter s	数量 Qty. n		
9	22000	38	60	120	115	65	2.5	67.5	24	428	350	356	90	469	165	388	6±1.5	18	24	260	6
10	31000	38	60	130	125	70	2.5	72.5	28	472	394	400	90	489	174	436	8±1.5	18	28	310	8
11	42000	55	90	140	135	82.5	2.5	85.0	32	525	425	436	115	579	204	485	8±1.5	22	20	380	12
12	60000	55	90	160	155	90	2.5	92.5	34	605	495	510	115	593	224	555	8±1.5	26	20	520	16
13	83000	70	120	180	175	95	2.5	97.5	39	645	535	554	140	714	241	595	11±1.5	26	24	660	20
14	117000	70	120	210	205	105	2.5	107.5	42	720	610	629	140	737	278	665	9	26	32	920	32
16	160000	80	140	230	225	110	2.5	112.5	44	770	660	680	170	851	285	715	10	26	36	1150	40
17	202000	80	140	250	245	120	2.5	122.5	50	895	750	765	170	877	294	830	10	33	24	1650	56
18	244000	90	160	260	255	120	2.5	122.5	50	930	785	815	200	1006	303	865	10	33	32	1950	66
19	295000	90	160	280	275	135	2.5	137.5	56	980	840	870	200	1029.5	327.5	915	12	33	36	2400	82
20	354000	90	160	300	295	135	2.5	137.5	56	980	840	870	200	1029.5	327.5	915	12	33	36	2500	82
21	392000	100	180	310	305	152	2.5	154.5	62	1115	935	960	230	1076	354	1025	24	39	32	2900	110
22	450000	100	180	330	325	152	2.5	154.5	62	1115	935	960	230	1076	354	1025	24	39	32	3100	110
23	513000	120	210	350	345	164	2.5	166.5	68	1210	1025	1050	265	1175	380	1120	28	39	36	3800	150
24	592000	120	210	360	355	164	2.5	166.5	68	1210	1025	1050	265	1175	380	1120	28	39	36	4100	150
25	684000	130	210	380	375	180	2.5	182.5	74	1320	1115	1150	300	1291	407	1220	29	45	36	4950	190
26	763000	130	210	400	395	180	2.5	182.5	74	1320	1115	1150	300	1291	407	1220	29	45	36	5350	190
27	852000	140	240	430	425	191	2.5	193.5	81	1460	1215	1250	320	1429	453	1345	31	52	32	6800	245
28	950000	140	240	450	445	191	2.5	193.5	81	1460	1215	1250	320	1429	453	1345	31	52	32	7200	245
29	1060000	150	240	460	450	197.5	5	202.5	87	1565	1320	1355	360	1507	483	1450	34	52	36	8500	305
30	1200000	150	240	480	470	197.5	5	202.5	87	1565	1320	1355	360	1507	483	1450	34	52	36	9000	305
31	1330000	160	270	480	470	232	5	237.0	94	1665	1400	1443	400	1662	538	1545	36	62	32	10500	380
32	1500000	160	270	510	500	232	5	237.0	94	1665	1400	1443	400	1662	538	1545	36	62	32	11200	380
33	1680000	170	270	530	520	242	5	247.0	100	1755	1495	1536	400	1743	573	1635	36	62	36	12700	460
34	1920000	170	270	570	560	242	5	247.0	100	1755	1495	1536	400	1743	573	1635	36	62	36	13500	460
35	2240000	180	310	600	590	272	5	277.0	112	1945	1685	1720	442	1960	656	1825	40	62	40	17800	645
36	2600000	180	310	640	630	272	5	277.0	112	1945	1685	1720	442	1960	656	1825	40	62	40	18900	645

- 1) 当d₁ ≤ 100时公差为m6, 当d₁ > 100时公差为n6
- 2) 不含胀紧盘与润滑油的重量
- 3) 有关平键 (符合GB/T1095-1979) 与中心孔请参 2 页
- 4) 当尺寸 ≤ 160时公差为h6
- 5) 孔的分布类型见TP20页

- 1) Shaft diameter d₁ ≤ 100, tolerance m6; shaft diameter d₁ > 100, tolerance n6
- 2) Weight without shrink disk and oil
- 3) For parallel key (GB/T1095-1979) and centre hole see page 2
- 4) ≤ 160 h6
- 5) For hole pattern, see page TP20

型号 TP2KAZ / 规格 9...20 / Type TP2KAZ / Sizes 9... 20



TP2KAZ 机座号 Size	额定输出扭矩 Nom. output torque T _{2N} (N.m)	输入轴尺寸 Input shaft dimension				工作机连接轴 Shaft end of driven machine				c	d _a	d ₄ h7	d ₆	e	G ₁	G ₂	G ₃	k	z	法兰孔 Flange bolts		重量 Weight (kg)	油量 Oil quantity (l)
		i _N ≤ 360		i _N ≥ 400		⁵⁾ d ₂ g6	⁵⁾ d ₃ g6	l ₂	l ₃											l ₄	孔径 Dia- meter S			数量 Qty. n
9	22000	30	70	25	60	120	115	65	2.5	67.5	24	428	356	119	360	165	320	388	6 ± 1.5	18	24	270	6
10	31000	30	70	25	60	130	125	70	2.5	72.5	28	472	394	119	380	174	320	436	8 ± 1.5	18	28	320	8
11	42000	35	80	28	60	140	135	82.5	2.5	85.0	32	525	425	137	419	204	375	485	8 ± 1.5	22	20	390	12
12	60000	35	80	28	60	160	155	90	2.5	92.5	34	605	495	137	433	224	375	555	8 ± 1.5	26	20	540	16
13	83000	45	100	35	80	180	175	95	2.5	97.5	39	645	535	172	518.5	241	445	595	11 ± 1.5	26	24	690	20
14	117000	45	100	35	80	210	205	105	2.5	107.5	42	720	610	172	541.5	278	445	665	9	26	32	950	32
16	160000	55	110	40	100	230	225	110	2.5	112.5	44	770	660	194	632	285	520	715	10	26	36	1200	40
17	202000	55	110	40	100	250	245	120	2.5	122.5	50	895	750	194	658	294	520	830	10	33	24	1700	56
18	244000	70	135	50	110	260	255	120	2.5	122.5	50	930	785	240	741.5	303	615	865	10	33	32	2010	73
19	295000	70	135	50	110	280	275	135	2.5	137.5	56	980	840	240	764.5	327.5	615	915	12	33	36	2470	82
20	354000	70	135	50	110	300	295	135	2.5	137.5	56	980	840	240	764.5	327.5	615	915	12	33	36	2550	82
21~26	根据用户要求供货										On request												

- 1) 当d₁ ≤ 100时公差为m6, 当d₁ > 100时公差为n6
- 2) 不含胀紧盘与润滑油的重量
- 3) 有关平键 (符合GB/T1095-1979) 与中心孔请参 2 页
- 4) 孔的分布类型见TP20页
- 5) 当尺寸 ≤ 160时公差为h6

- 1) Shaft diameter d₁ ≤ 100, tolerance m6; shaft diameter d₁ > 100, tolerance n6
- 2) Weight without shrink disk and oil
- 3) For parallel key (GB/T1095-1979) and centre hole see page 2
- 4) For hole pattern, see page TP20
- 5) ≤ 160 h6

TP系列行星减速机
TP Series Planetary gear units



型号 TP2K.. / 规格 9...20 / Type TP2K.. / Sizes 9... 20

		额定功率 P _N Nominal power ratings (kW)											
iN	n ₁ r/min	n ₂	规格 Sizes										
			9	10	11	12	13	14	16	17	18	19	20
112	1500	13.4	30.9	43.6	59.0	84	117	164	225	284	343	415	498
	1000	8.9	20.6	29.0	39.4	56	78	110	150	189	229	276	332
	750	6.7	15.5	21.8	29.5	42	58	82	112	142	171	207	249
125	1500	12.0	27.7	39.0	52.9	76	105	147	201	254	307	372	446
	1000	8.0	18.5	26.0	35.3	50	70	98	134	170	205	248	297
	750	6.0	13.9	19.5	26.4	38	52	74	101	127	154	186	223
140	1500	10.7	24.7	34.9	47.2	67	93	132	180	227	274	332	398
	1000	7.1	16.5	23.2	31.5	45	62	88	120	151	183	221	265
	750	5.4	12.4	17.4	23.6	34	47	66	90	114	137	166	199
160	1500	9.4	21.6	30.5	41.3	59	82	115	157	199	240	290	348
	1000	6.3	14.4	20.3	27.5	39	54	77	105	132	160	193	232
	750	4.7	10.8	15.3	20.7	30	41	58	79	99	120	145	174
180	1500	8.3	19.2	27.1	36.7	52	73	102	140	177	213	258	310
	1000	5.6	12.8	18.1	24.5	35	48	68	93	118	142	172	206
	750	4.2	9.6	13.6	18.4	26	36	51	70	88	107	129	155
200	1500	7.5	17.3	24.4	33.1	47	65	92	126	159	192	232	279
	1000	5.0	11.5	16.3	22.0	31	44	61	84	106	128	155	186
	750	3.8	8.7	12.2	16.5	24	33	46	63	79	96	116	139
225	1500	6.7	15.4	21.7	29.4	42	58	82	112	141	171	206	248
	1000	4.4	10.3	14.5	19.6	28	39	55	75	94	114	138	165
	750	3.3	7.7	10.8	14.7	21	29	41	56	71	85	103	124
250	1500	6.0	13.9	19.5	26.4	38	52	74	101	127	154	186	223
	1000	4.0	9.2	13.0	17.6	25	35	49	67	85	102	124	149
	750	3.0	6.9	9.8	13.2	19	26	37	50	64	77	93	111
280	1500	5.4	12.4	17.4	23.6	34	47	66	90	114	137	166	199
	1000	3.6	8.2	11.6	15.7	22	31	44	60	76	91	111	133
	750	2.7	6.2	8.7	11.8	17	23	33	45	57	69	83	100
320	1500	4.7	10.8	15.3	20.7	30	41	58	79	99	120	145	174
	1000	3.1	7.2	10.2	13.8	20	27	38	52	66	80	97	116
	750	2.3	5.4	7.6	10.3	15	20	29	39	50	60	73	87
360	1500	4.2	9.6	13.6	18.4	26	36	51	70	88	107	129	155
	1000	2.8	6.4	9.0	12.2	17	24	34	47	59	71	86	103
	750	2.1	4.8	6.8	9.2	13	18	26	35	44	53	64	77
400	1500	3.8	8.7	12.2	16.5	24	33	46	63	79	96	116	139
	1000	2.5	5.8	8.1	11.0	16	22	31	42	53	64	77	93
	750	1.9	4.3	6.1	8.3	12	16	23	31	40	48	58	70
450	1500	3.3	7.7	10.8	14.7	21	29	41	56	71	85	103	124
	1000	2.2	5.1	7.2	9.8	14	19	27	37	47	57	69	83
	750	1.7	3.8	5.4	7.3	10	15	20	28	35	43	52	62
500	1500	3.0	6.9	9.8	13.2	19	26	37	50	64	77	93	111
	1000	2.0	4.6	6.5	8.8	13	17	25	34	42	51	62	74
	750	1.5	3.5	4.9	6.6	9	13	18	25	32	38	46	56
560	根据用户要求供货 On request												

		热功率 P _{G1} * Thermal capacities P _{G1} * (kW)										
安装类型 Settings	规格 Sizes											
	9	10	11	12	13	14	16	17	18	19/20		
狭小空间 ¹⁾ Small confined spaces ²⁾	12	15	18	24	28	38	44	53	58	69		
室内大厅 ³⁾ 大车间 Large halls, workshops	17	22	26	35	40	54	62	76	82	98		
室外 In the open	23	29	35	47	54	73	83	102	111	133		

*) 用于水平安装形式, 其它安装形式请与我们联系。

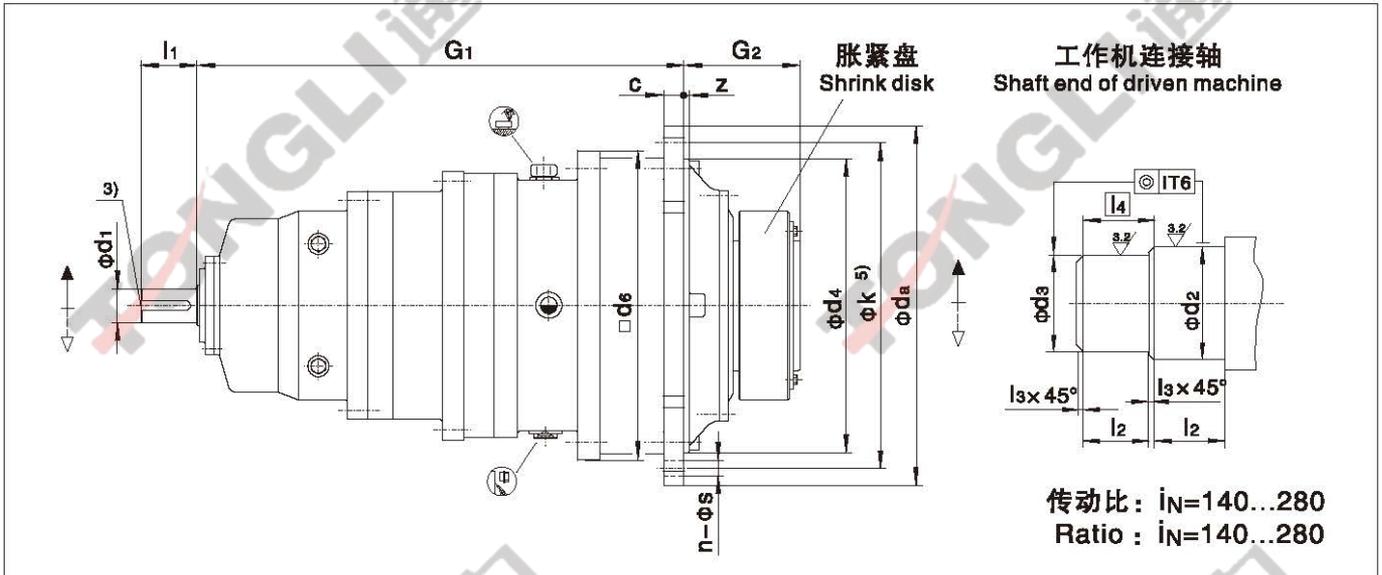
1) 风速 ≥ 0.5m/s 2) 风速 ≥ 1.4m/s 3) 风速 ≥ 3.7m/s

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

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

3) Wind velocity ≥ 3.7m/s

型号 TP3NAZ / 规格 9...36 / Type TP3NAZ / Sizes 9...36



TP3NAZ 机座号 Size	额定输出扭矩 Nom. output torque T_{2N} (N.m)	输入轴尺寸 Input shaft dimension		工作机连接轴 Shaft end of driven machine					c	d_a	d_4 h7	d_6	G_1	G_2	k	z	法兰孔 Flange bolts		重量 Weight (kg)	油量 Oil quantity (l)
		d_1 ¹⁾	l_1	d_2 ⁴⁾ g6	d_3 ⁴⁾ g6	l_2	l_3	l_4									孔径 Dia- meter s	数量 Qty. n		
9	22000	55	90	120	115	65	2.5	67.5	24	428	350	356	565	165	388	6 ± 1.5	18	24	250	7
10	31000	55	90	130	125	70	2.5	72.5	28	472	394	400	585	174	436	8 ± 1.5	18	28	300	9
11	42000	55	90	140	135	82.5	2.5	85.0	32	525	425	436	616	204	485	8 ± 1.5	22	20	370	13
12	60000	55	90	160	155	90	2.5	92.5	34	605	495	510	630	224	555	8 ± 1.5	26	20	500	17
13	83000	55	90	180	175	95	2.5	97.5	39	645	535	554	688	241	595	11 ± 1.5	26	24	620	21
14	117000	55	90	210	205	105	2.5	107.5	42	720	610	629	711	278	665	9	26	32	880	33
16	160000	70	120	230	225	110	2.5	112.5	44	770	660	680	853	285	715	10	26	36	1100	42
17	202000	70	120	250	245	120	2.5	122.5	50	895	750	765	879	294	830	10	33	24	1580	60
18	244000	80	140	260	255	120	2.5	122.5	50	930	785	815	1013.5	303	865	10	33	32	2000	70
19	295000	80	140	280	275	135	2.5	137.5	56	980	840	870	1036.5	327.5	915	12	33	36	2100	85
20	354000	80	140	300	295	135	2.5	137.5	56	980	840	870	1036.5	327.5	915	12	33	36	2200	85
21	392000	80	140	310	305	152	2.5	154.5	62	1115	935	960	1093	354	1025	24	39	32	2785	115
22	450000	80	140	330	325	152	2.5	154.5	62	1115	935	960	1093	354	1025	24	39	32	2950	115
23	513000	95	160	350	345	164	2.5	166.5	68	1210	1025	1050	1222	380	1120	28	39	36	3625	155
24	592000	95	160	360	355	164	2.5	166.5	68	1210	1025	1050	1222	380	1120	28	39	36	4100	155
25	684000	95	160	380	375	180	2.5	182.5	74	1320	1115	1150	1284.5	407	1220	29	45	36	5000	195
26	763000	95	160	400	395	180	2.5	182.5	74	1320	1115	1150	1284.5	407	1220	29	45	36	5400	195
27	852000	110	180	430	425	191	2.5	193.5	81	1460	1215	1250	1470	453	1345	31	52	32	6400	250
28	950000	110	180	450	445	191	2.5	193.5	81	1460	1215	1250	1470	453	1345	31	52	32	6875	250
29	1060000	110	180	460	450	197.5	5	202.5	87	1565	1320	1355	1517	483	1450	34	52	36	9414	310
30	1200000	110	180	480	470	197.5	5	202.5	87	1565	1320	1355	1517	483	1450	34	52	36	9800	310
31	1330000	120	210	480	470	232	5	237.0	94	1665	1400	1443	1641	540	1545	36	62	32	10700	390
32	1500000	120	210	510	500	232	5	237.0	94	1665	1400	1443	1641	540	1545	36	62	32	11200	390
33	1680000	130	210	530	520	242	5	247.0	100	1755	1495	1536	1710	573	1635	36	62	36	12950	470
34	1920000	130	210	570	560	242	5	247.0	100	1755	1495	1536	1710	573	1635	36	62	36	13800	470
35+36	根据用户要求供货										On request									

- 1) 当 $d_1 \leq 100$ 时公差为m6, 当 $d_1 > 100$ 时公差为n6;
- 2) 不含胀紧盘与润滑油的重量;
- 3) 有关平键 (符合GB/T1095-1979) 与中心孔请参照 2 页;
- 4) 当尺寸 ≤ 160 时公差为h6;
- 5) 孔的分布类型见TP20页;

- 1) Shaft diameter $d_1 \leq 100$, tolerance m6; shaft diameter $d_1 > 100$, tolerance n6
- 2) Weight without shrink disk and oil
- 3) For parallel key (GB/T1095-1979) and centre hole see page 2
- 4) ≤ 160 h6
- 5) For hole pattern, see page TP20

TP系列行星减速机
TP Series Planetary gear units



型号 TP3N.. / 规格 9...36 / Type TP3N.. / Sizes 9...36

		额定功率 P _N											Nominal power ratings											(kW)					
i _N	n ₁ r/min	n ₂	规格											Sizes															
			9	10	11	12	13	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
140	1500	10.7	24.8	34.9	47.3	68	94	132	180	228	275	332	399	442	507	578	667	711	860	-	-	-	-	-	-	-	-	-	-
	1000	7.1	16.5	23.3	31.5	45	62	88	120	152	183	222	268	294	338	385	445	514	573	640	714	796	901	999	1127	1262	1442	1682	1953
	750	5.4	12.4	17.5	23.7	34	47	66	90	114	137	166	199	221	253	289	333	385	430	480	535	597	676	749	845	946	1082	1262	1465
160	1500	9.4	21.7	30.6	41.4	59	82	115	158	199	241	291	349	386	444	506	584	674	752	-	-	-	-	-	-	-	-	-	-
	1000	6.3	14.5	20.4	27.6	39	55	77	105	133	160	194	233	258	296	337	389	450	501	560	624	697	789	874	986	1104	1262	1472	1709
	750	4.7	10.8	15.3	20.7	30	41	58	79	100	120	145	174	193	222	253	292	337	376	420	468	522	591	656	739	828	946	1104	1281
180	1500	8.3	19.3	27.2	36.8	53	73	103	140	177	214	258	310	343	394	450	519	599	669	-	-	-	-	-	-	-	-	-	-
	1000	5.6	12.9	18.1	24.5	35	48	68	93	118	143	172	207	229	263	300	346	400	448	498	555	619	701	777	876	981	1122	1309	1519
	750	4.2	9.6	13.6	18.4	26	36	51	70	88	107	129	155	172	197	225	259	300	334	373	416	464	526	583	657	736	841	981	1139
200	1500	7.5	17.3	24.4	33.1	47	65	92	126	159	192	233	279	309	355	405	467	539	602	-	-	-	-	-	-	-	-	-	-
	1000	5.0	11.6	16.3	22.1	32	44	62	84	106	128	155	186	206	237	270	311	360	401	448	499	557	631	699	789	883	1009	1178	1367
	750	3.8	8.7	12.2	16.6	24	33	46	63	80	96	116	140	155	177	202	233	270	301	336	375	418	473	524	591	662	757	883	1025
225	1500	6.7	15.4	21.7	29.4	42	58	82	112	142	171	207	248	275	315	360	415	479	535	597	666	743	841	932	1051	1178	1346	1570	1823
	1000	4.4	10.3	14.5	19.6	28	39	55	75	94	114	138	165	183	210	240	277	320	357	398	444	495	561	622	701	785	897	1047	1215
	750	3.3	7.7	10.9	14.7	21	29	41	56	71	86	103	124	137	158	180	207	240	267	299	333	372	421	466	526	589	673	785	911
250	1500	6.0	13.9	19.6	26.5	38	52	74	101	127	154	186	223	247	284	324	373	432	481	538	599	669	757	839	946	1060	1211	1413	1640
	1000	4.0	9.3	13.0	17.7	25	35	49	67	85	103	124	149	165	189	216	249	288	321	358	400	446	505	559	631	707	808	942	1094
	750	3.0	6.9	9.8	13.2	19	26	37	50	64	77	93	112	124	142	162	187	216	241	269	300	334	379	420	473	530	606	707	820
280	1500	5.4	12.4	17.5	23.7	34	47	66	90	114	137	166	199	221	253	289	333	385	430	480	535	597	676	749	845	946	1082	1262	1465
	1000	3.6	8.3	11.6	15.8	23	31	44	60	76	92	111	133	147	169	193	222	257	287	320	357	398	451	499	563	631	721	841	976
	750	2.7	6.2	8.7	11.8	17	23	33	45	57	69	83	100	110	127	144	167	193	215	240	268	299	338	375	422	473	541	631	732

		热功率 P _{G1} *											Thermal capacities P _{G1} *											(kW)					
安装类型 Settings		规格											Sizes																
		9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34	35/36										
1) 狭小空间 Small confined spaces		14	18	22	29	34	46	52	64	70	83	99	121	141	169	200	228	256	305										
2) 室内大厅 大车间 Large halls, workshops		20	26	31	41	48	64	74	91	99	118	140	172	199	240	284	323	362	432										
3) 室外 In the open		28	35	42	56	65	87	100	123	133	159	190	233	269	324	384	437	490	585										

★) 用于水平安装形式，其它安装形式请与我们联系。

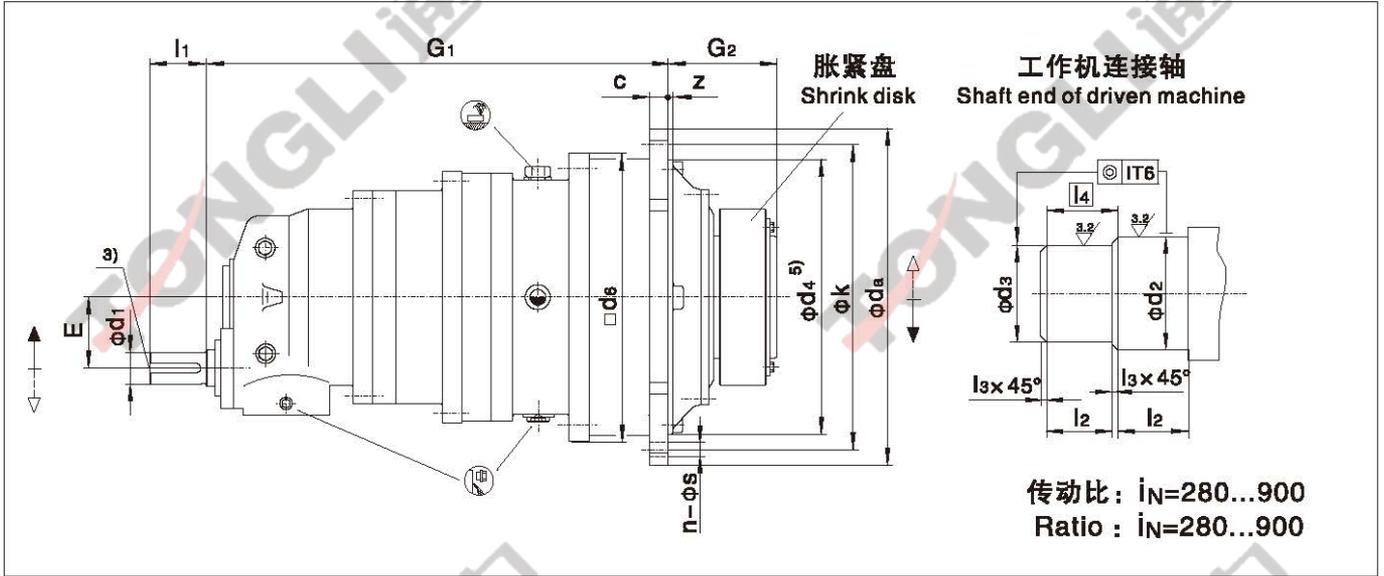
- 1) 风速 ≥ 0.5m/s
- 2) 风速 ≥ 1.4m/s
- 3) 风速 ≥ 3.7m/s

★) Values apply to horizontal mounting position, for other mounting positions please refer to us.

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

TP

型号 TP3SAZ / 规格 9...36 / Type TP3SAZ / Sizes 9...36



TP3SAZ 机座号 Size	额定输出扭矩 Nom. output torque T _{2N} (N.m)	输入轴尺寸 Input shaft dimension		工作机连接轴 Shaft end of driven machine					c	d _a	d ₄ h7	d _e	E	G ₁	G ₂	k	z	法兰孔 Flange bolts		重量 Weight (kg)	油量 Oil quantity (l)
		d ₁ ¹⁾	l ₁	d ₂ g6 ⁴⁾	d ₃ g6 ⁴⁾	l ₂	l ₃	l ₄										孔径 Dia- meter s	数量 Qty. n		
9	22000	38	60	120	115	65	2.5	67.5	24	428	350	356	90	565	165	388	6±1.5	18	24	270	7
10	31000	38	60	130	125	70	2.5	72.5	28	472	394	400	90	585	174	436	8±1.5	18	28	320	9
11	42000	38	60	140	135	82.5	2.5	85.0	32	525	425	436	90	616	204	485	8±1.5	22	20	390	13
12	60000	38	60	160	155	90	2.5	92.5	34	605	495	510	90	630	224	555	8±1.5	26	20	540	17
13	83000	38	60	180	175	95	2.5	97.5	39	645	535	554	90	688	241	595	11±1.5	26	24	670	21
14	117000	38	60	210	205	105	2.5	107.5	42	720	610	629	90	711	278	665	9	26	32	930	33
16	160000	55	90	230	225	110	2.5	112.5	44	770	660	680	115	853	285	715	10	26	36	1115	42
17	202000	55	90	250	245	120	2.5	122.5	50	895	750	765	115	879	294	830	10	33	24	1625	60
18	244000	70	120	260	255	120	2.5	122.5	50	930	785	815	140	1013.5	303	865	10	33	32	2060	70
19	295000	70	120	280	275	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2160	85
20	354000	70	120	300	295	135	2.5	137.5	56	980	840	870	140	1036.5	327.5	915	12	33	36	2260	85
21	392000	70	120	310	305	152	2.5	154.5	62	1115	935	960	140	1093	354	1025	24	39	32	2870	115
22	450000	70	120	330	325	152	2.5	154.5	62	1115	935	960	140	1093	354	1025	24	39	32	3040	115
23	513000	80	140	350	345	164	2.5	166.5	68	1210	1025	1050	170	1222	380	1120	28	39	36	3730	155
24	592000	80	140	360	355	164	2.5	166.5	68	1210	1025	1050	170	1222	380	1120	28	39	36	4220	155
25	684000	80	140	380	375	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5150	195
26	763000	80	140	400	395	180	2.5	182.5	74	1320	1115	1150	170	1284	407	1220	29	45	36	5560	195
27	852000	90	160	430	425	191	2.5	193.5	81	1460	1215	1250	200	1470	453	1345	31	52	32	6580	250
28	950000	90	160	450	445	191	2.5	193.5	81	1460	1215	1250	200	1470	453	1345	31	52	32	7080	250
29	1060000	90	160	460	450	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8400	310
30	1200000	90	160	480	470	197.5	5	202.5	87	1565	1320	1355	200	1517	483	1450	34	52	36	8970	310
31	1330000	100	180	480	470	232	5	237.0	94	1665	1400	1443	230	1617	538	1545	36	62	32	11000	390
32	1500000	100	180	510	500	232	5	237.0	94	1665	1400	1443	230	1617	538	1545	36	62	32	11500	390
33	1680000	120	210	530	520	242	5	247.0	100	1755	1495	1536	265	1735	573	1635	36	62	36	13300	470
34	1920000	120	210	570	560	242	5	247.0	100	1755	1495	1536	265	1735	573	1635	36	62	36	14200	470
35 36	根据用户要求供货 On request																				

- 1) 当d₁≤100时公差为m6, 当d₁>100时公差为n6;
- 2) 不含胀紧盘与润滑油的重量;
- 3) 有关平键 (符合GB/T1095-1979) 与中心孔请参照 2 页;
- 4) 当尺寸≤160时公差为h6;
- 5) 孔的分布类型见TP20页;

- 1) Shaft diameter d₁≤100, tolerance m6; shaft diameter d₁>100, tolerance n6
- 2) Weight without shrink disk and oil
- 3) For parallel key (GB/T1095-1979) and centre hole see page 2
- 4) ≤160 h6
- 5) For hole pattern, see page TP20

TP系列行星减速机
TP Series Planetary gear units



型号 TP3S.. / 规格 9...36 / Type TP3S.. / Sizes 9...36

		额定功率 P _N											Nominal power ratings														(kW)		
in	n ₁ r/min	n ₂	规格											Sizes															
			9	10	11	12	13	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
280	1500	5.4	13.5	17.6	24	34	47	67	91	115	139	168	202	223	256	292	337	389	434	485	541	603	683	757	854	956	1093	1275	1480
	1000	3.6	8.3	12	16	23	31	44	61	77	93	112	134	149	171	195	225	260	290	323	361	402	455	505	569	638	729	850	987
	750	2.7	6.3	8.8	12	17	24	33	46	57	69	84	101	112	128	146	168	195	217	242	270	302	342	379	427	478	546	638	740
315	1500	4.8	11	16	21	30	42	59	81	102	123	149	179	198	228	260	300	346	386	431	481	536	607	673	759	850	971	1133	1316
	1000	3.2	7.4	10.5	14	20	28	39	54	68	82	100	119	132	152	173	200	231	257	287	320	358	405	449	506	567	648	756	877
	750	2.4	5.6	7.8	11	15	21	30	40	51	62	75	90	99	114	130	150	173	193	216	240	268	304	336	379	425	486	567	658
355	1500	4.2	10	14	19	27	37	53	72	91	110	132	159	176	202	230	266	307	343	383	427	476	539	597	673	754	862	1006	1167
	1000	2.8	6.7	9.3	13	18	25	35	48	60	73	88	106	117	135	154	177	205	228	255	284	317	359	398	449	503	575	670	778
	750	2.1	5	7	9	13	19	26	36	45	55	66	79	88	101	115	133	154	171	191	213	238	269	299	337	377	431	503	584
400	1500	3.8	8.8	12.4	17	24	33	47	64	80	97	118	141	156	179	204	236	273	304	339	379	422	478	530	598	669	765	893	1036
	1000	2.5	5.8	8.2	11	16	22	31	43	54	65	78	94	104	120	136	157	182	203	226	252	282	319	353	398	446	510	595	691
	750	1.9	4.4	6.2	8	12	17	23	32	40	49	59	71	78	90	102	118	136	152	170	189	211	239	265	299	335	383	446	518
450	1500	3.3	7.8	11	15	21	29	41	57	72	86	104	125	139	159	182	210	242	270	302	336	375	425	471	531	595	680	793	921
	1000	2.2	5.2	7.3	10	14	20	28	38	48	58	70	84	93	106	121	140	162	180	201	224	250	283	314	354	397	453	529	614
	750	1.7	3.4	5.5	7.4	11	15	21	28	36	43	52	63	69	80	91	105	121	135	151	168	188	213	238	266	298	340	397	460
500	1500	3.0	7	10	13.4	19	26	37	51	64	78	94	113	125	143	164	189	218	243	272	303	338	383	424	478	536	612	714	829
	1000	2.0	4.7	6.6	8.9	13	18	25	34	43	52	63	75	83	96	109	126	145	162	181	202	225	255	283	319	357	408	476	553
	750	1.5	3.5	5	6.7	10	13	19	26	32	39	47	56	62	72	82	94	109	122	136	151	169	191	212	239	268	306	357	414
560	1500	2.7	6.3	8.8	12	17	24	33	46	57	69	84	101	112	128	146	168	195	217	242	270	302	342	379	427	478	546	638	740
	1000	1.8	4.2	6	8	11	16	22	30	38	46	56	67	74	85	97	112	130	145	162	180	201	228	252	285	319	364	425	493
	750	1.3	3.1	4.4	6	9	12	17	23	29	35	42	50	56	64	73	84	97	109	121	135	151	171	189	213	239	273	319	370
630	1500	2.4	5.6	7.8	10.6	15	21	30	40	51	62	75	90	99	114	130	150	173	193	216	240	268	304	336	379	425	486	567	658
	1000	1.6	3.7	5.2	7	10	14	20	27	34	41	50	60	66	76	87	100	115	129	144	160	179	202	224	253	283	324	378	439
	750	1.2	2.8	3.9	5.3	8	10	15	20	26	31	37	45	50	57	65	75	87	97	108	120	134	152	168	190	213	243	283	329
710	1500	2.1	4.5	7	9.4	13	19	26	36	45	55	66	79	88	101	115	133	154	171	191	213	238	269	299	337	377	431	503	584
	1000	1.4	3.3	4.5	6.3	9	12	18	24	30	37	44	53	59	67	77	89	102	114	128	142	159	180	199	224	251	287	335	389
	750	1.1	2.5	3.5	4.7	7	9	13	18	23	27	33	40	44	51	58	66	77	86	96	107	119	135	149	168	189	215	251	292
800	1500	1.9	4.4	6.2	8.4	12	17	23	32	40	49	59	71	78	90	102	118	136	152	170	189	211	239	265	299	335	383	446	518
	1000	1.3	2.9	4.1	5.6	8	11	16	21	27	32	39	47	52	60	68	79	91	110	113	126	141	159	177	199	223	255	298	345
	750	0.9	2.2	3.1	4.2	6	8	12	16	20	24	29	35	39	45	51	59	68	76	85	95	106	120	132	149	167	191	223	259
900	1500	1.7	3.4	5.5	7.4	11	15	21	28	36	43	52	63	69	80	91	105	121	135	151	168	188	213	236	266	298	340	397	460
	1000	1.1	2.6	3.7	5	7	10	14	19	24	29	35	42	46	53	61	70	81	90	101	112	125	142	157	177	198	227	264	307
	750	0.8	1.9	2.7	3.7	5	7	10	14	18	22	26	31	35	40	45	52	61	68	75	84	94	106	118	133	149	170	198	230

		热功率 P _{G1} *											Thermal capacities P _{G1} *														(kW)	
安装类型 Settings		规格											Sizes															
		9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31/32	33/34	35/36									
1) 狭小空间 Small confined spaces		12	15	18	24	28	40	43	53	57	69	82	100	116	139	165	188	211	252									
2) 室内大厅 大车间 Large halls, workshops		17	21	26	34	40	53	61	75	81	97	116	142	164	197	234	266	298	356									
3) 室外 In the open		23	29	35	46	54	72	82	101	110	131	156	192	222	267	316	360	404	482									

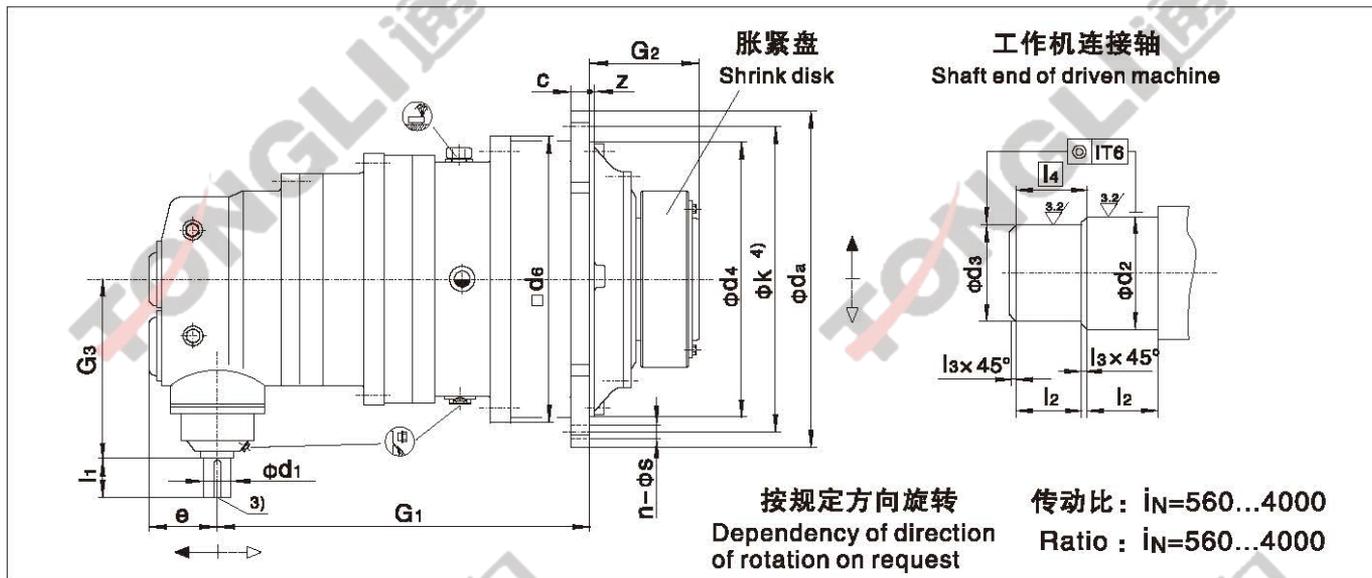
★) 用于水平安装形式，其它安装形式请与我们联系。

- 1) 风速 ≥ 0.5m/s
- 2) 风速 ≥ 1.4m/s
- 3) 风速 ≥ 3.7m/s

★) Values apply to horizontal mounting position, for other mounting positions please refer to us.

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

型号 TP3KAZ / 规格 9...30 / Type TP3KAZ / Sizes 9...30



TP3KAZ 机座号 Size	额定输出扭矩 Nom. output torque T _{2N} (N.m)	输入轴尺寸 Input shaft dimension				工作机连接轴 Shaft end of driven machine							c	d _a	d ₄ h7	d ₆	e	G ₁	G ₂	G ₃	k	z	法兰孔 Flange bolts		重量 Weight (kg)	油量 Oil quantity (l)
		i _N ≤ 2000		i _N ≥ 2240		d ₂ g6	d ₃ g6	l ₂	l ₃	l ₄	孔径 Dia-meter S	数量 Qty. n														
		d ₁ ¹⁾	l ₁	d ₁ ¹⁾	l ₁																					
9	22000	30	70	25	60	120	115	65	2.5	67.5	24	428	350	356	119	456	165	320	388	6±1.5	18	24	280	7		
10	31000	30	70	25	60	130	125	70	2.5	72.5	28	472	394	400	119	476	174	320	436	8±1.5	18	28	330	9		
11	42000	30	70	25	60	140	135	82.5	2.5	85	32	525	425	436	119	507	204	320	485	8±1.5	22	20	390	15		
12	60000	30	70	25	60	160	155	90	2.5	92.5	34	605	495	510	119	521	224	320	555	8±1.5	26	20	530	20		
13	83000	30	70	25	60	180	175	95	2.5	97.5	39	645	535	554	119	579	241	320	595	11±1.5	26	24	670	21		
14	117000	30	70	25	60	210	205	105	2.5	107.5	42	720	610	629	119	602	278	320	665	9	26	32	940	33		
16	160000	35	80	28	60	230	225	110	2.5	112.5	44	770	660	680	137	693	285	375	715	10	26	36	1137	42		
17	202000	35	80	28	60	250	245	120	2.5	122.5	50	895	750	765	137	719	294	375	830	10	33	24	1660	60		
18	244000	45	100	35	80	260	255	120	2.5	122.5	50	930	785	815	172	818	303	445	865	10	33	32	2100	70		
19	295000	45	100	35	80	280	275	135	2.5	137.5	56	980	840	870	172	841	327.5	445	915	12	33	36	2200	85		
20	354000	45	100	35	80	300	295	135	2.5	137.5	56	980	840	870	172	841	327.5	445	915	12	33	36	2300	85		
21	392000	45	100	35	80	310	305	152	2.5	154.5	62	1115	935	960	172	897.5	354	445	1025	24	39	32	2930	115		
22	450000	45	100	35	80	330	325	152	2.5	154.5	62	1115	935	960	172	897.5	354	445	1025	24	39	32	3100	115		
23	513000	55	110	40	100	350	345	164	2.5	166.5	68	1210	1025	1050	194	1003	380	520	1120	28	39	36	3800	155		
24	592000	55	110	40	100	360	355	164	2.5	166.5	68	1210	1025	1050	194	1003	380	520	1120	28	39	36	4300	155		
25	684000	55	110	40	100	380	375	180	2.5	182.5	74	1320	1115	1150	194	1065	407	520	1220	29	45	36	5250	195		
26	763000	55	110	40	100	400	395	180	2.5	182.5	74	1320	1115	1150	194	1065	407	520	1220	29	45	36	5660	195		
27	852000	70	135	50	110	430	425	191	2.5	193.5	81	1460	1215	1250	240	1205.5	453	615	1345	31	52	32	6680	250		
28	950000	70	135	50	110	450	445	191	2.5	193.5	81	1460	1215	1250	240	1205.5	453	615	1345	31	52	32	7180	250		
29	1060000	70	135	50	110	460	450	197.5	5	202.5	87	1565	1320	1355	240	1252.5	483	615	1450	34	52	36	8500	310		
30	1200000	70	135	50	110	480	470	197.5	5	202.5	87	1565	1320	1355	240	1252.5	483	615	1450	34	52	36	9070	310		
31~36																										

根据用户要求供货

On request

- 1) 当d₁ ≤ 100时公差为m6, 当d₁ > 100时公差为n6;
- 2) 不含胀紧盘与润滑油的重量;
- 3) 有关平键 (符合GB/T1095-1979) 与中心孔请参照 2 页;
- 4) 孔的分布类型见TP20页;
- 5) 当尺寸 ≤ 160时公差为h6;

- 1) Shaft diameter d₁ ≤ 100, tolerance m6; shaft diameter d₁ > 100, tolerance n6
- 2) Weight without shrink disk and oil
- 3) For parallel key (GB/T1095-1979) and centre hole see page 2
- 4) For hole pattern, see page TP20
- 5) ≤ 160 h6

TP系列行星减速机
TP Series Planetary gear units



型号 TP3K../规格 9...30 / Type TP3K../ Sizes 9...30

		额定功率 P _N											Nominal power ratings (kW)										
iN	n ₁ r/min	n ₂	规格											Sizes									
			9	10	11	12	13	14	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31-36
560	1500	2.68	6.3	9	12	17	24	33	46	58	70	84	101	112	128	146	169	195	218	243	271	303	342
	1000	1.79	4.2	6	8	11	16	22	30	38	46	56	67	75	86	98	113	130	145	162	181	202	228
	750	1.34	3.1	4.4	6	9	12	17	23	29	35	42	51	56	64	73	84	98	109	122	136	151	171
630	1500	2.38	5.6	7.8	11	15	21	30	41	51	62	75	90	99	114	130	150	174	194	216	241	269	304
	1000	1.59	3.7	5.2	7	10	14	20	27	34	41	50	60	66	76	87	100	116	129	144	161	179	203
	750	1.19	2.8	3.9	5	8	11	15	20	26	31	37	45	50	57	65	75	87	97	108	121	134	152
710	1500	2.11	5.0	7	9	14	19	26	36	45	55	66	80	88	101	115	133	154	172	192	214	239	270
	1000	1.41	3.3	4.5	6	9	12	18	24	30	37	44	53	59	68	77	89	103	115	128	143	159	180
	750	1.06	2.5	3.5	5	7	9	13	18	23	27	33	40	44	51	58	67	77	86	96	107	119	135
800	1500	1.88	4.4	6	8	12	17	23	32	40	49	59	71	78	90	102	118	137	152	170	190	212	240
	1000	1.25	2.9	4	6	8	11	16	21	27	32	39	47	52	60	68	79	91	102	113	127	141	160
	750	0.94	2.2	3	4	6	8	12	16	20	24	29	35	39	45	51	59	68	76	85	95	106	120
900	1500	1.67	3.9	5.5	7.5	11	15	21	28	36	43	52	63	70	80	91	105	121	136	151	169	188	213
	1000	1.11	2.6	3.7	5	7	10	14	19	24	29	35	42	46	53	61	70	81	90	101	112	125	142
	750	0.83	2.0	2.7	3.7	5	7	10	14	18	22	26	31	35	40	46	53	61	68	76	84	94	107
1000	1500	1.50	3.5	5	6.7	10	13	19	26	32	39	47	57	63	72	82	95	109	122	136	152	169	192
	1000	1.00	2.3	3.3	4.5	6	9	12	17	22	26	31	38	42	48	55	63	73	81	91	101	113	128
	750	0.75	1.8	2.5	3.4	5	7	9	13	16	19	24	28	31	36	41	47	55	61	68	76	85	96
1120	1500	1.34	3.1	4.4	6	9	12	17	23	29	35	42	51	56	64	73	84	98	109	122	136	151	171
	1000	0.89	2.1	2.9	4	6	8	11	15	19	23	28	34	37	43	49	56	65	73	81	90	101	114
	750	0.67	1.6	2.2	3	4.5	6	8	11	14	17	21	25	28	32	37	42	49	54	61	68	76	86
1250	1500	1.20	2.8	4.0	5.4	8	11	15	20	26	31	38	45	50	58	66	76	87	98	109	121	136	153
	1000	0.80	1.9	2.6	3.6	5	7	10	14	17	21	25	30	33	38	44	50	58	65	73	81	90	102
	750	0.60	1.4	2.0	2.7	4	5	7	10	13	16	19	23	25	29	33	38	44	49	54	61	68	77
1400	1500	1.07	2.5	3.5	4.8	7	9	13	18	23	28	34	40	45	51	59	68	78	87	97	108	121	137
	1000	0.71	1.7	2.4	3.2	5	6	9	12	15	19	22	27	30	34	39	45	52	58	65	72	81	91
	750	0.54	1.3	1.8	2.4	3.5	4.5	7	9	12	14	17	20	22	26	29	34	39	44	49	54	61	68
1600	1500	0.94	2.2	3.1	4.2	6	8	12	16	20	24	29	35	39	45	51	59	68	76	85	95	106	120
	1000	0.63	1.5	2.1	2.8	4	6	8	11	13	16	20	24	26	30	34	39	46	51	57	63	71	80
	750	0.47	1.1	1.5	2.1	3	4	6	8	10	12	15	18	20	22	26	30	34	38	43	47	53	60
1800	1500	0.83	2.0	2.8	3.7	5	7	10	14	18	22	26	31	35	40	46	53	61	68	76	84	94	107
	1000	0.56	1.3	1.8	2.5	4	5	7	9	12	14	17	21	23	27	30	35	40	45	50	56	63	71
	750	0.42	1.0	1.4	1.9	2.7	3.7	5.2	7.1	9	11	13	16	17	20	23	26	30	34	38	42	47	53
2000	1500	0.75	1.8	2.5	3.4	4.8	6.6	9.4	12.8	16	19	24	28	31	36	41	47	55	61	68	76	85	96
	1000	0.50	1.2	1.7	2.2	3.2	4.4	6.2	8.5	11	13	16	19	21	24	27	32	36	41	45	51	56	64
	750	0.38	0.9	1.2	1.7	2.4	3.3	4.7	6.4	8	10	12	14	16	18	20	24	27	30	34	38	42	48
2240	1500	0.67	1.6	2.2	3	4.3	5.9	8.3	11.4	14	17	21	25	28	32	37	42	49	54	61	68	76	86
	1000	0.45	1.0	1.5	2	2.9	3.9	5.6	7.6	10	12	14	17	19	21	24	28	33	36	41	45	50	57
	750	0.33	0.8	1.1	1.5	2.1	3.0	4.2	5.7	7.2	8.7	10.5	12.6	14	16	18	21	24	27	30	34	38	43
2500	1500	0.60	1.4	2.0	2.7	3.8	5.3	7.5	10.2	12.9	16	19	23	25	29	33	38	44	49	54	61	68	77
	1000	0.40	0.9	1.3	1.8	2.6	3.5	5.0	6.8	8.6	10.4	12.6	15.1	17	19	22	25	29	33	36	40	45	51
	750	0.30	0.7	1.0	1.3	1.9	2.7	3.7	5.1	6.5	7.8	9.4	11.3	13	14	16	19	22	24	27	30	34	38
2800	1500	0.54	1.3	1.8	2.4	3.4	4.7	6.7	9.1	12	14	17	20	22	26	29	34	39	44	49	54	61	68
	1000	0.36	0.8	1.2	1.6	2.3	3.2	4.5	6.1	7.7	9.3	11.2	13.5	15	17	20	23	26	29	32	36	40	46
	750	0.27	0.6	0.9	1.2	1.7	2.4	3.3	4.6	5.8	7.0	8.4	10.1	11.2	13	15	17	20	22	24	27	30	34
3150	1500	0.48	1.1	1.6	2.1	3.0	4.2	5.9	8.1	10.2	12	15	18	20	23	26	30	35	39	43	48	54	61
	1000	0.32	0.7	1.0	1.4	2.0	2.8	4.0	5.4	6.8	8.3	10	12	13.3	15	17	20	23	26	29	32	36	41
	750	0.24	0.6	0.8	1.1	1.5	2.1	3.0	4.1	5.1	6.2	7.5	9	9.9	11	13	15	17	19	22	24	27	30
3550	1500	0.42	1.0	1.4	1.9	2.7	3.7	5.3	7.2	9.1	11	13	16	18	20	23	27	31	34	38	43	48	54
	1000	0.28	0.7	0.9	1.3	1.8	2.5	3.5	4.8	6.1	7.3	8.9	10.6	11.8	14	15	18	21	23	26	29	32	36
	750	0.21	0.5	0.7	0.9	1.4	1.9	2.6	3.6	4.5	5.5	6.6	8	8.8	10	12	13	15	17	19	21	24	27
4000	1500	0.38	0.9	1.2	1.7	2.4	3.3	4.7	6.4	8.1	9.7	12	14	16	18	20	24	27	30	34	38	42	48
	1000	0.25	0.6	0.8	1.1	1.6	2.2	3.1	4.3	5.4	6.5	7.9	9.4	10.4	12	14	16	18	20	23	25	28	32
	750	0.19	0.4	0.6	0.8	1.2	1.7	2.3	3.2	4	4.9	5.9	7.1	7.8	9	10	12	14	15	17	19	21	24

根据用户要求供货
On request

		热功率 P _{G1} *											Thermal capacities P _{G1} *				
		规格											Sizes				
安装类型 Settings		9	10	11	12	13	14	16	17	18	19/20	21/22	23/24	25/26	27/28	29/30	31-36
狭小空间 ¹⁾ Small confined spaces		10	12	15	20	23	31	35	43	47	56	67	82	95	109	125	根据用户要求供货
室内大厅 ²⁾ Large halls, workshops		14	17	21	28	33	44	50	61	66	79	95	116	106	125	144	根据用户要求供货
室外 ³⁾ In the open		19	24	28	38	44	59	67	83	90	107	128	157	166	195	225	On request

★) 用于水平安装形式, 其它安装形式请与我们联系。

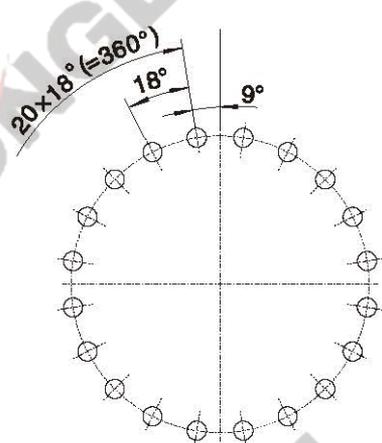
★) Values apply to horizontal mounting position, for other mounting positions please refer to us.

- 1) 风速 ≥ 0.5m/s
- 2) 风速 ≥ 1.4m/s
- 3) 风速 ≥ 3.7m/s

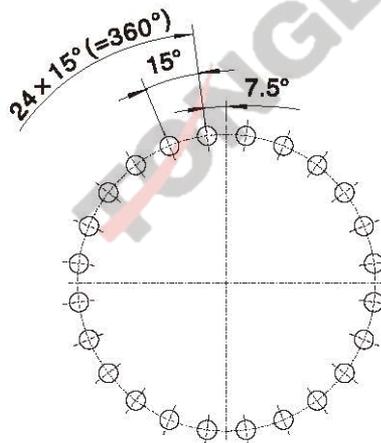
- 1) Wind velocity ≥ 0.5m/s
- 2) Wind velocity ≥ 1.4m/s
- 3) Wind velocity ≥ 3.7m/s

輸出法蘭孔布置形式 / Hole Patterns on Output Flange

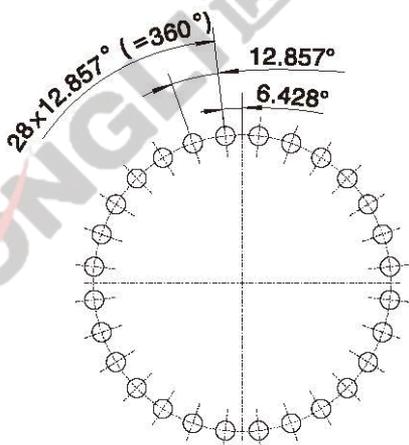
從輸出端看
 Viewing on output shaft



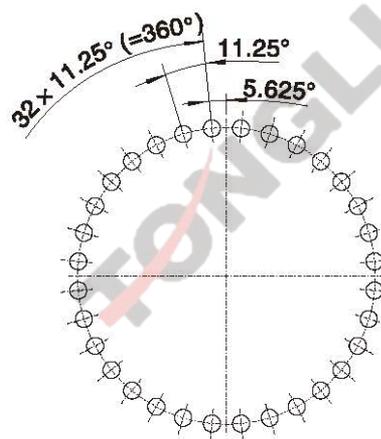
規格/Size: 11、12



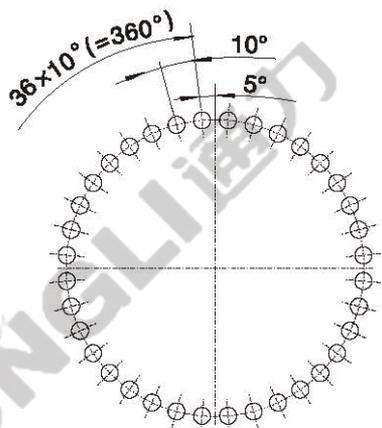
規格/Size: 9、13、17



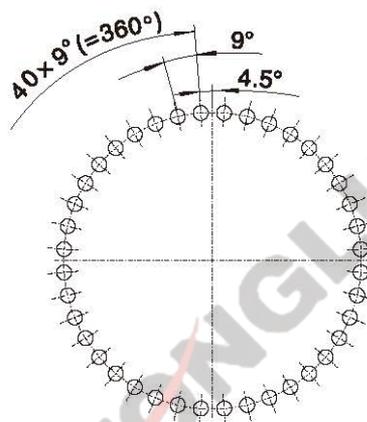
規格/Size: 10



規格/Size: 14、18、21、22、27、28、31、32



規格/Size: 16、19、20、23、24、25、26、29、30、33、34



規格/Size: 35、36

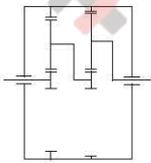
TP系列行星减速机
TP Series Planetary gear units



型号 TP2N.., TP2S.. / 实际传动比 / Types TP2N.., TP2S.. / Actual ratios

规格 Size TP2N..	实际传动比 Actual Ratios				
	25	28	31.5	35.5	40
9	25.634	28.058	31.142	35.201	40.781
10	25.634	28.058	31.142	35.201	40.781
11	25.875	28.233	31.207	35.072	40.301
12	24.983	27.260	30.130	33.863	38.912
13	24.958	27.318	30.321	34.272	39.706
14	24.958	27.318	30.321	34.272	39.706
16	24.750	27.090	30.068	33.987	39.375
17	24.750	27.090	30.068	33.987	39.375
18	24.958	27.318	30.321	34.272	39.706
19/20	26.622	29.139	32.342	36.557	42.353
21/22	26.622	29.139	32.342	36.557	42.353
23/24	26.872	29.321	32.409	36.424	41.855
25/26	26.872	29.321	32.409	36.424	41.855
27/28	26.622	29.139	32.342	36.557	42.353
29/30	26.622	29.139	32.342	36.557	42.353
31/32	26.872	29.321	32.409	36.424	41.855
33/34	26.622	29.139	32.342	36.557	42.353
35/36	26.872	29.321	32.409	36.424	41.855

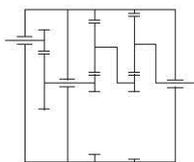
TP2N..



$i_N=25...40$

规格 Size TP2S..	实际传动比 Actual Ratios									
	45	50	56	63	71	80	90	100	112	125
9	45.601	51.544	59.715	61.953	71.775	78.782	91.272	99.735	115.547	124.743
10	45.601	51.544	59.715	61.953	71.775	78.782	91.272	99.735	115.547	124.743
11	43.209	48.561	55.802	63.399	72.853	81.303	93.426	99.678	114.541	123.143
12	41.719	46.887	53.878	61.213	70.340	78.499	90.205	96.241	110.591	118.897
13	43.797	49.505	57.353	59.977	69.485	78.827	91.324	95.963	111.176	119.118
14	43.797	49.505	57.353	59.977	69.485	78.827	91.324	95.963	111.176	119.118
16	42.318	47.833	55.417	61.438	71.178	78.788	91.278	96.594	111.908	120.586
17	42.318	47.833	55.417	61.438	71.178	78.788	91.278	96.594	111.908	120.586
18	42.867	48.454	56.136	60.320	69.882	78.976	91.496	95.963	111.176	119.118
19/20	45.725	51.684	59.878	64.341	74.541	84.241	97.596	102.36	118.588	127.059
21/22	46.357	52.399	60.706	66.084	76.561	84.746	98.182	103.90	120.370	129.412
23/24	45.373	50.993	58.597	64.442	74.051	82.781	95.124	101.602	116.753	125.564
25/26	45.373	50.993	58.597	64.442	74.051	82.781	95.124	101.602	116.753	125.564
27/28	46.948	53.067	61.480	66.345	76.863	84.241	97.596	102.36	118.59	127.06
29/30	46.948	53.067	61.480	66.345	76.863	84.241	97.596	102.36	118.59	127.06
31/32	45.575	51.221	58.858	66.102	75.958	83.932	96.448	104.30	119.86	127.56
33/34	45.481	51.409	59.559	66.345	76.863	84.241	97.596	104.69	121.28	129.08
35/36	45.373	50.993	58.597	65.562	75.338	81.252	93.368	100.53	115.52	129.20

TP2S..

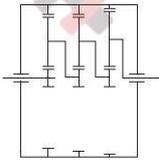


$i_N=45...125$

型号 TP3N..., TP3S.. / 实际传动比 / Types TP3N..., TP3S.. / Actual ratios

规格 Size TP3N..	实际传动比 Actual Ratios						
	140	160	180	200	225	250	280
9	146.81	165.95	192.25	210.43	233.57	264.01	305.86
10	146.81	165.95	192.25	210.43	233.57	264.01	305.86
11	147.12	165.34	189.99	207.96	230.82	260.90	302.26
12	142.04	159.64	183.44	200.79	222.86	251.90	291.84
13	142.94	161.57	187.19	204.88	227.41	257.04	297.79
14	142.94	161.57	187.19	204.88	227.41	257.04	297.79
16	143.08	161.73	187.37	204.45	225.98	253.97	291.84
17	143.08	161.73	187.37	204.45	225.98	253.97	291.84
18	142.94	161.57	187.19	204.88	227.41	257.04	297.79
19/20	152.47	172.34	199.66	218.54	242.57	274.18	317.65
21/22	152.47	172.34	199.66	218.54	242.57	274.18	317.65
23/24	152.79	171.71	197.32	215.97	239.71	270.95	313.91
25/26	152.79	171.71	197.32	215.97	239.71	270.95	313.91
27/28	152.47	172.34	199.66	218.54	242.57	274.18	317.65
29/30	152.47	172.34	199.66	218.54	242.57	274.18	317.65
31/32	152.79	171.71	197.32	215.97	239.71	270.95	313.91
33/34	153.90	173.96	201.54	219.91	243.07	273.18	313.91
35/36	154.22	173.33	199.17	217.32	240.21	269.96	310.22

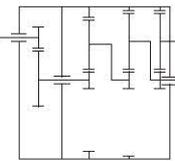
TP3N..



$i_N=140...280$

规格 Size TP3S..	实际传动比 Actual Ratios										
	280	315	355	400	450	500	560	630	710	800	900
9	295.21	333.68	386.58	401.07	464.65	510.01	590.87	645.65	748.01	807.54	935.57
10	295.21	333.68	386.58	401.07	464.65	510.01	590.87	645.65	748.01	807.54	935.57
11	295.82	332.46	382.03	399.60	459.18	508.15	583.92	643.29	739.21	798.04	924.56
12	285.62	320.99	368.86	385.82	443.35	490.62	563.78	621.11	713.72	770.53	892.68
13	287.42	324.88	376.38	390.49	452.40	496.56	575.29	628.63	728.29	786.25	910.90
14	287.42	324.88	376.38	390.49	452.40	496.56	575.29	628.63	728.29	786.25	910.90
16	268.53	303.53	351.65	396.27	459.10	508.18	588.75	623.03	721.81	776.02	891.73
17	268.53	303.53	351.65	396.27	459.10	508.18	588.75	623.03	721.81	776.02	891.73
18	283.53	320.48	371.28	388.27	449.83	510.30	591.20	621.23	719.72	771.13	893.38
19/20	302.43	341.84	396.04	414.16	479.81	544.32	630.61	662.65	767.70	822.54	952.94
21/22	302.43	341.84	396.04	414.16	479.81	544.32	630.61	662.65	767.70	822.54	952.94
23/24	295.28	331.86	381.34	426.24	489.80	546.61	628.12	670.15	770.08	829.80	961.35
25/26	295.28	331.86	381.34	426.24	489.80	546.61	628.12	670.15	770.08	829.80	961.35
27/28	296.01	334.59	387.83	416.52	482.56	545.35	631.81	662.65	767.70	822.54	952.94
29/30	296.01	334.59	387.83	416.52	482.56	545.35	631.81	662.65	767.70	822.54	952.94
31/32	300.72	337.97	388.37	426.24	489.80	546.61	628.12	670.15	770.08	827.92	959.17
33/34	292.05	330.11	382.45	417.18	483.31	535.90	620.86	657.74	762.02	819.53	941.73
35/36	292.66	328.90	377.95	415.65	477.63	533.94	613.55	655.34	753.05	809.89	930.65

TP3S..



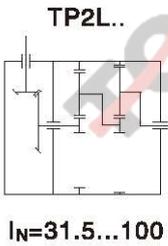
$i_N=280...900$

TP系列行星减速机
TP Series Planetary gear units

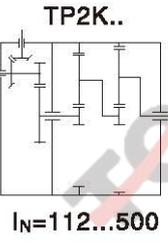


型号 TP2L.., TP2K.., TP3K.. / 实际传动比 / Types TP2L.., TP2K.., TP3K.. / Actual ratios

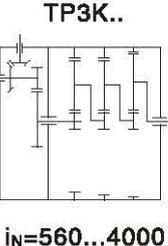
规格 Size TP2L..	实际传动比 Actual Ratios											
	31.5	35.5	40	45	50	56	63	71	80	90	100	
9	32.5354	35.6114	39.5264	43.8820	50.4205	55.7279	60.4522	69.6116	79.0529	86.2395	98.2172	
10	32.5354	35.6114	39.5264	43.8820	50.4205	55.7279	60.4522	69.6116	79.0529	86.2395	98.2172	
11	32.8413	35.8344	39.6083	43.4178	50.5248	55.8432	60.5774	69.7558	79.9667	86.4181	98.4206	
12	31.7089	34.5987	38.2425	41.9206	48.7826	53.9176	58.4885	67.3504	77.2092	83.4381	95.0268	
13	31.6774	34.6724	38.4842	42.1855	49.0910	54.2584	62.3262	67.7760	77.6972	83.9655	95.6273	
14	31.6774	34.6724	38.4842	42.1855	49.0910	54.2584	62.3262	67.7760	77.6972	83.9655	95.6273	
16	31.4135	34.3835	38.1635	41.8340	48.6818	53.8062	61.8068	67.2113	77.0497	83.2657	94.8304	
17	31.4135	34.3835	38.1635	41.8340	48.6818	53.8062	61.8068	67.2113	77.0497	83.2657	94.8304	
18	31.4286	34.4000	38.1818	43.1490	49.0910	54.8663	62.3262	67.7760	77.6972	83.9655	95.6273	
19/20	33.5238	36.6933	40.7273	46.0255	52.3636	58.5241	66.4813	72.2944	82.8770	89.5631	102.0025	
21/22	33.5238	36.6933	40.7273	46.0255	52.3636	58.5241	66.4812	72.2944	82.8770	89.5631	102.0025	
23/24	33.8391	36.9231	40.8116	46.1208	52.4720	58.6452	66.6189	72.4441	83.0486	89.7486	102.2137	
25/26	33.8391	36.9231	40.8116	46.1208	52.4720	58.6452	66.6189	72.4441	83.0486	89.7486	102.2137	
27/28	33.5238	36.6933	40.7273	46.0255	52.0288	58.5241	66.4813	72.2944	82.8770	89.5631	102.0025	
29/30	33.5238	36.6933	40.7273	46.0255	52.0288	58.5241	66.4813	72.2944	82.8770	89.5631	102.0025	



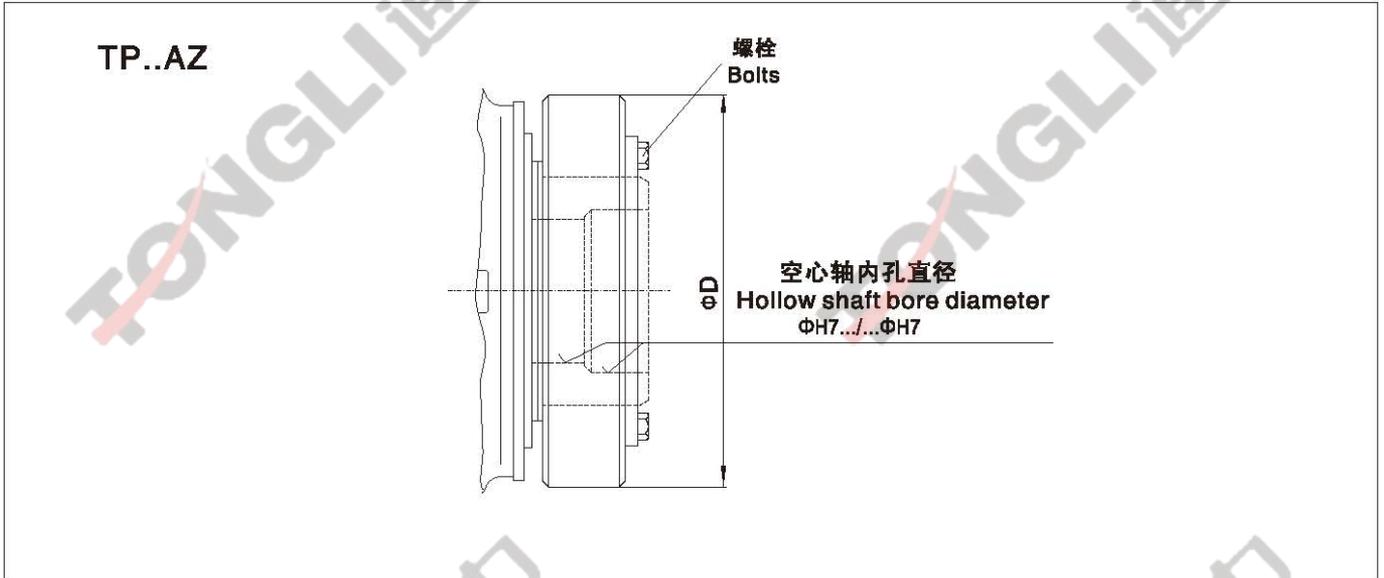
规格 Size TP2K..	实际传动比 Actual Ratios													
	112	125	140	160	180	200	225	250	280	320	360	400	450	500
9	111.25	125.75	145.69	157.28	175.77	203.53	223.22	242.15	278.84	316.65	345.44	393.42	442.27	487.63
10	111.25	125.75	145.69	157.28	175.77	203.53	223.22	242.15	278.84	316.65	345.44	393.42	442.27	487.63
11	111.83	125.68	144.42	155.27	173.52	200.92	220.36	239.04	275.26	312.60	341.01	388.38	436.6	481.38
12	107.97	121.35	139.44	149.91	167.54	193.99	212.78	230.80	265.77	301.82	329.25	374.98	421.54	464.78
13	107.76	121.80	141.11	151.19	167.85	192.86	213.16	231.23	266.26	302.38	329.86	375.68	422.33	465.64
14	107.76	121.80	141.11	151.19	167.85	192.86	213.16	231.23	266.26	302.38	329.86	375.68	422.33	465.64
16	108.47	122.60	142.04	153.05	167.77	195.23	215.79	234.08	269.55	309.00	333.93	380.31	427.53	471.38
17	108.47	122.60	142.04	153.05	167.77	195.23	215.79	234.08	269.55	309.00	333.93	380.31	427.53	471.38
18	107.76	121.80	141.11	151.19	165.73	192.86	213.16	244.85	266.26	305.24	329.86	375.68	422.33	465.64
19/20	114.94	129.92	150.52	161.27	176.78	205.71	227.37	261.18	284.01	325.59	351.86	400.72	450.48	496.68



规格 Size TP3K..	实际传动比 Actual Ratios																	
	560	630	710	800	900	1000	1120	1250	1400	1600	1800	2000	2240	2500	2800	3150	3550	4000
9	566.22	640.02	700.53	777.54	878.88	982.19	1137.3	1247.3	1353.1	1558.1	1769.4	1930.3	2198.4	2471.3	2724.8	3105.0	3597.2	4167.5
10	566.22	640.02	700.53	777.54	878.88	982.19	1137.3	1247.3	1353.1	1558.1	1769.4	1930.3	2198.4	2471.3	2724.8	3105.0	3597.2	4167.5
11	567.40	637.68	697.96	774.70	875.66	978.60	1133.1	1242.8	1348.1	1552.4	1762.9	1923.2	2190.3	2462.3	2714.8	3093.6	3584.1	4118.5
12	547.83	615.69	673.90	747.98	845.46	944.85	1094.0	1199.9	1301.6	1498.9	1702.1	1856.9	2114.8	2377.4	2621.2	2986.9	3460.5	3976.5
13	551.29	623.14	682.06	757.04	855.70	956.30	1107.3	1214.4	1317.4	1517.0	1722.8	1879.4	2140.4	2406.1	2652.9	3023.1	3502.4	4057.6
14	551.29	623.14	682.06	757.04	855.70	956.30	1107.3	1214.4	1317.4	1517.0	1722.8	1897.4	2140.4	2406.1	2652.9	3023.1	3502.4	4057.6
16	551.25	623.09	679.88	751.48	844.56	943.84	1092.9	1198.6	1300.2	1497.3	1700.3	1854.9	2112.5	2374.8	2618.4	2983.8	3428.7	3972.2
17	551.25	623.09	679.88	751.48	844.56	943.84	1092.9	1198.6	1300.2	1497.3	1700.3	1854.9	2112.5	2374.8	2618.4	2983.8	3428.7	3972.2
18	544.28	615.21	673.37	747.40	844.81	937.90	1077.6	1191.1	1292.1	1487.8	1689.6	1843.2	2099.2	2359.9	2601.9	2965.0	3435.0	3979.6
19/20	580.56	656.22	718.27	797.23	901.13	1000.4	1149.5	1270.5	1378.2	1587.0	1802.3	1966.1	2239.2	2517.2	2775.4	3162.6	3664.0	4244.9
21/22	580.56	656.22	718.27	797.23	901.13	1000.4	1149.5	1270.5	1378.2	1587.0	1802.3	1966.1	2239.2	2517.2	2775.4	3162.6	3664.0	4244.9
23/24	593.88	667.44	730.55	810.87	916.54	1004.7	1169.1	1292.2	1401.8	1614.2	1850.4	1999.7	2277.5	2560.2	2822.8	3216.7	3726.7	4282.4
25/26	593.88	667.44	730.55	810.87	916.54	1004.7	1169.1	1292.2	1401.8	1614.2	1850.4	1999.7	2277.5	2560.2	2822.8	3216.7	3726.7	4282.4
27/28	580.56	656.22	718.27	797.23	901.13	987.80	1149.5	1270.5	1459.4	1587.0	1819.3	1966.1	2239.2	2517.2	2775.4	3126.6	3664.0	4244.9
29/30	580.56	656.22	718.27	797.23	901.13	987.80	1149.5	1270.5	1459.4	1587.0	1819.3	1966.1	2239.2	2517.2	2775.4	3126.6	3664.0	4244.9



规格 9...36 / 带胀紧盘空心输出轴 / Sizes 9...36 / Hollow Output Shaft for Shrink Disk

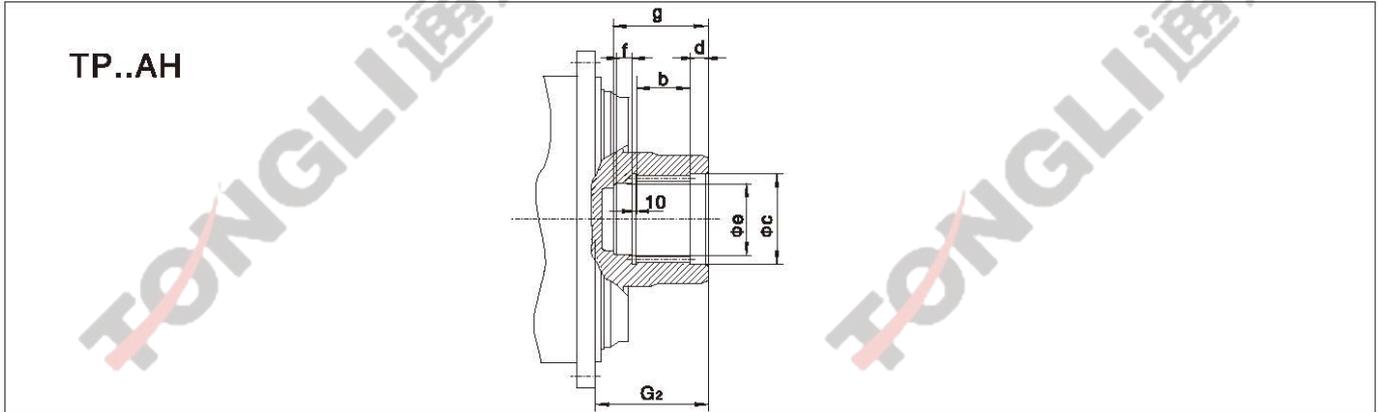


机座号 Size	输出扭矩 Output torque T _{2N} (N.m)	胀 紧 盘 Shrink disk				重 量 Weight (kg)
		内 径 Size	D	螺 栓 Bolts		
				型号 Size	拧紧力矩 (N.m) Tightening torque	
9	22000	155	263	M12	100	15
10	31000	165	290	M16	240	22
11	42000	185	330	M16		37
12	60000	220	370	M16		54
13	83000	240	405	M20	470	67
14	117000	280	460	M20		102
16	160000	300	485	M20		118
17	202000	320	520	M20	820	131
18	244000	340	570	M20		186
19	295000	360	590	M20		204
20	354000	380	650	M24	1210	250
21	392000	390	650	M24		250
22	450000	420	670	M24		300
23	513000	440	740	M24	1640	400
24	592000	460	770	M24		420
25	684000	480	800	M24		500
26	763000	500	850	M27	2210	570
27	852000	530	910	M27		740
28	950000	560	940	M27		770
29	1060000	560	940	M27	900	770
30	1200000	590	980	M27		900
31	1330000	590	980	M27		900
32	1500000	620	1020	M30	1640	1080
33	1680000	660	1070	M30		1190
34	1920000	700	1140	M33		2210	1345
35	2240000	750	1150	M33	1346	
36	2600000	800	1230	M33	1646	

TP系列行星减速机
TP Series Planetary gear units



规格 9...30 / 渐开线花键空心输出轴 / Sizes 9...30 / Hollow Output Shaft with Involute Splines

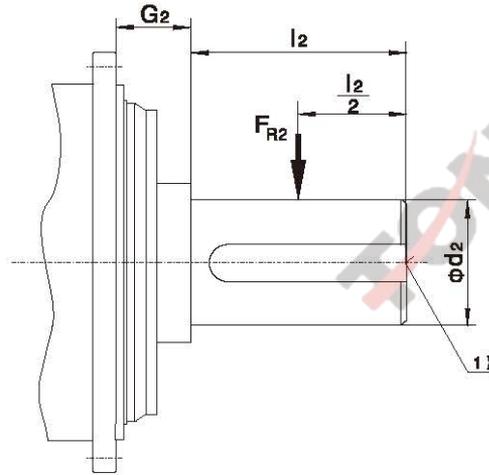


机座号 Size	输出扭矩 Output torque T _{2N} (N.m)	渐开线花键空心输出轴 Hollow output shaft with involute splines							
		内花键规格 Involute splines acc.to DIN 5480 1)	b	c H7	d	e H7	f	G ₂	g
9	22000	120×5×30×22×9H	70	122	40	107	20	165	140
10	31000	130×5×30×24×9H	80	132	40	117	20	174	155
11	42000	140×5×30×26×9H	90	142	45	125	25	204	170
12	60000	160×5×30×30×9H	100	162	45	145	25	223	190
13	83000	180×5×30×34×9H	110	182	45	165	25	237	200
14	117000	210×5×30×40×9H	125	212	45	195	25	264	215
16	160000	240×8×30×28×9H	140	242	50	220	25	285	235
17	202000	250×8×30×30×9H	150	252	50	230	30	290	250
18	244000	260×8×30×31×9H	160	262	50	240	30	303	260
19	295000	280×8×30×34×9H	170	282	50	260	30	327.5	270
20	354000	300×8×30×36×9H	180	302	50	280	30	327.5	280
21	392000	310×8×30×37×9H	190	312	60	290	40	354	310
22	450000	330×8×30×40×9H	200	332	60	310	40	354	320
23	513000	340×8×30×41×9H	200	342	60	320	40	348	320
24	592000	360×8×30×44×9H	220	362	60	340	40	368	340
25	684000	380×8×30×46×9H	230	382	60	360	40	372	350
26	763000	400×8×30×48×9H	240	402	60	380	40	382	360
27	852000	440×8×30×54×9H	250	442	60	420	40	423	370
28	950000	450×8×30×55×9H	260	452	65	430	40	428	385
29	1060000	460×8×30×56×9H	270	462	65	440	45	433	400
30	1200000	480×8×30×58×9H	285	482	65	460	45	448	415

机座号 Size	输出扭矩 Output torque T _{2N} (N.m)	渐开线花键空心输出轴 Hollow output shaft with involute splines							
		内花键规格 Involute splines acc.to GB/T3478.1	b	c H7	d	e H7	f	G ₂	g
9	22000	22z×5m×30p×6H	70	122	40	105	20	165	140
10	31000	24z×5m×30p×6H	80	132	40	115	20	174	155
11	42000	26z×5m×30p×6H	90	142	45	125	25	204	170
12	60000	30z×5m×30p×6H	100	162	45	145	25	223	190
13	83000	34z×5m×30p×6H	110	182	45	165	25	237	200
14	117000	40z×5m×30p×6H	125	212	45	195	25	264	215
16	160000	28z×8m×30p×6H	140	242	50	215	25	285	235
17	202000	30z×8m×30p×6H	150	255	50	230	30	290	250
18	244000	31z×8m×30p×6H	160	262	50	240	30	303	260
19	295000	33z×8m×30p×6H	170	282	50	255	30	327.5	270
20	354000	36z×8m×30p×6H	180	302	50	280	30	327.5	280
21	392000	37z×8m×30p×6H	190	312	60	285	40	354	310
22	450000	40z×8m×30p×6H	200	335	60	310	40	354	320
23	513000	41z×8m×30p×6H	200	342	60	320	40	348	320
24	592000	43z×8m×30p×6H	220	362	60	335	40	368	340
25	684000	46z×8m×30p×6H	230	382	60	360	40	372	350
26	763000	48z×8m×30p×6H	240	402	60	375	40	382	360
27-30		根据用户要求供货 Provided according to customer's requirements.							

规格 9...36 / 带平键实心输出轴 / Sizes 9...36 / Solid Output Shaft with Parallel Key

TP..BS



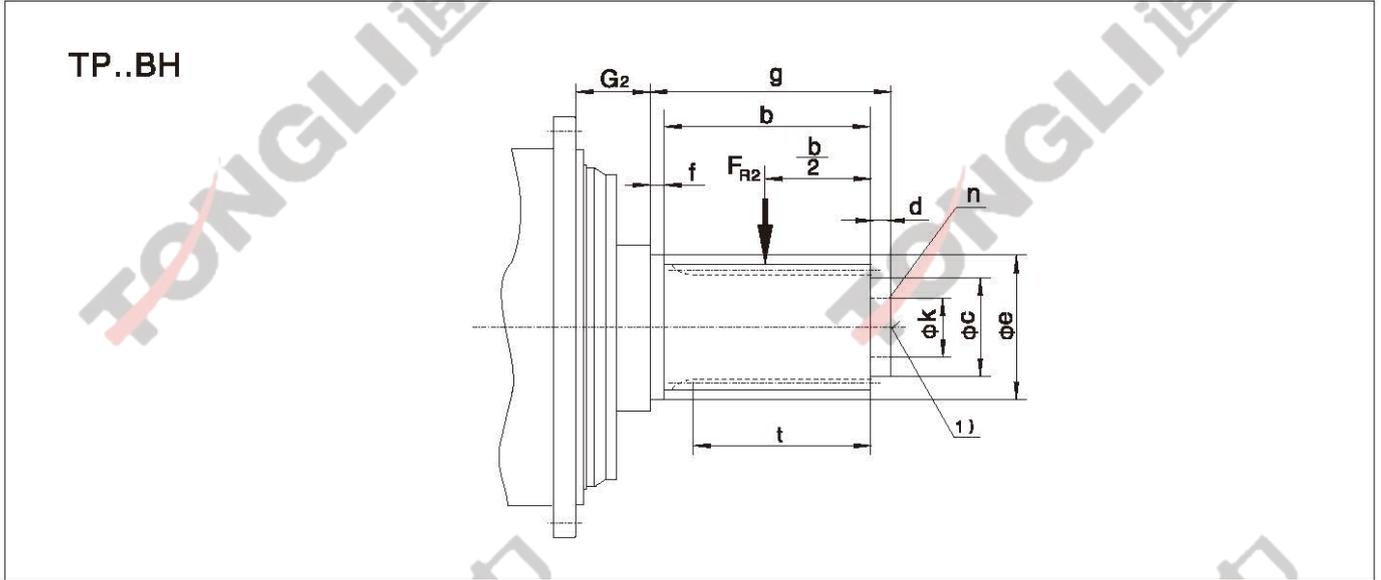
机座号 Size	输出扭矩 Output torque T _{2N} (N.m)	实 心 轴			F _{R2}
		d ₂ n6	l ₂	G ₂	
9	22000	120	210	95	请 咨 询 Please consult us
10	31000	130	210	95	
11	42000	150	240	109	
12	60000	160	270	106	
13	83000	180	310	118	
14	117000	210	350	139	
16	160000	230	350	142	
17	202000	250	400	139	
18	244000	260	400	134	
19	295000	280	450	148.5	
20	354000	300	500	148.5	
21	392000	310	500	158	
22	450000	330	500	158	
23	513000	350	550	175	
24	592000	360	590	175	
25	684000	380	590	182	
26	763000	400	650	182	
27	852000	430	690	196.5	
28	950000	450	750	196.5	
29	1060000	460	750	209	
30	1200000	480	790	209	
31	1330000	500	790	232	
32	1500000	510	850	232	
33	1680000	530	900	251	
34	1920000	570	950	251	
35	2240000	600	1000	267	
36	2600000	640	1000	267	

1) 有关平键 (符合GB/T1095-1979) 与中心孔请参照 2 页; 1) For parallel key (GB/T1095-1979) and centre hole see page 2

TP系列行星减速机
TP Series Planetary gear units



规格 9...30 / 渐开线花键实心输出轴 / Sizes 9..30 / Solid Output Shaft with Involute Splines

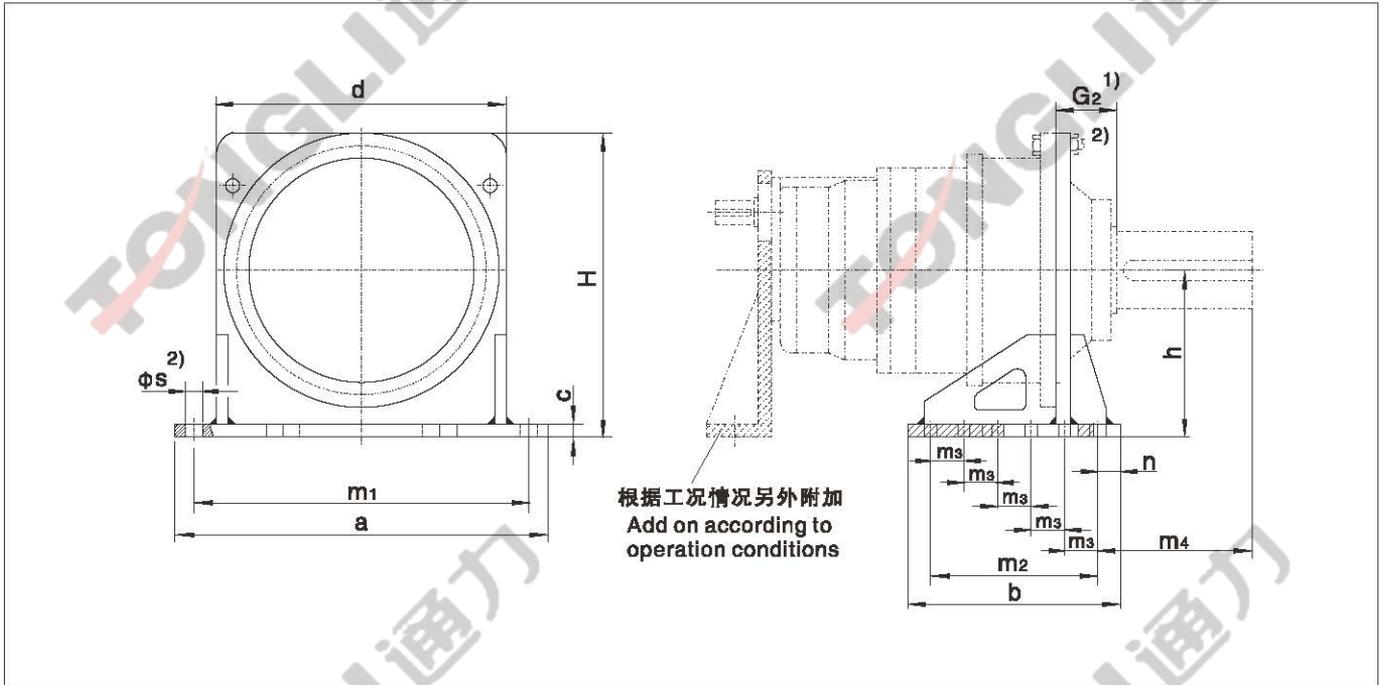


机座号 Size	输出扭矩 Output torque T _{2N} (N.m)	渐开线花键实心输出轴		Solid output shaft with involute splines											
		外花键规格 Involute splines acc.to		t	b	c k ₆	d	e k ₆	f	g	k	n	G ₂	F _{R2}	
		DIN 5480	GB/T3478.1												
9	22000	130×5×30×24×8m	25z×5m×30p×5h	70	80	110	20	132	20	120	80	3×M16×24	95	请咨询 Please cons- ult us	
10	31000	140×5×30×26×8m	27z×5m×30p×5h	80	90	120	20	142	20	130	90	3×M16×24	95		
11	42000	160×5×30×30×8m	31z×5m×30p×5h	90	100	140	25	162	25	150	110	3×M16×24	109		
12	60000	180×5×30×34×8m	35z×5m×30p×5h	100	110	90	25	182	25	160	130	3×M16×24	106		
13	83000	200×5×30×38×8m	39z×5m×30p×5h	110	120	100	30	202	25	175	140	3×M16×24	118		
14	117000	220×5×30×42×8m	43z×5m×30p×5h	125	135	120	30	222	30	195	160	3×M16×24	139		
16	160000	250×8×30×30×8m	30z×8m×30p×5h	140	155	140	35	252	30	220	185	3×M20×30	142		
17	202000	260×8×30×31×8m	31z×8m×30p×5h	150	165	155	40	262	35	240	200	3×M20×30	139		
18	244000	280×8×30×34×8m	34z×8m×30p×5h	160	175	170	40	282	35	250	215	3×M20×30	134		
19	295000	300×8×30×36×8m	36z×8m×30p×5h	170	185	180	40	302	35	260	225	3×M20×30	148.5		
20	354000	310×8×30×37×8m	37z×8m×30p×5h	180	195	190	40	312	35	270	235	6×M20×30	148.5		
21	392000	320×8×30×38×8m	39z×8m×30p×5h	190	205	200	40	322	35	280	250	6×M20×30	158		
22	450000	340×8×30×41×8m	41z×8m×30p×5h	200	215	210	40	342	35	290	265	6×M20×30	158		
23	513000	360×8×30×44×8m	44z×8m×30p×5h	200	215	230	40	362	35	290	275	6×M20×30	175		
24	592000	380×8×30×46×8m	46z×8m×30p×5h	220	235	245	40	382	35	310	290	6×M20×30	175		
25	684000	400×8×30×48×8m	49z×8m×30p×5h	230	245	260	40	402	35	320	310	6×M24×36	182		
26	763000	420×8×30×51×8m	51z×8m×30p×5h	240	255	280	40	422	35	330	330	6×M24×36	182		
27-30		根据用户要求供货													

1) 有关平键 (符合GB/T1095-1979) 与中心孔请参照 2 页 1) For parallel key (GB/T1095-1979) and centre hole see page 2

TP

附件 / Add-on Piece 96
减速机底座 / Gear Housing Base



机座号 Size	尺寸 Dimensions											螺栓孔 Foundation bolt		重量 Weight
	a	b	c	d	h	H	m ₁	m ₂	m ₃	m ₄	n	s	数量 Qty.	
9	580	330	20	450	260	480	520	260	130	240	35	26	2×3	56
10	630	360	25	500	280	525	570	290	145	240	35	26	2×3	82
11	680	400	30	550	315	585	620	330	110	274	35	26	2×4	122
12	760	450	30	630	360	670	700	380	95	292	35	26	2×5	157
13	820	490	35	680	390	720	750	420	105	334	35	26	2×5	213
14	920	560	35	760	430	800	840	480	120	380	40	33	2×5	270
16	980	580	40	820	470	865	900	500	125	374	40	33	2×5	350
17	1130	670	45	940	540	998	1040	580	145	405	45	39	2×5	520
18	1180	720	45	980	560	1035	1080	620	155	385	50	39	2×5	580
19	1260	760	50	1050	590	1090	1160	640	160	450	60	45	2×5	720
20	1260	760	50	1050	590	1090	1160	640	160	500	60	45	2×5	720
21	1440	840	55	1170	660	1228	1320	700	175	513	70	52	2×5	940
22	1440	840	55	1170	660	1228	1320	700	175	513	70	52	2×5	940
23	1540	910	60	1270	730	1345	1420	750	150	567	80	52	2×6	1275
24	1540	910	60	1270	730	1345	1420	750	150	607	80	52	2×6	1275
25	1700	1000	65	1400	795	1465	1550	860	215	574	70	62	2×5	1670
26	1700	1000	65	1400	795	1465	1550	860	215	634	70	62	2×5	1670
27	1850	1100	70	1550	870	1610	1700	950	190	664	75	62	2×6	2170
28	1850	1100	70	1550	870	1610	1700	950	190	724	75	62	2×6	2170
29	1980	1180	75	1640	925	1715	1820	1000	250	731	90	70	2×5	2650
30	1980	1180	75	1640	925	1715	1820	1000	250	771	90	70	2×5	2650
31	2150	1300	75	1750	1000	1845	1950	1100	220	773	100	70	2×6	3100
32	2150	1300	75	1750	1000	1845	1950	1100	220	833	100	70	2×6	3100
33	2230	1350	85	1850	1050	1940	2050	1150	230	883	100	78	2×6	3850
34	2230	1350	85	1850	1050	1940	2050	1150	230	933	100	78	2×6	3850
35+36	根据用户要求供货											On request		

TP
28

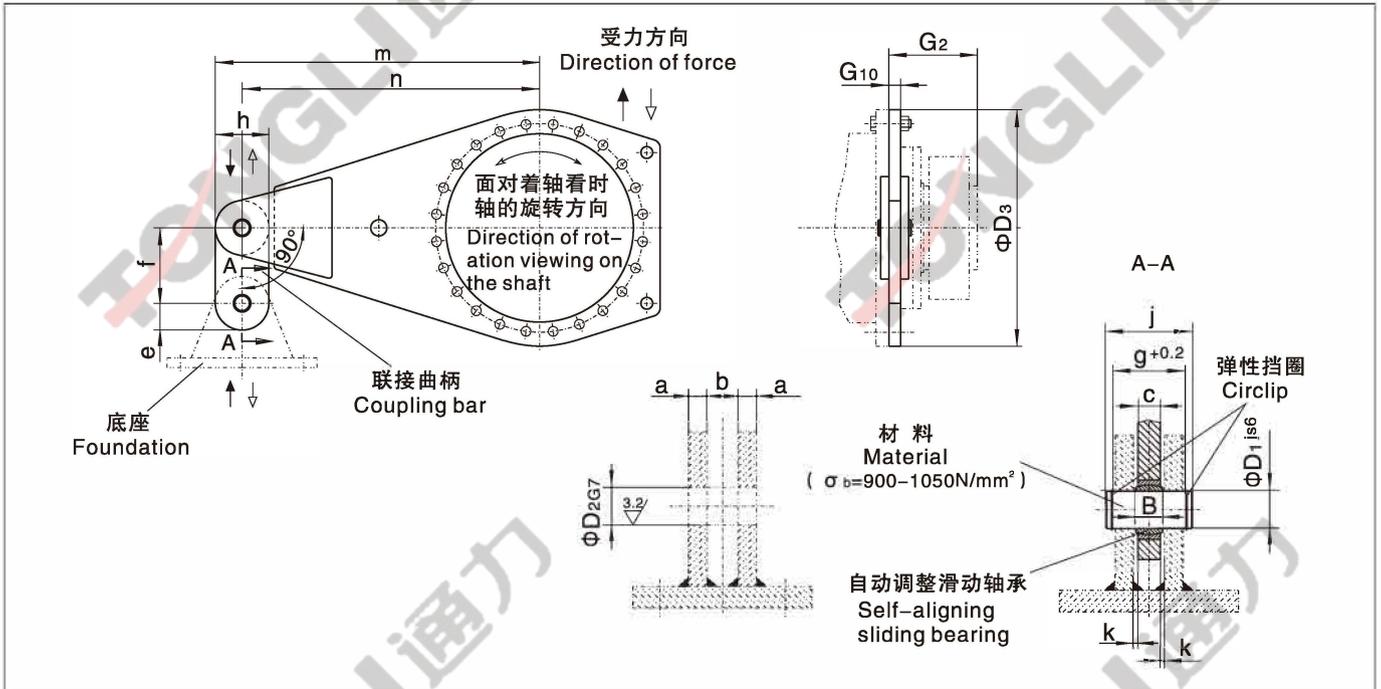
1) 输出轴的尺寸, 见TP26页

1) For output shaft dimensions, see page TP26



附件 / Add-on Piece 75

单侧扭矩支撑臂 / Torque Reaction Arm on One Side



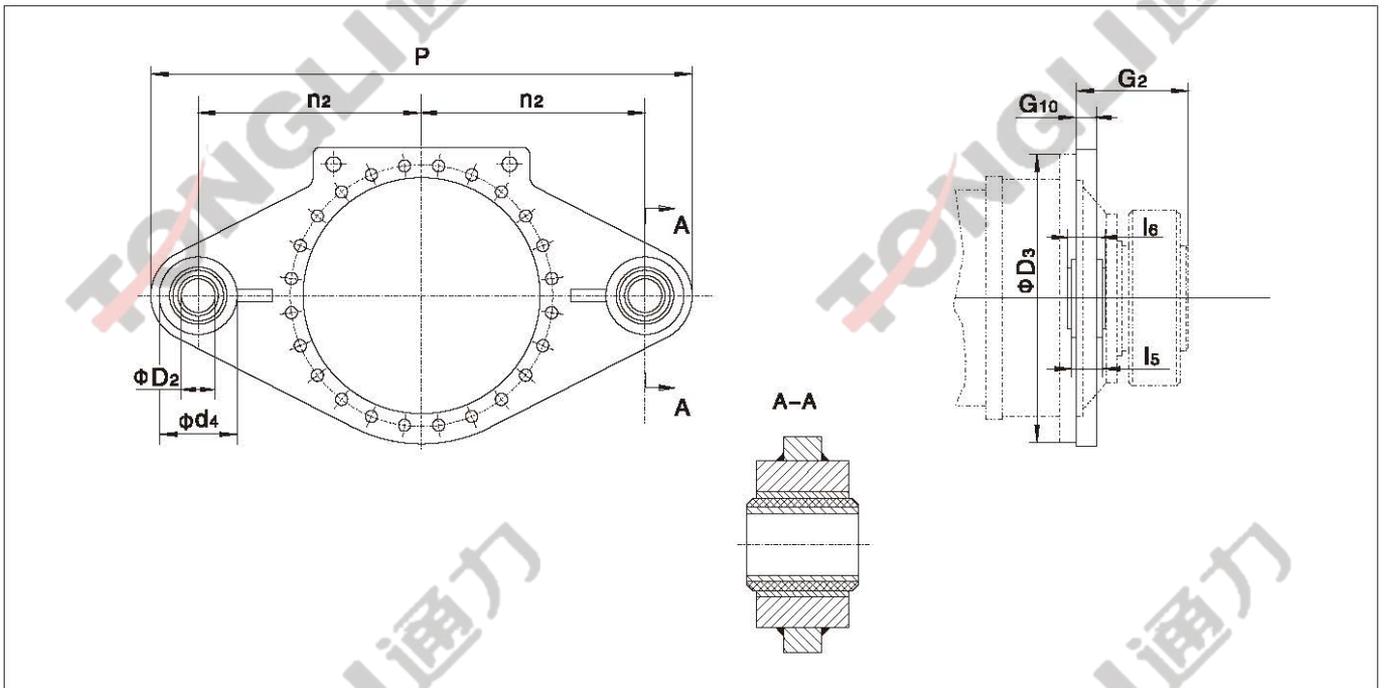
机座号 Size	输出扭矩 Output torque T _{2N} (N.m)	D ₁ js6	D ₂ G7	D ₃	G ₂	G ₁₀	a min	b	B 1)	c	e	f	g +0.2	h	j	间隙 Clearance k	m	n	滑动 轴承 内径 Sliding bearing	重量 Wei- ght
9	22000	30	440	165	25	15	25	22	18	50	140	59.5	100	70	3.5	605	555	30	38	
10	31000	35	485	174	30	15	30	25	20	52.5	140	64.5	105	75	5	667.5	615	35	51	
11	42000	40	540	204	30	18	30	28	22	65	160	70.5	130	85	4	750	685	40	82	
12	60000	40	620	224	30	18	30	28	22	65	160	70.5	130	85	4	850	785	40	85	
13	83000	45	665	241	35	20	35	32	25	72.5	180	79.5	145	95	5	912.5	840	45	113	
14	117000	50	740	278	40	20	40	35	30	72.5	200	85	145	100	5	1012.5	940	50	145	
16	160000	60	790	285	50	25	50	44	35	77.5	240	105	155	120	7.5	1077.5	1000	60	206	
17	202000	60	915	294	50	25	50	44	35	85	240	105	170	120	7.5	1250	1165	60	274	
18	244000	70	955	303	55	30	55	49	40	105	280	120	210	135	7.5	1315	1210	70	365	
19	295000	80	1005	327.5	60	30	60	55	45	105	320	125	210	145	7.5	1405	1300	80	423	
20	354000	80	1005	327.5	60	30	60	55	45	105	320	125	210	145	7.5	1405	1300	80	423	
21	392000	80	1140	354	60	30	60	55	45	113	320	125	225	145	7.5	1562.5	1450	80	530	
22	450000	80	1140	354	60	30	60	55	45	113	320	125	225	145	7.5	1562.5	1450	80	530	
23	513000	90	1235	380	65	30	65	60	50	125	360	130	250	150	7.5	1700	1575	90	665	
24	592000	90	1235	380	65	30	65	60	50	125	360	130	250	150	7.5	1700	1575	90	665	
25	684000	100	1350	407	75	35	75	70	55	138	400	150	275	170	10	1857.5	1720	100	940	
26	763000	100	1350	407	75	35	75	70	55	138	400	150	275	170	10	1857.5	1720	100	940	
27	852000	110	1490	453	75	35	75	70	55	150	440	150	300	175	10	2050	1900	110	1120	
28	950000	110	1490	453	75	35	75	70	55	150	440	150	300	175	10	2050	1900	110	1120	
29	1060000	110	1600	483	75	35	75	70	55	158	440	150	315	175	10	2192.5	2035	110	1260	
30	1200000	110	1600	483	75	35	75	70	55	158	440	150	315	175	10	2192.5	2035	110	1260	
31~36	根据用户要求供货										On request									

1) 公称尺寸 B=22-35, 公差-0.12
公称尺寸 B=44-55, 公差-0.15
公称尺寸 B=60-70, 公差-0.20

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

附件 / Add-on Piece 76

帶橡膠衬套的兩側扭矩支撐臂 / Torque Reaction Arm on Two Sides with Rubber Bushes



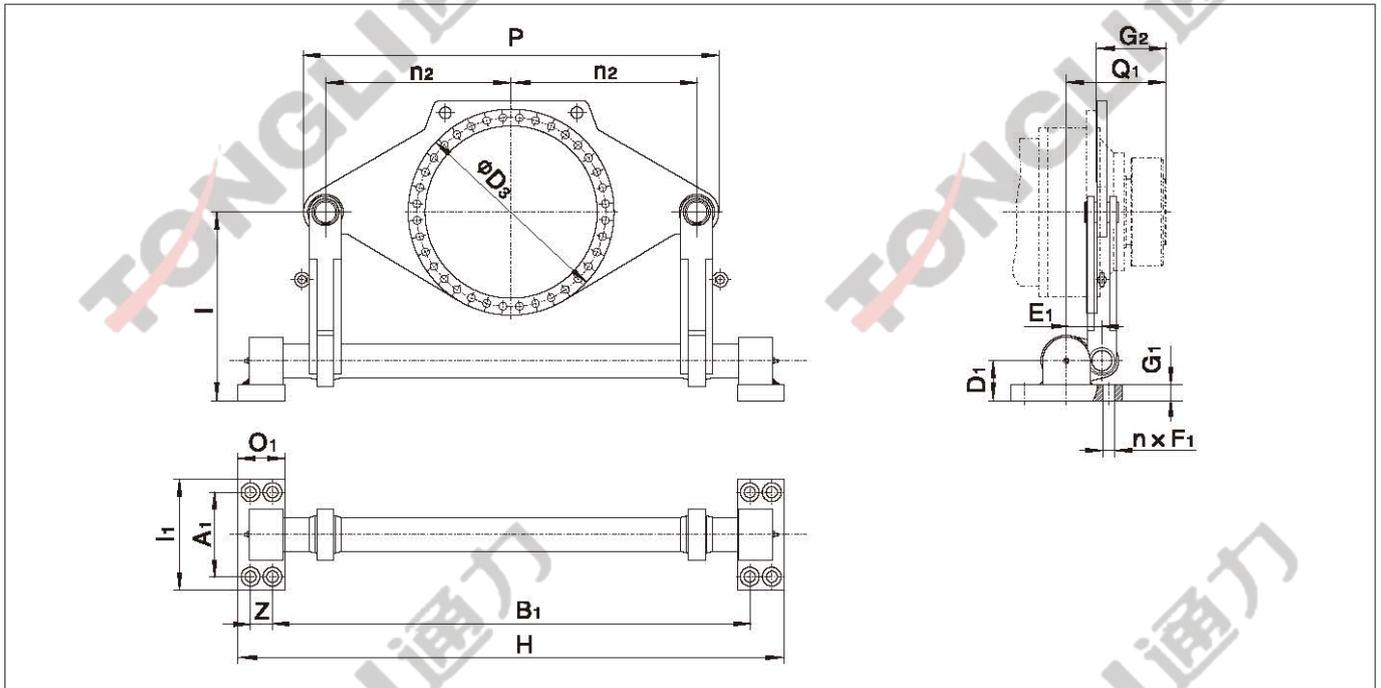
機座號 Size	輸出扭矩 Output torque T _{2N} (N.m)	D ₂ H ₉	D ₃	d ₄	G ₂	G ₁₀	l ₅	l ₆	n ₂	P	重量 Weight
9	22000	50	440	115	165	30	100	110	500	1140	58
10	31000	50	485	115	174	30	100	110	550	1240	72
11	42000	100	540	180	204	30	110	120	575	1355	95
12	60000	100	620	180	224	35	110	120	625	1455	120
13	83000	110	665	210	241	35	170	180	600	1435	145
14	117000	110	740	210	278	40	170	180	650	1535	170
16	160000	124	790	240	285	40	220	230	700	1670	230
17	202000	124	915	240	288	40	220	230	750	1770	300
18	244000	124	955	240	303	50	220	230	900	2070	400

*) 銷軸: Φh8 *) Pin: Φh8

TP系列行星减速机
TP Series Planetary gear units



附件 / Add-on Piece 77
扭力轴支撑架 / Torsion Shaft Support



机座号 Size	输出扭矩 Output torque T_2N (N.m)	A ₁	B ₁	D ₃	D ₁	E ₁	F ₁ 2)	数量 Qty. n	G ₁	G ₂	H	I	I ₁	n ₂	O ₁	P	Q ₁	Z	重量 Weight	
9	22000	250	1414	610	120	105	33	8	48.5	165	1619	560	330	550	140	1230	247.5	65	300	
10	31000	250	1414	610	120	105	33	8	48.5	174	1619	560	330	550	140	1230	256.5	65	300	
11	42000	250	1414	610	120	105	33	8	48.5	204	1619	560	330	550	140	1230	286.5	65	300	
12	60000	250	1414	610	120	105	33	8	48.5	224	1619	560	330	550	140	1230	306.5	65	300	
13	83000	280	1604	775	155	145	39	8	68.5	241	1837	620	380	650	158	1450	358.5	75	600	
14	117000	280	1604	775	155	145	39	8	68.5	278	1837	620	380	650	158	1450	395.5	75	600	
16	160000	280	1604	775	155	145	39	8	68.5	285	1837	620	380	650	158	1450	402.5	75	600	
17	202000	315	1777	955	170	165	39	8	73.5	294	2041	700	400	750	180	1680	431.5	84	900	
18	244000	315	1777	955	170	165	39	8	73.5	303	2041	700	400	750	180	1680	440.5	84	900	
19	295000	350	2000	985	195	175	45	8	83.5	328	2300	860	450	850	200	1900	470.5	100	1400	
20	354000	350	2000	985	195	175	45	8	83.5	328	2300	860	450	850	200	1900	470.5	100	1400	
21	392000	400	2254	1120	210	190	45	8	88.5	354	2591	900	530	950	225	2110	506.5	113	1700	
22	450000	400	2254	1120	210	190	45	8	88.5	354	2591	900	530	950	225	2110	506.5	113	1700	
23	513000	450	2496	1215	235	220	45	8	98.5	380	2871	1060	590	1063	250	2385	562.5	125	2150	
24	592000	450	2496	1215	235	220	45	8	98.5	380	2871	1060	590	1063	250	2385	562.5	125	2150	
25	684000	500	2816	1350	275	245	52	8	118.5	407	3236	1200	650	1150	280	2600	614.5	140	2700	
26	763000	500	2816	1350	275	245	52	8	118.5	407	3236	1200	650	1150	280	2600	614.5	140	2700	
27	852000	530	2887	1490	300	255	52	8	128.5	453	3327	1250	700	1250	290	2820	670.5	150	3400	
28	950000	530	2887	1490	300	255	52	8	128.5	453	3327	1250	700	1250	290	2820	670.5	150	3400	
29	1060000	560	3200	1565	300	280	62	8	128.5	483	3673	1350	750	1360	315	3080	718	158	4350	
30	1200000	560	3200	1565	300	280	62	8	128.5	483	3673	1350	750	1360	315	3080	718	158	4350	
31	1330000	590	3408	1695	340	300	70	8	148.5	538	3906	1400	790	1450	330	3260	788	168	5500	
32	1500000	590	3408	1695	340	300	70	8	148.5	538	3906	1400	790	1450	330	3260	788	168	5500	
33	1680000	620	3588	1785	375	320	70	8	158.5	573	4116	1500	840	1550	350	3520	840.5	178	7000	
34	1920000	620	3588	1785	375	320	70	8	158.5	573	4116	1500	840	1550	350	3520	840.5	178	7000	
35+36		根据用户要求供货										On request								

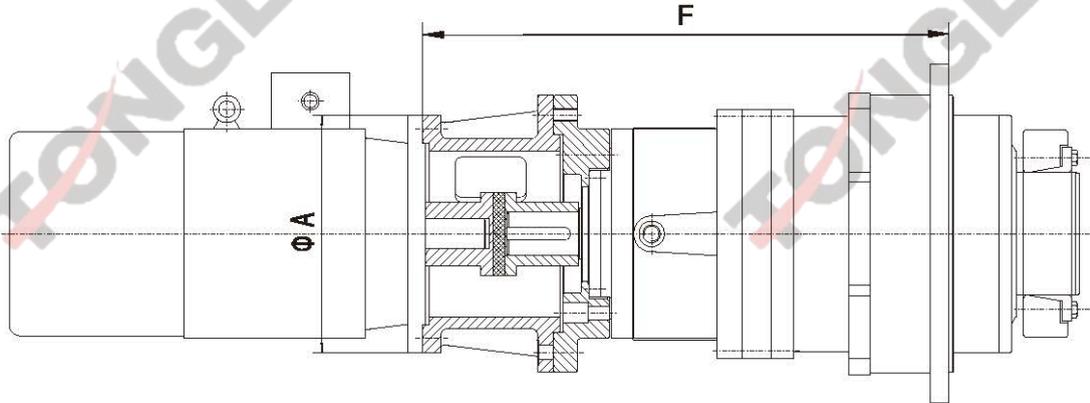
- 1) 标准尺寸, 整体高度可修正到2000mm
2) 锁紧用螺栓强度不得低于6.8级

- 1) Standard dimension, overall height modifiable up to 2000 mm
2) The bolts used for lock are not lower than class 6.8

TP系列行星减速机
TP Series Planetary gear units



附件/Add-on piece 70
电机钟形支座/Electric bell bearing



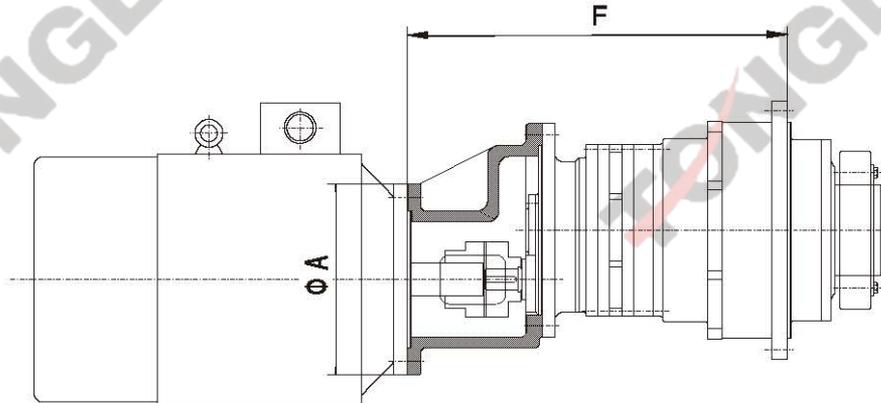
TP2N...												
电机功率 KW(4P)	9		10		11		12		13		14	
	F	A	F	A	F	A	F	A	F	A	F	A
2.2-4												
5.5-7.5	668	300	688	300								
11-15	700	350	720	350								
18.5-22	700	350	720	350								
30	702	400	722	400	844	400	858	400				
37-45	739	450	759	450	881	450	895	450	1036	450	1059	450
55	739	550	759	550	881	550	895	550	1036	550	1059	550
75-90	739	550	759	550	881	550	895	550	1036	550	1059	550

TP3N...																
电机功率 KW(4P)	9		10		11		12		13		14		16		17	
	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A
2.2-4																
5.5-7.5	764	300	784	300	815	300	829	300	887	300	910	300				
11-15	796	350	816	350	847	350	861	350	919	350	942	350				
18.5-22	796	350	816	350	847	350	861	350	919	350	942	350				
30	798	400	818	400	849	400	863	400	921	400	944	400	1118	400	1144	400
37-45	835	450	855	450	886	450	900	450	958	450	981	450	1155	450	1181	450
55	835	550	855	550	886	550	900	550	958	550	981	550	1155	550	1181	550
75-90	835	550	855	550	886	550	900	550	958	550	981	550	1155	550	1181	550

TP3N...										
电机功率 KW(4P)	18		19		20		21		22	
	F	A	F	A	F	A	F	A	F	A
37-45	1335	450	1358.5	450	1358.5	450	1415	450	1415	450
55	1335	550	1358.5	550	1358.5	550	1415	550	1415	550
75-90	1335	550	1358.5	550	1358.5	550	1415	550	1415	550

注：电机55kW（含）以上需加辅助支撑

附件/Add-on piece 70
电机钟形支座/Electric bell bearing



TP2S...																	
电机功率 KW(4P)	9		10		11		12		13		14		16		17		
	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	
2.2-4	615	250	635	250													
5.5-7.5	636	300	656	300	765	300	779	300									
11-15	674	350	694	350	805	350	819	350									
18.5-22	674	350	694	350	805	350	819	350	972	350	995	350					
30	667	400	687	400	805	400	819	400	972	400	995	400					
37-45	697	450	717	450	834	450	848	450	998	450	1021	450	1159	450	1185	450	
55	697	550	717	550	820	550	834	550	986	550	1009	550	1159	550	1185	550	
75-90					820	550	834	550	986	550	1009	550	1159	550	1185	550	

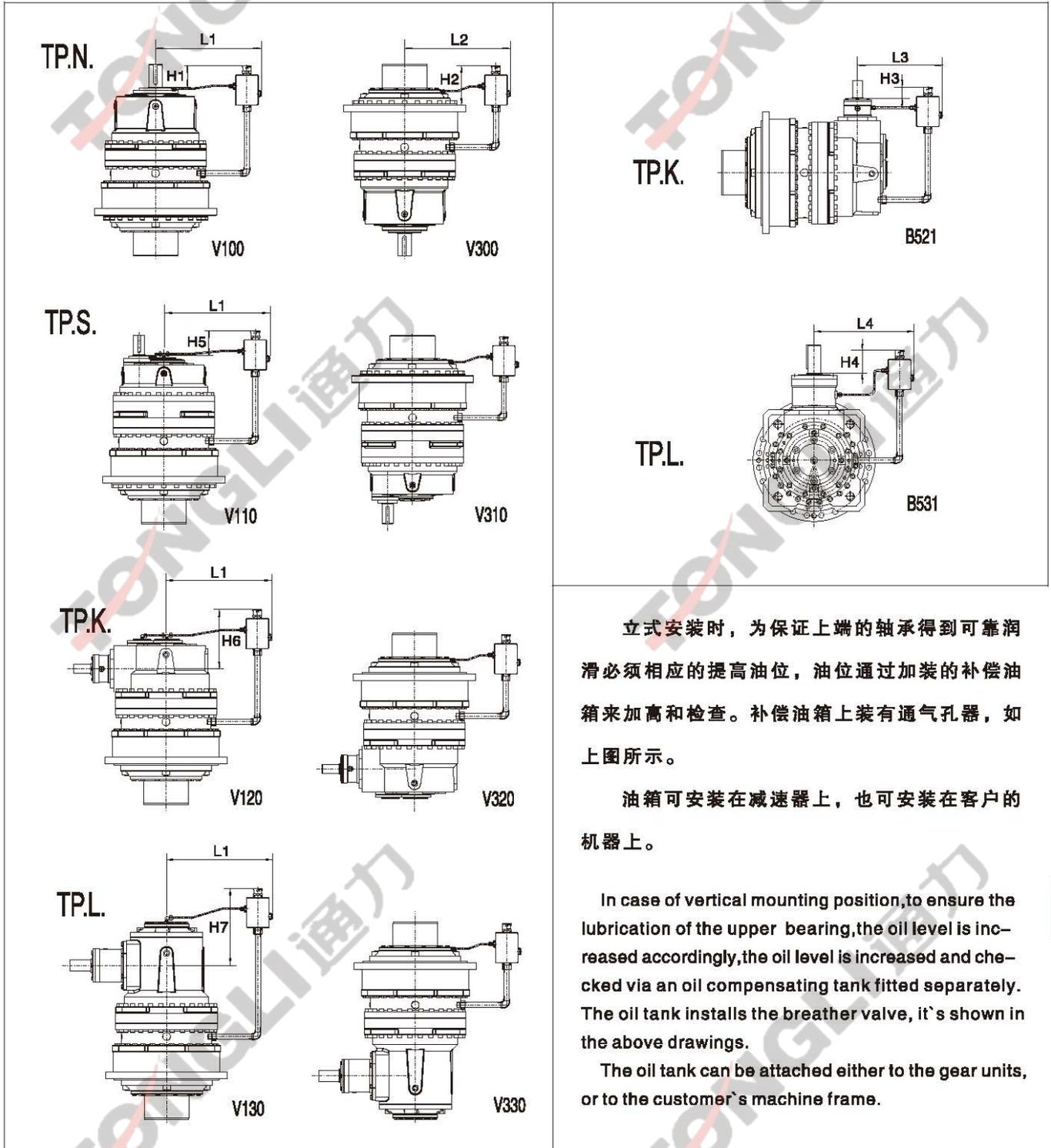
TP3S...																	
电机功率 KW(4P)	9		10		11		12		13		14		16		17		
	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	
2.2-4	711	250	731	250	762	250	776	250	834	250	857	250					
5.5-7.5	732	300	752	300	783	300	797	300	855	300	878	300	1039	300	1065	300	
11-15	770	350	790	350	821	350	835	350	893	350	916	350	1079	350	1105	350	
18.5-22	770	350	790	350	821	350	835	350	893	350	916	350	1079	350	1105	350	
30	763	400	783	400	814	400	828	400	886	400	909	400	1079	400	1105	400	
37-45	793	450	813	450	844	450	858	450	916	450	939	450	1108	450	1134	450	
55	793	550	813	550	844	550	858	550	916	550	939	550	1094	550	1120	550	

TP3S...																			
电机功率 KW(4P)	18		19		20		21		22		23		24		25		26		
	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	
18.5-22	1271	350	1294.5	350	1294.5	350	1351	350	1351	350									
30	1271	400	1294.5	400	1294.5	400	1351	400	1351	400									
37-45	1297	450	1320.5	450	1320.5	450	1377	450	1377	450	1530	450	1530	450	1592	450	1592	450	
55	1285	550	1308.5	550	1308.5	550	1365	550	1365	550	1530	550	1530	550	1592	550	1592	550	
75-90	1285	550	1308.5	550	1308.5	550	1365	550	1365	550	1530	550	1530	550	1592	550	1592	550	

注：电机55kW（含）以上需加辅助支撑



补偿油箱/Compensation tank



立式安装时，为保证上端的轴承得到可靠润滑必须相应的提高油位，油位通过加装的补偿油箱来加高和检查。补偿油箱上装有通气孔器，如上图所示。

油箱可安装在减速器上，也可安装在客户的机器上。

In case of vertical mounting position, to ensure the lubrication of the upper bearing, the oil level is increased accordingly, the oil level is increased and checked via an oil compensating tank fitted separately. The oil tank installs the breather valve, it's shown in the above drawings.

The oil tank can be attached either to the gear units, or to the customer's machine frame.

补偿油箱/Compensation tank

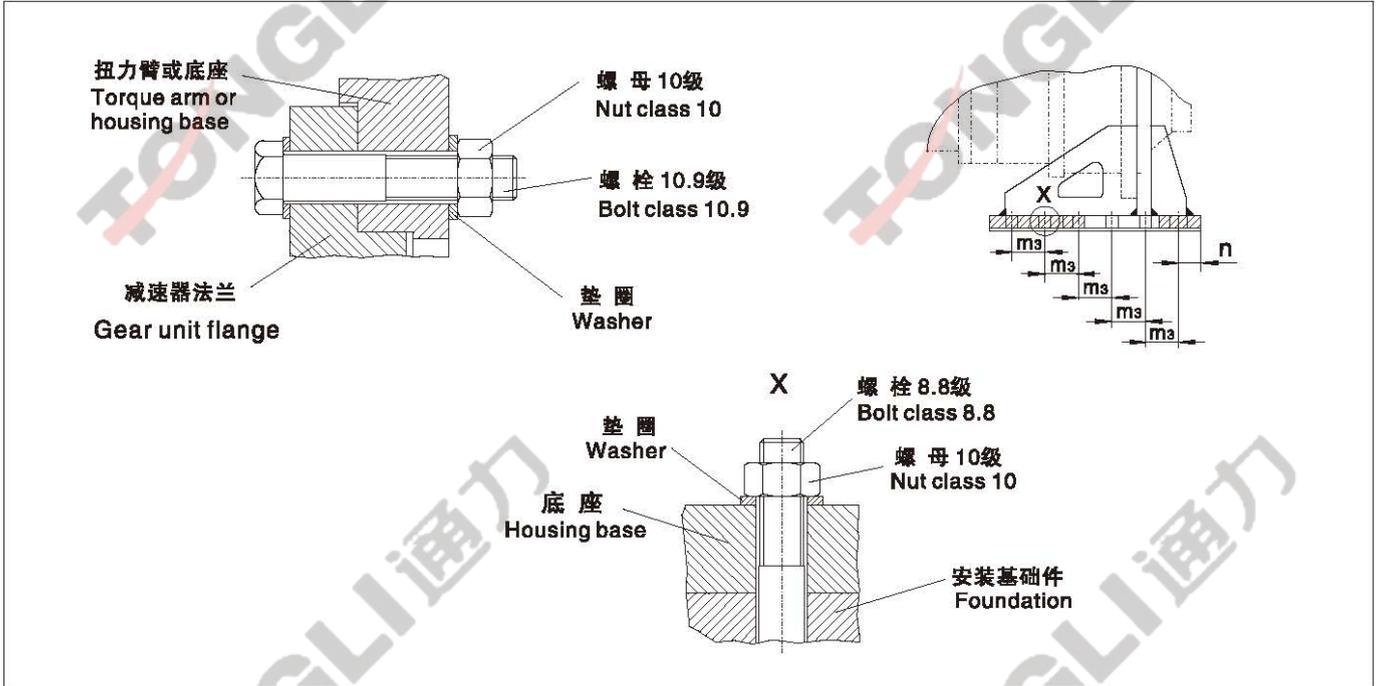
规格	L1	L2	L3	L4	H1	H2	H3	H4	H5	H6	H7
9	346(371)	396	397.5	428	137	245	132	114	127(146)	274 (288)	314
10	365(390)	415	397.5	428	137	245	132	114	127(146)	274 (293)	314
11	394.5(414.5)	444.5	429 (397.5)	415	123	259	124.5(132)	109	118(146)	281 (288)	339
12	436.5(456.5)	486.5	429 (397.5)	415	141	267	124.5(132)	109	116(149)	284 (296)	337
13	494.5(474.5)	538.5	447.5 (393.5)	443	145	272	122(132)	99	125(146)	333.5 (288)	393
14	552(512)	586	447.5 (393.5)	443	143	276	122(132)	99	128(149)	331.5 (291)	396
16	583(593)	603	469 (443)	548	159.5	307.5	143(168)	132.5	139.5(157.5)	381 (325.5)	448.5
17	638	658	469 (443)	548	159.5	301.5	143(168)	132.5	139.5(157.5)	381.5 (325.5)	448.5
18	658	720	505 (468.5)	598	147.5	299.5	54.5(165.5)	17.5	127.5(150.5)	410 (353.5)	494.5
19	675	695	505 (468.5)	598	150.5	308	139.5(165.5)	127.5	140.5(183.5)	413.5 (352)	497.5
20	675	695	505 (468.5)	598	150.5	313	139.5(165.5)	127.5	140.5(183.5)	413.5 (352)	497.5
21	760(790)	810	485.5	703	199.5	357.5	205.5	132.5	174.5 (192.5)	396	577.5
22	770(790)	810	485.5	703	199.5	357.5	205.5	132.5	174.5 (192.5)	396	577.5
23	815(835)	865	489	703	180.5	367.5	183	132.5	180.5	420.5	573.5
24	815(835)	865	489	703	180.5	372.5	183	132.5	180.5	420.5	578.5
25	876.5(896.5)	926.5	489	703	177.5	374.5	183	112.5	107.5(197.5)	446.5	653.5
26	876.5(896.5)	926.5	489	703	177.5	374.5	183	112.5	152.5(197.5)	446.5	653.5
27-36											

注:括号内数据为2级和3级参数不一样时, 3级的数据



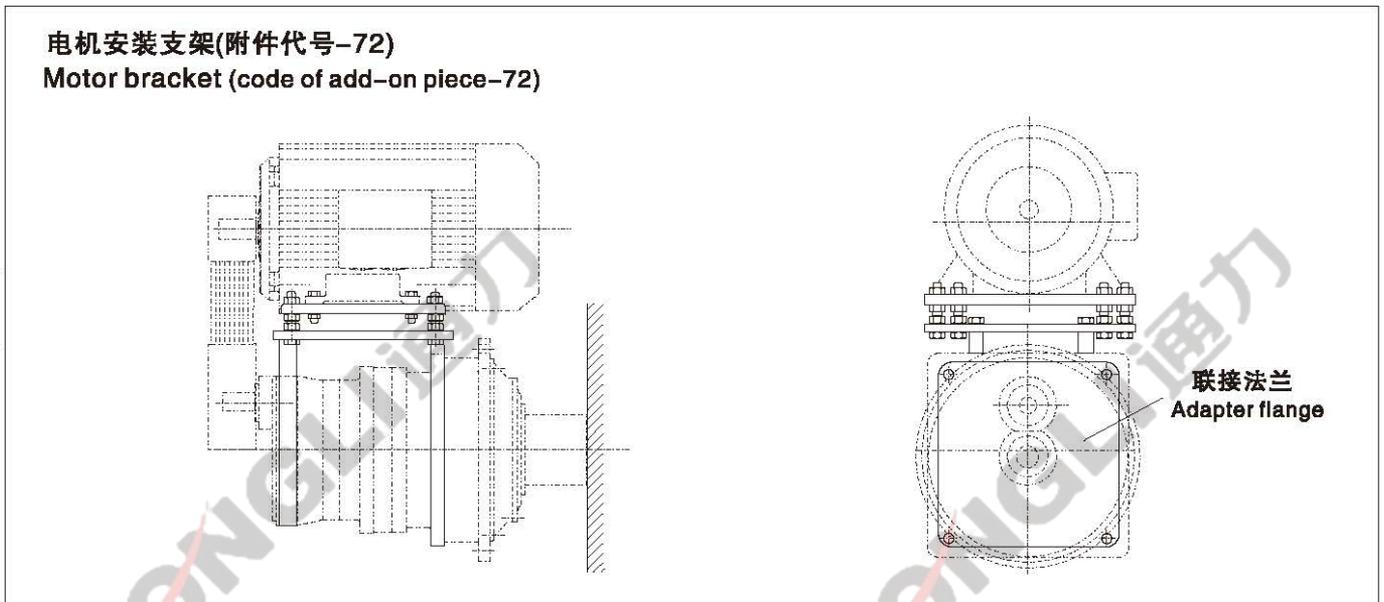
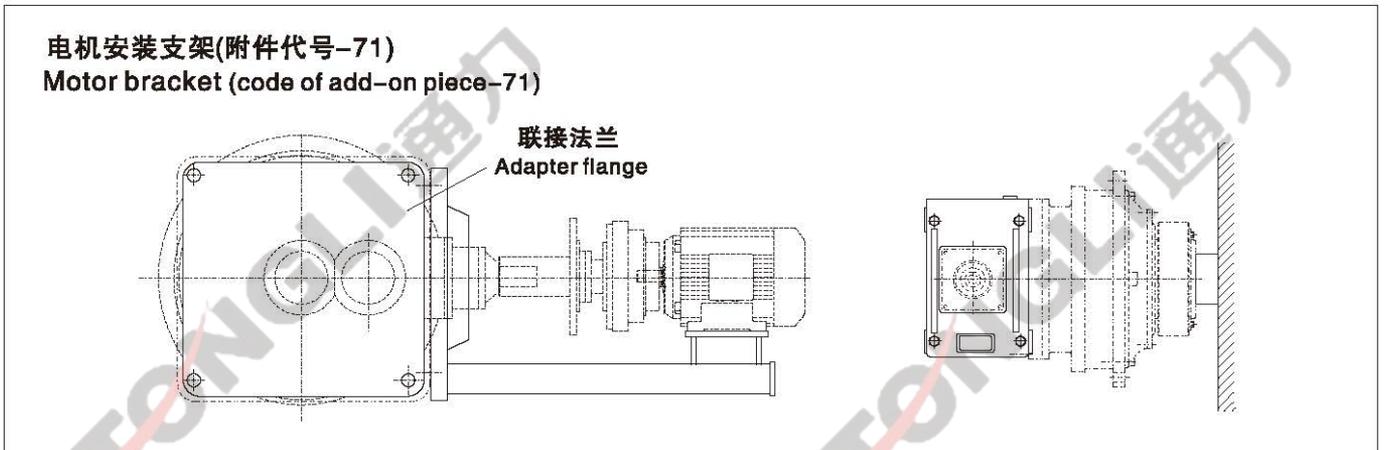
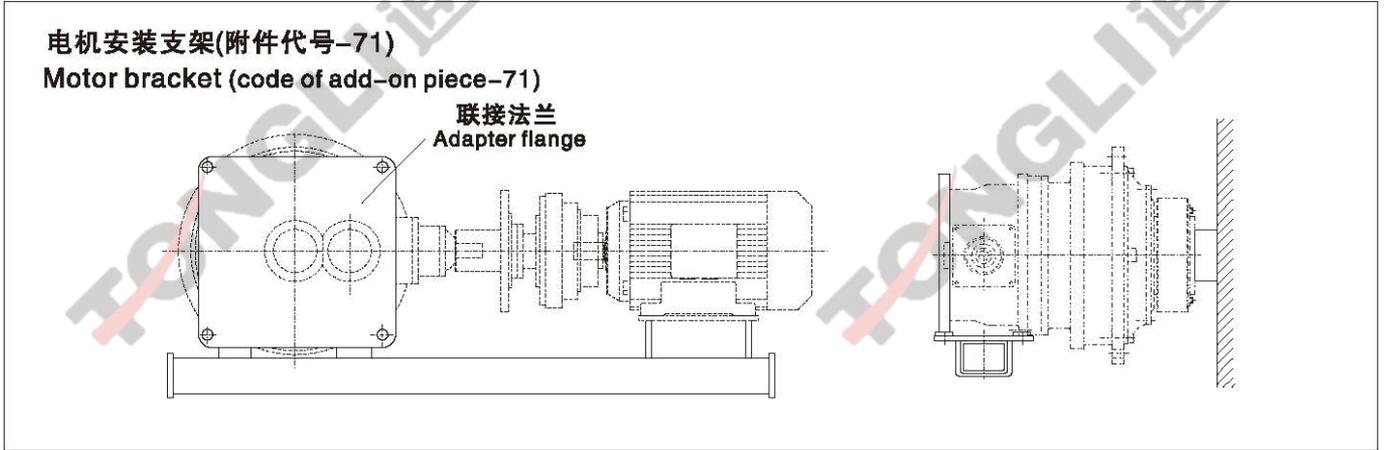
法兰联接及底座安装的螺母预紧扭矩

Tightening Torques for Flange Connections and Foot-mounted Design



机座号 Size	法兰联接 Flange attachment		底座联接 Base attachment	
	螺栓 Thread (10.9)	预紧扭矩 (N.m) Tightening torque	螺栓 Thread (8.8)	预紧扭矩 (N.m) Tightening torque
9	M16	295	M24	710
10	M16	295	M24	710
11	M20	580	M24	710
12	M24	1000	M24	710
13	M24	1000	M24	710
14	M24	1000	M30	1450
16	M24	1000	M30	1450
17	M30	2000	M36	2530
18	M30	2000	M36	2530
19/20	M30	2000	M42	4070
21/22	M36	3560	M48	6140
23/24	M36	3560	M48	6140
25/26	M42	5720	M56	9840
27/28	M48	8640	M56	9840
29/30	M48	8640	M64	14300
31/32	M56	13580	M64	14300
33/34	M56	13580	M64	14300
35/36	M56	13580	M72×6	20800

电机安装支架 / Motor Bracket



如果不用钟形电机支座，可以采用法兰联接的电机支架，如上图所示。

In cases where no motor bell housings are provided we use an adapter flange to attach motor brackets, they are shown in the above drawings .

TP系列行星减速机 TP Series Planetary gear units

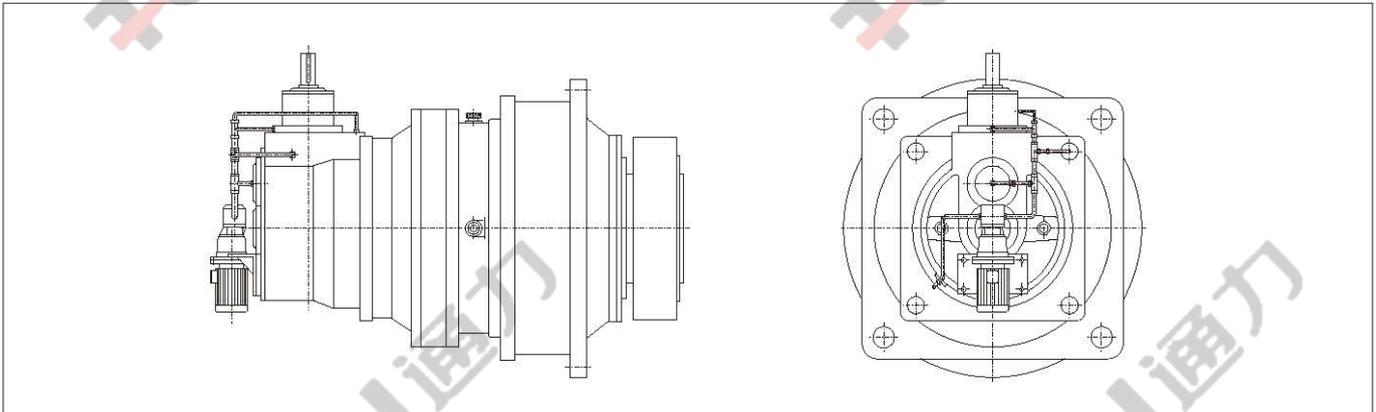


带油泵强制润滑/Forced lubrication with oil pump

TPS、TPK、TPL当安装布置方位为B511、B521、B531的卧式安装时需配备电动油泵强制润滑，如下图：

For TPS、TPK、TPL, in case of mounting positions B511、B521、B531 horizontal, it needs to mount the motor pumps for forced lubrication. Shown in the following drawings.

附件/Add-on piece86



安装布置形式 / Mounting Position

水平安装 Horizontal gear unit position			立式安装 ¹⁾ Vertical gear unit position							
同轴式行星减速机 Coaxial planetary gear units	0	TP.N.			B500		V100		V300	
斜齿轮-行星减速机 Combined helical gear planetary gear units	1	TP.S.			B511		V110		V310	
										B512
										B513
										B514
锥齿轮-斜齿轮-行星减速机 Combined bevel gear planetary gear units	2	TP.K.			B521		V120		V320	
										B522
										B523
										B524
锥齿轮-行星减速机 Combined bevel-helical gear planetary gear units	3	TP.L.			B531		V130		V330	
										B532
										B533
										B534
扭矩支撑臂 Torque reaction arm	5				B551					
					B553					
					B555					
					B552					
					B554					
					B556					

1) 请注意B5*1、V1**、V3** 安装布置形式时润滑方面有特殊要求。

1) Please notice that there are special requirements in lubrication when mounting positions B5*1、V1**、V3**

2) 从输入轴方向看

2) Viewing on input shaft

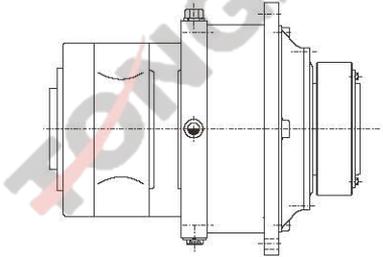
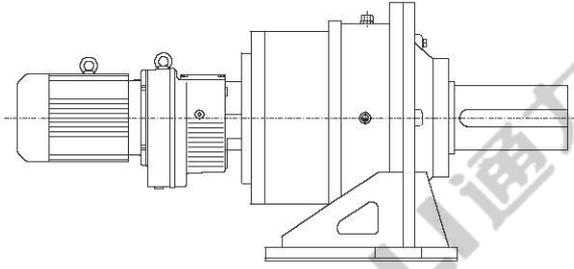
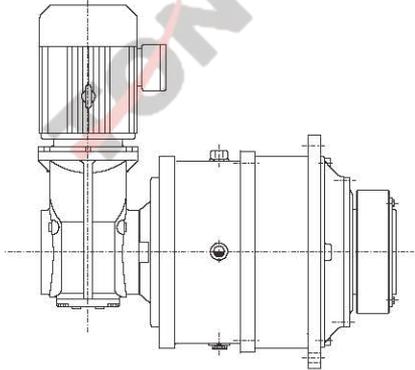
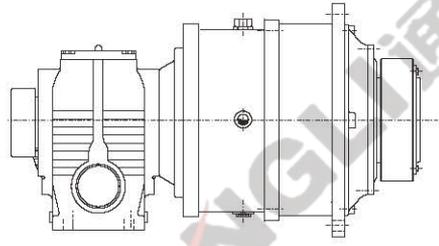
TP系列行星减速机
TP Series Planetary gear units



附件 / Add-on Piece

代号 Code	附件 Add-on piece		示例 Representation
99	无附件 Without add-on piece		
96	减速器底座 Gear housing base	见TP28页 See page TP28	
70	电机钟形支座 Motor bell housing	见TP32~34页 See page TP32~34	
71	电机托架 Motor bracket	见TP38页 See page TP38	
72	电机支架 Motor bracket	见TP38页 See page TP38	
73	摆动底座 Motor swing-base		
74	钟形支座(输出) Bell housing(output)		
75	扭矩支撑臂(一端) Torque reaction arm(on one side)	见TP29页 See page TP29	
76	扭矩支撑臂(二端) Torque reaction arm(on two sides)	见TP30页 See page TP30	
77	扭力轴支撑 Torsion shaft support	见TP31页 See page TP31	
78	逆止器 Backstop		
84	冷却风扇 Fan		
86	电动泵 Pump	见TP39页 See page TP39	
87	补偿油箱 Compensation tank	见TP35~36页 See page TP35~36	

减速器组合例子 / Examples of Combinations

<p>组合形式说明 Identifications of combinations</p>	<p>例子 Example</p>
<p>单级空心轴行星减速器 带液压马达 Two stages solid shaft planetary gear units with hydraulic motor</p>	
<p>两级实心轴行星减速器 带TR斜齿轮减速机、电机和底座 Two stages solid shaft planetary gear units with TR helical gear units, motor and housing base</p>	
<p>两级空心轴行星减速器 带TK锥齿轮减速机、电机 Two stages hollow shaft planetary gear units with TK helical-bevel gear units, motor</p>	
<p>两级空心轴行星减速器 带TS蜗轮蜗杆减速机、电机 Two stages hollow shaft planetary gear units with TS helical-worm gear units, motor</p>	
<p>详情请与我们联系 Please refer to us for the details</p>	

减速器润滑

Gear Units Lubrication

润滑油种类选择

Lubricant selection

减速器使用工况	润滑油种类
冶金轧钢、井下采掘、高温有冲击、含水等	L-CKD重载荷工业齿轮油 (GB5903-1995)
其余工况	L-CKC中载荷工业齿轮油 (GB5903-1995)

Operating conditions of gear units	Lubricant specification
Steel rolling, excavating, high temperature with shock, moisture, etc.	L-CKD heavy load industrial gear oil (GB5903-1995)
Others	L-CKC moderate load industrial gear oil (GB5903-1995)

注:若选用合成齿轮油则更具有良好的抗老化性能,可有效地提高减速器的机械效率。

Note: It adopts the synthetic oil which has the better performance of anti-aging so that improves the mechanical efficiency effectively.

润滑油粘度

Lubricant viscosity

条件	润滑油粘度等级 40°C温度下的ISO-VG 粘度 mm ² /s (cst)
高速级圆周速度 v < 2.5 m/s, 或环境温度在 35-50°C 之间	VG320 (或 VG460)
高速级齿轮圆周速度 v > 2.5 m/s, 或环境温度在 35°C 以下, 或采用循环油润滑	VG220

Conditions	Lubricant viscosity classification Viscosity ISO-VG at 40 °C in mm ² /s (cst)
Rotation velocity of high speed stage v < 2.5 m/s, or ambient temperature between 35-50°C	VG320 (or VG460)
Rotation velocity of high speed stage v > 2.5 m/s, or ambient temperature at 35°C, or lubrication with circulating oil	VG220

浸油润滑润滑油的工作温度

Working temperature for dip feed lubrication

润滑油种类	工作温度/°C
中载荷工业齿轮油 L-CKC	-8°C 至 +90°C (瞬时可达 100°C)
重载荷工业齿轮油 L-CKD	-5°C 至 +100°C (瞬时可达 110°C)
蜗轮蜗杆油 L-CKE/P	-5°C 至 +100°C (瞬时可达 110°C)

Lubricant specification	Working temperature/°C
L-CKC moderate load industrial gear oil	From -8°C to +90°C (up to 100°C at moment)
L-CKD heavy load industrial gear oil	From -5°C to +100°C (up to 110°C at moment)

注意:如果减速器的工作温度高于或低于表中规定极限值则应重新确定合适的润滑油。
 当环境温度低于 0°C 时启动前油温需加热到 0°C 以上。

Notes: If the temperatures of gear units are above or below the values as listed in table, it determines the proper oil again. If the ambient temperatures are below 0°C, the oil has to be heated above 0°C.

强制润滑润滑油允许的极限温度

Permissible temperature limit for forced feed lubrication

40°C 温度下的 ISO-VG 粘度 mm ² /s (cst)	强制润滑允许的极限温度/°C	
	矿物油	合成油
VG220	10-80	0-90
VG320	15-90	5-100
VG460	20-95	10-105

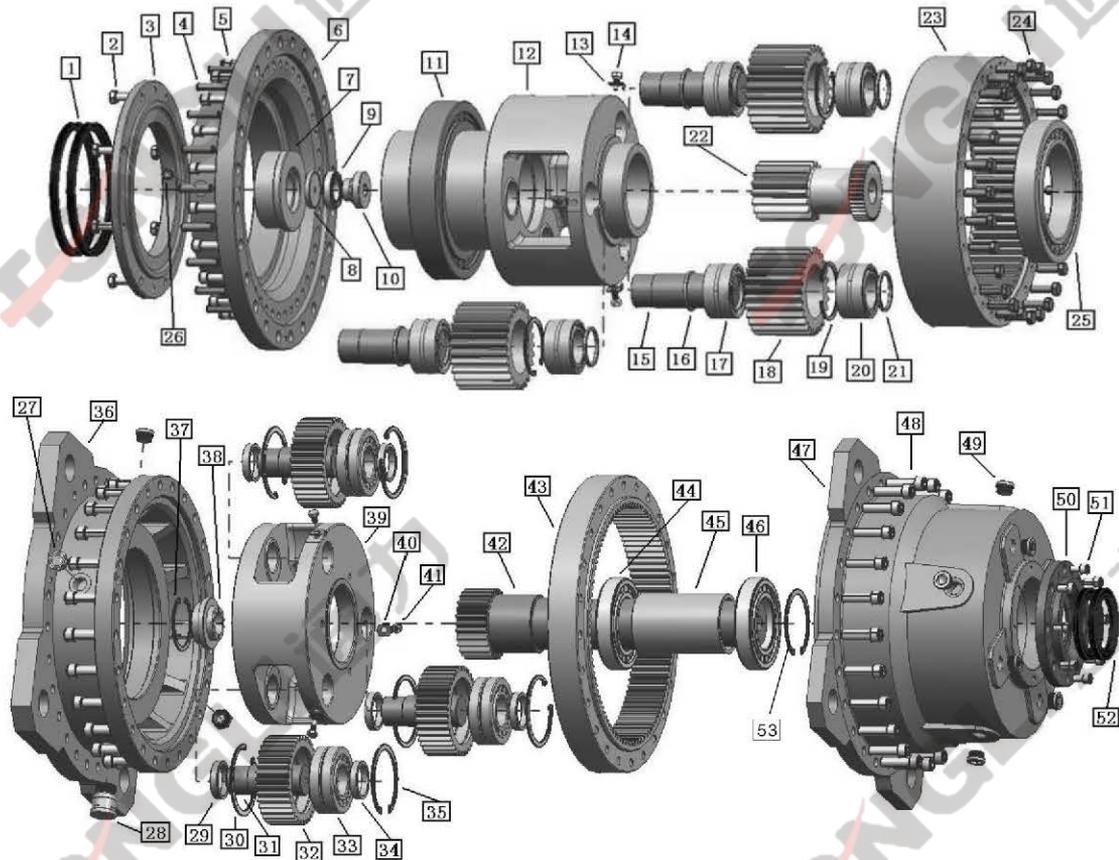
Viscosity ISO-VG at 40 °C in mm ² /s (cst)	Permissible temperature limit for forced feed lubrication/°C	
	Mineral oil	Synthetic oil
VG220	10-80	0-90
VG320	15-90	5-100
VG460	20-95	10-105

注意:当油温低于表中所列数值时,必须提供浸油润滑方式,或对润滑油加热。

Notes: If the temperatures are below the values as listed in table, dip lubrication has to be provided or the oil must be heated.

七、TP系列爆炸图

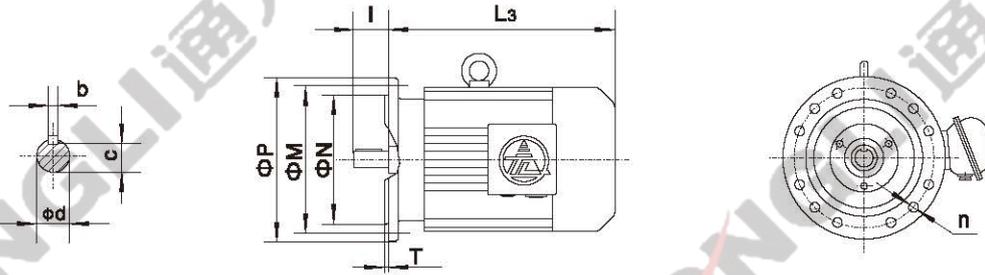
TP series exploded view



- | | | | | |
|-----------------|-----------------------|-----------------------|--------------------|--------------|
| 1.油封 I | 12.行星架 I | 23.内齿轮 I | 34.垫圈 II | 45.轴套 |
| 2.螺栓 I | 13.单耳垫圈 I | 24.螺栓 III | 35.卡环 II | 46.轴承 VII |
| 3.后通盖 | 14.螺钉 I | 25.轴承 IV | 36.机壳 | 47.前机盖 |
| 4.内螺纹圆柱销 | 15.行星轮轴 I | 26.油塞 I | 37.卡环 III | 48.螺栓 IV |
| 5.螺栓 II | 16.垫圈 I | 27.油镜 | 38.顶块 II | 49.油塞 II |
| 6.后机盖 | 17.轴承 II | 28.通气帽 | 39.行星架 II | 50.前通盖 |
| 7.轴承座 | 18.行星齿轮 I | 29.垫圈 II | 40.单耳垫圈 II | 51.螺栓 V |
| 8.垫圈 | 19.卡环 I | 30.卡环 II | 41.螺钉 II | 52.油封 II |
| 9.轴承 I | 20.轴承 III | 31.行星轮轴 II | 42.太阳齿轮轴 | 53.轴用挡圈 |
| 10.顶块 I | 21.垫圈 I | 32.行星齿轮 II | 43.内齿轮 II | |
| 11.轴承 II | 22.太阳轮 I | 33.轴承 V | 44.轴承 VI | |
| 1. Seal | 12. Planet carrier | 23. Inner gear | 34. Washer | 45. Bush |
| 2. Bolts | 13. Washer | 24. Bolts | 35. Circlip | 46. Bearing |
| 3. Cover | 14. Bolts | 25. Bearing | 36. Housing | 47. Cover |
| 4. Pin | 15. Planet gear shaft | 26. Oil plug | 37. Circlip | 48. Bolts |
| 5. Bolts | 16. Washer | 27. Oil sight glass | 38. Washer | 49. Oil plug |
| 6. Cover | 17. Bearing | 28. Breather valve | 39. Planet carrier | 50. Cover |
| 7. Bearing seat | 18. Planet gear | 29. Washer | 40. Washer | 51. Bolts |
| 8. Washer | 19. Circlip | 30. Circlip | 41. Bolts | 52. Seal |
| 9. Bearing | 20. Bearing | 31. Planet gear shaft | 42. Sun gear shaft | 53. Circlip |
| 10. Washer | 21. Washer | 32. Planet gear | 43. Inner gear | |
| 11. Bearing | 22. Sun gear | 33. Bearing | 44. Bearing | |

标准普通电机和特殊电机的参数及安装尺寸

Standard and ordinary motor or special motor parameter and mounting dimension



电机机座号 Motor size	4极 4 Pole		6极 6 Pole		8极 8 Pole		L3				安装尺寸 Mounting dimensions								M(kg)					
	P ₁ (kW)	n ₁ (r/min)	P ₁ (kW)	n ₁ (r/min)	P ₁ (kW)	n ₁ (r/min)	Y ₂	B	E	V	M	N	P	n	T	d	l	b	c	Y (铝壳 Aluminum housing)	Y ₂	B	E	V
63M1	0.12	1390																		5.5	13			11
63M2	0.18	1390					202	270	328		115	95j6	140	4xΦ10	3	11j6	23	4	8.5	6	13.5	15		12
71M1	0.25	1390	0.18	850																6.5	14	16	12	14
71M2	0.37	1390	0.25	850			225	285	345		130	110j6	160	4xΦ10	3.5	14j6	30	5	11	7.5	14.5	16	13	15
80M1	0.55	1390	0.37	885	0.18	645														10	15	31	20	16
80M2	0.75	1390	0.55	885	0.25	645	255	290	350	310	165	130j6	200	4xΦ12	3.5	19j6	40	6	15.5	11	16	32	21	17
90S	1.1	1400	0.75	910	0.37	670	270	310	370	320	165	130j6	200	4xΦ12	3.5	24j6	50	8	20	16	23	35	27	23
90L	1.5	1400	1.1	910	0.55	670	295	335	395	345	165	130j6	200	4xΦ12	3.5	24j6	50	8	20	20	25	39	31	28
100L1	2.2	1420			0.75	680															33	49	41	35
100L2	3	1420	1.5	920	1.1	680	325	370	420	370	215	180j6	250	4xΦ15	4	28j6	60	8	24		35	53	44	36
112M	4	1440	2.2	940	1.5	690	340	400	450	390	215	180j6	250	4xΦ15	4	28j6	60	8	24		41	67	60	43
132S	5.5	1440	3	960	2.2	710	390	430	505	450	265	230j6	300	4xΦ15	4	38k6	80	10	33		65	93	85	63
132M	7.5	1460	4	960	3	710	430	470	545	490	265	230j6	300	4xΦ15	4	38k6	80	10	33		76	105	98	75
			5.5	960																				
160M	11	1460	7.5	960	4	720	505	545	610	550	300	250h6	350	4xΦ19	5	42k6	110	12	37		118	150	143	116
					5.5	720																		
160L	15	1460	11	960	7.5	720	560	585	655	595	300	250h6	350	4xΦ19	5	42k6	110	12	37		132	169	165	136
180M	18.5	1470	/	/	/	/	590	620	715	740	300	250h6	350	4xΦ19	5	48k6	110	14	42.5		164	205	203	169
180L	22	1470	15	970	11	730	630	640	765	790	300	250h6	350	4xΦ19	5	48k6	110	14	42.5		182	222	216	183
200L	30	1470	18.5	970	15	730	660	695	790	850	350	300h6	400	4xΦ19	5	55k6	110	16	49		245	300	296	236
			22	970																				
225S	37	1480	/	/	18.5	730	675	705	860	910	400	350h6	450	8xΦ19	5	60m6	140	18	53		258	360	370	291
225M	45	1480	30	980	22	730	705	730	890	940	400	350h6	450	8xΦ19	5	60m6	140	18	53		290	390	405	327
250M	55	1480	37	980	30	730	770	795		1060	500	450h6	550	8xΦ19	5	65m6	140	18	58		388	530	498	393
280S	75	1480	45	980	37	730	845	870		1160	500	450h6	550	8xΦ19	5	75m6	140	20	67.5		510	660	633	520
280M	90	1485	55	980	45	740	895	920		1260	500	450h6	550	8xΦ19	5	75m6	140	20	67.5		606	785	723	610
315S	110	1485	75	980	55	740	1100	1100		1330	600	550h6	660	8xΦ24	6	80m6	170	22	71		910	1000	1150	950
315M	132	1485	90	985	75	740	1180	1180		1380	600	550h6	660	8xΦ24	6	80m6	170	22	71		1000	1100	1230	1030
315L	160	1485	110	985	90	740															1055	1100	1320	1100
	200	1485	132	985	110	740	1270	1270		1450	600	550h6	660	8xΦ24	6	80m6	170	22	71		1128	1160	1420	1200

注：由于结构需要及生产厂家不同，有时参数会有所变化，此表仅供参考，准确尺寸请来电垂询。

Note: Sometimes the parameters may be changed with the different structures and manufacturers, this table is only for reference, please refer to us for the exact dimensions.

APPLICATION
FIELDS

应用领域



钢铁冶金
Steel metallurgy



橡胶塑料
Rubber plastic



石油化工
Petrochemical



环保生态
Environmental
Protection



电力设备
Power equipment



建材机械
Building materials
machinery



港口机械
Port machinery



煤矿机械
Coal mining
machinery



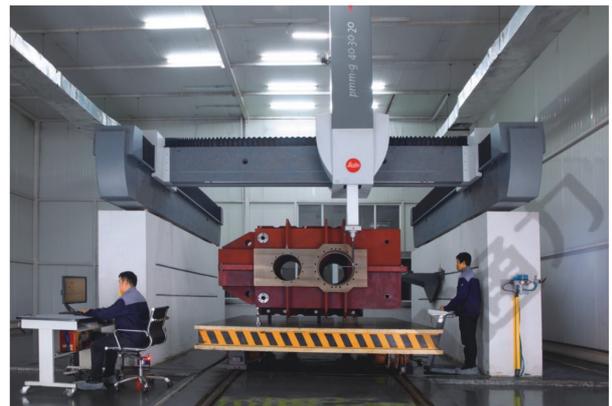
工程机械
Construction
machinery



起重运输
Lifting and
transportation

PROCESSING AND
TESTING EQUIPMENT

加工和检测设备



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