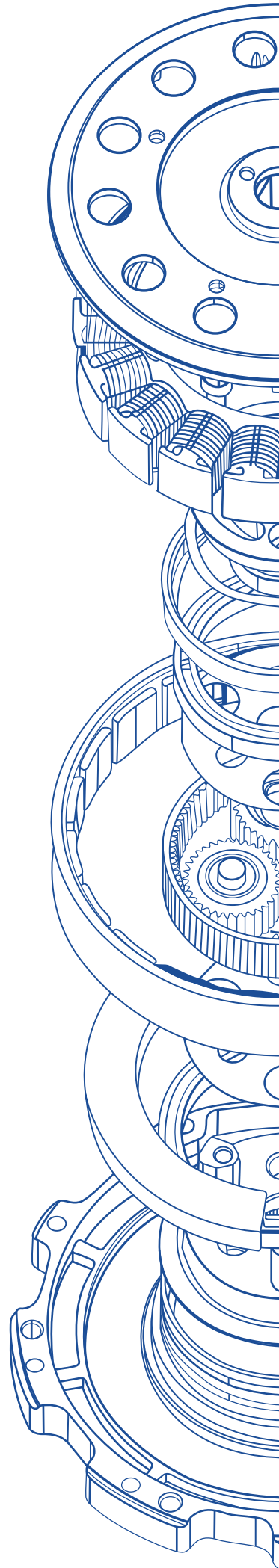
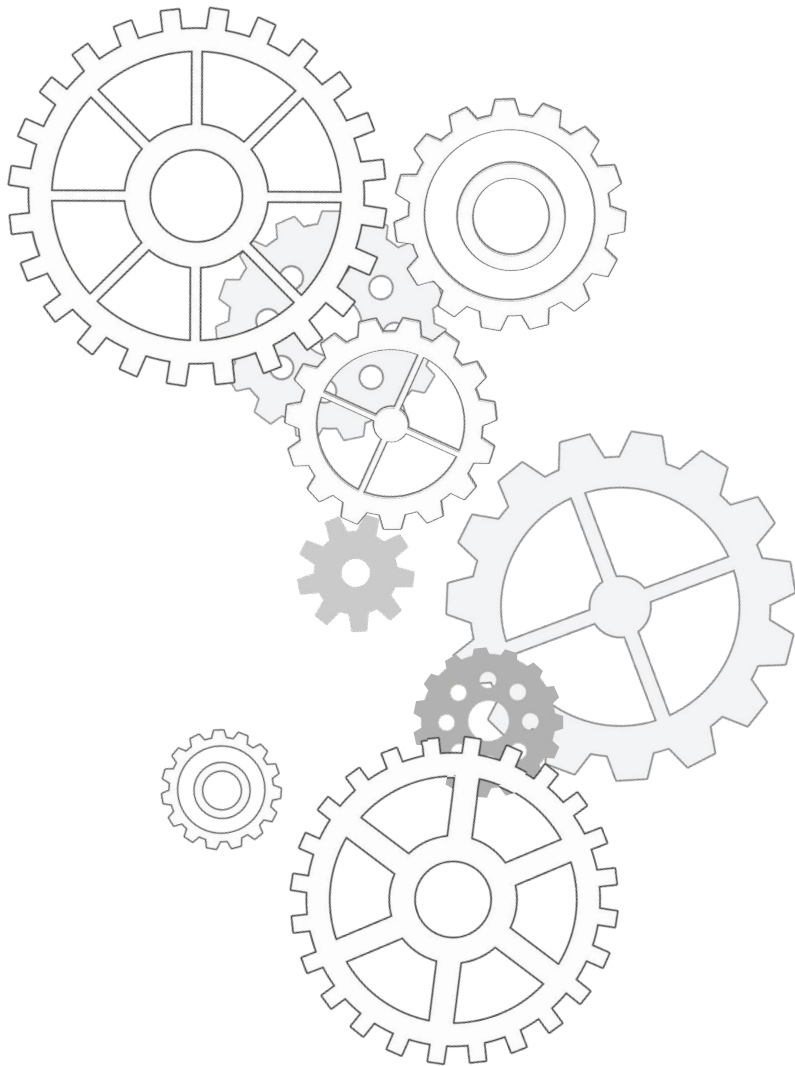




微型传动系统 解决方案提供商

MICRO TRANSMISSION SYSTEM
SOLUTION PROVIDER



主要产品 Standard Product Categories

产品分为两大类：标准品和非标定制品。

标准品主要有：

轮毂减速电机 99mm；行星齿轮箱（或减速电机）8mm 到 42mm 外径；摆线针轮减速箱 42mm 到 104mm 外径；另有专为机器人和外骨骼关节设计的扁平化减速电机“马”和“虎”，两者最大的区别是结构的不同，“马”是行星内核，“虎”是摆线针轮内核。

非标定制产品：

传统结构行星齿轮箱 / 减速电机；扁平化结构关节减速电机；微型摆线针轮减速器；轮毂减速电机；定制形式为：研发部门根据客户的需求提供传动系统解决方案，从研发设计到打样，以及批量生产，一站式服务。

标准品系列

Standard product series

行星齿轮箱

Planetary gear box

8-42mm



轮毂减速电机

Wheel hub reduction motor

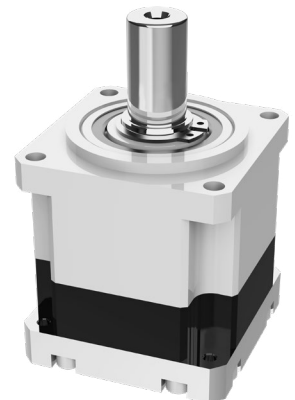
99mm



摆线针轮减速箱

cycloidal pinwheel
reduction box

42-104mm



Our products are divided into two main categories: standard products and custom products.

Standard Products:

Planetary gearbox (or reduction motor) with an outer diameter of 8mm to 42mm; Cycloid pinwheel gearbox with an outer diameter of 42mm to 104mm; There are also flat reduction motors specifically designed for robots and exoskeleton joints "SigGear -Horse" and "SigGear-Tiger". The biggest difference between the two is their structure, with "Horse" being the planetary core and "Tiger" being the cycloidal pin wheel core.

Non-standard customized products:

Traditional structure planetary gearbox/reduction motor; Flat structure joint reduction motor; Micro cycloidal pinwheel reducer; Wheel hub reduction motor; The customization form is: the R&D department provides transmission system solutions according to customer needs, from R&D design to sampling, as well as mass production, one-stop service.



产品名称: 马

减速方式: 行星结构

其他: 带驱动 / 支持编码

Name: S.Gear-Horse
Reduction Method:
Planetary Structure
Additional Features:
With Driver / Supports
Encoder



产品名称: 虎

减速方式: 摆线针轮

其他: 带驱动 / 单双磁编

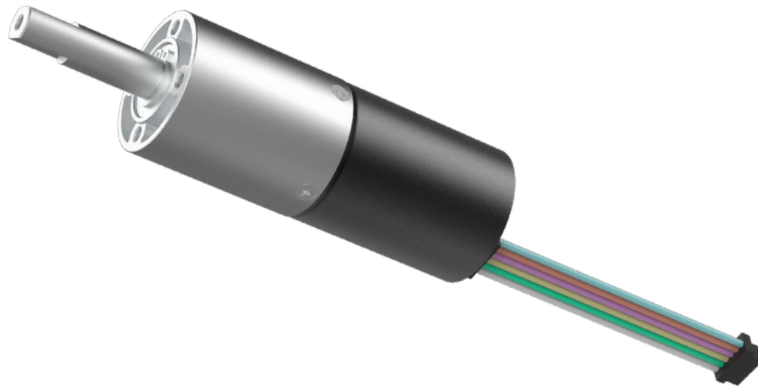
Name: S.Gear-Tiger
Reduction Method:
Cycloidal-pin wheel
Additional Features: With
Driver/Single or Double
Magnetic Encoder

非标定制 Customized Solutions

传统结构 Conventional Structures

HDB传动在传统型行星齿轮箱和减速电机的项目主要集中在医疗器械、电动工具、无人机和智能家居等行业。

hdb projects in traditional planetary gearboxes and reduction motors mainly focus on industries such as medical equipment, power tools, drones, and smart homes.



定制范围

结构：行星结构

外径：8-120mm

扭矩：< 500N·m



医疗工具：
电动骨钻
智能手术刀

Medical Tools：
•Electric Bone Drill
•Smart Surgical Knife



智慧农业：
植保无人机
电动工具

Smart agriculture：
•Agricultural Spraying Drone
•Electric Tools



智能家居：
智能扫地机
智能马桶

Smart Home：
•Smart Sweeping Robot
•Smart Toilet

扁平化结构

Flat Structures

随着科技的发展，各种智能化机器产品面世。其中最为火热的是人形机器人和仿生机器狗。HDB传动紧跟市场需求，设计出扁平化的机器人关节减速电机模组。

With the development of science and technology, various intelligent machine products have become available. The most popular ones are service robots and bionic robot dogs. HDB Transmission closely follows the market demand and designs a flat robot joint reduction motor module.



定制范围

结构：行星结构

外径：35-120mm

扭矩：< 300N·m



机械外骨骼装置：
康复医疗外骨骼
负重外骨骼装备

Mechanical Exoskeleton Devices:
•Rehabilitation Medical Exoskeleton
•Load-Bearing Exoskeleton
Equipment



机器人关节：
人形机器人关节
机械臂关节

Robotic Joints:
•Humanoid Robot
Joint
•Robotic Arm Joint



仿生机器狗：
检测型机器狗
服务运输型机器狗

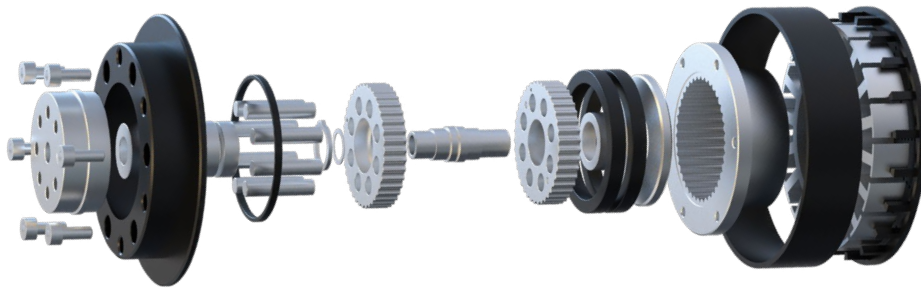
Bionic Robot Dogs:
•Inspection Robot Dog
•Service & Transport
Robot Dog

微型摆线针轮

Micro Cycloidal Pinwheel

近年，人形机器人的火爆让其关节减速电机成为热点，但是常规的行星齿轮箱及谐波齿轮箱各有优劣势。于是我们的研发团队尝试将传统的大型重载摆线针轮微型化，拓宽市场。摆线针轮满足了小空间、大扭矩、扁平化、轻量化、高精度、抗冲击等机器人关节的特殊要求。在研发期间，我们不断挑战行业的特殊要求，如反驱透明度和中空过线形态，并致力于逐一攻克这些难题

In recent years, the popularity of humanoid robots has made their joint reduction motors a hot topic, but conventional planetary gearboxes and harmonic gearboxes each have their own advantages and disadvantages. So our R&D team tried to miniaturize the traditional large heavy-duty cycloidal pinwheel to expand the market. The cycloidal pinwheel meets the special requirements of robot joints such as small space, large torque, flatness, lightweight, high precision, and impact resistance. During the research and development period, we continued to challenge the special requirements of the industry, such as backwash transparency and hollow pass-through form, and are committed to overcoming these problems one by one.



定制范围

结构：摆线结构

外径：20-120mm

减速比：13-79



高智能人形机器人：
灵巧手
医用级机器人

Advanced Humanoid Robots:
•Dexterous Hand
•Medical-Grade Robot



智能车辆：
康复移动机器人
AGV 车辆

Intelligent Vehicles:
•Rehabilitation Mobile Robot
•AGV Vehicles



户外装备：
载人高空攀爬装备
其他

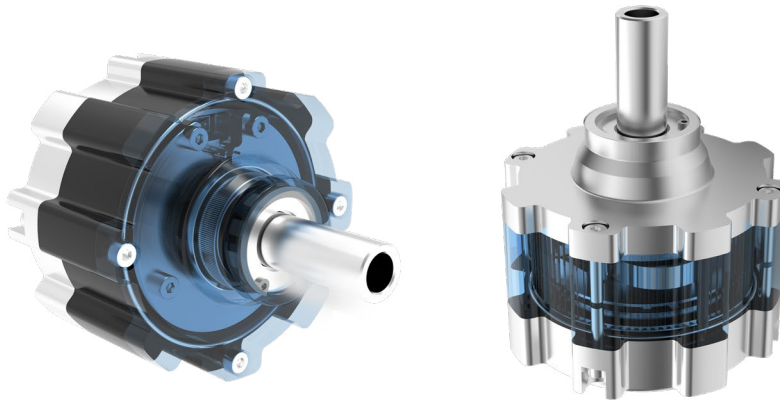
Outdoor Equipment:
•Manned Aerial Climbing Equipment
•Others

轮毂减速电机

Hub Gear Motors

轮毂减速电机在庭院机器人（如割草机、扫雪机等）中集成电机与行星减速机构，通过太阳轮驱动行星齿轮并与轮毂内齿圈啮合，实现紧凑布局下的高扭矩输出。行星减速结构降低转速、提升驱动力，同时优化能耗，适应草坪、坡道等复杂地形。

The hub reduction motor integrates the motor and planetary gear mechanism in yard robots (e.g., lawn mowers, snow blowers, pool cleaners), where the sun gear drives the planetary gears meshing with the hub's internal ring gear. This compact design delivers high torque output. The planetary reduction structure reduces speed while enhancing driving force, optimizes energy consumption, and adapts to complex terrains like lawns or slopes.



定制范围

扭矩：2-30N·m

外径：65-200mm

功率：< 500w



助力车辆：

电动轮椅

Ebike 助力自行车

Assisted Mobility Vehicles:

- Electric Wheelchair
- E-bike (Pedal-Assist Bicycle)



智慧农业：

无人驾驶喷雾车辆

自动采摘运输车辆

Smart Agriculture:

- Autonomous Spraying Vehicle
- Automatic Harvesting & Transport Vehicle



智能庭院：

割草机器人

扫雪机器人

泳池清洁机器人

Smart Garden:

- Lawn Mowing Robot
- Snow Cleaning Robot
- Pool Cleaning Robot



核心技术 Core Technologies

微型摆线针轮

小空间，大扭矩，轻量化，重负载；背隙优于行星、耐冲击优于谐波

行星齿轮箱

单级传动效率 > 95%；内置离合结构；虚位 < 0.5°

系统化综合设计

深耕于不同行业的传动系统研发设计，为各大知名企业或初创科技单位输送高匹配度的解决方案

Micro cycloidal pinwheel:

Small space, large torque, lightweight, heavy load; backlash is better than planetary, impact resistance is better than harmonics

Planetary gearbox:

Single-stage transmission efficiency > 95%; built-in clutch structure; virtual position < 0.5°

Systematic comprehensive design:

Deeply engaged in the R&D and design of transmission systems in different industries, delivering highly matching solutions to major well-known enterprises or start-up technology units



检测设备

Production and testing equipment

设备名称 Equipment	生产商 / 生产地 Production address/Manufacturer
● 三坐标测量仪 CMM	日本三丰 Mitutoyo
● 齿轮检测中心 Gear Testing Center	德国克林贝格 Klinberg, Germany
● 齿轮啮合仪 Gear Mesh Tester	日本大阪 Osaka, Japan
● 二次元检测 Two-dimensional detection	海克斯康 HEXAGON, Sweden
● 显微镜 Microscope	日本尼康 Nikon, Japan
● 千分尺 Micrometer	日本三丰 Mitutoyo
● 测功机 Dynamometer	上海广法测控 China
● 冷热冲击箱 Thermal Shock Chamber	爱思贝克 Avex
● 高低温箱 High-Low Temperature Chamber	KSON Mitutoyo, Japan
● 寿命测试仪 Life Tester	中国 China
● 盐雾测试仪 Salt Spray tester	TERCHY Taiwan, China
● ROHS2.0 检测仪 ROHS2.0 Detector	莱州华仪 China
● Xray 检测 Xray Detection	日联 UNICOMP
● 背隙检测仪 Backlash Detector	中创 China
.....

定制流程

Customization Process

1.

客户需求分析 Analyze customer requirements

初步沟通，了解客户的基本需求，获取客户的详细参数

Communicate initially to understand the customer's basic needs and obtain the customer's detailed parameters

2.

需求确认与可行性分析 Requirements confirmation and feasibility analysis

内部会议（包括研发、工程和销售，讨论客户需求的可行性；制定初步的技术方案 and 解决思路，评估技术难度和开发周期。

Internal meetings (Departments include R&D, engineering and sales) to discuss the feasibility of customer needs; formulate preliminary technical plans and solution ideas, and evaluate technical difficulty and development cycles.

3.

方案制定与图纸设计 Plan formulation and drawing design

编写详细的技术方案文档，包括设计说明、材料选择、工艺流程等

Draft detailed technical plan documents, including design instructions, material selection, process flow, etc.

4.

客户确认与合同签订 Customer confirmation and contract signing

根据客户反馈进行必要的修改和优化，直到客户满意

Make necessary modifications and optimizations based on customers' feedback until customers are satisfied.

5.

样品开发与测试 Sample development and testing

样品制作和内部测试，验证设计的可行性和可靠性

Sample production and internal testing to verify the feasibility and reliability of the design.

6.

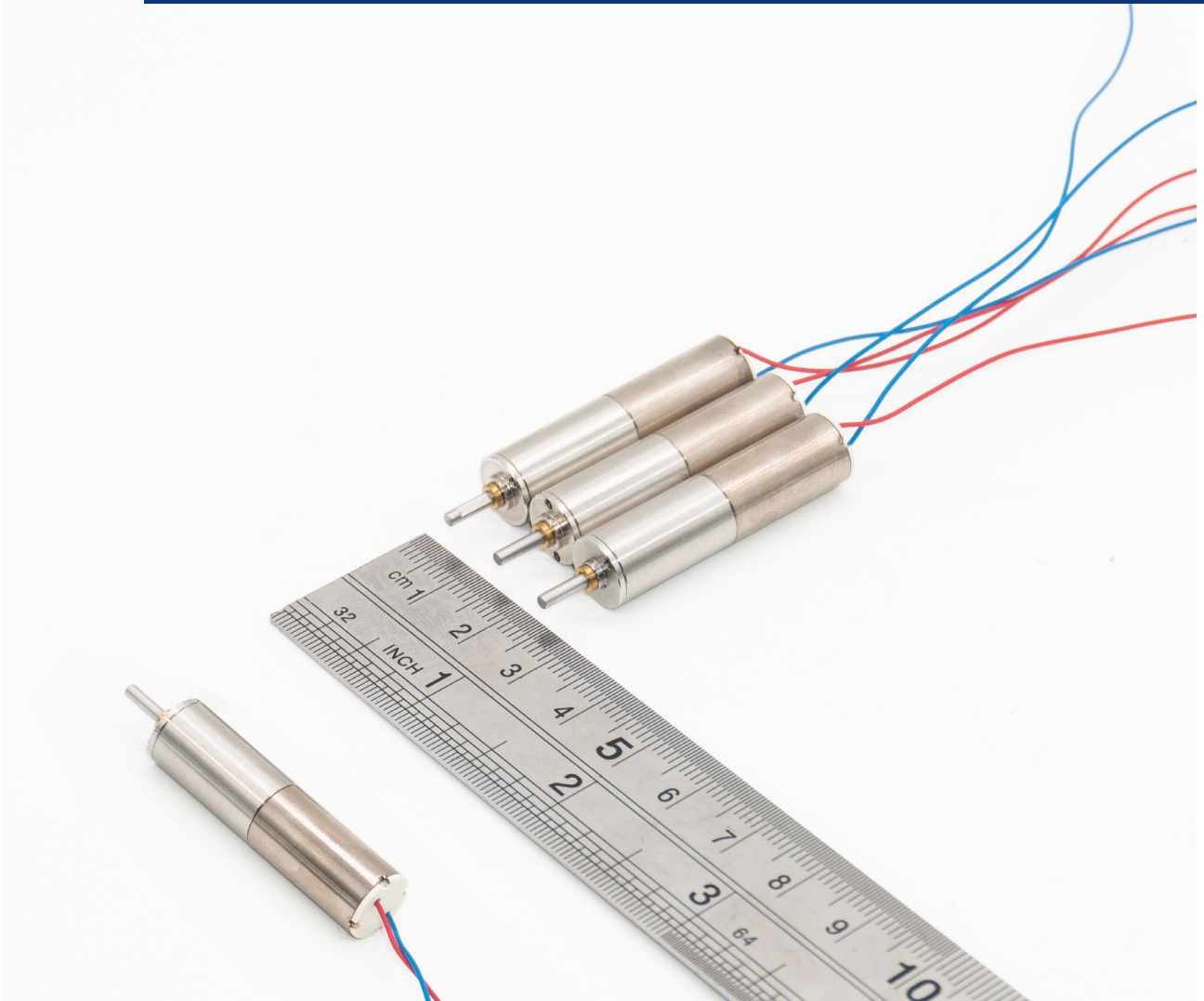
批量生产与交付 Mass production and delivery

制定详细的生产计划，包括材料采购、生产工艺、工序安排等；小批量试产成功验证后进行大批量生产

Develop detailed production plans, including material procurement, production processes, process arrangements, etc.; carry out mass production after successful verification of small batch trial production;

标品参数

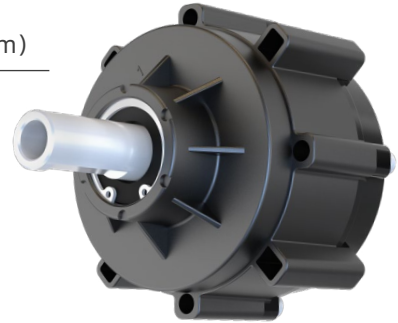
Product
Specifications



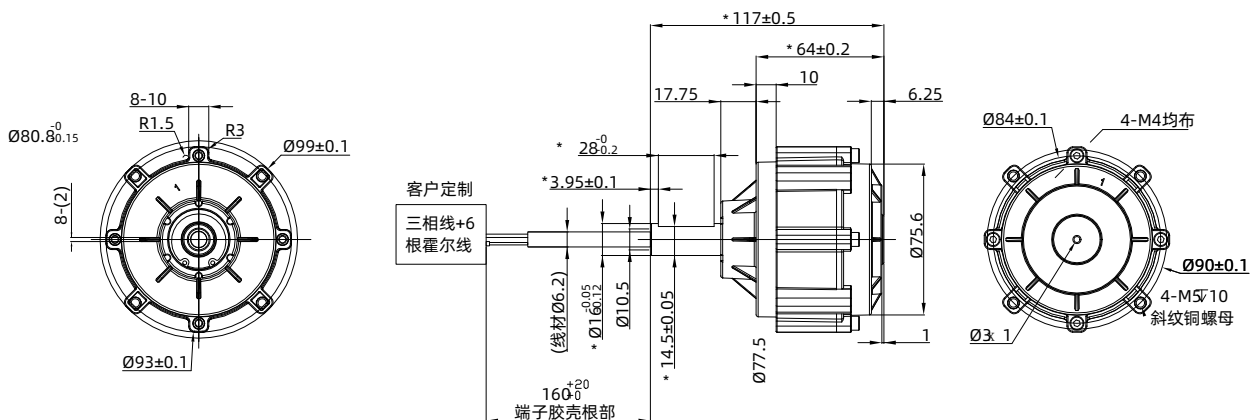
SG-2877-3Nm-SigGear

轮毂减速电机

● 传动结构	Transmission structure	行星结构 (Planetary structure)
● 外壳材料	Housing material	PA66
● 齿轮材料	Gear material	POM
● 外径尺寸	Outer diameter	99 mm
● 产品厚度	Thickness	64mm (含轴 117mm)
● 减速比	Reduction ratio	9.75
● 额定电压	Rated voltage	24V
● 额定功率	Rated power	45W
● 额定电流	Rated current	< 3A
● 空载转速	No-load speed	140±10% rpm
● 额定转速	Rated Speed	130±10% rpm
● 额定扭矩	Rated torque	3 Nm
● 峰值扭矩	Peak torque	10 Nm
● 最高效率	Maximum efficiency	> 70%
● 相位阻尼	Phase damping	0.82±8% mΩ
● 相位电感	Phase inductance	0.75±8% mH
● 相电流满量程	Full range phase current	15A Max
● 额定母线电流	Rated bus current	7.5A Max
● 堵转电流	Locked-rotor current	< 8A
● 额定电机负载	Rated motor load	0.3N.m
● 霍尔角	Hall angle	120°
● 电机槽极	Motor structure	18N20P
● 绝缘等级	Insulation class	Class B
● 防水等级	Waterproof rating	IP67
● 背隙	Backlash	< 1.5°
● 重量	Weight	780±20g



■ 技术插图 Technical illustration



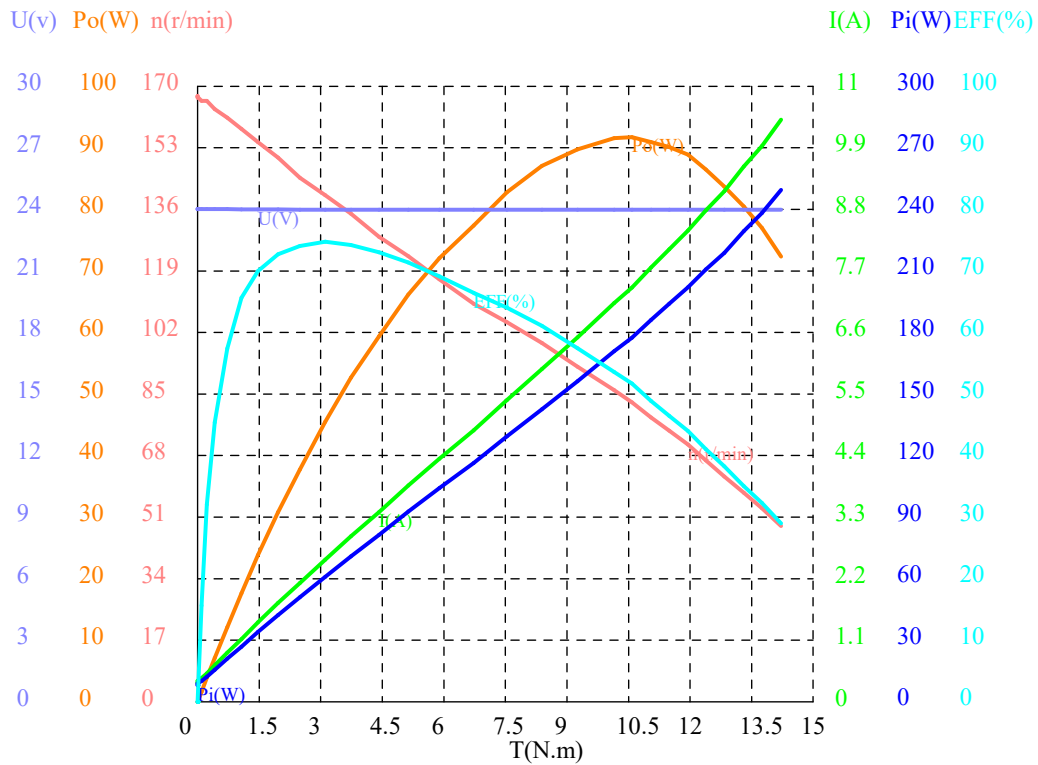
注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

SG-2877-3Nm

■ 24V 测功数据 温度 环境温度: 22.6°C - 22.5°C

24V power test data Temperature Ambient temperature: 22.6°C - 22.5°C

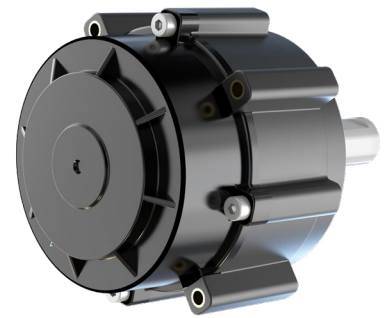
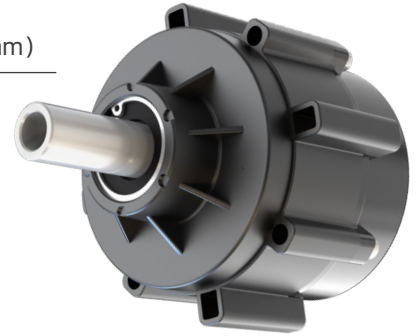


特征点	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
空载点	166.81	0.0000	0.0000	24.019	0.3345	8.0340	0.00%
最大效率	139.90	3.1068	45.511	23.980	2.5398	60.904	74.73%
最大输出	82.741	10.589	91.745	23.981	7.4025	177.52	51.68%
最大转矩	48.589	14.214	72.318	23.981	10.404	249.51	28.98%
堵转点							
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

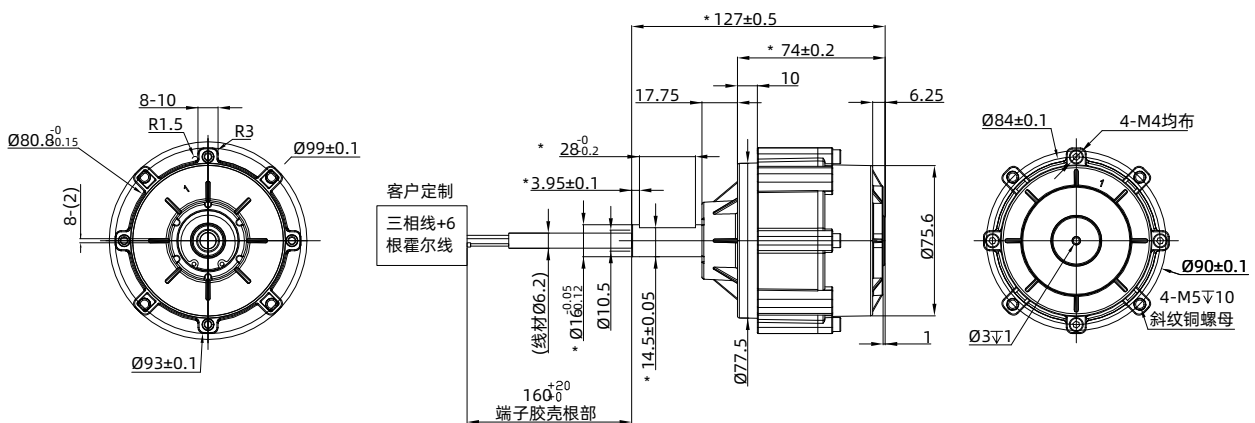
SG-2878-6Nm-SigGear

轮毂减速电机

● 传动结构	Transmission structure	行星结构 (Planetary structure)
● 外壳材料	Housing material	PA66
● 齿轮材料	Gear material	SMF4030
● 外径尺寸	Outer diameter	99 mm
● 产品厚度	Thickness	74mm (含轴 125mm)
● 减速比	Reduction ratio	9.75
● 额定电压	Rated voltage	24V
● 额定功率	Rated power	75W
● 额定电流	Rated current	< 4.5A
● 空载转速	No-load speed	130±10% rpm
● 额定转速	Rated Speed	110±10% rpm
● 额定扭矩	Rated torque	6Nm
● 峰值扭矩	Peak torque	18Nm
● 最高效率	Maximum efficiency	> 70%
● 相位阻尼	Phase damping	0.57±10% mΩ
● 相位电感	Phase inductance	0.57±10% mH
● 相电流满量程	Full range phase current	15A Max
● 额定母线电流	Rated bus current	7.5A Max
● 堵转电流	Locked-rotor current	< 8A
● 额定电机负载	Rated motor load	0.65N.m
● 霍尔角	Hall angle	120°
● 电机槽极	Motor structure	18N20P
● 绝缘等级	Insulation class	Class B
● 防水等级	Waterproof rating	IP67
● 背隙	Backlash	< 1.5°
● 重量	Weight	1100±20g



■ 技术插图 Technical illustration



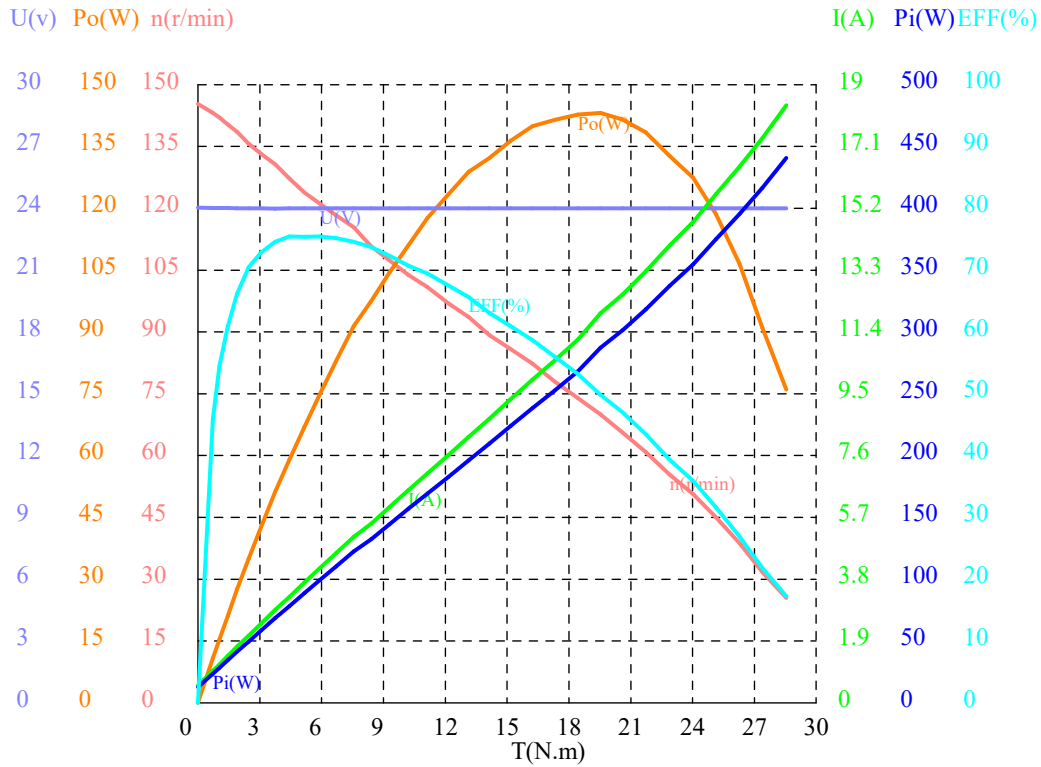
注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

SG-2878-6Nm

■ 24V 测功数据 温度 环境温度: 25.9°C - 25.9°C

24V power test data Temperature Ambient temperature: 25.9°C - 25.9°C



特征点	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
空载点	145.35	0.0000	0.0000	24.029	0.5375	12.915	0.00%
最大效率	121.17	5.9085	74.967	23.999	4.1393	99.339	75.47%
最大输出	70.029	19.525	143.17	23.998	11.975	287.37	49.82%
最大转矩	25.443	28.544	76.047	23.997	18.364	440.68	17.26%
堵转点							
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

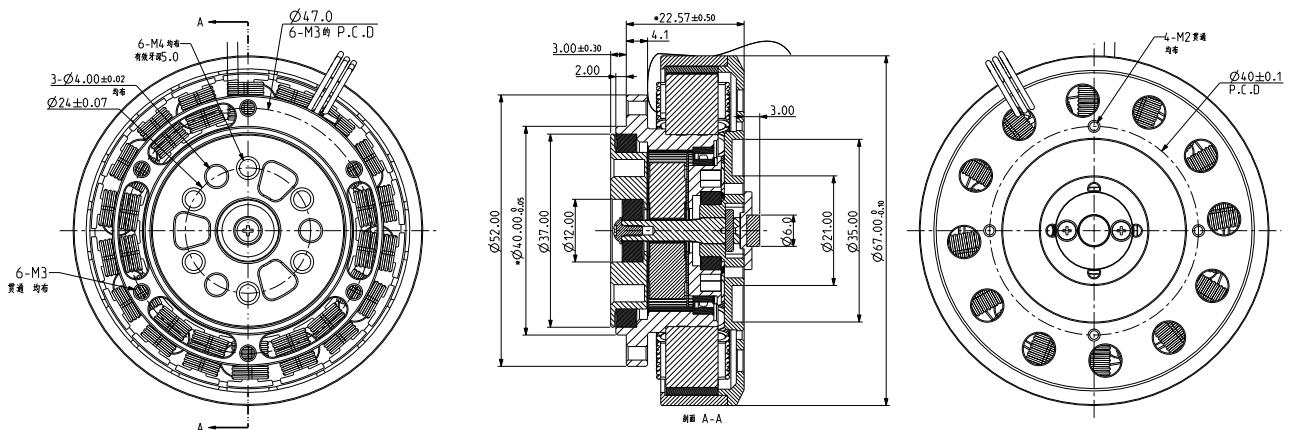
马系列 -SG-6010HB

外骨骼关节电机

● 传动结构	Transmission structure	行星结构 Planetary structure
● 外径尺寸	Outer diameter	67.0 mm
● 产品厚度	Thickness	25.57mm
● 减速比	Reduction ratio	i=9.67
● 背隙	Backlash	15-20 arcmin
● 电机功率	Motor Power	328 W
● 额定电压	Rated Voltage	12-48 V
● 额定转速	Rated Speed	310 rpm
● 额定扭矩	Rated Torque	6 Nm
● 峰值扭矩	Peak Torque	18 Nm
● 空载转速	No-load speed	400 rpm
● 相位阻尼	Phase damping	224 $\mu\Omega$
● 相位电感	Phase inductance	235 μH
● 相电流满量程	Phase current full scale	33 A
● 额定母线电流	Rated bus current	12 A
● 静态工作母线电流	Static working bus current	0.08 A
● 电机扭矩常数	Motor torque constant	0.0606Nm/A
● 电机结构	Motor structure	18N20P
● 热敏电阻	Thermistor	10kB3435 %1
● ntc 的 B 值	B value of ntc	3435
● 反电动势常数 (Ke)	Back electromotive force constant	0.0727Vs/Rad
● 电机 KV 值	Motor KV value	104 kv
● 产品重量	Weight	298.5g
● 允许径向力	Allow radial force	250N
● 允许轴向力	Allow axial force	100N



■ 技术插图 Technical illustration



注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

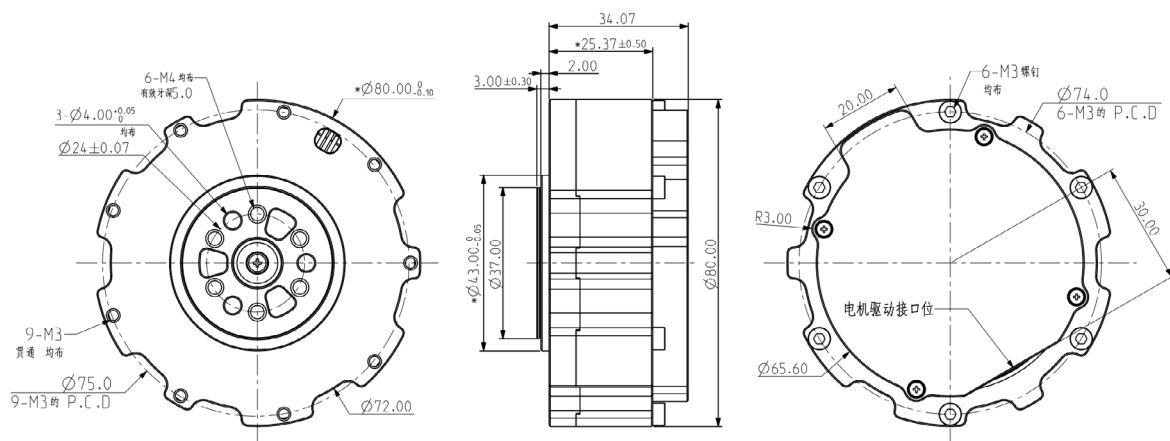
马系列 -SG-6010C

内置行星齿轮箱关节减速电机

● 传动结构	Transmission structure	行星结构 Planetary structure
● 外径尺寸	Outer diameter	80.0 mm
● 产品厚度	Thickness	34.07mm
● 减速比	Reduction ratio	i=9.67
● 背隙	Backlash	15-20 arcmin
● 电机功率	Motor Power	328 W
● 额定电压	Rated Voltage	24-48 V
● 额定转速	Rated Speed	310 rpm
● 额定扭矩	Rated Torque	6 Nm
● 峰值扭矩	Peak Torque	18 Nm
● 空载转速	No-load speed	400 rpm
● 相位阻尼	Phase damping	224 $\mu\Omega$
● 相位电感	Phase inductance	235 μH
● 相电流满量程	Phase current full scale	33 A
● 额定母线电流	Rated bus current	12 A
● 静态工作母线电流	Static working bus current	0.08 A
● 电机扭矩常数	Motor torque constant	0.0606Nm/A
● 电机结构	Motor structure	18N20P
● 热敏电阻	Thermistor	10kB3435 %1
● ntc 的 B 值	B value of ntc	3435
● 反电动势常数 (Ke)	Back electromotive force constant	0.0727Vs/Rad
● 电机 KV 值	Motor KV value	104 kv
● 产品重量	Weight	377 \pm 10g
● 允许径向力	Allow radial force	250N
● 允许轴向力	Allow axial force	100N



■ 技术插图 Technical illustration



注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

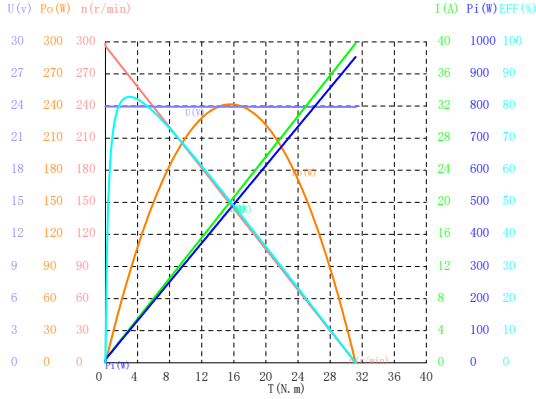
Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.



马系列 -SG-6010C

24V 测功数据 温度 环境温度: 18.1°C - 18.7°C

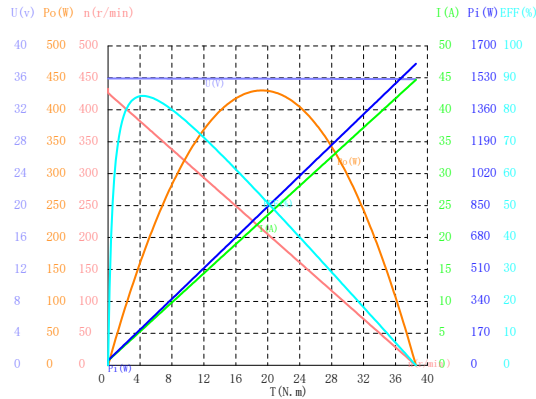
24V power test data Temperature Ambient temperature: 18.1°C - 18.7°C



特征点	n (r/min)	T (N.m)	Po (W)	U (V)	I (A)	Pi (W)	EFF
空载点	298.76	0.0000	0.0000	23.950	0.0877	2.1082	0.00%
最大效率	267.23	3.0348	84.922	23.946	4.2799	102.45	82.89%
最大输出	148.63	15.526	241.64	23.933	20.050	479.93	50.35%
最大转矩	0.0000	31.180	0.0000	23.916	39.813	952.98	0.00%
堵转点	0.0000	31.180	0.0000	23.916	39.813	952.98	0.00%
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

36V 测功数据 温度 环境温度: 18.4°C - 18.4°C

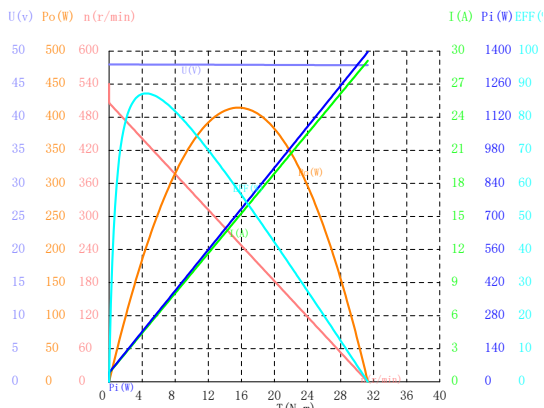
36V power test data Temperature Ambient temperature: 18.4°C - 18.4°C



特征点	n (r/min)	T (N.m)	Po (W)	U (V)	I (A)	Pi (W)	EFF
空载点	433.03	0.0000	0.0000	35.933	0.0388	1.4218	0.00%
最大效率	378.63	4.3162	171.13	35.923	5.6490	202.86	84.36%
最大输出	213.25	19.271	430.31	35.891	22.704	815.23	52.78%
最大转矩	0.0000	38.554	0.0000	35.850	44.696	1604.9	0.00%
堵转点	0.0000	38.554	0.0000	35.850	44.696	1604.9	0.00%
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

48V 测功数据 温度 环境温度: 18.6°C - 19.0°C

48V power test data Temperature Ambient temperature: 18.6°C - 19.0°C



特征点	n (r/min)	T (N.m)	Po (W)	U (V)	I (A)	Pi (W)	EFF
空载点	540.58	0.0000	0.0000	47.998	0.0000	0.0000	0.00%
最大效率	434.64	4.4160	200.98	47.974	4.8053	230.44	87.21%
最大输出	252.63	15.672	414.57	47.932	14.991	718.78	57.68%
最大转矩	0.0000	31.295	0.0000	47.875	29.128	1396.6	0.00%
堵转点	0.0000	31.295	0.0000	47.875	29.128	1396.6	0.00%
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

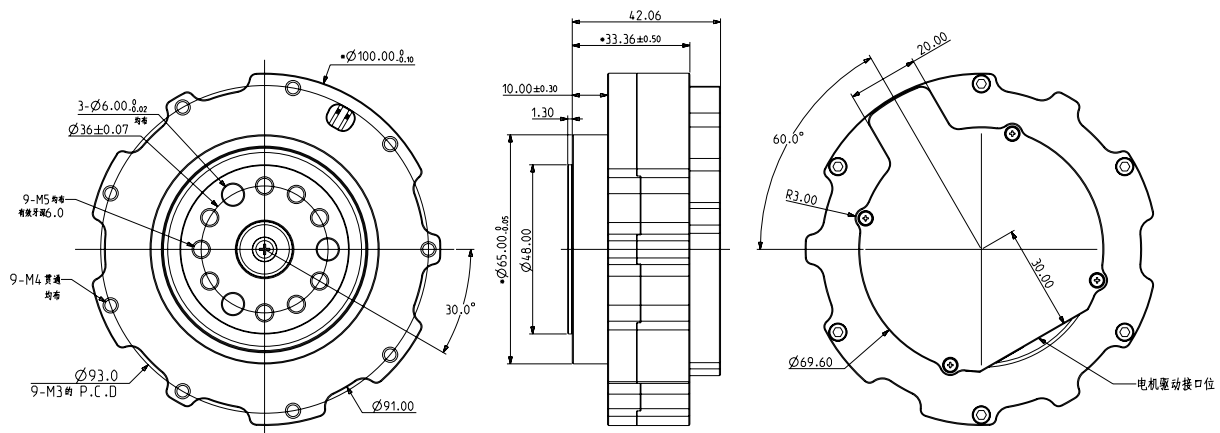
马系列 -SG-8021

内置行星齿轮箱关节减速电机

● 传动结构	Transmission structure	行星结构 Planetary structure
● 外径尺寸	Outer diameter	100 mm
● 产品厚度	Thickness	42.6 mm
● 减速比	Reduction ratio	i=9.25
● 背隙	Backlash	15-20 arcmin
● 电机功率	Motor Power	213 W
● 额定电压	Rated Voltage	24-48 V
● 额定转速	Rated Speed	160 rpm
● 额定扭矩	Rated Torque	10 Nm
● 峰值扭矩	Peak Torque	30 Nm
● 空载转速	No-load speed	240 rpm
● 相位电感	Phase inductance	290 uH
● 相电流满量程	Phase current full scale	33 A
● 额定母线电流	Rated bus current	12 A
● 静态工作母线电流	Static working bus current	0.08 A
● 电机扭矩常数	Motor torque constant	0.046Nm/A
● 电机结构	Motor structure	21 对极
● 热敏电阻	Thermistor	10kB3435 %1
● ntc 的 B 值	B value of ntc	3435
● 反电动势常数 (Ke)	Back electromotive force constant	0.143Vs/Rad
● 电机 KV 值	Motor KV value	63 kv
● 产品重量	Weight	671 g
● 允许径向力	Allowable radial force	1300 N
● 允许轴向力	Allowable axial force	550 N



■ 技术插图 Technical illustration



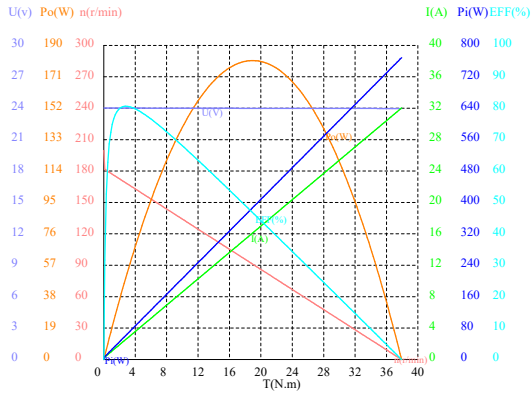
注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

马系列 -SG-8021

24V 测功数据 温度 环境温度: 22.7°C - 22.8°C

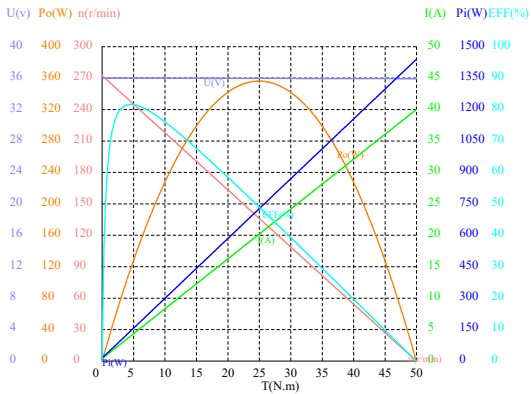
24V power test data Temperature Ambient temperature: 22.7°C - 22.8°C



E5D	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
NSD	199.73	0.0000	0.0000	24.020	0.0000	0.0000	0.00%
∴, 8F	168.80	2.7833	49.196	24.013	2.5419	61.014	80.63%
∴, T	91.244	18.928	180.84	23.995	16.092	386.21	46.83%
∴, RK	0.0000	37.922	0.0000	23.973	32.034	768.79	0.00%
)RD	0.0000	37.922	0.0000	23.973	32.034	768.79	0.00%
X. D							
X. D							
X. D							
X. D							
X. D							

36V 测功数据 温度 环境温度: 22.7°C - 22.7°C

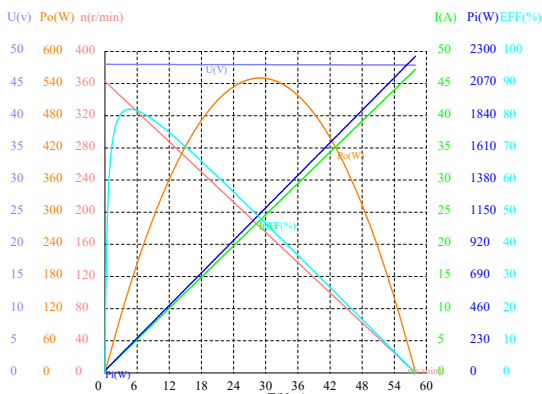
36V power test data Temperature Ambient temperature: 22.7°C - 22.7°C



E5D	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
NSD	273.51	0.0000	0.0000	36.014	0.2422	8.7386	0.00%
∴, 8F	247.40	4.5829	118.72	36.006	4.0388	145.36	81.67%
∴, T	136.07	25.003	356.24	35.971	20.224	727.82	48.95%
∴, RK	0.0000	49.961	0.0000	35.929	40.006	1439.7	0.00%
)RD	0.0000	49.961	0.0000	35.929	40.006	1439.7	0.00%
X. D							
X. D							
X. D							
X. D							
X. D							

48V 测功数据 温度 环境温度: 22.5°C - 22.5°C

48V power test data Temperature Ambient temperature: 22.5°C - 22.5°C



E5D	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
NSD	363.81	0.0000	0.0000	48.001	0.2359	11.347	0.00%
∴, 8F	332.73	4.8046	167.40	47.992	4.2519	203.99	82.06%
∴, T	180.99	29.045	550.46	47.947	23.859	1144.5	48.10%
∴, RK	0.0000	57.959	0.0000	47.894	47.246	2266.4	0.00%
)RD	0.0000	57.959	0.0000	47.894	47.246	2266.4	0.00%
X. D							
X. D							
X. D							
X. D							
X. D							

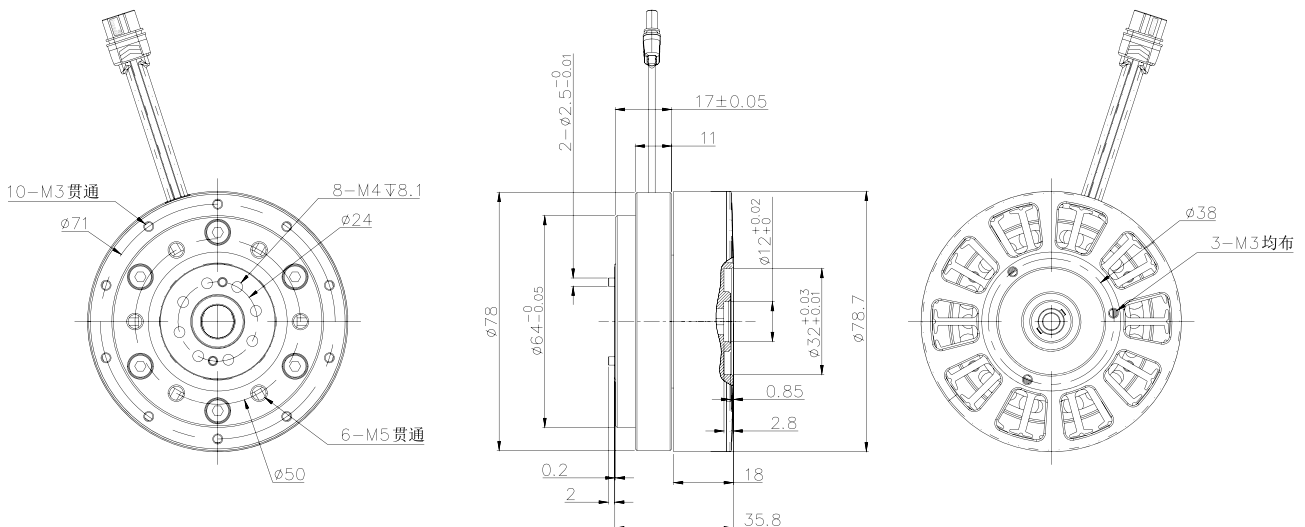
虎系列 -CPM-78-39

内置摆线结构关节减速电机

● 传动结构	Transmission structure	摆线针轮 Cycloidal pinwheel
● 产品材质	Material	金属 Steel
● 外径尺寸	Outer diameter	78.7mm
● 产品厚度	Thickness	35.8mm
● 重量	Weight	600g
● 减速比	Reduction ratio	39
● 背隙	Backlash	5-10arcmin
● 电压	Voltage	36V
● 电机功率	Rated power	200W
● 额定转速	Rated speed	48RPM
● 空载转速	No-load speed	54RPM
● 额定扭矩	Rated torque	20NM
● 峰值扭矩	Peak torque	52NM
● 霍尔角度	Hall angle	120°
● 相电阻	Phase resistance	0.225Ω
● 相电感	Phase inductance	425uH
● 最大相电流	Maximum phase current	13A
● 额定母线电流	Rated bus current	5A
● 静态工作母线	Static working bus	0.1A
● 电机结构	Motor structure	24P28N
● 温感	Sense of warmth	型号 MF52B
● 反电动势常数	Reaction potential constant	0.149Vs/rad



■ 技术插图 Technical illustration

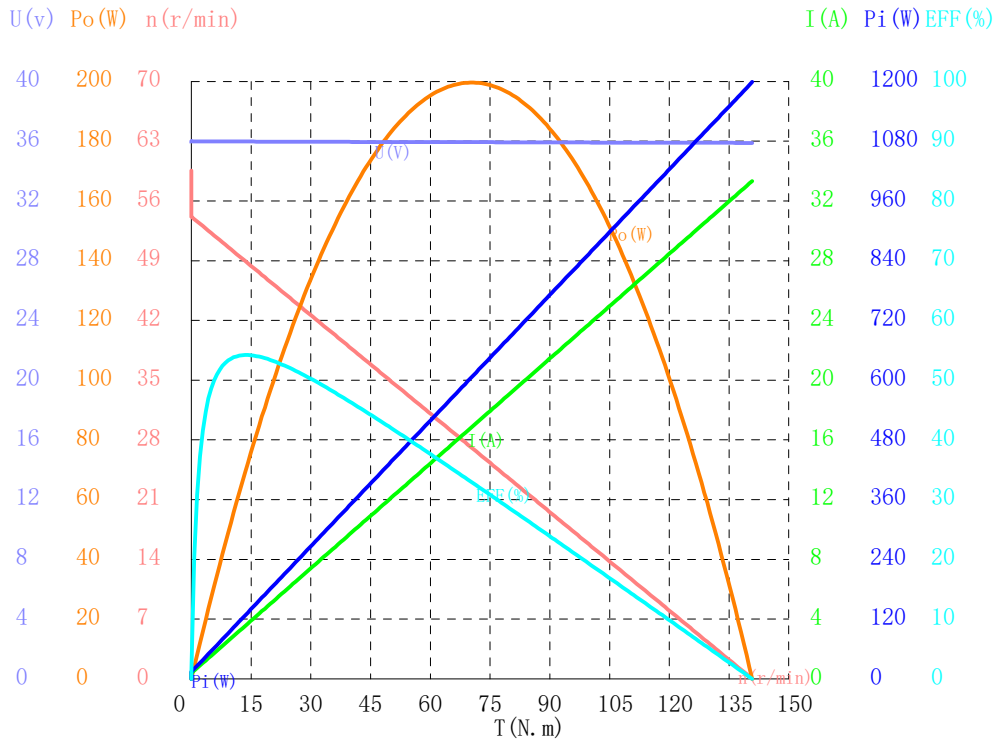


注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

虎系列 -CPM-78-39

■ 36V 测功数据 温度 环境温度: 24.4°C - 24.5°C
 36V power test data Temperature Ambient temperature: 24.4°C - 24.5°C



特征点	n (r/min)	T (N. m)	Po (W)	U (V)	I (A)	Pi (W)	EFF
空载点	59.563	0.0000	0.0000	36.001	0.0000	0.0000	0.00%
最大效率	48.978	13.468	69.072	35.981	3.5423	127.42	54.21%
最大输出	27.210	70.075	199.66	35.939	16.787	603.68	33.07%
最大转矩	0.0000	140.83	0.0000	35.886	33.342	1199.0	0.00%
堵转点	0.0000	140.83	0.0000	35.886	33.342	1199.0	0.00%
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

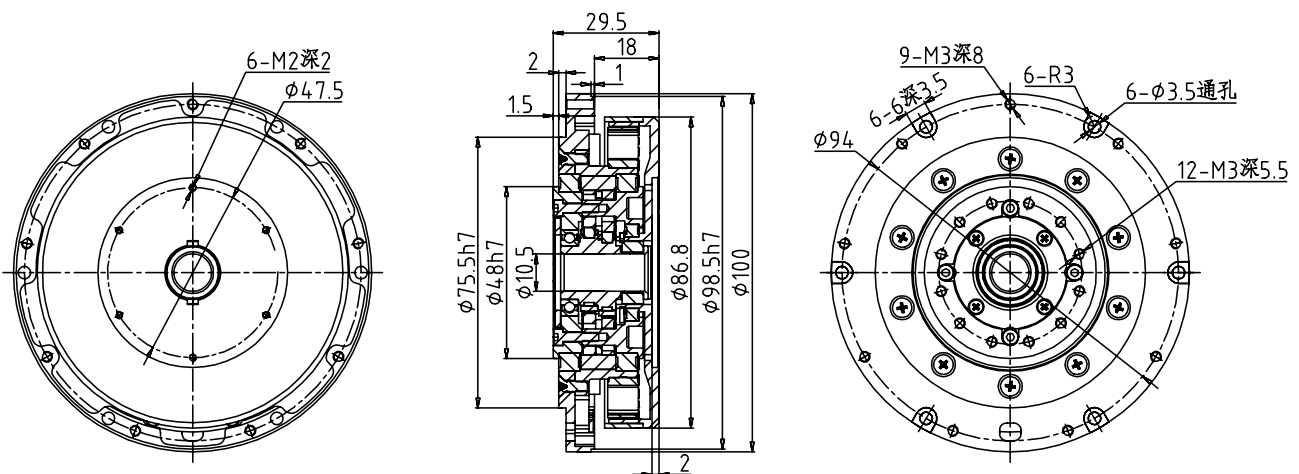
虎系列 -CPM-100-25

内置摆线结构关节减速电机

● 传动结构	Transmission structure	摆线针轮 Cycloidal pinwheel
● 产品材质	Material	金属 Steel
● 外径尺寸	Outer diameter	100MM
● 产品厚度	Thickness	29.5MM
● 背隙	Backlash	5-10arcmin
● 减速比	Reduction ratio	25
● 电压	Voltage	24V-48V
● 电机功率	Rated power	213W
● 额定转速	Rated speed	60RPM
● 空载转速	No-load speed	90RPM
● 额定扭矩	Rated torque	25NM
● 峰值扭矩	Peak torque	75NM
● 电机 KV 值	Motor KV value	63kv
● 热敏电阻	Thermistor	10KB3435%1
● 相位电感	Phase inductance	290uH
● 相电流满量程	Phase current full scale	33A
● 额定母线电流	Rated bus current	15A
● 静态工作母线	Static working bus	0.08A
● 电机结构	Motor structure	21 对极 (Antipodes)
● 重量	Weight	630g
● 反电动势常数	Reaction potential constant	0.143Vs/rad
● 允许径向力	Allow radial force	500N
● 允许轴向力	Allow axial force	300N



■ 技术插图 (不含驱动) Technical illustration



注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

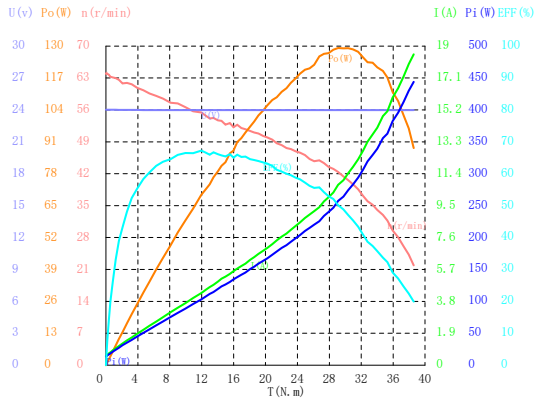
Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.



虎系列 -CPM-100-25

24V 测功数据 温度 环境温度: 28.5°C - 28.6°C

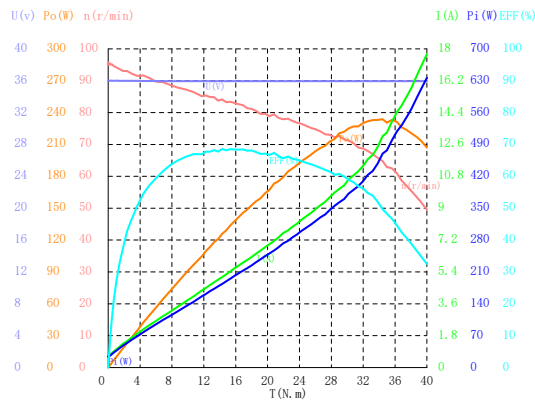
24V power test data Temperature Ambient temperature: 28.5°C - 28.6°C



特征点	n (r/min)	T (N.m)	Po (W)	U (V)	I (A)	Pi (W)	EFF
空载点	63.990	0.0000	0.0000	24.018	0.5813	13.961	0.00%
最大效率	55.456	11.960	69.452	23.988	4.3037	103.24	67.27%
最大输出	42.401	29.097	129.19	23.986	10.738	257.56	50.16%
最大转矩	21.910	38.567	88.480	23.988	18.512	444.07	19.92%
堵转点							
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

36V 测功数据 温度 环境温度: 27.8°C - 27.9°C

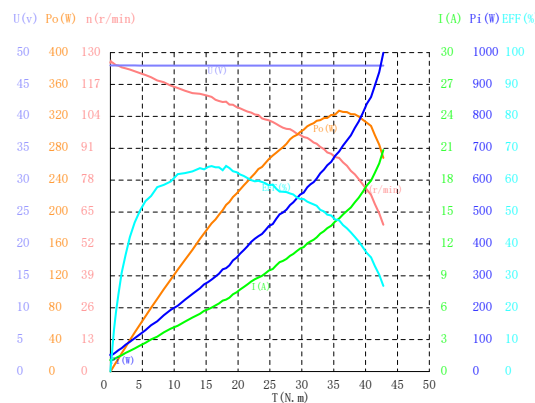
36V power test data Temperature Ambient temperature: 27.8°C - 27.9°C



特征点	n (r/min)	T (N.m)	Po (W)	U (V)	I (A)	Pi (W)	EFF
空载点	95.037	0.0000	0.0000	36.003	0.6868	24.725	0.00%
最大效率	84.107	14.310	126.03	35.957	5.1119	183.81	68.56%
最大输出	64.781	34.451	233.70	35.956	13.074	470.10	49.71%
最大转矩	49.456	39.992	207.10	35.955	17.697	636.30	32.55%
堵转点							
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

48V 测功数据 温度 环境温度: 28.6°C - 28.7°C

48V power test data Temperature Ambient temperature: 28.6°C - 28.7°C



特征点	n (r/min)	T (N.m)	Po (W)	U (V)	I (A)	Pi (W)	EFF
空载点	125.79	0.0000	0.0000	47.995	1.1101	53.281	0.00%
最大效率	109.99	18.151	209.05	47.947	6.7651	324.36	64.45%
最大输出	87.121	35.847	327.01	47.945	14.391	690.00	47.39%
最大转矩	59.815	42.791	268.02	47.945	20.838	999.07	26.83%
堵转点							
额定点1							
额定点2							
额定点3							
额定点4							
额定点5							

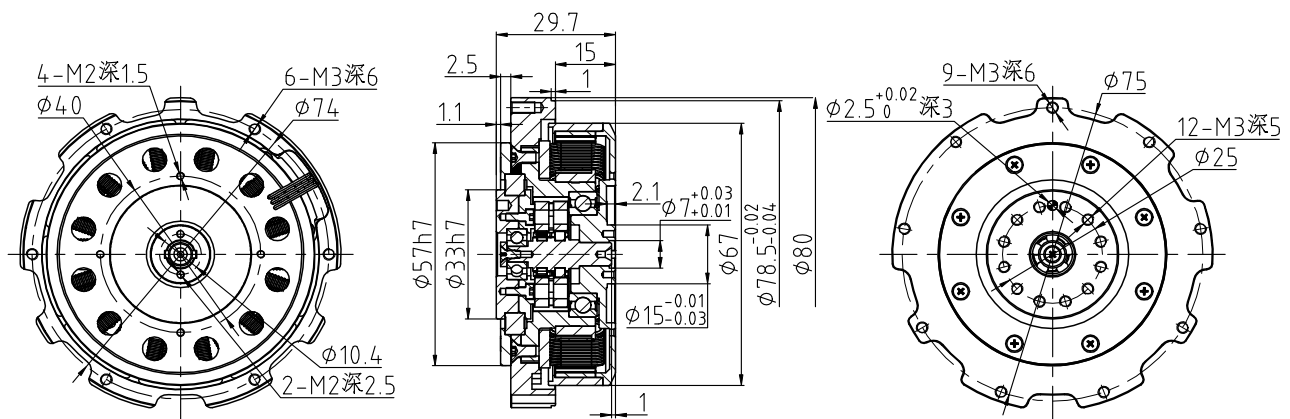
虎系列 -CPM-80-25

内置摆线结构关节减速电机

● 传动结构	Transmission structure	摆线针轮 Cycloidal pinwheel
● 产品材质	Material	金属 Steel
● 外径尺寸	Outer diameter	80MM
● 产品厚度	Thickness	29.7MM
● 背隙	Backlash	5-10arcmin
● 减速比	Reduction ratio	25
● 电压	Voltage	24V-48V
● 电机功率	Rated power	500W
● 额定转速	Rated speed	120RPM
● 空载转速	No-load speed	168RPM
● 额定扭矩	Rated torque	10NM
● 峰值扭矩	Peak torque	50NM
● 电机 KV 值	Motor KV value	104kv
● 热敏电阻	Thermistor	10KB3435%1
● 相位电感	Phase inductance	235uH
● 相电流满量程	Phase current full scale	33A
● 额定母线电流	Rated bus current	12A
● 静态工作母线	Static working bus	0.08A
● 电机结构	Motor structure	18N20P
● 相位阻尼	Phase resistance	224uΩ
● ntc 的 B 值	B value of NTC	3435
● 重量	Weight	430g
● 反电动势常数	Reaction potential constant	0.0727Vs/rad
● 允许径向力	Allow radial force	500N
● 允许轴向力	Allow axial force	500N



■ 技术插图 (不含驱动) Technical illustration



注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

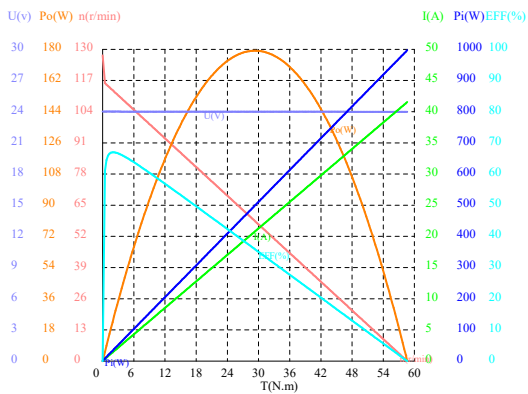
Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.



虎系列 -CPM-80-25

24V 测功数据 温度 环境温度: 28.4°C - 28.4°C

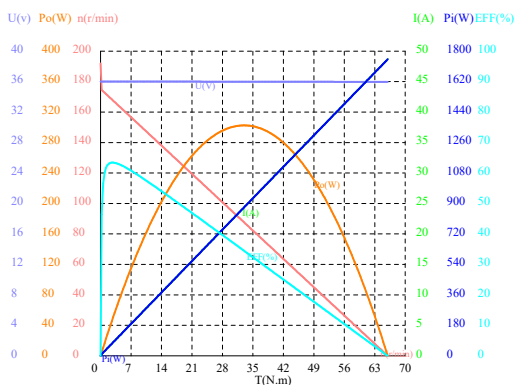
24V power test data Temperature Ambient temperature: 28.4°C - 28.4°C



ESD	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
NSD	127.49	0.0000	0.0000	24.013	0.0000	0.0000	0.00%
∴ 8F	112.99	1.9027	22.511	24.011	1.3995	33.598	67.00%
∴ T	58.241	29.385	179.21	24.002	20.852	500.56	35.80%
∴ RK	0.0000	58.622	0.0000	23.993	41.547	997.32	0.00%
)RD	0.0000	58.622	0.0000	23.993	41.547	997.32	0.00%
X. D							
X. D							
X. D							
X. D							
X. D							

36V 测功数据 温度 环境温度: 28.8°C - 28.8°C

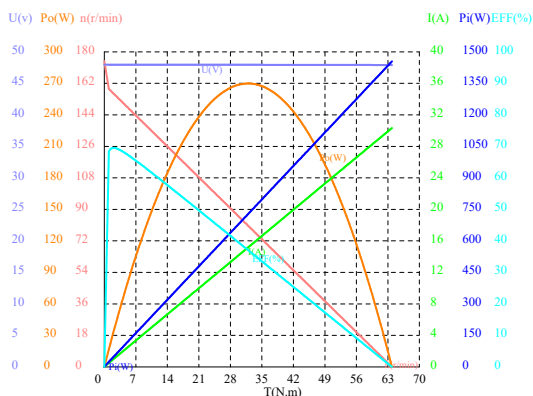
36V power test data Temperature Ambient temperature: 28.8°C - 28.8°C



F6E	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
OTE	191.98	0.0000	0.0000	36.014	0.0000	0.0000	0.00%
<-9G	167.51	2.8982	50.835	36.009	2.2257	80.133	63.44%
<-U	87.701	32.946	302.55	35.991	24.354	876.73	34.51%
<-SL	0.0000	65.965	0.0000	35.971	48.671	1752.1	0.00%
*SE	0.0000	65.965	0.0000	35.971	48.671	1752.1	0.00%
Y/E							
Y/E							
Y/E							
Y/E							
Y/E							
Y/E							

48V 测功数据 温度 环境温度: 28.5°C - 28.5°C

48V power test data Temperature Ambient temperature: 28.5°C - 28.5°C



E5D	n(r/min)	T(N.m)	Po(W)	U(V)	I(A)	Pi(W)	EFF
NSD	174.66	0.0000	0.0000	47.980	0.0000	0.0000	0.00%
∴ 8F	156.39	1.9679	32.227	47.973	0.9662	46.352	69.53%
∴ T	80.590	31.982	269.89	47.946	15.201	728.99	37.02%
∴ RK	0.0000	63.892	0.0000	47.917	30.336	1454.7	0.00%
)RD	0.0000	63.892	0.0000	47.917	30.336	1454.7	0.00%
X. D							
X. D							
X. D							
X. D							
X. D							

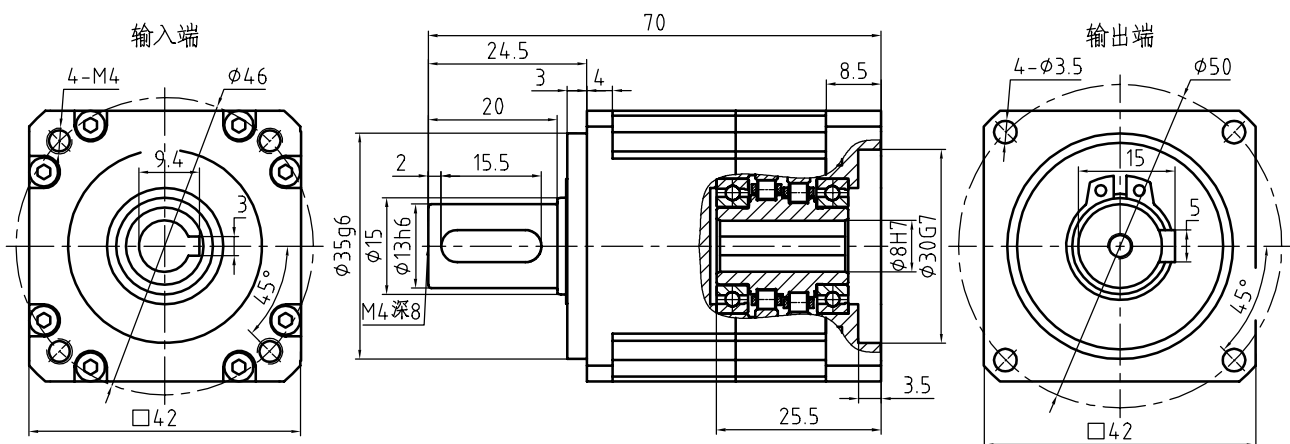
CPB-042X-SigGear

摆线针轮减速箱

● 传动结构	Transmission structure	摆线针轮 Cycloidal pinwheel
● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 外径尺寸	Outer diameter	42mm
● 产品高度	Thickness	70mm
● 减速比	Reduction ratio	25 49
● 额定输出扭矩	Rated output torque	20NM 30NM
● 故障停止扭矩	Back drive torque	3 倍额定输出扭矩
● 容许径向载荷	Allowable radial load	600N
● 容许轴向载荷	Allowable axial load	400N
● 满载效率	Full load efficiency	80%
● 防护等级	IP Grade	IP65
● 工作温度范围	Operating temperature range	-25° ~+90°
● 平均寿命时间	Average lifetime	20000h
● 额定输入转速	Rated input speed	3000min-1
● 最大输入转速	Maximum input speed	5500min-1
● 回程间隙	Backhaul clearance	≤ 10arcmin
● 配电机尺寸	Adapted Motor	φ8×25/φ30×3/4-φ4.5-φ46
● 重量	Weight	351.1g



■ 技术插图 Technical illustration



注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

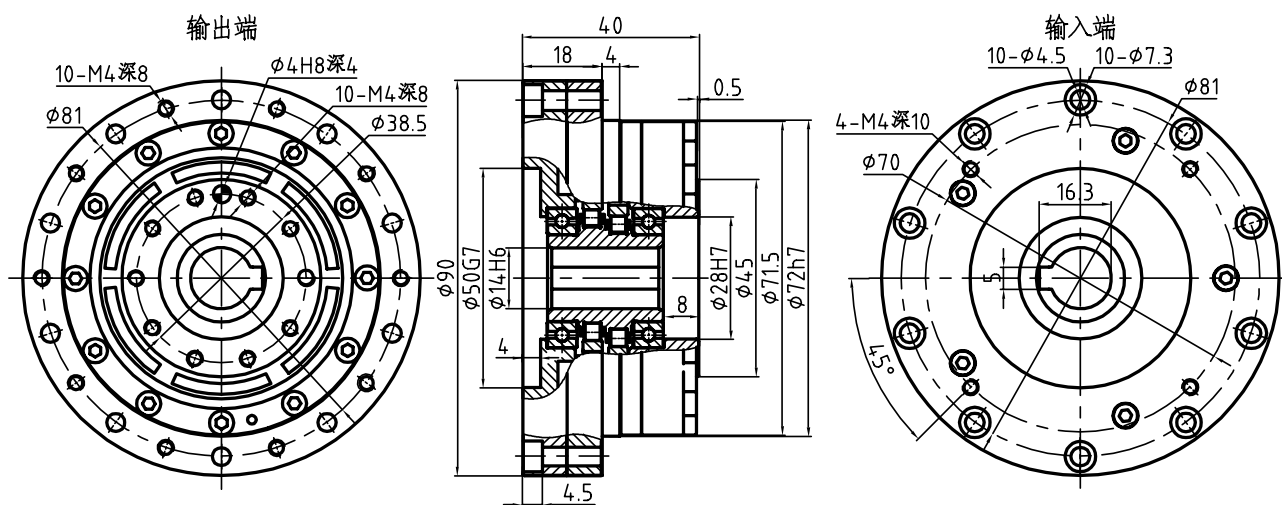
CPB-072H-SigGear

摆线针轮减速箱

● 传动结构	Transmission structure	摆线针轮 Cycloidal pinwheel
● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 外径尺寸	Outer diameter	90mm
● 产品厚度	Thickness	40mm
● 减速比	Reduction ratio	25 49
● 额定输出扭矩	Rated output torque	60NM 90NM
● 故障停止扭矩	Back drive torque	3 倍额定输出扭矩
● 容许径向载荷	Allowable radial load	480N
● 容许轴向载荷	Allowable axial load	480N
● 满载效率	Full load efficiency	80%
● 防护等级	IP Grade	IP65
● 工作温度范围	Operating temperature range	-25° ~+90°
● 平均寿命时间	Average lifetime	20000h
● 额定输入转速	Rated input speed	3000min ⁻¹
● 最大输入转速	Maximum input speed	5500min ⁻¹
● 回程间隙	Backhaul clearance	≤ 10arcmin
● 配电机尺寸	Adapted Motor	φ14×30/φ50×3/4-φ4.5-φ70
● 重量	Weight	946g



■ 技术插图 Technical illustration



注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

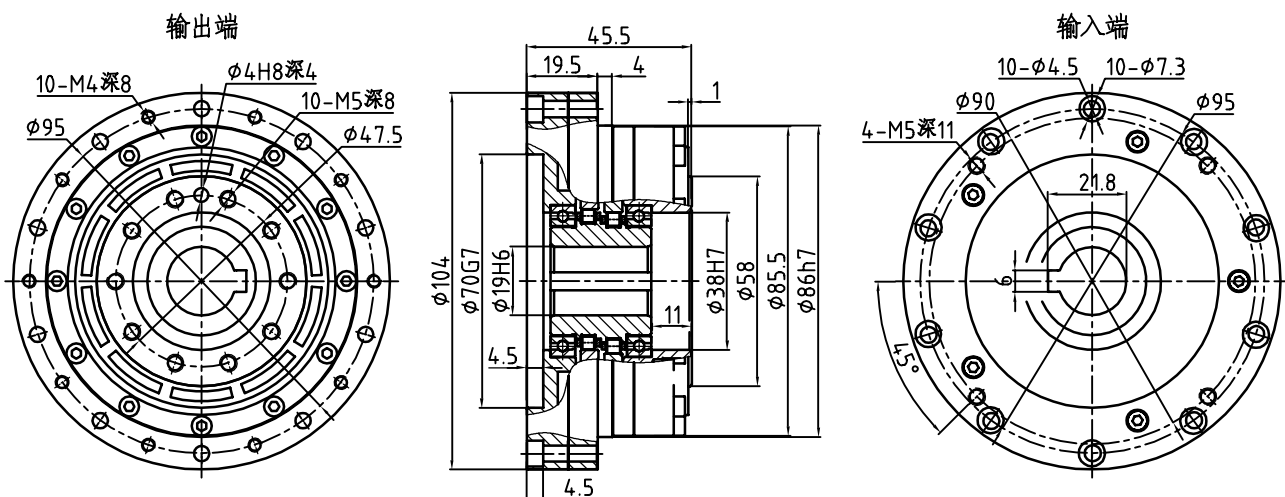
CPB-086H-SigGear

摆线针轮减速箱

● 传动结构	Transmission structure	摆线针轮 Cycloidal pinwheel
● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 外径尺寸	Outer diameter	104mm
● 产品厚度	Thickness	45.5mm
● 减速比	Reduction ratio	25 49
● 额定输出扭矩	Rated output torque	90NM 130NM
● 故障停止扭矩	Back drive torque	3 倍额定输出扭矩
● 容许径向载荷	Allowable radial load	770N
● 容许轴向载荷	Allowable axial load	770N
● 满载效率	Full load efficiency	80%
● 防护等级	IP Grade	IP65
● 工作温度范围	Operating temperature range	-25° ~+90°
● 平均寿命时间	Average lifetime	20000h
● 额定输入转速	Rated input speed	3000min-1
● 最大输入转速	Maximum input speed	5500min-1
● 回程间隙	Backhaul clearance	≤ 10arcmin
● 配电机尺寸	Adapted Motor	φ19×35/φ70×3/4-φ5.5-φ90
● 重量	Weight	1416g



■ 技术插图 Technical illustration



注：我司可定制各种非标产品，接受特殊规格的设计与开发，如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

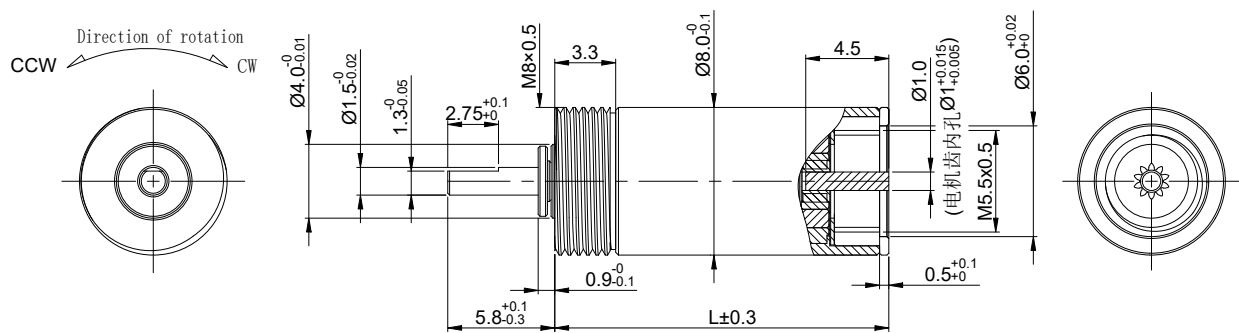
PLANETARY GEAR HEAD 8P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 0.4 Kgf
● 轴向负载	Shaft axial load	≤ 0.1 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.15mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.5°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



技术插图 Technical illustration



齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	10.15	3.8 / 4.5 / 5.2	0.2Kgf-cm	0.4Kgf-cm	90%
2	12.80	14.4 / 17.1 / 19.8 / 20.3 / 23.4 / 27	0.25Kgf-cm	0.5Kgf-cm	80%
3	15.45	54.9 / 65 / 75.1 / 76.95 / 88.9 / 91.1 / 102.75 / 105.3 / 121.7 / 140.6	0.3Kgf-cm	0.6Kgf-cm	73%
4	18.10	208.5 / 246.9 / 285.3 / 292.4 / 337.9 / 346.3 / 390.46 / 400.14 / 410.1 / 462.4 / 473.85 / 534.3 / 547.56 / 632.74 / 731.16	0.4Kgf-cm	0.8Kgf-cm	66%

适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 2.5W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 2.5W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

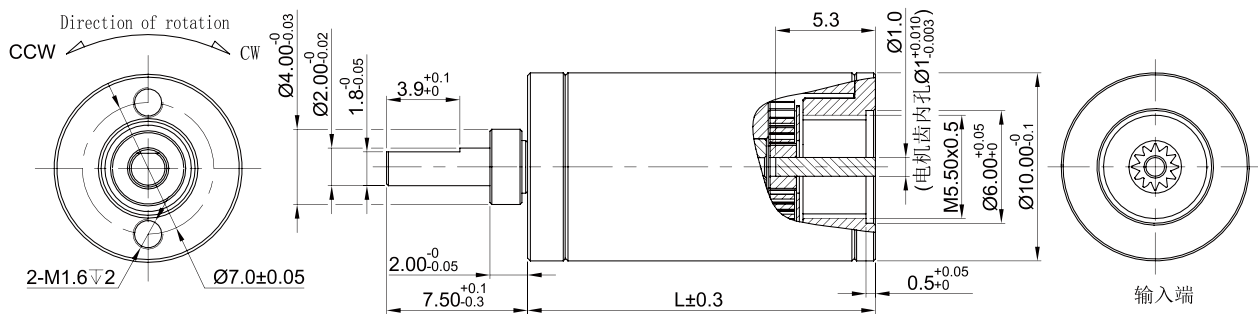
PLANETARY GEAR HEAD 10P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 0.6 Kgf
● 轴向负载	Shaft axial load	≤ 0.15 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.15mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.5°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



■ 技术插图 Technical illustration



■ 齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	10.25	3.5 / 4 / 4.75	1.3Kgf-cm	2.6Kgf-cm	90%
2	13.00	12.25 / 14 / 16 / 16.6 / 19 / 22.6	1.5Kgf-cm	3.0Kgf-cm	80%
3	15.75	42.9 / 49 / 56 / 58.2 / 64 / 66.5 / 76 / 79 / 90.25 / 107.2	1.8Kgf-cm	3.6Kgf-cm	73%
4	18.50	150.1 / 171.5 / 196 / 203.7 / 224 / 232.7 / 256 / 266 / 276.4 / 304 / 315.9 / 361 / 375.1 / 428.7 / 509.1	2.0Kgf-cm	4.0Kgf-cm	66%

■ 适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 3W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 3W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

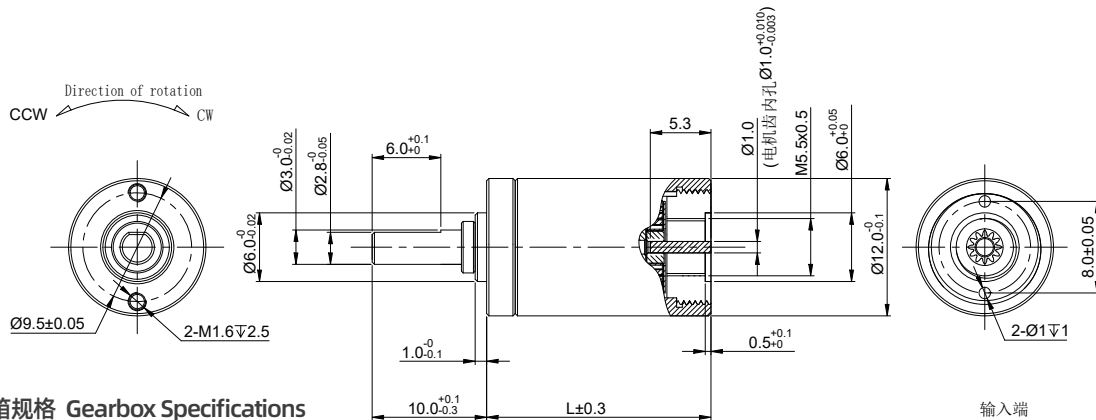
PLANETARY GEAR HEAD 12P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 0.8 Kgf
● 轴向负载	Shaft axial load	≤ 0.25 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.2mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.5°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



技术插图 Technical illustration



齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	11.35	3.5 / 4 / 4.75	2.0Kgf-cm	4.0Kgf-cm	90%
2	14.10	12.25 / 14 / 16 / 16.6 / 19 / 22.6	3.0Kgf-cm	6.0Kgf-cm	80%
3	16.85	42.9 / 49 / 56 / 58.2 / 64 / 66.5 / 76 / 79 / 90.25 / 107.2	3.6Kgf-cm	7.2Kgf-cm	73%
4	19.60	150.1 / 171.5 / 196 / 203.7 / 224 / 232.7 / 256 / 266 / 276.4 / 304 / 315.9 / 361 / 375.1 / 428.7 / 509.1	4.2Kgf-cm	8.4Kgf-cm	66%

适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 4W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 4W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

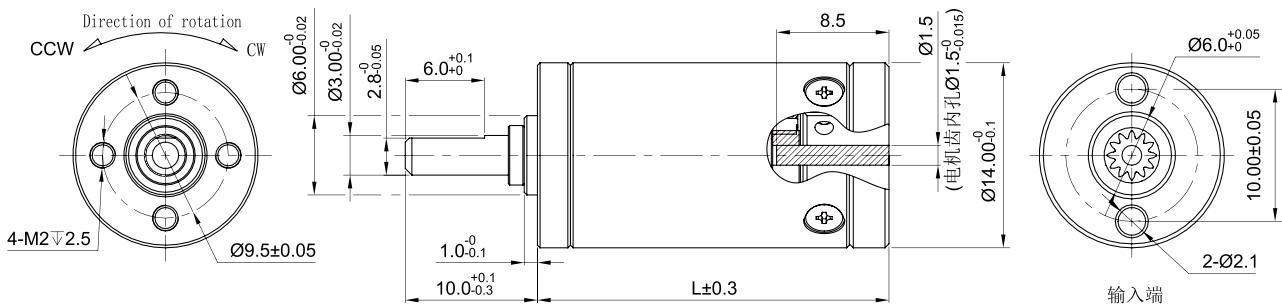
PLANETARY GEAR HEAD 14P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 0.8 Kgf
● 轴向负载	Shaft axial load	≤ 0.25 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.2mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.5°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



技术插图 Technical illustration



齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	15.2	3.75 / 4.38 / 4.66	3.5Kgf-cm	7.0Kgf-cm	90%
2	19.0	14 / 16.4 / 17.5 / 19.2 / 20.4 / 21.7	4.0Kgf-cm	8.0Kgf-cm	80%
3	22.8	52.7 / 61.6 / 65.5 / 71.9 / 76.5 / 81.4 / 84 / 89.4 / 95.1 / 101.2	5.0Kgf-cm	10.0Kgf-cm	73%
4	26.6	197.75 / 231 / 245.74 / 269.8 / 287 / 305.4 / 315.1 / 335.25 / 356.7 / 368 / 379.5 / 391.6 / 416.6 / 443.2 / 471.6	6.0Kgf-cm	12.0Kgf-cm	66%

适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 5W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 5W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

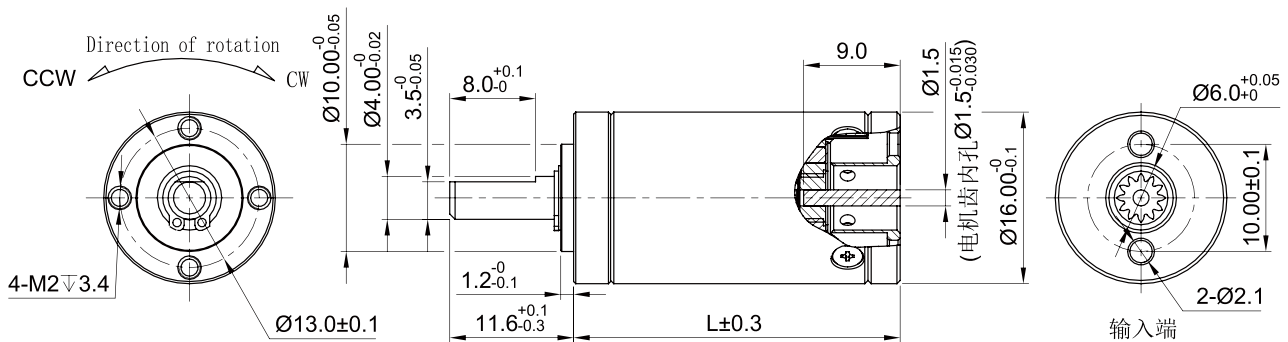
PLANETARY GEAR HEAD 16P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 1.6 Kgf
● 轴向负载	Shaft axial load	≤ 0.5 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.2mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.5°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



■ 技术插图 Technical illustration



■ 齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	17.55	3.85 / 4.33 / 4.63	4.0Kgf-cm	8.0Kgf-cm	90%
2	21.85	14.8 / 16.7 / 17.8 / 18.7 / 20 / 21.4	5.0Kgf-cm	10.0Kgf-cm	80%
3	26.15	57.1 / 64.2 / 68.6 / 72.2 / 77.2 / 81.2 / 82.5 / 86.8 / 92.8 / 99.25	7.0Kgf-cm	20.0Kgf-cm	73%
4	30.45	219.7 / 247 / 264.2 / 277.9 / 297.2 / 312.55 / 317.75 / 334.2 / 351.5 / 357.4 / 375.9 / 382.1 / 401.9 / 429.8 / 459.5	9.0Kgf-cm	26.0Kgf-cm	66%

■ 适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 10W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 10W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

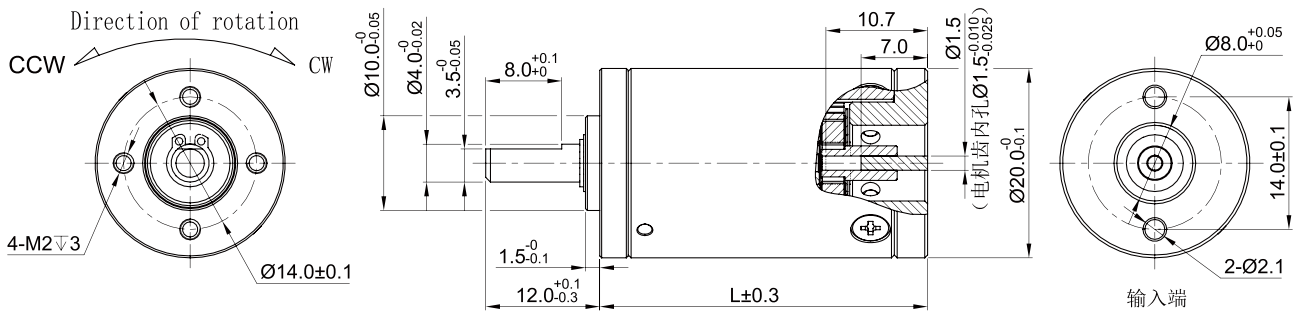
PLANETARY GEAR HEAD 20P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 1.6 Kgf
● 轴向负载	Shaft axial load	≤ 0.5 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.2mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.5°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



■ 技术插图 Technical illustration



■ 齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	20.1	4 / 4.75 / 6	6.0Kgf-cm	12.0Kgf-cm	90%
2	24.9	16 / 19 / 22.6 / 24 / 28.5 / 36	7.0Kgf-cm	14.0Kgf-cm	80%
3	29.7	64 / 76 / 90.2 / 96 / 107.2 / 114 / 135.4 / 144 / 171 / 216	10.0Kgf-cm	20.0Kgf-cm	73%
4	34.5	256 / 304 / 361 / 384 / 428.7 / 456 / 509.1 / 541.5 / 576 / 643 / 684 / 812.2 / 864 / 1026 / 1296	13.0Kgf-cm	26.0Kgf-cm	66%

■ 适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 20W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 20W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

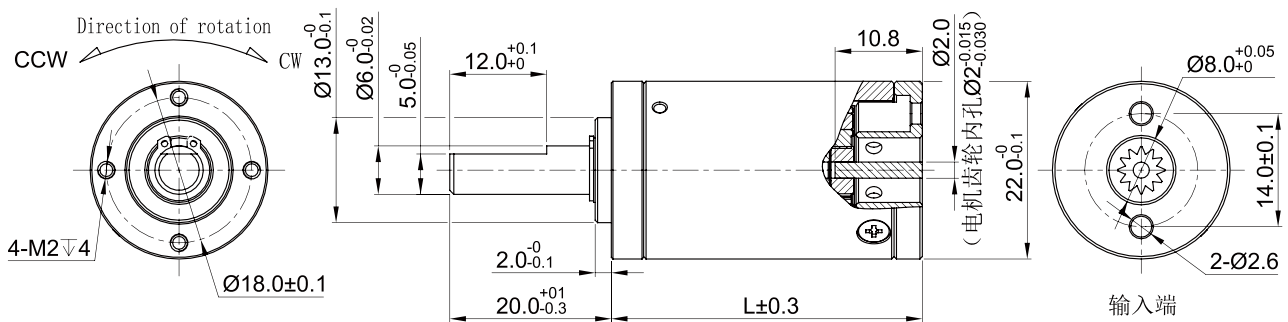
PLANETARY GEAR HEAD 22P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 1.6 Kgf
● 轴向负载	Shaft axial load	≤ 0.5 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.2mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.5°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



■ 技术插图 Technical illustration



■ 齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	22.6	3.5 / 4 / 4.75	8.0Kgf-cm	16.0Kgf-cm	90%
2	27.9	12.25 / 14 / 16 / 16.6 / 19 / 22.6	10.0Kgf-cm	20.0Kgf-cm	80%
3	33.2	42.9 / 49 / 56 / 58.2 / 64 / 66.5 / 76 / 79 / 90.25 / 107.2	15.0Kgf-cm	30.0Kgf-cm	73%
4	38.5	150.1 / 171.5 / 196 / 203.7 / 224 / 232.7 / 256 / 266 / 276.4 / 304 / 315.9 / 361 / 375.1 / 428.7 / 509.1	25.0Kgf-cm	50.0Kgf-cm	66%

■ 适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 25W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 25W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

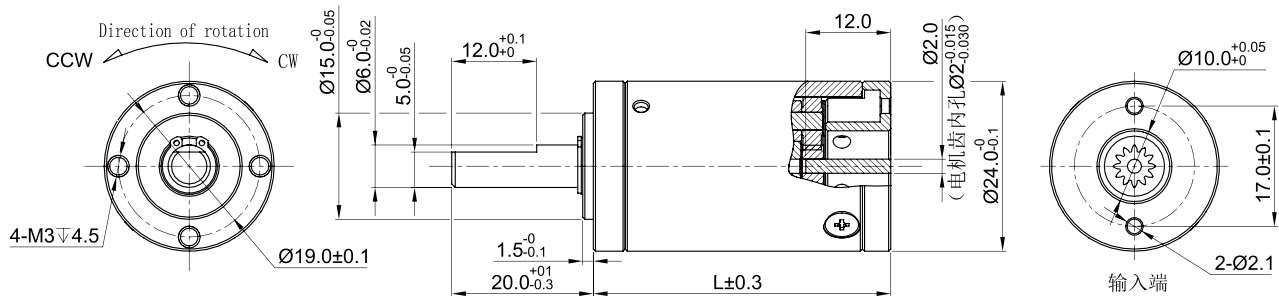
PLANETARY GEAR HEAD 24P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 3.0 Kgf
● 轴向负载	Shaft axial load	≤ 1.0 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.3mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.2°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



■ 技术插图 Technical illustration



■ 齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	24.6	3.83 / 4.4 / 5.25	10.0Kgf-cm	20.0Kgf-cm	90%
2	30.4	14.7 / 16.8 / 19.4 / 20.1 / 23 / 27.7	15.0Kgf-cm	30.0Kgf-cm	80%
3	36.2	56.2 / 64.5 / 74.1 / 77 / 85.2 / 88.5 / 101.6 / 105.6 / 121.3 / 144.7	20.0Kgf-cm	40.0Kgf-cm	73%
4	42.0	215.2 / 247.2 / 284 / 294.9 / 326.2 / 338.8 / 374.8 / 389.3 / 404.3 / 447.2 / 464.5 / 533.6 / 554.2 / 636.7 / 759.7	30.0Kgf-cm	60.0Kgf-cm	66%

■ 适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 28W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 28W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

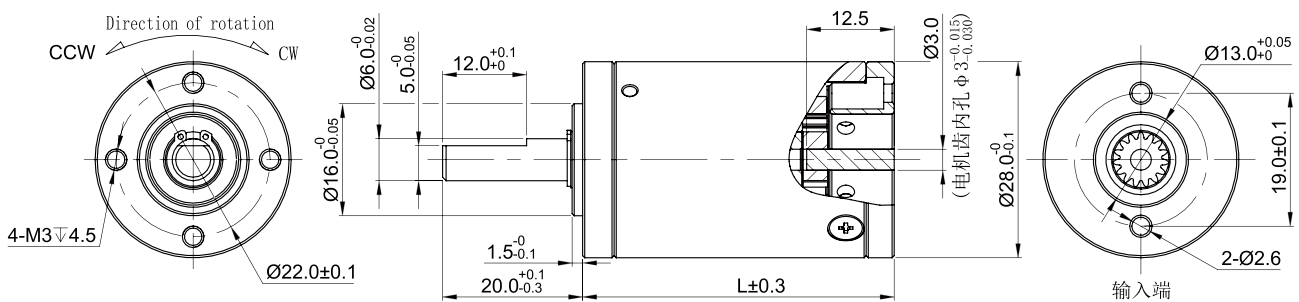
PLANETARY GEAR HEAD 28P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 6.0 Kgf
● 轴向负载	Shaft axial load	≤ 3.0 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.3mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.2°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



■ 技术插图 Technical illustration



■ 齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	25.6	3.83 / 4.4 / 5.25	20.0Kgf-cm	40.0Kgf-cm	90%
2	31.9	14.7 / 16.8 / 19.4 / 20.1 / 23 / 27.7	25.0Kgf-cm	50.0Kgf-cm	80%
3	38.2	56.2 / 64.5 / 74.1 / 77 / 85.2 / 88.5 / 101.6 / 105.6 / 121.3 / 144.7	35.0Kgf-cm	70.0Kgf-cm	73%
4	44.5	215.2 / 247.2 / 284 / 294.9 / 326.2 / 338.8 / 374.8 / 389.3 / 404.3 / 447.2 / 464.5 / 533.6 / 554.2 / 636.7 / 759.7	50.0Kgf-cm	100.0Kgf-cm	66%

■ 适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 30W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 30W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

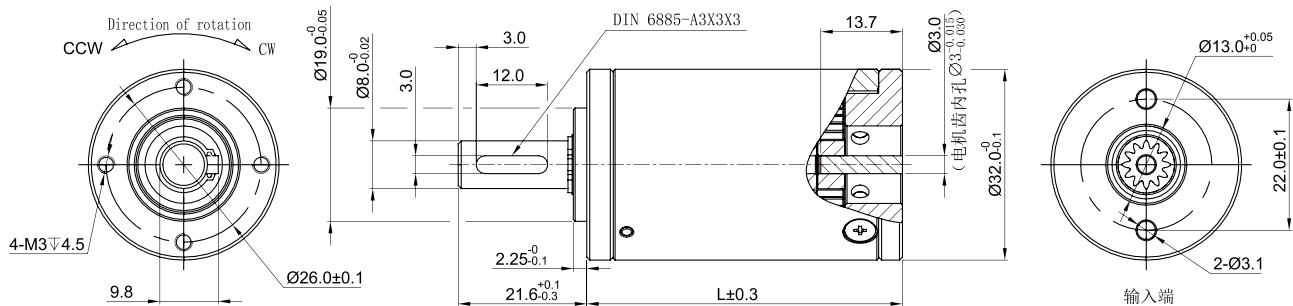
PLANETARY GEAR HEAD 32P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 8.0 Kgf
● 轴向负载	Shaft axial load	≤ 3.5 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.3mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.2°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



技术插图 Technical illustration



齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	28.05	3.5 / 4 / 4.75	35.0Kgf-cm	70.0Kgf-cm	90%
2	36.35	12.2 / 14 / 16 / 16.6 / 19 / 22.6	50.0Kgf-cm	100.0Kgf-cm	80%
3	44.65	42.9 / 49 / 56 / 58.2 / 64 / 66.5 / 76 / 79 / 90.2 / 107.2	65.0Kgf-cm	130.0Kgf-cm	73%
4	52.95	150.1 / 171.5 / 196 / 203.7 / 224 / 232.7 / 256 / 266 / 276.4 / 304 / 315.9 / 361 / 375.1 / 428.7 / 509.1	80.0Kgf-cm	160.0Kgf-cm	66%

适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 36VDC
直流电机 DC motors	适配功率小于 100W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 100W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

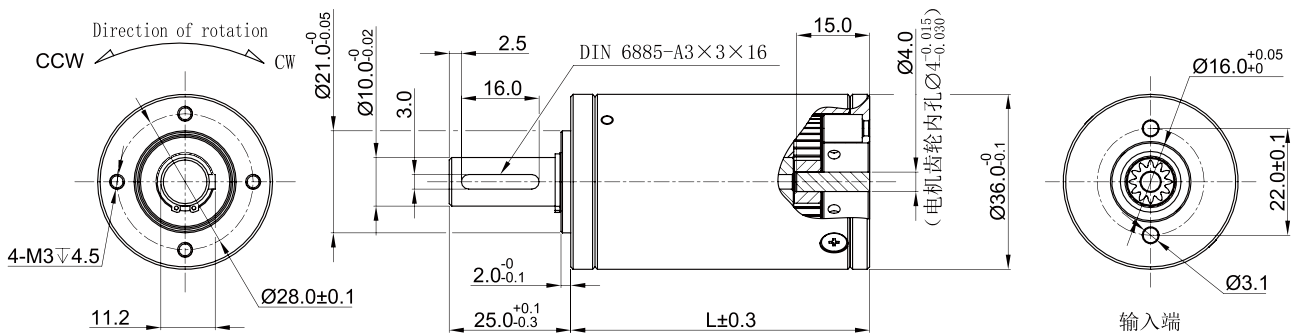
PLANETARY GEAR HEAD 36P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 10.0 Kgf
● 轴向负载	Shaft axial load	≤ 6.0 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.3mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.2°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



技术插图 Technical illustration



齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	30.6	3.66 / 4.2 / 5.0	40.0Kgf-cm	80.0Kgf-cm	90%
2	40.9	13.4 / 15.4 / 17.6 / 18.3 / 21 / 25	60.0Kgf-cm	120.0Kgf-cm	80%
3	51.2	49 / 56.3 / 64.6 / 67 / 74.1 / 76.9 / 88.2 / 91.5 / 105 / 125	80.0Kgf-cm	160.0Kgf-cm	73%
4	61.5	179.4 / 205.9 / 236.3 / 245.1 / 271.2 / 281.3 / 311.2 / 322.8 / 334.9 / 370.5 / 384.3 / 441 / 457.5 / 525 / 625	100.0Kgf-cm	200.0Kgf-cm	66%

适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 48VDC
直流电机 DC motors	适配功率小于 150W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 150W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

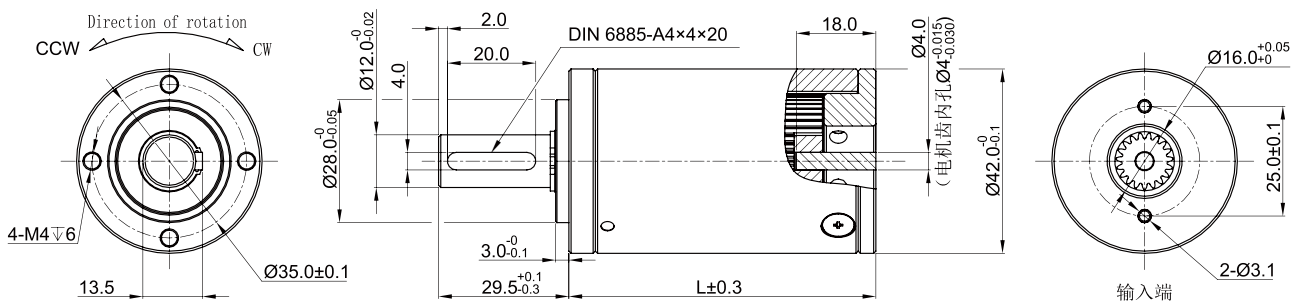
PLANETARY GEAR HEAD 42P

行星结构减速箱

● 外壳材料	Housing material	金属 steel
● 齿轮材料	Gearwheel material	金属 steel
● 输出轴承型式	Bearing at output	滚珠轴承 Ball bearings
● 径向负载	Radial load (10mm from flange)	≤ 16.0 Kgf
● 轴向负载	Shaft axial load	≤ 8.0 Kgf
● 径向间隙	Radial play of shaft	≤ 0.04mm
● 轴向间隙	Thrust play of shaft	≤ 0.3mm
● 背隙 (空载时)	Backlash, at no-load	≤ 1.2°
● 连续运行时最高允许输入转速	Max permissible speed at continuous working	≤ 8000rpm
● 工作温度范围	Operating temperature range	-40~120°C



技术插图 Technical illustration



齿轮箱规格 Gearbox Specifications

级数 Number of stages	L (mm)	减速比 Reduction ratio	额定允许负载 Exact reduction torque	瞬间允许负载 Max momentary tolerance torque	效率 Efficiency
1	35.6	3.8 / 4.3 / 5.1	80.0Kgf-cm	160.0Kgf-cm	90%
2	46.9	14.4 / 16.3 / 18.6 / 19.2 / 21.8 / 25.7	100.0Kgf-cm	200.0Kgf-cm	80%
3	58.2	54.4 / 61.9 / 70.4 / 72.8 / 80.1 / 82.8 / 94.2 / 97.4 / 110.8 / 130.3	120.0Kgf-cm	240.0Kgf-cm	73%
4	69.5	206.4 / 234.6 / 266.8 / 276 / 303.5 / 313.9 / 345 / 357 / 369.2 / 406 / 419.9 / 477.5 / 493.93 / 561.70 / 660.7	150.0Kgf-cm	300.0Kgf-cm	66%

适配电机 Adapted Motor

额定电压 (VDC) Nominal(VDC)	3 ~ 48VDC
直流电机 DC motors	适配功率小于 200W 的直流电机, 当电机不能满足减速器安装要求时, 需另行商定 Suitable for DC motors with power less than 200W, if the motor cannot meet the installation requirements of the gearbox, needs to be negotiated separately.

注: 我司可定制各种非标产品, 接受特殊规格的设计与开发, 如有需求欢迎来电咨询

Note: We can customize a variety of non-standard products, accept the design and development of special specifications, if there is a demand welcome to inquire.

