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传动精品 传递真情

太阳能光伏跟踪回转减速机GMD系列 Solar PV Tracking Rotary Reducer GMD Series



传动精品 传递真情

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1 产品简介 Product introduction

太阳能光伏发电是回转式减速机的一个重要应用领域，回转式减速机是光伏发电用跟踪系统的核心部件，通过电机驱动，以一定的转速运行。回转式减速机带动被驱动组件在仰角方向转动，使其始终面对着太阳，可根据一天中太阳不同的位置来对主机的转角及仰角进行精确的调整，时刻处于太阳能电池板最佳的接收角度，能够显著提高太阳能发电效率。

基于追日系统工作环境恶劣(如高温,低温,暴风,暴雨等极端自然天气),超长使用寿命(20年设计寿命)等苛刻条件,我们加强了产品的各项测试的同时引入先进的设计理念,既保证了回转减速器的安全性、稳定性、可靠性和防护性又具有漂亮的外观。我们设计的追日回转减速器的三大优势:

■ 模块化

由于追日回转驱动的高集成度,使得用户不必对组成旋转装置的每一款配件进行逐一采购和加工,在一定程度上也减少了产品生产之初的准备工序,从而大幅度提高劳动生产率。

考虑到产品系列化开发,我们将核心驱动的双包络蜗杆进行参数整合,模块化开发,及确保产品可靠性,缩短产品开发周期,降低了产品的制造难度。

■ 安全性

双包络蜗轮蜗杆传动具有反向自锁的特点,可实现反向自锁,即只能由蜗杆带动蜗轮,而不能由蜗轮带动蜗杆运动。这一特性使得回转驱动可被广泛应用于起重、高空作业等设备当中,在提高主机的科技含量的同时,也大大提升了主机的作业稳定性和作业的安全系数。为其它领域拓展,积累了丰富的经验,实现差异化竞争。

■ 简化主机设计

与传统的齿轮传动相比,双包络追日蜗轮蜗杆传动可以得到相对较大的减速比,在某些情况下,可以为主机省却减速机部件,从而为客户降低采购成本,同时也大大降低了主机故障产生率。

Solar photovoltaic power generation is an important application field of rotary reducer, rotary reducer is the core component of photovoltaic power generation tracking system, driven by motor, running at a certain speed. The rotary reducer drives the driven component to rotate in the elevation direction, so that it always faces the sun, and can accurately adjust the Angle and elevation Angle of the host according to the different positions of the sun in the day, and is always in the best receiving Angle of the solar panel, which can significantly improve the efficiency of solar power generation.

Based on the harsh working environment of the tracking system (such as high temperature, low temperature, storm, rainstorm and other extreme natural weather), long service life (20 years design life) and other harsh conditions, we have strengthened the testing of the product while introducing advanced design concepts, which not only ensures the safety, stability, reliability and protection of the rotary reducer, but also has a beautiful appearance. The three advantages of our design of the sun rotation reducer:

■ modularization

Due to the high integration of the rotary drive, the user does not have to purchase and process each part of the rotating device one by one, which also reduces the preparation process at the

beginning of product production to a certain extent, thereby greatly improving labor productivity.

Considering the serialization of product development, we integrate the parameters of the core-driven double-enveloped worm, develop modularized, and ensure product reliability, shorten the product development cycle, and reduce the difficulty of product manufacturing.

■ security

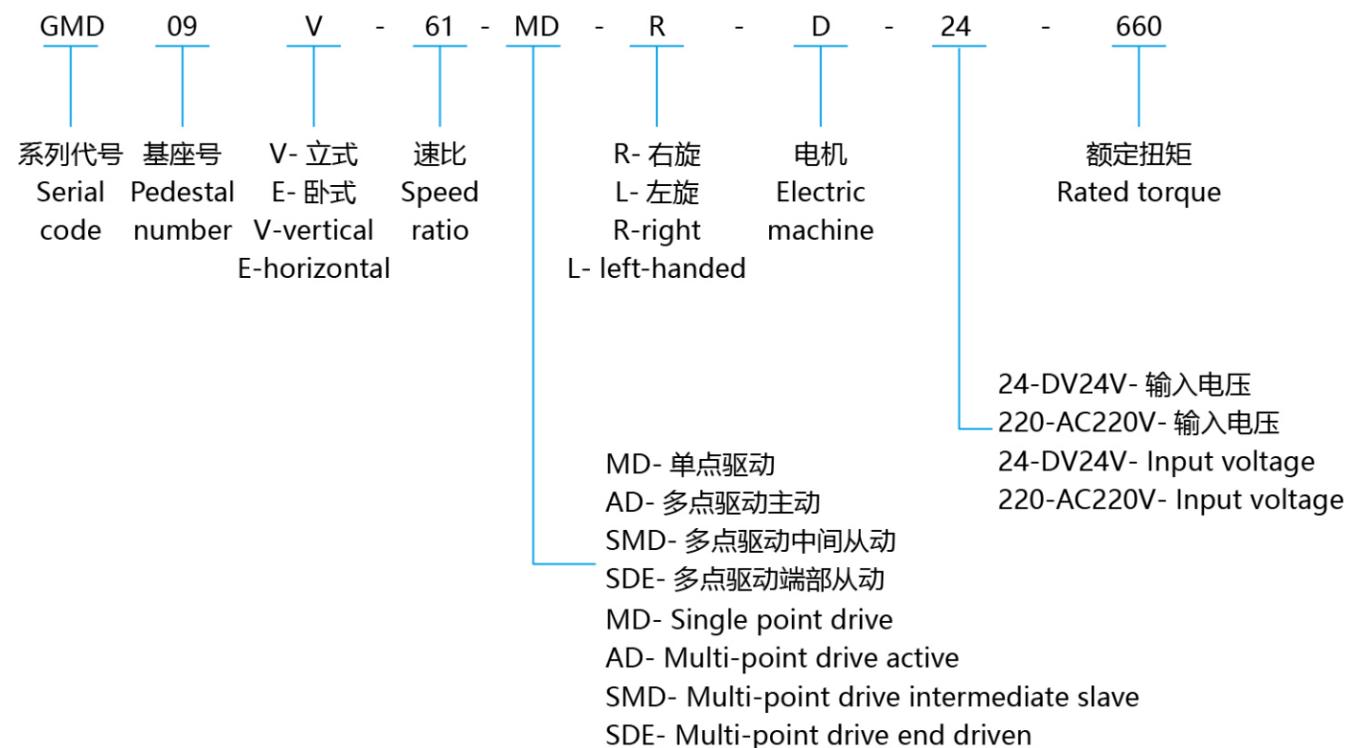
Double-enveloped worm gear transmission has the characteristics of reverse self-locking, which can realize reverse self-locking, that is, the worm can only drive the worm gear, but not the worm gear. This feature makes the rotary drive can be widely used in lifting, aerial work and other equipment, while improving the scientific and technological content of the host, but also greatly improve the stability of the host and the safety factor of the operation. For other areas to expand, accumulated a lot of experience, to achieve differentiated competition.

■ Simplify host design

Compared with the traditional gear drive, the double envelope worm gear can get a relatively large reduction ratio, in some cases, can save the reducer parts for the main engine, thus reducing the purchase cost for the customer, but also greatly reduce the main engine failure rate.



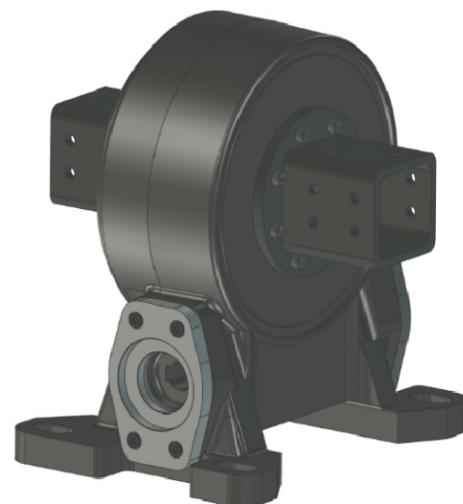
2 型号表示 Type indication



3 安装形式 Installation form

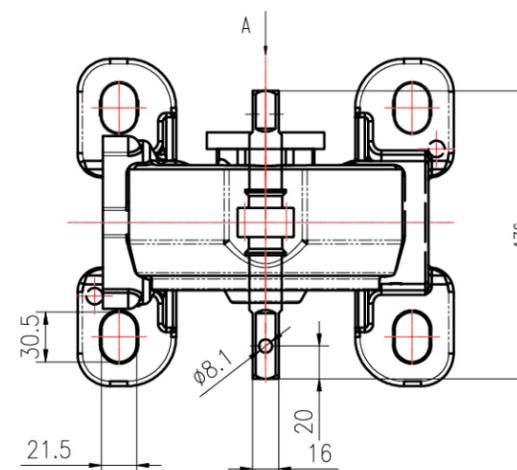
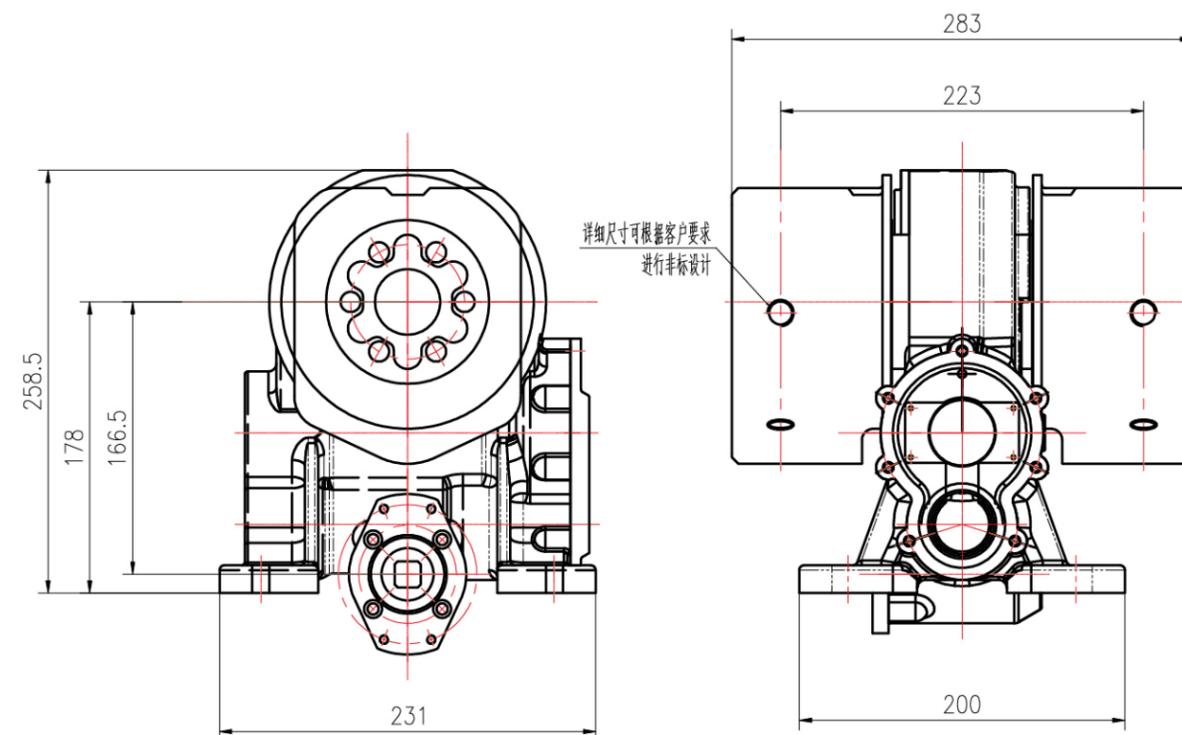


(卧式安装) -E
(Horizontal mounting) -E



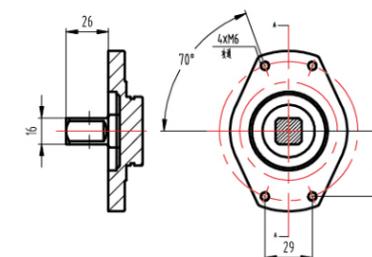
(立式安装) -V
(vertical mounting) -V

3.1 5寸 5 inches



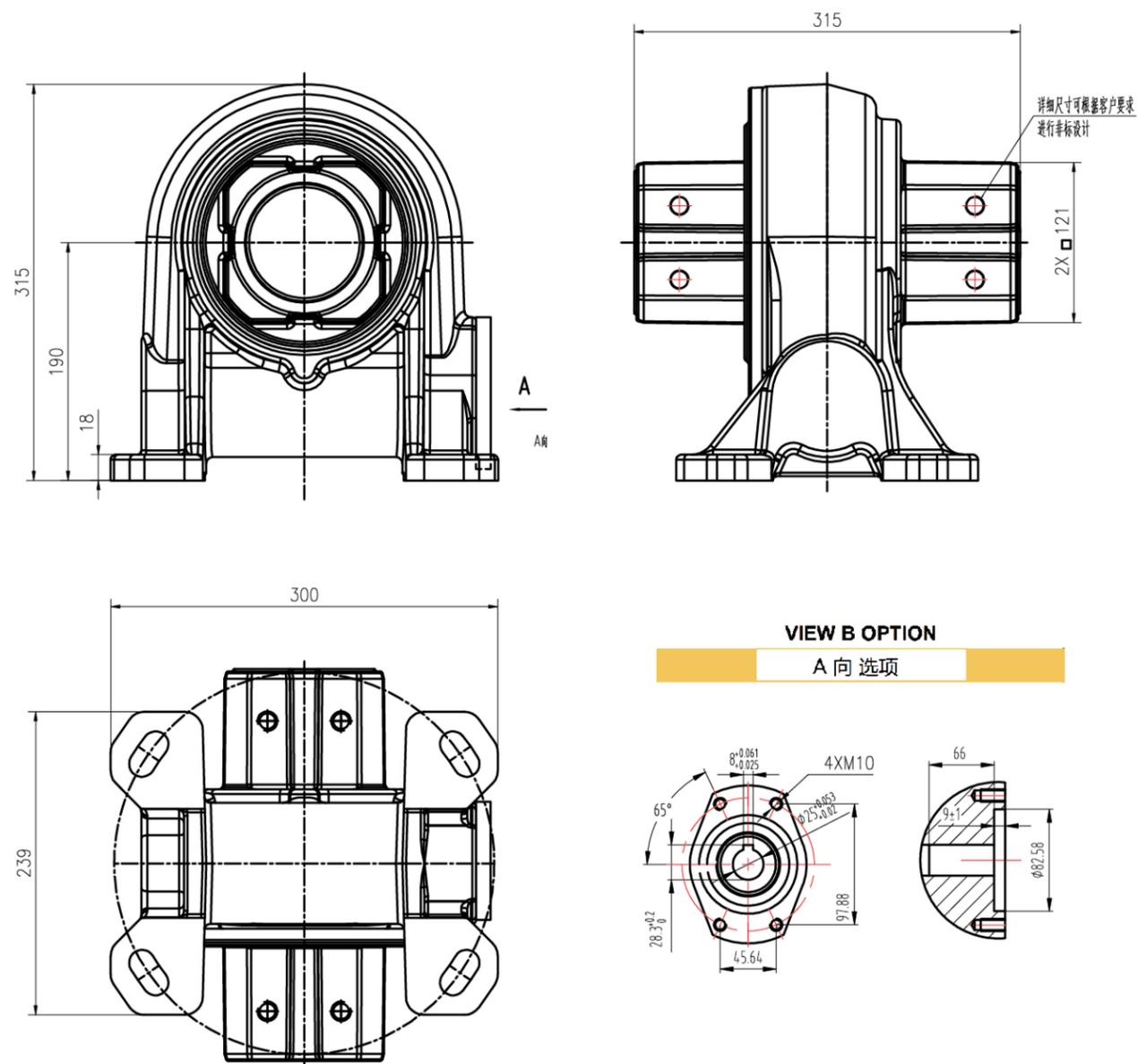
VIEW B OPTION

A向选项



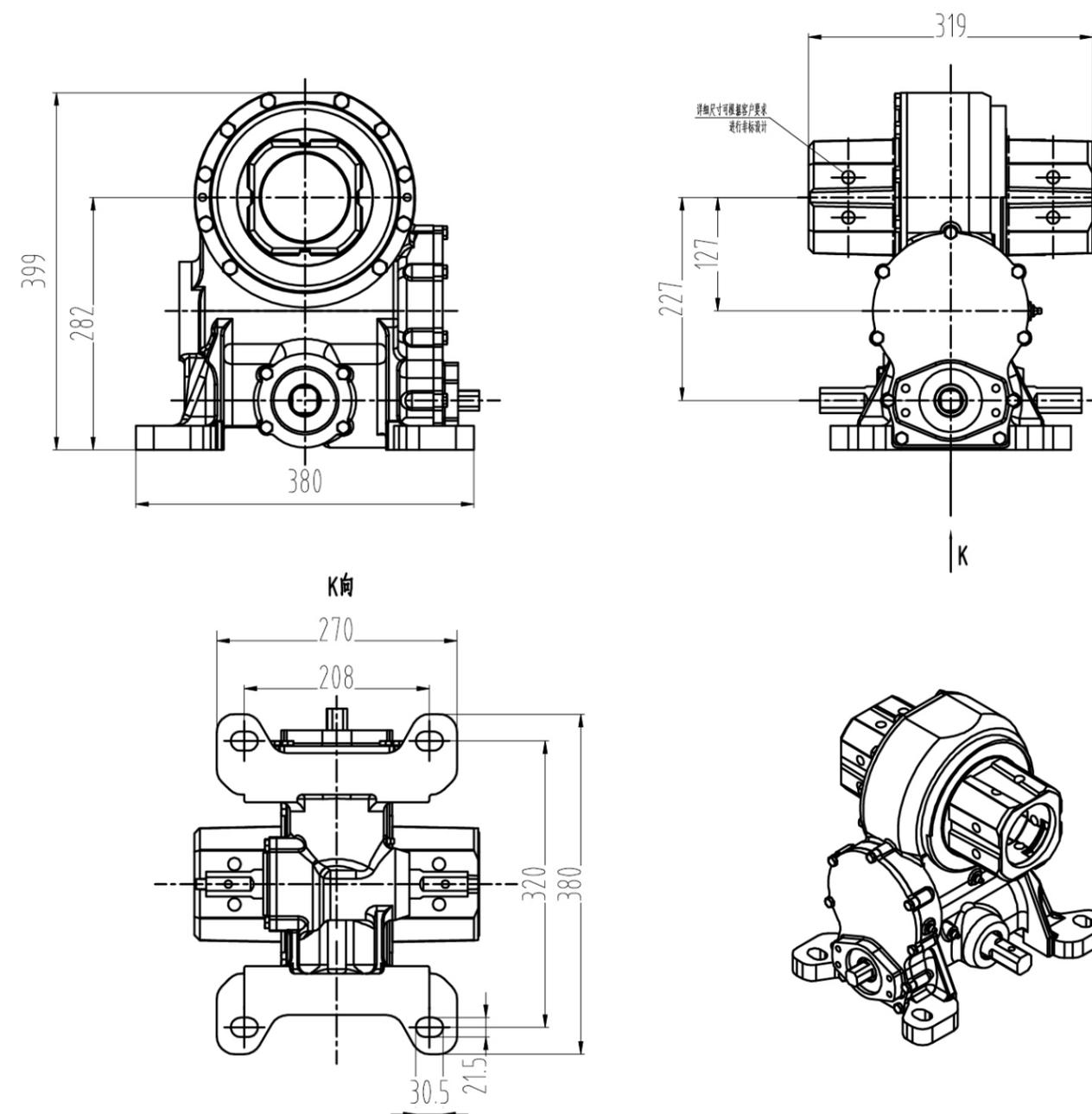
类型 type	额定输出扭矩 Rated output torque	最大输出扭矩 Maximum output torque	保持力矩 Holding moment	减速比 Reduction ratio	精度等级 Precision class	重量 weight
VED5	600N.m 442.5 lbf.ft	750N.m 553.5 lbf.ft	21KN.m 15498 lbf.ft	99.4:1	≤0.2°	27Kg

3.2 7寸 7 inches



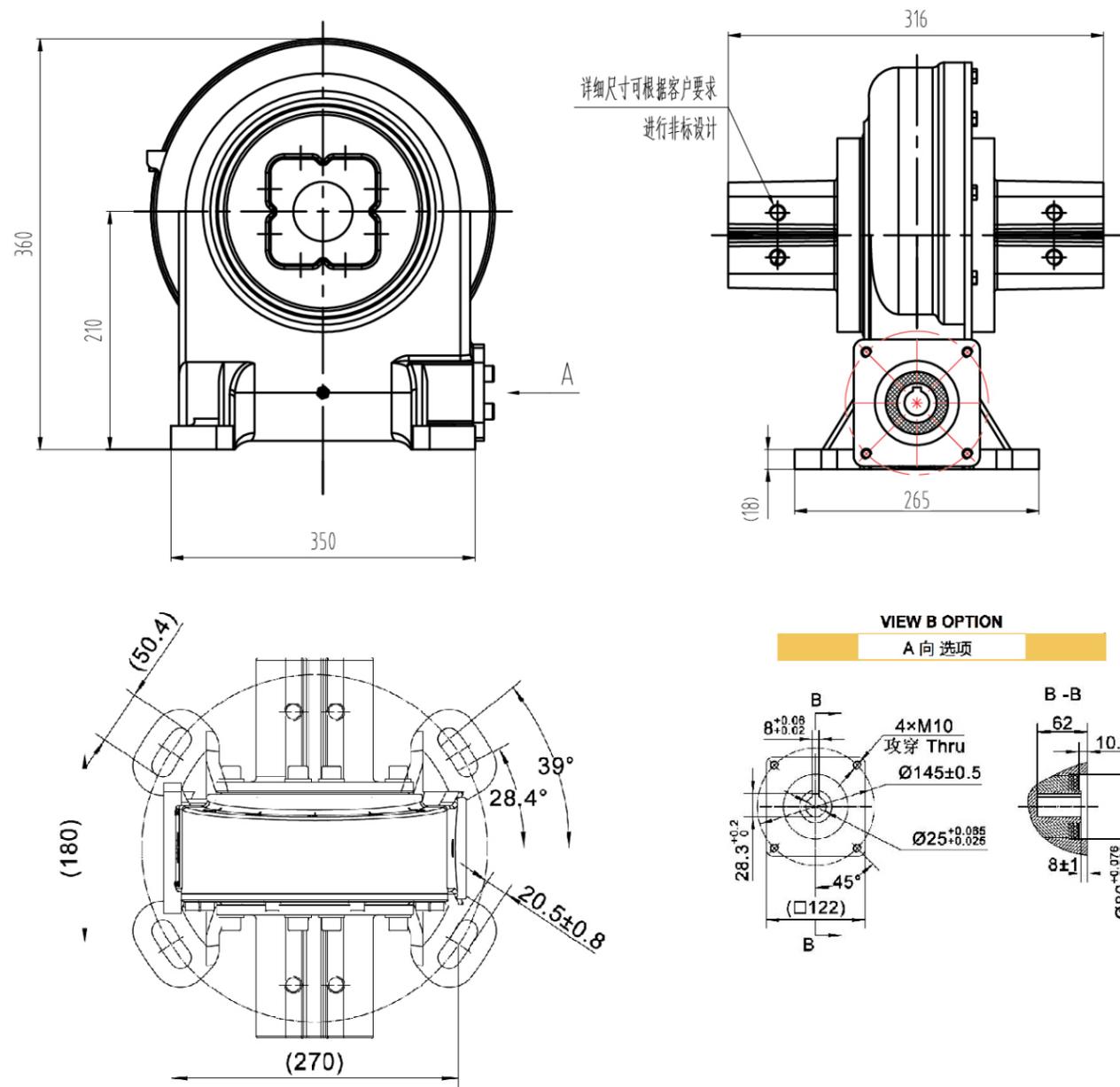
类型 type	额定输出扭矩 Rated output torque	最大输出扭矩 Maximum output torque	保持力矩 Holding moment	减速比 Reduction ratio	精度等级 Precision class	重量 weight
VED7I	4000N.m	6500N.m	34KN.m	50:1	≤0.2°	43Kg
	2952 lbf.ft	4797 lbf.ft	25092 lbf.ft			

3.3 7寸多点驱动版 7 "multi-point drive version



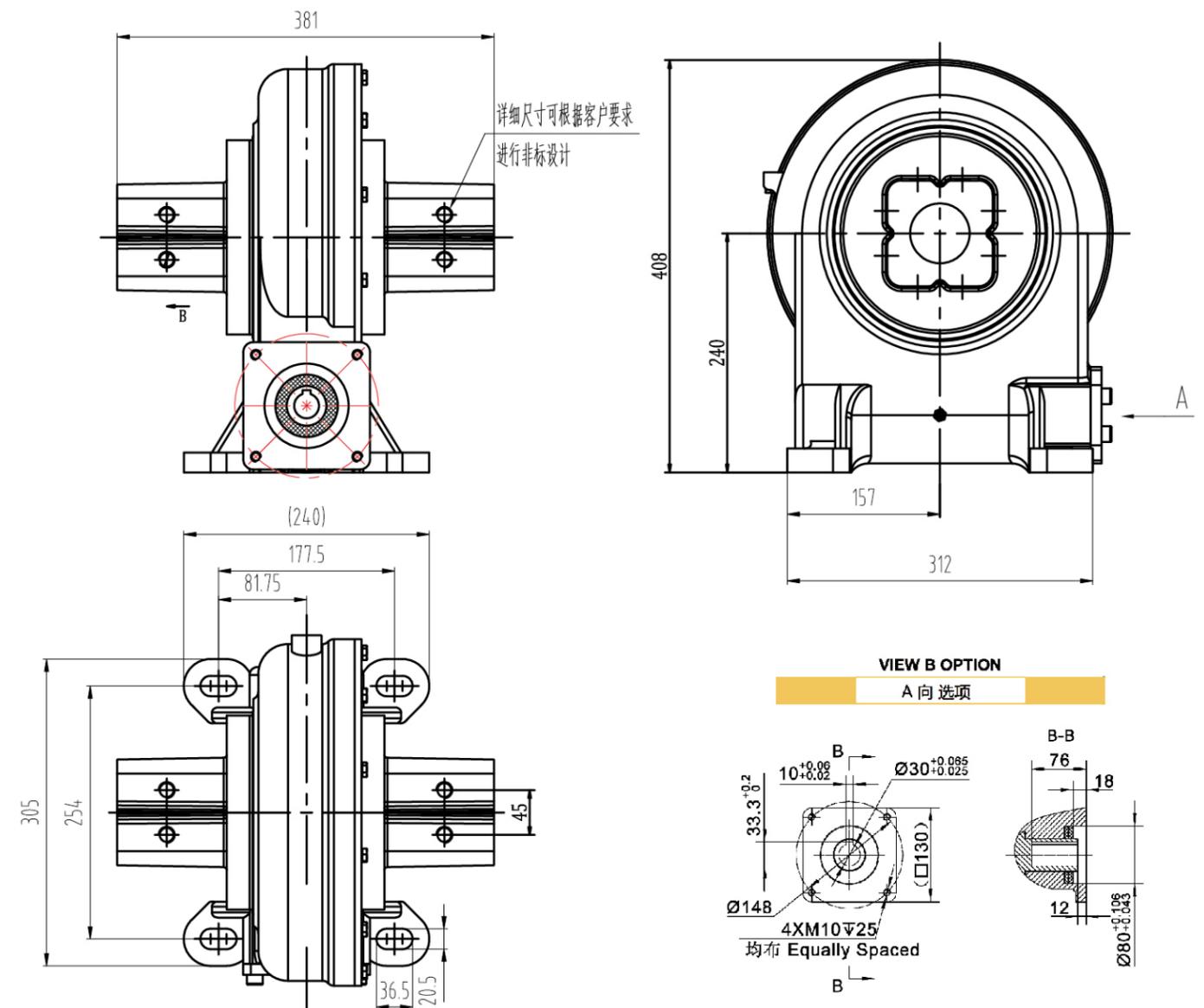
类型 type	额定输出扭矩 Rated output torque	最大输出扭矩 Maximum output torque	保持力矩 Holding moment	减速比 Reduction ratio	精度等级 Precision class	重量 weight
VED7	5000N.m	6600N.m	55KN.m	121.4:1	≤0.2°	63Kg
	3690 lbf.ft	4871 lbf.ft	40590 lbf.ft			

3.4 8寸 8 inches



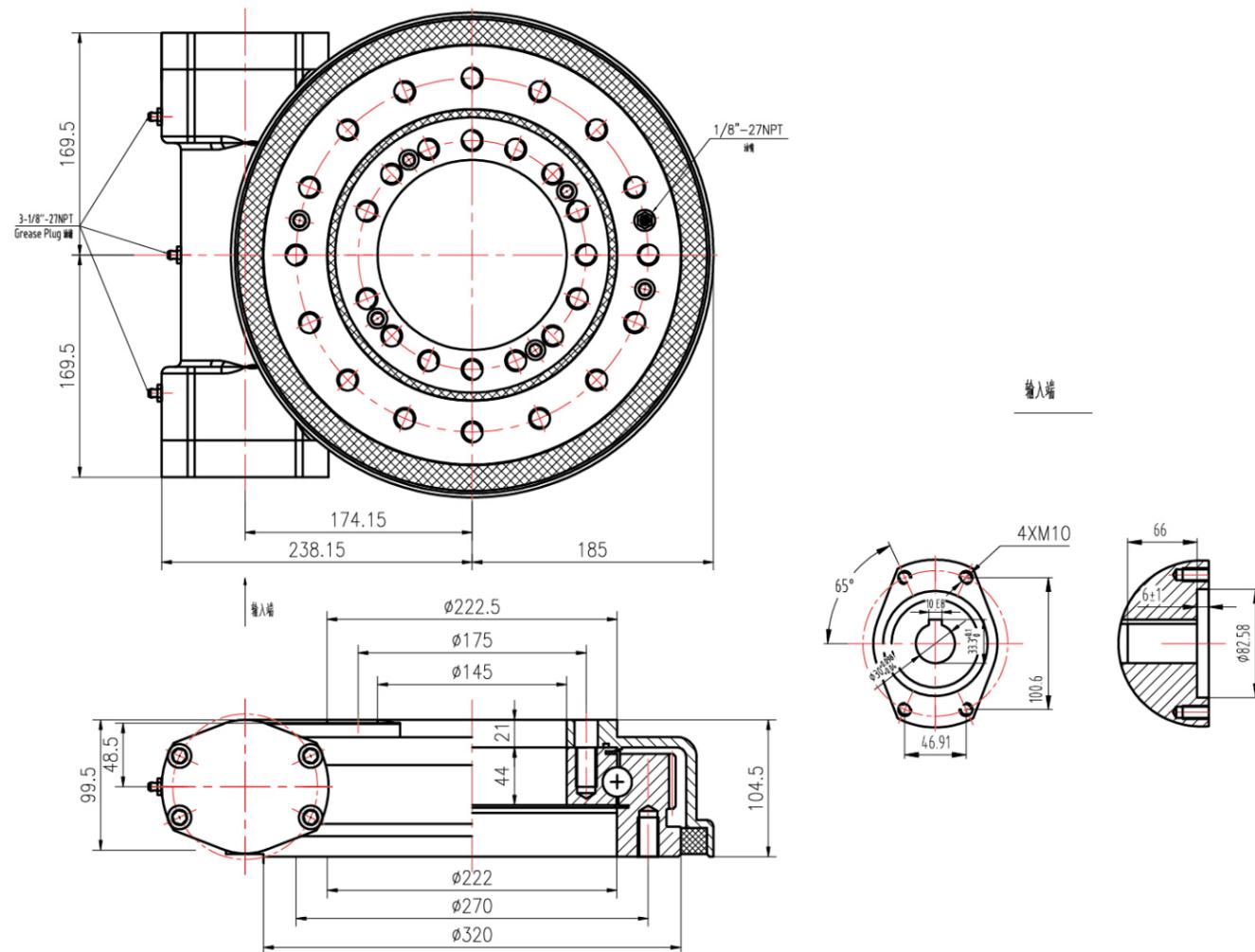
类型 type	额定输出扭矩 Rated output torque	最大输出扭矩 Maximum output torque	保持力矩 Holding moment	减速比 Reduction ratio	精度等级 Precision class	重量 weight
VE8I	5000N.m	7000N.m	50KN.m	60:1	≤0.2°	43Kg
	3690 lbf.ft	5166 lbf.ft	36900 lbf.ft			

3.5 9寸立式 9 inch vertical



类型 type	额定输出扭矩 Rated output torque	最大输出扭矩 Maximum output torque	保持力矩 Holding moment	减速比 Reduction ratio	精度等级 Precision class	重量 weight
VL9I	6500N.m	8000N.m	55KN.m	61:1	≤0.2°	67.4Kg
	4797 lbf.ft	5904 lbf.ft	40590 lbf.ft			

3.6 9寸卧式 9 "horizontal



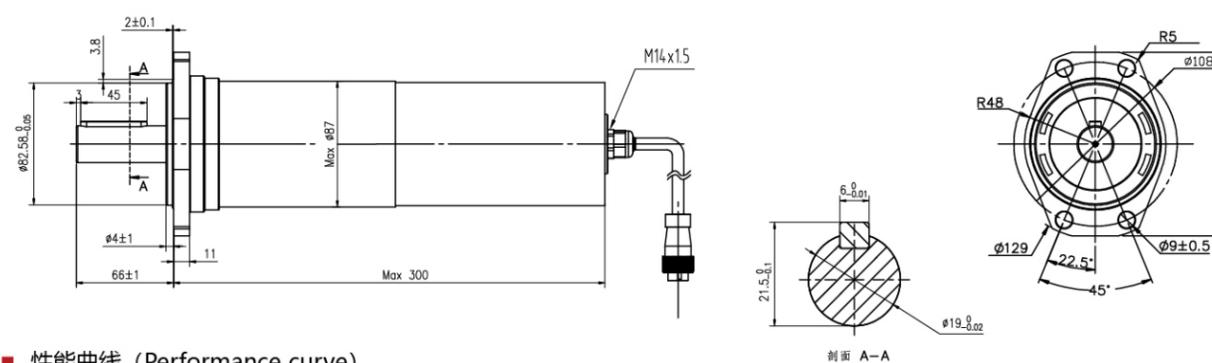
类型 type	额定输出扭矩 Rated output torque	最大输出扭矩 Maximum output torque	保持力矩 Holding moment	减速比 Reduction ratio	精度等级 Precision class	重量 weight
VE9I	6500N.m	8000N.m	55KN.m	61:1	≤0.2°	67.4Kg
	4797 lbf.ft	5904 lbf.ft	40590 lbf.ft			

4 光伏跟踪回转装置专用电机 Special motor for photovoltaic tracking rotary device

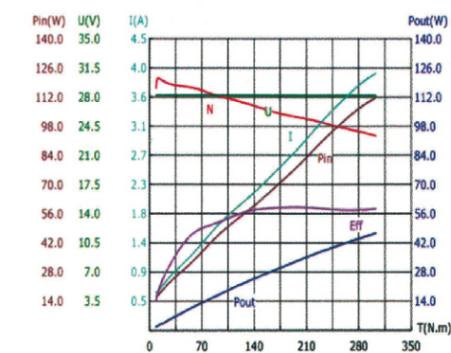
4.1 D150行星减速电机系列 D150 planetary gear motor series



■ 机械尺寸 (Dimensions:Unit=MM)



■ 性能曲线 (Performance curve)



■ 技术参数 (Performance)

型号 Model number	额定电压 Rated voltage VDC	额定转速 Rated speed rpm	额定转矩 Rated torque Nm	额定功率 Rated power W	峰值扭矩 Peak torque Nm	减速比 Reduction ratio	环境温度°C Ambient temperature	绝缘等级 Insulation class	防护等级 Class of protection
D1502	28	1.75	150	27.49	320	752.6	-40 ~ +60	F	IP65
D2001(80)	28	1.5	200	31.41	320	684	-40 ~ +60	F	IP65

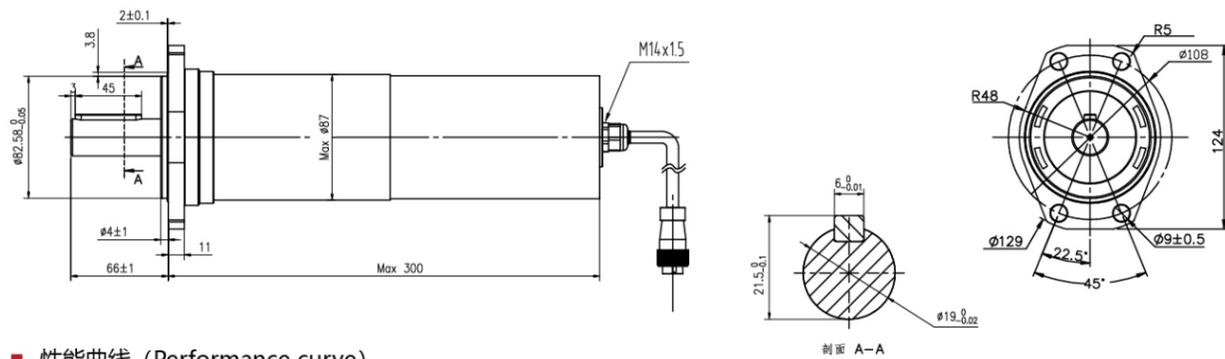
注：电机、减速机性能及尺寸可根据客户要求进行定制。可根据客户要求选配航空插头及对应的电缆线等。

Note: Motor, reducer performance and size can be customized according to customer requirements. Aviation plug and corresponding cable can be selected according to customer requirements.

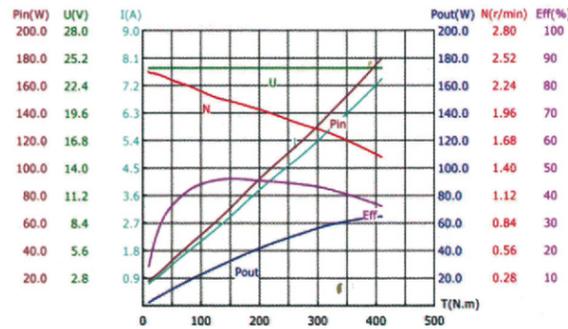
4.2 D200行星减速电机系列 D200 planetary gear motor series



■ 机械尺寸 (Dimensions: Unite=MM)



■ 性能曲线 (Performance curve)



■ 技术参数 (Performance)

型号 Model number	额定电压 Rated voltage VDC	额定转速 Rated speed rpm	额定转矩 Rated torque Nm	额定功率 Rated power W	峰值扭矩 Peak torque Nm	减速比 Reduction ratio	环境温度°C Ambient temperature	绝缘等级 Insulation class	防护等级 Class of protection
D1502	28	1.75	150	27.49	320	752.6	-40 ~ +60	F	IP65
D2001(80)	28	1.5	200	31.41	320	684	-40 ~ +60	F	IP65

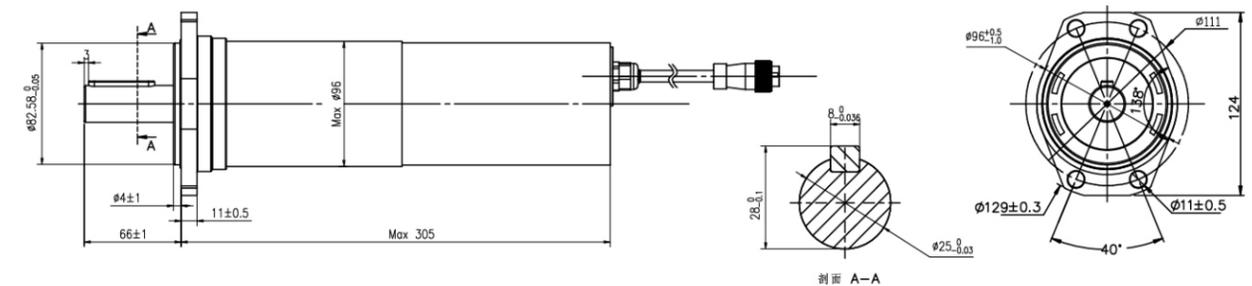
注：电机、减速机性能及尺寸可根据客户要求定制。可根据客户要求选配航空插头及对应的电缆线等。

Note: Motor, reducer performance and size can be customized according to customer requirements. Aviation plug and corresponding cable can be selected according to customer requirements.

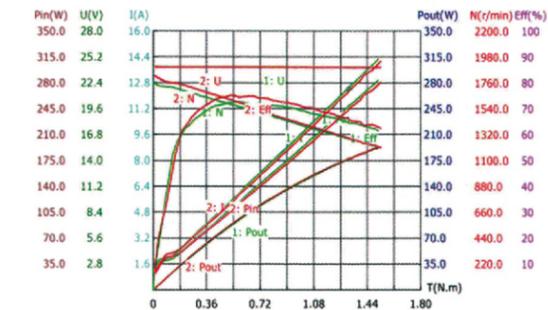
4.3 D280行星减速电机系列 D280 planetary gear motor series



■ 机械尺寸 (Dimensions: Unite=MM)



■ 性能曲线 (Performance curve)



■ 技术参数 (Performance)

型号 Model number	额定电压 Rated voltage VDC	额定转速 Rated speed rpm	额定转矩 Rated torque Nm	额定功率 Rated power W	峰值扭矩 Peak torque Nm	减速比 Reduction ratio	环境温度°C Ambient temperature	绝缘等级 Insulation class	防护等级 Class of protection
D2801	24	1.5	280	43.98	400	622.68	-40 ~ +60	F	IP65
D2803	28	1.8	280	52.77	400	622.68	-40 ~ +60	F	IP65
D2810	24	2.5	280	73.3	400	622.68	-40 ~ +60	F	IP66
D3201	24	2.2	320	73.7	500	622.68	-40 ~ +60	F	IP65

注：1.带UL认证产品，选配24V DC电压。

2.电机、减速机性能及尺寸可根据客户要求定制。可根据客户要求选配插头及对应的电缆线等。

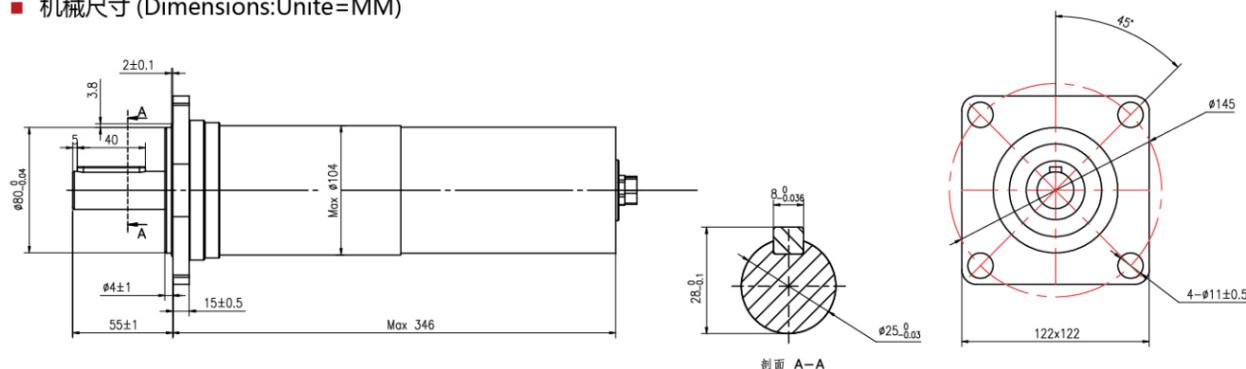
Note: 1. With UL certification products, optional 24V DC voltage.

2. Motor, reducer performance and size can be customized according to customer requirements. Plug and corresponding cable can be selected according to customer requirements.

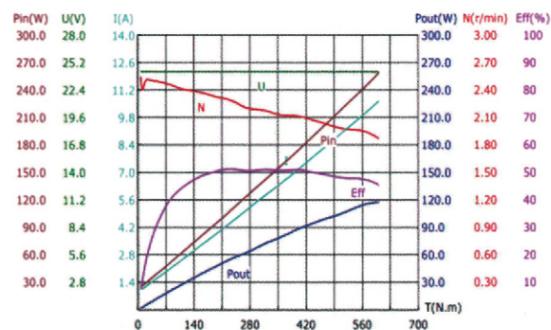
4.4 D300行星减速电机系列 D300 planetary gear motor series



机械尺寸 (Dimensions: Unite=MM)



性能曲线 (Performance curve)



技术参数 (Performance)

型号 Model number	额定电压 Rated voltage VDC	额定转速 Rated speed rpm	额定转矩 Rated torque Nm	额定功率 Rated power W	峰值扭矩 Peak torque Nm	减速比 Reduction ratio	环境温度°C Ambient temperature	绝缘等级 Insulation class	防护等级 Class of protection
D3001	28	0.88	300	57.59	480	1045.5:1	-40 ~ +60	F	IP65
D3002/L-02	24H	1.5	300	47.12	480	1045.5:1	-40 ~ +60	F	IP65
D3005	24	1.5	300	78.53	480	1045.5:1	-40 ~ +60	F	IP65

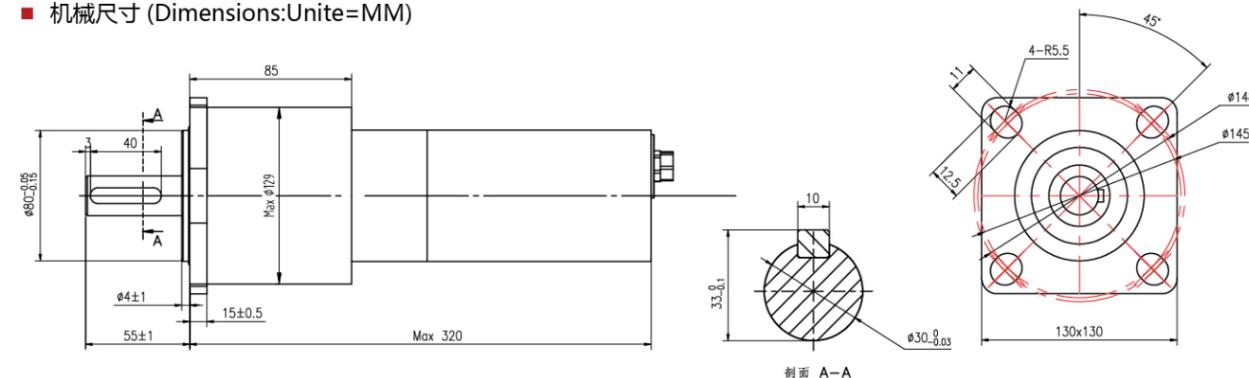
注：电机、减速机性能及尺寸可根据客户要求定制。可根据客户要求选配航空插头及对应的电缆线等。

Note: Motor, reducer performance and size can be customized according to customer requirements. Aviation plug and corresponding cable can be selected according to customer requirements.

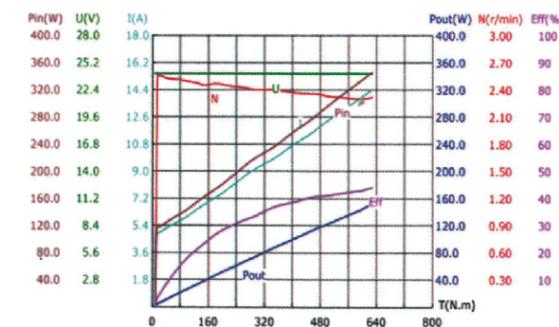
4.5 D500行星减速电机系列 D500 planetary gear motor series



机械尺寸 (Dimensions: Unite=MM)



性能曲线 (Performance curve)



技术参数 (Performance)

型号 Model number	额定电压 Rated voltage VDC	额定转速 Rated speed rpm	额定转矩 Rated torque Nm	额定功率 Rated power W	峰值扭矩 Peak torque Nm	减速比 Reduction ratio	环境温度°C Ambient temperature	绝缘等级 Insulation class	防护等级 Class of protection
D5001	24 (28)	1.1	500	57.59	600	1476	-40 ~ +60	F	IP65
D5002	24 (28)	0.75	500	39.27	600	1599.08	-40 ~ +60	F	IP65
D5007	24 (28)	1.5	500	78.53	600	1476	-40 ~ +60	F	IP66
D6601	24 (28)	1.5	660	104	950	1093.5	-40 ~ +60	F	IP65

注：1.带UL认证产品，选配24V DC电压。

2.电机、减速机性能及尺寸可根据客户要求定制。可根据客户要求选配插头及对应的电缆线等。

Note: 1. With UL certification products, optional 24V DC voltage.

2. Motor, reducer performance and size can be customized according to customer requirements. Plug and corresponding cable can be selected according to customer requirements.