东 为 精 密

精密行星减速机

低噪音 / 高精度 / 高刚性 / 大扭矩









以质量求生存

以诚信求发展

以服务创效益

Product features

产品特点

精密行星齿轮减速机是我公司自主研发的新一代实用性产品，具有以下一些主要特点

Precision planetary gear reducer is a new generation of practical products independently developed by our company, which has the following main characteristics

低噪音 Low noise

低于65db。
below 65db.

高输入转速 High input speed

可达5000RPM。
Up to 5000RPM.

低间隙 Low Backlash

单级可达3弧分内，双级可达5弧分内。
One stage within 3 arc minutes, Two stage with 5 arcmin.

高扭矩 High torque

比一般行星减速机扭矩高。
Higher than conventional planetary gearbox.

高效率 High efficiency

单段式在97%以上，双段式在95%以上。
One stage is exceed 97%, Two stage is exceed 95%.

高稳定性 High stability

采用高强度合金钢材，整个齿轮经硬化处理，非只有表面硬化，确保使用寿命及长期使用仍保持最初的精密度。

Using high-strength steel alloy materal .Not just hardening on gear surface, but hardening entire gear to insure the gear life time and maintain high accuracy.

减速机规格确认事项

Confirmation items of reducer specification

步骤	说明	代号	参数计算						
1	设备使用系数	f_1	Loading classification 负载类型	Running per hour 每小时启动次数Z	Using fs 使用系数fs Running per day(h) 每日运行时间（h） h<4	4<h<8	8<h<12	12<h<16	16<h<24
			Uniform 均匀负载	Z<10	0.85	0.95	1.00	1.20	1.60
				10<Z<30	0.90	1.10	1.15	1.40	1.80
				30<Z<100	1.00	1.20	1.30	1.60	2.00
			Medium shock 中等冲击负载	Z<10	1.00	1.20	1.30	1.60	2.00
				10<Z<30	1.10	1.35	1.45	1.80	2.20
				30<Z<100	1.20	1.45	1.60	2.00	2.40
			Heavy shock 重冲击负载	Z<10	1.20	1.45	1.60	2.00	2.40
				10<Z<30	1.30	1.55	1.75	2.20	2.50
				30<Z<100	1.40	1.65	1.90	2.40	2.80
2	扭矩的确定	T_{2N}	$T_{2N}>T_{C2}$所选减速机的额定扭矩T_{2N}必须大于计算扭矩T_{C2}，$T_{C2}=T_{r2}\times f_s$（T_{C2}-计算扭矩 T_{r2}-实际所需扭矩 f_s-使用系数）						
3	额定输入转速	n_1	允许最大输出转速请参照减速机性能资料						
4	确定减速比	i	$i=n_1/n_2$						
5	减速机效率	η	L1≥95%，L2≥92%						
6	以被驱动设备所需的扭矩或功率，计算减速机的输入功率	P_1	$P_1=(T_2\times n_1)/(9550\times i\times\eta)$ 或 $P_1=P_2\div\eta$						
7	根据计算传动力表确定减速机的规格	T_{2N}、P_{1N}	$T_{2N}\geq T_{2}\times f_1\times f_2$ $P_{1N}\geq P_1\times f_1\times f_2$						
8	输出轴径向力、轴向力校核	Fr、Fa	查《产品手册》性能资料表。对比应小于减速机最大径向力、轴向力。频繁起动-停止运转工况应选择加强型						
9	确认使用环境		防护等级、工作温度、化学环境等						
10	根据空间确认安装方式		同轴安装、90°直角安装						
11	确认减速机型号		根据性能资料表、输入、输出方式等确定具体系列、型号、规格及附件						

说明：n_1、P_2为被驱动设备的转速和功率；$P_1=P_2$为被驱动设备所需的功率和扭矩；P_{1N}、T_{2N}为实际减速机所需功率和扭矩。

减速机的选用及注意事项 / GEAR UNIT SELECTION & ANNOUNCEMENTS

与选型有关的基本概念/Base concepts of precision planetary gear boxes

Ratio减速比

Input speed/Output speed 输出转速比上输入转速

额定输入转速 n_1[rpm]
输出转速 n_2[rpm]

减速机的驱动速度，若减速机与电机直接相连，则转速值与电机转速相同。本书中的额定转入转速是在环境温度为20℃的条件下测得的。环境温度较高时请降低转速n_1

输出转速按照下列公式通过输入转速n_1和传动比i计算出来：$n_2=n_1/i$

Poles 段/级数

The number of set of planetary gear. Oweing to one set planetary gear can' t satisfy bigger transmission ratio,two or three sets can meet Users' requirements of bigger transimission ratio. Since increasing the gear quantity,the length of two or three poles motor will increase accordingly,of course,the efficiency will reduce accordingly.
行星齿轮的套数。由于一套行星齿轮无法满足较大的传动比，有时需要两套或三套来满足用户对较大传动比的求，也就是说，减速比越大段/级数越多。由于增加了行星齿轮的数量，所以二级或三级减速机的长度会有所增加，效率会有所下降。

Efficiency 传动效率

If refers to the gearing efficiency of the gearboxes in the case of the largest load.
指在额定负载情况下，减速机的传输效率。减速比越大，级数越多，效率越低。

Average lifetime 平均寿命

Refers to the continuous working time of the gearboxes of the highestinputrev.
指减速机在额定负载下，额定输入转速是减速机的连续工作时间。

Precise positioning 定位精度

In high-speed reciprocating mechanical movement achieve precise positioning is the key to minimizing the movement through the angular deviation,positioning accuracy depends on the two values,with a load of the deflection angle,involving a return to space with torsion stiffness,and the other is control of the movement and rotation angle,involving partial synchronization the problem worse.
在高速机械往复运动中做到精确定位的关键在于尽量减小通过运动产生的角偏差。定位精度取决于两个值，一个是与加载有关的偏转角，涉及到回程间隙和扭转刚度；另一个是与运动控制有关的偏转角，涉及到同步偏差问题。

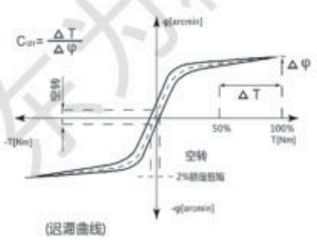
Backlash 回程间隙背隙

减速机输出轴与输入轴的最大偏差角，测量时先将齿轮输入轴固定住，然后在输出轴用力矩仪加载一定力矩（2%T_{2N}），以克服减速机内的摩擦力。

迟滞曲线



迟滞曲线是为了得出减速机的扭转刚度，通过检测得到迟滞曲线。检测时，先将减速机输入端固定住，然后在输出端的两个旋转方向分别持续地加载到T_{2B}最大输出力矩，继而逐步卸载，用仪器记录下力矩的仿差角，得到的曲线是一条闭合曲线，从中可以计算出减速机制回程间隙（j_t）和扭转刚度(C_{t21})。



(迟滞曲线)

Inertia 转动惯性

Moment of the rotary inertiain this description refers to that at the input terminal.Said an object strive to maintain their rotational state(or a stationary of rotating)characteristics of a value.
本说明书中的该值均指输入端。表示一个物体尽力保持自己转动状态（或静止或转动）特征的一个值。

The proportion of inertia 惯量比

Refer to the ration of load inertia and inertia drive system(motor with gearbox).This ratio determines the controllable of the λ value,the greater is the moment of inertia greater margin,high-dynamic action on the more difficult process of precision control.The values can be control in 5,gearboxes can be used to reduce load $1/i^2$.
是指负载惯量与传动系统惯量（电机加上减速机）之间的比值。这个比值决定了系统的可控性。λ值越大，也就是各转动惯量差值越大，高动态的动作过程就越难精确控制，建议尽可能将λ值控制在＜5。齿轮箱可以将负载惯量降低$1/i^2$。

Noise 噪音

The unit is decibel(dB).The value is measured when the input rev is 3000r/m without load and at the distance of one meter from the gearboxes.
单位是分贝（dB）。此数值是在输入转速为3000转/分时，不带负载，距离减速机一米距离时测量的。

Operating conditions 工作条件

Operating temp/工作温度℃	-40℃~+90℃
Degree of protection/防护等级	IP54/IP65
Lubrication/润滑	Life time lubrication/长效润滑，整个试用期内无需添加润滑剂
Mounting position/安装方式	Any/任意

应用行业



非标自动化设备

适用于各大厂家制造的伺服、步进等电机

如:台达，松下，安川，信捷，富士，三菱，

西门子，施耐德欧姆龙，FANNUC，科比

国内品牌等。。。。。。电机尺寸



智能设备

1。航空航天、军事产业

2。医疗卫生、电子信息技术产业。

3。工业机器人、生产自动化、数控机床制造产业。

4。汽车制造、纺织、印刷、食品、冶金

5。环保工程、仓储物流等产业



锂电棚关设备

1。Aerospace, military industry

2。Healthcare, electronic information technology industry.

3。Industrial robots, production automation, CNC machine tool manufacturing industry.

4。Automobile manufacturing, textile, printing, food, metallurgy

5。Environmental protection engineering, warehousing and logistics and other industries



新能源/光伏/设备

目录 CATALOG

行星传动设备方案供应商

02 PGH高精密斜齿系列

11 PEH高精密斜齿系列

16 PET斜齿系列

21 PEC斜齿系列

26 PGHR高精密斜齿系列

35 PGF高精密斜齿系列

44 PGFR高精密斜齿系列

53 JAE精密直齿系列

59 JAF精密直齿系列

67 JAER精密直齿系列

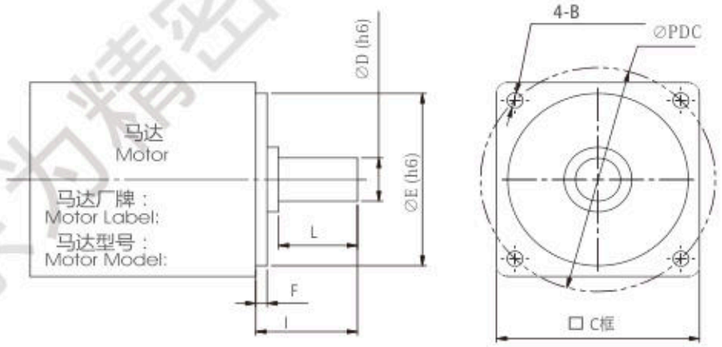
72 JAFR精密直齿系列

型号说明 / MODEL ILLUMINATE

PGH – 060 – 10 – P2 / T1

- PGH — 减速机系列代号/Gearbox series code:
  PEH / PGH / PET / PEC / PGHR / PGF / PGFR
  JAE / JAF / JAER / JAFR
- 060 — 减速机框号/Gearbox frame number:
  060 / 090 / 115 / 142 / 180 / 220
- 10 — 减速比/Reduction：
  单级（L1）：3/4/5/7/10
  双级（L2）:12/15/20/25/30/35/40/50/70/100
- P2 — 背隙（精度）：
  P2：标准背隙
  P1：精密背隙
  P0：超精密背隙
- T1 — 马达（电机）型号/尺寸:
  连接电机尺寸代码
  （详见P68页码）

FILL IN DATA OF MOTOR 客户填写资料



▶ 规格 SPECIFICATIONS

Motor Shaft Dia.	Flange Dia.	Motor Shaft Length	Flange Height	P.C.D of Bore	Bore Dia.	Motor Flange Square	Actual Length of Motor Shaft	Backlash
马达轴外径	马达凸缘外径	马达轴长度	马达凸缘高度	螺丝孔中心距	螺丝孔直径	马达面尺寸	马达轴有效长	要求背隙
∅D（h6）	∅E（h6）	I	F	PDC	4-B	C框	L	PO/P1/P2

PGH系列精密斜齿行星减速机
PEH series precision helical planetary reducer



- →→PGH060
- →→PGH090
- →→PGH115
- →→PGH142
- →→PGH180
- →→PGH220

PGH系列减速机核心特性
The Core features of PEH series reducer

1.采用斜齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行低噪音、平稳；承载能力较直齿提高20%;

2.整体式输出轴，行星轮两端轴承支撑，实现高精度、高强度；

3.回程间隙小，精密型单级可以做到1arcmin以内；

1. Helical gear transmission, carburizing and quenching treatment, tooth profile modification treatment,
Ensure low noise and stable operation; The bearing capacity is 20% higher than that of straight teeth;

2. The integral output shaft is supported by bearings at both ends of the planetary gear to achieve high precision and high strength;

3. The return clearance is small, and the precision single stage can reach within 1arcmin;

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

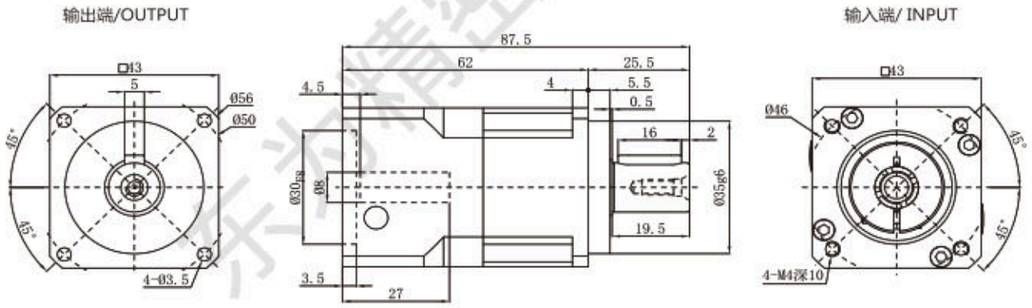
规格Specifications	单位unit	节数Stage	减速比Ratio	PGH042	PGH060	PGH090	PGH115	PGH142	PGH180	PGH220
额定输出力矩T2N Nominal Output Torque	N.m	1	3	19	53	145	290	520	950	1550
			4	20	55	150	300	550	1000	1650
			5	17	54	140	290	530	1050	1700
			7	14	44	125	270	450	960	1500
			9	11	37	95	220	360	–	–
			10	11	37	95	220	360	620	1250
		2	12	19	53	145	290	520	950	1550
			15	19	53	145	290	520	950	1550
			20	20	55	150	300	550	1000	1650
			25	17	54	140	290	530	1050	1700
			30	17	54	140	290	530	1050	1700
			35	17	54	140	290	530	1050	1700
			40	20	55	150	300	550	1000	1650
			50	17	54	140	290	530	1050	1700
			70	14	44	125	270	530	960	1500
			90	11	37	95	220	360	–	–
			100	11	37	95	220	360	800	1250
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	3 ~ 100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)						
额定输入转速n1 Nominal Input Speed	rpm	1、2	3 ~ 100	5000	5000	4000	4000	3000	3000	2000
最大输入转速n1max Max.Input Speed	rpm	1、2	3 ~ 100	10000	10000	8000	8000	6000	6000	4000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3 ~ 10	≤2	≤2	≤2	≤1	≤1	≤1	≤1
		2	12 ~ 100	≤4	≤4	≤4	≤3	≤3	≤3	≤3
精密背隙P1 Precise Blacklash	arcmin	1	3 ~ 10	≤4	≤4	≤4	≤3	≤3	≤3	≤3
		2	12 ~ 100	≤6	≤6	≤6	≤5	≤5	≤5	≤5
标准背隙P2 Standard Blacklash	arcmin	1	3 ~ 10	≤6	≤6	≤6	≤5	≤5	≤5	≤5
		2	12 ~ 100	≤8	≤8	≤8	≤7	≤7	≤7	≤7
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	3 ~ 100	2.5	6	12	23	45	148	220
容许径向力F2rB Max.Radial Load	N	1、2	3 ~ 100	515	1010	1780	3420	5380	8330	11120
容许轴向力F2aB Max.Axial Load	N	1、2	3 ~ 100	410	600	1500	2650	4670	6460	8560
使用温度 Operating Temp	° C	1、2	3 ~ 100	−10° C ~ +90° C						
使用寿命 Service Life	hr	1、2	3 ~ 100	20,000 (10,000/连续运转continiu operationg)						
效率 η Efficiency	%	1	3 ~ 10	≥97%						
		2	12 ~ 100	≥94%						
重量 Weight	kg	1	3 ~ 10	0.6	1.3	3.5	7.8	16.1	30.0	58.0
		2	12 ~ 100	0.9	2.0	5.6	9.5	19.0	42.0	65.0
安装方向 mounting Position	–	1、2	3 ~ 100	任意方向 Any direction						
噪音值 Noise Level	dBA/1m	1、2	3 ~ 100	56	58	60	63	65	67	70
防护等级 Protection Class	–	1、2	3 ~ 100	Ip65						
润滑 Lubrication		1、2	3 ~ 100	全合成润滑脂油 Synthetic Lubricant						

减速机转动惯量

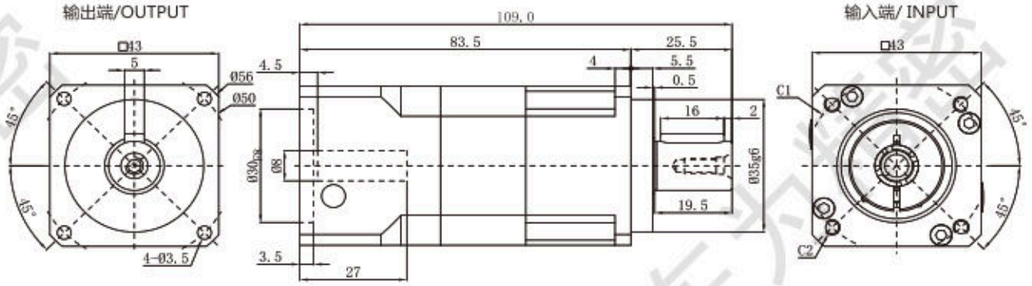
规格Specifications	单位unit	节数Stage	减速比Ratio	PGH042	PGH060	PGH090	PGH115	PGH142	PGH180	PGH220
转动惯量J1 Inertia	$kg.cm^2$	1	3	0.03	0.23	0.97	2.35	10.00	28.90	69.63
			4	0.02	0.18	0.67	1.66	7.17	24.00	54.25
			5	0.02	0.17	0.65	1.50	6.52	23.27	53.30
			7	0.02	0.14	0.60	1.45	6.17	22.42	51.00
			9	0.02	0.14	0.58	1.41	6.10	–	–
			10	0.02	0.14	0.58	1.41	6.10	22.50	50.62
		2	12	0.02	0.17	0.65	1.50	6.52	23.27	53.30
			15	0.02	0.17	0.65	1.50	6.52	24.27	54.37
			20	0.02	0.17	0.65	1.50	6.52	23.27	53.30
			25	0.02	0.17	0.65	1.50	6.52	24.27	54.37
			30	0.02	0.14	0.60	1.45	6.52	23.27	53.30
			35	0.02	0.14	0.60	1.45	6.52	24.27	54.37
			40	0.02	0.14	0.60	1.45	6.52	23.27	53.30
			50	0.02	0.14	0.58	1.41	6.10	22.50	52.45
			70	0.02	0.14	0.58	1.41	6.10	22.50	52.45
			90	0.02	0.14	0.58	1.41	6.10	–	–
			100	0.02	0.14	0.58	1.41	6.10	22.50	52.45

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGH042-L1



PGH042-L2



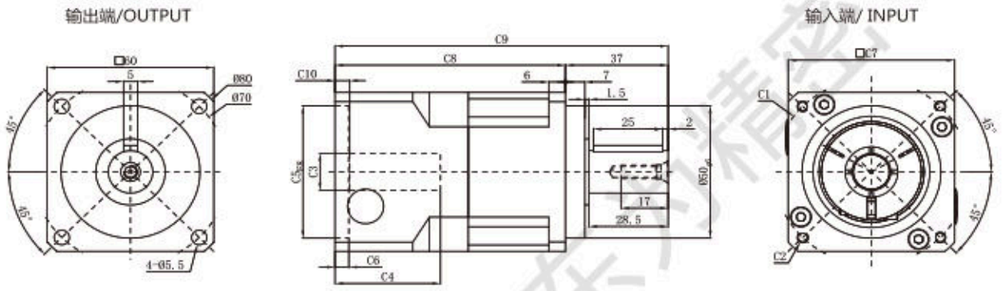
输出轴径/Output Diameter



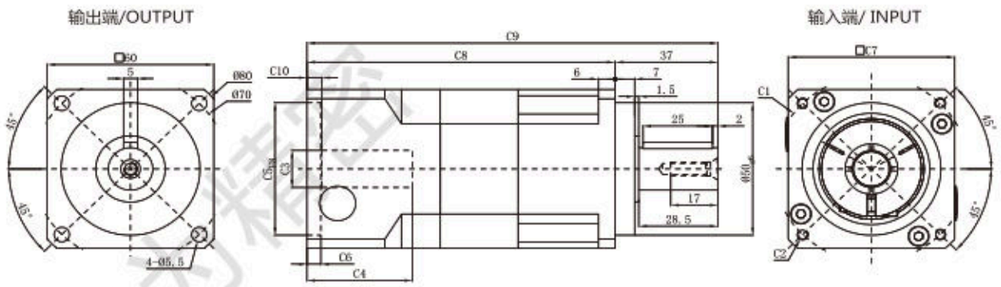
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGH060-L1



PGH060-L2



输出轴径/Output Diameter



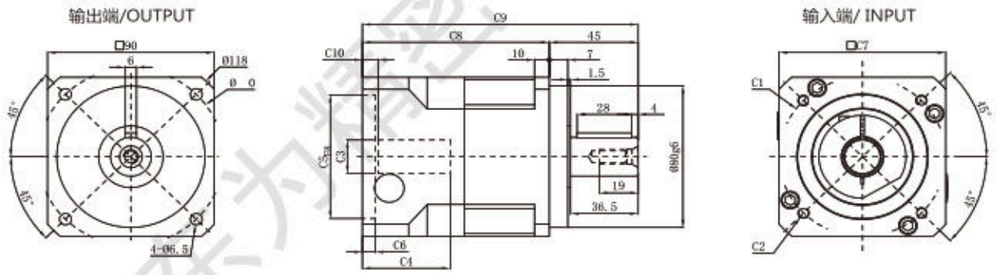
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH060-L1	ϕ46	4-M4x12,4-M5x12	≤ϕ8	44	ϕ30	9	60	91	126	10.3
	ϕ66.7	4-M4x12	≤ϕ8	38	ϕ38.1	3	60	83	120	4.3
	ϕ70	4-M4x12,4-M5x12	≤ϕ14	38	ϕ50	5	60	83	120	5.3
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	38.5	ϕ60	5	66	83.5	120	5.5
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	44	ϕ70	7	80	89	128	11
	ϕ100	4-M6x15	≤ϕ19	44	ϕ80	7	90	89	128	11
PGH060-L2	ϕ46	4-M4x12，4-M5x12	≤ϕ8	44	ϕ30	9	60	117	154	10.3
	ϕ66.7	4-M4x12	≤ϕ8	38	ϕ38.1	3	60	111	148	4.3
	ϕ70	4-M4x12,4-M5x12	≤ϕ14	38	ϕ50	5	60	111	148	5.3
	ϕ75	4-M4x10,4-M5x12	≤ϕ14	38.5	ϕ60	5	66	111.5	148	5.5
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	44	ϕ70	7	80	117	156	11
	ϕ100	4-M6x15	≤ϕ19	44	ϕ80	7	90	117	156	11

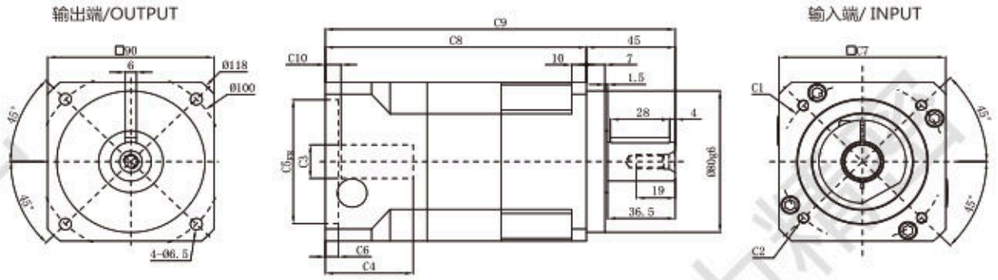
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

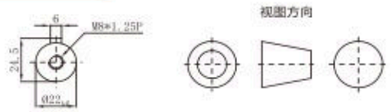
PGH090-L1



PGH090-L2



输出轴径/Output Diameter



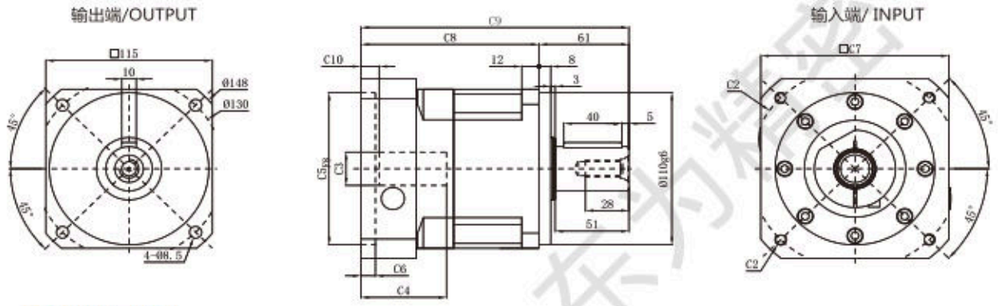
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH090-L1	ϕ70	4-M4x12,4-M5x12	≤ϕ14	47.5	ϕ50	4	80	102	147	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	47.5	ϕ60	5.5	80	102	147	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	47.5	ϕ70	7	80	102	147	7
	ϕ98.4	4-M6x15	≤ϕ14	47.5	ϕ73	7	80	102	147	7
	ϕ98.4	4-M6x15	≤ϕ14	47.5	ϕ60	7	80	102	147	7
	ϕ100	4-M6x15	≤ϕ19	47.5	ϕ80	7	80	102	147	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	113	161	12.5
	ϕ130	4-M8x20	≤ϕ24	61.5	ϕ95	10	115	113	161	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	113	161	12.5
	ϕ145	4-M8x20	≤ϕ24	70.5	ϕ110	10	130	122	170	21.5
PGH090-L2	ϕ70	4-M4x12,4-M5x12	≤ϕ14	47.5	ϕ50	4	80	141	189	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	47.5	ϕ60	5.5	80	141	189	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	47.5	ϕ70	7	80	141	189	7
	ϕ98.4	4-M6x15	≤ϕ14	47.5	ϕ73	7	80	141	189	7
	ϕ98.4	4-M6x15	≤ϕ14	47.5	ϕ60	7	80	141	189	7
	ϕ100	4-M6x15	≤ϕ19	47.5	ϕ80	7	80	141	189	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	153	201	12.5
	ϕ130	4-M8x20	≤ϕ24	61.5	ϕ95	10	115	153	161	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	153	201	12.5
	ϕ145	4-M8x20	≤ϕ24	70.5	ϕ110	10	130	162	210	21.5

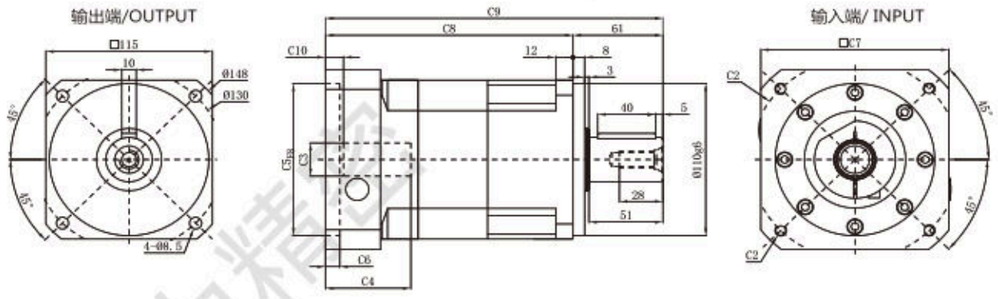
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGH115-L1



PGH115-L2



输出轴径/Output Diameter



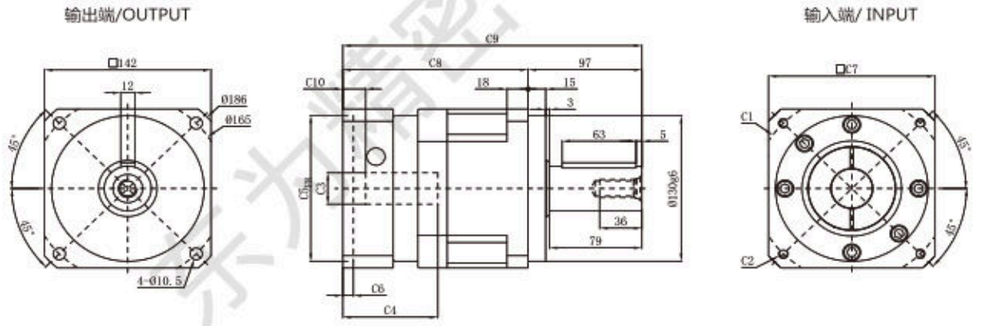
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH115-L1	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	112.5	174.5	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	112.5	174.5	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	122	184	11.5
	φ130	4-M8x20	≤φ24	58	φ95	10	115	122	184	11.5
	φ132	4-M8x20	≤φ24	58	φ85	10	115	122	184	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	123	185	12.5
	φ145	4-M8x20	≤φ24	68	φ110	10	130	132	194	21.5
	φ165	4-M10x30	≤φ32	80	φ130	10	142	148.5	210.5	18.5
	φ200	4-M12x35	≤φ35	82	φ114.3	8	180	150.5	212.5	20.5
	φ215	4-M14x35	≤φ38	82	φ180	8	190	150.5	212.5	20.5
PGH115-L2	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	160.5	174.5	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	160.5	174.5	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	170	184	11.5
	φ130	4-M8x20	≤φ24	58	φ95	10	115	170	184	11.5
	φ132	4-M8x20	≤φ24	58	φ85	10	115	170	184	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	171	185	12.5
	φ145	4-M8x20	≤φ24	68	φ110	10	130	180	194	21.5
	φ165	4-M10x30	≤φ32	80	φ130	10	142	196.5	258.5	18.5
	φ200	4-M12x35	≤φ35	82	φ114.3	8	180	198.5	260.5	20.5
	φ215	4-M14x35	≤φ38	82	φ180	8	190	198.5	260.5	20.5

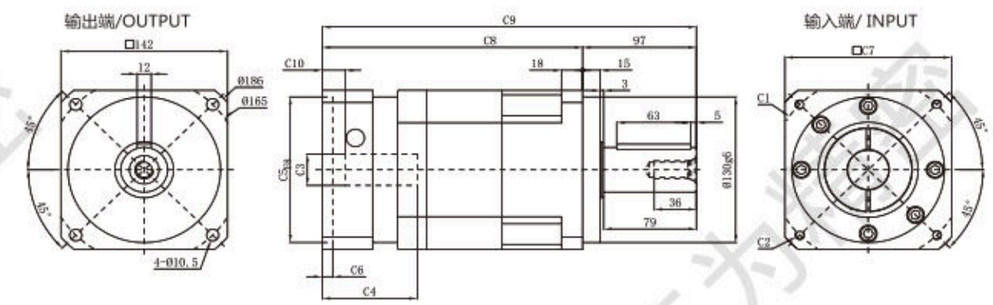
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGH142-L1



PGH142-L2



输出轴径/Output Diameter



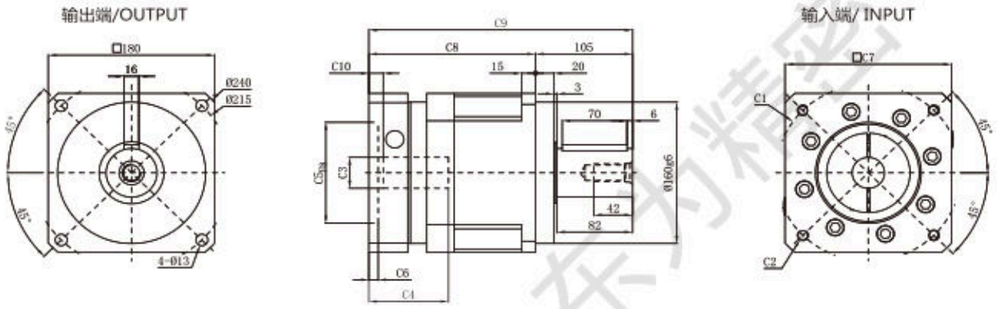
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH142-L1	φ130	4-M8x20	≤φ24	81	φ110	10	142	158	255	19.5
	φ145	4-M8x20	≤φ24	81	φ110	10	142	158	255	19.5
	φ165	4-M10x25 , 4-M12x35	≤φ32	81	φ130	10	142	158	255	19.5
	φ175	4-M10x25	≤φ32	81	φ130	10	150	158	255	19.5
	φ185	4-M10x30	≤φ35	81	φ150	8	160	158	255	19.5
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	160	257	21.5
	φ200	4-M12x35	≤φ42	115	φ114.3	8	180	192	289	53.5
	φ215	4-M12x35 , 4-M14x35	≤φ42	83	φ180	8	190	160	257	21.5
PGH142-L2	φ130	4-M8x20	≤φ24	81	φ110	10	142	222	319	19.5
	φ145	4-M8x20	≤φ24	81	φ110	10	142	222	319	19.5
	φ165	4-M10x25 , 4-M12x35	≤φ32	81	φ130	10	142	222	319	19.5
	φ175	4-M10x25	≤φ32	81	φ130	10	150	222	319	19.5
	φ185	4-M10x30	≤φ35	81	φ150	8	160	222	319	19.5
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	224	321	21.5
	φ200	4-M12x35	≤φ42	115	φ114.3	8	180	256	353	53.5
	φ215	4-M12x35 , 4-M14x35	≤φ42	83	φ180	8	190	224	321	21.5

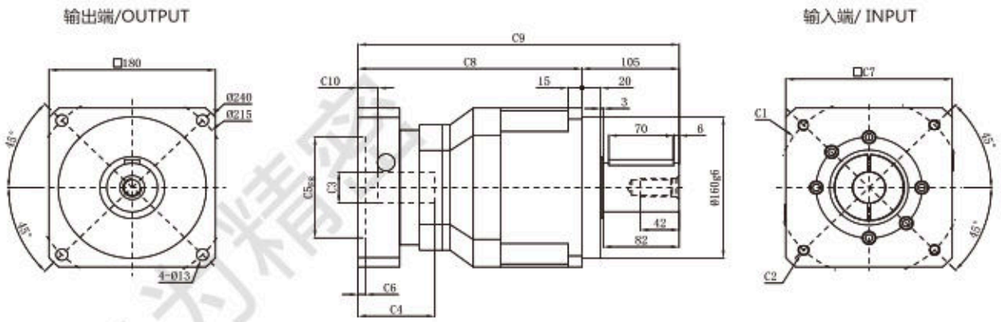
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGH180-L1



PGH180-L2



输出轴径/Output Diameter



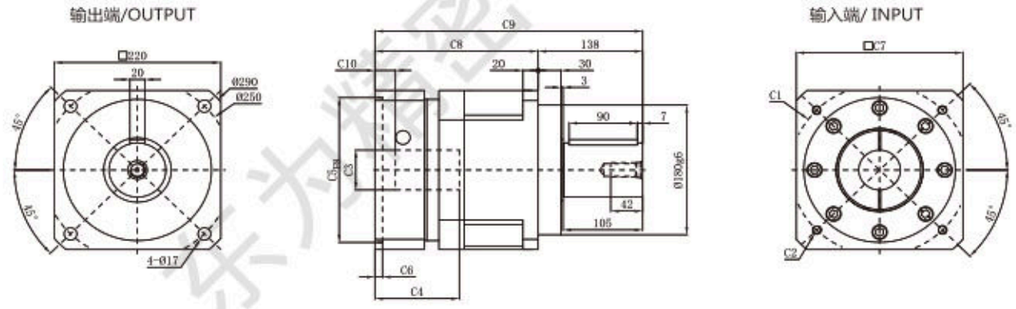
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH180-L1	φ165	4-M10x25 , 4-M12x35	≤φ32	86	φ130	10	180	180	285	15.5
	φ200	4-M12x35	≤φ42	86	φ114.3	10	180	180	285	15.5
	φ200	4-M12x35	≤φ42	118	φ114.3	10	180	212	317	47.5
	φ215	4-M14x35	≤φ42	86	φ180	10	190	180	285	15.5
	φ215	4-M14x35	≤φ42	118	φ180	10	190	212	317	47.5
	φ235	4-M10x30 , 4-M14x35	≤φ55	118	φ200	10	220	212	317	47.5
PGH180-L2	φ130	4-M8x20	≤φ24	81	φ110	10	142	240	345	19.5
	φ145	4-M8x20	≤φ24	81	φ110	10	142	240	345	19.5
	φ165	4-M10x25 , 4-M12x35	≤φ32	86	φ130	8	180	242	347	21.5
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	242	347	21.5
	φ200	4-M10x25 , 4-M12x35	≤φ42	115	φ114.3	8	180	274	379	53.5
	φ215	4-M14x35	≤φ42	83	φ180	8	190	242	347	21.5
	φ215	4-M14x35	≤φ42	115	φ180	8	190	274	379	53.5
	φ235	4-M10x30 , 4-M14x35	≤φ55	118	φ200	10	220	274	379	47.5

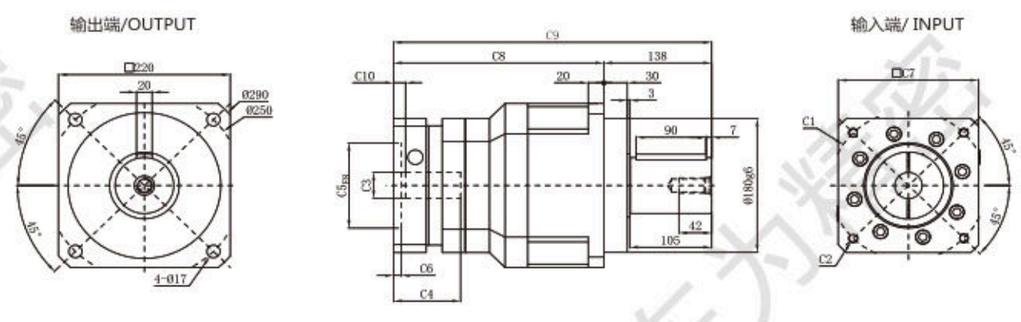
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGH220-L1



PGH220-L2



输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH220-L1	φ200	4-M12x35	≤φ42	119	φ114.3	10	220	215.5	353.5	27
	φ215	4-M14x35	≤φ42	119	φ180	10	220	215.5	353.5	27
	φ235	4-M12x35 , 4-M14x35	≤φ55	119	φ200	10	220	215.5	353.5	27
PGH220-L2	φ165	4-M10x25 , 4-M12x35	≤φ32	86	φ130	10	180	269.5	407.5	15.5
	φ200	4-M12x35	≤φ42	86	φ114.3	10	180	269.5	407.5	15.5
	φ200	4-M12x35	≤φ42	118	φ114.3	10	180	301.5	439.5	47.5
	φ215	4-M12x35 , 4-M14x35	≤φ42	86	φ180	10	190	269.5	407.5	15.5
	φ215	4-M12x35 , 4-M14x35	≤φ42	118	φ180	10	190	301.5	439.5	47.5
	φ235	4-M12x35 , 4-M14x35	≤φ55	118	φ200	10	220	301.5	439.5	47.5

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

PEH系列精密斜齿行星减速机
PEH series precision helical planetary reducer



→→PEH060

→→PEH090

→→PEH115

PEH系列减速机核心特性
The Core features of PEH series reducer

1.采用斜齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行低噪音、平稳；承载能力较直齿提高20%;

2.整体式输出轴，行星轮两端轴承支撑，实现高精度、高强度；

3.回程间隙小，精密型单级可以做到1arcmin以内；

1. Helical gear transmission, carburizing and quenching treatment, tooth profile modification treatment,

Ensure low noise and stable operation; The bearing capacity is 20% higher than that of straight teeth;

2. The integral output shaft is supported by bearings at both ends of the planetary gear to achieve high precision and high strength;

3. The return clearance is small, and the precision single stage can reach within 1arcmin:

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

规格Specifications	单位unit	节数Stage	减速比Ratio	PEH060	PEH090	PEH115
额定输出力矩T2N Nominal Output Torque	N.m	1	3	55	130	210
			4	50	140	295
			5	60	160	325
			7	50	140	300
			10	40	120	225
		2	12	55	130	210
			15	55	130	210
			20	50	140	295
			25	60	160	325
			30	55	130	210
			35	60	160	325
			40	50	140	295
			50	60	140	325
			70	50	160	300
			100	40	140	225
急停力矩T2NOT Emergency Stop Torgue	N.m	1、2	3~100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)		
额定输入转速n1 Nominal Input Speed	rpm	1、2	3~100	5000	4000	4000
最大输入转速（n1ma) Max. Input Speed	rpm	1、2	3~100	10000	8000	8000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3~10	≤2	≤2	≤1
		2	12~100	≤4	≤4	≤3
精密背隙P1 Precise Blacklash	arcmin	1	3~10	≤4		≤3
		2	12~100	≤6	≤6	≤5
标准背隙P2 Standard Blacklash	arcmin	2	3~10	≤6	≤6	≤5
		2	12~100	≤8	≤8	≤7
扭转刚性 Torsional Biqidity	N.m/arcmin	1、2	3~100	6	12	23
容许径向力F2rB Max. Radial Load	N	1、2	3~100	1010	1780	3420
容许轴向力F2aB NAoy Axialloa	N	1、2	3~100	600	1500	2650
使用温度 Operating Tenc	° C	1、2	3~100	-10° C~+90° C		
使用寿命 Service Life	hr	1、2	3~100	20,000 (10,000/连续运转continiu operationg)		
效 率 n Efficiency	%	1	3~ 10	≥9790		
		2	12~100	≥94%		
重量 Weigh'	kg	1	3~ 10	13	35	78
		2	12~100	2.0	5.6	9.5
安装方向 mounting Position		1、2	3~100	任意方向		
噪音值 Noise Level	dBA/1m	1、2	3~100	58	60	63
防护等级 Protection Class		1、2	3~100	IP65		
润 滑 Lubrication		1、2	3~100	全合成润滑脂油 Synthetic Lubricant		

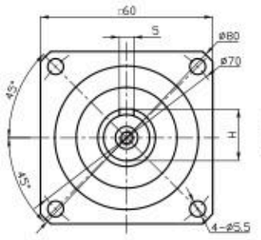
减速机转动惯量

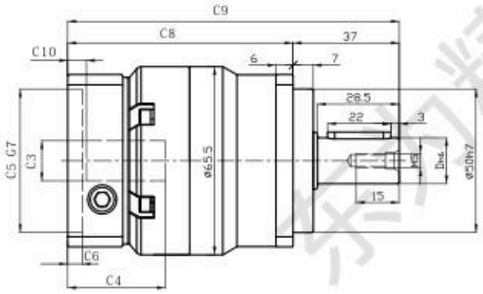
规格Specification	单位unit	节数Stage减速比Ratio		PEH060	PEH090	PEH115
转动惯量J1 Inertia	kg.cm²	1	3	0.16	0.60	3.25
			4	0.14	0.50	2.73
			5	0.13	0.49	2.70
			7	0.13	0.47	2.60
			10	0.13	0.45	2.55
		2	12	0.03	0.13	0.47
			15	0.03	0.13	0.47
			20	0.03	0.13	0.47
			25	0.03	0.13	0.47
			30	0.03	0.13	0.47
			35	0.03	0.13	0.47
			40	0.03	0.13	0.47
			50	0.03	0.13	0.47
			70	0.03	0.13	0.47
			90	0.03	0.13	0.47
			100	0.03	0.13	0.47

外形尺寸图表 / OUTLINE DIMENSION SHEET

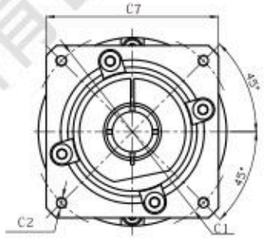
PEH060-L1

输出端/OUTPUT



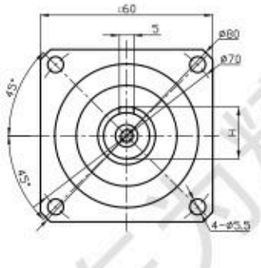


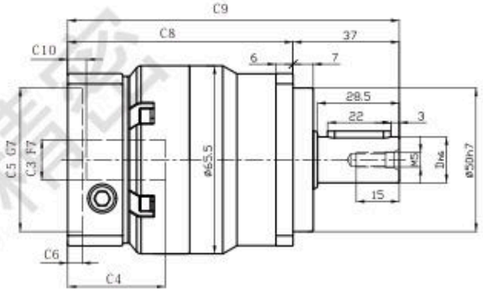
输入端/ INPUT



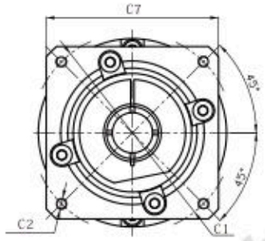
PEH060-L2

输出端/OUTPUT

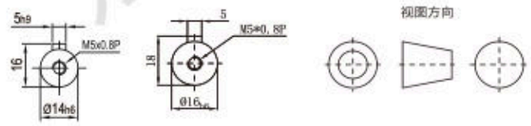




输入端/ INPUT



输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

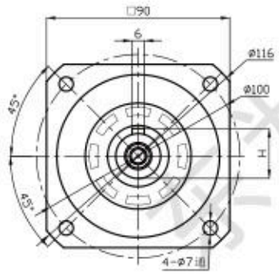
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PEH060-L2	ϕ46	4-M4x12,4-M5x12	≤ϕ8	44	ϕ30	9	60	78.5	115.5	10.3
	ϕ66.7	4-M4x12	≤ϕ8	38	ϕ38.1	3	60	78.5	115.5	4.3
	ϕ70	4-M4x12,4-M5x12	≤ϕ14	38	ϕ50	5	60	78.5	115.5	5.3
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	38.5	ϕ60	5	66	78.5	115.5	5.5
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	44	ϕ70	7	80	78.5	115.5	11
	ϕ100	4-M6x15	≤ϕ19	44	ϕ80	7	90	78.5	115.5	11
PEH060-L2	ϕ46	4-M4x12，4-M5x12	≤ϕ8	44	ϕ30	9	60	107.5	144.5	10.3
	ϕ66.7	4-M4x12	≤ϕ8	38	ϕ38.1	3	60	107.5	144.5	4.3
	ϕ70	4-M4x12,4-M5x12	≤ϕ14	38	ϕ50	5	60	107.5	144.5	5.3
	ϕ75	4-M4x10,4-M5x12	≤ϕ14	38.5	ϕ60	5	66	107.5	144.5	5.5
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	44	ϕ70	7	80	107.5	144.5	11
	ϕ100	4-M6x15	≤ϕ19	44	ϕ80	7	90	107.5	144.5	11

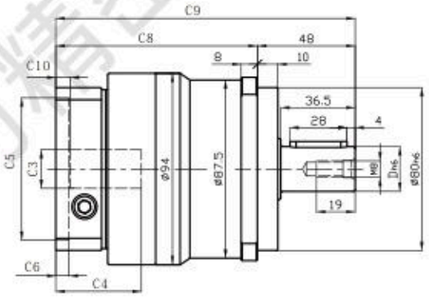
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

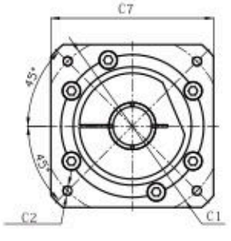
PEH090-L1

输出端/OUTPUT



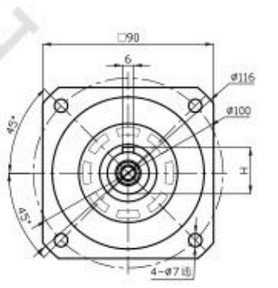


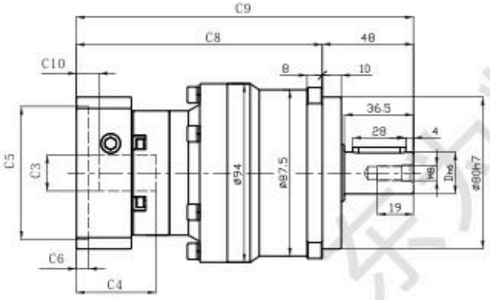
输入端/ INPUT



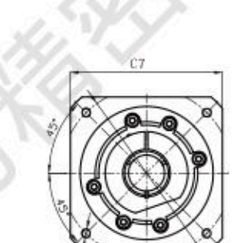
PEH090-L2

输出端/OUTPUT

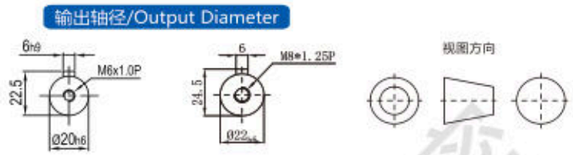




输入端/ INPUT



输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

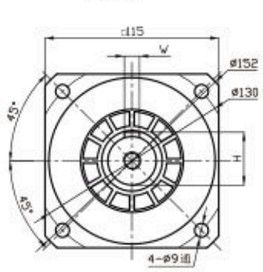
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PEH090-L1	ϕ90	A-M5x124-M6x14	≤ϕ19	42	ϕ70	6.5	80	99	147	7
	ϕ100	4-M6x14	≤ϕ16	42	ϕ80	6.5	86	99	147	6
	ϕ115	4-M8x20	≤ϕ22	56.5	ϕ95	8	100	114.5	162.5	16.5
	ϕ145	4-M8x20	≤ϕ24	59	ϕ110	11	130	117	165	19
PEH090-L2	ϕ66.7	4-M4x10	≤ϕ8	34	ϕ38.1	5	60	123	171	5.5
	ϕ70	4-M4x10,4-M5x12	≤ϕ14	34	ϕ50	5	60	123	171	5.5
	ϕ90	4-M5x12,4-M6x14	≤ϕ19	42	ϕ70	6.5	80	129.5	177.5	12
	ϕ100	4-M6x14	≤ϕ16	42	ϕ80	6.5	86	129.5	177.5	11

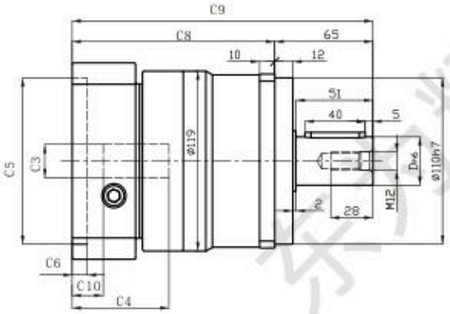
* C1~C1 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

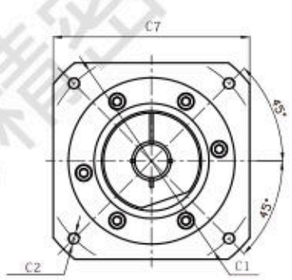
PEH115-L1

输出端/OUTPUT



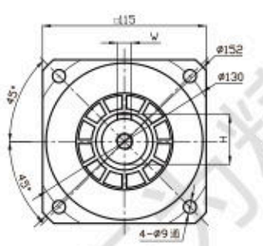


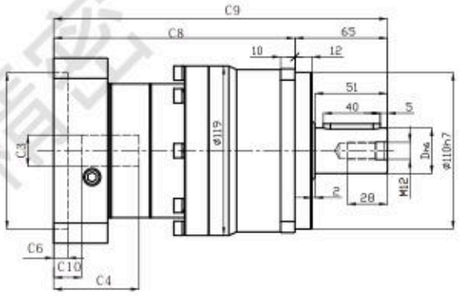
输入端/ INPUT



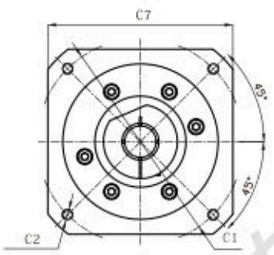
PEH115-L2

输出端/OUTPUT

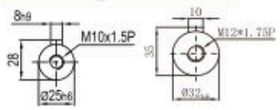




输入端/ INPUT



输出轴径/Output Diameter



视图方向



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PEH115-L1	ϕ90	4-M5x12,4-M6x14	≤ϕ19	42	ϕ70	6.5	80	134	199	7
	ϕ110	4-M6x14	≤ϕ16	42	ϕ80	6.5	86	134	199	6
	ϕ115	4-M8x20	≤ϕ22	56.5	ϕ95	8	100	134	199	16.5
	ϕ145	4-M8x20	≤ϕ24	64	ϕ110	10	130	134	199	19.5
	ϕ200	4-M12x28	≤ϕ35	81	ϕ114.3	10	180	151.5	216.5	28
PEH115-L2	ϕ90	4-M5x12,4-M6x14	≤ϕ19	42	ϕ70	6.5	80	150.5	215.5	7
	ϕ110	4-M6x14	≤ϕ16	42	ϕ80	6.5	86	150.5	215.5	6
	ϕ115	4-M8x20	≤ϕ22	56.5	ϕ95	8	100	166	231	16.5
	ϕ145	4-M8x20	≤ϕ24	64	ϕ110	10	130	166	231	19.5
	ϕ200	4-M12x28	≤ϕ35	81	ϕ114.3	10	180	166	231	28

* C1~C9 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C9 are motor (metric standard) specific dimensions, which could be customised。

PET系列精密斜齿行星减速机
PET series precision helical planetary reducer



PET系列减速机核心特性
The Core features of PET series reducer

1.采用斜齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行低噪音、平稳；承载能力较直齿提高20%；

2.整体式输出轴，行星轮两端轴承支撑，实现高精度、高强度；

3.回程间隙小，精密型单级可以做到3arcmin以内；

1. Helical gear transmission, carburizing and quenching treatment, tooth profile modification treatment,
Ensure low noise and stable operation; The bearing capacity is 20% higher than that of straight teeth;

2. The integral output shaft is supported by bearings at both ends of the planetary gear to achieve high precision and high strength;

3. The return clearance is small, and the precision single stage can reach within 3 arcmin;

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

规 格		级 数	减速比[1]	PET060	PET090	PET120
额定输出力矩T_{2N}	Nm	1	3	55	130	208
			4	50	140	290
			5	60	160	330
			6	55	150	310
			7	50	140	300
			8	45	120	260
			10	40	100	230
		2	12	55	130	208
			15	55	130	208
			20	50	140	290
			25	60	160	330
			30	55	130	208
			35	60	160	330
			40	50	140	290
			50	60	160	330
			60	55	150	310
			70	50	140	300
			80	45	120	260
			100	40	100	230
最大输出力矩T_{2B}	Nm	1,2	3~100		3倍额定输出力矩	
额定输入转速n_{1}	rpm	1,2	3~100	5,000	4,000	4,000
最大输入转速n_{1B}	rpm	1,2	3~100	10,000	8,000	8,000
背隙	arcmin	1	3~10	≤8	≤8	≤8
		2	12~100	≤10	≤10	≤10
扭转刚性	Nm/arcmin	1,2	3~100	7	14	25
容许径向力F_{2rB}[2]	N	1,2	3~100	1,530	3,250	6,700
容许轴向力F_{2a1B}[2]	N	1,2	3~100	630	1,300	3,000
容许轴向力F_{2a2B}[2]	N	1,2	3~100	765	1,625	3,350
使用寿命	hr	1,2	3~100		20,000*	
效率 η	%	1	3~10		≥97%	
		2	12~100		≥94%	
重量	kg	1	3~10	1.3	3.7	7.8
		2	12~100	1.9	4.1	9
使用温度	℃	1,2	3~100		-10℃~+90℃	
润滑		1,2	3~100		合成润滑油脂	
防护等级		1,2	3~100		IP65	
安装方向		1,2	3~100		任意方向	
噪音值（n_1=3000rpm）	dB	1,2	3~100	≤58	≤60	≤63

减速机转动惯量

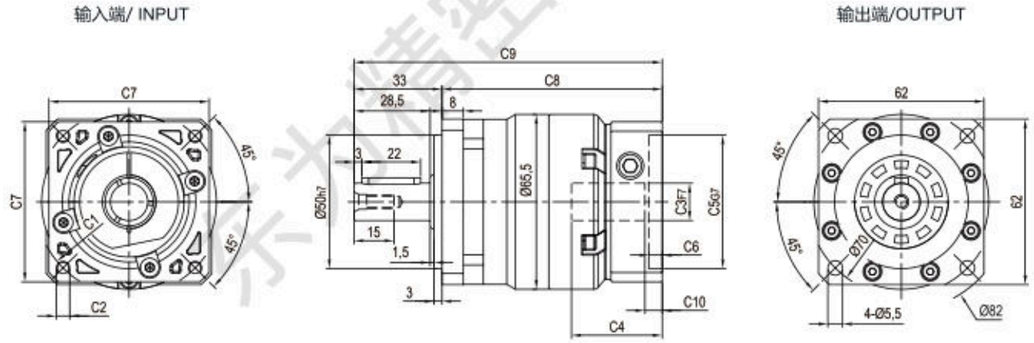
规 格		级 数	减速比[1]	PET060	PET090	PET120
转动惯量J_1	kg·cm²	1	3	0.16	0.61	3.25
			4	0.14	0.48	2.74
			5	0.13	0.47	2.71
			7	0.13	0.45	2.62
			10	0.13	0.44	2.57
		2	12	0.03	0.13	0.47
			15	0.03	0.13	0.47
			20	0.03	0.13	0.47
			25	0.03	0.13	0.47
			30	0.03	0.13	0.47
			35	0.03	0.13	0.47
			40	0.03	0.13	0.47
			50	0.03	0.13	0.44
			70	0.03	0.13	0.44
			100	0.03	0.13	0.44

1.减速比（$i=N_{in}/N_{out}$）
* 连续运转降低使用寿命二分之一。

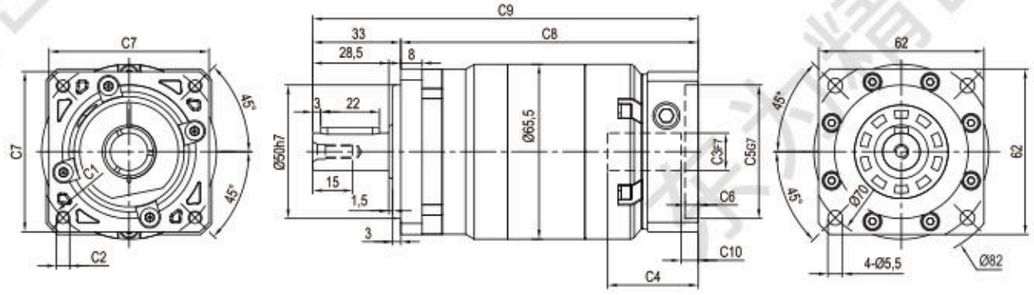
2.输出转数 **100rpm** 时，作用于输出轴中心位置。

外形尺寸图表 / OUTLINE DIMENSION SHEET

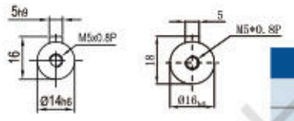
PET060-L1



PET060-L2



输出轴径/Output Diameter



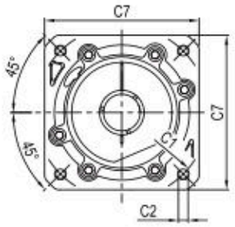
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PET060-L1	Ø66.7	4-M4x10	Ø8	34	Ø38.1	5	60	82.5	115.5	5.5
PET060-L2								111.5	144.5	5.5
PET060-L1	Ø70	4-M4x10,4-M5x12	Ø11,Ø14	34	Ø50	5	60	82.5	115.5	5.5
PET060-L2								111.5	144.5	5.5
PET060-L1	Ø90	4-M5x12,4-M6x14	Ø19	42	Ø70	6.5	80	89	122	12
PET060-L2								118	151	12

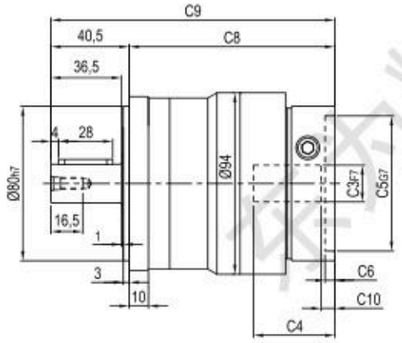
* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C7are motor(metric standard) specific dimensions, which could be customised。
* D:常规孔,M1:极限孔
* D: Conventional Hole, M1: Limit Hole

外形尺寸图表 / OUTLINE DIMENSION SHEET

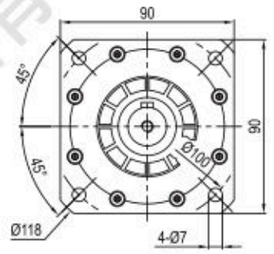
PET090-L1

输入端/ INPUT



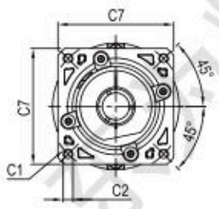


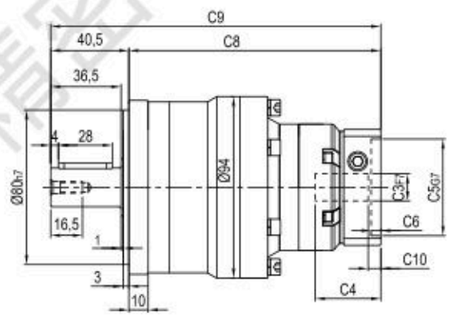
输出端/OUTPUT



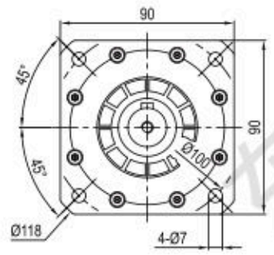
PET090-L2

输入端/ INPUT

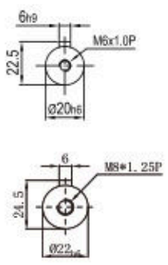




输出端/OUTPUT



输出轴径/Output Diameter



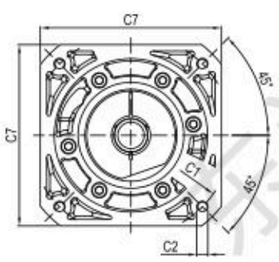
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PET090-L1	Ø90	4-M5x12,4-M6x14	Ø19	42	Ø70	6.5	80	106.5	147	7
	Ø100	4-M6x14	Ø16	42	Ø80	6.5	86	106.5	147	6
PET090-L1	Ø115	4-M8x20	Ø19,Ø22	56.5	Ø95	8	100	122	162.5	16.5
	Ø145	4-M8x20	Ø19,Ø22,Ø24	59	Ø110	11	130	124.5	165	19
PET090-L2	Ø66.7	4-M4x10	Ø8	34	Ø38.1	5	60	130.5	171	5.5
	Ø70	4-M4x10,4-M5x12	Ø11,Ø14	34	Ø50	5	60	130.5	171	5.5
PET090-L2	Ø90	4-M5x12,4-M6x14	Ø19	42	Ø70	6.5	80	137	177.5	12
	Ø100	4-M6x14	Ø16	42	Ø80	6.5	86	137	177.5	11

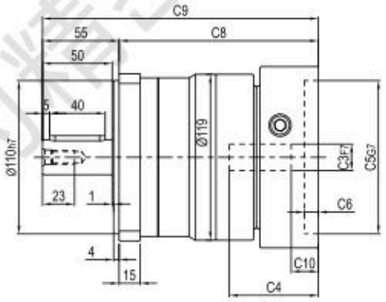
* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C7are motor(metric standard) specific dimensions, which could be customised。
* D:常规孔,M1:极限孔
* D: Conventional Hole, M1: Limit Hole

外形尺寸图表 / OUTLINE DIMENSION SHEET

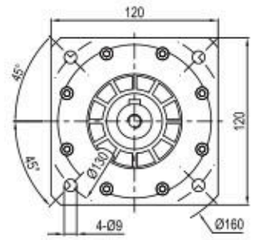
PET120-L1

输入端/ INPUT



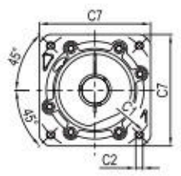


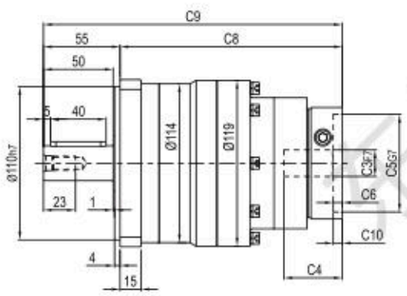
输出端/OUTPUT



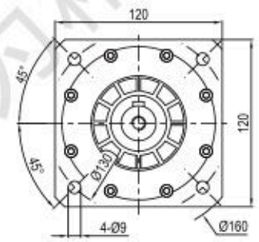
PET120-L2

输入端/ INPUT

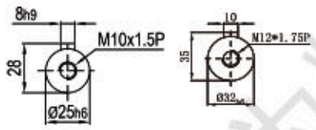




输出端/OUTPUT



输出轴径/Output Diameter



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PET120-L1	Ø145	4-M8x20	Ø19,Ø22,Ø24	64	Ø110	10	130	143	198	19.5
PET120-L1	Ø200	4-M12x28	Ø35	81	Ø114.3	10	180	160.5	215.5	28
PET120-L2	Ø90	4-M5x12 , 4-M6x14	Ø19	42	Ø70	6.5	80	159.5	214.5	7
	Ø100	4-M6x14	Ø16	42	Ø80	6.5	86	159.5	214.5	6
PET120-L2	Ø115	4-M8x20	Ø19,Ø22	56.5	Ø95	8	100	175	230	16.5
	Ø145	4-M8x20	Ø19,Ø22,Ø24	59	Ø110	11	130	177.5	232.5	19

* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C7are motor(metric standard) specific dimensions, which could be customised。
* D:常规孔,M1:极限孔
* D: Conventional Hole, M1: Limit Hole

PEC系列精密斜齿行星减速机
PET series precision helical planetary reducer



PEC系列减速机核心特性
The Core features of PEC series reducer

1.采用斜齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行低噪音、平稳；承载能力较直齿提高20%;

2.整体式输出轴，行星轮两端轴承支撑，实现高精度、高强度;

3.回程间隙小，精密型单级可以做到3arcmin以内;

1. Helical gear transmission, carburizing and quenching treatment, tooth profile modification treatment,

Ensure low noise and stable operation; The bearing capacity is 20% higher than that of straight teeth;

2. The integral output shaft is supported by bearings at both ends of the planetary gear to achieve high precision and high strength;

3. The return clearance is small, and the precision single stage can reach within 3 arcmin;

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

规 格		级 数	减速比[1]	PEC060	PEC090	PEC120
额定输出力矩T_{2N}	Nm	1	3	55	130	208
			4	50	140	290
			5	60	160	330
			6	55	150	310
			7	50	140	300
			8	45	120	260
			10	40	100	230
		2	12	55	130	208
			15	55	130	208
			20	50	140	290
			25	60	160	330
			30	55	130	208
			35	60	160	330
			40	50	140	290
			50	60	160	330
			60	55	150	310
			70	50	140	300
			80	45	120	260
			100	40	100	230
最大输出力矩T_{2B}	Nm	1,2	3~100		3倍额定输出力矩	
额定输入转速n_1	rpm	1,2	3~100	5,000	4,000	4,000
最大输入转速n_{1B}	rpm	1,2	3~100	10,000	8,000	8,000
背隙	arcmin	1	3~10	≤8	≤8	≤8
		2	12~100	≤10	≤10	≤10
扭转刚性	Nm/arcmin	1,2	3~100	7	14	25
容许径向力F_{2R}[2]	N	1,2	3~100	1,530	3,250	6,700
容许轴向力F_{2A1B}[3]	N	1,2	3~100	630	1,300	3,000
容许轴向力F_{2A2B}[3]	N	1,2	3~100	765	1,625	3,350
使用寿命	hr	1,2	3~100		20,000*	
效率 η	%	1	3~10		≥97%	
		2	12~100		≥94%	
重量	kg	1	3~10	1.3	3.7	7.8
		2	12~100	1.9	4.1	9
使用温度	℃	1,2	3~100		-10℃~+90℃	
润滑		1,2	3~100		合成润滑油脂	
防护等级		1,2	3~100		IP65	
安装方向		1,2	3~100		任意方向	
噪音值（n_1=3000rpm）	dB	1,2	3~100	≤58	≤60	≤63

减速机转动惯量

规 格		级 数	减速比[1]	PEC060	PEC090	PEC120
转动惯量J_1	kg·cm²	1	3	0.16	0.61	3.25
			4	0.14	0.48	2.74
			5	0.13	0.47	2.71
			7	0.13	0.45	2.62
			10	0.13	0.44	2.57
		2	12	0.03	0.13	0.47
			15	0.03	0.13	0.47
			20	0.03	0.13	0.47
			25	0.03	0.13	0.47
			30	0.03	0.13	0.47
			35	0.03	0.13	0.47
			40	0.03	0.13	0.47
			50	0.03	0.13	0.44
			70	0.03	0.13	0.44
			100	0.03	0.13	0.44

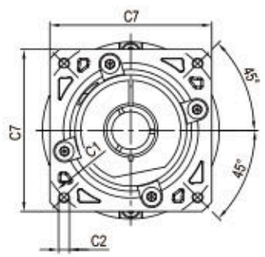
1.减速比（$i=N_{in}/N_{out}$）
* 连续运转降低使用寿命二分之一。

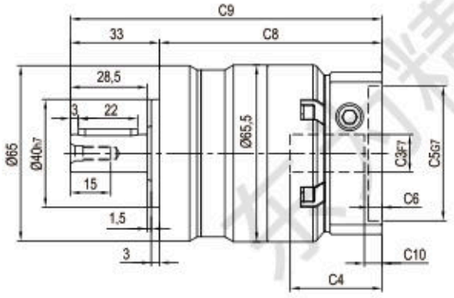
2.输出转数 **100rpm** 时，作用于输出轴中心位置。

外形尺寸图表 / OUTLINE DIMENSION SHEET

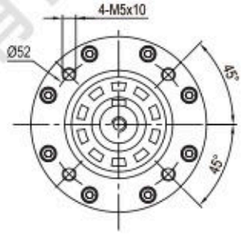
PEC060-L1

输入端/INPUT



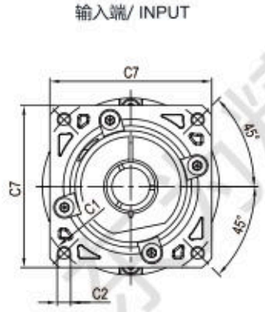


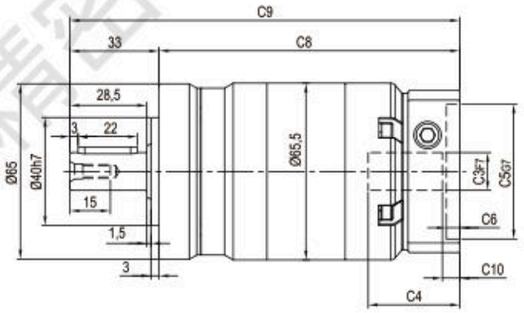
输出端/ OUTPUT



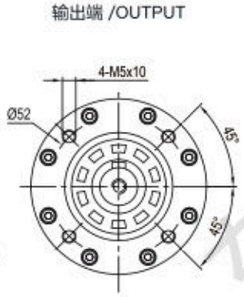
PEC060-L2

输入端/ INPUT

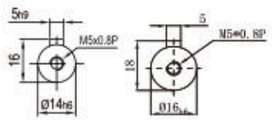




输出端 /OUTPUT



输出轴径/Output Diameter



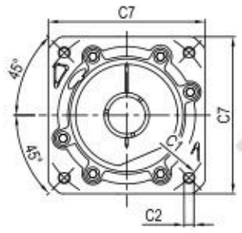
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PEC060-L1	Ø66.7	4-M4x10	Ø8	34	Ø38.1	5	60	82.5	115.5	5.5
PEC060-L2								111.5	144.5	5.5
PEC060-L1	Ø70	4-M4x10,4-M5x12	Ø11,Ø14	34	Ø50	5	60	82.5	115.5	5.5
PEC060-L2								111.5	144.5	5.5
PEC060-L1	Ø90	4-M5x12,4-M6x14	Ø19	42	Ø70	6.5	80	89	122	12
PEC060-L2								118	151	12

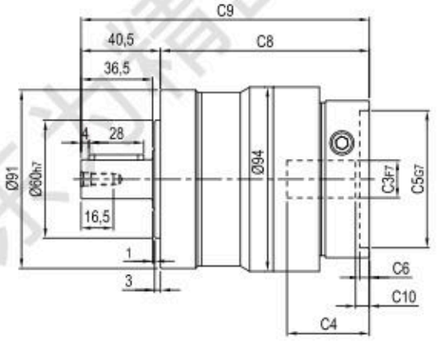
* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C7are motor(metric standard) specific dimensions, which could be customised。
- D:常规孔,M1:极限孔
- D: Conventional Hole, M1: Limit Hole

外形尺寸图表 / OUTLINE DIMENSION SHEET

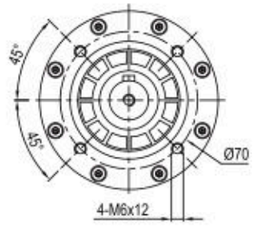
PEC090-L1

输入端/INPUT



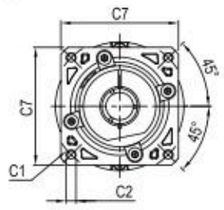


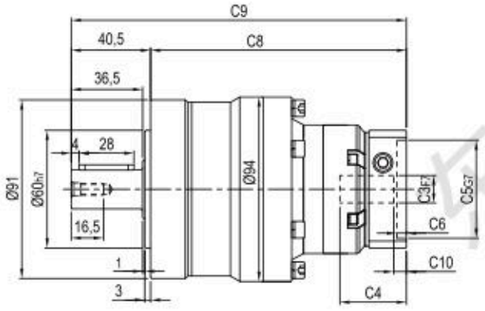
输出端/ OUTPUT



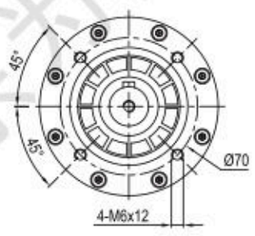
PEC090-L2

输入端/ INPUT

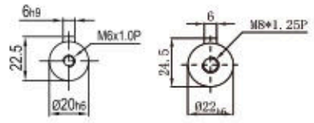




输出端 /OUTPUT



输出轴径/Output Diameter



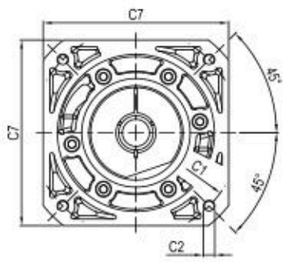
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PEC090-L1	Ø90	4-M5x12,4-M6x14	Ø19	42	Ø70	6.5	80	106,5	147	7
	Ø100	4-M6x14	Ø16	42	Ø80	6.5	86	106,5	147	6
PEC090-L1	Ø115	4-M8x20	Ø19,Ø22	56.5	Ø95	8	100	122	162.5	16.5
	Ø145	4-M8x20	Ø19,Ø22,Ø24	59	Ø110	11	130	124.5	165	19
PEC090-L2	Ø66.7	4-M4x10	Ø8	34	Ø38.1	5	60	130.5	171	5.5
	Ø70	4-M4x10,4-M5x12	Ø11,Ø14	34	Ø50	5	60	130.5	171	5.5
PEC090-L2	Ø90	4-M5x12,4-M6x14	Ø19	42	Ø70	6.5	80	137	177.5	12
	Ø100	4-M6x14	Ø16	42	Ø80	6.5	86	137	177.5	11

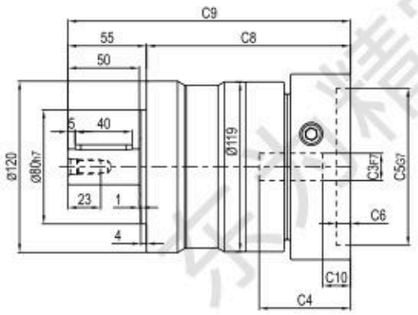
* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C7are motor(metric standard) specific dimensions, which could be customised。
- D:常规孔,M1:极限孔
- D: Conventional Hole, M1: Limit Hole

外形尺寸图表 / OUTLINE DIMENSION SHEET

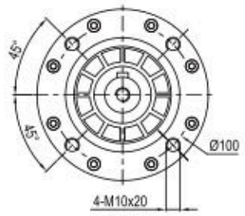
PEC120-L1

输入端/INPUT



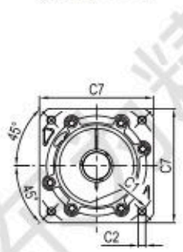


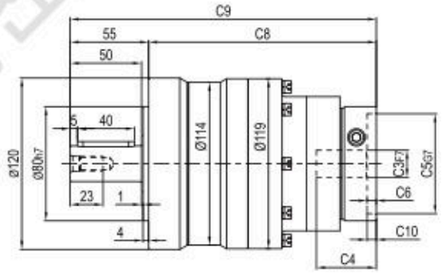
输出端/ OUTPUT



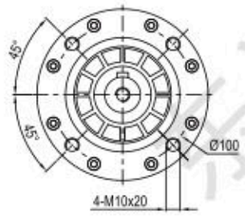
PEC120-L2

输入端/ INPUT

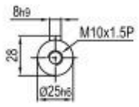


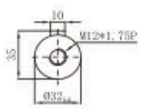


输出端 /OUTPUT



输出轴径/Output Diameter





尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PEC120-L1	Ø145	4-M8x20	Ø19,Ø22,Ø24	64	Ø110	10	130	143	198	19.5
PEC120-L1	Ø200	4-M12x28	Ø35	81	Ø114.3	10	180	160.5	215.5	28
PEC120-L2	Ø90	4-M5x12,4-M6x14	Ø19	42	Ø70	6.5	80	159.5	214.5	7
	Ø100	4-M6x14	Ø16	42	Ø80	6.5	86	159.5	214.5	6
PET120-L2	Ø115	4-M8x20	Ø19,Ø22	56.5	Ø95	8	100	175	230	16.5
	Ø145	4-M8x20	Ø19,Ø22,Ø24	59	Ø110	11	130	177.5	232.5	19

* C1~C7是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C7are motor(metric standard) specific dimensions, which could be customised。
* D:常规孔,M1:极限孔
* D: Conventional Hole, M1: Limit Hole

PGHR系列精密斜齿行星减速机
PEH series precision helical planetary reducer



- →→PGHR060
- →→PGHR090
- →→PGHR115
- →→PGHR142
- →→PGHR180
- →→PGHR220

PGHR系列减速机核心特性
The Core features of PGHR series reducer

1.采用斜齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行低噪音、平稳；承载能力较直齿提高20%;

2.整体式输出轴，行星轮两端轴承支撑，实现高精度、高强度;

3.回程间隙小，精密型单级可以做到5arcmin以内;

1. Helical gear transmission, carburizing and quenching treatment, tooth profile modification treatment,
Ensure low noise and stable operation; The bearing capacity is 20% higher than that of straight teeth;

2. The integral output shaft is supported by bearings at both ends of the planetary gear to achieve high precision and high strength;

3. The return clearance is small, and the precision single stage can reach within 3 arcmin:

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

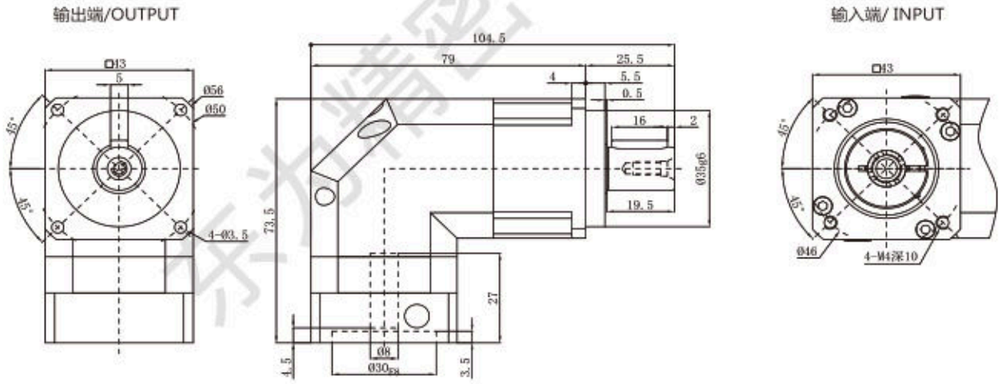
规格Specifications	单位unit	节数Stage	减速比	PGHR 042	PGHR 060	PGHR 090	PGHR 115	PGHR 142	PGHR 180	PGHR 220
额定输出力矩T2N Nominal Output Torque	N.m	1	3	19	53	145	290	520	950	1550
			4	20	55	150	300	550	1000	1650
			5	17	54	140	290	530	1050	1700
			6	19	53	145	290	520	950	1550
			7	14	44	125	270	450	960	1500
			8	20	55	150	300	550	1000	1650
			9	11	37	95	220	360	950	1550
			10	11	37	95	220	360	1050	1700
			14	14	44	125	270	450	960	1500
			18	11	37	95	220	360	800	1250
			20	11	37	95	220	360	800	1250
		2	12	19	53	145	290	520	950	1550
			15	19	53	145	290	520	950	1550
			20	20	55	150	300	550	1000	1650
			25	17	54	140	290	530	1050	1700
			30	19	53	145	290	520	950	1550
			35	17	54	140	290	530	1050	1700
			40	20	55	150	300	550	1000	1650
			45	17	54	140	290	530	–	–
			50	17	54	140	290	530	1050	1700
			70	17	54	140	290	530	1050	1700
			90	17	54	140	290	530	–	–
			100	17	54	140	290	530	1050	1700
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	3 ~ 100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)						
额定输入转速n1 Nominal Input Speed	rpm	1、2	3 ~ 100	5000	3000	3000	3000	3000	1500	1500
最大输入转速n1max Max.Input Speed	rpm	1、2	3 ~ 100	10000	6000	6000	6000	6000	3000	3000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3 ~ 10	≤5	≤5	≤5	≤5	≤5	≤5	≤5
		2	12 ~ 100	≤8	≤8	≤8	≤8	≤8	≤8	≤8
精密背隙P1 Precise Blacklash	arcmin	1	3 ~ 10	≤7	≤7	≤7	≤7	≤7	≤7	≤7
		2	12 ~ 100	≤10	≤10	≤10	≤10	≤10	≤10	≤10
标准背隙P2 Standard Blacklash	arcmin	1	3 ~ 10	≤9	≤9	≤9	≤9	≤9	≤9	≤9
		2	12 ~ 100	≤12	≤12	≤12	≤12	≤12	≤12	≤12
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	3 ~ 100	2.5	6	12	23	45	148	220
容许径向力F2rB Max.Radial Load	N	1、2	3 ~ 100	515	1010	1780	3420	5380	8330	11120
容许轴向力F2aB Max.Axial Load	N	1、2	3 ~ 100	410	600	1500	2650	4670	6460	8560
使用温度 Operating Temp	° C	1、2	3 ~ 100	-10° C ~ +90° C						
使用寿命 Service Life	hr	1、2	3 ~ 100	20,000 (10,000/连续运转continiu operationg)						
效率 η Efficiency	%	1	3 ~ 10	≥95%						
		2	12 ~ 100	≥92%						
重量 Weight	kg	1	3 ~ 10	1	1.3	3.5	7.8	16.1	30.0	58.0
		2	12 ~ 100	1.4	2.0	5.6	9.5	19.0	42.0	67.0
安装方向 mounting Position	–	1、2	3 ~ 100	任意方向 Any direction						
噪音值 Noise Level	dBA/1m	1、2	3 ~ 100	62	63	65	70	70	73	75
防护等级 Protection Class	–	1、2	3 ~ 100	Ip65						
润滑 Lubrication		1、2	3 ~ 100	全合成润滑脂油 Synthetic Lubricant						

减速机转动惯量

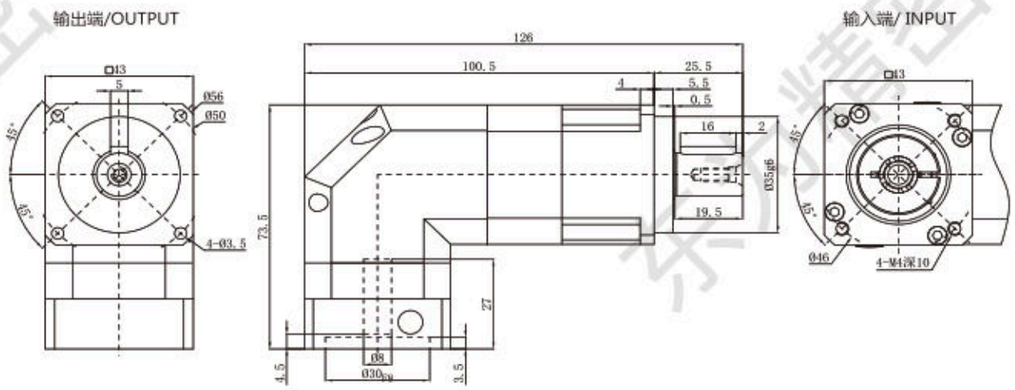
规格Specifications	单位unit	节数Stage	减速比Rat	PGHR 042	PGHR 060	PGHR 090	PGHR 115	PGHR 142	PGHR 180	PGHR 220
转动惯量J1 Inertia	kg.cm2	1	3	0.06	0.23	0.98	2.36	10.10	31.00	79.63
			4	0.06	0.18	0.68	1.68	7.30	26.00	59.30
			5	0.06	0.17	0.66	1.55	6.58	23.80	54.86
			6/7/8	0.05	0.15	0.60	1.48	6.22	23.00	54.32
			9/10/14/18/20	0.06	0.14	0.58	1.45	6.15	22.90	54.00
		2	12/15/18/20/15	0.05	0.18	0.68	2.40	6.52	24.27	54.37
			30/35/40	0.05	0.15	0.68	1.68	6.52	23.82	54.37
			45/50/70	0.05	0.15	0.60	1.51	6.21	22.94	53.30
			80/90/100	0.05	0.14	0.60	1.41	6.10	22.75	52.45

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGHR 042-L1



PGHR 042-L2



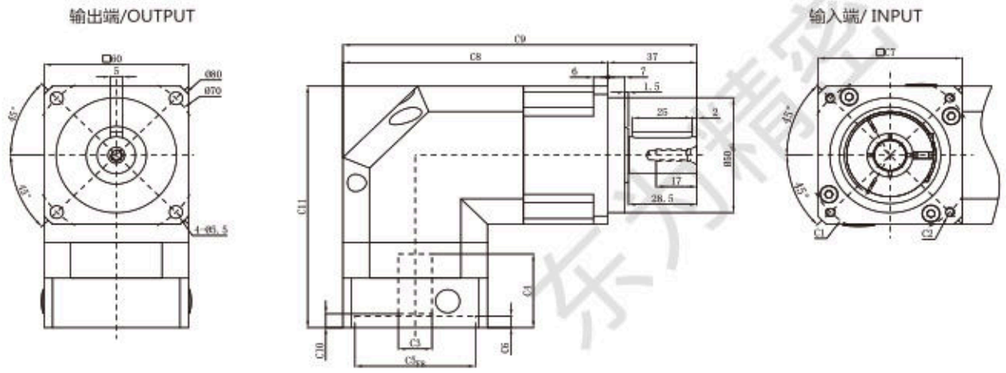
输出轴径/Output Diameter



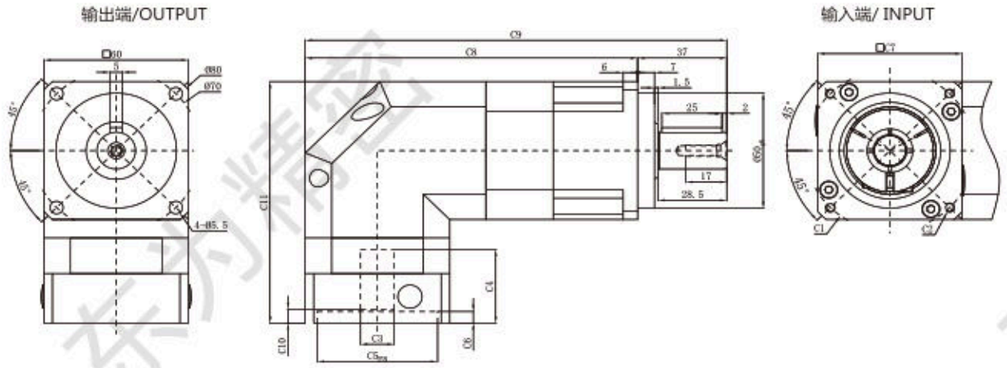
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGHR060-L1



PGHR060-L2



输出轴径/Output Diameter



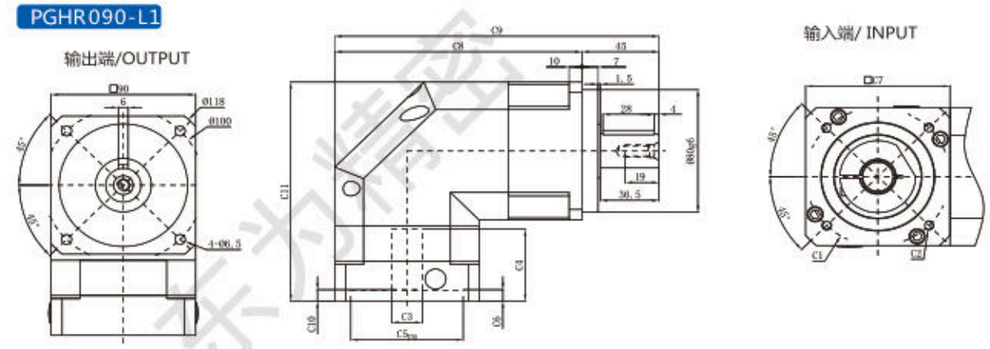
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PGHR060-L1	φ46	4-M4x12,4-M5x12	≤φ8	37.5	φ30	10.5	60	110	147	11.5	110.5
	φ66.7	4-M4x12	≤φ8	32	φ38.1	5	60	110	147	5.5	105
	φ70	4-M4x10,4-M5x12	≤φ14	32	φ50	5	60	110	147	6	105
	φ75	4-M4x12,4-M5x12	≤φ14	32	φ60	5	66	113	150	6	105
	φ90	4-M6x15	≤φ19	42	φ70	7	80	120	160	11	117
	φ100	4-M6x15	≤φ19	44	φ80	7	90	120	160	11	117
PGHR060-L2	φ46	4-M4x12,4-M5x12	≤φ8	37.5	φ30	10.5	60	138	175	11.5	110.5
	φ66.7	4-M4x12	≤φ8	32	φ38.1	5	60	138	175	5.5	105
	φ70	4-M4x10,4-M5x12	≤φ14	32	φ50	5	60	138	175	6	105
	φ75	4-M4x12,4-M5x12	≤φ14	32	φ60	5	66	141	178	6	105
	φ90	4-M6x15	≤φ19	42	φ70	7	80	148	188	11	117
	φ100	4-M6x15	≤φ19	44	φ80	7	90	148	188	11	117

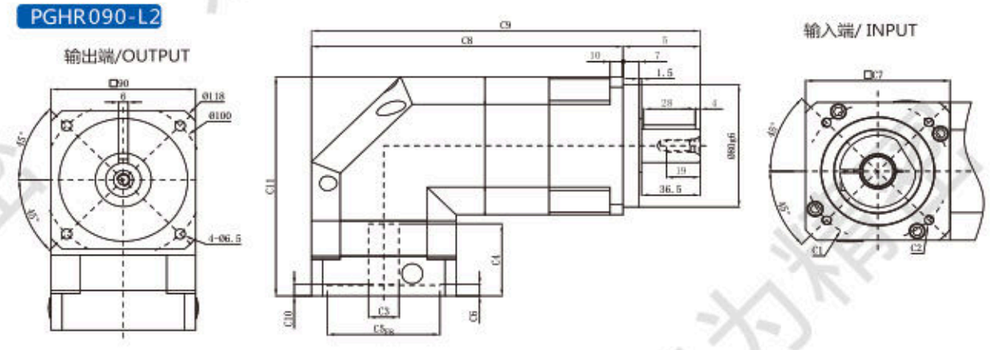
* C1~C11 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C11 are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGHR090-L1



PGHR090-L2



输出轴径/Output Diameter



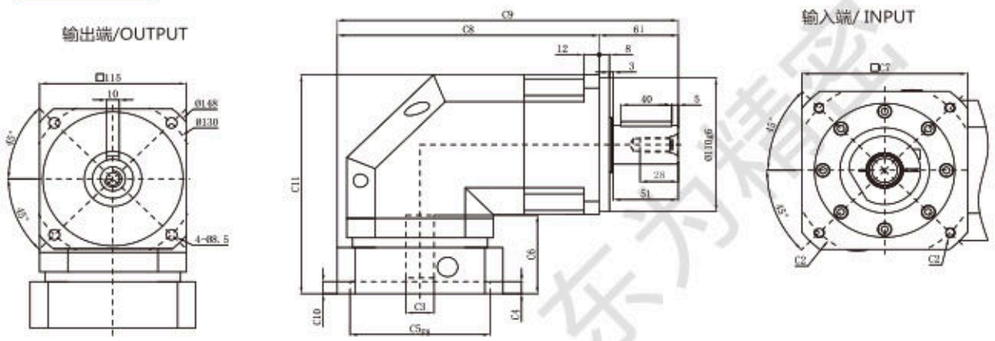
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PGHR090-L1	φ70	4-M4x10,4-M5x12	≤φ14	47	φ50	4	90	154	202	6.5	143
	φ75	4-M4x12,4-M5x12	≤φ14	47	φ60	5.5	90	154	202	6.5	143
	φ90	4-M5x15,4-M6x15	≤φ19	47	φ70	7	90	154	202	7.5	143
	φ98.4	4-M5x15,4-M6x15	≤φ14	47.5	φ73	7	90	154	202	7.5	143
	φ98.4	4-M6x15	≤φ14	47.5	φ60	7	90	154	202	7.5	143
	φ100	4-M6x15	≤φ19	47.5	φ80	7	90	154	202	12.5	143
	φ115	4-M8x20	≤φ24	59	φ95	10	100	159	207	12.5	155
	φ130	4-M8x20	≤φ24	59	φ95	10	115	166.5	214.5	12.5	155
	φ145	4-M8x20	≤φ24	59	φ110	10	130	174	262	12.5	155
	φ145	4-M8x20	≤φ24	68	φ110	10	130	174	262	21.5	164
PGHR090-L2	φ70	4-M4x10,4-M5x12	≤φ14	47	φ50	4	90	194	262	6.5	143
	φ75	4-M4x12,4-M5x12	≤φ14	47	φ60	5.5	90	194	262	6.5	143
	φ90	4-M5x15,4-M6x15	≤φ19	47	φ70	7	90	194	262	7.5	143
	φ98.4	4-M5x15,4-M6x15	≤φ14	47.5	φ73	7	90	194	262	7.5	143
	φ98.4	4-M6x15	≤φ14	47.5	φ60	7	90	194	262	7.5	143
	φ100	4-M6x15	≤φ19	47.5	φ80	7	90	194	262	12.5	143
	φ115	4-M8x20	≤φ24	59	φ95	10	100	199	267	12.5	155
	φ130	4-M8x20	≤φ24	59	φ95	10	115	206.5	254.5	12.5	155
	φ145	4-M8x20	≤φ24	59	φ110	10	130	214	272	12.5	155
	φ145	4-M8x20	≤φ24	68	φ110	10	130	214	272	21.5	164

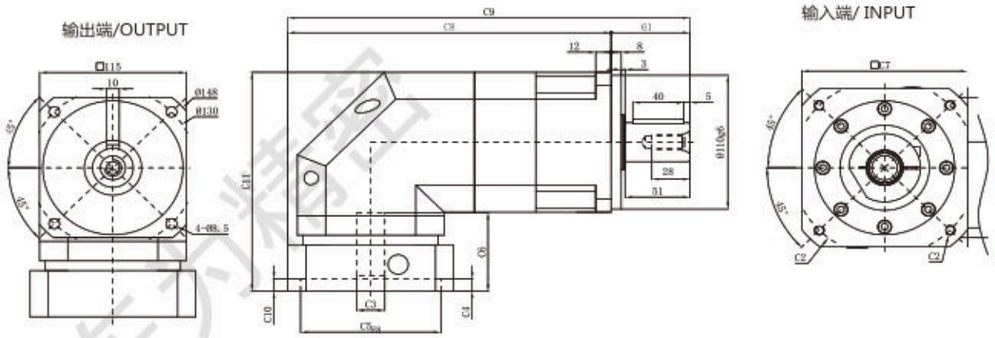
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* C1~C11 are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGHR115-L1



PGHR115-L2



输出轴径/Output Diameter



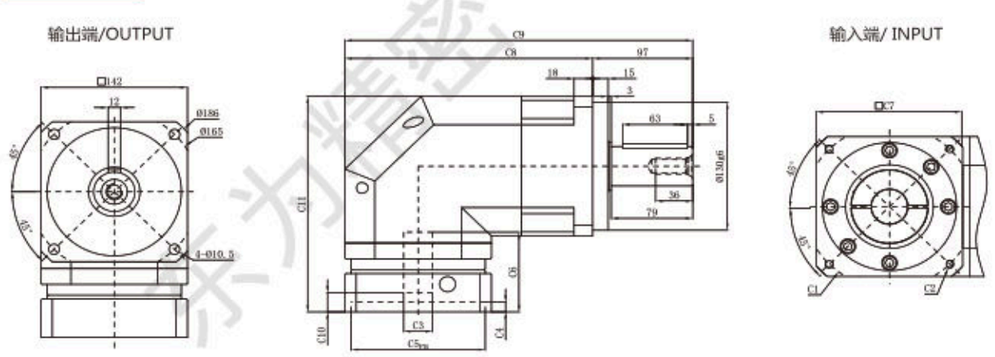
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PGHR115-L1	ϕ90	4-M5x15,4-M6x15	≤ϕ19	62	ϕ70	7	115	198	260	12	180
	ϕ100	4-M6x15	≤ϕ19	62	ϕ80	7	115	198	260	12	180
	ϕ115	4-M8x20	≤ϕ24	62	ϕ95	10	115	198	260	13	180
	ϕ130	4-M8x20	≤ϕ24	62	ϕ95	10	115	198	260	13	180
	ϕ132	4-M8x20	≤ϕ24	62	ϕ95	10	115	198	260	13	180
	ϕ145	4-M8x20	≤ϕ24	62	ϕ110	10	130	205.5	267.5	13	180
	ϕ145	4-M8x20	≤ϕ24	71	ϕ110	10	130	205.5	267.5	22	189
PGHR115-L2	ϕ90	4-M5x15,4-M6x15	≤ϕ19	62	ϕ70	7	115	246	260	12	180
	ϕ100	4-M6x15	≤ϕ19	62	ϕ80	7	115	246	260	12	180
	ϕ115	4-M8x20	≤ϕ24	62	ϕ95	10	115	246	260	13	180
	ϕ130	4-M8x20	≤ϕ24	62	ϕ95	10	115	246	260	13	180
	ϕ132	4-M8x20	≤ϕ24	62	ϕ95	10	115	246	260	13	180
	ϕ145	4-M8x20	≤ϕ24	62	ϕ110	10	130	253.5	315.5	13	180
	ϕ145	4-M8x20	≤ϕ24	71	ϕ110	10	130	253.5	315.5	22	189

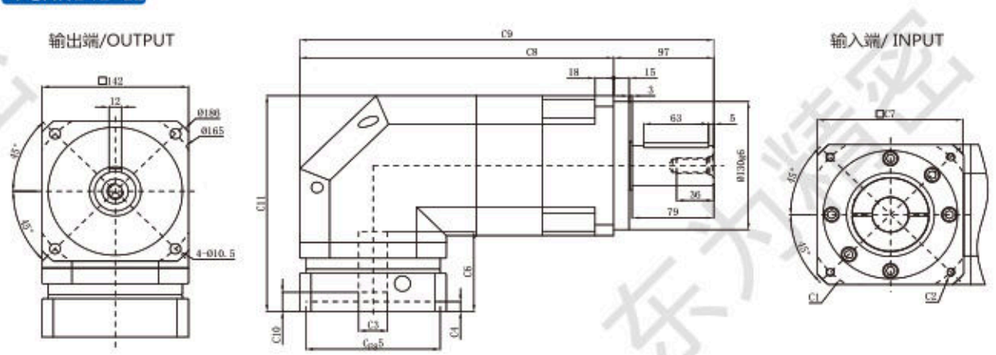
* C1~C11 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C11 are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

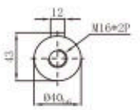
PGHR142-L1



PGHR142-L2



输出轴径/Output Diameter





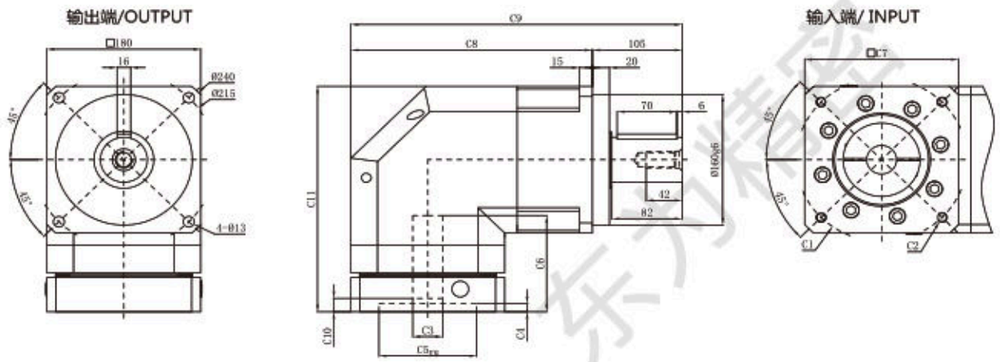
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PGHR142-L1	ϕ130	4-M8x20	≤ϕ24	81	ϕ110	10	142	240	337	19.5	219
	ϕ145	4-M8x20	≤ϕ28	81	ϕ110	10	142	240	337	19.5	219
	ϕ165	4-M10x25 , 4-M12x35	≤ϕ32	81	ϕ130	10	142	240	337	19.5	219
	ϕ200	4-M12x35	≤ϕ42	83	ϕ114.3	8	180	259	356	21.5	221
	ϕ200	4-M12x35	≤ϕ42	115	ϕ114.3	8	180	259	356	53.5	253
	ϕ215	4-M12x35	≤ϕ42	83	ϕ180	8	190	264	361	21.5	221
PGHR142-L2	ϕ130	4-M8x20	≤ϕ24	81	ϕ110	10	142	304	401	19.5	219
	ϕ145	4-M8x20	≤ϕ28	81	ϕ110	10	142	304	401	19.5	219
	ϕ165	4-M10x25 , 4-M12x35	≤ϕ32	81	ϕ130	10	142	304	401	19.5	219
	ϕ200	4-M12x35	≤ϕ42	83	ϕ114.3	8	180	323	420	21.5	221
	ϕ200	4-M12x35	≤ϕ42	115	ϕ114.3	8	180	323	420	53.5	253
	ϕ215	4-M12x35	≤ϕ42	83	ϕ180	8	190	328	425	21.5	221

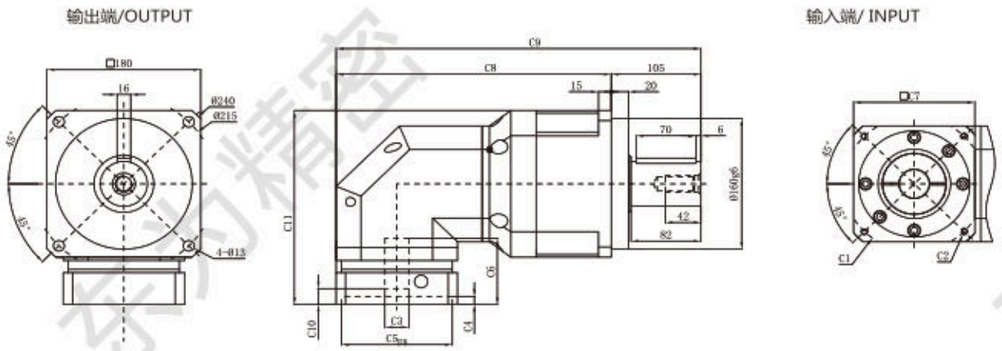
* C1~C11 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
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外形尺寸图表 / OUTLINE DIMENSION SHEET

PGHR180-L1



PGHR180-L2



输出轴径/Output Diameter



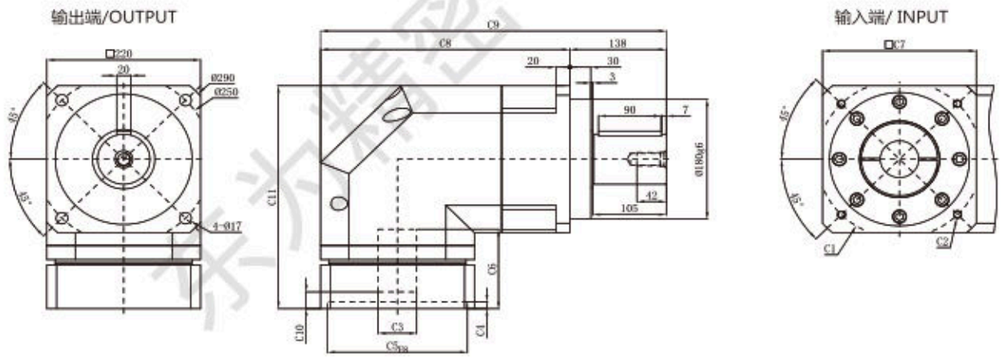
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PGHR180-L1	φ165	4-M10x25，4-M12x35	≤φ32	118	φ130	10	180	282.5	387.5	16.5	276.5
	φ200	4-M12x35	≤φ42	118	φ114.3	10	180	282.5	387.5	16.5	276.5
	φ215	4-M14x35	≤φ42	118	φ180	10	190	287.5	392.5	16.5	276.5
	φ235	4-M10x30，4-M14x35	≤φ55	150	φ200	10	220	302.5	407.5	48.5	308.5
PGHR180-L2	φ130	4-M8x20	≤φ24	81	φ110	10	142	322	427	19.5	238
	φ145	4-M8x20	≤φ24	81	φ110	10	142	322	427	19.5	238
	φ165	4-M10x25，4-M12x35	≤φ32	81	φ130	10	142	322	427	19.5	238
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	341	446	21.5	240
	φ200	4-M10x25，4-M12x35	≤φ42	115	φ114.3	8	180	341	446	53.5	272
	φ215	4-M14x35	≤φ42	83	φ180	8	190	346	451	21.5	240

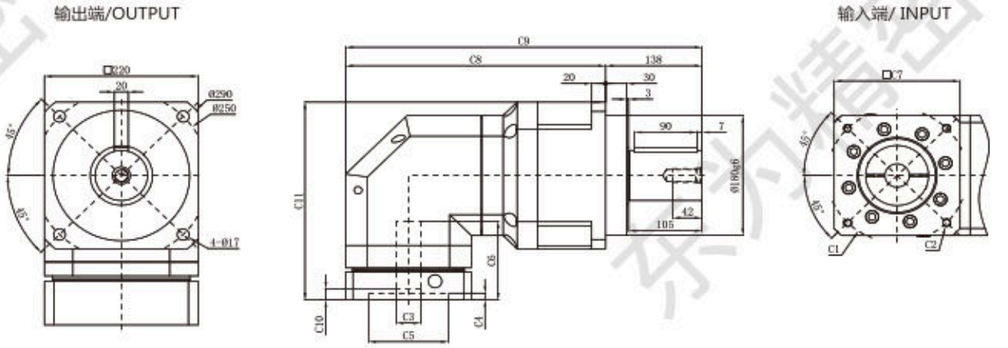
* C1~C11 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C11 are motor (metric standard) s ecific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

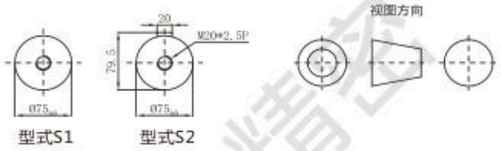
PGHR220-L1



PGHR220-L2



输出轴径/Output Diameter



型式S1　　型式S2

*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
PGHR220-L1	φ200	4-M12x35	≤φ42	119	φ114.3	10	220	356.5	494.5	25	334
	φ215	4-M14x35	≤φ42	119	φ180	10	220	356.5	494.5	25	334
	φ235	4-M12x35，4-M14x35	≤φ55	119	φ200	10	220	356.5	494.5	25	334
PGHR220-L2	φ165	4-M10x25，4-M12x35	≤φ32	118	φ130	10	180	372	510	16.5	296.5
	φ200	4-M12x35	≤φ42	118	φ114.3	10	180	372	510	16.5	296.5
	φ215	4-M12x35，4-M14x35	≤φ42	118	φ180	10	190	377	515	16.5	296.5
	φ235	4-M12x35，4-M14x35	≤φ55	150	φ200	10	220	392	530	48.5	328.5

* C1~C11 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C11 are motor (metric standard) specific dimensions, which could be customised.

PGF系列精密行星减速机
PGF series precision planetary reducer



→→PGF047
→→PGF064
→→PGF090
→→PGF110
→→PGF140
→→PGF200
→→PGF255

PGF系列减速机核心特性
The Core features of PGF series reducer

1.采用斜齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行低噪音、平稳；承载能力较直齿提高20%;

2.整体式输出轴，行星轮两端轴承支撑，实现高精度、高强度；

3.回程间隙小，精密型单级可以做到3arcmin以内；

1. Helical gear transmission, carburizing and quenching treatment, tooth profile modification treatment,
Ensure low noise and stable operation; The bearing capacity is 20% higher than that of straight teeth;

2. The integral output shaft is supported by bearings at both ends of the planetary gear to achieve high precision and high strength;

3. The return clearance is small, and the precision single stage can reach within 3 arcmin:

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

规格Specifications	单位unit	节数Stage	减速比Ratio	PGF047	PGF064	PGF090	PGF110	PGF140	PGF200	PGF255
额定输出力矩T2N Nominal Output Torque	N.m	1	4	21	50	142	285	582	1145	1650
			5	25	66	176	335	600	1220	1700
			7	21	54	145	310	540	1120	1500
			10	16	45	122	250	500	620	1250
		2	16	21	50	142	285	582	1060	1600
			20	21	50	142	285	582	1120	1700
			25	25	66	176	335	600	1220	2000
			35	25	66	176	335	600	1220	2000
			40	21	50	142	285	582	1145	1700
			50	25	66	176	335	600	1220	2000
			70	21	54	145	310	540	1120	1800
			100	16	45	122	250	500	620	1250
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	4～100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)						
额定输入转速n1 Nominal Input Speed	rpm	1、2	4～100	5000	5000	5000	4000	3000	3000	2000
最大输入转速n1max Max.Input Speed	rpm	1、2	4～100	10000	10000	10000	8000	6000	6000	4000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	4～10	≤2	≤2	≤2	≤1	≤1	≤1	≤1
		2	16～100	≤4	≤4	≤4	≤3	≤3	≤3	≤3
精密背隙P1 Precise Blacklash	arcmin	1	4～10	≤4	≤4	≤4	≤3	≤3	≤3	≤3
		2	16～100	≤6	≤6	≤6	≤5	≤5	≤5	≤5
标准背隙P2 Standard Blacklash	arcmin	1	4～10	≤6	≤6	≤6	≤5	≤5	≤5	≤5
		2	16～100	≤8	≤8	≤8	≤7	≤7	≤7	≤7
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	4～100	6	11	30	84	150	435	1006
最大弯曲力矩M2kB Max.Radial Load	N	1、2	4～100	40	120	241	417	1320	3200	5900
容许轴向力F2aB Max.Axial Load	N	1、2	4～100	960	1800	2000	4550	6110	5300	10600
使用温度 Operating Temp	° C	1、2	4～100	-10° C～+90° C						
使用寿命 Service Life	hr	1、2	4～100	20000 (10000/连续运转)						
效率 η Efficiency	%	1	4～10	≥97%						
		2	16～100	≥94%						
重量 Weight	kg	1	4～10	0.8	1.2	3.3	7.5	14.6	32.4	
		2	16～100	1.1	1.8	4.5	9.2	18.7	37.5	
安装方向 mounting Position		1、2	3～100	任意方向 Any direction						
噪音值 Noise Level	dBA/1m	1、2	3～100	60	60	63	65	68	70	73
防护等级 Protection Class		1、2	3～100	Ip65						
润滑 Lubrication		1、2	3～100	全合成润滑脂油 Synthetic Lubricant						

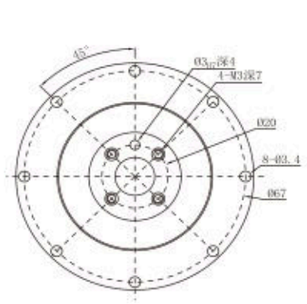
减速机转动惯量

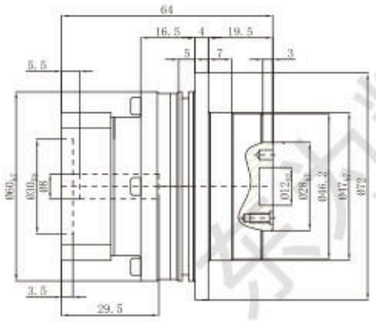
规格Specifications	单位unit	节数Stage	减速比Ratio	PGF047	PGF064	PGF090	PGF110	PGF140	PGF200	PGF255
转动惯量J1 Inertia	kg.cm2	1	4	0.04	0.18	0.67	1.66	7.17	24.92	58.30
			5	0.04	0.17	0.65	1.50	6.52	23.42	53.30
			7	0.04	0.14	0.60	1.45	6.17	22.64	51.02
			9	0.04	0.14	0.58	1.41	6.10	22.64	50.96
			10	0.04	0.14	0.58	1.41	6.10	22.72	50.55
		2	16	0.04	0.18	0.18	0.65	2.80	7.56	23.22
			20	0.04	0.17	0.17	0.65	2.80	7.56	23.22
			25	0.04	0.17	0.17	0.65	2.80	7.56	23.22
			35	0.04	0.14	0.14	0.60	2.59	7.56	23.22
			40	0.04	0.14	0.14	0.60	2.59	7.06	22.51
			50	0.04	0.14	0.14	0.58	2.54	7.06	22.51
			70	0.04	0.14	0.14	0.58	2.54	7.06	22.51
			90	0.04	0.14	0.14	0.58	2.54	7.06	22.51
			100	0.04	0.14	0.14	0.58	2.54	7.06	22.51

外形尺寸图表 / OUTLINE DIMENSION SHEET

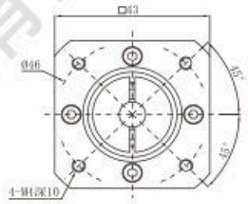
PGF047-L1

输出端/OUTPUT



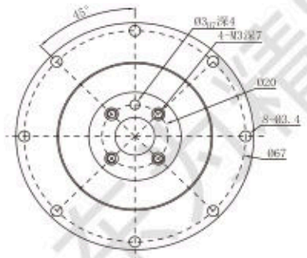


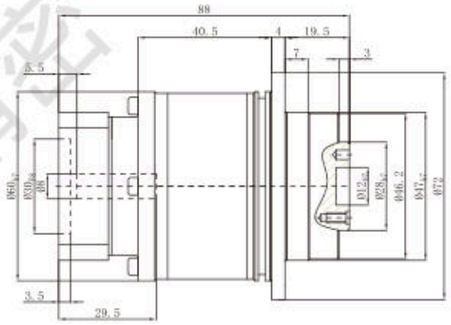
输入端/ INPUT



PGF047-L2

输出端/OUTPUT



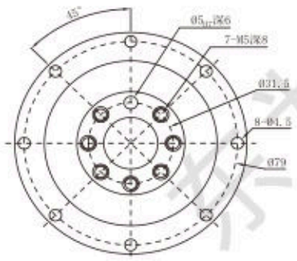


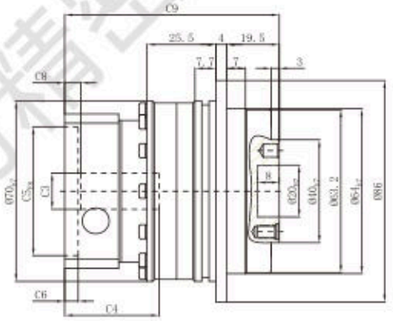
输入端/ INPUT

外形尺寸图表 / OUTLINE DIMENSION SHEET

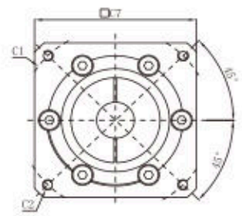
PGF064-L1

输出端/OUTPUT



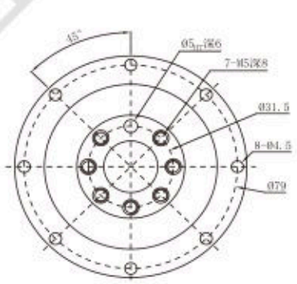


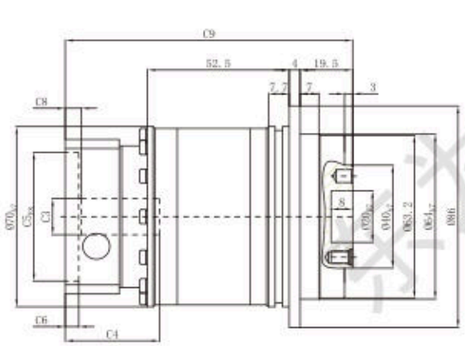
输入端/ INPUT



PGF064-L2

输出端/OUTPUT





输入端/ INPUT

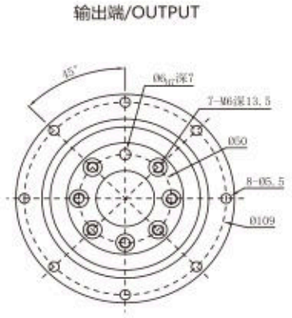
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9
PGF064-L1	ϕ46	4-M4x10	≤ϕ8	35	ϕ30	5	60	5.5	79.5
	ϕ66.7	4-M4x10	≤ϕ8	35	ϕ38.1	5	60	5.5	79.5
	ϕ70	4-M4x10,4-M5x10	≤ϕ14	35	ϕ50	5	60	5.5	79.5
	ϕ75	4-M4x10,4-M5x10	≤ϕ14	35	ϕ60	5	66	5.5	79.5
PGF064-L2	ϕ46	4-M4x10	≤ϕ8	35	ϕ30	5	60	5.5	106.5
	ϕ66.7	4-M4x10	≤ϕ8	35	ϕ38.1	5	60	5.5	106.5
	ϕ70	4-M4x10,4-M5x10	≤ϕ14	35	ϕ50	5	60	5.5	106.5
	ϕ75	4-M4x10,4-M5x10	≤ϕ14	35	ϕ60	5	66	5.5	106.5

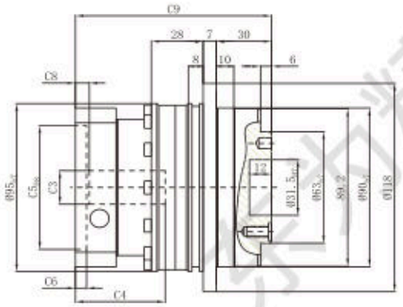
* C1~C9 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C9 are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

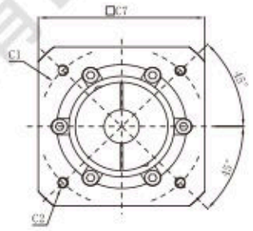
PGF090-L1

输出端/OUTPUT



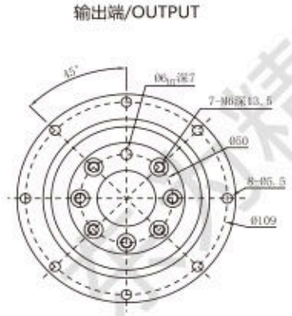


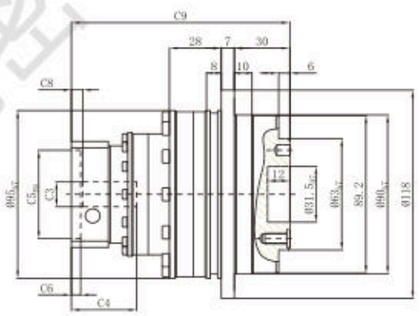
输入端/ INPUT



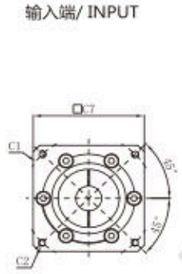
PGF090-L2

输出端/OUTPUT





输入端/ INPUT



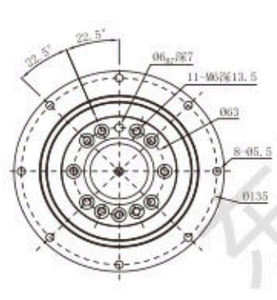
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9
PGF090-L1	φ90	4-M5x15,4-M6x15	≤φ24	47	φ70	6	90	7	106
	φ98.4	4-M5x15,4-M6x15	≤φ14	47	φ73	6	90	7	106
	φ100	4-M6x15	≤φ24	47	φ80	6	90	7	106
	φ115	4-M6x20,4-M8x20	≤φ24	59	φ95	11	100	19	118
	φ130	4-M8x20	≤φ24	59	φ95	11	115	19	118
	φ145	4-M8x20	≤φ24	59	φ110	11	130	19	118
	φ145	4-M8x20	≤φ24	70	φ110	11	130	30	129
PGF090-L2	φ70	4-M4x10,4-M5x10	≤φ14	35	φ50	5	60	5.5	118
	φ90	4-M5x15,4-M6x15	≤φ24	47	φ70	6	90	7	139.5
	φ98.4	4-M5x15,4-M6x15	≤φ14	47	φ73	6	90	7	139.5
	φ100	4-M6x15	≤φ24	47	φ80	6	90	7	139.5
	φ115	4-M6x20,4-M8x20	≤φ24	59	φ95	11	100	19	151.5
	φ130	4-M8x20	≤φ24	59	φ95	11	115	19	151.5
	φ145	4-M8x20	≤φ24	59	φ110	11	130	19	151.5
	φ145	4-M8x20	≤φ24	70	φ110	11	130	30	162.5

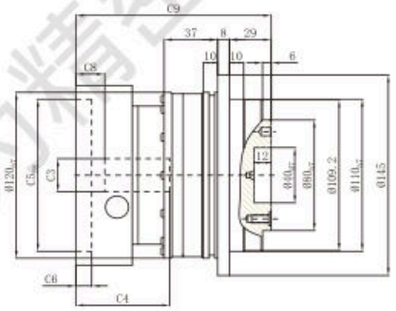
* C1~C9 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C9 are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

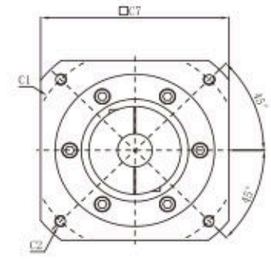
PGF110-L1

输出端/OUTPUT



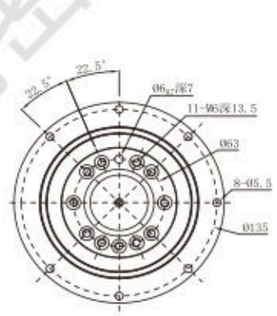


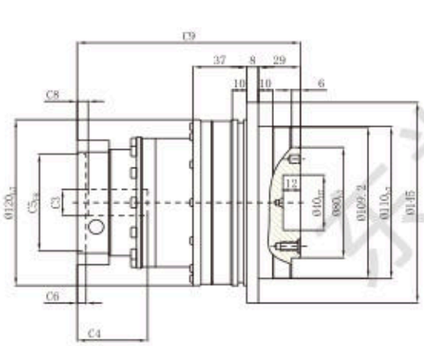
输入端/ INPUT



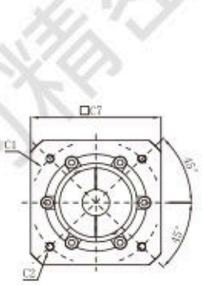
PGF110-L2

输出端/OUTPUT





输入端/ INPUT



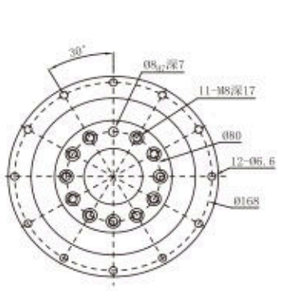
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9
PGF110-L1	φ115	4-M6x20,4-M8x20	≤φ24	61	φ95	11	115	17	132
	φ130	4-M8x20	≤φ24	61	φ95	11	115	17	132
	φ145	4-M8x20	≤φ24	64	φ110	11	130	19	135
	φ145	4-M8x20	≤φ24	71	φ110	11	130	26	142
PGF110-L2	φ90	4-M5x15,4-M6x15	≤φ19	47	φ70	6	90	7	154
	φ115	4-M8x20	≤φ24	59	φ95	11	115	19	166
	φ130	4-M8x20	≤φ24	59	φ95	11	115	19	166
	φ145	4-M8x20	≤φ24	59	φ110	11	130	19	166
	φ145	4-M8x20	≤φ24	70	φ110	11	130	30	177

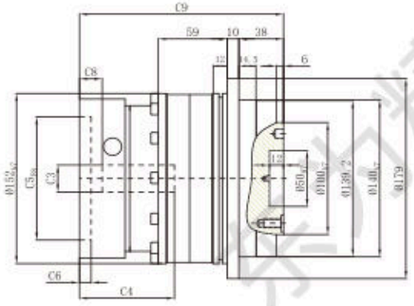
* C1~C9 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C9 are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

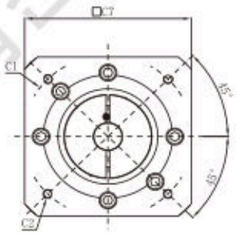
PGF140-L1

输出端/OUTPUT



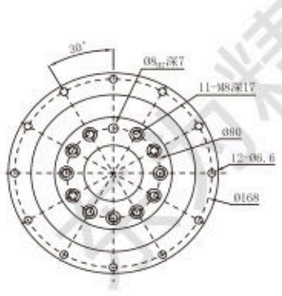


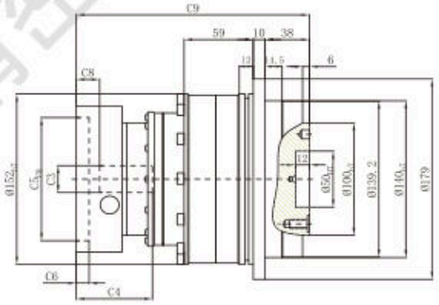
输入端/ INPUT



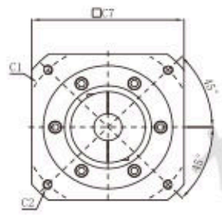
PGF140-L2

输出端/OUTPUT





输入端/ INPUT



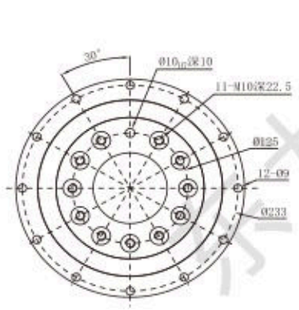
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9
PGF140-L1	φ145	4-M8x20	≤φ24	81	φ110	10	142	19.5	174
	φ165	4-M10x30	≤φ28	81	φ130	10	142	19.5	174
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	21.5	176
PGF140-L2	φ145	4-M8x25	≤φ24	65	φ110	11	142	20	199
	φ165	4-M10x30	≤φ28	65	φ130	10	142	20	199
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	21.5	239.5

* C1~C9 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C9 are motor (metric standard) specific dimensions, which could be customised。

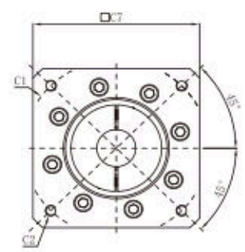
外形尺寸图表 / OUTLINE DIMENSION SHEET

PGF200-L1

输出端/OUTPUT

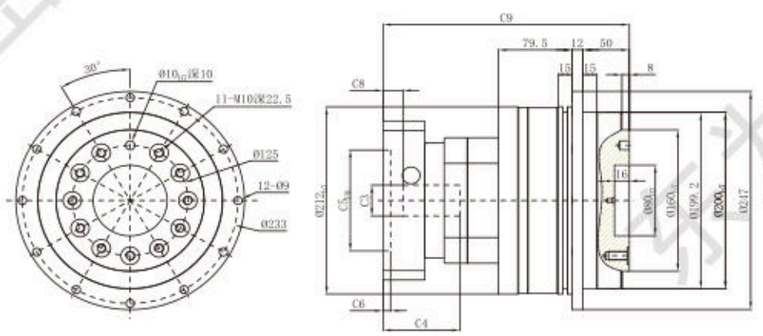


输入端/ INPUT

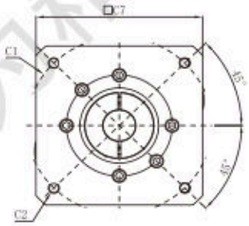


PGF200-L2

输出端/OUTPUT



输入端/ INPUT



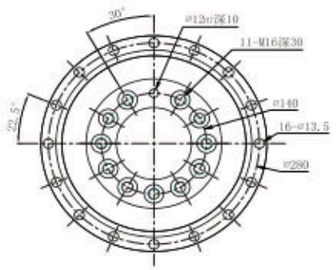
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9
PGF200-L1	φ165	4-M10x25	≤φ32	86	φ30	10	180	16.5	204
	φ200	4-M12x35	≤φ42	86	φ114.3	10	180	16.5	204
	φ200	4-M12x35	≤φ42	118	φ114.3	10	180	48.5	236
	φ215	4-M12x35,4-M14x35	≤φ42	86	φ180	10	190	16.5	204
	φ235	4-M10x30，4-M14x35	≤φ55	118	φ200	10	220	48.5	236
PGF200-L2	φ145	4-M8x20	≤φ24	81	φ110	10	142	19.5	264
	φ165	4-M10x30	≤φ28	81	φ130	10	142	19.5	264
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	21.5	266
	φ200	4-M12x35,4-M14x35	≤φ42	115	φ114.3	8	180	53.5	298
	φ215	4-M14x35	≤φ42	83	φ180	8	190	21.5	266

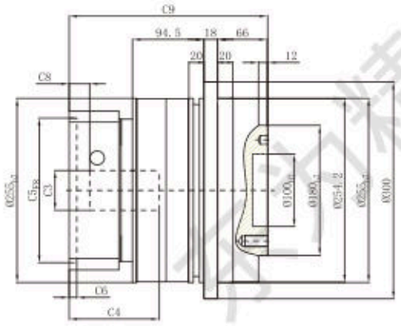
* C1~C9 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C9 are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

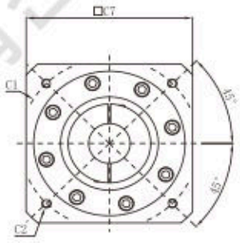
PGF255-L1

输出端/OUTPUT



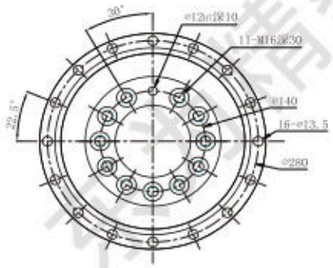


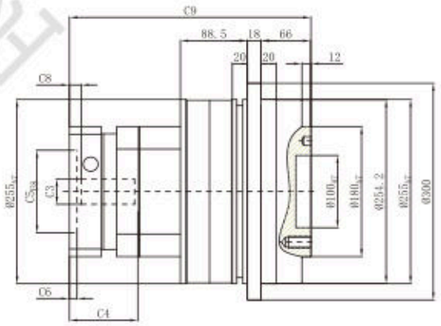
输入端/ INPUT



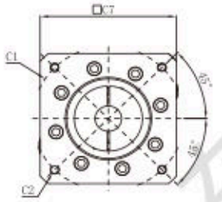
PGF255-L2

输出端/OUTPUT





输入端/ INPUT



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9
PGF255-L1	ϕ200	4-M12x35	≤ϕ42	119	ϕ114.3	10	220	27	262
	ϕ215	4-M14x35	≤ϕ42	119	ϕ180	10	220	27	262
	ϕ235	4-M12x35，4-M14x35	≤ϕ55	119	ϕ200	10	220	27	262
PGF255-L2	ϕ165	4-M10x25，4-M12x35	≤ϕ32	118	ϕ130	10	180	16.5	319
	ϕ200	4-M12x35	≤ϕ42	118	ϕ114.3	10	180	16.5	319
	ϕ215	4-M12x35，4-M14x35	≤ϕ42	118	ϕ180	10	190	16.5	319
	ϕ235	4-M12x35，4-M14x35	≤ϕ55	150	ϕ200	10	220	48.5	351

* C1~C9 是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C9 are motor (metric standard) specific dimensions, which could be customised.

PGFR系列精密行星减速机
PGFR series precision planetary reducer



- →→PGFR047
- →→PGFR064
- →→PGFR090
- →→PGFR110
- →→PGFR140
- →→PGFR200
- →→PGFR255

PGFR系列减速机核心特性
The Core features of PGFRseries reducer

1.采用斜齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行低噪音、平稳；承载能力较直齿提高20%;

2.整体式输出轴，行星轮两端轴承支撑，实现高精度、高强度;

3.回程间隙小，精密型单级可以做到3arcmin以内;

1. Helical gear transmission, carburizing and quenching treatment, tooth profile modification treatment,
Ensure low noise and stable operation; The bearing capacity is 20% higher than that of straight teeth;

2. The integral output shaft is supported by bearings at both ends of the planetary gear to achieve high precision and high strength;

3. The return clearance is small, and the precision single stage can reach within 3 arcmin;

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

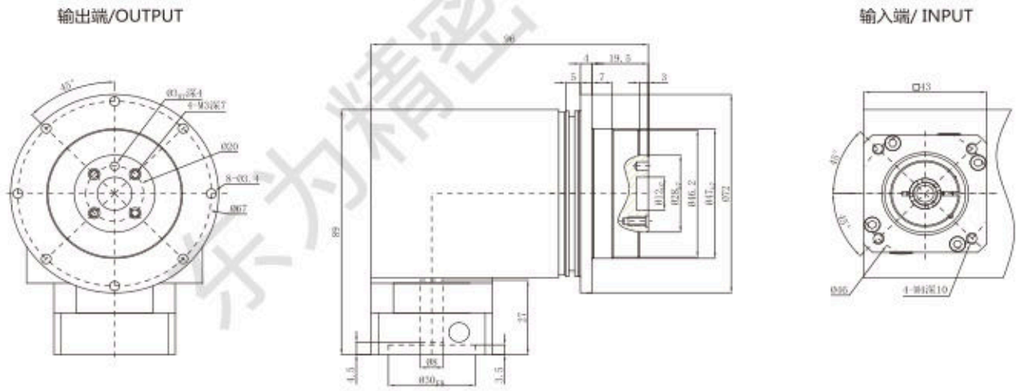
规格Specifications	单位unit	节数Stage	减速比	PGHR 042	PGHR 060	PGHR 090	PGHR 115	PGHR 142	PGHR 180	PGHR 220
额定输出力矩T2N Nominal Output Torque	N.m	1	3	19	53	145	290	520	950	1550
			4	20	55	150	300	550	1000	1650
			5	17	54	140	290	530	1050	1700
			6	19	53	145	290	520	950	1550
			7	14	44	125	270	450	960	1500
			8	20	55	150	300	550	1000	1650
			9	11	37	95	220	360	950	1550
			10	11	37	95	220	360	1050	1700
			14	14	44	125	270	450	960	1500
			18	11	37	95	220	360	800	1250
			20	11	37	95	220	360	800	1250
		2	12	19	53	145	290	520	950	1550
			15	19	53	145	290	520	950	1550
			20	20	55	150	300	550	1000	1650
			25	17	54	140	290	530	1050	1700
			30	19	53	145	290	520	950	1550
			35	17	54	140	290	530	1050	1700
			40	20	55	150	300	550	1000	1650
			45	17	54	140	290	530	–	–
			50	17	54	140	290	530	1050	1700
			70	17	54	140	290	530	1050	1700
			90	17	54	140	290	530	–	–
			100	17	54	140	290	530	1050	1700
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	3 ~ 100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)						
额定输入转速n1 Nominal Input Speed	rpm	1、2	3 ~ 100	5000	3000	3000	3000	3000	1500	1500
最大输入转速n1max Max.Input Speed	rpm	1、2	3 ~ 100	10000	6000	6000	6000	6000	3000	3000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3 ~ 10	≤5	≤5	≤5	≤5	≤5	≤5	≤5
		2	12 ~ 100	≤8	≤8	≤8	≤8	≤8	≤8	≤8
精密背隙P1 Precise Blacklash	arcmin	1	3 ~ 10	≤7	≤7	≤7	≤7	≤7	≤7	≤7
		2	12 ~ 100	≤10	≤10	≤10	≤10	≤10	≤10	≤10
标准背隙P2 Standard Blacklash	arcmin	1	3 ~ 10	≤9	≤9	≤9	≤9	≤9	≤9	≤9
		2	12 ~ 100	≤12	≤12	≤12	≤12	≤12	≤12	≤12
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	3 ~ 100	2.5	6	12	23	45	148	220
容许径向力F2rB Max.Radial Load	N	1、2	3 ~ 100	515	1010	1780	3420	5380	8330	11120
容许轴向力F2aB Max.Axial Load	N	1、2	3 ~ 100	410	600	1500	2650	4670	6460	8560
使用温度 Operating Temp	° C	1、2	3 ~ 100	-10° C ~ +90° C						
使用寿命 Service Life	hr	1、2	3 ~ 100	20,000 (10,000/连续运转continiu operationg)						
效率 η Efficiency	%	1	3 ~ 10	≥95%						
		2	12 ~ 100	≥92%						
重量 Weight	kg	1	3 ~ 10	1	1.3	3.5	7.8	16.1	30.0	58.0
		2	12 ~ 100	1.4	2.0	5.6	9.5	19.0	42.0	67.0
安装方向 mounting Position	–	1、2	3 ~ 100	任意方向 Any direction						
噪音值 Noise Level	dBA/1m	1、2	3 ~ 100	62	63	65	70	70	73	75
防护等级 Protection Class	–	1、2	3 ~ 100	Ip65						
润滑 Lubrication		1、2	3 ~ 100	全合成润滑脂油 Synthetic Lubricant						

减速机转动惯量

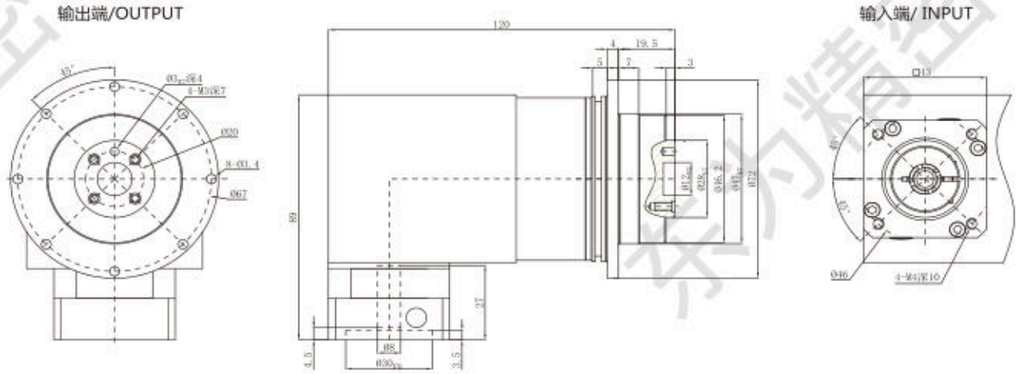
规格Specifications	单位unit	节数Stage	减速比Rat	PGHR 042	PGHR 060	PGHR 090	PGHR 115	PGHR 142	PGHR 180	PGHR 220
转动惯量J1 Inertia	kg.cm2	1	3	0.06	0.23	0.98	2.36	10.10	31.00	79.63
			4	0.06	0.18	0.68	1.68	7.30	26.00	59.30
			5	0.06	0.17	0.66	1.55	6.58	23.80	54.86
			6/7/8	0.05	0.15	0.60	1.48	6.22	23.00	54.32
			9/10/14/18/20	0.06	0.14	0.58	1.45	6.15	22.90	54.00
		2	12/15/18/20/15	0.05	0.18	0.68	2.40	6.52	24.27	54.37
			30/35/40	0.05	0.15	0.68	1.68	6.52	23.82	54.37
			45/50/70	0.05	0.15	0.60	1.51	6.21	22.94	53.30
			80/90/100	0.05	0.14	0.60	1.41	6.10	22.75	52.45

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGFR 047-L1

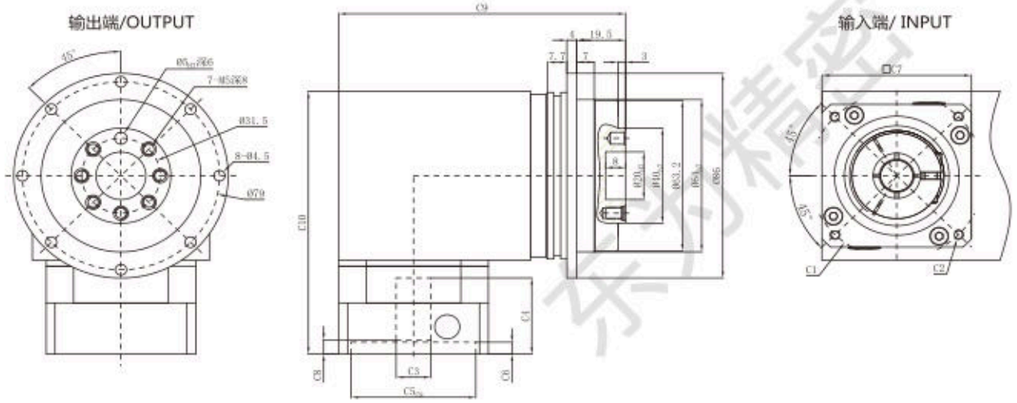


PGFR 047-L2

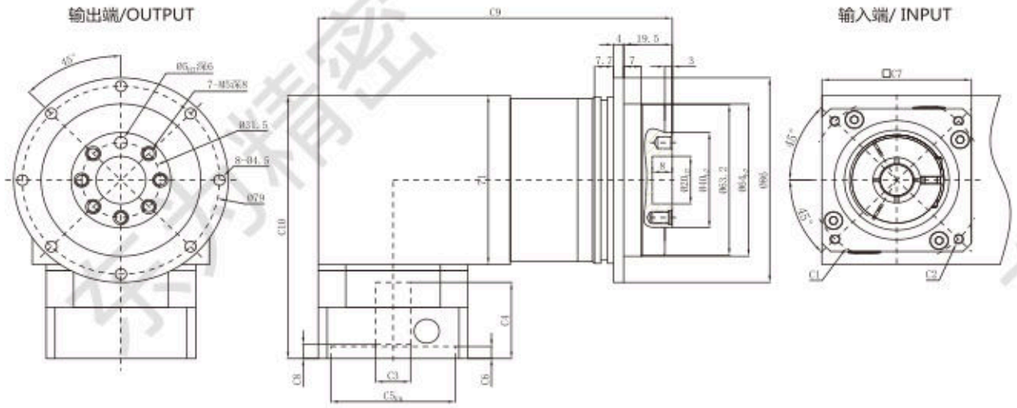


外形尺寸图表 / OUTLINE DIMENSION SHEET

PGFR 064-L1



PGFR 064-L2

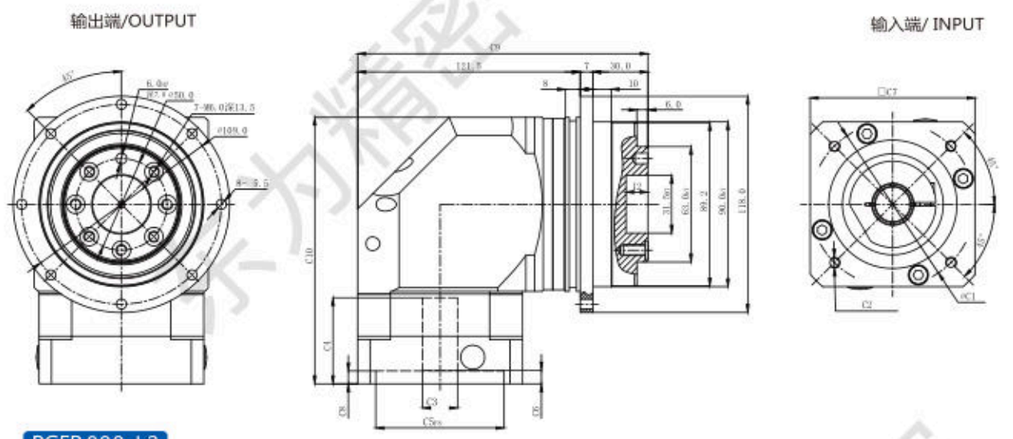


尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGFR064-L1	ϕ46	4-M4x12,4-M5x12	≤ϕ8	37.5	ϕ30	10.5	60	11.5	115	116
	ϕ66.7	4-M4x12	≤ϕ8	32	ϕ38.1	5	60	6	115	110.5
	ϕ70	4-M4x10,4-M5x12	≤ϕ14	32	ϕ50	5	60	6	115	110.5
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	32	ϕ60	5	66	6	118	110.5
PGFR064-L2	ϕ46	4-M4x12,4-M5x12	≤ϕ8	37.5	ϕ30	10.5	60	11.5	142	116
	ϕ66.7	4-M4x12	≤ϕ8	32	ϕ38.1	5	60	6	142	110.5
	ϕ70	4-M4x10,4-M5x12	≤ϕ14	32	ϕ50	5	60	6	142	110.5
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	32	ϕ60	5	66	6	145	110.5

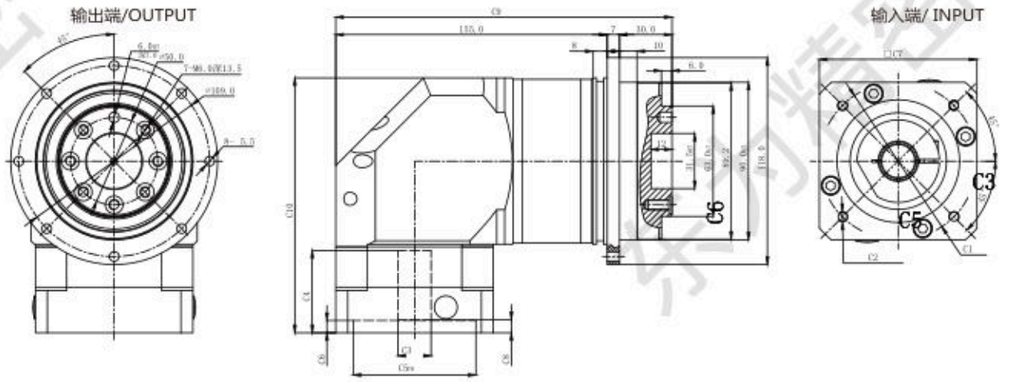
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGFR 090-L1



PGFR 090-L2



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGFR090-L1	ϕ70	4-M4x10,4-M5x12	≤ϕ14	47	ϕ50	4	90	6.5	158.5	145.5
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	47	ϕ60	5.5	90	6.5	158.5	145.5
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	47	ϕ70	7	90	7.5	158.5	145.5
	ϕ98.4	4-M5x15,4-M6x15	≤ϕ14	47.5	ϕ73	7	90	7.5	158.5	145.5
	ϕ100	4-M6x15	≤ϕ19	47.5	ϕ80	7	90	12.5	158.5	145.5
	ϕ115	4-M8x20	≤ϕ24	59	ϕ95	10	100	12.5	163.5	157.5
	ϕ130	4-M8x20	≤ϕ24	59	ϕ95	10	115	12.5	171	157.5
	ϕ145	4-M8x20	≤ϕ24	59	ϕ110	10	130	12.5	178.5	157.5
	ϕ145	4-M8x20	≤ϕ24	68	ϕ110	10	130	21.5	178.5	166.5
PGFR090-L2	ϕ70	4-M4x10,4-M5x12	≤ϕ14	32	ϕ50	5	60	6	153.5	122.5
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	32	ϕ60	5	66	6	156.5	122.5
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	47	ϕ70	7	90	7.5	192	145.5
	ϕ98.4	4-M5x15,4-M6x15	≤ϕ14	47.5	ϕ73	7	90	7.5	192	145.5
	ϕ100	4-M6x15	≤ϕ19	47.5	ϕ80	7	90	12.5	192	145.5
	ϕ115	4-M8x20	≤ϕ24	59	ϕ95	10	100	12.5	197	157.5
	ϕ130	4-M8x20	≤ϕ24	59	ϕ95	10	115	12.5	204.5	157.5
	ϕ145	4-M8x20	≤ϕ24	59	ϕ110	10	130	12.5	212	157.5
	ϕ145	4-M8x20	≤ϕ24	68	ϕ110	10	130	21.5	212	166.5

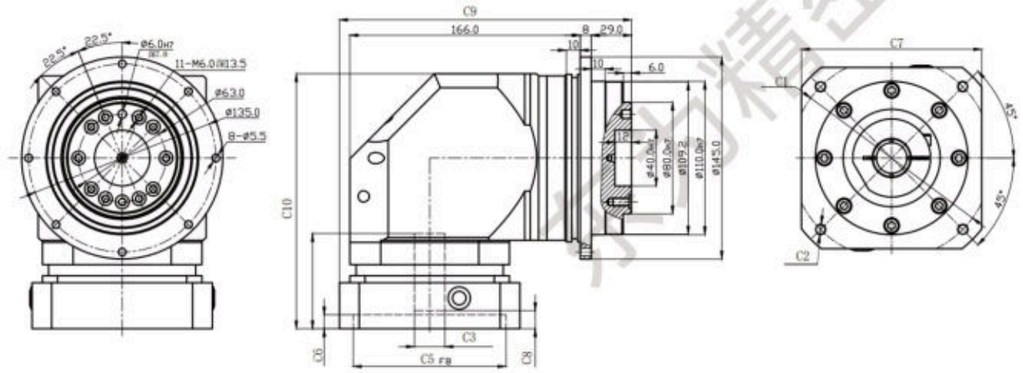
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGFR 110-L1

输出端/OUTPUT

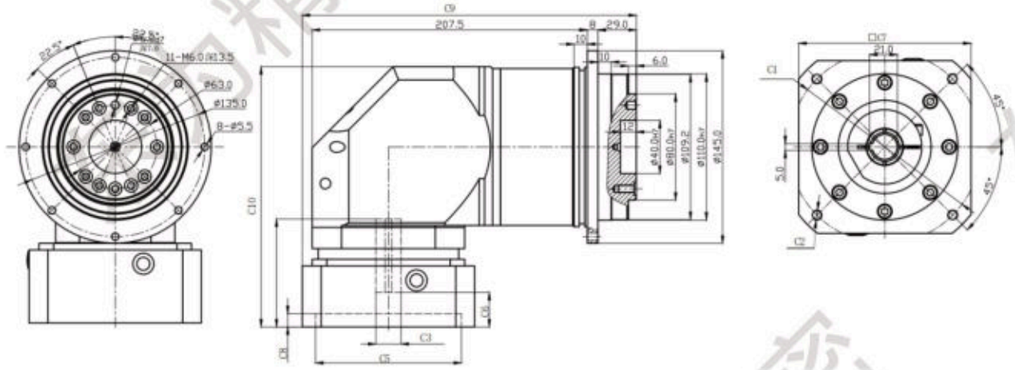
输入端/ INPUT



PGFR 110-L2

输出端/OUTPUT

输入端/ INPUT



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGFR110-L1	φ90	4-M5x15,4-M6x15	≤φ19	62	φ70	7	115	12	200	183
	φ100	4-M6x15	≤φ19	62	φ80	7	115	12	200	183
	φ115	4-M8x20	≤φ24	62	φ95	10	115	13	200	183
	φ145	4-M8x20	≤φ24	62	φ110	10	130	13	207.5	183
	φ145	4-M8x20	≤φ24	71	φ110	10	130	13	207.5	192
PGFR110-L2	φ90	4-M5x15,4-M6x15	≤φ19	47	φ70	7	90	7.5	206.5	158
	φ100	4-M6x15	≤φ19	47	φ80	7	90	7.5	206.5	158
	φ115	4-M8x20	≤φ24	59	φ95	10	115	12.5	219	170
	φ145	4-M8x20	≤φ24	59	φ110	10	130	12.5	226.5	170
	φ145	4-M8x20	≤φ24	68	φ110	10	130	21.5	226.5	179

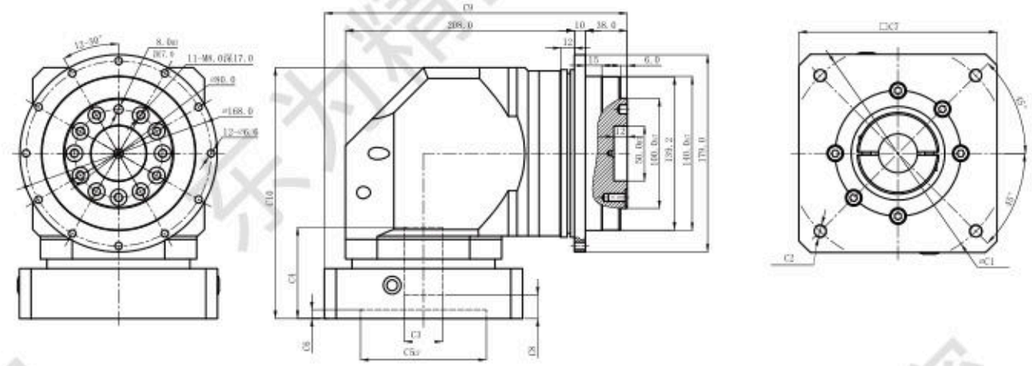
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGFR 140-L1

输出端/OUTPUT

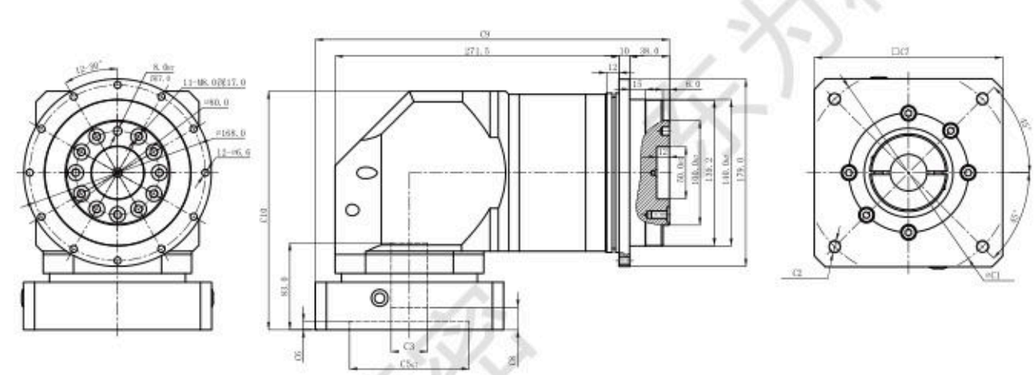
输入端/ INPUT



PGFR 140-L2

输出端/OUTPUT

输入端/ INPUT



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGFR140-L1	φ145	4-M8x20	≤φ28	81	φ110	10	142	19.5	256	226
	φ165	4-M10x25、4-M12x35	≤φ32	81	φ130	10	142	19.5	256	226
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	21.5	275	228
	φ200	4-M12x35	≤φ42	115	φ114.3	8	180	53.5	275	260
PGFR140-L2	φ145	4-M8x25	≤φ24	62	φ110	10	142	13	271.5	198.5
	φ165	4-M10x30	≤φ28	62	φ130	10	142	13	271.5	198.5

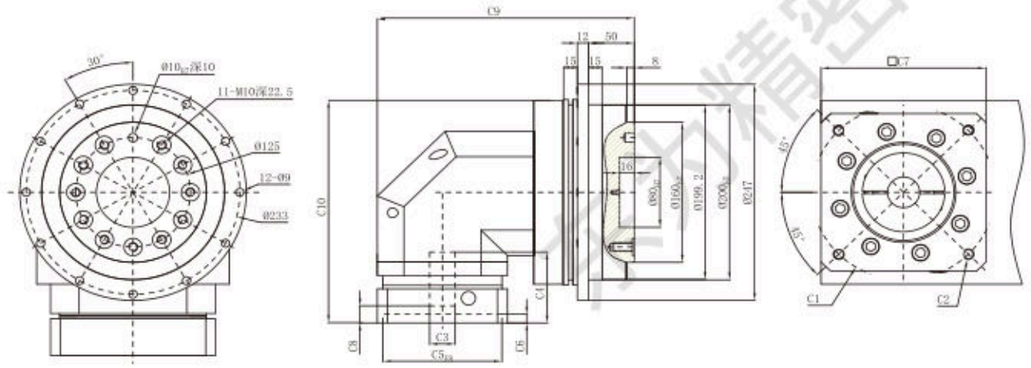
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGFR 200-L1

输出端/OUTPUT

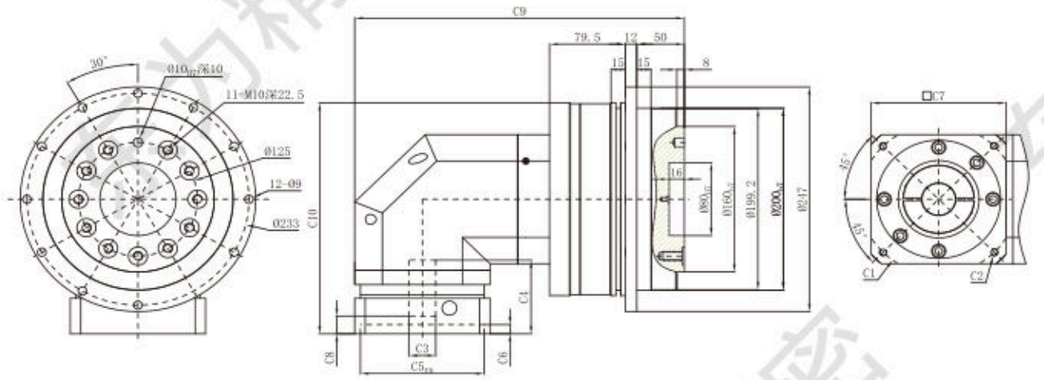
输入端/ INPUT



PGFR 200-L2

输出端/OUTPUT

输入端/ INPUT



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGFR 200-L1	φ165	4-M10x25，4-M12x35	≤φ32	118	φ130	10	180	16.5	306.5	291.5
	φ200	4-M12x35	≤φ42	118	φ114.3	10	180	16.5	306.5	291.5
	φ215	4-M14x35	≤φ42	118	φ180	10	190	16.5	311.5	291.5
	φ235	4-M10x30，4-M14x35	≤φ55	150	φ200	10	220	48.5	326.5	323.5
PGFR 200-L2	φ130	4-M8x20	≤φ24	81	φ110	10	142	19.5	346	254
	φ145	4-M8x20	≤φ24	81	φ110	10	142	19.5	346	254
	φ165	4-M10x25，4-M12x35	≤φ32	81	φ130	10	142	19.5	346	254
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	21.5	365	256
	φ200	4-M10x25，4-M12x35	≤φ42	115	φ114.3	8	180	53.5	365	288
	φ215	4-M14x35	≤φ42	83	φ180	8	190	21.5	370	256

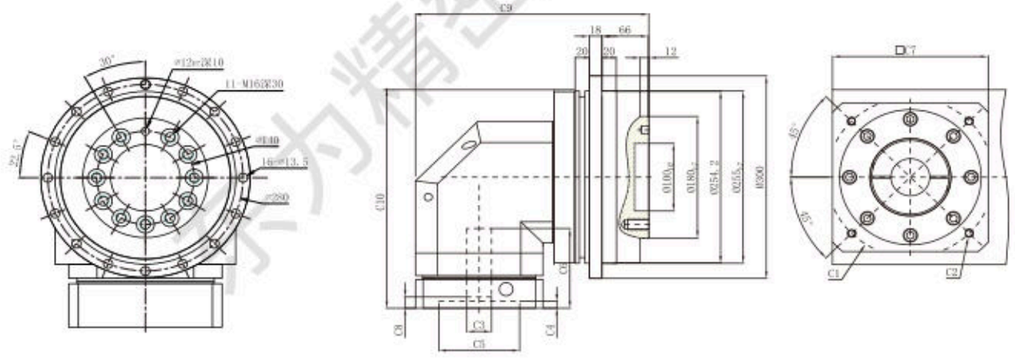
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGFR 255-L1

输出端/OUTPUT

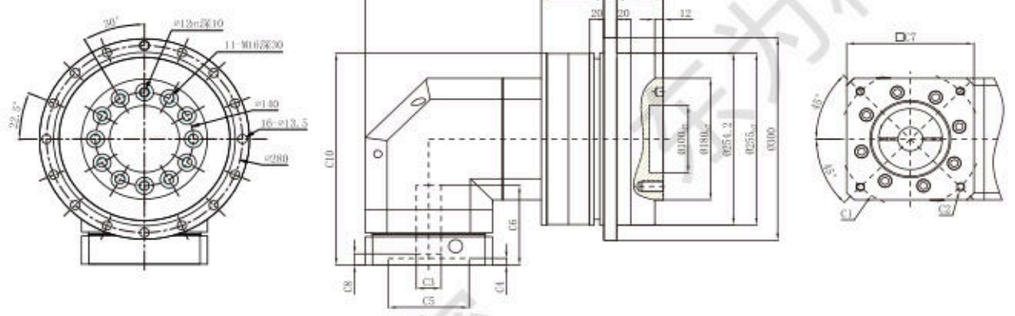
输入端/ INPUT



PGFR 255-L2

输出端/OUTPUT

输入端/ INPUT



尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGFR255-L1	φ200	4-M12x35	≤φ42	119	φ114.3	10	220	27	403	353.5
	φ215	4-M14x35	≤φ42	119	φ180	10	220	27	403	353.5
	φ235	4-M12x35，4-M14x35	≤φ55	119	φ200	10	220	27	403	353.5
PGFR255-L2	φ165	4-M10x25，4-M12x35	≤φ32	118	φ130	10	180	16.5	421.5	314
	φ200	4-M12x35	≤φ42	118	φ114.3	10	180	16.5	421.5	314
	φ215	4-M12x35，4-M14x35	≤φ42	118	φ180	10	190	16.5	426.5	314
	φ235	4-M12x35，4-M14x35	≤φ55	150	φ200	10	220	48.5	441.5	346

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

JAE系列精密行星减速机

JAE series precision planetary reducer



→→JAE060

→→JAE090

→→JAE120

→→JAE160

JAE系列减速机
The Core features of JAE series reducer

1.采用直齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，
确保运行平稳，噪音小；，

2.结构简单，可大批量生产，且交货期快性价比高；

3.减速机种类齐全，可以满足市场上绝大多数减速机的配合。

1. Adopt straight tooth gear transmission, through carburizing treatment, ensure smooth operation, low noise.

2. Simple structure, mass production, and fast delivery time and high cost performance.

3. Reducer has a complete range, which can meet the needs of most reducer in the market.

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

规格Specifications	单位unit	节数Stage	减速比Ratio	JAE 060	JAE 090	JAE 120	JAE 160
额定输出力矩T2N Nominal Output Torque	N.m	1	3	32.6	95.2	283	482
			4	30.1	74.6	249	490
			5	32.3	95.2	283	473
			7	30.9	85.6	219	400
			10	25.0	75.0	210	320
		2	12	32.6	95.2	283	482
			15	32.6	95.2	283	482
			20	30.1	74.6	249	490
			25	32.3	95.2	283	473
			30	32.3	95.2	283	473
			35	32.3	95.2	283	473
			40	32.3	95.2	283	473
			50	32.3	95.2	283	473
			70	30.9	85.0	219	400
			100	25.0	75.0	210	320
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	3～100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)			
额定输入转速n1 Nominal Input Speed	rpm	1、2	3～100	3000	3000	2500	2000
最大输入转速n1max Max.Input Speed	rpm	1、2	3～100	6000	6000	5000	4000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3～10	–	–	≤3	≤3
		2	12～100	–	–	≤5	≤5
精密背隙P1 Precise Blacklash	arcmin	1	3～10	–	≤6	≤5	≤5
		2	12～100	–	≤9	≤7	≤7
标准背隙P2 Standard Blacklash	arcmin	1	3～10	≤12	≤9	≤7	≤7
		2	12～100	≤15	≤12	≤9	≤9
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	3～100	2.6	7.5	15.5	30
容许径向力F2rB Max.Radial Load	N	1、2	3～100	889	1630	3380	6450
容许轴向力F2aB Max.Axial Load	N	1、2	3～100	850	1420	2930	5510
使用温度 Operating Temp	° C	1、2	3～100	-10° C～+90° C			
使用寿命 Service Life	hr	1、2	3～100	20,000 (10,000/连续运转continiu operationg)			
效率 η Efficiency	%	1	3～10	≥96%			
		2	12～100	≥92%			
重量 Weight	kg	1	3～10	1.3	3.0	7.3	15.6
		2	12～100	2.0	5.0	11.5	20.7
安装方向 mounting Position	–	1、2	3～100	任意方向 Any direction			
噪音值 Noise Level	dBA/1m	1、2	3～100	60	65	65	70
防护等级 Protection Class	–	1、2	3～100	Ip65			
润滑 Lubrication		1、2	3～100	全合成润滑脂油 Synthetic Lubricant			

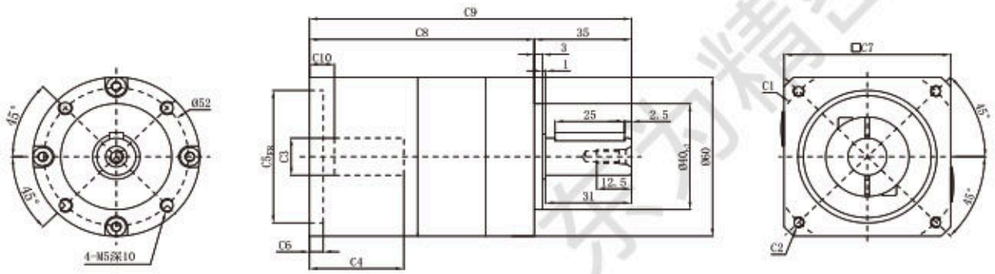
减速机转动惯量

规格Specifications	单位unit	节数Stage	减速比Ratio	JAE 060	JAE 090	JAE 120	JAE 160
转动惯量J1 Inertia	$kg.cm^2$	1	3	0.25	0.81	2.2	7.89
			4	0.18	0.65	1.8	5.83
			5	0.16	0.62	1.61	5.83
			7	0.14	0.60	1.55	5.22
			10	0.14	0.60	1.53	5.20
		2	12	0.16	0.62	1.61	5.83
			15	0.16	0.62	1.61	5.83
			20	0.16	0.62	1.61	5.83
			25	0.16	0.62	1.61	5.83
			30	0.14	0.60	1.55	5.22
			35	0.14	0.60	1.55	5.22
			40	0.14	0.60	1.55	5.22
			50	0.14	0.60	1.55	5.22
			70	0.14	0.60	1.53	5.20
			100	0.14	0.60	1.53	5.20

外形尺寸图表 / OUTLINE DIMENSION SHEET

JAE 060-L1

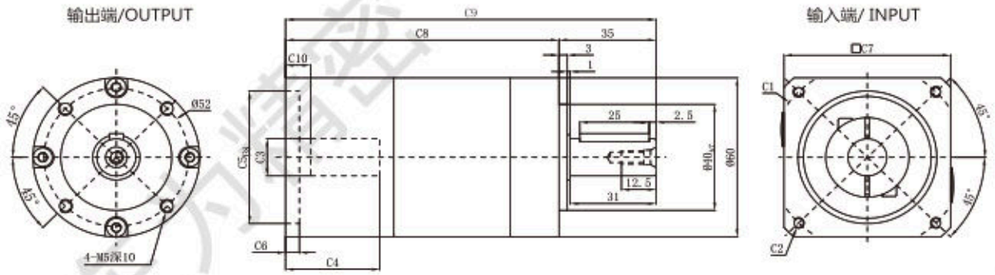
输出端/OUTPUT



输入端/ INPUT

JAE 060-L2

输出端/OUTPUT



输入端/ INPUT

输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

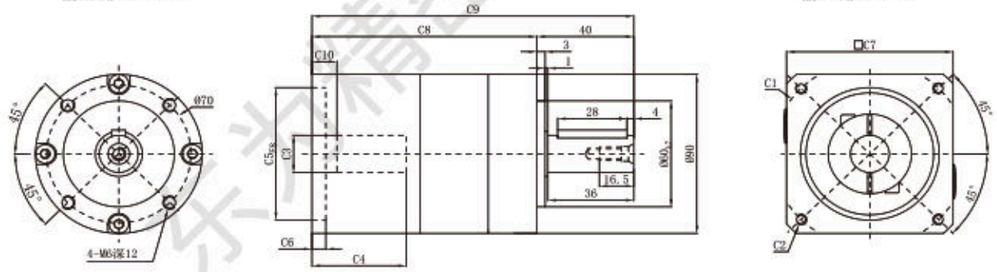
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAE 060-L1	ϕ46	4-M4x10	≤ϕ8	34	ϕ30	5	60	81	116	9
	ϕ66.7	4-M4x10	≤ϕ8	34	ϕ38.1	5	60	81	116	8
	ϕ70	4-M4x10,4-M5x12	≤ϕ14	34	ϕ50	5	60	81	116	9
JAE 060-L2	ϕ46	4-M4x10	≤ϕ8	34	ϕ30	5	60	137.5	172.5	9
	ϕ66.7	4-M4x10	≤ϕ8	34	ϕ38.1	5	60	137.5	172.5	8
	ϕ70	4-M4x10,4-M5x12	≤ϕ14	34	ϕ50	5	60	137.5	172.5	9

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

JAE 090-L1

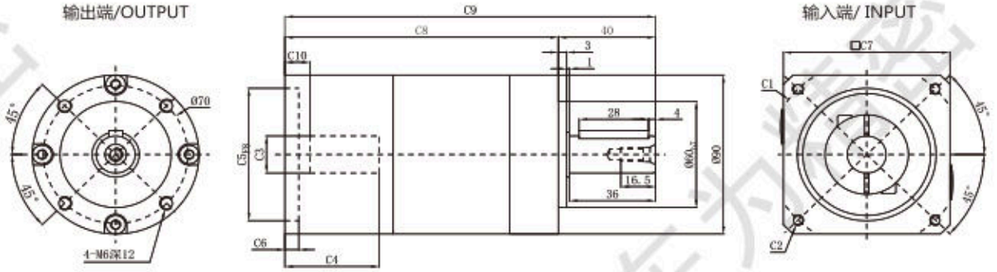
输出端/OUTPUT



输入端/ INPUT

JAE 090-L2

输出端/OUTPUT



输入端/ INPUT

输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

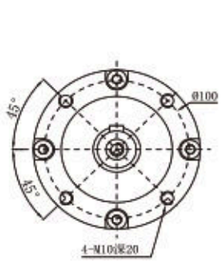
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAE 090-L1	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	100	140	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	100	140	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	100	140	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	100	140	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	100	140	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	100	140	12.5
JAE 090-L2	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	119	159	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	119	159	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	119	159	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	119	159	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	119	159	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	119	159	12.5

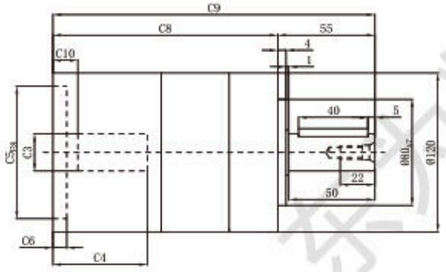
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

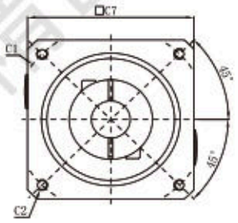
JAE 120-L1

输出端/OUTPUT



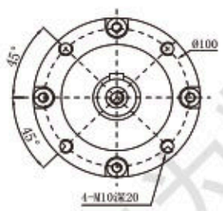


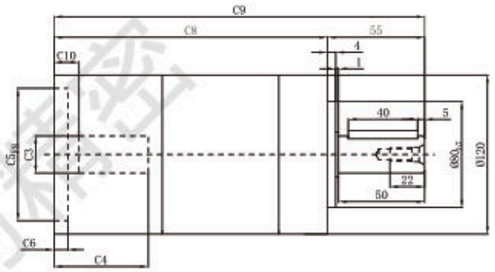
输入端/ INPUT



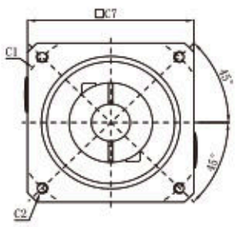
JAE 120-L2

输出端/OUTPUT





输入端/ INPUT



输出轴径/Output Diameter



视图方向

*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

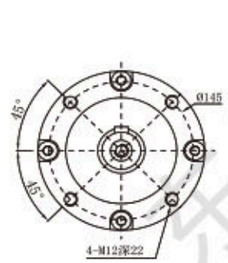
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAE 120-L1	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	153	208	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	153	208	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	153	208	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	153	208	12.5
JAE 120-L2	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	180	235	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	180	235	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	180	235	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	180	235	12.5

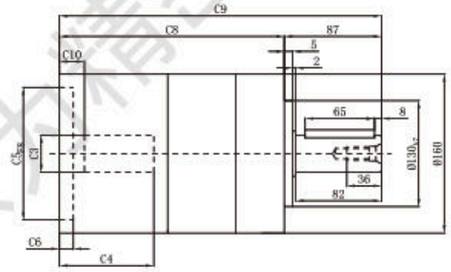
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

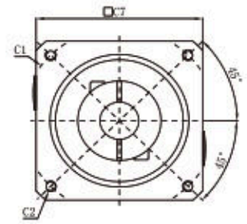
JAE 160-L1

输出端/OUTPUT



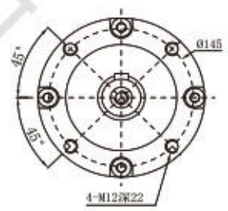


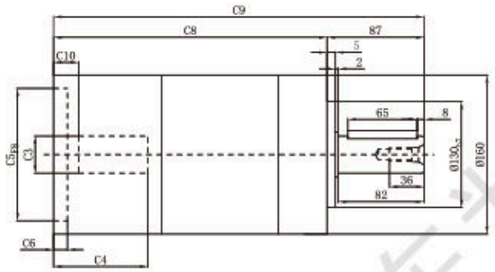
输入端/ INPUT



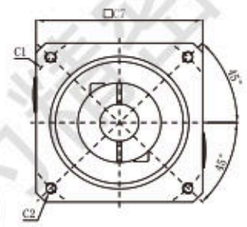
JAE 160-L2

输出端/OUTPUT

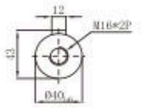




输入端/ INPUT



输出轴径/Output Diameter



视图方向



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAE 160-L1	φ145	4-M8x20	≤φ24	81	φ110	10	142	173	260	19.5
	φ165	4-M10x25，4-M12x35	≤φ32	81	φ130	10	142	173	260	19.5
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	173	260	21.5
	φ200	4-M12x35	≤φ42	115	φ114.3	8	180	205	292	53.5
	φ215	4-M12x35，4-M14x35	≤φ42	83	φ180	8	190	173	260	21.5
JAE 160-L2	φ145	4-M8x20	≤φ24	81	φ110	10	142	243	330	19.5
	φ165	4-M10x25，4-M12x35	≤φ32	81	φ130	10	142	243	330	19.5
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	243	330	21.5
	φ200	4-M12x35	≤φ42	115	φ114.3	8	180	275	362	53.5
	φ215	4-M12x35，4-M14x35	≤φ42	83	φ180	8	190	243	330	21.5

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

JAF系列精密行星减速机
JAF series precision planetary reducer



→→JAF060
→→JAF090
→→JAF120
→→JAF160

JAF系列减速机核心特性
The Core features of JAFseries reducer

1.采用直齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，确保运行平稳，噪音小；

2.结构简单，可大批量生产，且交货期快性价比高；

3.减速机种类齐全，可以满足市场上绝大多数减速机的配合。

1. Adopt straight tooth gear transmission, through carburizing and quenching treatment, tooth profile modification treatment, ensure smooth operation, low noise.

2. Simple structure, mass production, and fast delivery time and high cost performance.

3. Reducer has a complete range, which can meet the needs of most reducer in the market.

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

规格Specifications	单位unit	节数Stage	减速比Ratio	JAF 060	JAF 080	JAF 090	JAF 120	JAF 160
额定输出力矩T2N Nominal Output Torque	N.m	1	3	32.6	85.7	95.2	283	482
			4	30.1	67.1	74.6	249	490
			5	32.3	85.7	95.2	283	473
			7	30.9	77.0	85.6	219	400
			10	25.0	67.5	75.0	210	320
		2	12	32.6	85.7	95.2	283	482
			15	32.6	85.7	95.2	283	482
			20	30.1	67.1	74.6	249	490
			25	32.3	85.7	95.2	283	473
			30	32.3	85.7	95.2	283	473
			35	32.3	85.7	95.2	283	473
			40	32.3	85.7	95.2	283	473
			50	32.3	85.7	95.2	283	473
			70	30.9	76.5	85.0	219	400
			100	25.0	67.5	75.0	210	320
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	3 – 100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)				
额定输入转速n1 Nominal Input Speed	rpm	1、2	3 – 100	3000	3000	3000	2500	2000
最大输入转速n1max Max.Input Speed	rpm	1、2	3 – 100	6000	6000	6000	5000	4000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3 – 10	–	–	–	≤3	≤3
		2	12 – 100	–	–	–	≤5	≤5
精密背隙P1 Precise Blacklash	arcmin	1	3 – 10	–	≤6	≤6	≤5	≤5
		2	12 – 100	–	≤9	≤9	≤7	≤7
标准背隙P2 Standard Blacklash	arcmin	1	3 – 10	≤12	≤9	≤9	≤7	≤7
		2	12 – 100	≤15	≤12	≤12	≤9	≤9
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	3 – 100	2.6	6.75	7.5	15.5	30
容许径向力F2rB Max.Radial Load	N	1、2	3 – 100	889	1467	1630	3380	6450
容许轴向力F2aB Max.Axial Load	N	1、2	3 – 100	850	1278	1420	2930	5510
使用温度 Operating Temp	°C	1、2	3 – 100	-10° C ~ +90° C				
使用寿命 Service Life	hr	1、2	3 – 100	20,000 (10,000/连续运转continiu operationg)				
效率 η Efficiency	%	1	3 – 10	≥96%				
		2	12 – 100	≥92%				
重量 Weight	kg	1	3 – 10	1.3	2.7	3.0	7.3	15.6
		2	12 – 100	2.0	4.5	5.0	11.5	20.7
安装方向 mounting Position	–	1、2	3 – 100	任意方向 Any direction				
噪音值 Noise Level	dBA/1m	1、2	3 – 100	60	58.5	65	65	70
防护等级 Protection Class	–	1、2	3 – 100	Ip65				
润滑 Lubrication		1、2	3 – 100	全合成润滑脂油 Synthetic Lubricant				

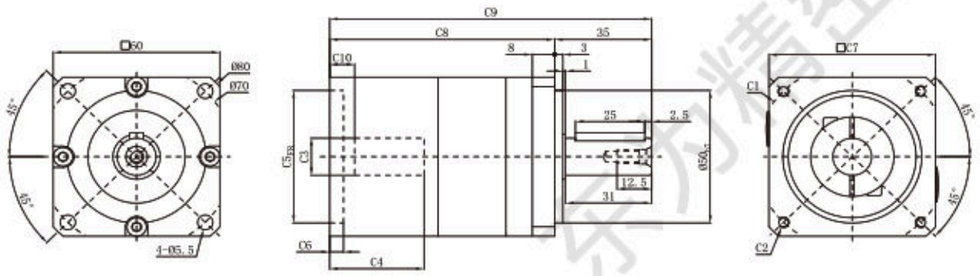
减速机转动惯量

规格Specifications	单位unit	节数Stage	减速比Ratio	JAF 060	JAF 080	JAF 090	JAF 120	JAF 160
转动惯量J1 Inertia	$kg.cm^2$	1	3	0.25	0.73	0.81	2.2	7.89
			4	0.18	0.59	0.65	1.8	5.83
			5	0.16	0.56	0.62	1.61	5.83
			7	0.14	0.54	0.60	1.55	5.22
			10	0.14	0.54	0.60	1.53	5.20
		2	12	0.16	0.56	0.62	1.61	5.83
			15	0.16	0.56	0.62	1.61	5.83
			20	0.16	0.56	0.62	1.61	5.83
			25	0.16	0.56	0.62	1.61	5.83
			30	0.14	0.54	0.60	1.55	5.22
			35	0.14	0.54	0.60	1.55	5.22
			40	0.14	0.54	0.60	1.55	5.22
			50	0.14	0.54	0.60	1.55	5.22
			70	0.14	0.54	0.60	1.53	5.20
			100	0.14	0.54	0.60	1.53	5.20

外形尺寸图表 / OUTLINE DIMENSION SHEET

JAF 060-L1

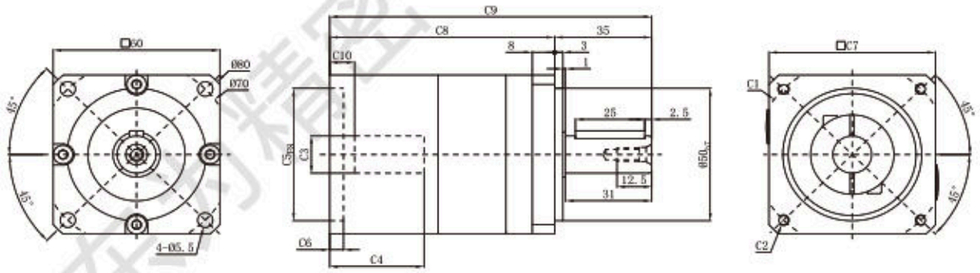
输出端/OUTPUT



输入端/ INPUT

JAF 060-L2

输出端/OUTPUT



输入端/ INPUT

输出轴径/Output Diameter



视图方向

*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

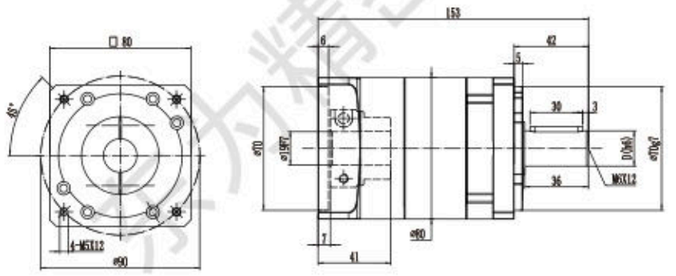
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAF 060-L1	φ46	4-M4x10	≤φ8	34	φ30	5	60	81	116	9
	φ66.7	4-M4x10	≤φ8	34	φ38.1	5	60	81	116	8
	φ70	4-M4x10,4-M5x12	≤φ14	34	φ50	5	60	81	116	9
JAF 060-L2	φ46	4-M4x10	≤φ8	34	φ30	5	60	137.5	172.5	9
	φ66.7	4-M4x10	≤φ8	34	φ38.1	5	60	137.5	172.5	8
	φ70	4-M4x10,4-M5x12	≤φ14	34	φ50	5	60	137.5	172.5	9

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

JAF080 -L1

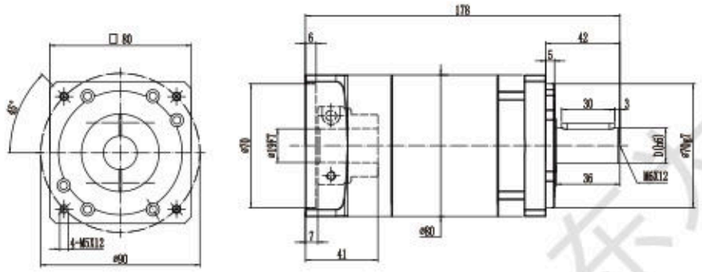
输出端/OUTPUT



输入端/ INPUT

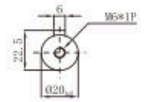
JAF080 -L2

输出端/OUTPUT



输入端/ INPUT

输出轴径/Output Diameter



视图方向



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

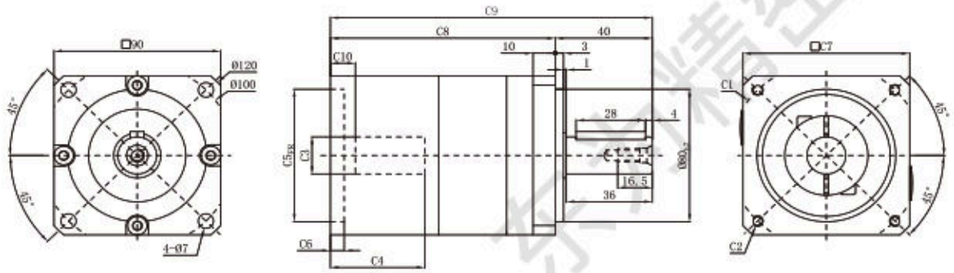
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAF080 -L1	φ70	4-M4x12,4-M5x12	≤φ14	46	φ50	4	90	100	140	6
	φ75	4-M4x12,4-M5x12	≤φ14	46	φ60	5.5	90	100	1	6
	φ90	4-M5x15,4-M6x15	≤φ19	46	φ70	7	90	100	140	7
	φ100	4-M6x15	≤φ19	46	φ80	7	90	100	1	7
	φ115	4-M8x20	≤φ24	61.5	φ95	10	100	100	140	12.5
	φ145	4-M8x20	≤φ24	61.5	φ110	10	130	100	1	12.5
JAF080 -L2	φ70	4-M4x12,4-M5x12	≤φ14	46	φ50	4	90	119	159	6
	φ75	4-M4x12,4-M5x12	≤φ14	46	φ60	5.5	90	119	1	6
	φ90	4-M5x15,4-M6x15	≤φ19	46	φ70	7	90	119	159	7
	φ100	4-M6x15	≤φ19	46	φ80	7	90	119	1	7
	φ115	4-M8x20	≤φ24	61.5	φ95	10	100	119	159	12.5
	φ145	4-M8x20	≤φ24	61.5	φ110	10	130	119	1	12.5

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

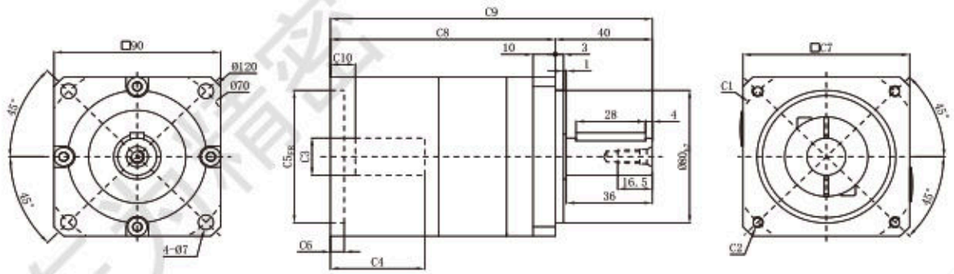
JAF090 -L1

输出端/OUTPUT　　输入端/ INPUT

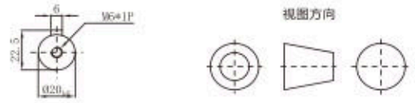


JAF090 -L2

输出端/OUTPUT　　输入端/ INPUT



输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

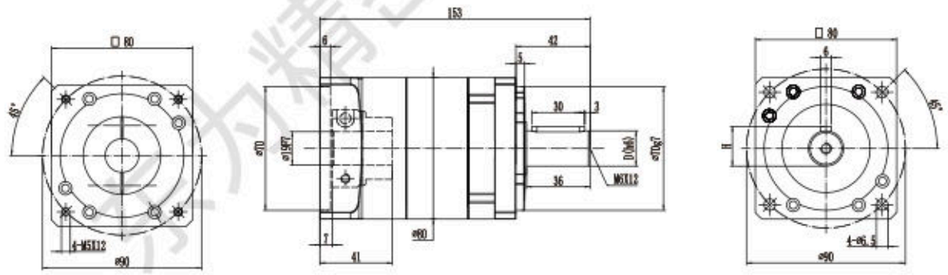
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAF 090-L1	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	100	140	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	100	1	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	100	140	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	100	1	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	100	140	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	100	1	12.5
JAF 090-L2	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	119	159	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	119	1	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	119	159	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	119	1	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	119	159	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	119	1	12.5

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

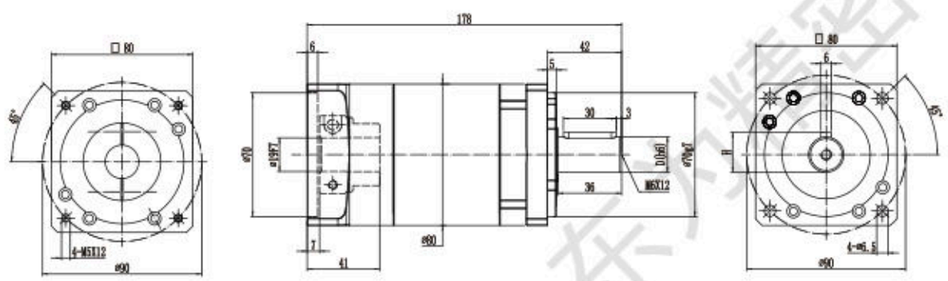
JAF080 -L1

输出端/OUTPUT　　输入端/ INPUT



JAF080 -L2

输出端/OUTPUT　　输入端/ INPUT



输出轴径/Output Diameter



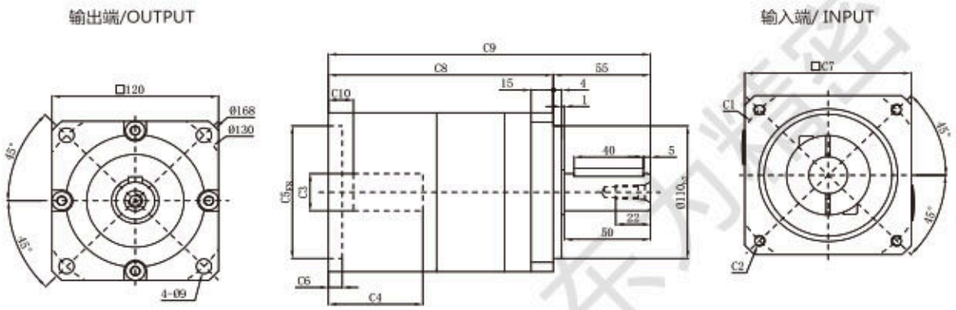
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAF080 -L1	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	100	140	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	100	1	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	100	140	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	100	1	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	100	140	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	100	1	12.5
JAF080 -L2	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	119	159	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	119	1	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	119	159	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	119	1	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	119	159	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	119	1	12.5

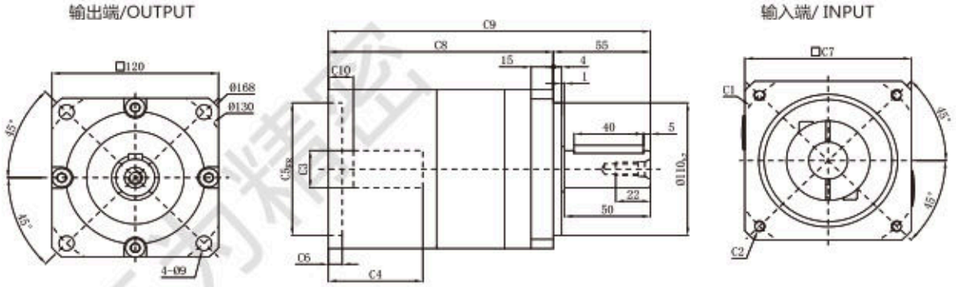
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

JAF 120-L1



JAF 120-L2



输出轴径/Output Diameter



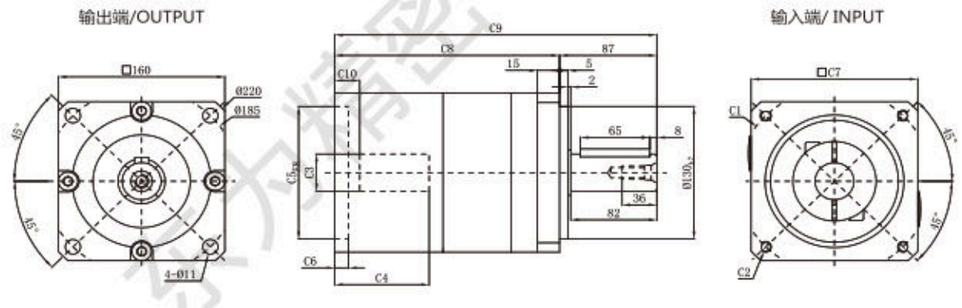
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAF 120-L1	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	153	208	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	153	2	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	153	208	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	153	2	12.5
	φ145	4-M8x20	≤φ24	68	φ110	10	130	162	217	21.5
JAF 120-L2	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	180	2	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	180	235	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	180	235	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	180	235	12.5
	φ145	4-M8x20	≤φ24	68	φ110	10	130	189	244	21.5

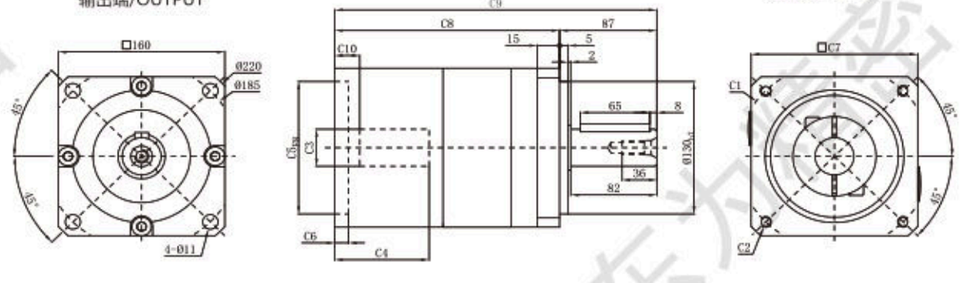
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

JAF 160-L1



JAF 160-L2



输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAF 160-L1	φ145	4-M8x20	≤φ24	81	φ110	10	142	173	260	19.5
	φ165	4-M10x25，4-M12x35	≤φ32	81	φ130	10	142	173	260	19.5
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	173	260	21.5
	φ200	4-M12x35	≤φ42	115	φ114.3	8	180	205	292	53.5
	φ215	4-M12x35，4-M14x35	≤φ42	83	φ180	8	190	173	260	21.5
JAF 160-L2	φ145	4-M8x20	≤φ24	81	φ110	10	142	243	330	19.5
	φ165	4-M10x25，4-M12x35	≤φ32	81	φ130	10	142	243	330	19.5
	φ200	4-M12x35	≤φ42	83	φ114.3	8	180	243	330	21.5
	φ200	4-M12x35	≤φ42	115	φ114.3	8	180	275	362	53.5
	φ215	4-M12x35，4-M14x35	≤φ42	83	φ180	8	190	243	330	21.5

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

JAER系列精密行星减速机
JAER series precision planetary reducer



→→JAER060
→→JAER090
→→JAER120
→→JAER160

JAER系列减速机核心特性
The Core features of JAERseries reducer

1.采用直齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，确保运行平稳，噪音小；

2.结构简单，可大批量生产，且交货期快性价比高；

3.减速机种类齐全，可以满足市场上绝大多数减速机的配合。

1. Adopt straight tooth gear transmission, through carburizing and quenching treatment, tooth profile modification treatment, ensure smooth operation, low noise.

2. Simple structure, mass production, and fast delivery time and high cost performance.

3. Reducer has a complete range, which can meet the needs of most reducer in the market.

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

规格Specifications	单位unit	节数Stage	减速比Ratio	PGCR 060	PGCR 090	PGCR 120
额定输出力矩T2N Nominal Output Torque	N.m	1	3	32.6	95.2	283
			4	30.1	74.6	249
			5	32.3	95.2	283
			7	30.9	85.6	219
			10	25.0	75.0	210
		2	12	32.6	95.2	283
			15	32.6	95.2	283
			20	30.1	74.6	249
			25	32.3	95.2	283
			30	32.3	95.2	283
			35	32.3	95.2	283
			40	32.3	95.2	283
			50	32.3	95.2	283
			70	30.9	85.0	219
			100	25.0	75.0	210
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	3～100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)		
额定输入转速n1 Nominal Input Speed	rpm	1、2	3～100	3000	3000	2500
最大输入转速n1max Max.Input Speed	rpm	1、2	3～100	6000	6000	5000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3～10	–	–	≤3
		2	12～100	–	–	≤5
精密背隙P1 Precise Blacklash	arcmin	1	3～10	–	≤6	≤5
		2	12～100	–	≤9	≤7
标准背隙P2 Standard Blacklash	arcmin	1	3～10	≤12	≤9	≤7
		2	12～100	≤15	≤12	≤9
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	3～100	2.6	7.5	15.5
容许径向力F2rB Max.Radial Load	N	1、2	3～100	889	1630	3380
容许轴向力F2aB Max.Axial Load	N	1、2	3～100	850	1420	2930
使用温度 Operating Temp	° C	1、2	3～100	–10° C～+90° C		
使用寿命 Service Life	hr	1、2	3～100	20,000 (10,000/连续运转continiu operationg)		
效率 η Efficiency	%	1	3～10	≥96%		
		2	12～100	≥92%		
重量 Weight	kg	1	3～10	1.3	3.0	7.3
		2	12～100	2.0	5.0	11.5
安装方向 mounting Position	–	1、2	3～100	任意方向 Any direction		
噪音值 Noise Level	dBA/1m	1、2	3～100	60	65	65
防护等级 Protection Class	–	1、2	3～100	Ip65		
润滑 Lubrication		1、2	3～100	全合成润滑脂油 Synthetic Lubricant		

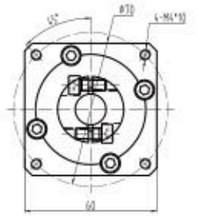
减速机转动惯量

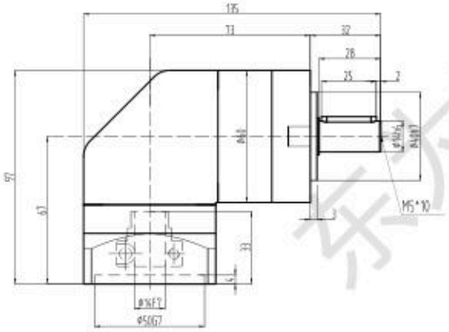
规格Specifications	单位unit	节数Stage	减速比Ratio	PGCR 060	PGCR 090	PGCR 120
转动惯量J1 Inertia	$kg.cm^2$	1	3	0.25	0.81	2.2
			4	0.18	0.65	1.8
			5	0.16	0.62	1.61
			7	0.14	0.60	1.55
			10	0.14	0.60	1.53
		2	12	0.16	0.62	1.61
			15	0.16	0.62	1.61
			20	0.16	0.62	1.61
			25	0.16	0.62	1.61
			30	0.14	0.60	1.55
			35	0.14	0.60	1.55
			40	0.14	0.60	1.55
			50	0.14	0.60	1.55
			70	0.14	0.60	1.53
			100	0.14	0.60	1.53

外形尺寸图表 / OUTLINE DIMENSION SHEET

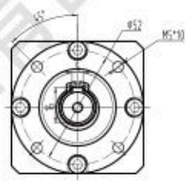
JAER 60-L1

输出端/OUTPUT



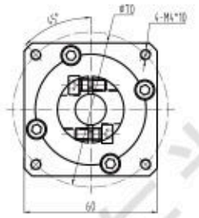


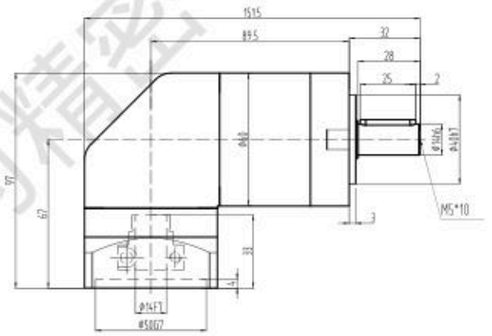
输入端/ INPUT



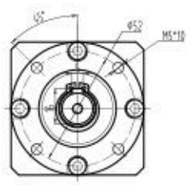
JAER 60-L2

输出端/OUTPUT

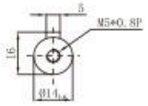




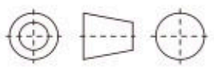
输入端/ INPUT



输出轴径/Output Diameter



视图方向



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

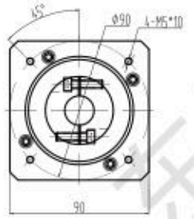
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAER60 –L1	φ46	4–M4x10	≤φ8	34	φ30	5	60	81	116	9
	φ66.7	4–M4x10	≤φ8	34	φ38.1	5	60	81	116	8
	φ70	4–M4x10,4–M5x12	≤φ14	34	φ50	5	60	81	116	9
JAER60 –L2	φ46	4–M4x10	≤φ8	34	φ30	5	60	137.5	172.5	9
	φ66.7	4–M4x10	≤φ8	34	φ38.1	5	60	137.5	172.5	8
	φ70	4–M4x10,4–M5x12	≤φ14	34	φ50	5	60	137.5	172.5	9

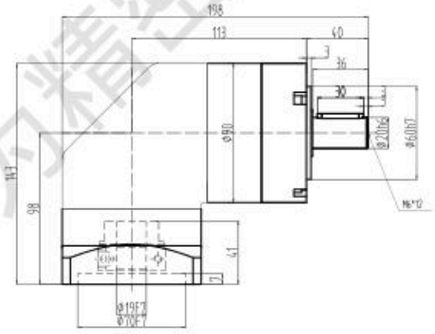
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

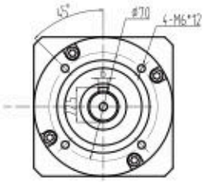
JAER 90 -L1

输出端/OUTPUT



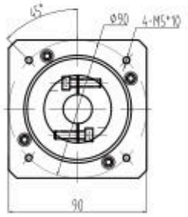


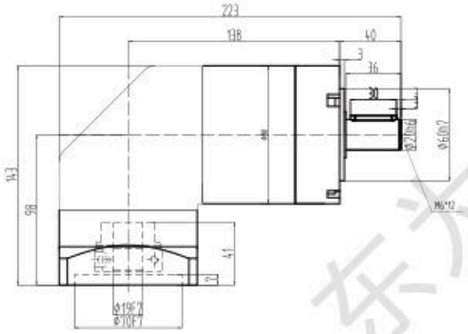
输入端/ INPUT



JAER 90 -L2

输出端/OUTPUT

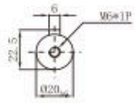




输入端/ INPUT



输出轴径/Output Diameter



视图方向



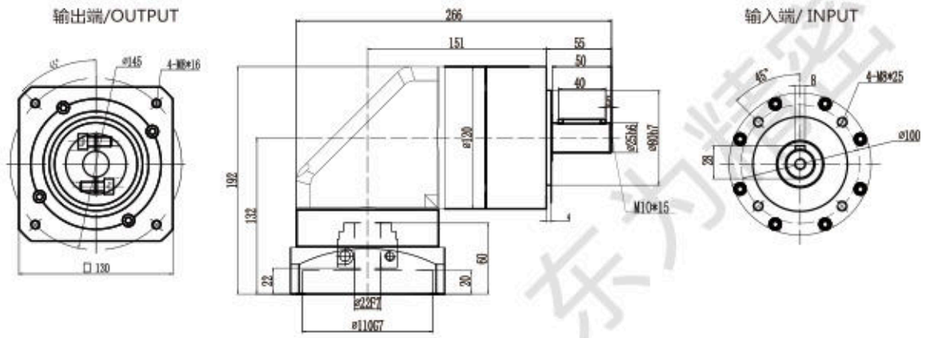
*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAER90 -L1	φ70	4–M4x12,4–M5x12	≤φ14	46	φ50	4	90	100	140	6
	φ75	4–M4x12,4–M5x12	≤φ14	46	φ60	5.5	90	100	140	6
	φ90	4–M5x15,4–M6x15	≤φ19	46	φ70	7	90	100	140	7
	φ100	4–M6x15	≤φ19	46	φ80	7	90	100	140	7
	φ115	4–M8x20	≤φ24	61.5	φ95	10	100	100	140	12.5
	φ145	4–M8x20	≤φ24	61.5	φ110	10	130	100	140	12.5
JAER90 -L2	φ70	4–M4x12,4–M5x12	≤φ14	46	φ50	4	90	119	159	6
	φ75	4–M4x12,4–M5x12	≤φ14	46	φ60	5.5	90	119	159	6
	φ90	4–M5x15,4–M6x15	≤φ19	46	φ70	7	90	119	159	7
	φ100	4–M6x15	≤φ19	46	φ80	7	90	119	159	7
	φ115	4–M8x20	≤φ24	61.5	φ95	10	100	119	159	12.5
	φ145	4–M8x20	≤φ24	61.5	φ110	10	130	119	159	12.5

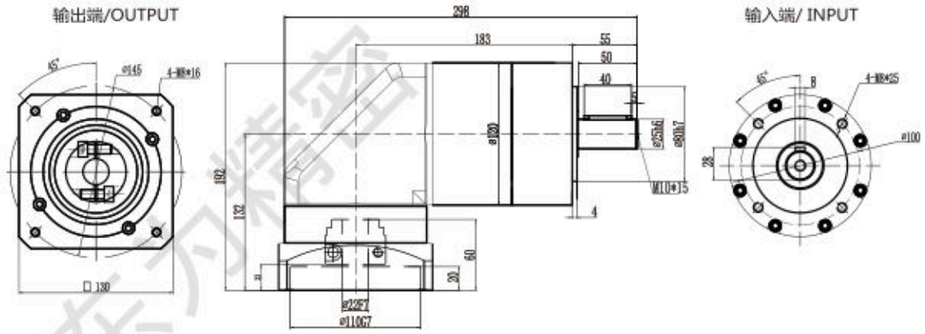
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

PGCR120-L1



PGCR120-L2



输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGCR 120-L1	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	153	208	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	153	2	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	153	208	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	153	2	12.5
	φ145	4-M8x20	≤φ24	68	φ110	10	130	162	217	21.5
PGCR 120-L2	φ90	4-M5x15,4-M6x15	≤φ19	48.5	φ70	7	115	180	2	7
	φ100	4-M6x15	≤φ19	48.5	φ80	7	115	180	235	7
	φ115	4-M8x20	≤φ24	58	φ95	10	115	180	235	11.5
	φ145	4-M8x20	≤φ24	59	φ110	10	130	180	235	12.5
	φ145	4-M8x20	≤φ24	68	φ110	10	130	189	244	21.5

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

JAFR系列精密行星减速机
JAFR series precision planetary reducer



→→JAFR060
→→JAFR090
→→JAFR120
→→JAFR160

JAFR系列减速机核心特性
The Core features of JAFRseries reducer

1.采用直齿齿轮传动，经渗碳淬火处理，齿向齿廓修形处理，确保运行平稳，噪音小；

2.结构简单，可大批量生产，且交货期快性价比高；

3.减速机种类齐全，可以满足市场上绝大多数减速机的配合。

1. Adopt straight tooth gear transmission, through carburizing and quenching treatment, tooth profile modification treatment, ensure smooth operation, low noise.

2. Simple structure, mass production, and fast delivery time and high cost performance.

3. Reducer has a complete range, which can meet the needs of most reducer in the market.

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

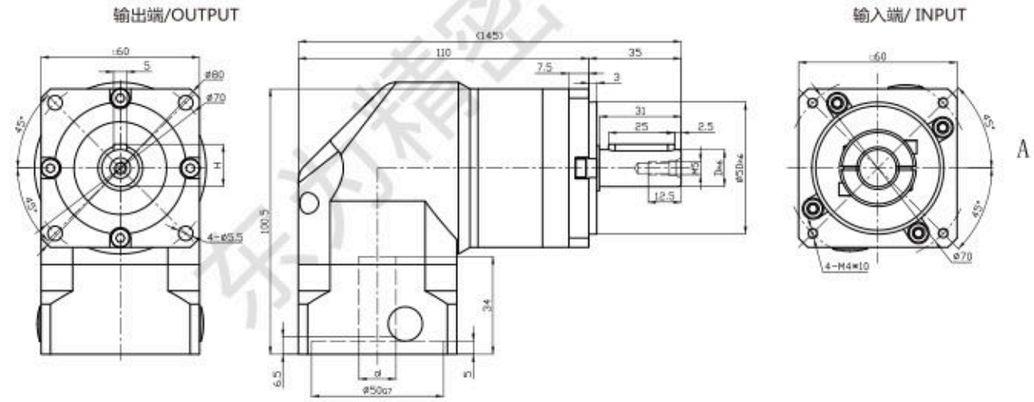
规格Specifications	单位unit	节数Stage	减速比Ratio	PGER 060	PGER 090	PGER 120
额定输出力矩T2N Nominal Output Torque	N.m	1	3	32.6	95.2	283
			4	30.1	74.6	249
			5	32.3	95.2	283
			7	30.9	85.6	219
			10	25.0	75.0	210
		2	12	32.6	95.2	283
			15	32.6	95.2	283
			20	30.1	74.6	249
			25	32.3	95.2	283
			30	32.3	95.2	283
			35	32.3	95.2	283
			40	32.3	95.2	283
			50	32.3	95.2	283
			70	30.9	85.0	219
			100	25.0	75.0	210
急停力矩T2NOT Emergency Stop Torque	N.m	1、2	3 ~ 100	3倍额定输出力矩 (3.0 times of Nominal Output Torque)		
额定输入转速n1 Nominal Input Speed	rpm	1、2	3 ~ 100	3000	3000	2500
最大输入转速n1max Max.Input Speed	rpm	1、2	3 ~ 100	6000	6000	5000
超精密背隙P0 Ultraprecise Blacklash	arcmin	1	3 ~ 10	–	–	≤3
		2	12 ~ 100	–	–	≤5
精密背隙P1 Precise Blacklash	arcmin	1	3 ~ 10	–	≤6	≤5
		2	12 ~ 100	–	≤9	≤7
标准背隙P2 Standard Blacklash	arcmin	1	3 ~ 10	≤12	≤9	≤7
		2	12 ~ 100	≤15	≤12	≤9
扭转刚性 Torsional Rigidity	N.m /arcmin	1、2	3 ~ 100	2.6	7.5	15.5
容许径向力F2rB Max.Radial Load	N	1、2	3 ~ 100	889	1630	3380
容许轴向力F2aB Max.Axial Load	N	1、2	3 ~ 100	850	1420	2930
使用温度 Operating Temp	° C	1、2	3 ~ 100	-10° C ~ +90° C		
使用寿命 Service Life	hr	1、2	3 ~ 100	20,000 (10,000/连续运转continiu operationg)		
效率 η Efficiency	%	1	3 ~ 10	≥96%		
		2	12 ~ 100	≥92%		
重量 Weight	kg	1	3 ~ 10	1.3	3.0	7.3
		2	12 ~ 100	2.0	5 0	11 5
安装方向 mounting Position	–	1、2	3 ~ 100	任意方向 Any direction		
噪音值 Noise Level	dBA/1m	1、2	3 ~ 100	60	65	65
防护等级 Protection Class	–	1、2	3 ~ 100	Ip65		
润滑 Lubrication		1、2	3 ~ 100	全合成润滑脂油 Synthetic Lubricant		

减速机转动惯量

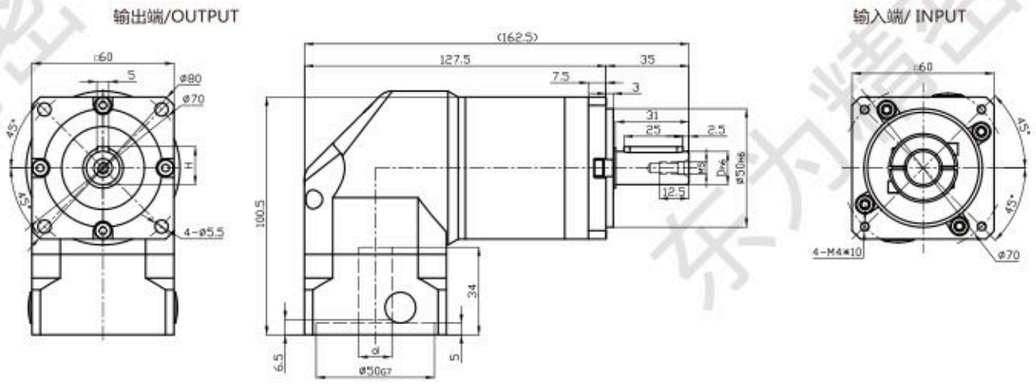
规格Specifications	单位unit	节数Stage	减速比Ratio	PGER 060	PGER 090	PGER 120
转动惯量J1 Inertia	$kg.cm^2$	1	3	0.25	0.81	2.2
			4	0.18	0.65	1.8
			5	0.16	0.62	1.61
			7	0.14	0.60	1.55
			10	0.14	0.60	1.53
		2	12	0.16	0.62	1.61
			15	0.16	0.62	1.61
			20	0.16	0.62	1.61
			25	0.16	0.62	1.61
			30	0.14	0.60	1.55
			35	0.14	0.60	1.55
			40	0.14	0.60	1.55
			50	0.14	0.60	1.55
			70	0.14	0.60	1.53
			100	0.14	0.60	1.53

外形尺寸图表 / OUTLINE DIMENSION SHEET

JAFR 60 -L1



JAFR 60 -L2



输出轴径/Output Diameter



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

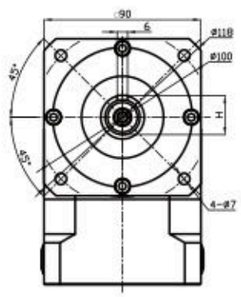
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAFR60 –L1	ϕ46	4–M4x10	≤ ϕ8	34	ϕ30	5	60	81	116	9
	ϕ66.7	4–M4x10	≤ ϕ8	34	ϕ38.1	5	60	81	116	8
	ϕ70	4–M4x10,4–M5x12	≤ ϕ14	34	ϕ50	5	60	81	116	9
JAFR60 –L2	ϕ46	4–M4x10	≤ ϕ8	34	ϕ30	5	60	137.5	172.5	9
	ϕ66.7	4–M4x10	≤ ϕ8	34	ϕ38.1	5	60	137.5	172.5	8
	ϕ70	4–M4x10,4–M5x12	≤ ϕ14	34	ϕ50	5	60	137.5	172.5	9

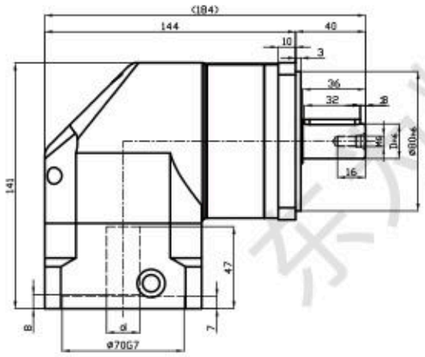
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

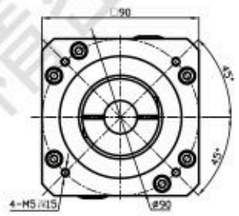
JAFR 90-L1

输出端/OUTPUT



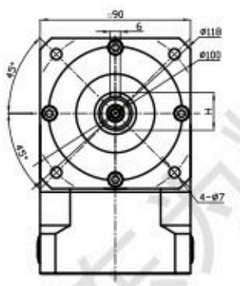


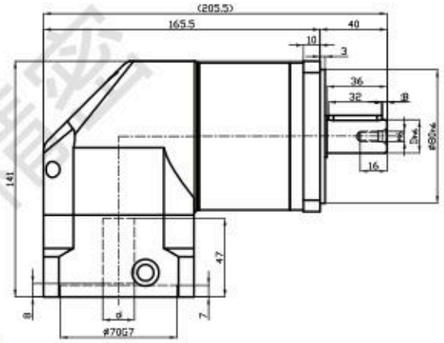
输入端/ INPUT



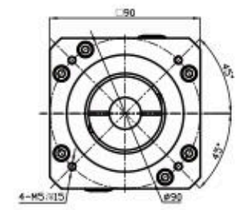
JAFR 90-L2

输出端/OUTPUT

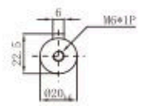




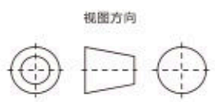
输入端/ INPUT



输出轴径/Output Diameter



视图方向



*输入马达连接板之尺寸，可根据客户要求单独定做。
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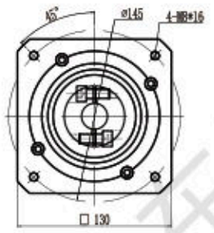
尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAFR90 -L1	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	100	140	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	100	140	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	100	140	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	100	140	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	100	140	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	100	140	12.5
JAFR90 -L2	ϕ70	4-M4x12,4-M5x12	≤ϕ14	46	ϕ50	4	90	119	159	6
	ϕ75	4-M4x12,4-M5x12	≤ϕ14	46	ϕ60	5.5	90	119	159	6
	ϕ90	4-M5x15,4-M6x15	≤ϕ19	46	ϕ70	7	90	119	159	7
	ϕ100	4-M6x15	≤ϕ19	46	ϕ80	7	90	119	159	7
	ϕ115	4-M8x20	≤ϕ24	61.5	ϕ95	10	100	119	159	12.5
	ϕ145	4-M8x20	≤ϕ24	61.5	ϕ110	10	130	119	159	12.5

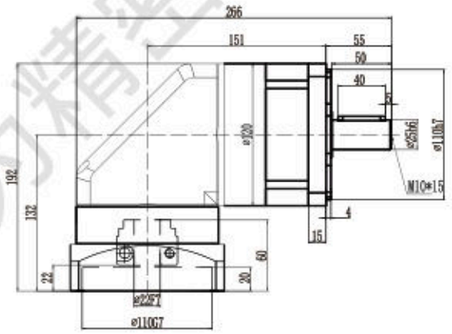
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

外形尺寸图表 / OUTLINE DIMENSION SHEET

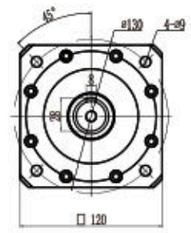
JAFR 120-L1

输出端/OUTPUT



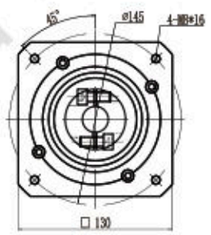


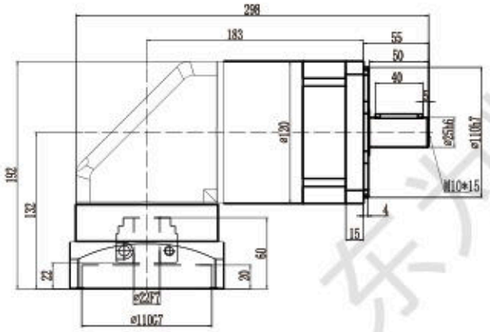
输入端/ INPUT



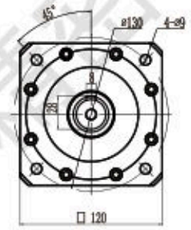
JAFR 120-L2

输出端/OUTPUT

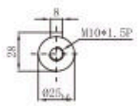




输入端/ INPUT



输出轴径/Output Diameter



视图方向



*输入马达连接板之尺寸，可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
JAFR 120-L1	ϕ90	4-M5x15,4-M6x15	≤ϕ19	48.5	ϕ70	7	115	153	208	7
	ϕ100	4-M6x15	≤ϕ19	48.5	ϕ80	7	115	153	2	7
	ϕ115	4-M8x20	≤ϕ24	58	ϕ95	10	115	153	208	11.5
	ϕ145	4-M8x20	≤ϕ24	59	ϕ110	10	130	153	2	12.5
	ϕ145	4-M8x20	≤ϕ24	68	ϕ110	10	130	162	217	21.5
JAFR 120-L2	ϕ90	4-M5x15,4-M6x15	≤ϕ19	48.5	ϕ70	7	115	180	2	7
	ϕ100	4-M6x15	≤ϕ19	48.5	ϕ80	7	115	180	235	7
	ϕ115	4-M8x20	≤ϕ24	58	ϕ95	10	115	180	235	11.5
	ϕ145	4-M8x20	≤ϕ24	59	ϕ110	10	130	180	235	12.5
	ϕ145	4-M8x20	≤ϕ24	68	ϕ110	10	130	189	244	21.5

* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised。

行星减速机马达安装说明书 / PLANETARY GEARBOX WITH MOTOR MOUNTING INSTRUCTIONS

For General Type

1

先确认马达减速机规格是否正确，并将马达与减速机安装面擦试干净。

Check the motor and gearbox size. Clean the mounting surface.



2

将连接板上扣式塞头取下，转动马达锁紧环，直到锁紧环螺丝对准塞头孔。

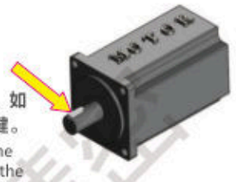
Take off the plug from the bracket. Revolve the set collar until the bolt is aligned with the hole.



3

取下马达上原先的键，如有必要，请安装平衡键。

Remove the key from the motor shaft. Mounting the balance key if necessary.



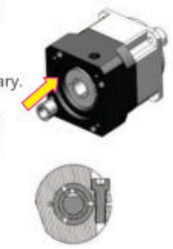
4

确认马达轴心尺寸，轴心太小选用适当衬套。

Make sure the motor shaft size. Choose the right bushing if necessary.

当马达为平轴状，对准衬套夹缝在平轴中心线，使锁紧环螺丝与平轴面呈垂直。

As installing on flatted shaft, be sure to align the collet gap over the flat and the set collar bolt perpendicular to the flat.



5

以锁紧扭力表建议扭力值5%，依照1至4顺序，将螺丝轻轻锁上。

Tighten the mounting bolts in 1~4 order with torque wrench to 5% specified torque.



6

将马达与减速机直立摆设，参照锁紧扭力表建议之扭力值，以扭力扳手将马达锁紧环螺丝锁紧。

Install gearbox and motor vertically. Tighten the set collar bolt with torque wrench to specified toeque.



7

以锁紧扭力表建议之扭力值，依照1至4顺序，用扭力板手将螺丝锁紧。

Tighten the mounting bolts in 1~4 order with torque wrench to specified torque.



8

将扣式塞头装回。

Put the plug back.



行星减速机输入端配电机尺寸表 / DIMENSION TABLE OF MOTOR AT INPUT END OF PLANETARY REDUCER

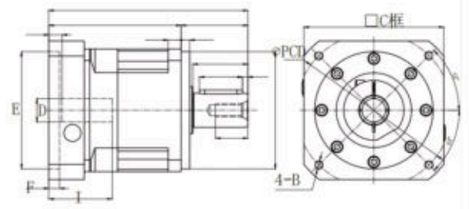
减速机框号	配电机端口尺寸						
60型减速机	D轴	E止口	螺PCD	B孔	C框	F止口高度	I轴长
T1	11	50	70	M4	60	3	30
T2	11	50	70	M5	60	3	30
T3	14	50	70	M4	60	3	30
T4	14	50	70	M5	60	3	30
T5	8	38.1	66.7	M4	57	3	30
T6	8	38.1	66.7	M5	57	3	30
T7	6.35	38.1	66.7	M4	57	3	30
T8	19	70	90	M6	80	3	55
T9	19	70	90	M5	80	3	55
T10	8	38	70.7	M4	60	3	30
T11	16	80	100	M6	90	3	55
T12	11	60	75	M5	70	3	30

80/90型减速机	D轴	E止口	螺PCD	B孔	C框	F止口高度	I轴长
T1	19	70	90	M5	80	3	40
T2	19	80	100	M5	80	3	40
T3	19	70	90	M6	80	3	40
T4	16	80	100	M5	80	3	40
T5	14	73	98.9	M5	90	3	40
T6	14	50	70	M4	60	3	30
T7	24	110	145	M8	130	6	55
T8	22	110	145	M8	130	6	55
T9	16	80	100	M6	80	3	40
T10	19	95	115	M6	100	6	55
T11	19	95	130	M8	110	6	55
T12	19	110	145	M8	130	6	55
T13	19	110	145	M8	130	6	65
T14	22	110	145	M8	130	6	65
T15	24	110	145	M8	130	6	65
T16	14	50	70	M5	60	3	30
T17	22	95	115	M8	110	6	55
T18	24	95	115	M8	110	6	55
T19	19	95	115	M6	100	6	55
T20	24	95	115	M6	100	6	55
T21	19	80	100	M6	90	6	55
T22	14	73	98.9	M6	86	6	55
T23	12.7	73	98.9	M6	86	6	55
T24	24	110	130	M8	130	6	55

115型减速机	D轴	E止口	螺PCD	B孔	C框	F止口高度	I轴长
T1	19	70	90	M6	80	3	40
T2	19	80	100	M6	80	3	40
T3	19	95	115	M8	100	6	55
T4	19	95	130	M8	110	6	55
T5	19	110	145	M8	130	6	55
T6	22	110	145	M8	130	6	55
T7	24	110	145	M8	130	6	55
T8	35	114.3	200	M12	180	3.2	79
T9	19	110	145	M8	130	6	65
T10	22	110	145	M8	130	6	65
T11	24	110	145	M8	130	6	65
T12	28	110	145	M8	130	6	65
T13	22	95	115	M8	100	6	55
T14	24	95	115	M8	100	6	55
T15	28	110	145	M8	130	6	55
T16	24	130	165	M10	142	6	65
T17	24	95	115	M6	100	6	55
T18	32	130	165	M10	142	6	65
T22	19	55.52	125.9	M8	115	3	55

142/180型减速机	D轴	E止口	螺PCD	B孔	C框	F止口高度	I轴长
T1	42	114.3	200	M12	180	3.2	79
T2	35	114.3	200	M12	180	3.2	113
T3	42	114.3	200	M12	180	3.2	113
T4	24	110	145	M8	130	6	65
T5	19	110	145	M8	130	6	55
T6	22	110	145	M8	130	6	55
T7	24	110	145	M8	130	6	55
T8	35	114.3	200	M12	180	3.2	79
T9	19	110	145	M8	130	6	65
T10	22	110	145	M8	130	6	65
T11	24	110	145	M8	130	6	65
T12	28	110	145	M8	130	6	65
T13	28	114.3	200	M12	180	3.2	79
T14	32	130	165	M10	155	3.5	65
T15	32	114.3	200	M10	180	3.5	79
T16	24	110	130	M8	130	6	79
T17	38	180	215	M12	190	6	79
T18	28	130	165	M10	150	6	65

180型减速机	D轴	E止口	螺PCD	B孔	C框	F止口高度	I轴长
T1	42	114.3	200	M12	180	3.2	79
T2	35	114.3	200	M12	180	3.2	113
T3	42	114.3	200	M12	180	3.2	113
T4	55	180	215	M12	190	3.2	113
T5	55	200	230	M12	220	3.2	113
T6	42	180	215	M12	190	3.2	79
T7	24	110	145	M8	130	6	65
T8	35	114.3	200	M12	180	3.2	79
T9	38	180	215	M12	190	6	113
T10	22	110	145	M8	130	6	55
T11	42	180	215	M12	190	3.2	113
T12	38	180	215	M12	190	3.2	113
T13	42	200	235	M12	200	3.2	113
T14	42	180	215	M12	190	3.2	83



* 如果不清楚可以直接把电机品牌型号或尺寸图发过来我们来帮你们配。
* If you are not clear, you can directly send the brand model or size drawing of the motor to us to help you match it.

东为精密