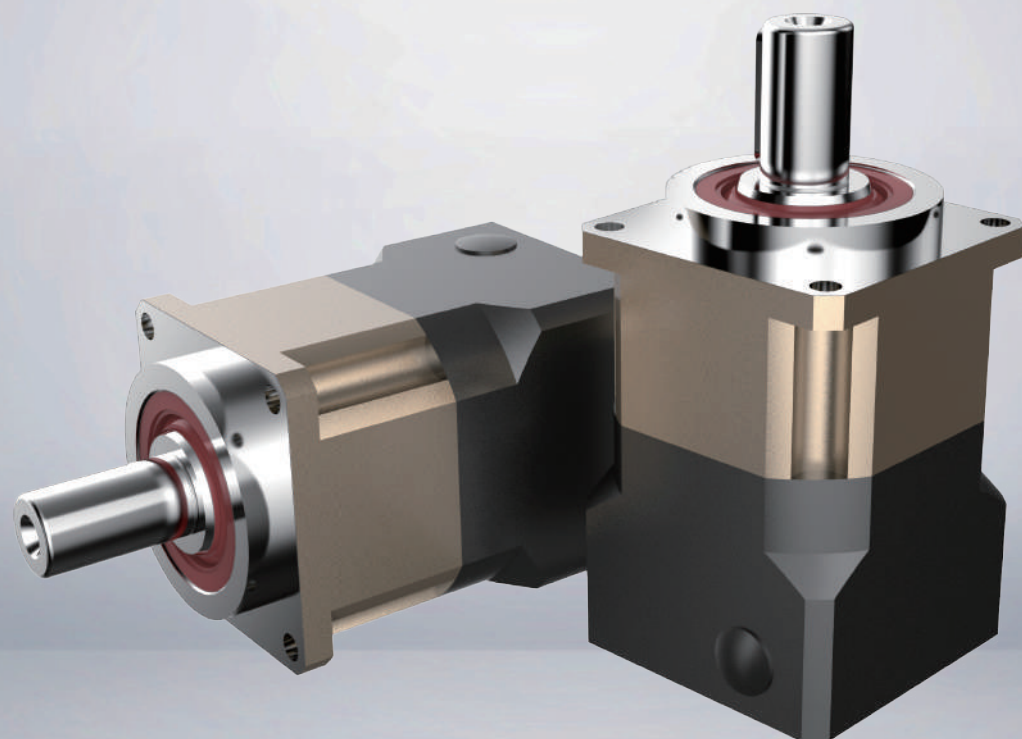




PGH Series

High Precision Helical Gear

(高精密斜齿) 系列



型号说明 / ORDER CODE

PGH060 - 10 - S2 - P2 / Motor

Reducer Size

减速机型式：
PGH042、PGH060、
PGH090、PGH115、
PGH142、PGH180
PGH220

Output Shaft Type 输出轴型式

S1: Smooth Shaft 平滑光轴
S2: Shaft with Key 附带键轴

马达型号：
Motor Model

Ratio 减速比：

L1 单段：3、4、5、7、9、10
L2 双段：12、15、20、25、30、35、40 50、70、
90、100

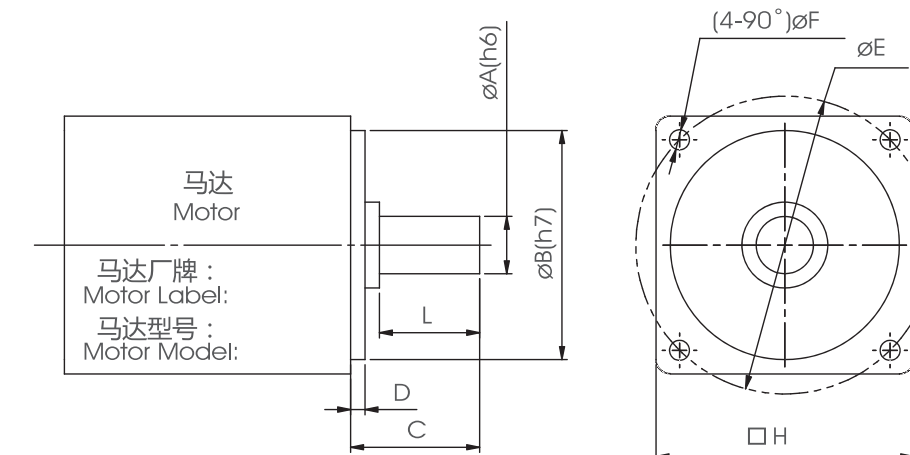
Backlash:

超精密背隙：P0
精密背隙：P1
标准背隙：P2

Backlash:

Ultra-precise Backlash: P0
Precise Backlash: P1
Standard Backlash: P2

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
$\phi A(h6)$	$\phi B(h7)$	C	D	ϕE	ϕF	$\square H$	L	P0/P1/P2

减速机性能资料 / GEAR BOX PERFORMANCE INFORMATION

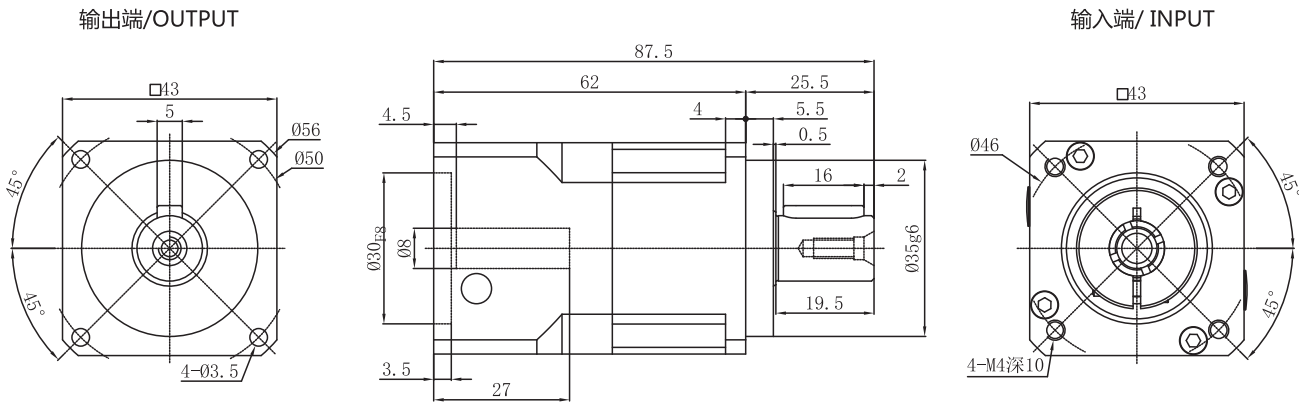
规格Specifications	单位unit	节数Stage	减速比Ratio	PGH042	PGH060	PGH090	PGH115	PGH142	PGH180	PGH220
额定输出力矩T2N Nominal Output Torque	N.m	1	3	19	53	145	290	520	950	1550
			4	20	55	150	300	550	1000	1650
			5	17	54	140	290	530	1050	1700
			7	14	44	125	270	450	960	1500
			9	11	37	95	220	360	—	—
		2	10	11	37	95	220	360	620	1250
			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 Backlash	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 Backlash	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 Backlash	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continui 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

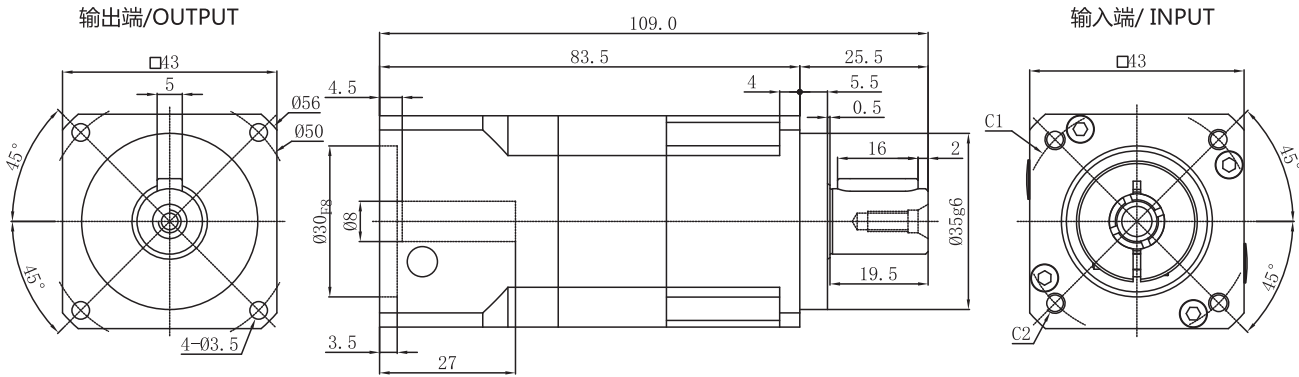
规格Specifications	单位unit	节数Stage	减速比Ratio	PGH042	PGH060	PGH090	PGH115	PGH142	PGH180	PGH220
转动惯量J1 Inertia	kg.cm ²	1	3	0.03	0.23	0.97	2.35	10.00	28.90	69.63
			4	0.02	0.18	0.67	1.66	7.17	24.00	54.25
			5	0.02	0.17	0.65	1.50	6.52	23.27	53.30
			7	0.02	0.14	0.60	1.45	6.17	22.42	51.00
			9	0.02	0.14	0.58	1.41	6.10	—	—
		2	10	0.02	0.14	0.58	1.41	6.10	22.50	50.62
			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

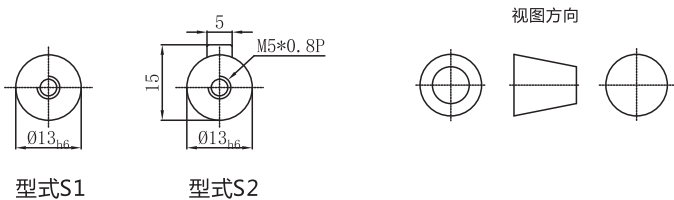
PGH042-L1



PGH042-L2



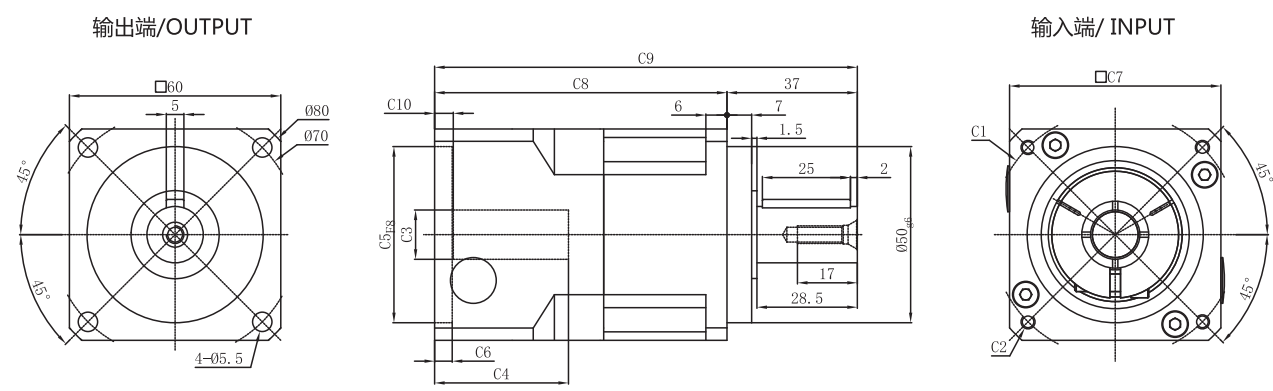
输出轴径/Output Diameter



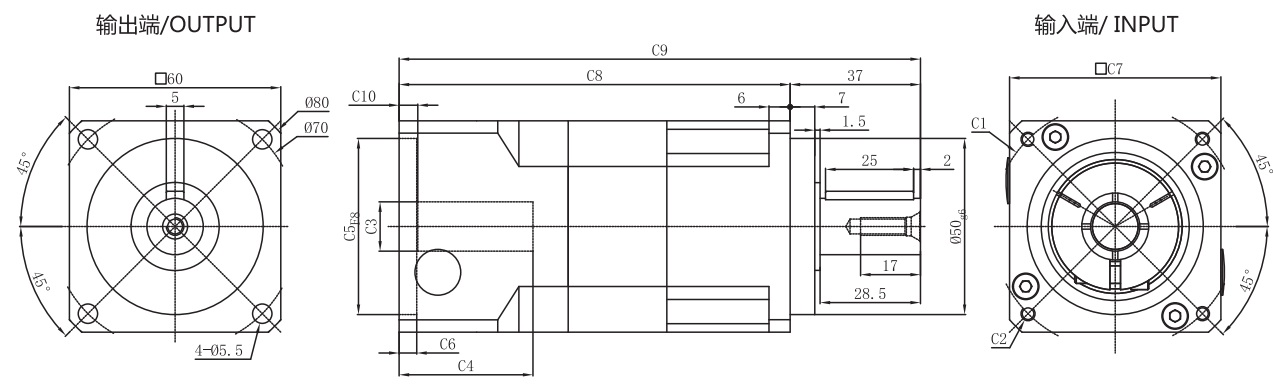
*输入马达连接板之尺寸, 可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

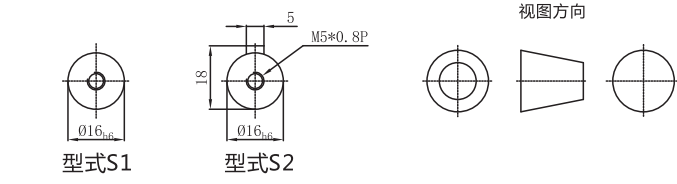
PGH060-L1



PGH060-L2



输出轴径/Output Diameter



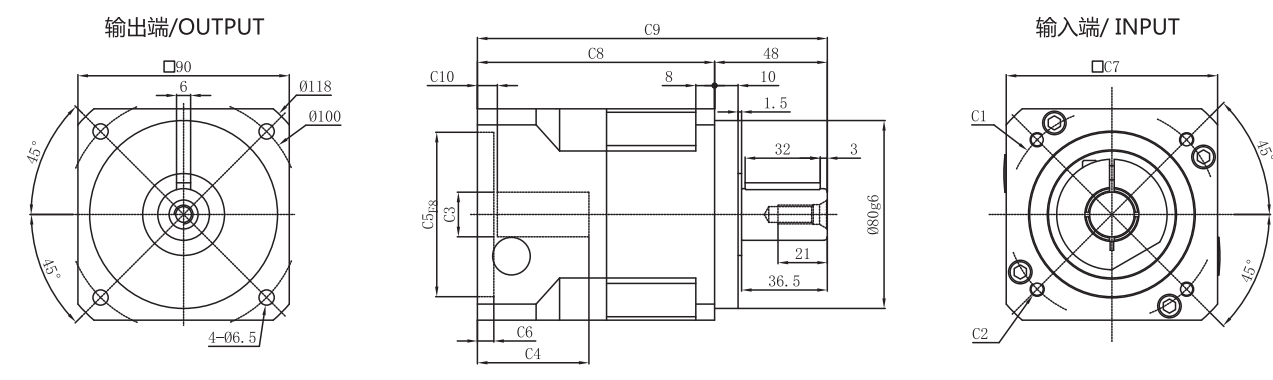
*输入马达连接板之尺寸, 可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH060-L1	φ 46	4-M4x12,4-M5x12	≤ φ 8	44	φ 30	9	60	91	126	10.3
	φ 66.7	4-M4x12	≤ φ 8	38	φ 38.1	3	60	83	120	4.3
	φ 70	4-M4x12,4-M5x12	≤ φ 14	38	φ 50	5	60	83	120	5.3
	φ 75	4-M4x12,4-M5x12	≤ φ 14	38.5	φ 60	5	66	83.5	120	5.5
	φ 90	4-M5x15,4-M6x15	≤ φ 19	44	φ 70	7	80	89	128	11
PGH060-L2	φ 100	4-M6x15	≤ φ 19	44	φ 80	7	90	89	128	11
	φ 46	4-M4x12, 4-M5x12	≤ φ 8	44	φ 30	9	60	117	154	10.3
	φ 66.7	4-M4x12	≤ φ 8	38	φ 38.1	3	60	111	148	4.3
	φ 70	4-M4x12,4-M5x12	≤ φ 14	38	φ 50	5	60	111	148	5.3
	φ 75	4-M4x10,4-M5x12	≤ φ 14	38.5	φ 60	5	66	111.5	148	5.5
	φ 90	4-M5x15,4-M6x15	≤ φ 19	44	φ 70	7	80	117	156	11
	φ 100	4-M6x15	≤ φ 19	44	φ 80	7	90	117	156	11

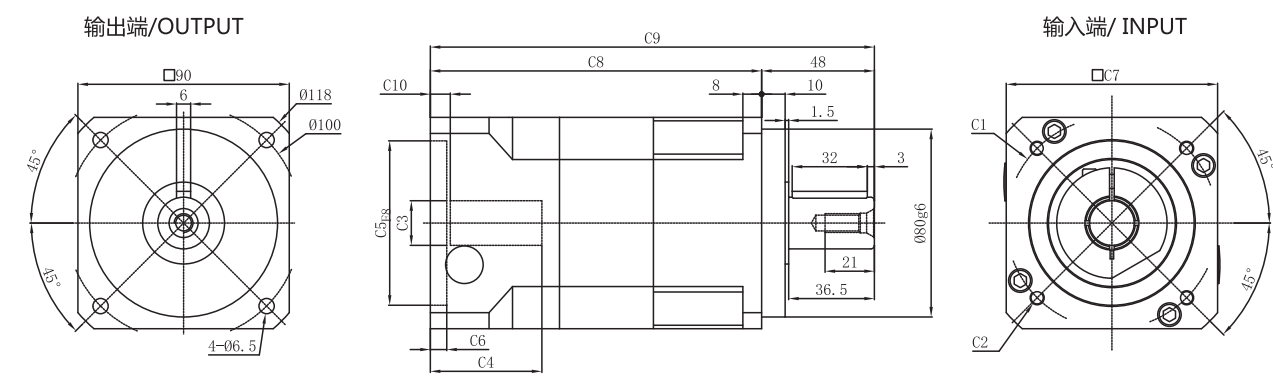
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

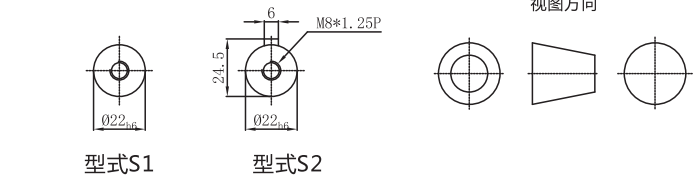
PGH090-L1



PGH090-L2



输出轴径/Output Diameter



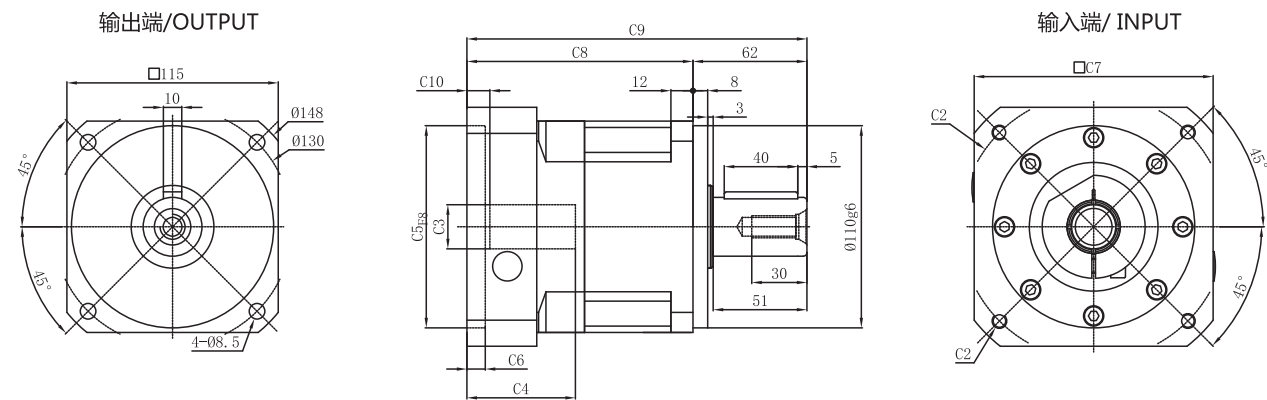
*输入马达连接板之尺寸, 可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH090-L1	φ 70	4-M4x12,4-M5x12	≤ φ 14	47.5	φ 50	4	90	101	149	6
	φ 75	4-M4x12,4-M5x12	≤ φ 14	47.5	φ 60	5.5	90	101	149	6
	φ 90	4-M5x15,4-M6x15	≤ φ 19	47.5	φ 70	7	90	101	149	7
	φ 98.4	4-M6x15	≤ φ 14	47.5	φ 73	7	90	101	149	7
	φ 100	4-M6x15	≤ φ 19	47.5	φ 80	7	90	101	149	7
	φ 115	4-M8x20	≤ φ 24	61.5	φ 95	10	100	113	161	12.5
	φ 130	4-M8x20	≤ φ 24	61.5	φ 95	10	115	113	161	12.5
	φ 145	4-M8x20	≤ φ 24	61.5	φ 110	10	130	113	161	12.5
	φ 145	4-M8x20	≤ φ 24	70.5	φ 110	10	130	122	170	21.5
	φ 70	4-M4x12,4-M5x12	≤ φ 14	47.5	φ 50	4	90	141	189	6
PGH090-L2	φ 75	4-M4x12,4-M5x12	≤ φ 14	47.5	φ 60	5.5	90	141	189	6
	φ 90	4-M5x15,4-M6x15	≤ φ 19	47.5	φ 70	7	90	141	189	7
	φ 98.4	4-M6x15	≤ φ 14	47.5	φ 73	7	90	141	189	7
	φ 98.4	4-M6x15	≤ φ 14	47.5	φ 60	7	90	141	189	7
	φ 100	4-M6x15	≤ φ 19	47.5	φ 80	7	90	141	189	7
	φ 115	4-M8x20	≤ φ 24	61.5	φ 95	10	100	153	201	12.5
	φ 130	4-M8x20	≤ φ 24	61.5	φ 95	10	115	153	201	12.5
	φ 145	4-M8x20	≤ φ 24	61.5	φ 110	10	130	153	201	12.5
	φ 145	4-M8x20	≤ φ 24	70.5	φ 110	10	130	162	210	21.5
	φ 70	4-M4x12,4-M5x12	≤ φ 14	47.5	φ 50	4	90	141	189	6

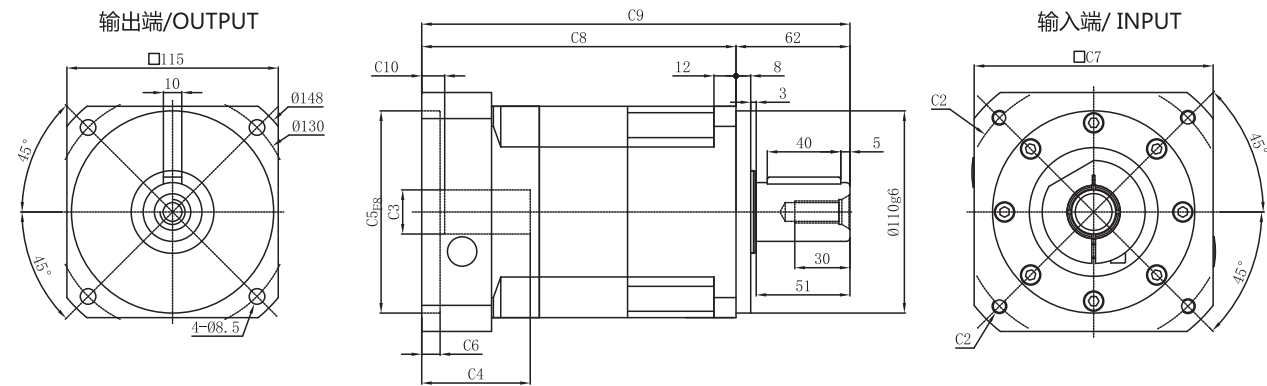
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

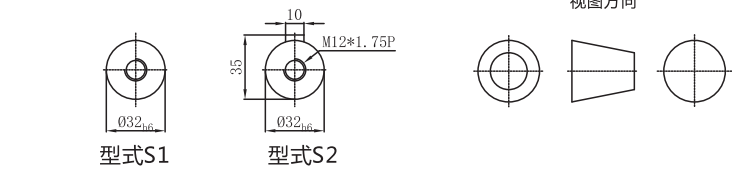
PGH115-L1



PGH115-L2



输出轴径/Output Diameter



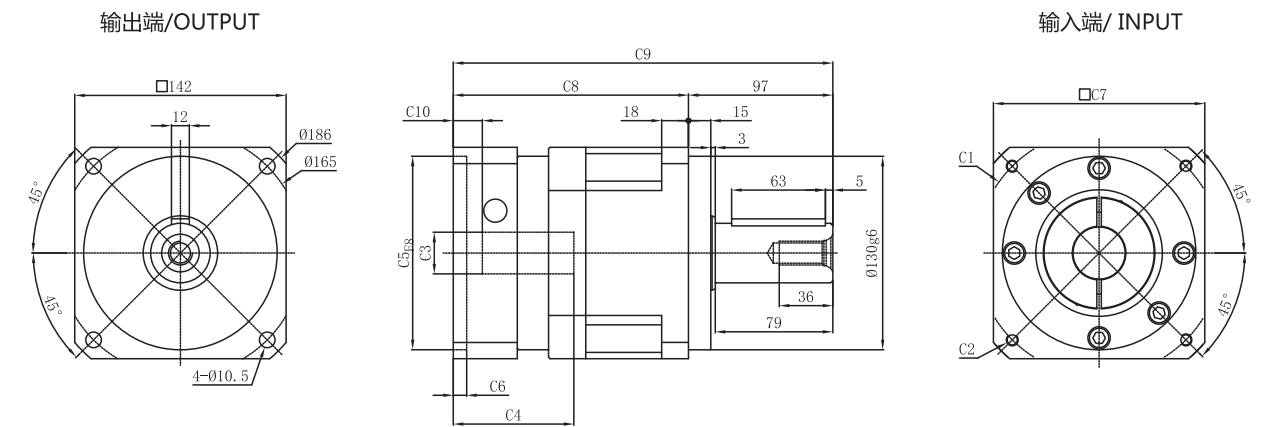
*输入马达连接板之尺寸, 可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH115-L1	φ 90	4-M5x15, 4-M6x15	≤ φ 19	48.5	φ 70	7	115	112.5	174.5	7
	φ 100	4-M6x15	≤ φ 19	48.5	φ 80	7	115	112.5	174.5	7
	φ 115	4-M8x20	≤ φ 24	58	φ 95	10	115	122	184	11.5
	φ 130	4-M8x20	≤ φ 24	58	φ 95	10	115	122	184	11.5
	φ 132	4-M8x20	≤ φ 24	58	φ 85	10	115	122	184	11.5
	φ 145	4-M8x20	≤ φ 24	59	φ 110	10	130	123	185	12.5
	φ 145	4-M8x20	≤ φ 24	68	φ 110	10	130	132	194	21.5
	φ 165	4-M10x30	≤ φ 32	80	φ 130	10	142	148.5	210.5	18.5
PGH115-L2	φ 200	4-M12x35	≤ φ 35	82	φ 114.3	8	180	150.5	212.5	20.5
	φ 215	4-M14x35	≤ φ 38	82	φ 180	8	190	150.5	212.5	20.5
	φ 90	4-M5x15, 4-M6x15	≤ φ 19	48.5	φ 70	7	115	160.5	174.5	7
	φ 100	4-M6x15	≤ φ 19	48.5	φ 80	7	115	160.5	174.5	7
	φ 115	4-M8x20	≤ φ 24	58	φ 95	10	115	170	184	11.5
	φ 130	4-M8x20	≤ φ 24	58	φ 95	10	115	170	184	11.5
	φ 132	4-M8x20	≤ φ 24	58	φ 85	10	115	170	184	11.5
	φ 145	4-M8x20	≤ φ 24	59	φ 110	10	130	171	185	12.5
PGH115-L2	φ 145	4-M8x20	≤ φ 24	68	φ 110	10	130	180	194	21.5
	φ 165	4-M10x30	≤ φ 32	80	φ 130	10	142	196.5	258.5	18.5
	φ 200	4-M12x35	≤ φ 35	82	φ 114.3	8	180	198.5	260.5	20.5
	φ 215	4-M14x35	≤ φ 38	82	φ 180	8	190	198.5	260.5	20.5

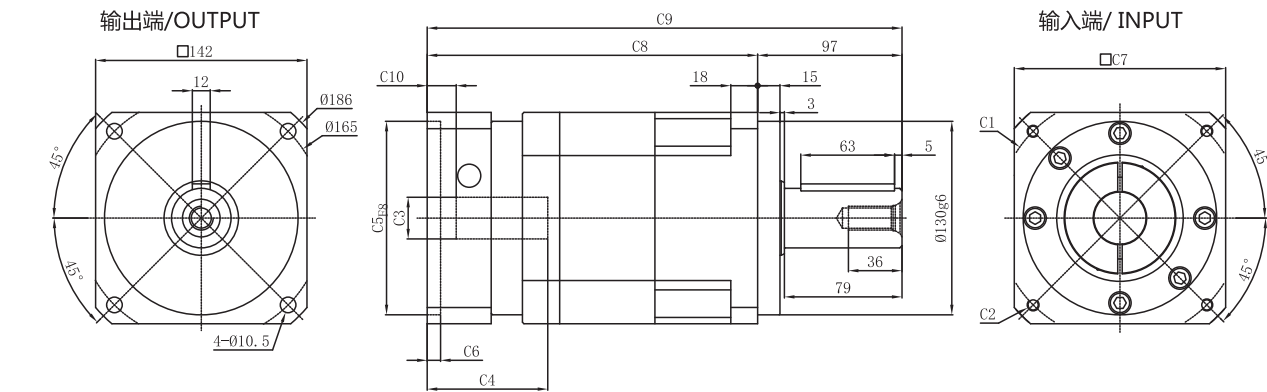
* C1~C10是公制标准马达连接板之尺寸, 可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

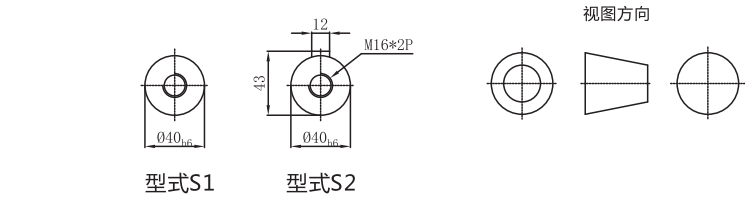
PGH142-L1



PGH142-L2



输出轴径/Output Diameter



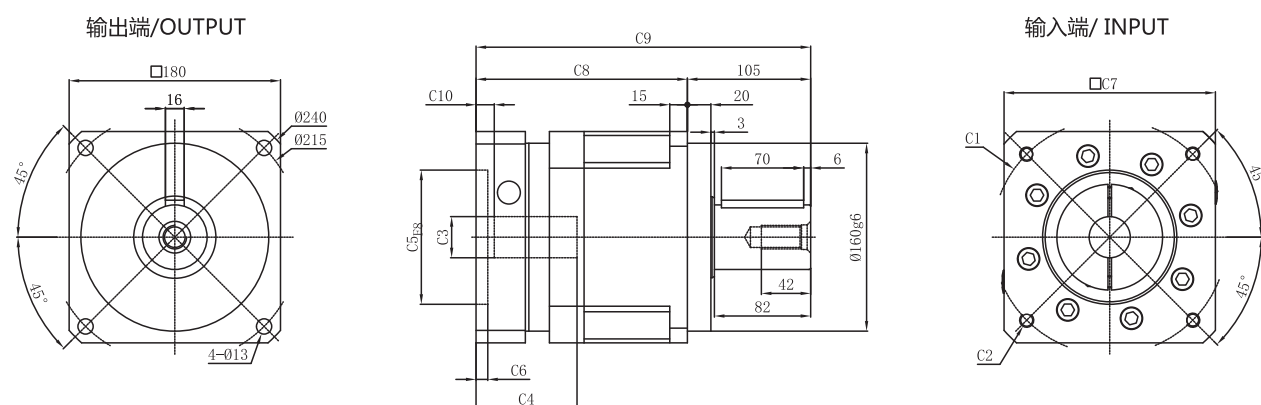
*输入马达连接板之尺寸, 可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH142-L1	φ 130	4-M8x20	≤ φ 24	81	φ 110	10	142	158	255	19.5
	φ 145	4-M8x20	≤ φ 24	81	φ 110	10	142	158	255	19.5
	φ 165	4-M10x25, 4-M12x35	≤ φ 32	81	φ 130	10	142	158	255	19.5
	φ 175	4-M10x25	≤ φ 32	81	φ 130	10	150	158	255	19.5
	φ 185	4-M10x30	≤ φ 35	81	φ 150	8	160	158	255	19.5
	φ 200	4-M12x35	≤ φ 42	83	φ 114.3	8	180	160	257	21.5
	φ 200	4-M12x35	≤ φ 42	115	φ 114.3	8	180	192	289	53.5
	φ 215	4-M12x35, 4-M14x35	≤ φ 42	83	φ 180	8	190	160	257	21.5
PGH142-L2	φ 130	4-M8x20	≤ φ 24	81	φ 110	10	142	222	319	19.5
	φ 145	4-M8x20	≤ φ 24	81	φ 110	10	142	222	319	19.5
	φ 165	4-M10x25, 4-M12x35	≤ φ 32	81	φ 130	10	142	222	319	19.5
	φ 175	4-M10x25	≤ φ 32	81	φ 130	10	150	222	319	19.5
	φ 185	4-M10x30	≤ φ 35	81	φ 150	8	160	222	319	19.5
	φ 200	4-M12x35	≤ φ 42	83	φ 114.3	8	180	224	321	21.5
	φ 200	4-M12x35	≤ φ 42	115	φ 114.3	8	180	256	353	53.5
	φ 215	4-M12x35, 4-M14x35	≤ φ 42	83	φ 180	8	190	224	321	21.5

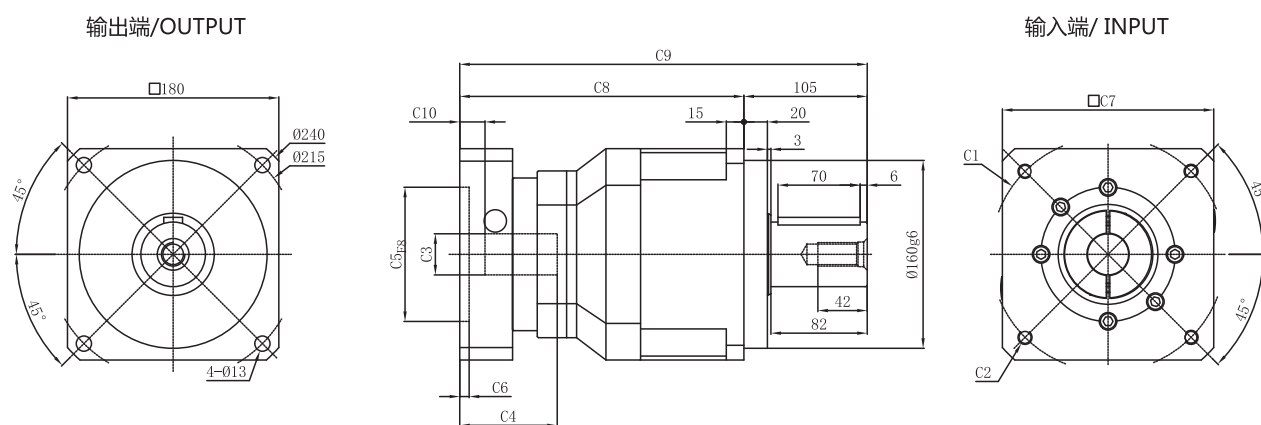
* C1~C10是公制标准马达连接板之尺寸, 可根据客户要求单独定做。
* C1~C10are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

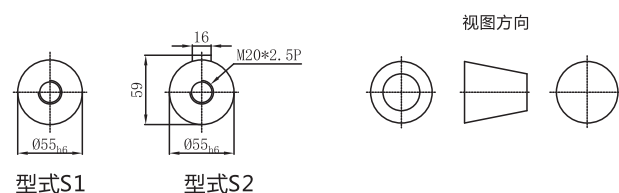
PGH180-L1



PGH180-L2



输出轴径/Output Diameter



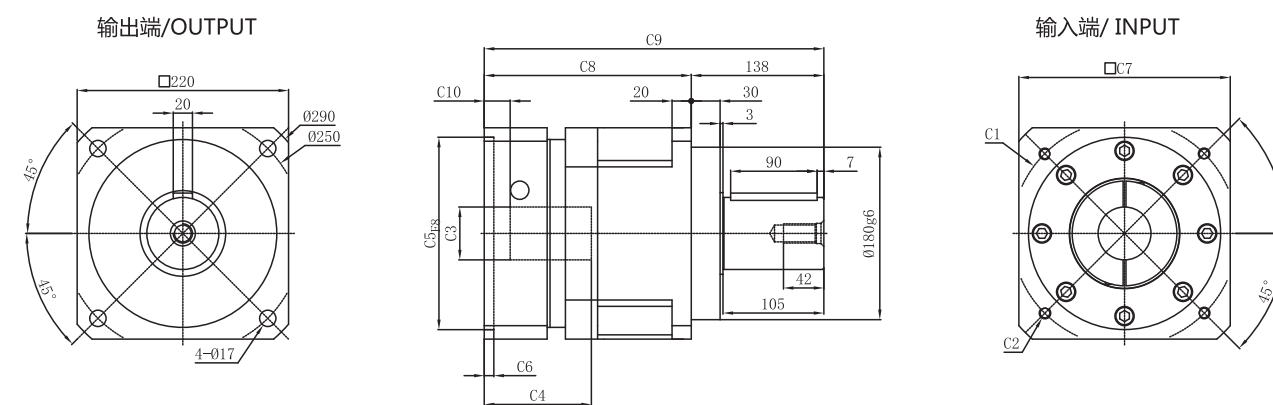
*输入马达连接板之尺寸,可根据客户要求单独定做。
*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH180-L1	φ 165	4-M10x25, 4-M12x35	≦ φ 32	86	φ 130	10	180	180	285	15.5
	φ 200	4-M12x35	≦ φ 42	86	φ 114.3	10	180	180	285	15.5
	φ 200	4-M12x35	≦ φ 42	118	φ 114.3	10	180	212	317	47.5
	φ 215	4-M14x35	≦ φ 42	86	φ 180	10	190	180	285	15.5
	φ 215	4-M14x35	≦ φ 42	118	φ 180	10	190	212	317	47.5
	φ 235	4-M10x30, 4-M14x35	≦ φ 55	118	φ 200	10	220	212	317	47.5
PGH180-L2	φ 130	4-M8x20	≦ φ 24	81	φ 110	10	142	240	345	19.5
	φ 145	4-M8x20	≦ φ 24	81	φ 110	10	142	240	345	19.5
	φ 165	4-M10x25, 4-M12x35	≦ φ 32	86	φ 130	8	180	242	347	21.5
	φ 200	4-M12x35	≦ φ 42	83	φ 114.3	8	180	242	347	21.5
	φ 200	4-M10x25, 4-M12x35	≦ φ 42	115	φ 114.3	8	180	274	379	53.5
	φ 215	4-M14x35	≦ φ 42	83	φ 180	8	190	242	347	21.5
	φ 215	4-M14x35	≦ φ 42	115	φ 180	8	190	274	379	53.5
	φ 235	4-M10x30, 4-M14x35	≦ φ 55	118	φ 200	10	220	274	379	47.5

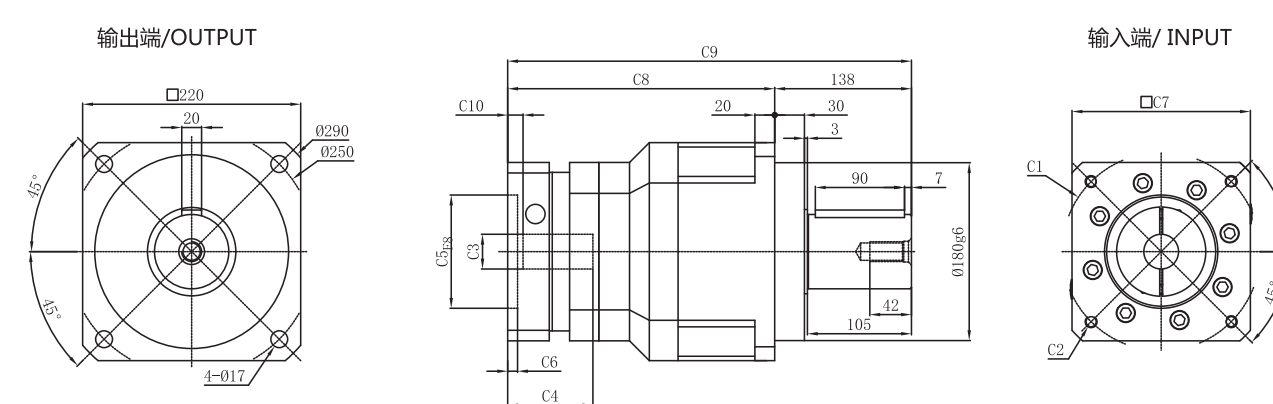
* C1~C10是公制标准马达连接板之尺寸,可根据客户要求单独定做。
* C1~C10 are motor (metric standard) specific dimensions, which could be customised.

外形尺寸图表 / OUTLINE DIMENSION SHEET

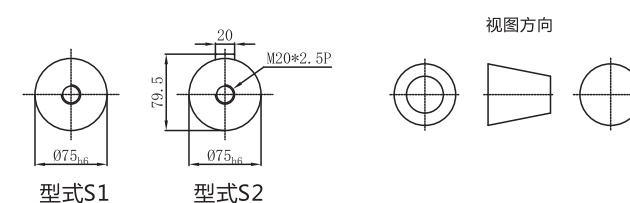
PGH 220-L1



PGH 220-L2



输出轴径/Output Diameter



*The input motor specific dimensions could be customised.

尺寸	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
PGH220-L1	φ 200	4-M12x35	≤ φ 42	119	φ 114.3	10	220	215.5	353.5	27
	φ 215	4-M14x35	≤ φ 42	119	φ 180	10	220	215.5	353.5	27
	φ 235	4-M12x35 , 4-M14x35	≤ φ 55	119	φ 200	10	220	215.5	353.5	27
PGH220-L2	φ 165	4-M10x25 , 4-M12x35	≤ φ 32	86	φ 130	10	180	269.5	407.5	15.5
	φ 200	4-M12x35	≤ φ 42	86	φ 114.3	10	180	269.5	407.5	15.5
	φ 200	4-M12x35	≤ φ 42	118	φ 114.3	10	180	301.5	439.5	47.5
	φ 215	4-M12x35 , 4-M14x35	≤ φ 42	86	φ 180	10	190	269.5	407.5	15.5
	φ 215	4-M12x35 , 4-M14x35	≤ φ 42	118	φ 180	10	190	301.5	439.5	47.5
	φ 235	4-M12x35 , 4-M14x35	≤ φ 55	118	φ 200	10	220	301.5	439.5	47.5
	φ 250	4-M14x35 , 4-M16x35	≤ φ 63	127	φ 219	10	230	330.5	479.5	50.5

* 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.