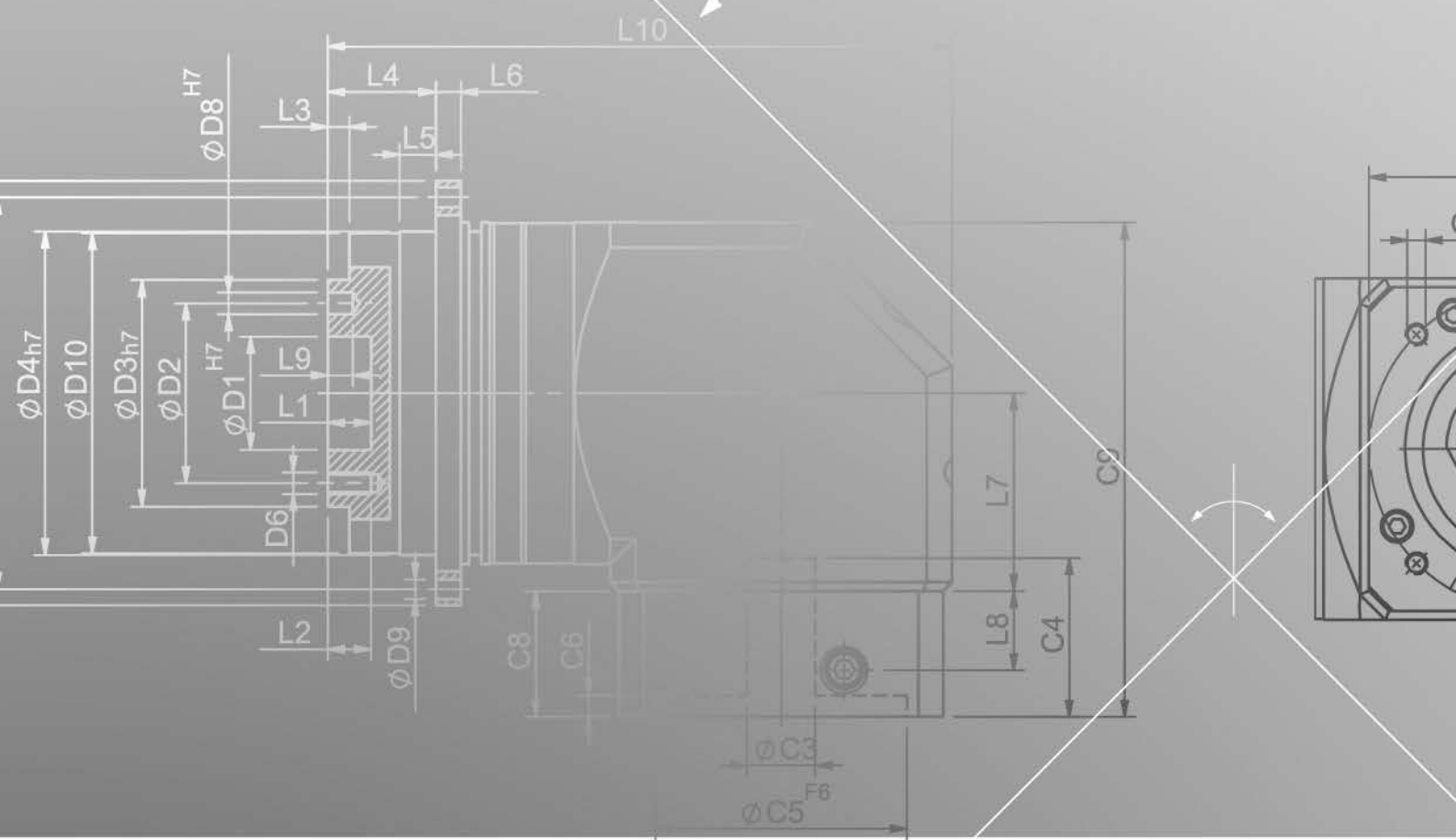
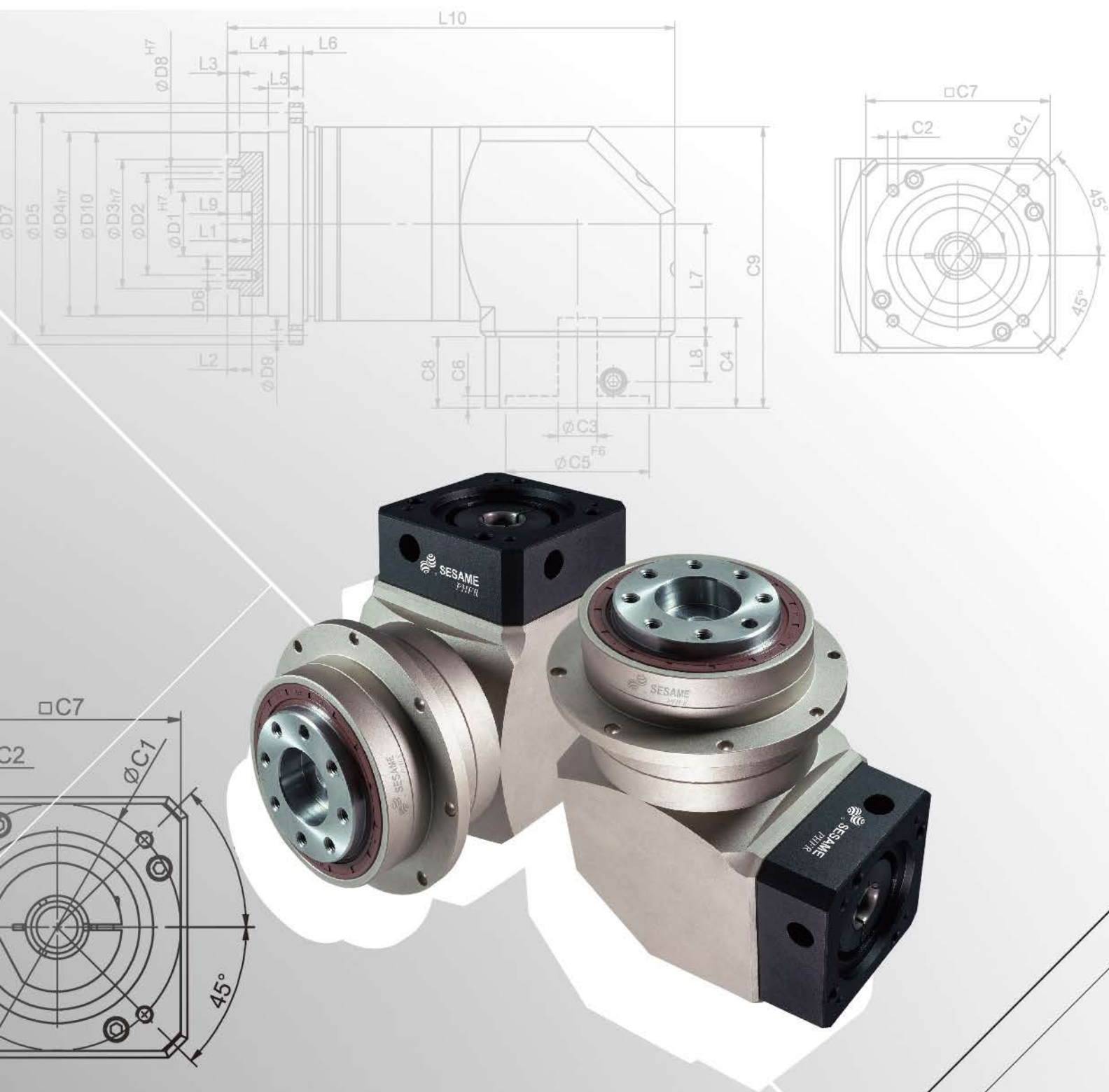
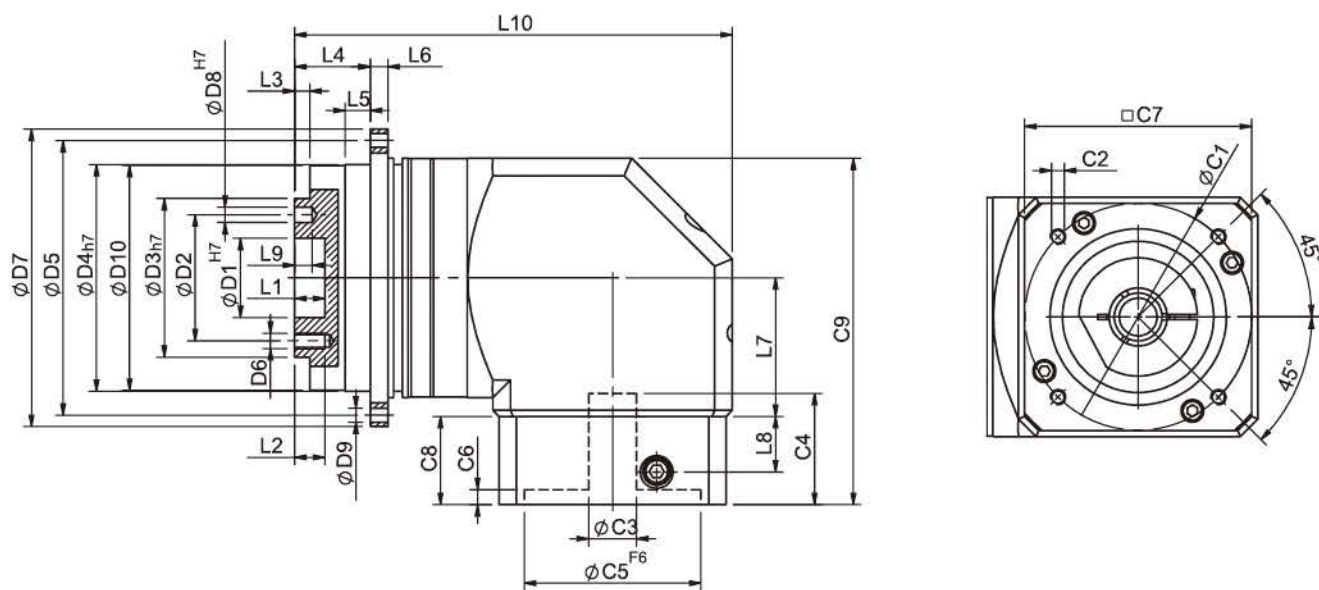


# ***PHFR*** ***SERIES***





PHFR Single Stage Dimensions PHFR單段外型尺寸圖



## Specifications 規格

Unit:mm

尺寸 Dimensions	PHFR42	PHFR60	PHFR90	PHFR115	PHFR142	PHFR200
D1 <sub>H7</sub>	12	20	31.5	-	-	-
D2	20	31.5	50	-	-	-
D3 <sub>h7</sub>	28	40	63	-	-	-
D4 <sub>h7</sub>	47	64	90	-	-	-
D5	67	79	109	-	-	-
D6	M3x0.5P	M5x0.8P	M6x1.0P	-	-	-
D7	72	86	118	-	-	-
D8 <sub>H7</sub>	3	5	6	-	-	-
D9	3.4	4.5	5.5	-	-	-
D10	46.2	63.2	89.2	-	-	-
L1	4	8	12	-	-	-
L2	6	7.2	12	-	-	-
L3	3	3	6	-	-	-
L4	19.5	19.5	30	-	-	-
L5	7	7	10	-	-	-
L6	4	4	7	-	-	-
L7	32.2	44.8	55	-	-	-
L8	13.5	21.5	22	-	-	-
L9	4	6	7	-	-	-
L10	92.2	128.3	173.6	-	-	-
C1 <sup>2</sup>	46	70	90	-	-	-
C2 <sup>2</sup>	M4x0.7P	M5x08P	M6x1.0P	-	-	-
C3 <sup>2</sup>	≤ 8	≤ 14	≤19/≤24	-	-	-
C4 <sup>2</sup>	29	34	44	-	-	-
C5 <sup>2</sup> <sub>F6</sub>	30	50	70	-	-	-
C6 <sup>2</sup>	6	5	5	-	-	-
C7 <sup>2</sup>	42.6	60	90	-	-	-
C8 <sup>2</sup>	25	33	35	-	-	-
C9 <sup>2</sup>	78.5	112.8	137.5	-	-	-

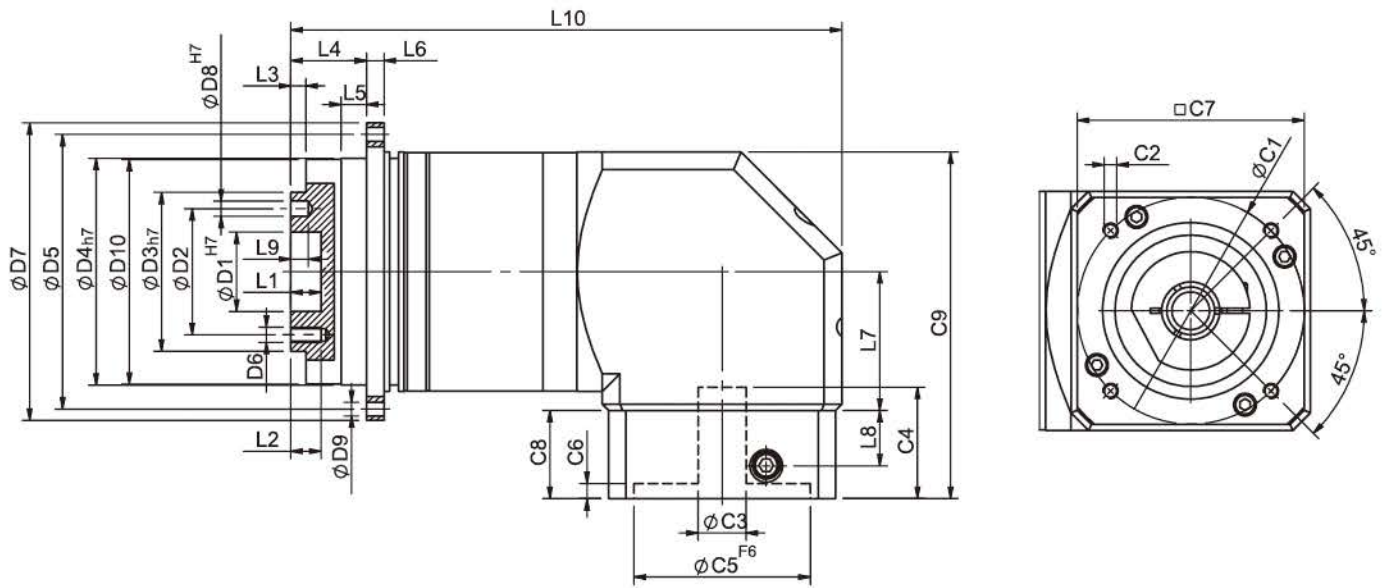
★ C1~C9是公製標準馬達連接板尺寸,請依所選用的馬達決定。

★ 本公司有權針對以上數據規格逕行設計變更不先行告知。

★ C1~C9 are motor specific dimensions(metric std shown ),  
Size may vary according to motor flange.

★ Specification subject to change without notice.

## PHFR Double Stage Dimensions-1 PHFR雙段外型尺寸圖-1



## Specifications 規格

Unit:mm

尺寸 Dimensions	PHFR42	PHFR60	PHFR90
D1 <sub>H7</sub>	12	20	31.5
D2	20	31.5	50
D3 <sub>H7</sub>	28	40	63
D4 <sub>H7</sub>	47	64	90
D5	67	79	109
D6	M3x0.5P	M5x0.8P	M6x1.0P
D7	72	86	118
D8 <sub>H7</sub>	3	5	6
D9	3.4	4.5	5.5
D10	46.2	63.2	89.2
L1	4	8	12
L2	6	7.2	12
L3	3	3	6
L4	19.5	19.5	30
L5	7	7	10
L6	4	4	7
L7	32.2	44.8	55
L8	13.5	21.5	22
L9	4	6	7
L10	119.9	163.3	218.6
C1 <sup>2</sup>	46	70	90
C2 <sup>2</sup>	M4x0.7P	M5x0.8P	M6x1.0P
C3 <sup>2</sup>	≤ 8	≤ 14	≤ 19/≤ 24
C4 <sup>2</sup>	29	34	44
C5 <sup>2</sup> <sub>F6</sub>	30	50	70
C6 <sup>2</sup>	6	5	5
C7 <sup>2</sup>	42.6	60	90
C8 <sup>2</sup>	25	33	35
C9 <sup>2</sup>	78.5	112.8	137.5

★ C1~C9是公製標準馬達連接板尺寸,請依所選用的馬達決定。

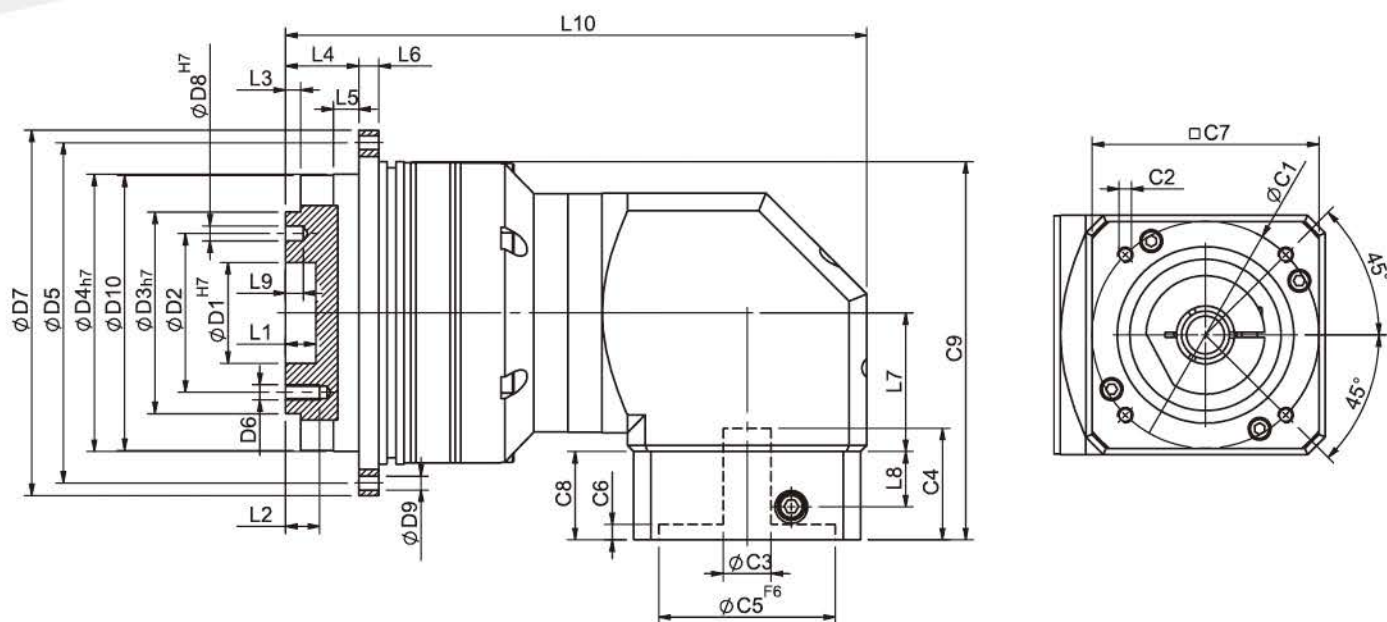
★ 本公司有權針對以上數據規格進行設計變更不先行告知。

★ C1~C9 are motor specific dimensions(metric std shown ), Size may vary according to motor flange.

★ Specification subject to change without notice.



## PHFR Double Stage Dimensions-2 PHFR雙段外型尺寸圖-2



## Specifications 規格

Unit:mm

尺寸 Dimensions	PHFR60T	PHFR90T	PHFR115T	PHFR142T	PHFR200T	PHFR255T
D1 <sub>H7</sub>	20	31.5	40	-	-	-
D2	31.5	50	63	-	-	-
D3 <sub>h7</sub>	40	63	80	-	-	-
D4 <sub>h7</sub>	64	90	110	-	-	-
D5	79	109	135	-	-	-
D6	M5x0.8P	M6x1.0P	M6x1.0P	-	-	-
D7	86	118	145	-	-	-
D8 <sub>H7</sub>	5	6	6	-	-	-
D9	4.5	5.5	5.5	-	-	-
D10	63.2	89.2	109.2	-	-	-
L1	8	12	12	-	-	-
L2	7.2	12	13.5	-	-	-
L3	3	6	6	-	-	-
L4	19.5	30	29	-	-	-
L5	7	10	10	-	-	-
L6	4	7	8	-	-	-
L7	32.2	44.8	55	-	-	-
L8	13.5	21.5	22	-	-	-
L9	4	7	7	-	-	-
L10	130.6	173.8	230.6	-	-	-
C1 <sup>2</sup>	46	70	90	-	-	-
C2 <sup>2</sup>	M4x0.7P	M5x0.8P	M6x1.0P	-	-	-
C3 <sup>2</sup>	≤ 8	≤ 14	≤ 19/≤ 24	-	-	-
C4 <sup>2</sup>	29	34	44	-	-	-
C5 <sup>2</sup> <sub>F6</sub>	30	50	70	-	-	-
C6 <sup>2</sup>	6	5	5	-	-	-
C7 <sup>2</sup>	42.6	60	90	-	-	-
C8 <sup>2</sup>	25	33	35	-	-	-
C9 <sup>2</sup>	84.4	125.3	150	-	-	-

★ C1~C9是公製標準馬達連接板尺寸,請依所選用的馬達決定。

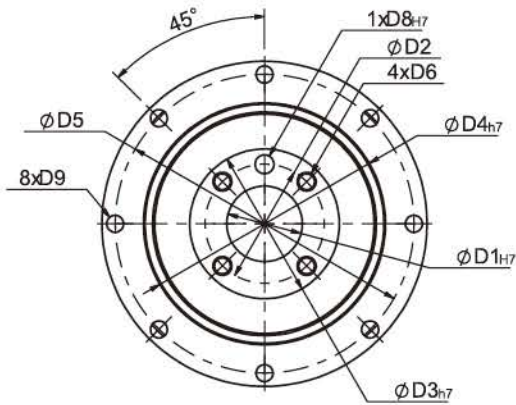
★ 本公司有權針對以上數據規格進行設計變更不先行告知。

★ C1~C9 are motor specific dimensions(metric std shown ), Size may vary according to motor flange.

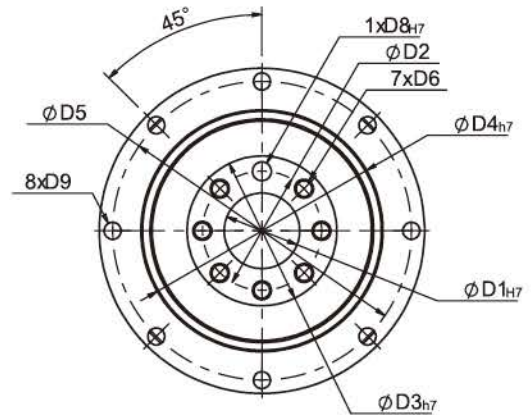
★ Specification subject to change without notice.

## PHFR Flange Dimensions PHFR法蘭面尺寸圖

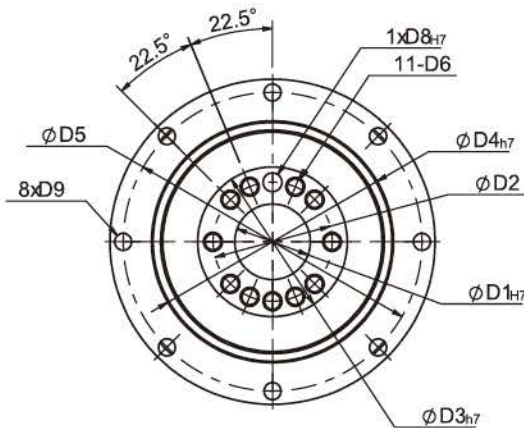
### PHFR42



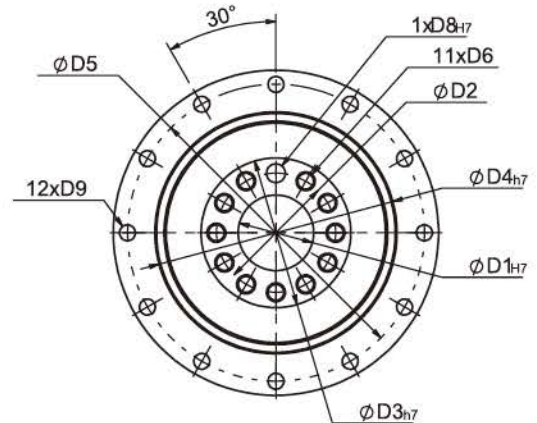
### PHFR60 PHFR90



### PHFR115



### PHFR142 PHFR200



## Specifications 規格

Unit:mm

尺寸 Dimensions	PHFR42	PHFR60	PHFR90	PHFR115	PHFR142	PHFR200
D1 H7	12	20	31.5	40	50	80
D2	20	31.5	50	63	80	125
D3 h7	28	40	63	80	100	160
D4 h7	47	64	90	110	140	200
D5	67	79	109	135	168	233
D6	M3x0.5P	M5x0.8P	M6x1.0P	M6x1.0P	M8x1.25P	M10x1.5P
D8 H7	3	5	6	6	8	10
D9	3.4	4.5	5.5	5.5	6.6	9

★ 本公司有權針對以上數據規格進行設計變更不先行告知。

★ Specification subject to change without notice.

## PHFR Specifications Table PHFR性能規格共表

規格 Specifications		節數 Stage	減速比 Ratio	PHFR-42	PHFR-60	PHFR-90	PHFR-115	PHFR-142	PHFR-200	PHFR-255
額定輸出力矩 T <sub>2N</sub> Nominal Output Torque	N • m	1	3	-	40	105	180	310	580	1100
			4	16	43	110	240	450	1100	1700
			5	17	50	130	290	530	1200	2000
			7	14	44	125	270	450	1100	1750
			10	11	37	95	220	360	900	1450
			14	14	44	125	270	450	1100	1750
		20	11	37	95	220	360	900	1450	
		節數 Stage	減速比 Ratio	PHFR-42	PHFR-60 (T)	PHFR-90(T)	PHFR-115T	PHFR-142T	PHFR-200T	PHFR-255T
		2	15	-	40	105	180	310	580	2000
			20	16	43	110	240	450	1100	2000
			25	17	50	130	290	530	1200	2000
			30	17	50	130	290	530	1200	2000
			35	17	50	130	290	530	1200	2000
			40	17	50	130	290	530	1200	2000
			50	17	50	130	290	530	1200	2000
			70	14	44	125	270	450	1100	1750
			100	11	37	95	220	360	900	1450
			140	14	44	125	270	450	1100	1750
			200	11	37	95	220	360	900	1450
急停力矩 T <sub>2NOT</sub> Emergency Stop Torque	N • m		3.0 倍額定輸出力矩 ( 3.0 times of Nominal Output Torque) (* 最大輸出力矩 Max. Output Torque T <sub>2B</sub> =60% of Emergency Stop Torque)							
額定輸入轉速 $\overline{n}_{1N}$ Nominal Input Speed	rpm	1,2	3-200	5000	5000	4000	4000	3000	3000	2000
最大輸入轉速 $\overline{n}_{1max}$ Max. Input Speed	rpm	1,2	3-200	10000	10000	8000	8000	6000	6000	4000
超精密背隙 Micro Backlash P0	arcmin	1	3-20	-	-	≤ 3	≤ 2	≤ 2	≤ 2	≤ 2
		2	15-200	-	-	≤ 5	≤ 4	≤ 4	≤ 4	≤ 4
精密背隙 Precision Backlash P1	arcmin	1	3-20	≤ 5	≤ 5	≤ 5	≤ 4	≤ 4	≤ 4	≤ 4
		2	15-200	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
標準背隙 Standard Backlash P2	arcmin	1	3-20	≤ 7	≤ 7	≤ 7	≤ 6	≤ 6	≤ 6	≤ 6
		2	15-200	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
扭轉剛性Torsional Rigidity	N • m /arcmin	1,2	3-100	6	12	30	80	150	450	1000
容許彎曲力矩 M <sub>2kB</sub> <sup>1</sup> Max. Bending Moment	N • m	1,2	3-100	43	125	288	503	1470	2950	6500
容許軸向力 F <sub>2aB</sub> <sup>1</sup> Max. Axial Load	N	1,2	3-100	1015	1340	2868	3890	9850	12560	21850
使用溫度 Operating Temp.	°C		3-100	-10 °C ~ +90 °C						
使用壽命Service Life	hr		3-100	20,000 (10,000/ 連續運轉 Continuous operation)						
效率 Efficiency	%	1	3-10	≥ 95%						
		2	12-100	≥ 92%						
重量 Weight	kg	1	3-10	1.0	2.6	6.6	13.5	25.1	50	85
		2	12-100	1.1	3.3/2.2	8.6/5.3	14.8	26.7	55	88
安裝方向 Mounting Position	-	1,2	3-100	任意方向Any direction						
噪音值 Noise Level <sup>2</sup>	dBA/1m	1,2	3-100	62	64	66	68	70	72	74
防護等級 Protection Class	-	1,2	3-100	IP65						
潤滑 Lubrication	-	1,2	3-100	全合成潤滑油 Synthetic Lubricant						
減速機轉動慣量 Inertia(J1)										
節數Stage	減速比Ratio	單位unit		PHFR-42	PHFR-60	PHFR-90	PHFR-115	PHFR-142	PHFR-200	PHFR-255
1	3/4/5/7/9	Kg • cm <sup>2</sup>		0.06	0.40	2.28	6.87	24.2	69.8	138.2
	10/14/20			0.05	0.30	1.45	4.76	14.5	50.3	103.6
節數Stage	減速比Ratio			PHFR-42	PHFR-60(T)	PHFR-90(T)	PHFR-115T	PHFR-142T	PHFR-200T	PHFR-255T
2	15/20/25/35			0.06	0.40(0.08)	2.28(0.72)	3.02	7.83	27.7	80.3
	others			0.05	0.30(0.06)	1.45(0.38)	1.64	5.00	15.9	55.3
* 1. 輸出轉速 100rpm 時,作用於輸出軸中心位置 Applied to the output shaft center @100rpm. * 2. 3000rpm 空載重測 Measured at 3000rpm with no load ※本公司有權對以上數據規格逕行設計變更不先行告知。 The above figures/specifications are subject to change without prior notice.										

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.  
產品因人為原因或天災等因素導致不良或損壞，不在保固範圍內。



PHL	PHR	PHF	PHG	PUR	PUL	PGH	PGL	PGC	PGE	PGRH	PGR	PGFR	PGF	PBC	PBE	PAE	PAC	PAN	PCS	PNS
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