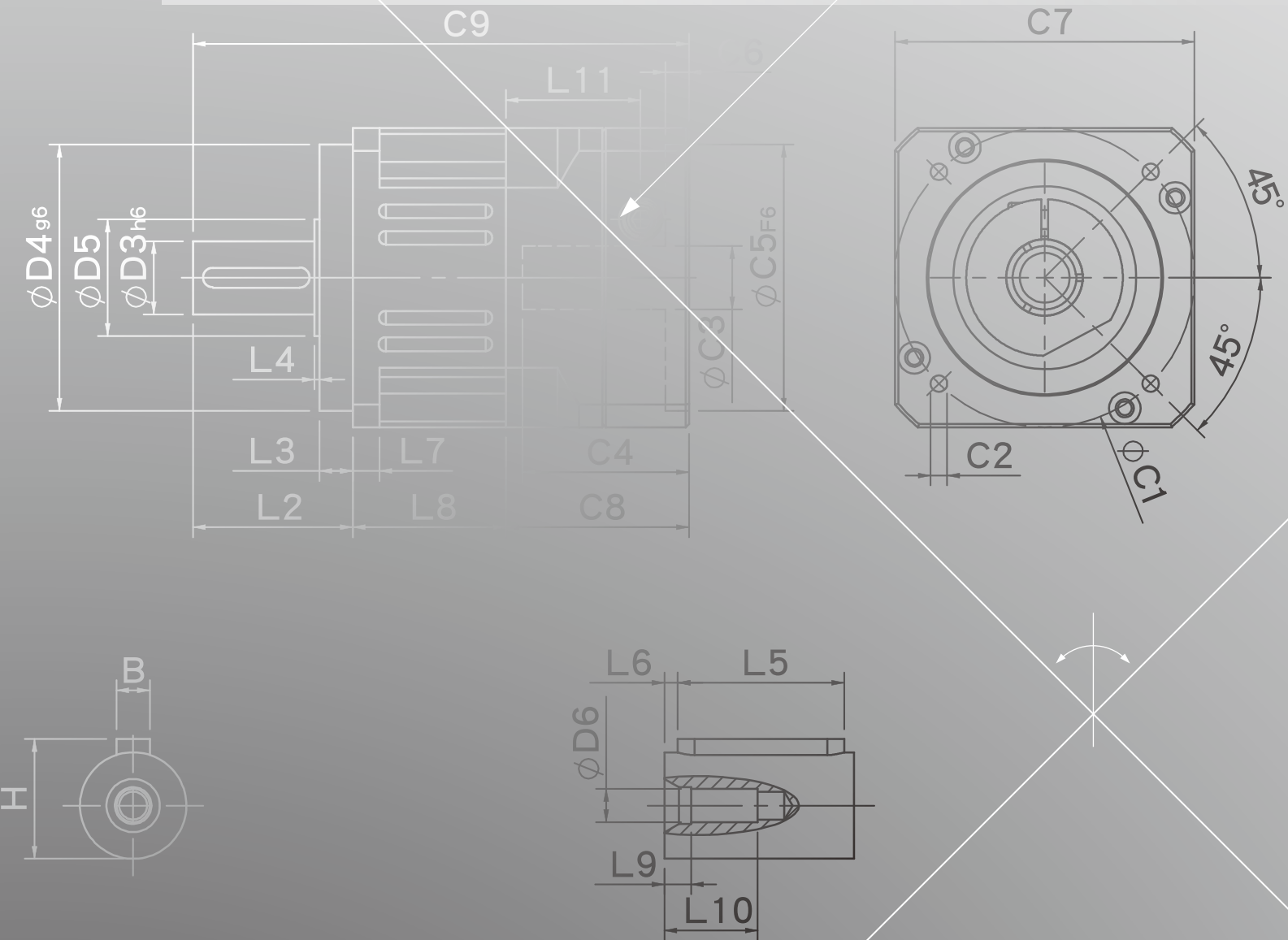
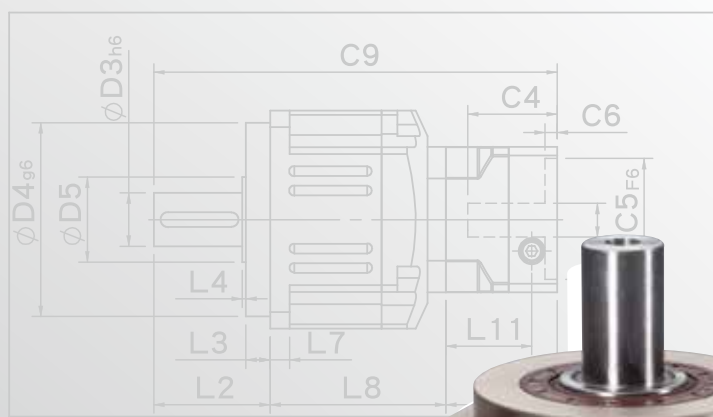
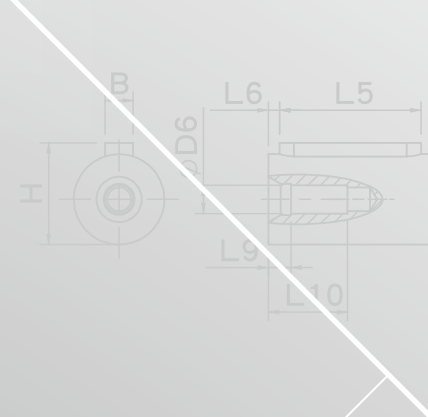
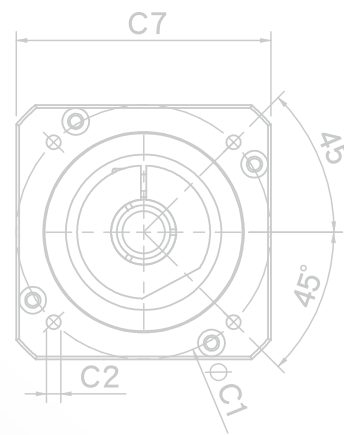
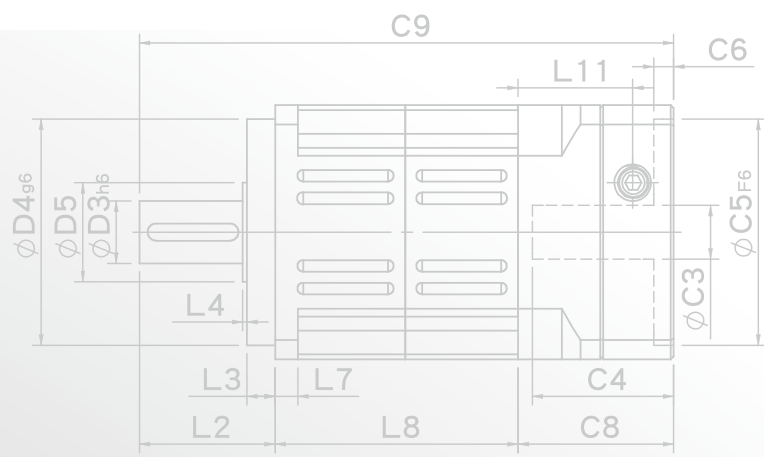
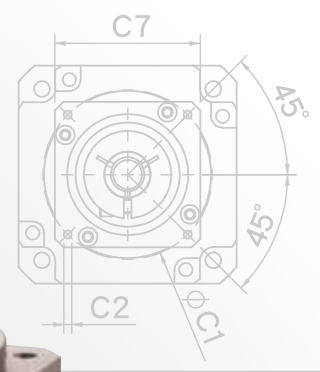


PHL SERIES

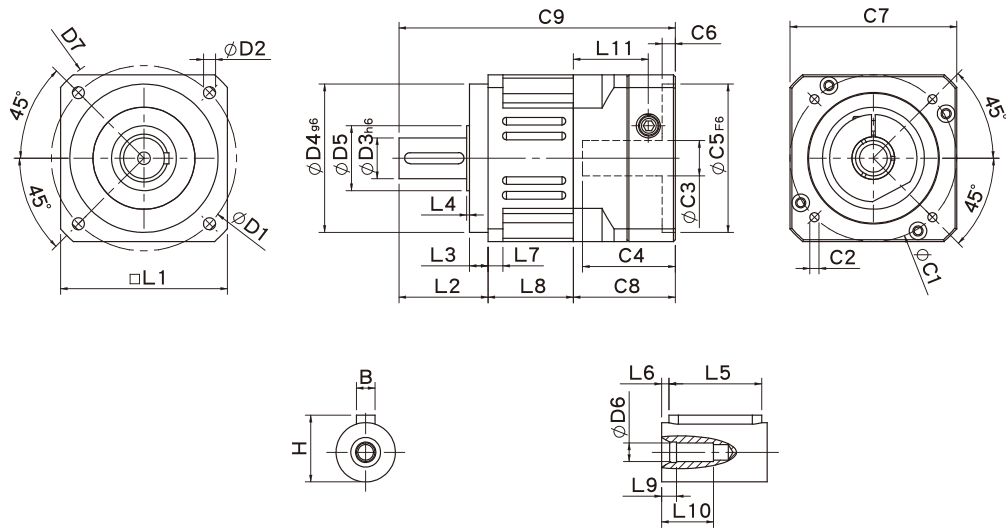




PHL60T/PHL90T/PHL115T



PHL Single Stage Dimensions PHL單段外型尺寸圖



Specifications 規格

Unit:mm

尺寸 Dimensions	PHL42	PHL60	PHL90
D1	50	70	100
D2	3.4	5.5	6.5
D3 h6	13	16	22
D4 g6	35	50	80
D5	15	25	35
D6	M4x0.7P	M5x0.8P	M8x1.25P
D7	56	80	118
L1	42.6	60	90
L2	26	37	48
L3	5.5	7	10
L4	1	1.5	1.5
L5	15	25	32
L6	2	2	3
L7	4	6	8
L8	28.3	37	46
L9	4	4	4.5
L10	14	16.5	20.5
L11	29	35.5	40.5
C1 ²	46	70	90
C2 ²	M4x0.7P	M5x0.8P	M6x1.0P
C3 ²	≤8/≤11	≤14	≤19/≤24
C4 ²	27	37	47
C5 ² F6	30	50	70
C6 ²	4	4	6
C7 ²	42.6	60	90
C8 ²	38.5	46	55
C9 ²	92.8	120	149
B	5	5	6
H	15	18	24.5

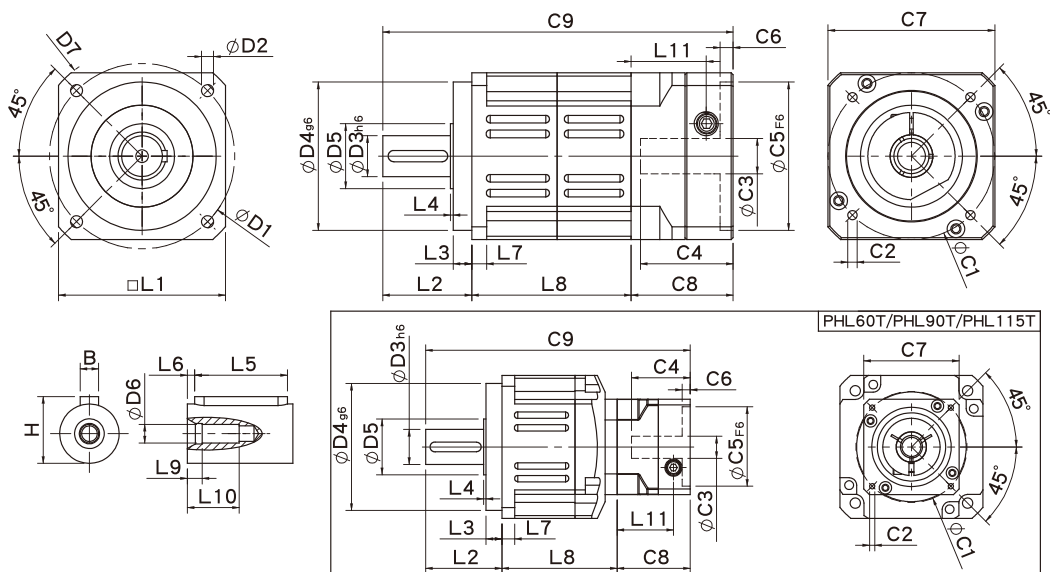
★ C1~C9是公製標準馬達連接板尺寸,請依所選用的馬達決定.

★ 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.

PHL Double Stage Dimensions PHL雙段外型尺寸圖



Specifications 規格

Unit:mm

尺寸 Dimensions	PHL42	PHL60	PHL60T	PHL90	PHL90T
D1	50		70		100
D2	3.4		5.5		6.5
D3 _{h6}	13		16		22
D4 _{g6}	35		50		80
D5	15		25		35
D6	M4x0.7P		M5x0.8P		M8x1.25P
D7	56		80		118
L1	42.6		60		90
L2	26		37		48
L3	5.5		7		10
L4	1.5		1.5		1.5
L5	15		25		32
L6	2		2		3
L7	4		6		8
L8	55.3	70	65.5	86	78.5
L9	4		4		4.5
L10	14		16.5		20.5
L11	29	35.5	29	40.5	35.5
C1 ²	46	70	46	90	70
C2 ²	M4x0.7P	M5x0.8P	M5x0.8P	M6x1.0P	M5x0.8P
C3 ²	≤8/≤11	≤14	≤8/≤11	≤19/≤24	≤14
C4 ²	27	37	27	47	37
C5 ² _{F6}	30	50	30	70	50
C6 ²	4	4	4	6	4
C7 ²	42.6	60	42.6	90	60
C8 ²	38.5	46	38.5	55	46
C9 ²	119.8	153	141	189	172.5
B	5		5		6
H	15		18		24.5

★ 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.

● PHL Specifications Table PHL性能規格共表

規格 Specifications		節數 Stage	減速比 Ratio	PHL-42	PHL-60	PHL-90	
額定輸出力矩 T_{2N} Nominal Output Torque	N • m	1	3	19	53	145	
			4	20	55	150	
			5	17	54	140	
			6	15	46	135	
			7	14	44	125	
			8	12	41	110	
			9	11	37	95.0	
			10	11	37	95.0	
			節數 Stage	減速比 Ratio	PHL-42	PHL-60(T)	PHL-90(T)
			2	15	19	53	145
		20		20	55	150	
		25		17	54	140	
		30		17	54	140	
		35		17	54	140	
		40		17	54	140	
		45		17	54	140	
		50		17	54	140	
		60		15	46	135	
		70		14	44	125	
80	12	41	110				
90	11	37	95				
100	11	37	95				
急停力矩 T_{2NOT} 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_{2B} =60% of Emergency Stop Torque)					
額定輸入轉速 n_{1N} Nominal Input Speed	rpm	1,2	3-100	5000	5000	4000	
最大輸入轉速 n_{1max} Max. Input Speed	rpm	1,2	3-100	10000	10000	8000	
超精密背隙 Micro Backlash P0	arcmin	1	3-10	≤ 1	≤ 1	≤ 1	
		2	15-100	≤ 3	≤ 3	≤ 3	
精密背隙 Precision Backlash P1	arcmin	1	3-10	≤ 3	≤ 3	≤ 3	
		2	15-100	≤ 5	≤ 5	≤ 5	
標準背隙 Standard Backlash P2	arcmin	1	3-10	≤ 5	≤ 5	≤ 5	
		2	15-100	≤ 7	≤ 7	≤ 7	
扭轉剛性 Torsional Rigidity	N • m /arcmin	1,2	3-100	2.5	6	12	
容許徑向力 F_{2rB}^1 Max. Radial Load	N	1,2	3-100	760	1570	2780	
容許軸向力 F_{2aB}^1 Max. Axial Load	N	1,2	3-100	410	750	1870	
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	≥ 97%			
		2	15-100	≥ 94%			
重量 Weight	kg	1	3-10	0.6	1.3	3.5	
		2	15-100	0.9	2.0/1.6	5.6/3.9	
安裝方向 Mounting Position	-	1,2	3-100	任意方向 Any direction			
噪音值 Noise Level ²	dB(A)/1m	1,2	3-100	56	58	60	
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		PHL-42	PHL-60	PHL-90	
1	3	Kg • cm ²		0.03	0.23	0.97	
	4			0.02	0.18	0.67	
	5			0.02	0.17	0.65	
	6/7/8			0.02	0.14	0.60	
	9/10			0.02	0.14	0.58	
節數 Stage	減速比 Ratio			PHL-42	PHL-60(T)	PHL-90(T)	
2	15/20/25			0.02	0.17(0.02)	0.65(0.17)	
	30/35/40			0.02	0.14(0.02)	0.60(0.14)	
	45/50/60/70/80/90/100			0.02	0.14(0.02)	0.58(0.14)	

* 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 空載量測。Measured at 3000 rpm with no load. These values are measured by gearbox with ratio = 10 (1-stage) or ratio = 100 (2-stage) at nominal input speed or 3000 rpm (if nominal input speed is higher than 3000 rpm) with no load.
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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。