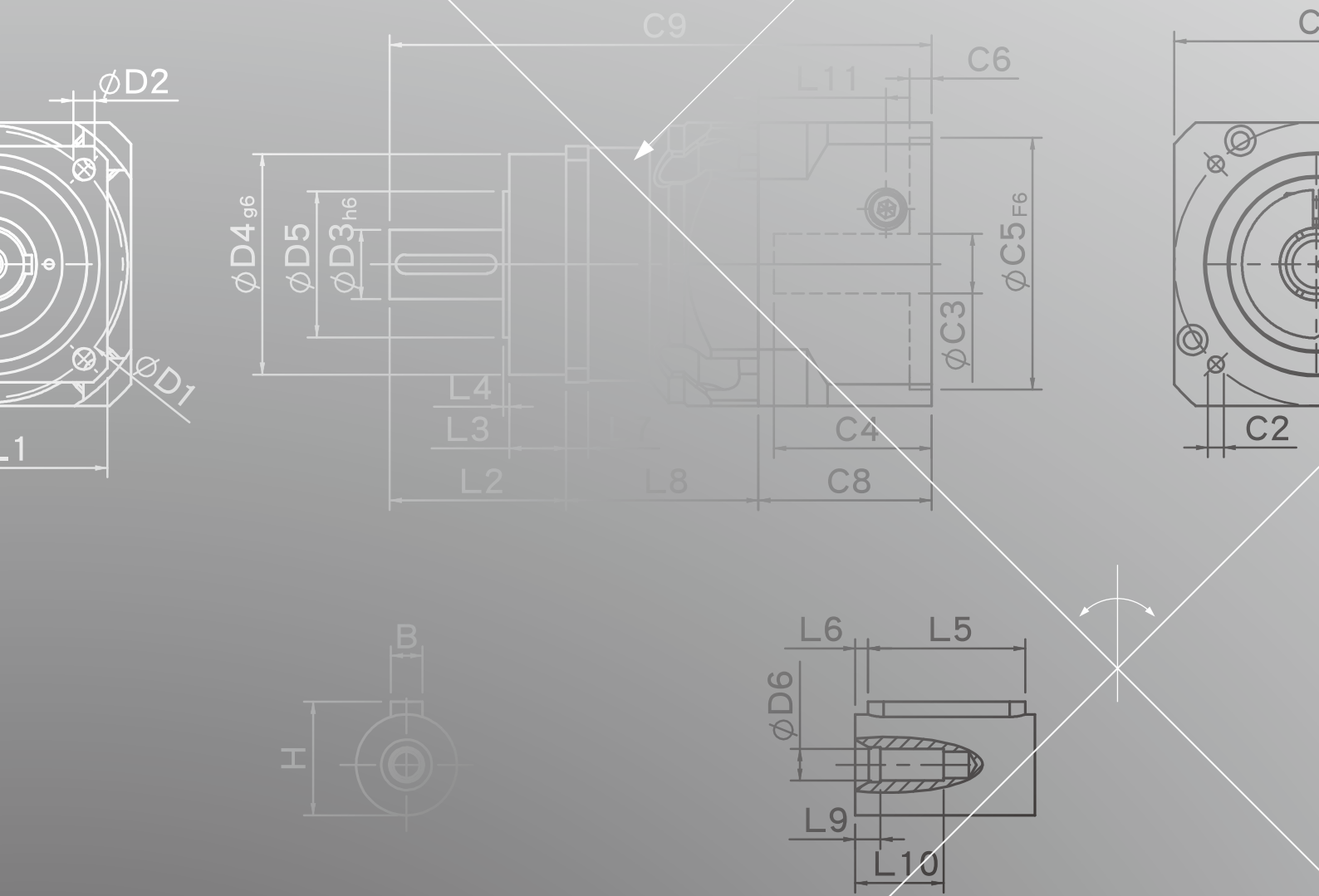
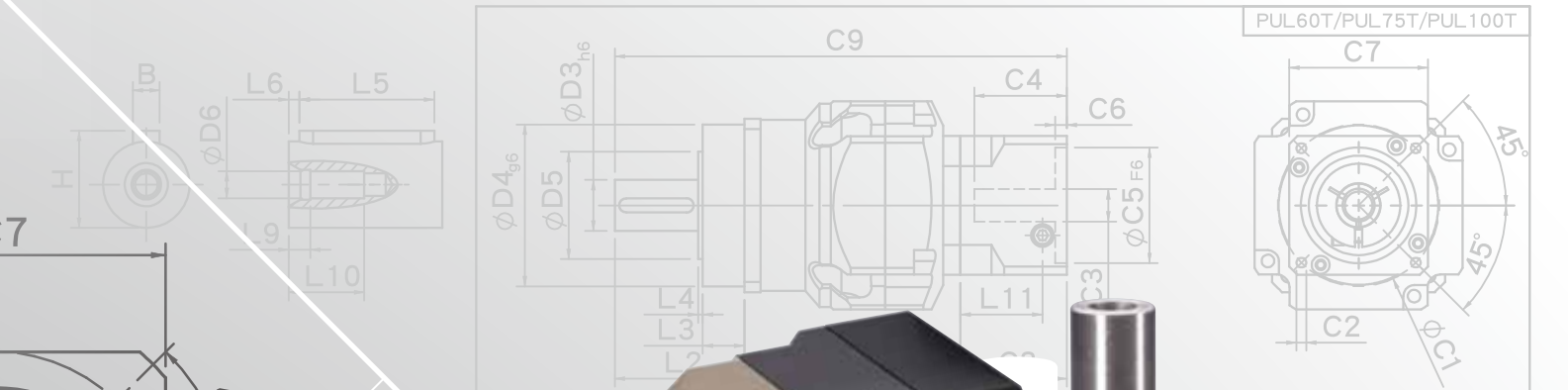
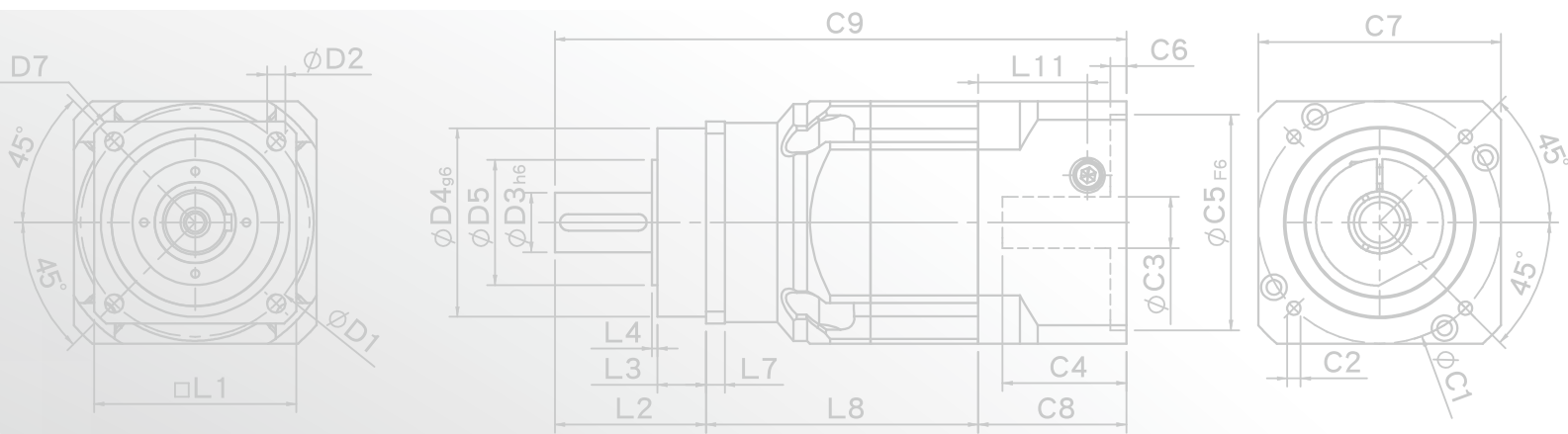


# ***PUL*** SERIES

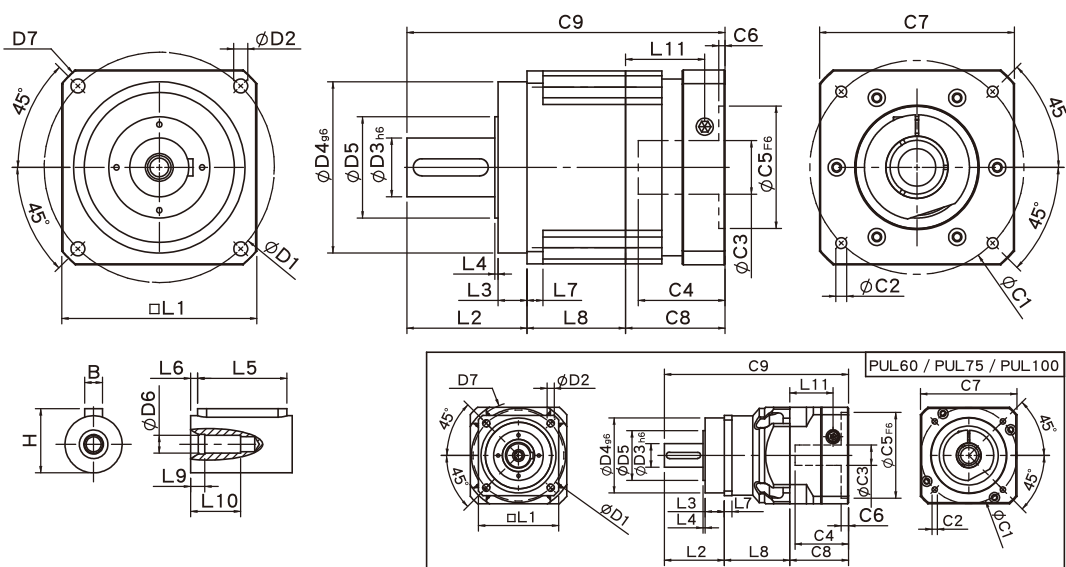




PUL60T/PUL75T/PUL100T



## PUL Single Stage Dimensions PUL單段外型尺寸圖



## Specifications 規格

Unit:mm

尺寸 Dimensions	PUL60	PUL75	PUL100	PUL140	PUL180	PUL220
D1	68	85	120	165	215	250
D2	5.5	6.8	9	11	13	17
D3 <sub>h6</sub>	16	22	32	40	55	75
D4 <sub>g6</sub>	60	70	90	130	160	180
D5	34.6	46.4	59.6	79.2	94.5	114.4
D6	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P	M20x2.5P	M20x2.5P
D7	80	100	138	186	239	292
L1	62	76	105	142	180	220
L2	48.5	56	88	112	112	138
L3	18.5	18	28	27	27	30
L4	1.5	2	2	3	3	3
L5	25	32	40	60	70	90
L6	2	2	5	5	6	7
L7	6	7	10	12	15	20
L8	44	61	46	64.5	92	111
L9	4	4.5	6	6	8	15
L10	16.5	20.5	30	38	48	42
L11	35.5	40.5	41.8	70	74	96
C1 <sup>2</sup>	70	90	115	165	200	235
C2 <sup>2</sup>	M5x0.8P	M6x1P	M8x1.25P	M10x1.5P	M12x1.75P	M12x1.75P
C3 <sup>2</sup>	≤14/≤19	≤19/≤24	≤24/≤32/≤38	≤35/≤38	≤50	≤55
C4 <sup>2</sup>	37	47	51	66.7	81	112
C5 <sup>2</sup> <sub>F6</sub>	50	70	95	130	114.3	200
C6 <sup>2</sup>	4	6	6	5.5	6	6
C7 <sup>2</sup>	60	90	115	140	182	220
C8 <sup>2</sup>	46	55	58	87.2	93	120
C9 <sup>2</sup>	138.5	172	192	263.7	297	369
B	5	6	10	12	16	20
H	18	24.5	35	43	59	79.5

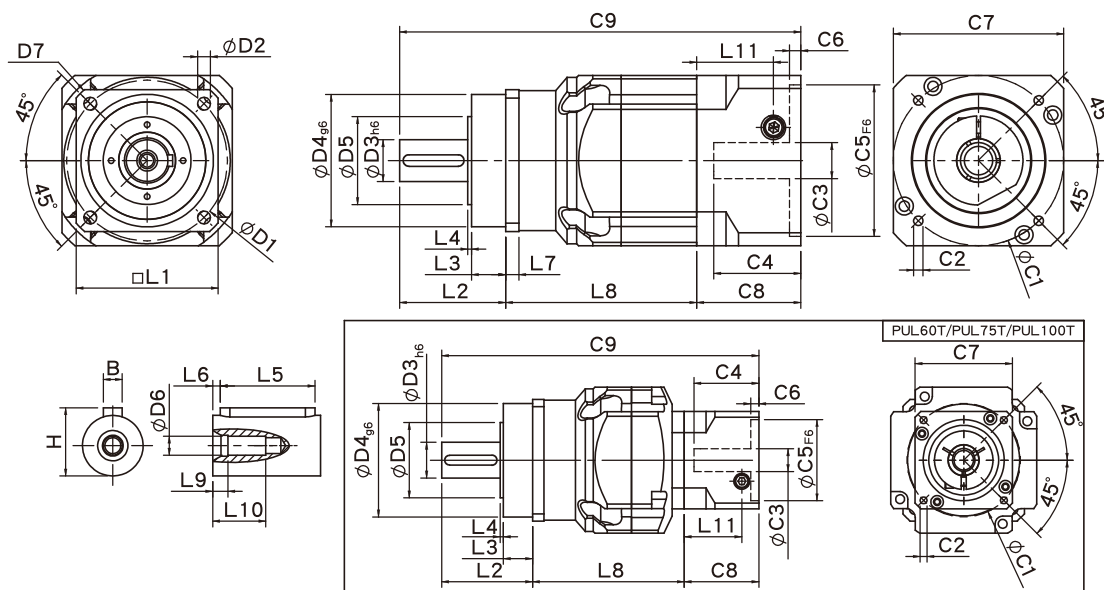
★ C1~C9是公製標準馬達連接板尺寸,請依所選用的馬達決定。

★ 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 the motor flange chosen.

★ Specification subject to change without notice.

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

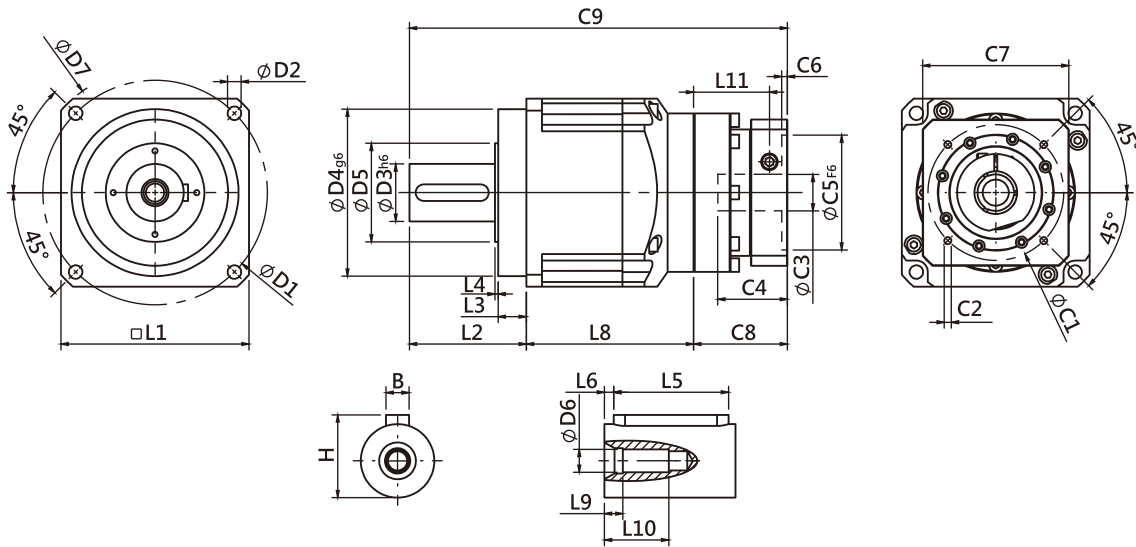


## Specifications 規格 Unit:mm

尺寸 Dimensions	PUL60/PUL60T		PUL75/PUL75T		PUL100T
D1	68		85		120
D2	5.5		6.8		9
D3 <sub>h6</sub>	16		22		32
D4 <sub>g6</sub>	60		70		90
D5	34.6		46.4		59.6
D6	M5x0.8P		M8x1.25P		M12x1.75P
D7	80		100		138
L1	62		76		105
L2	48.5		56		88
L3	18.5		18		28
L4	1.5		2		2
L5	25		32		40
L6	2		2		5
L7	6		7		10
L8	77	72.5	101	93.5	88.5
L9	4		4.5		6
L10	16.5		20.5		30
L11	35.5	29	40.5	35.5	40.5
C1 <sup>2</sup>	70	46	90	70	90
C2 <sup>2</sup>	M5x0.8P	M4x0.7P	M6x1P	M5x0.8P	M6x1P
C3 <sup>2</sup>	≤14/≤19	≤8/≤11	≤19/≤24	≤14/≤19	≤19/≤24
C4 <sup>2</sup>	37	27	47	37	47
C5 <sup>2</sup> <sub>F6</sub>	50	30	70	50	70
C6 <sup>2</sup>	4	4	6	4	6
C7 <sup>2</sup>	60	42.6	90	60	90
C8 <sup>2</sup>	46	38.5	55	46	55
C9 <sup>2</sup>	171.5	159.5	212	195.5	231.5
B	5		6		10
H	18		24.5		35

★ C1~C9是公製標準馬達連接板尺寸,請依所選用的馬達決定。  
 ★ C1~C9 are motor specific dimensions(metric std shown), Size may vary according to the motor flange chosen.  
 ★ 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.

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



## Specifications 規格

Unit:mm

尺寸 Dimensions	PUL140T	PUL180T	PUL220T
D1	165	215	250
D2	11	13	17
D3 <sub>h6</sub>	40	55	75
D4 <sub>g6</sub>	130	160	180
D5	79.2	94.5	114.4
D6	M16x2.0P	M20x2.5P	M20x2.5P
D7	186	239	292
L1	142	180	220
L2	112	112	138
L3	27	27	30
L4	3	3	3
L5	60	70	90
L6	5	6	7
L7	12	15	20
L8	120	160.2	202
L9	6	8	15
L10	38	48	42
L11	41.8	72.6	74
C1 <sup>2</sup>	130	130	200
C2 <sup>2</sup>	M8x1.25P	M8x1.25P	M12x1.75P
C3 <sup>2</sup>	≤24/≤32/≤38	≤35/≤38	≤50
C4 <sup>2</sup>	51	66.7	81
C5 <sup>2</sup> <sub>F6</sub>	110	110	114.3
C6 <sup>2</sup>	6	5.5	6
C7 <sup>2</sup>	115	140	180
C8 <sup>2</sup>	58	89.8	93
C9 <sup>2</sup>	290	362	433
B	12	16	20
H	43	59	79.5

★ 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 the motor flange chosen.

★ Specification subject to change without notice.

## PUL Specifications Table PUL性能規格共表

規格 Specifications		節數 Stage	減速比 Ratio	PUL-60	PUL-75	PUL-100	PUL-140	PUL-180	PUL-220	
額定輸出力矩 $T_{2N}$ Nominal Output Torque	N • m	1	3	53	145	180	340	580	1100	
			4	55	150	240	500	1100	1700	
			5	54	140	290	600	1200	2000	
			6	46	135	280	560	1100	1850	
			7	44	125	270	530	1100	1750	
			8	41	110	240	480	1000	1550	
			9	37	95	220	430	900	1500	
			10	37	95	220	430	900	1450	
			節數 Stage	減速比 Ratio	PUL-60 (T)	PUL-75(T)	PUL-100T	PUL-140T	PUL-180T	PUL-220T
			2	15	53	145	180	520	1200	2000
		20		55	150	240	600	1200	2000	
		25		54	140	290	600	1200	2000	
		30		54	140	290	600	1200	2000	
		35		54	140	290	600	1200	2000	
		40		54	140	290	600	1200	2000	
		45		54	140	290	600	1200	2000	
		50		54	140	290	600	1200	2000	
		60		46	135	280	560	1200	1850	
		70		44	125	270	530	1100	1750	
80	41	110	240	480	1000	1550				
90	37	95	220	430	900	1500				
100	37	95	220	430	900	1450				
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	4000	4000	3000	3000	2000	
最大輸入轉速 $n_{1max}$ Max. Input Speed	rpm	1,2	3-100	10000	8000	8000	6000	6000	4000	
超精密背隙 Micro Backlash P0	arcmin	1	3-10	≤ 2	≤ 2	≤ 1	≤ 1	≤ 1	≤ 1	
		2	12-100	≤ 4	≤ 4	≤ 3	≤ 3	≤ 3	≤ 3	
精密背隙 Precision Backlash P1	arcmin	1	3-10	≤ 4	≤ 4	≤ 3	≤ 3	≤ 3	≤ 3	
		2	12-100	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5	≤ 5	
標準背隙 Standard Backlash P2	arcmin	1	3-10	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5	≤ 5	
		2	12-100	≤ 8	≤ 8	≤ 7	≤ 7	≤ 7	≤ 7	
扭轉剛性Torsional Rigidity	N • m /arcmin	1,2	3-100	7	14	25	50	150	220	
容許徑向力 $F_{2RB}^1$ Max. Radial Load	N	1,2	3-100	4130	5220	10650	17600	22000	27800	
容許軸向力 $F_{2aB}^1$ Max. Axial Load	N	1,2	3-100	2500	3300	5700	11300	14000	16200	
使用溫度 Operating Temp.	°C		3-100	-10 °C ~ +90 °C						
使用壽命Service Life	hr		3-100	30,000 (15,000/ 連續運轉 Continuous operation)						
效率 Efficiency	%	1	3-10	≥ 97%						
		2	12-100	≥ 94%						
重量 Weight	kg	1	3-10	1.8	4.0	6.7	15.1	30.8	55	
		2	12-100	2.4/2.0	5.7/4.5	8.2	17.5	37.0	68.5	
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	58	60	63	65	67	70	
防護等級 Protection Class	-	1,2	3-100	IP65						
潤滑 Lubrication	-	1,2	3-100	全合成潤滑油脂 Synthetic Lubricant						
減速機轉動慣量 Inertia(J1)										
節數Stage	減速比Ratio	單位unit		PUL-60	PUL-75	PUL-100	PUL-140	PUL-180	PUL-220	
1	3	Kg • cm <sup>2</sup>		0.23	0.97	2.35	10.00	30.50	79.50	
	4		0.18	0.67	1.66	7.17	25.86	58.21		
	5		0.17	0.65	1.50	6.52	23.63	54.36		
	6/7/8		0.14	0.60	1.45	6.17	22.92	54.12		
	9/10		0.14	0.58	1.41	6.10	22.73	53.98		
節數Stage	減速比Ratio			PUL-60(T)	PUL-75(T)	PUL-100T	PUL-140T	PUL-180T	PUL-220T	
2	15/20			0.17(0.02)	0.65(0.17)	0.65	1.50	6.52	30.50	
	25/30/35/40			0.14(0.02)	0.60(0.14)	0.60	1.45	6.17	22.92	
	45/50/60/70/80/90/100			0.14(0.02)	0.58(0.14)	0.58	1.41	6.10	22.73	

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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