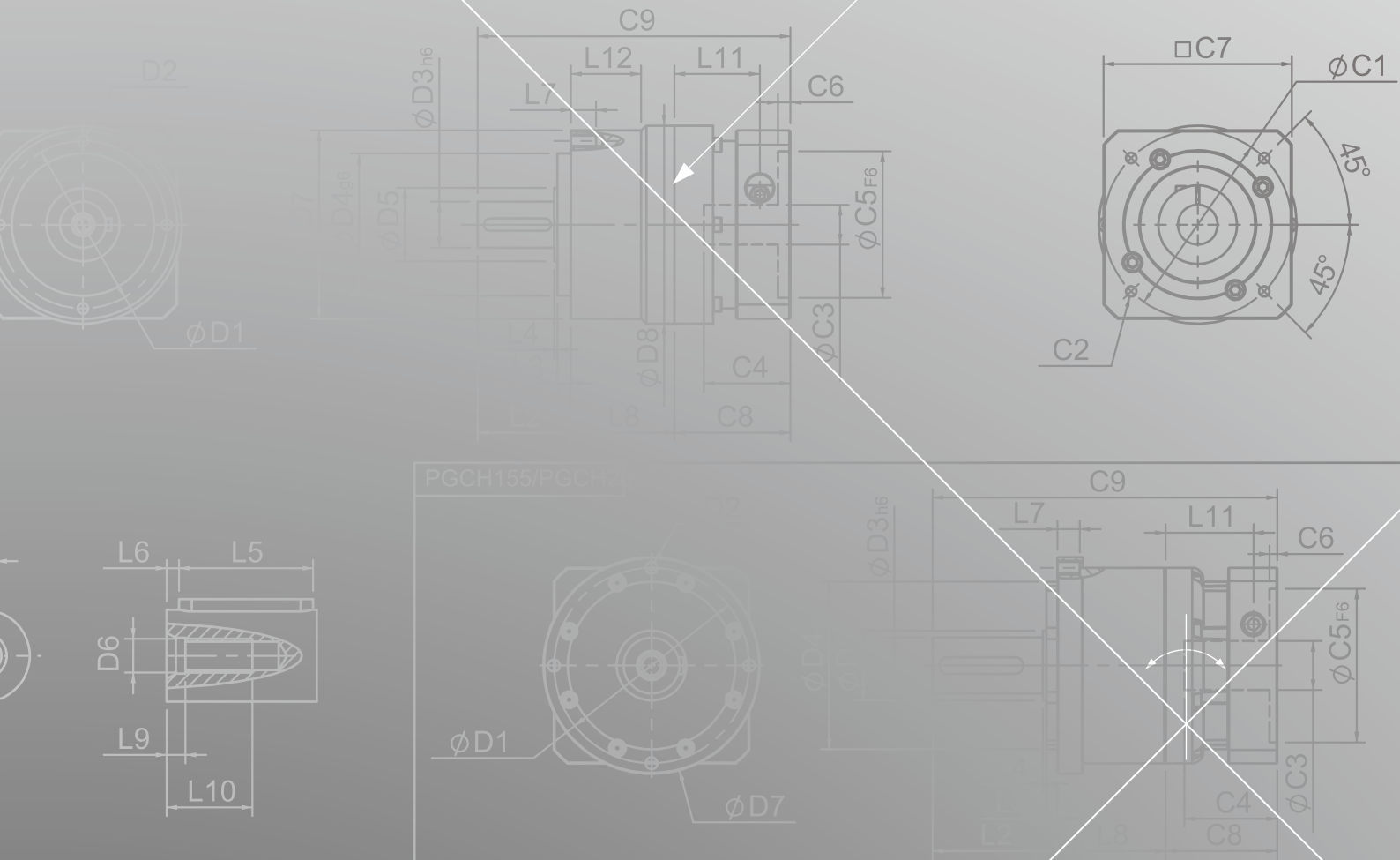
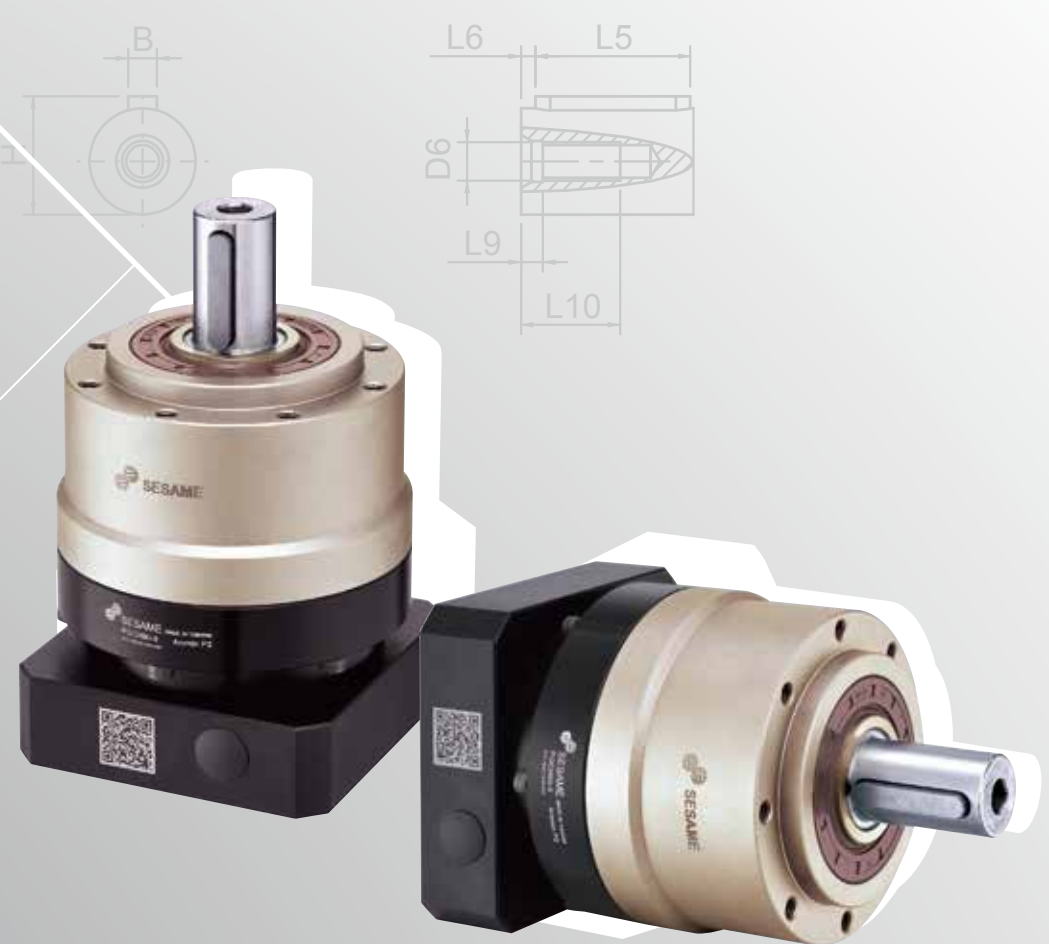
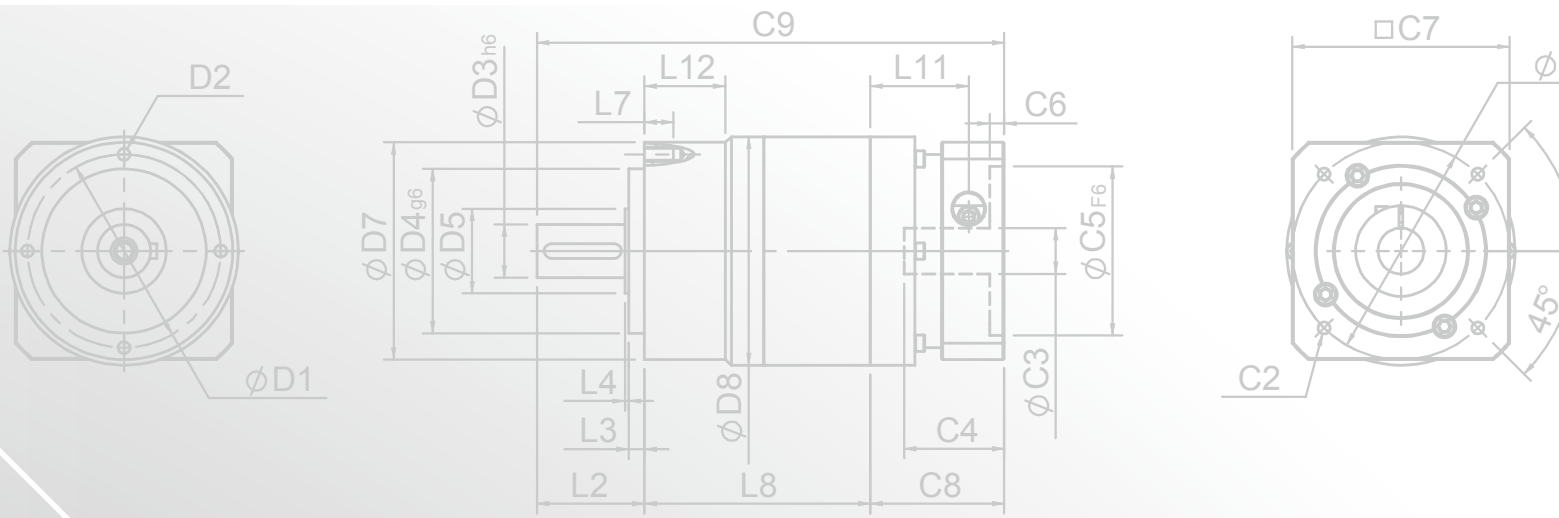
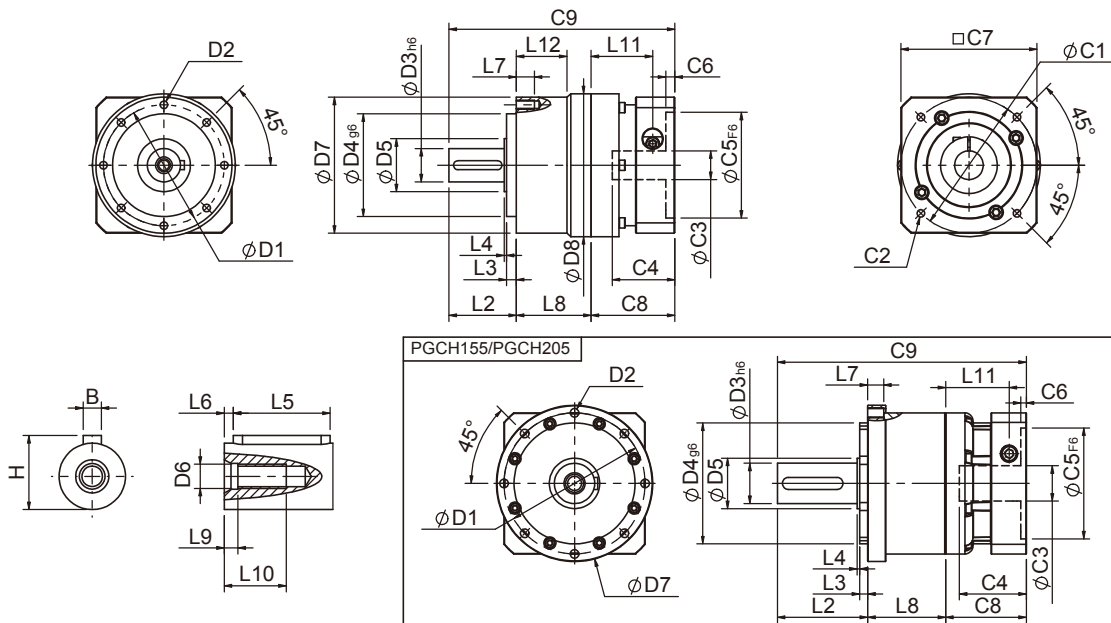


# PGCH SERIES





## PGCH Single Stage Dimensions



## Specifications

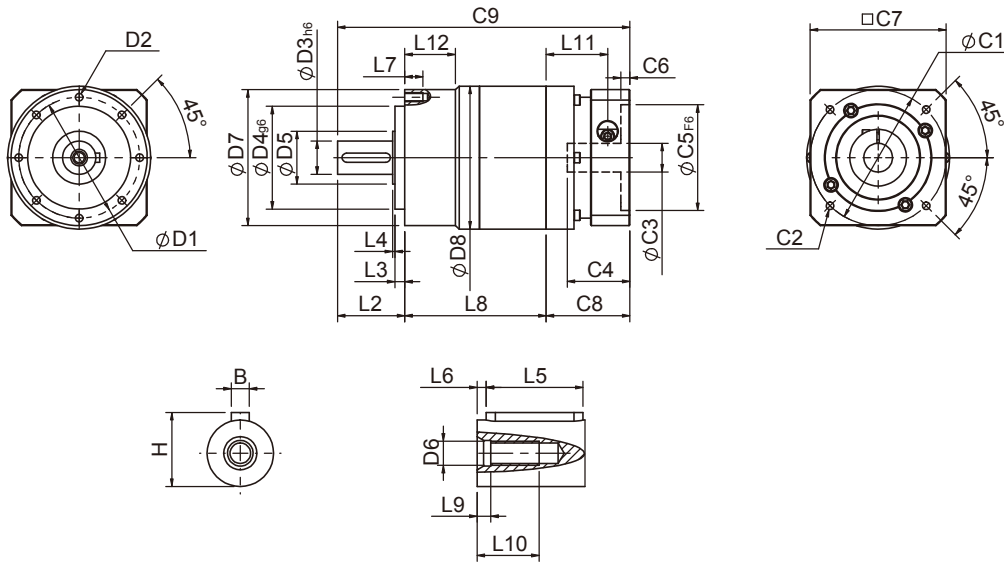
Unit:mm

Dimensions	PGCH50	PGCH70	PGCH90	PGCH120	PGCH155	PGCH205	PGCH235
D1	44	62	80	108	140	184	210
D2	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M10x1.5P	M12x1.75P	M16x2.0P
D3 <sub>h6</sub>	12	16	22	32	40	55	75
D4 <sub>g6</sub>	35	52	68	90	120	160	180
D5	15	25	35	45	50	70	114.5
D6	M4x0.7P	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P	M20x2.5P	M20x2.5P
D7	50	70	90	120	155	205	235
D8	50	70	94.5	120	-	-	253
L2	24.5	36	44.5	60	89.5	96.5	126
L3	4	6	6.5	7	8	12	18
L4	1	1.5	1.5	3.5	2.5	2.5	3
L5	15	25	32	40	60	70	90
L6	2	2	3	5	5	6	7
L7	8	10	12	16	16	20	28
L8	29.8	38	49.5	60	77.5	98	124
L9	4	4	4.5	6	6	8	15
L10	12	16.5	20.5	30	38	48	42
L11	29	35.4	40.7	53.7	63	69.5	95
L12	-	-	33.5	-	-	-	70
C1 <sup>2</sup>	46	70	90	115	145	200	235
C2 <sup>2</sup>	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M8x1.25P	M12x1.75P	M12x1.75P
C3 <sup>2</sup>	≤8/≤11	≤14/≤19	≤19/≤24	≤24/≤32/≤38	≤35/≤38	≤50	≤55
C4 <sup>2</sup>	26.5	37.6	41.4	51.3	66.5	77	112
C5 <sup>2</sup> <sub>F6</sub>	30	50	70	95	110	114.3	200
C6 <sup>2</sup>	4.1	4.5	6	6	5.5	6	6
C7 <sup>2</sup>	42	60	90	115	140	180	220
C8 <sup>2</sup>	38.1	46.5	55.4	70	80	90	120
C9 <sup>2</sup>	92.4	120.5	149.4	190	247	284.5	370
B	4	5	6	10	12	16	20
H	13.5	18	24.5	35	43	59	79.5

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

★ Specification subject to change without notice.

## PGCH Double Stage Dimensions-1



## Specifications

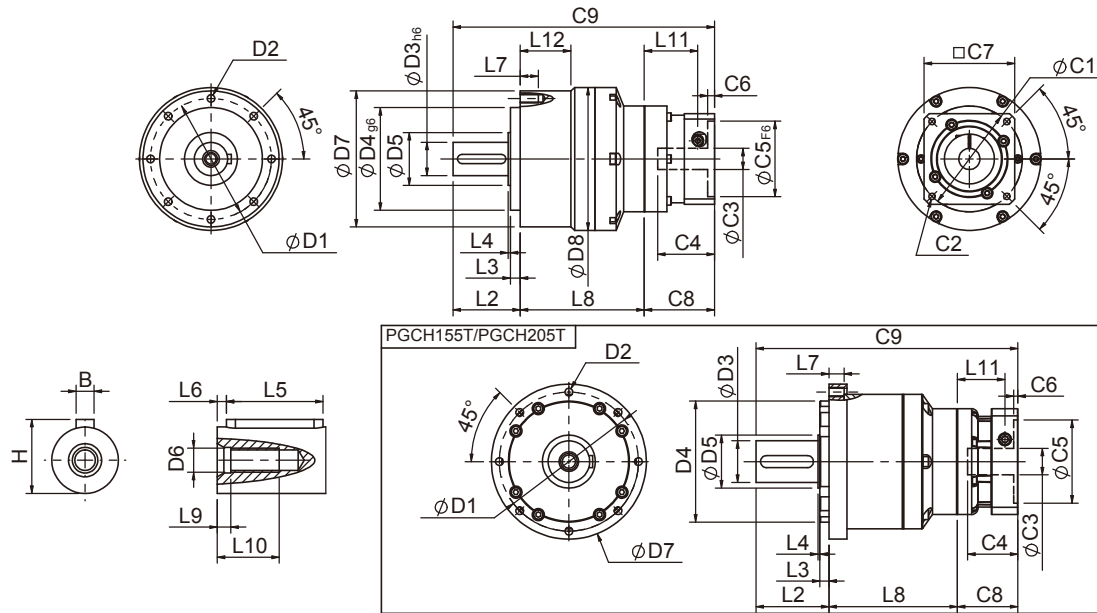
Unit:mm

Dimensions	PGCH50	PGCH70	PGCH90
D1	4	62	80
D2	M4x0.7P	M5x0.8P	M6x1.0P
D3h6	12	16	22
D4g6	35	52	68
D5	15	25	35
D6	M4x0.7P	M5x0.8P	M8x1.25P
D7	50	70	90
D8	50	70	94.5
L2	24.5	36	44.5
L3	4	6	6.5
L4	1	1.5	1.5
L5	15	25	32
L6	2	2	3
L7	8	10	12
L8	56.8	71	93.5
L9	4	4	4.5
L10	12	16.5	20.5
L11	29	35.4	40.7
L12	-	-	33.5
C1 <sup>2</sup>	46	70	90
C2 <sup>2</sup>	M4x0.7P	M5x0.8P	M6x1.0P
C3 <sup>2</sup>	≤8/≤11	≤14/≤19	≤19/≤24
C4 <sup>2</sup>	26.5	37.6	41.4
C5 <sup>2</sup> <sub>F6</sub>	30	50	70
C6 <sup>2</sup>	4.1	4.5	6
C7 <sup>2</sup>	42	60	90
C8 <sup>2</sup>	38.1	46.5	55.4
C9 <sup>2</sup>	119.4	153.5	193.4
B	4	5	6
H	13.5	18	24.5

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

★ Specification subject to change without notice.

## PGCH Double Stage Dimensions-2



## Specifications

Unit:mm

Dimensions	PGCH70T	PGCH90T	PGCH120T	PGCH155T	PGCH205T	PGCH235T
D1	62	80	108	140	184	210
D2	M5x0.8P	M6x1.0P	M8x1.25P	M10x1.5P	M12x1.75P	M16x2.0P
D3 <sub>h6</sub>	16	22	32	40	55	75
D4 <sub>g6</sub>	52	68	90	120	160	180
D5	25	35	45	50	70	114.5
D6	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P	M20x2.5P	M20x2.5P
D7	70	90	120	155	205	235
D8	70	94.5	120	-	-	253
L2	36	44.5	60	89.5	96.5	126
L3	6	6.5	7	8	12	18
L4	1.5	1.5	3.5	2.5	2.5	3
L5	25	32	40	60	70	90
L6	2	3	5	5	6	7
L7	10	12	16	16	20	28
L8	66.5	82	102.5	129.5	170	215
L9	4	4.5	6	6	8	15
L10	16.5	20.5	30	38	48	42
L11	29	35.4	40.7	53.7	63	68.9
L12	-	33.5	-	-	-	70
C1 <sup>2</sup>	46	70	90	115	145	200
C2 <sup>2</sup>	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M8x1.25P	M12x1.75P
C3 <sup>2</sup>	≤8/≤11	≤14/≤19	≤19/≤24	≤24/≤32/≤38	≤35/≤38	≤50
C4 <sup>2</sup>	26.5	37.6	41.4	51.3	66.5	77
C5 <sup>2</sup> <sub>F6</sub>	30	50	70	95	110	114.3
C6 <sup>2</sup>	4.1	4.5	6	6	5.5	6
C7 <sup>2</sup>	42	60	90	115	140	180
C8 <sup>2</sup>	38.1	46.5	55.4	70	80	90
C9 <sup>2</sup>	140.6	173	217.9	289	346.5	431
B	5	6	10	12	16	20
H	18	24.5	35	43	59	79.5

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

★ Specification subject to change without notice.

## PGCH Specifications Table

Specifications	Stage	Ratio	PGCH-50	PGCH-70	PGCH-90	PGCH-120	PGCH-155	PGCH-205	PGCH-235		
Nominal Output Torque $T_{2N}$	1	3	19	53	145	290	520	950	1100		
		4	20	55	150	300	550	1000	1700		
		5	17	54	140	330	600	1050	2000		
		6	15	46	135	310	560	1000	1900		
		7	14	44	125	300	530	960	1800		
		8	12	41	110	260	480	900	1600		
		9	11	37	95	230	430	800	1500		
		10	11	37	95	230	430	800	1500		
		2	Stage	Ratio	PGCH-50	PGCH-70 PGCH-70T	PGCH-90 PGCH-90T	PGCH-120T	PGCH-155T	PGCH-205T	PGCH-235T
			15	19	53	145	290	520	950	2000	
	20		20	55	150	300	550	1000	2000		
	25		17	54	140	330	600	1050	2000		
	30		17	54	140	330	600	1050	2000		
	35		17	54	140	330	600	1050	2000		
	40		17	54	140	330	600	1050	2000		
	45		17	54	140	330	600	1050	2000		
	50		17	54	140	330	600	1050	2000		
	60		15	46	135	310	560	1000	2000		
	70	14	44	125	300	530	960	1900			
	80	12	41	110	260	480	900	1800			
90	11	37	95	230	430	800	1600				
100	11	37	95	230	430	800	1500				
Emergency Stop Torque $T_{2NOT}$	N · m	(3.0 times of Nominal Output Torque) (* Max. Output Torque $T_{2B}$ = 60% of Emergency Stop Torque)									
Nominal Input Speed $n_{1N}$	rpm	1,2	3-100	5000	4000	4000	4000	3000	2500	2000	
Max. Input Speed $n_{1max}$	rpm	1,2	3-100	10000	8000	8000	8000	5000	4000	3500	
Micro Backlash P0	arcmin	1	3-10	≤ 4	≤ 4	≤ 4	≤ 3	≤ 3	≤ 3	≤ 3	
		2	12-100	≤ 6	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5	≤ 5	
Precision Backlash P1	arcmin	1	3-10	≤ 6	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5	≤ 5	
		2	12-100	≤ 8	≤ 8	≤ 8	≤ 7	≤ 7	≤ 7	≤ 7	
Standard Backlash P2	arcmin	1	3-10	≤ 8	≤ 8	≤ 8	≤ 7	≤ 7	≤ 7	≤ 7	
		2	12-100	≤ 10	≤ 10	≤ 10	≤ 9	≤ 9	≤ 9	≤ 9	
Torsional Rigidity	N · m / arcmin	1,2	3-100	3	7	14	25	50	145	300	
Max. Radial Load $F_{2RB}^1$	N	1,2	3-100	702	1377	2985	6100	7140	11050	28000	
Max. Axial Load $F_{2aB}^1$	N	1,2	3-100	410	765	1625	3350	4670	6460	15000	
Operating Temp.	°C		3-100	-10°C ~ +90°C							
Service Life	hr		3-100	20,000 (10,000 Continuous operation)							
Efficiency	%	1	3-10	≥ 97%							
		2	12-100	≥ 94%							
Weight	kg	1	3-10	0.6	1.3	3.5	7.8	16.1	27	55	
		2	12-100	0.9	2.0/1.6	5.6/3.9	9.5	19	34	67	
Mounting Position	-	1,2	3-100	Any Direction							
Noise Level <sup>2</sup>	dB(A)/1m	1,2	3-100	58	58	60	63	65	67	70	
Protection Class	-	1,2	3-100	IP65							
Lubrication	-	1,2	3-100	Synthetic Lubricant							
Inertia (J1)											
Stage	Ratio	unit	PGCH-50	PGCH-70	PGCH-90	PGCH-120	PGCH-155	PGCH-205	PGCH-235		
1	3	Kg · cm <sup>2</sup>	0.03	0.23	0.97	2.35	10.00	30.50	79.50		
	4		0.02	0.18	0.67	1.66	7.17	25.86	58.21		
	5		0.02	0.17	0.65	1.50	6.52	23.63	54.36		
	6/7/8		0.02	0.14	0.60	1.45	6.17	22.92	54.12		
	9/10		0.02	0.14	0.58	1.41	6.10	22.73	53.98		
Stage	Ratio		PGCH-50	PGCH-70(T)	PGCH-90(T)	PGCH-120T	PGCH-155T	PGCH-205T	PGCH-235T		
2	15/20/25		0.02	0.17(0.02)	0.65(0.17)	0.65	1.50	6.52	30.50		
	30/35/40		0.02	0.14(0.02)	0.60(0.14)	0.60	1.45	6.17	22.92		
	45/50/60/70/80/90/100		0.02	0.14(0.02)	0.58(0.14)	0.58	1.41	6.10	22.73		

\* 1. Applied to the output shaft center at 100 rpm.

\* 2. 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.

※ 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.