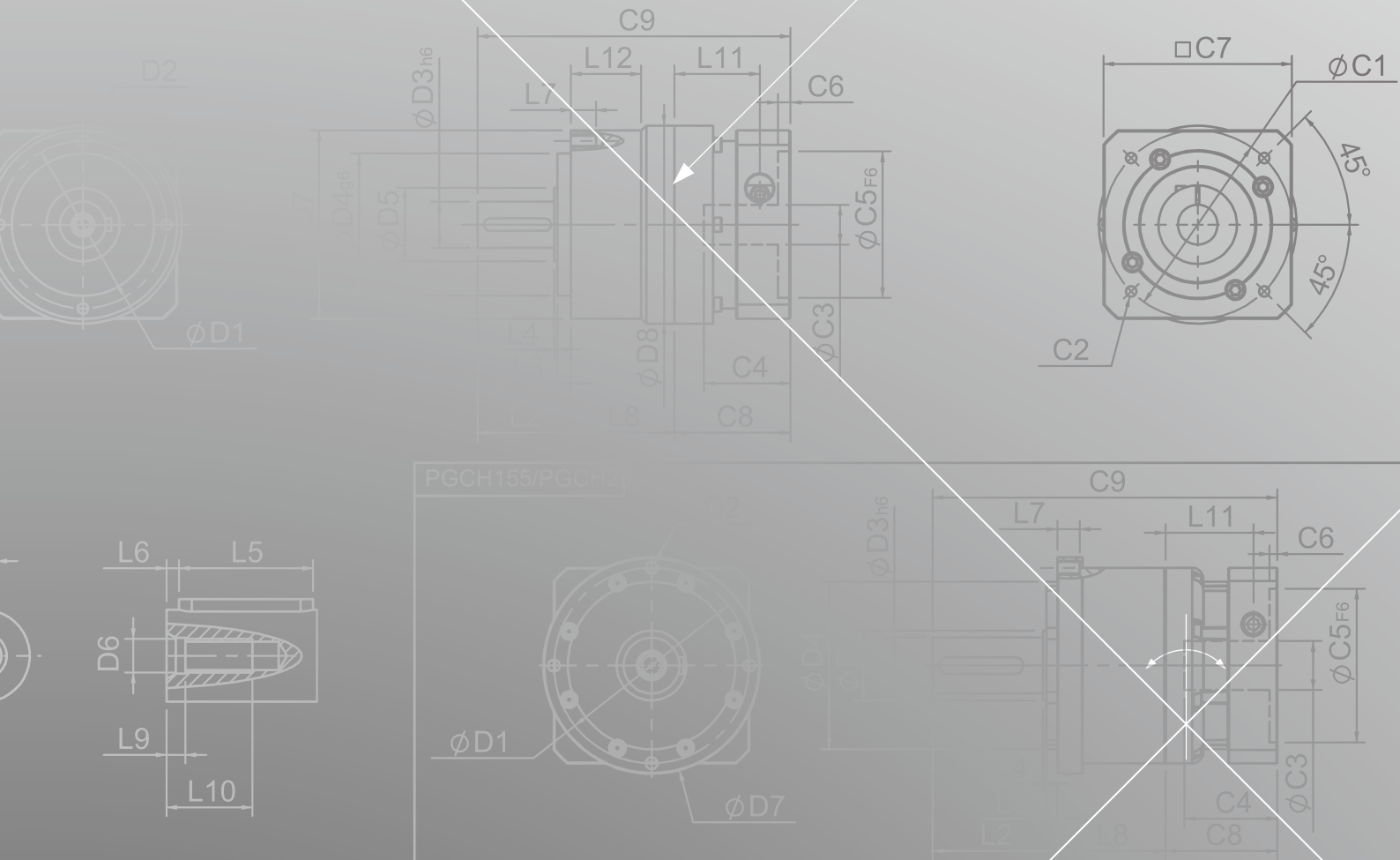
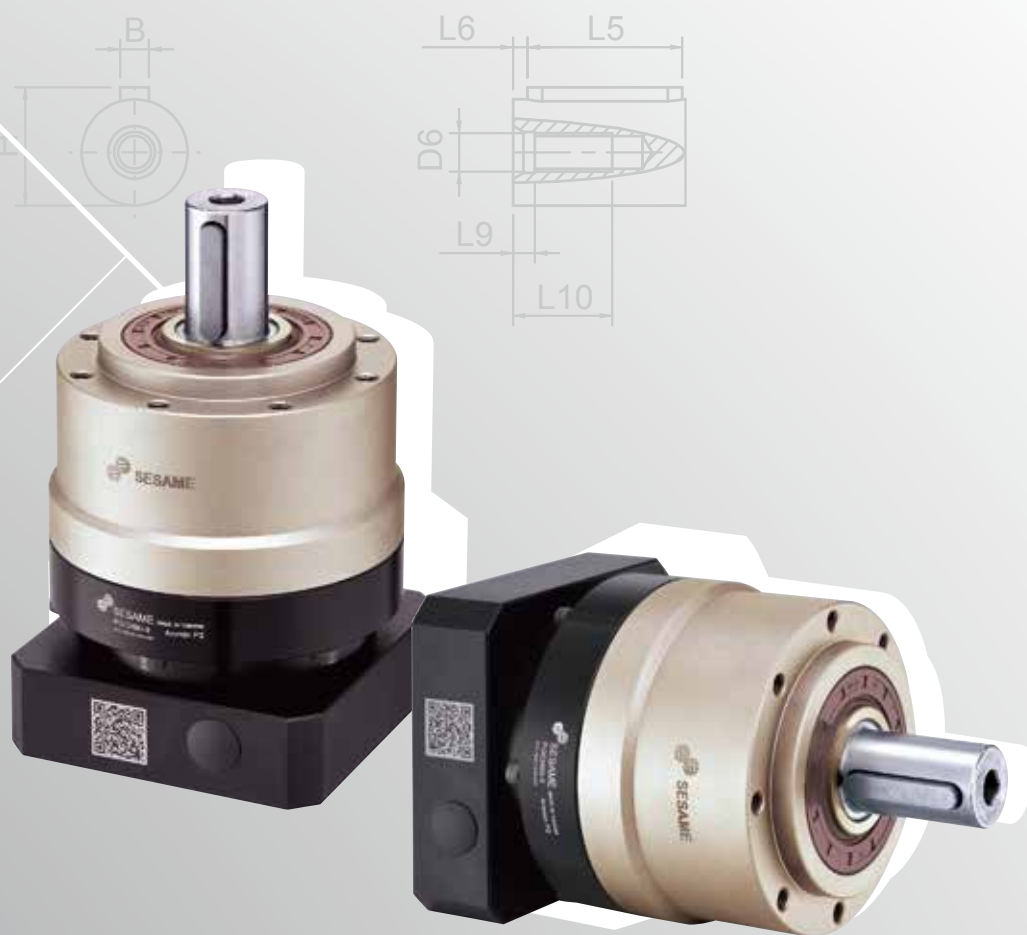
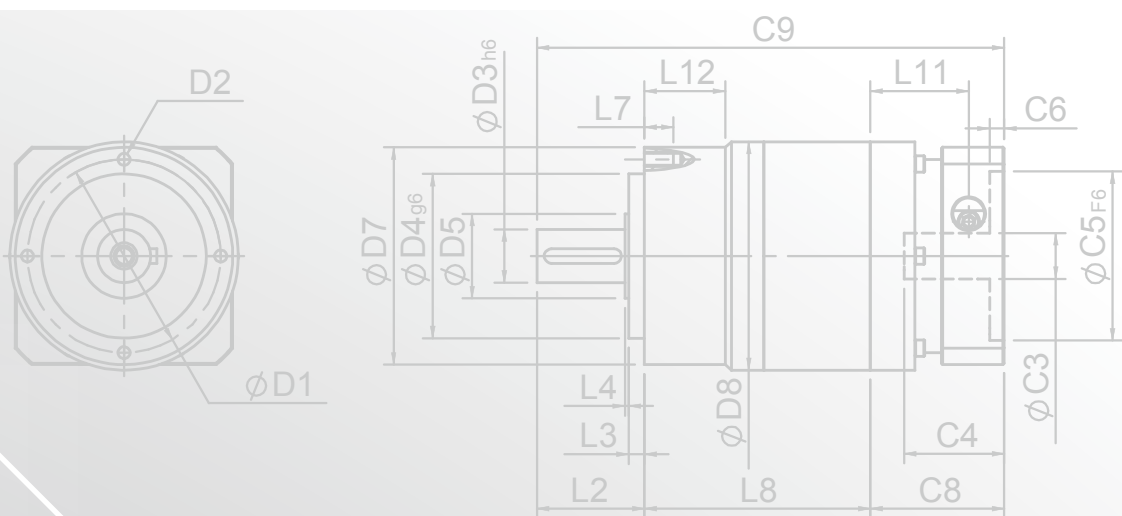
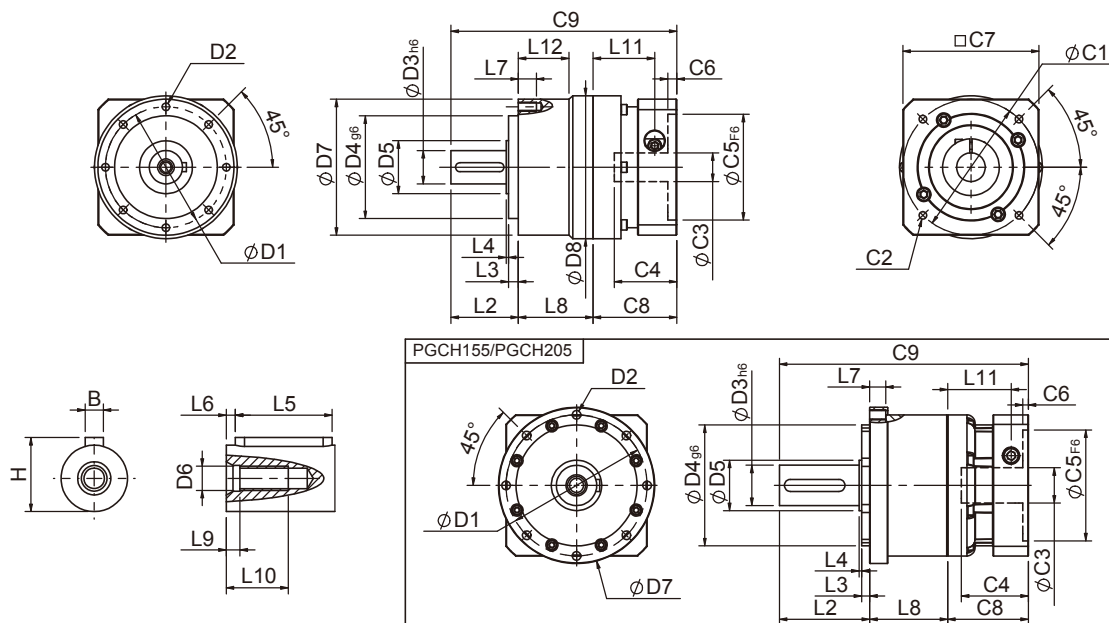


PGCH SERIES





PGCH Single Stage Dimensions



Specifications

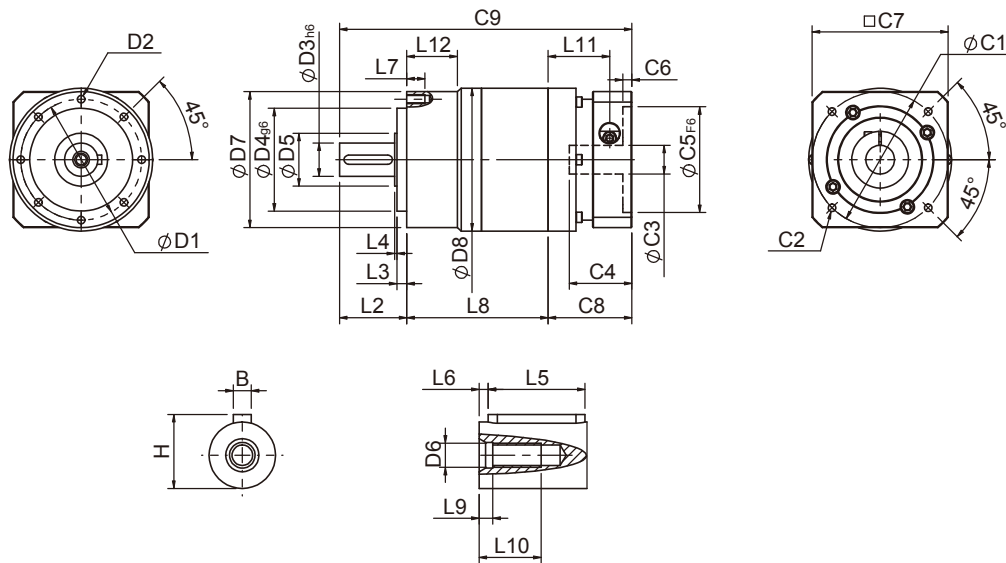
Unit:mm

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

★ 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

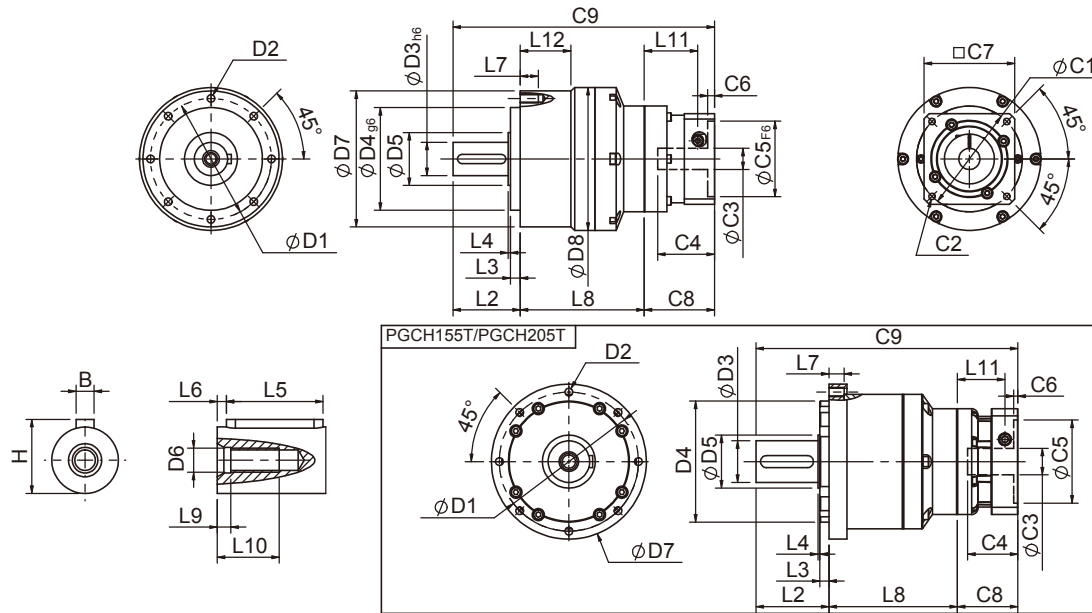
Unit:mm

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

★ 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}	$N \cdot m$	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	
		2	10	11	37	95	230	430	800	1500	
			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}	$N \cdot m$	(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	$\frac{N \cdot m}{arcmin}$	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 ²	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	$Kg \cdot cm^2$	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.