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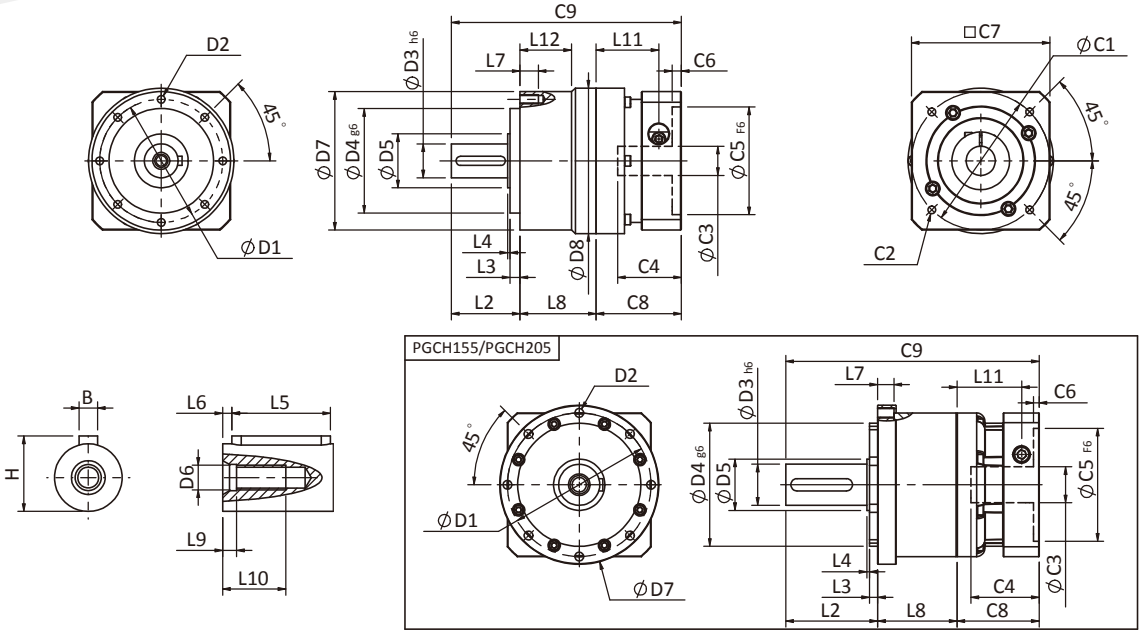
PGCH SERIES

PGCH Single Stage Dimensions



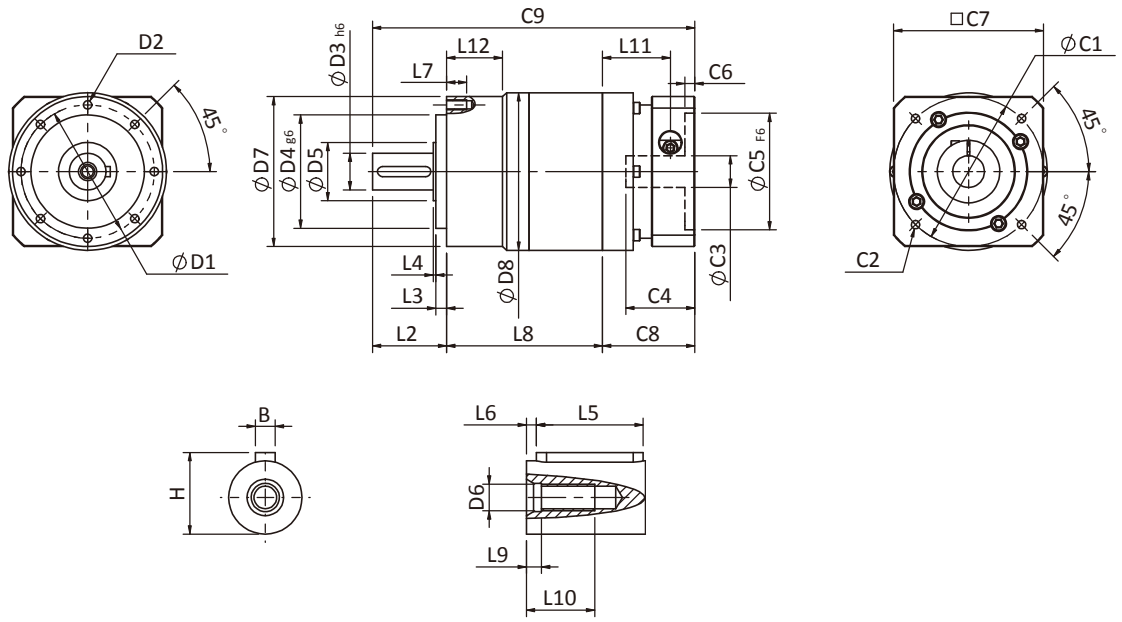
Specifications

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 the motor flange chosen.
★ Specification subject to change without notice.

PGCH Double Stage Dimensions-1



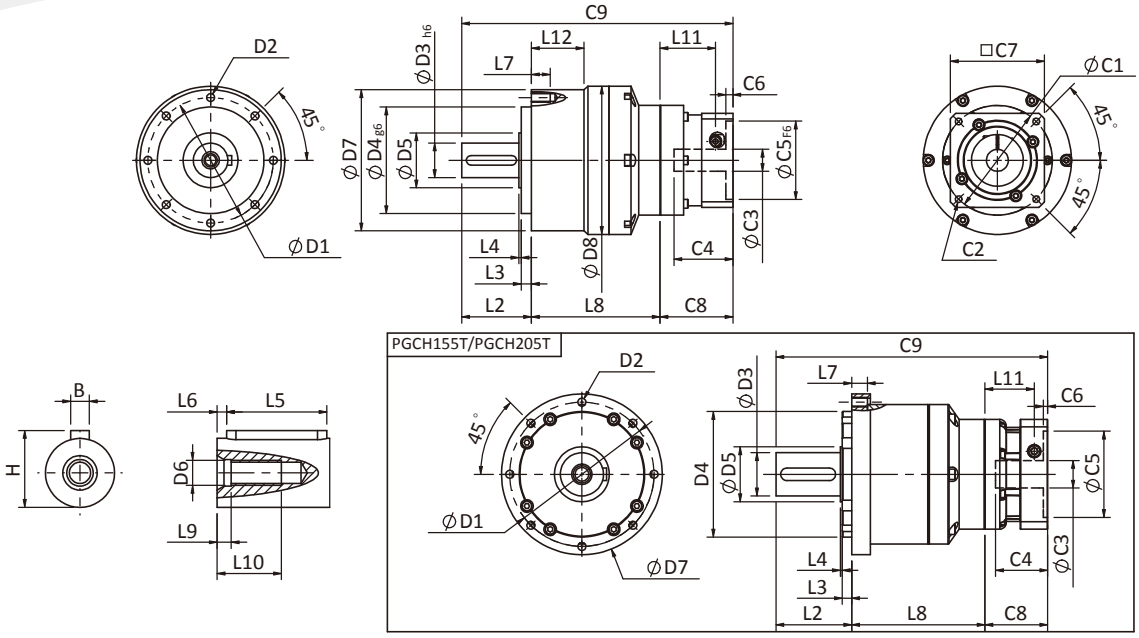
Specifications

Unit:mm

Dimensions	PGCH50	PGCH70	PGCH90
D1	44	62	80
D2	M4x0.7P	M5x0.8P	M6x1.0P
D3 $_{h6}$	12	16	22
D4 $_{g6}$	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 the motor flange chosen.
★ 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 the motor flange chosen.
★ Specification subject to change without notice.

PGCH Specifications Table

Specifications		Stage	Ratio	PGCH-50	PGCH-70	PGCH-90	PGCH-120	PGCH-155	PGCH-205
Nominal Output Torque T_{2N}	N • m	1	3	19	53	145	290	520	950
			4	20	55	150	300	550	1000
			5	17	54	140	290	530	1050
			6	15	46	135	280	490	1000
			7	14	44	125	270	450	960
			8	12	41	110	240	390	900
			9	11	37	95	220	360	800
			10	11	37	95	220	360	800
		Stage	Ratio	PGCH-50	PGCH-70/ PGCH-70T	PGCH-90/ PGCH-90T	PGCH-120T	PGCH-155T	PGCH-205T
		2	15	19	53	145	290	520	950
			20	20	55	150	300	550	1000
			25	17	54	140	290	530	1050
			30	17	54	140	290	530	1050
			35	17	54	140	290	530	1050
			40	17	54	140	290	530	1050
			45	17	54	140	290	530	1050
			50	17	54	140	290	530	1050
			60	15	46	135	280	490	1000
			70	14	44	125	270	450	960
			80	12	41	110	240	390	900
			90	11	37	95	220	360	800
			100	11	37	95	220	360	800
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	4000	4000	3000	3000	2500	2000
Max. Input Speed n_{1max}	rpm	1,2	3-100	8000	8000	6000	6000	5000	4000
Precision Backlash P1	arcmin	1	3-10	≦6	≦6	≦6	≦5	≦5	≦5
		2	15-100	≦8	≦8	≦8	≦7	≦7	≦7
Standard Backlash P2	arcmin	1	3-10	≦8	≦8	≦8	≦7	≦7	≦7
		2	15-100	≦10	≦10	≦10	≦9	≦9	≦9
Torsional Rigidity	N • m /arcmin	1,2	3-100	2.5	6	12	23	45	75
Max. Radial Load F_{2rB} [1]	N	1,2	3-100	640	1260	2230	4300	7140	11050
Max. Axial Load F_{2aB} [1]	N	1,2	3-100	410	600	1500	3310	4670	6460
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	15-100	≧94%					
Weight	kg	1	3-10	0.6	1.3	3.5	7.8	16.1	27
		2	15-100	0.9	2.0/1.6	5.6/3.9	9.5	19	34
Mounting Position	-	1,2	3-100	Any direction					
Noise Level [2]	dBA/1m	1,2	3-100	56	58	60	63	65	67
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
1	3	Kg • cm^2	0.03	0.23	0.97	2.35	10.00	30.50
	4		0.02	0.18	0.67	1.66	7.17	25.86
	5		0.02	0.17	0.65	1.50	6.52	23.63
	6/7/8		0.02	0.14	0.60	1.45	6.17	22.92
	9/10		0.02	0.14	0.58	1.41	6.10	22.73
Stage	Ratio		PGCH-50	PGCH-70(T)	PGCH-90(T)	PGCH-120T	PGCH-155T	PGCH-205T
2	15/20/25		0.02	0.17(0.02)	0.65(0.17)	0.65	1.50	6.52
	30/35/40		0.02	0.14(0.02)	0.60(0.14)	0.60	1.45	6.17
	45/50/60/70/80/90/100		0.02	0.14(0.02)	0.58(0.14)	0.58	1.41	6.10

* 1. Applied to the output shaft center @100rpm.
* 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.