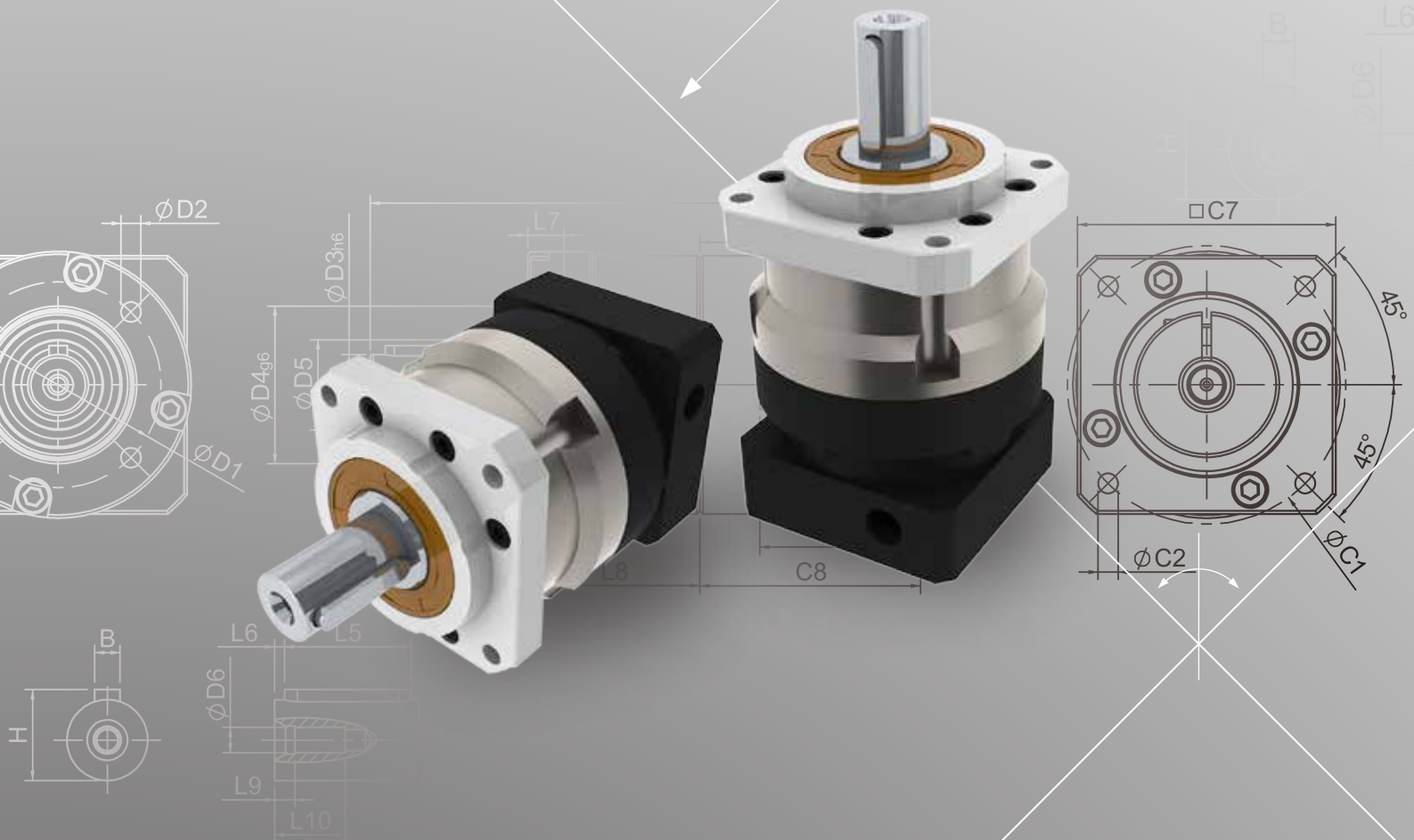
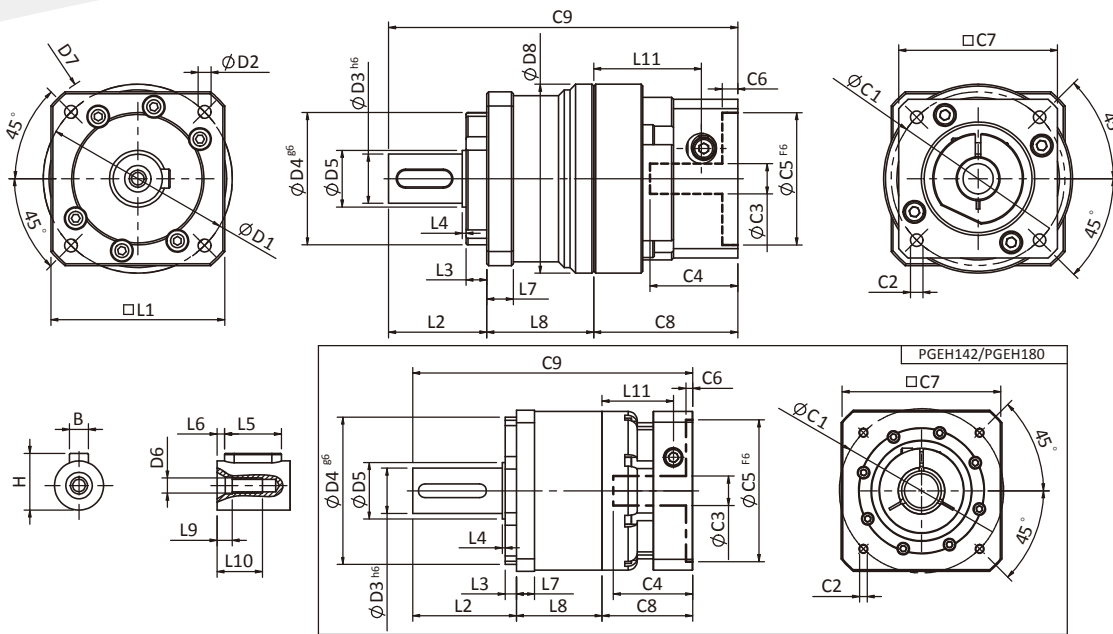


PGEH SERIES



PGEH Single Stage Dimensions



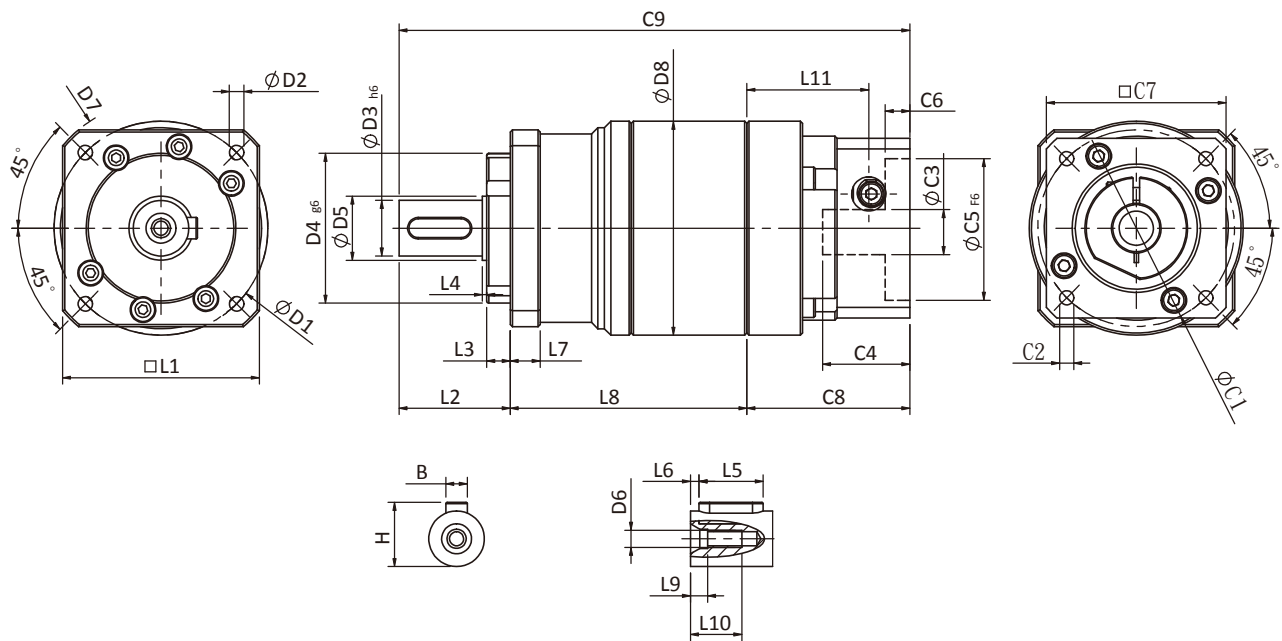
Specifications

Unit:mm

Dimensions	PGEH50	PGEH70	PGEH90	PGEH120	PGEH142	PGEH180
D1	50	70	100	130	165	215
D2	3.4	5.5	6.8	9	10.5	13
D3 ^{h6}	13	16	22	32	40	55
D4 ^{g6}	35	50	80	110	130	160
D5	15	25	35	45	50	70
D6	M4x0.7P	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P	M20x2.5P
D7	60	82	118	148	186	239
D8	50	70	94.5	120	-	-
L1	46	64	90	118	142	182
L2	26	37	43	59	91.5	100.5
L3	5.5	7	5	6	10	16
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	7	9.7	13.5	15.7	16	20
L8	28.3	37	51	61	75.5	94
L9	4	4	4.5	6	6	8
L10	12	16.5	20.5	30	38	48
L11	28.5	35.5	40.7	53.8	62.8	70
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	82
C5 ² _{F6}	30	50	70	95	110	114.3
C6 ²	4.1	4.5	6	6	5.5	10
C7 ²	42	60	90	115	140	180
C8 ²	38.1	46.5	55.4	70	80	95
C9 ²	92.4	120.5	149.4	190	247	289.5
B	5	5	6	10	12	16
H	15	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.

PGEH Double Stage Dimensions-1



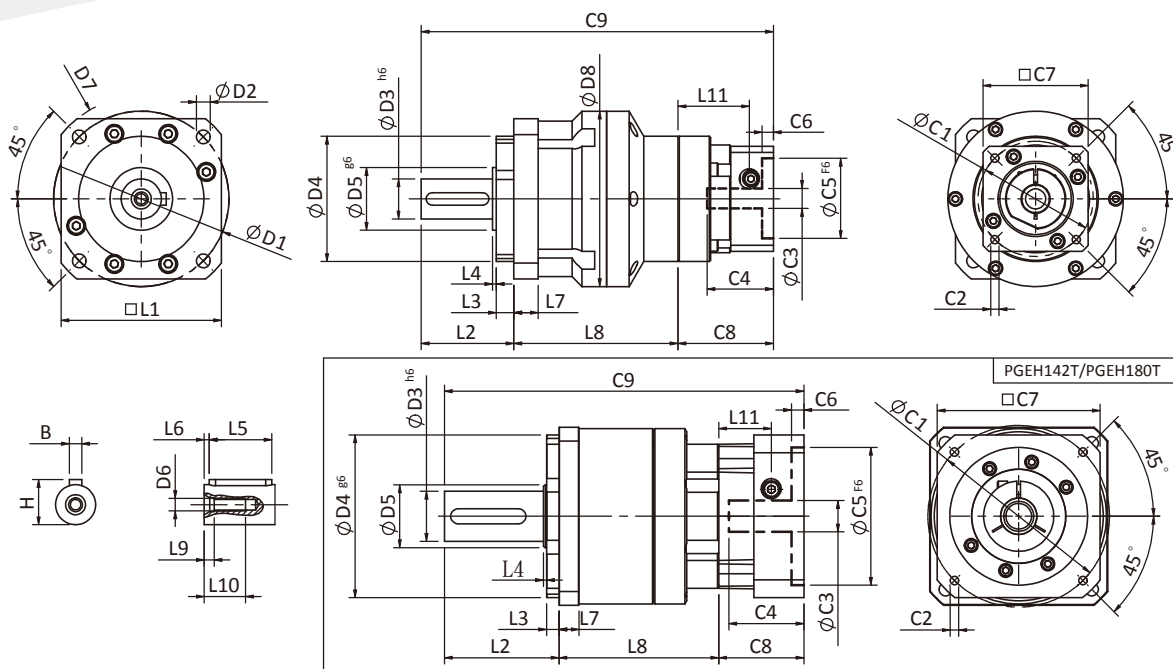
Specifications

Unit:mm

Dimensions	PGEH50	PGEH70	PGEH90
D1	50	70	100
D2	3.4	5.5	6.8
D3 _{h6}	13	16	22
D4 _{g6}	35	50	80
D5	15	25	35
D6	M4x0.7P	M5x0.8P	M8x1.25P
D7	60	82	118
D8	50	70	94.5
L1	46	64	90
L2	26	37	43
L3	5.5	7	5
L4	1	1.5	1.5
L5	15	25	32
L6	2	2	3
L7	7	9.7	13.5
L8	55.3	70	95
L9	4	4	4.5
L10	12	16.5	20.5
L11	28.5	35.5	40.7
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	5	5	6
H	15	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.

PGEH Double Stage Dimensions-2



Specifications

Unit:mm

Dimensions	PGEH70T	PGEH90T	PGEH120T	PGEH142T	PGEH180T
D1	70	100	130	165	215
D2	5.5	6.8	9	10.5	13
D3 _{h6}	16	22	32	40	55
D4 _{g6}	50	80	110	130	160
D5	25	35	45	50	70
D6	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P	M20x2.5P
D7	82	118	148	186	239
D8	70	94.5	120	-	-
L1	64	90	118	142	182
L2	37	43	59	91.5	100.5
L3	7	5	6	10	16
L4	1.5	1.5	3.5	2.5	2.5
L5	25	32	40	60	70
L6	2	3	5	5	6
L7	9.7	13.5	15.7	16	20
L8	65.5	83.5	103.5	127.5	166
L9	4	4.5	6	6	8
L10	16.5	20.5	30	38	48
L11	28.5	35.5	40.7	41.8	62.8
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
C4 ²	26.5	37.6	41.4	56	66.5
C5 ² _{F6}	30	50	70	95	110
C6 ²	4.1	4.5	6	10	5.5
C7 ²	42	60	90	115	140
C8 ²	38.1	46.5	55.4	63	80
C9 ²	140.6	173	217.9	282	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.

PGEH Specification Table

Specifications		Stage	Ratio	PGEH50	PGEH70	PGEH90	PGEH120	PGEH142	PGEH180
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	600	1050
			6	15	46	135	280	560	1000
			7	14	44	125	270	530	960
			8	12	41	110	240	480	900
			9	11	37	95	220	430	800
		10	11	37	95	220	430	800	
		Stage	Ratio	PGEH50	PGEH70(T)	PGEH90(T)	PGEH120T	PGEH142T	PGEH180T
		2	15	19	53	145	290	520	950
			20	20	55	150	300	550	1000
			25	17	54	140	290	600	1050
			30	17	54	140	290	600	1050
			35	17	54	140	290	600	1050
			40	17	54	140	290	600	1050
			45	17	54	140	290	600	1050
			50	17	54	140	290	600	1050
			60	15	46	135	280	560	1000
			70	14	44	125	270	530	960
80	12		41	110	240	480	900		
90	11		37	95	220	430	800		
100	11	37	95	220	430	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	2500
Max. Input Speed n_{1max}	rpm	1,2	3-100	8000	8000	6000	6000	5000	4000
Micro Backlash P_0	arcmin	1	3-10	≤ 4	≤ 4	≤ 4	≤ 3	≤ 3	≤ 3
		2	12-100	≤ 6	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5
Precision Backlash P_1	arcmin	1	3-10	≤ 6	≤ 6	≤ 6	≤ 5	≤ 5	≤ 5
		2	12-100	≤ 8	≤ 8	≤ 8	≤ 7	≤ 7	≤ 7
Standard Backlash P_2	arcmin	1	3-10	≤ 8	≤ 8	≤ 8	≤ 7	≤ 7	≤ 7
		2	12-100	≤ 10	≤ 10	≤ 10	≤ 9	≤ 9	≤ 9
Torsional Rigidity	N • m / arcmin	1,2	3-100	2.5	6	12	23	50	145
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	-10 °C ~ +90 °C							
Service Life	hr	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
		2	12-100	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	dB(A)/1m	1,2	3-100	58	60	63	65	67	68
Protection Class	-	1,2	3-100	IP65					
Lubrication	-	1,2	3-100	Synthetic Lubricant					
Inertia (J1)									
Stage	Ratio	unit		PGEH50	PGEH70	PGEH90	PGEH120	PGEH142	PGEH180
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			PGEH50	PGEH70(T)	PGEH90(T)	PGEH120T	PGEH142T	PGEH180T
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.

Products due to human error, natural disasters or other factors lead to poor or damaged, will not be covered under warranty.