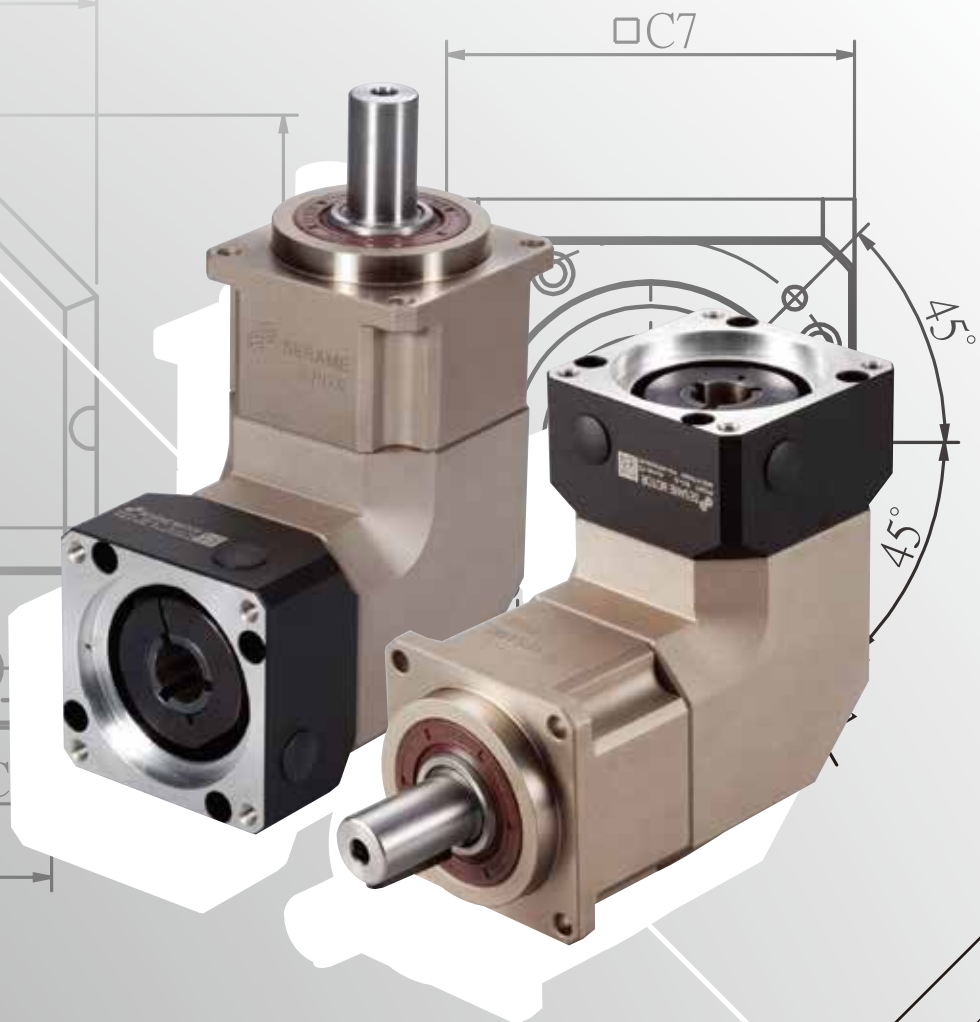
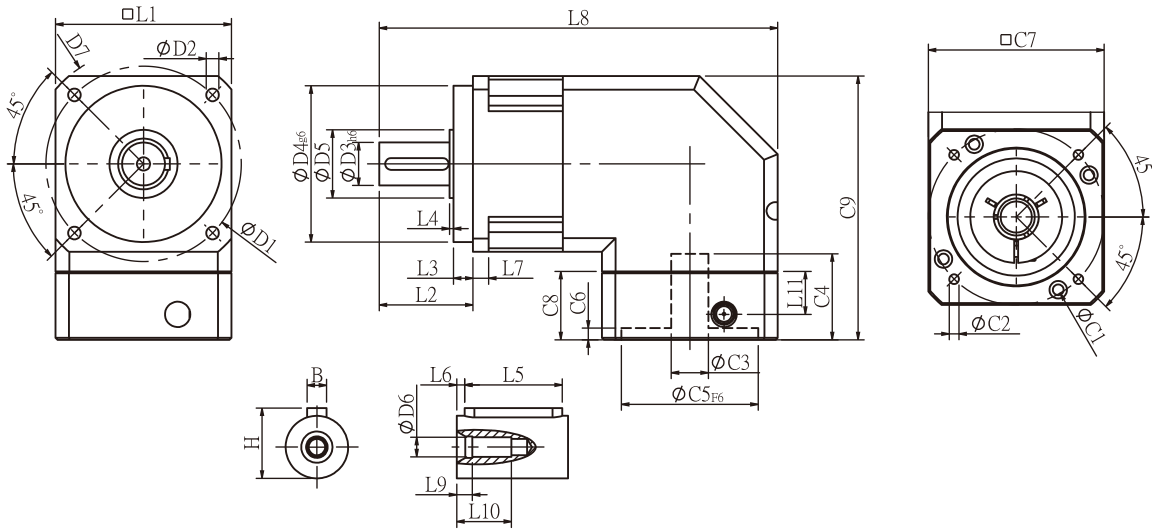


L8



PGR Single Stage Dimensions



Specifications

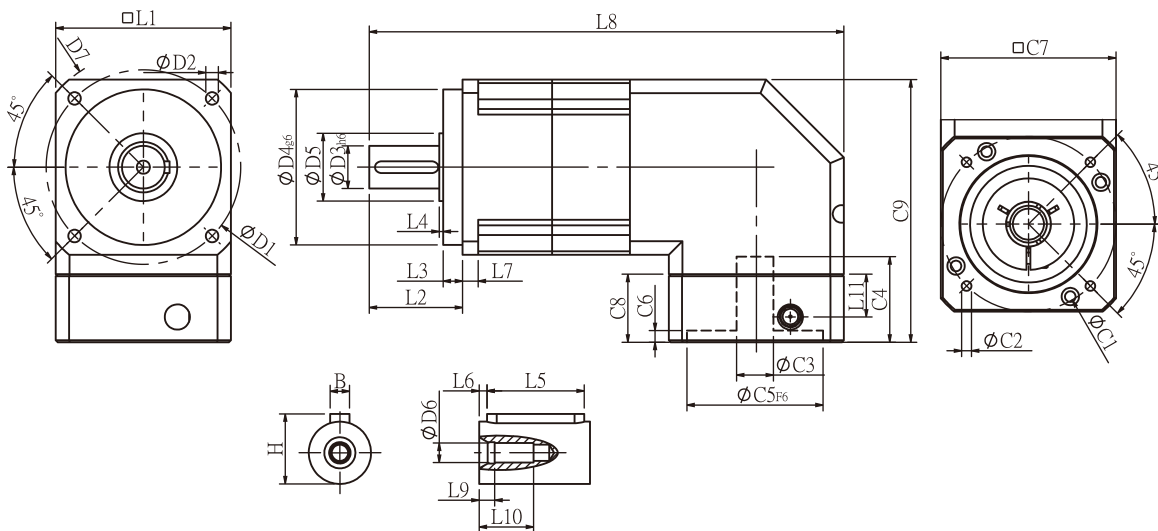
Unit:mm

Dimensions	PGR42	PGR60	PGR90	PGR115	PGR142	PGR180	PGR220
D1	50	70	100	130	165	-	-
D2	3.4	5.5	6.5	8.5	10.5	-	-
D3 h6	13	16	22	32	40	-	-
D4 g6	35	50	80	110	130	-	-
D5	15	25	35	45	50	-	-
D6	M4x0.7P	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P	-	-
D7	56	80	118	148	186	-	-
L1	42.6	60	90	115	142	-	-
L2	26	37	48	62	93	-	-
L3	5.5	7	10	8	8	-	-
L4	1.5	1.5	1.5	3	6	-	-
L5	15	25	32	40	60	-	-
L6	2	2	3	5	5	-	-
L7	4	6	8	12	18	-	-
L8	103.6	148.7	204	244.5	330	-	-
L9	4	4	4.5	6	6	-	-
L10	14	16.5	20.5	30	38	-	-
L11	13.5	21.5	22	32	44.7	-	-
C1 ²	46	70	90	115	145	-	-
C2 ²	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M8x1.25P	-	-
C3 ²	≤8	≤14	≤19/≤24	≤24/≤32	≤35	-	-
C4 ²	29	34	44	53	75	-	-
C5 ² F6	30	50	70	95	110	-	-
C6 ²	6	5	5	6	9	-	-
C7 ²	42.6	60	90	115	140	-	-
C8 ²	25	33	35	48	65	-	-
C9 ²	70.8	107.8	135	174.5	207	-	-
B	5	5	6	10	12	-	-
H	15	18	24.5	35	43	-	-

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

★ Specification subject to change without notice.

PGR Double Stage Dimensions-1



Specifications

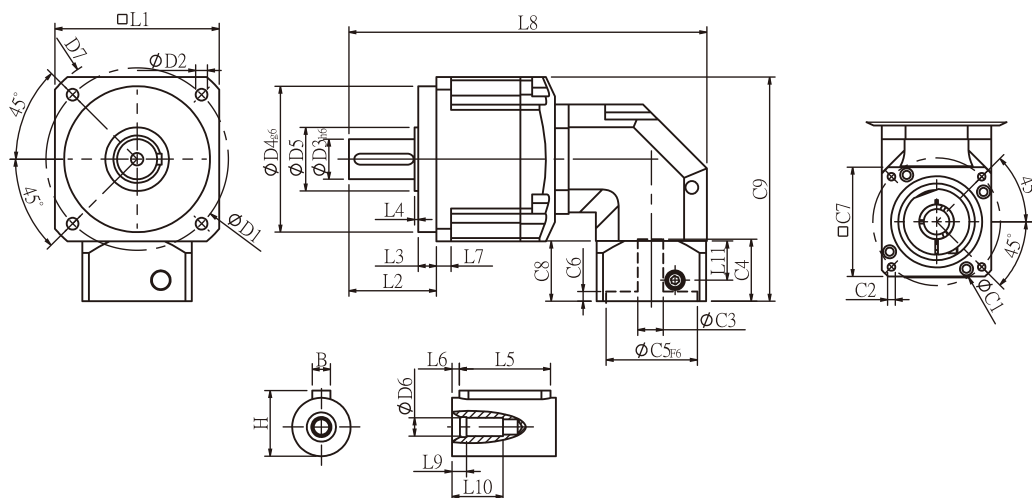
Unit:mm

Dimensions	PGR42	PGR60	PGR90	PGR115	PGR142
D1	50	70	100	130	165
D2	3.4	5.5	6.5	8.5	10.5
D3 _{h6}	13	16	22	32	40
D4 _{g6}	35	50	80	110	130
D5	15	25	35	45	50
D6	M4x0.7P	M5x0.8P	M8x1.25P	M12x1.75P	M16x2.0P
D7	56	80	118	148	186
L1	42.6	60	90	115	142
L2	26	37	48	62	93
L3	5.5	7	10	8	8
L4	1.5	1.5	1.5	3	6
L5	15	25	32	40	60
L6	2	2	3	5	5
L7	4	6	8	12	18
L8	129.6	176.7	244	292.5	391
L9	4	4	4.5	6	6
L10	14	16.5	20.5	30	38
L11	13.5	21.5	22	32	44.7
C1 ²	46	70	90	115	145
C2 ²	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M8x1.25P
C3 ²	≤8	≤14	≤19/≤24	≤24/≤32	≤35
C4 ²	29	34	44	53	75
C5 ² _{F6}	30	50	70	95	110
C6 ²	6	5	5	6	9
C7 ²	42.6	60	90	115	140
C8 ²	25	33	35	48	65
C9 ²	70.8	107.8	135	174.5	207
B	5	5	6	10	12
H	15	18	24.5	35	43

* C1~C9 are motor specific dimensions(metric std shown), Size may vary according to the motor flange chosen.

* Specification subject to change without notice.

PGR Double Stage Dimensions-2



Specifications

Unit:mm

Dimensions	PGR60T	PGR90T	PGR115T	PGR142T	PGR180T	PGR220T
D1	70	100	130	165	215	-
D2	5.5	6.5	8.5	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	80	118	148	186	239	-
L1	60	90	115	142	182	-
L2	37	48	62	93	104.5	-
L3	7	10	8	8	20	-
L4	1.5	1.5	3	6	2.5	-
L5	25	32	40	60	70	-
L6	2	3	5	5	6	-
L7	6	8	12	18	16	-
L8	145.1	196.2	269.4	343.5	419.5	-
L9	4	4.5	6	6	8	-
L10	16.5	20.5	30	38	48	-
L11	13.5	21.5	22	32	44.7	-
C1 ²	46	70	90	115	145	-
C2 ²	M4x0.7P	M5x0.8P	M6x1.0P	M8x1.25P	M8x1.25P	-
C3 ²	≤8	≤14	≤19/≤24	≤24/≤32	≤35	-
C4 ²	29	34	44	53	75	-
C5 ² F6	30	50	70	95	110	-
C6 ²	6	5	5	6	9	-
C7 ²	42.6	60	90	115	140	-
C8 ²	25	33	35	48	65	-
C9 ²	79.5	122.8	147.5	188	207	-
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.

PGR Specifications Table

Specifications		Stage	Ratio	PGR-42	PGR-60	PGR-90	PGR-115	PGR-142	PGR-180	PGR-220	
Nominal Output Torque T_{2N}	N • m	1	3	13.8	44.3	95.2	283	482	1510	1670	
			4	11.9	35.9	74.6	249	490	1055	1574	
			5	13.8	43.0	95.2	283	473	1151	1670	
			6	12.5	39.4	90.9	266	436	1055	1574	
			7	11.9	36.0	85.6	219	400	1055	1574	
			8	10.9	32.4	85.0	216	363	860	1184	
			9	9.8	28.7	80.0	210	320	764	1185	
			10	10.1	25.0	75.0	210	320	763	1184	
			Stage	Ratio	PGR-42	PGR-60 (T)	PGR-90(T)	PGR-115(T)	PGR-142(T)	PGR-180T	PGR-220T
			2	15	13.8	44.2	95.2	283	482	1151	1670
		20		11.9	35.9	74.6	249	490	1055	1574	
		25		13.8	43.0	95.2	283	473	1151	1670	
		30		13.8	43.0	95.2	283	473	1151	1670	
		35		13.8	43.0	95.2	283	473	1151	1670	
		40		13.8	43.0	95.2	283	473	1151	1670	
		45		13.8	43.0	95.2	283	473	1151	1670	
		50		13.8	43.0	95.2	283	473	1151	1670	
		60		12.5	39.4	90.9	266	436	1055	1574	
		70		11.9	36.0	85.6	219	400	1055	1574	
		80	10.9	32.4	85.0	216	363	860	1184		
90	9.8	28.7	80.0	210	320	764	1185				
100	10.1	25.0	75.0	210	320	763	1184				
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	3000	3000	3000	2500	2000	2000	2000	
Max. Input Speed n_{1max}	rpm	1,2	3-100	6000	6000	6000	5000	4000	4000	4000	
Micro Backlash P0	arcmin	1	3-10	-	-	-	≤ 4	≤ 4	≤ 4	≤ 4	
		2	12-100	-	-	-	≤ 6	≤ 6	≤ 6	≤ 6	
Precision Backlash P1	arcmin	1	3-10	-	-	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	
		2	12-100	-	-	≤ 9	≤ 8	≤ 8	≤ 8	≤ 8	
Standard Backlash P2	arcmin	1	3-10	≤ 12	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9	
		2	12-100	≤ 15	≤ 12	≤ 12	≤ 11	≤ 11	≤ 11	≤ 11	
Torsional Rigidity	N • m / arcmin	1,2	3-100	1.0	2.8	7.5	15.5	30	57	110	
Max. Radial Load F_{2RB}^1	N	1,2	3-100	350	960	1630	3380	6150	7260	11120	
Max. Axial Load F_{2aB}^1	N	1,2	3-100	320	900	1420	2930	5510	5550	8560	
Operating Temp.	°C		3-100	-10 °C ~ +90 °C							
Service Life	hr		3-100	20,000 (10,000/ Continuous operation)							
Efficiency	%	1	3-10	≥ 94%							
		2	12-100	≥ 90%							
Weight	kg	1	3-10	1.0	2.5	6.5	13.2	24.6	49	81	
		2	12-100	1.3	3.2/2.8	8.6/6.9	17.7/14.5	29.7/26.2	53	87	
Mounting Position	-	1,2	3-100	Any direction							
Noise Level ²	dBA/1m	1,2	3-100	65	67	70	70	75	75	80	
Protection Class	-	1,2	3-100	IP65							
Lubrication	-	1,2	3-100	Synthetic Lubricant							
Inertia(J1)											
Stage	Ratio	unit	PGR-42	PGR-60	PGR-90	PGR-115	PGR-142	PGR-180	PGR-220		
1	3/4/5/7/9	Kg • cm ²	0.06	0.40	2.28	6.87	24.2	69.8	138.2		
	6/8/10		0.05	0.30	1.45	4.76	14.5	50.3	103.6		
Stage	Ratio		PGR-42	PGR-60(T)	PGR-90(T)	PGR-115(T)	PGR-142(T)	PGR-180T	PGR-220T		
2	15/20/25/35/45		0.06	0.40(0.08)	2.28(0.72)	6.87(3.02)	24.2(7.83)	27.7	80.3		
	others	0.05	0.30(0.06)	1.45(0.38)	4.76(1.64)	14.5(5.00)	15.9	55.3			

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

* 2. Measured at 3000rpm with no load. * 3. PGR115T - □ □ - P0 is not applicable.

※ 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.