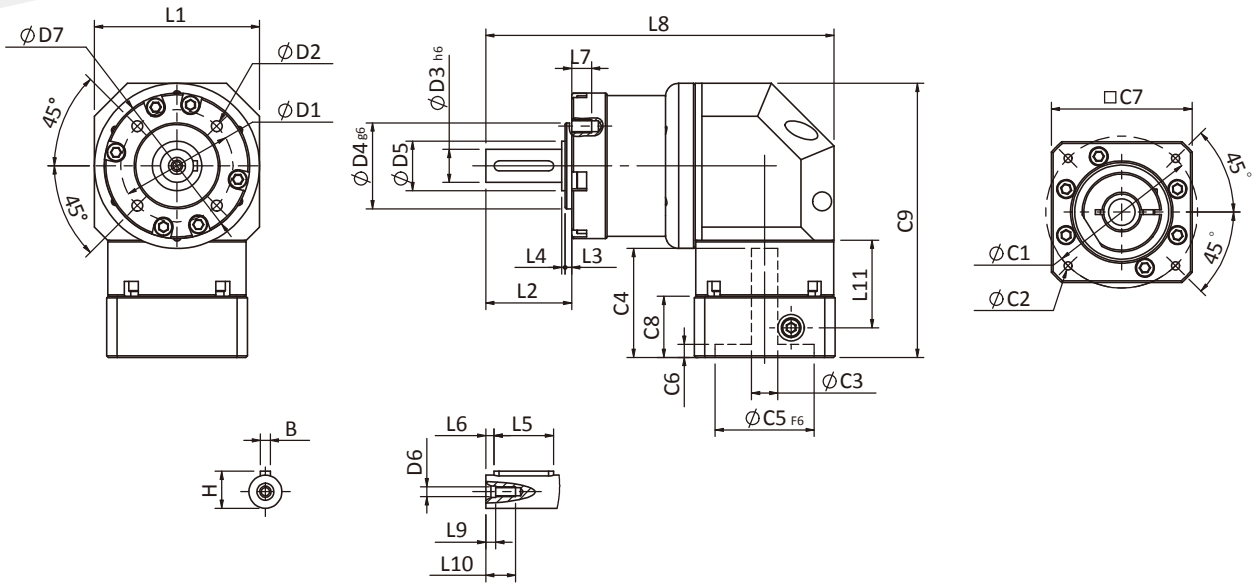
PNSR Single Stage Dimensions



Specifications

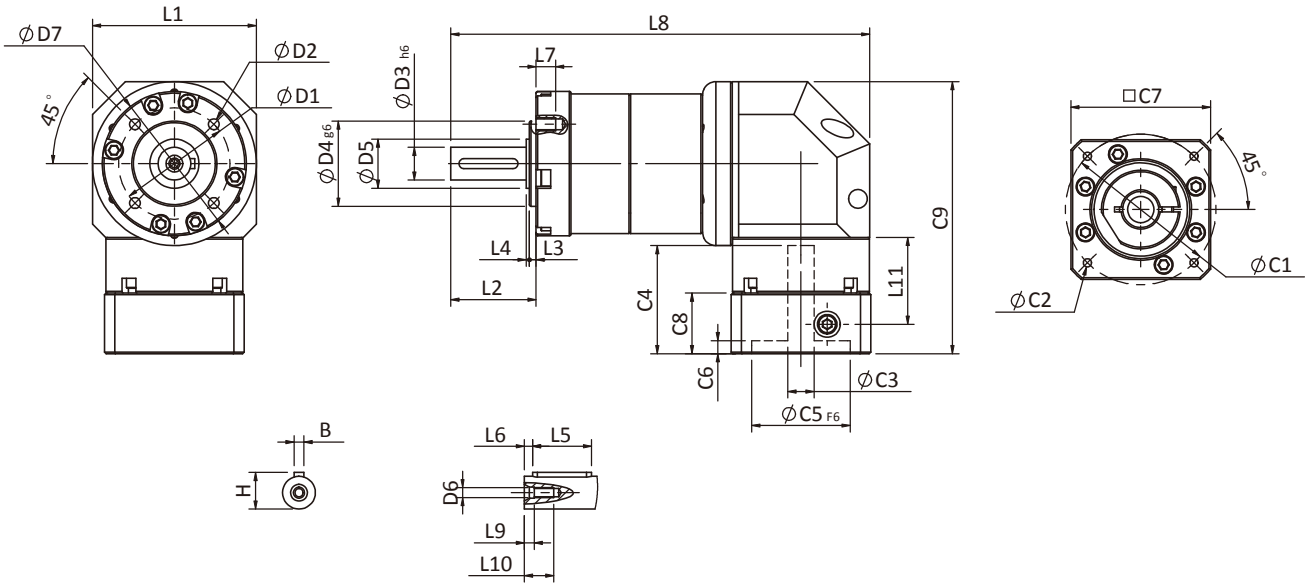
Unit: mm

Dimensions	PNSR40	PNSR60	PNSR80	PNSR120
D1	34	52	70	-
D2	M4x0.7P	M5x0.8P	M6x1.0P	-
D3 h6	10	14	20	-
D4 g6	26	40	60	-
D5	15	20	35	-
D6	M3x0.5P	M5x0.8P	M6x1.0P	-
D7	44	60	90	-
L1	50	70	-	-
L2	26	35	40	-
L3	2	3	3	-
L4	1	1	1	-
L5	18	25	28	-
L6	2.5	2.5	4	-
L7	6	8	10	-
L8	105.4	139.7	189.2	-
L9	3	4	4.5	-
L10	9	16.5	16.5	-
L11	26.5	36	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]	33	44	57	-
C5 [2] F6	30	50	70	-
C6 [2]	4	4	6	-
C7 [2]	42.6	60	90	-
C8 [2]	18.5	20	26	-
C9 [2]	83	111.4	150.2	-
B	3	5	6	-
H	11.2	16	22.5	-

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

★ Specification subject to change without notice.

PNSR Double Stage Dimensions-1



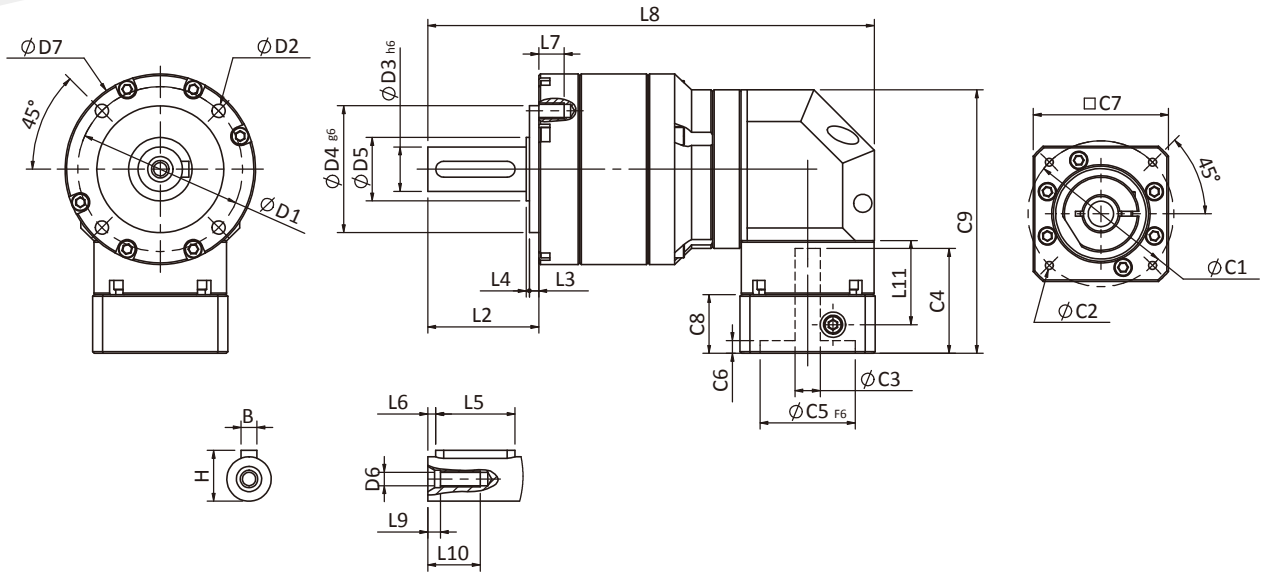
Specifications

Unit: mm

Dimensions	PNSR40	PNSR60	PNSR80	PNSR120
D1	34	52	70	-
D2	M4x0.7P	M5x0.8P	M6x1.0P	-
D3 h6	10	14	20	-
D4 g6	26	40	60	-
D5	15	20	35	-
D6	M3x0.5P	M5x0.8P	M6x1.0P	-
D7	44 (45)	60	90	-
L1	50	70	-	-
L2	26	35	40	-
L3	2	3	3	-
L4	1	1	1	-
L5	18	25	28	-
L6	2.5	2.5	4	-
L7	6	8	10	-
L8	127.9	166.7	223	-
L9	3	4	4.5	-
L10	9	16.5	16.5	-
L11	26.5	36	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]	33	44	57	-
C5 [2] F6	30	50	70	-
C6 [2]	4	4	6	-
C7 [2]	42.6	60	90	-
C8 [2]	18.5	20	26	-
C9 [2]	83	111.4	150.2	-
B	3	5	6	-
H	11.2	16	22.5	-

*1. D7=45 when gear ratios are 100, 200, and 300.
*2. C1~C9 are motor specific dimensions (metric std shown). Sizes may vary according to the motor flange chosen.
★ Specification subject to change without notice.

PNSR Double Stage Dimensions-2



Specifications

Unit: mm

Dimensions	PNSR60T	PNSR80T	PNSR120T
D1	52	70	100
D2	M5x0.8P	M6x1.0P	M10x1.5P
D3 h6	14	20	25
D4 g6	40	60	80
D5	20	35	40
D6	M5x0.8P	M6x1.0P	M10x1.5P
D7	60	90	116
L1	-	-	-
L2	35	40	55
L3	3	3	4
L4	1	1	1
L5	25	28	40
L6	2.5	4	5
L7	8	10	15
L8	140.7	181.8	268.9
L9	4	4.5	6
L10	16.5	16.5	26
L11	26.5	36	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]	33	44	57
C5 [2] F6	30	50	70
C6 [2]	4	4	6
C7 [2]	42.6	60	90
C8 [2]	18.5	20	26
C9 [2]	83	111.4	150.2
B	5	6	8
H	16	22.5	28

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

★ Specification subject to change without notice.

PNSR Specifications Table

Specifications		Stage	Ratio	PNSR-40	PNSR-60	PNSR-80	PNSR-120
Nominal Output Torque T_{2N}	N • m	1	3	9	28	85	200
			4	10	32	80	215
			5	11	35	95	215
			7	10	28	85	200
			8	10	32	80	215
			9	9	28	85	200
			10	11	35	95	215
			12	10	32	80	215
			14	10	28	85	200
			15	11	35	95	215
			16	8	23	75	195
		Stage	Ratio	PNSR-40	PNSR-60/ PNSR-60T	PNSR-80/ PNSR-80T	PNSR-120T
		2	20	11	35/31	95/95	215
			25	11	35/30	95/95	215
			30	11	35/30	95/95	215
			35	11	35/28	95/95	215
			40	11	35/31	95/95	215
			50	11	35/30	95/95	215
			60	11	35/30	95/95	215
			70	10	35/28	95/95	215
			80	11	35/27	95/92	215
			98	10	-	-	-
			100	-	35/27	95/82	205
			120	11	35/27	95/92	215
			160	-	23/23	75/75	195
			200	8	21/21	65/65	180
			243	8	23/23	75/75	195
			300	8	21/21	65/65	180
Emergency Stop Torque T_{2NOT}	N • m	(2.5 times of Nominal Output Torque) Max. Output Torque T_{2B}=60% of Emergency Stop Torque)					
Nominal Input Speed n_{1N}	rpm	1,2	3-300	4500	4000	3000	2500
Max. Input Speed n_{1max}	rpm	1,2	3-300	7500	7000	6000	5000
Standard Backlash P2	arcmin	1 2	3-16 20-300	≦ 18 ≦ 20	≦ 15 ≦ 17	≦ 13 ≦ 15	≦ 11 ≦ 13
Torsional Rigidity	N • m /arcmin	1,2	3-300	1.2	3.5	8.5	17
Max. Radial Load F_{2rB}[1]	N	1,2	3-300	580	890	2050	4370
Max. Axial Load F_{2aB}[1]	N	1,2	3-300	410	430	1100	2630
Operating Temp.	℃	1,2	3-300	-10℃ ~ +90℃			
Service Life	hr	1,2	3-300	20,000 (10,000 Continuous operation)			
Efficiency	%	1 2	3-16 20-300	≧ 95% ≧ 90%			
Weight	kg	1 2	3-16 20-300	1.0 1.2	2.4 2.9/2.7	6.1 8.1/6.5	12.2 13.8
Mounting Position	-	1,2	3-300	Any direction			
Noise Level [2]	dBA/1m	1,2	3-300	66	68	70	73
Protection Class	-	1,2	3-300	IP 65			
Lubrication	-	1,2	3-300	Synthetic Lubricant			

Inertia (J1)

Stage	Ratio	unit	PNSR-40 (ϕ 8)	PNSR-60 (ϕ 14)	PNSR-80 (ϕ 19)	PNSR-120 (ϕ 24)
1	3, 4, 5, 7	Kg • cm^2	0.07	0.40	2.30	6.80
	Other ratios		0.05	0.30	1.50	4.70
Stage	Ratio		PNSR-40 (ϕ 8)	PNSR-60 (ϕ 14) PNSR-60T (ϕ 8)	PNSR-80 (ϕ 19) PNSR-80T (ϕ 14)	PNSR-120T (ϕ 19)
2	20, 25, 35		0.07	0.40/0.07	2.30/0.40	2.30
	Other ratios		0.05	0.30/0.05	1.50/0.30	1.50

* 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.