



PBL-H Type (Standard Helical Gear Type)

Single Stage Backlash \leq 10 arc-min
Double Stage Backlash \leq 12 arc-min

Indication of Model Numbers

PBL	90	—	H	10	—	Key Type
Type PBL	Model 44 62 90 120 142		Helical Gear	Ratio Single Stage 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20 Double Stage 15, 20, 25, 30, 35, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 180, 200.		Output Shaft Keyway <input type="checkbox"/> 무표기 Standard (Keyway) N : 표 기 Solid Output Shaft (No Keyway)

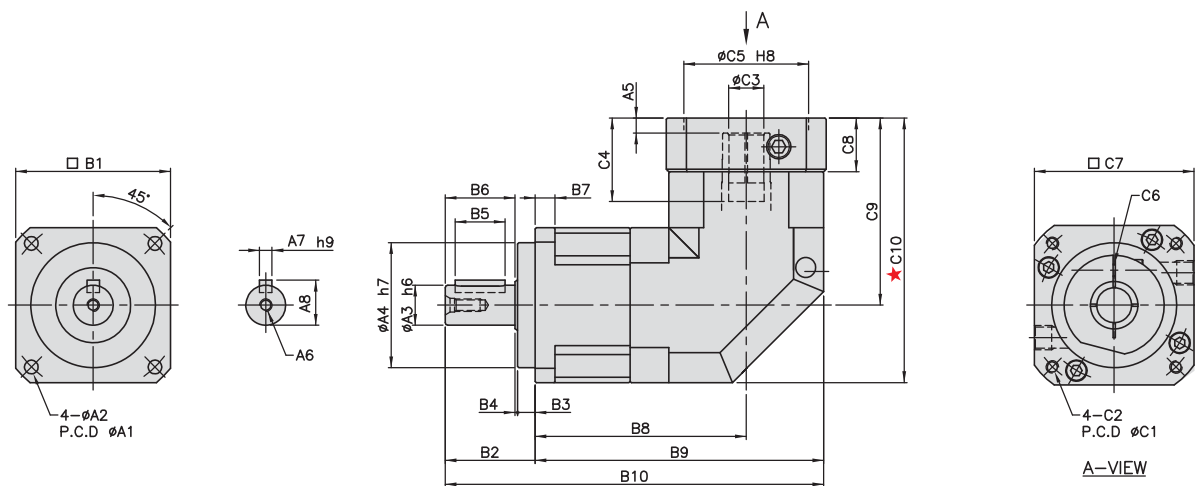




MODEL : PBL (44~142)-H

Single Reduction

RATIO : 3.4.5.6.7.8.9.10.12.14.16.18.20



unit:mm

	Model code	44	62	90	120	142
A	A1	50	70	100	130	165
	A2	4.5	5.5	6.8	9	11
	A3	13	16	22	32	40
	A4	35	50	80	110	130
	A5	6	6	9	10	10
	A6	M4×P0.7	M5×P0.8	M8×P1.25	M10×P1.5	M12×P1.75
	A7	5	5	6	10	12
	A8	15	18	24.5	35	43
	B1	44	62	90	120	142
	B2	26	36	48	65	92
B	B3	5	7	10	12	15
	B4	1	1	2	3	3
	B5	15	20	30	40	65
	B6	20	28	36	50	74
	B7	5	8	10	12	15
	B8	76	84.5	122.1	148	165.5
	B9	98	115.5	167.1	208	236.5
	B10	124	151.5	215.1	273	328.5
	C1	46, 60, 63, 70	46, 70, 75, 90	70, 90, 100, 145	90, 145	145, 165, 200, 215
	C2	M3, M4, M5	M4, M5, M6	M4, M5, M6, M8	M6, M8, M10	M8, M10, M12
C	C3	5, 6.35 8,(9, 11)	11, 12 14,(16, 19)	14, 16 19,(22, 24)	19, 22 24, 28,(32)	32, 35,(38)
	C4	26	33.5, 41.5	53, 67.5	67	85
	C5	30, 40, 50	50, 60, 70	50, 70, 110,	70, 110	110, 114.3, 130, 180
	C6	M3	M5	M6	M8	M10
	C7	46, 55, 60	64, 70, 80	92, 110, 130, 142	130, 150	146, 150, 180, 190
	C8	16	21.5	26.5, 41	35.5, 45.5	35.5
	C9	61	75	115.3, 129.8	141, 151	174
	C10	83	106	160.3, 174.8	201, 211	245

High Precision Planetary Reducer

PBL

Model No.	Unit	Ratio	44	62	90	120	142
Rated Output Torque	Nm	3	17	54	145	301	553
		4	15	48	128	269	491
		5	14	45	132	278	510
		6	13	41	125	252	466
		7	13	41	123	258	473
		8	12	39	115	241	442
		9	11	40	120	227	412
		10	12	40	116	246	452
		12	13	41	125	252	466
		14	13	41	123	258	473
		16	12	39	115	241	442
		18	11	40	120	227	412
		20	12	40	116	246	452
Max. Output Torque	Nm	3~20	3 Times of Rated Output Torque				
Rated Input Speed	rpm	3~20	5,000	5,000	4,000	3,600	3,600
Max. Input Speed	Nm	3~20	6,000	6,000	6,000	5,000	5,000
Torsional Rigidity	Nm/arc min	3~20	3	6	14	27	60
Max. Radial Force	N	3~20	360	1,120	3,040	6,460	8,830
Max. Axial Force	N	3~20	180	560	1,520	3,230	4,410
Service Life	hr	3~20	10,000 (Continuous Operation 4,000 hrs)				
Efficiency	%	3~20	≥95%				
Operating Temperature	°C	3~20	-25°C ~ +90°C				
Lubrication		3~20	Synthetic Grease				
Degree of Gearbox Protection		3~20	IP65				
Mounting Position		3~20	Any				
Noise Level	dB	3~20	≤70	≤72	≤74	≤76	≤78
Weight ±3%	Kg	3~20	0.99	2.2	6.88	12.5	23.16

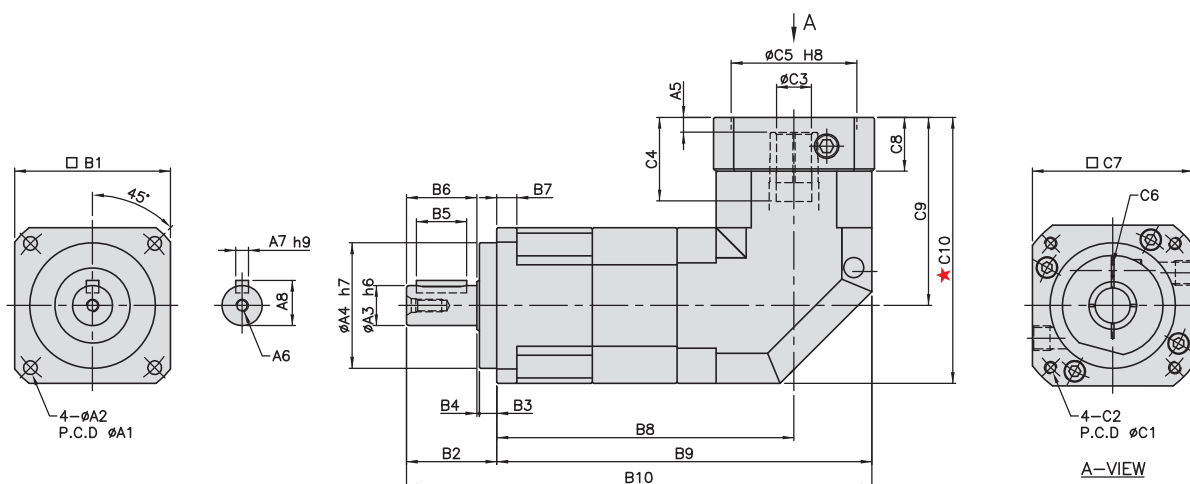


MODEL : PBL (44~142)-H

Double Reduction

RATIO : 15.20.25.30.35.40.50.60.70.80.

90. 100. 120. 140. 160. 180. 200



unit:mm

	Model code	44	62	90	120	142
A	A1	50	70	100	130	165
	A2	4.5	5.5	6.8	9	11
	A3	13	16	22	32	40
	A4	35	50	80	110	130
	A5	6	6	9	10	10
	A6	M4 × P0.7	M5 × P0.8	M8 × P1.25	M10 × P1.5	M12 × P1.75
	A7	5	5	6	10	12
	A8	15	18	24.5	35	43
B	B1	44	62	90	120	142
	B2	26	36	48	65	92
	B3	5	7	10	12	15
	B4	1	1	2	3	3
	B5	15	20	30	40	65
	B6	20	28	36	50	74
	B7	5	8	10	12	15
	B8	102	118.3	165.6	204	232
	B9	124	149.3	210.6	264	303
	B10	150	185.3	258.6	329	395
C	C1	46, 60, 63, 70	46, 70, 75, 90	70, 90, 100, 145	90, 145	145, 165, 200, 215
	C2	M3, M4, M5	M4, M5, M6	M4, M5, M6, M8	M6, M8, M10	M8, M10, M12
	C3	5, 6.35 8,(9, 11)	11, 12 14,(16, 19)	14, 16 19,(22, 24)	19, 22 24, 28,(32)	35, 35,(38)
	C4	26	33.5, 41.5	53, 67.5	67	85
	C5	30, 40, 50	50, 60, 70	50, 70, 110	70, 110	110, 114.3 130, 180
	C6	M3	M4	M6	M8	M10
	C7	46, 55, 60	64, 70, 80	92, 110, 130, 142	130, 150	146, 150, 180, 190
	C8	16	21.5	26.5, 41	35.5, 45.5	35.5
	C9	61	75	115.3, 129.8	141, 151	174
	C10	83	106	160.3, 174.8	201, 211	245

High Precision Planetary Reducer

PBL

Model No.	Unit	Ratio	44	62	90	120	142
Rated Output Torque	Nm	15	17	54	145	301	553
		20	15	48	128	269	491
		25	14	45	132	278	510
		30	13	41	125	252	466
		35	13	41	123	258	473
		40	12	39	115	241	442
		50	11	45	132	278	510
		60	12	41	125	252	466
		70	13	41	123	258	473
		80	13	40	115	241	442
		90	12	40	120	227	412
		100	11	40	116	246	452
		120	12	41	125	252	466
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		180	12	40	120	227	412
		200	11	40	116	246	452
Max. Output Torque	Nm	15~100	3 Times of Rated Output Torque				
Rated Input Speed	rpm	15~100		3,000	3,000	3,000	3,000
Max. Input Speed	Nm	15~100		6,000	6,000	5,000	5,000
Torsional Rigidity	Nm/arc min	15~100		6	14	27	60
Max. Radial Force	N	15~100		1,120	3,040	6,460	8,830
Max. Axial Force	N	15~100		560	1,520	3,230	4,410
Service Life	hr	15~100	10,000 (Continuous Operation 4,000 hrs)				
Efficiency	%	15~100	≥92%				
Operating Temperature	℃	15~100	-25℃ ~ +90℃				
Lubrication		15~100	Synthetic Grease				
Degree of Gearbox Protection		15~100	IP65				
Mounting Position		15~100	Any				
Noise Level	dB	15~100	≤70	≤72	≤74	≤76	≤78
Weight ±3%	Kg	15~100	1.5	3	8.15	13.9	29.4