

MODEL : KSDL
Single Reduction
RATIO : 5, 7, 10, 14, 20

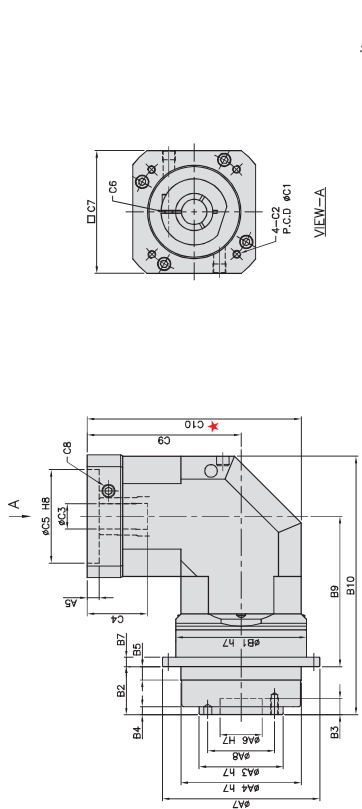


High Precision Planetary Reducer

Ratio	47	64	90	110	140
5	0.09	0.36	2.28	6.85	23.50
7	0.09	0.36	2.28	6.85	23.50
10	0.09	0.36	2.28	6.85	23.50
14	0.03	0.08	1.88	6.20	21.80
20	0.03	0.08	1.88	6.20	21.80

Model No.	Unit	Ratio	47	64	90	110	140
Rated Output Torque	Nm	5	20	50	155	333	618
		7	19	47	142	309	573
		10	16	43	136	333	549
		14	19	47	142	309	573
		20	16	43	136	294	549
Max. Output Torque	Nm	3 Times of Rated Output Torque					
Rated Input Speed	rpm	5~20	3,000	3,000	3,000	3,000	3,000
Max. Input Speed	rpm	5~20	6,000	6,000	6,000	6,000	6,000
Backlash P0	arc min	5~20	≤ 4	≤ 4	≤ 4	≤ 4	≤ 4
Backlash P1	arc min	5~20	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6
Backlash P2	arc min	5~20	≤ 8	≤ 8	≤ 8	≤ 8	≤ 8
Torsional Rigidity	Nm/arc min	5~20	6	14	30	86	155
Max. Axial Force Ball Bearing	N	5~20	1,020	1,260	4,230	6,360	7,035
Max. Axial Force Taper Bearing	N	5~20	-	-	7,330	11,500	18,600
Service Life	hr	5~20	10,000 (4,000 / Continuous operation)				
Efficiency	%	5~20	≥ 95%				
Operating Temperature	°C	5~20	-25° C ~ +90° C				
Lubrication		5~20	Vigo Grease Re #0				
Gearbox Protection Degree		5~20	IP65				
Mounting Position		5~20	Any				
Noise Level	dB	5~20	≤ 68	≤ 70	≤ 72	≤ 74	≤ 76
Weight ± 3%	Kg	5~20	1.08	2.2	6.8	13.6	23.2

■ Mass Moments of Inertia (kg · cm²)



Model code	47	64	90	110	140
A1	67	79	109	135	168
A2	8~3,4	8~4,5	8~5,5	8~5,5	12~6,6
A3	28	40	63	80	100
A4	47	64	90	110	140
A5	3~5, 6	9, 14, 18, 23, 5	10, 20	10, 20	10
A6	12	20	31, 5	40	50
A7	72	86	118	146	179
A8	20	31, 5	50	63	80
A9	4-M3xP0,5	7-M5xP0,8	7-M6xP1,0	11-M6xP1,0	11-M8xP1,25
A10	3	5	6	6	8
B1	59	70	98	125	156
B2	19, 5	19, 5	30	29	38
B3	5	7	12	12	12
B4	3	4	6	6	6
B5	5	6	10	10	15
B6	6, 5	10	12	12	16
B7	4	5	7	8	10
B8	4	6	6	7	7
B9	94, 5	114, 5	163, 6	203	227, 5
B10	114	134	193, 6	232	265, 5
C1	46, 60, 63	70, 75, 90	90, 100, 115, 145	115, 145, 165	145, 165, 200
C2	M3, M4, M5	M4, M5, M6	M5, M6, M8	M6, M8, M10	M8, M10, M12
C3	8,(11)	14,(19)	19,(22, 24)	24,(28, 32)	28, 32, 35
C4	30, 5	34	45, 73	67, 77	84, 5
C5	30, 40, 50	50, 60, 70	70, 80, 95, 110	95, 110, 130	110, 130, 180
C6	M3	M5	M6	M8	M10
C7	46, 55	64, 70, 80	92, 110, 130	122, 130, 150	146, 150, 190
C8	1/8"PT	1/8"PT	1/4"PT	1/4"PT	1/4"PT
C9	61	74, 5, 77, 84	115, 3, 129, 8	141, 151	174
C10	83	108, 115	160, 3, 174, 8	201, 211	245

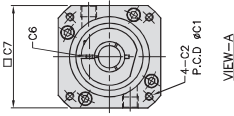
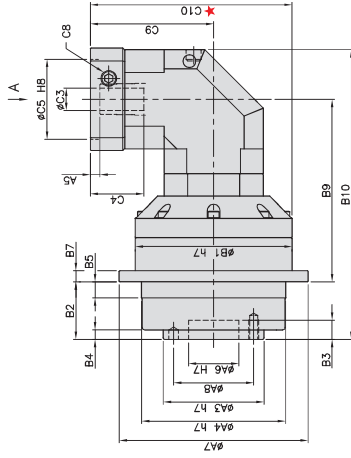


ATG SERVOBOX
Planetary Reducers

MODEL : KSDL
Double Reduction

RATIO : 25, 35, 50, 70, 100, 140, 200

High Precision Planetary Reducer



Model code	47	64	90	110	140	unit:mm
A1	67	79	109	135	168	
A2	8-3,4	8-4,5	8-5,5	8-5,5	12-6,6	
A3	28	40	63	80	100	
A4	47	64	90	110	140	
A5	6	3,5,6	9, 14, 18, 23,5	10, 20	10	
A6	12	20	31,5	40	50	
A7	72	86	118	146	179	
A8	20	31,5	50	63	80	
A9	4-M3XP0,5	7-M5XP0,8	7-M6XP1,0	11-M6XP1,0	11-M8XP1,25	
A10	3	5	6	6	8	
B1	59	70	98	125	156	
B2	19,5	19,5	30	29	38	
B3	5	7	12	12	12	
B4	3	4	6	6	6	
B5	5	6	10	10	15	
B6	6,5	10	12	12	16	
B7	4	5	7	8	10	
B8	4	6	6	7	7	
B9	94,5	118,5	151	210,6	254,5	
B10	128	138	181	239,6	292,5	
C1	46, 60, 63	46, 60, 63	70, 75, 90	90, 100, 115, 145	115, 145, 165	
C2	M3, M4, M5	M3, M4, M5	M4, M5, M6	M5, M6, M8	M6, M8, M10	
C3	8(11)	8(11)	14(19)	19(22, 24)	24(28, 32)	
C4	27	27	33,5, 40,5	53, 67,5	67, 77	
C5	30, 40, 50	30, 40, 50	50, 60, 70	70, 80, 95, 110	95, 110, 130	
C6	M3	M3	M5	M6	M8	
C7	46, 55	46, 55	64, 70, 80	92, 110, 130	122, 130, 150	
C8	1/8*PT	1/8*PT	1/8*PT	1/8*PT	1/4*PT	
C9	61	61	74,5, 84	115,3, 129,8	141, 156	
C10	90,5	96	126, 133	177,8, 192,3	219, 234	

■ Mass Moments of Inertia (kg · cm²)

Ratio	47	64	90	110	140
25	0.09	0.36	2.28	6.85	23.5
35	0.09	0.36	2.28	6.85	23.5
50	0.09	0.36	2.28	6.85	23.5
70	0.09	0.36	2.28	6.85	23.5
100	0.09	0.36	2.28	6.85	23.5
140	0.03	0.08	1.88	6.20	21.8
200	0.03	0.08	1.88	6.20	21.8

Model No.	Unit	Ratio	47	64	90	110	140
Rated Output Torque	Nm	25	20	50	155	333	618
		35	19	47	142	309	573
		50	20	50	155	333	618
		70	19	47	142	309	573
		100	16	43	136	294	549
Max. Output Torque	Nm	25~200	3 Times of Rated Output Torque				
		25~200	3,000	3,000	3,000	3,000	3,000
Rated Input Speed	rpm	25~200	3,000	6,000	6,000	6,000	6,000
Max. Input Speed	rpm	25~200	≤ 7	≤ 9	≤ 9	≤ 9	≤ 9
Backlash P0	arc min	25~200	≤ 7	≤ 9	≤ 9	≤ 9	≤ 9
Backlash P1	arc min	25~200	≤ 9	≤ 9	≤ 9	≤ 9	≤ 9
Backlash P2	arc min	25~200	≤ 12	≤ 12	≤ 12	≤ 12	≤ 12
Torsional Rigidity	Nm/arc min	25~200	6	14	30	86	155
Max. Axial Force Ball Bearing	N	25~200	1,020	1,260	4,230	6,360	7,035
Max. Axial Force Taper Bearing	N	25~200	-	-	7,330	11,500	18,600
Service Life	hr	25~200	10,000 (4,000 / Continuous operation)				
Efficiency	%	25~200	≥ 92%				
Operating Temperature	°C	25~200	-25° C ~ +90° C				
Lubrication		25~200	Vigo Grease Re #0				
Gearbox Protection Degree		25~200	IP65				
Mounting Position		25~200	Any				
Noise Level	dB	25~200	≤ 68	≤ 70	≤ 72	≤ 74	≤ 76
Weight ± 3%	Kg	25~200	1.4	2.7	7.4	15.8	27.3