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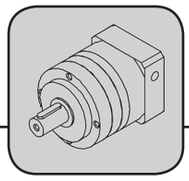


Company Profile

1. IN 1960, Mr. Mao Cheng Chen, president of the company, and two other colleagues in the department of Mechanical Engineering of the Tainan Engineering College (predecessor of Cheng Kung University) established a company called "Chen Ta Machinery Works". It was named "Chen Ta" in remembrance of, and also giving acknowledgement to, their alma mater, Cheng Kung University (called Chen Ta in short) from where Mr. Chen and his colleagues had received their specialized mechanical education.

2. Chen Ta Machinery Works specialized in machining jobs such as grinding/re-building of the crankshafts of automobile and vessel engines, cylinder overhaul, and diesel engine adjustment. Back then, she was the best of her field in southern Taiwan. Due to the excellent technique and the cordial service, the company name was soon well known and the business became prosperous.

3. In 1971, to support a long-term operation, the company needed her own products, so the technical cooperation between CHENTA and Japan reducer manufacturer began. From then on, CHENTA started manufacturing her own brand, "CHENTA GEAR REDUCERS". Now the company has about 100 employees, and her products have been marketing to the world under the name of "CHENTA". The major markets are in Taiwan, Asia, and North America. In Taiwan, she remains at the top of the field and also established branch offices in America and in Shanghai (in China).

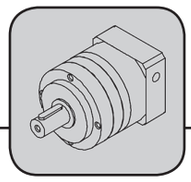
4. Since the beginning of the company, our conviction is to "Gather excellent human resource, and research and manufacture high quality products". Our product policy is targeting at "Guaranteed Quality", "On Time Delivery", "Competitive Prices", "Rational Production", and "International Marketing".

5. With more than 50 years of experience in mechanical manufacturing and honest operation, a fine culture has naturally grown inside the corporation. This spirit is the most precious resource of our company. The motto of our company is based on "INNOVATION", "HONESTY", "DILIGENCE", and "EFFICIENCY".

6. Influenced gradually under such fine culture, all employees in CHENTA work hard and take responsibility. They cooperate with each other and innovate actively. With their efforts, CHENTA keep developing and growing up to fight for the mutual benefits.

7. To reach our long term operation goal, based on the company's existing cultural resources, we will: have high expertise in the field; serve our customers with respect; constantly improve ourselves; manufacture high quality and affordable speed reducers for customers throughout the world, all so that we can grow together with our customers.

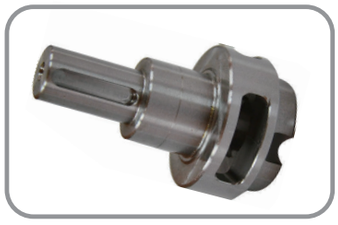
COMPANY PROFILE	Company Name: CHENTA PRECISION MACHINERY IND. INC. Established: 1971 Employee: 120 persons Plant Sizes: Jen Wu Plant: 7000m^2 Suzhou Plant: 30000M^2



Product Features

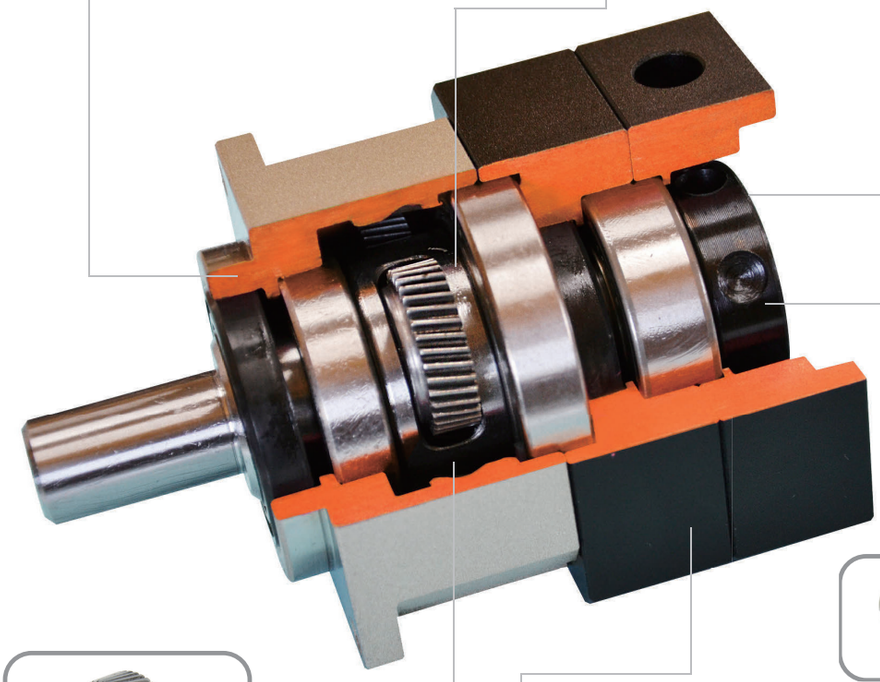
SG SERIES

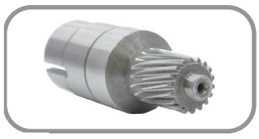
Gear box and internal ring gear are integrated designed, diameter maximized, high precision and high torque capacity are specialties.



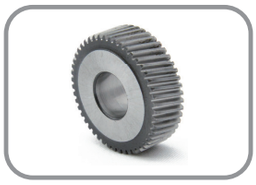
Integrated design of planet carrier and output shaft ensures the maximum torque stiffness and stability.

Triple split collet with dynamic balanced set collar clampingsystem provides backlash free power transmission and eliminatesslippage. 100% concentricity allows for smooth rotation andhigher input speed capability.

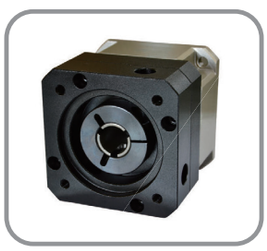




Adopting helical gear design, the contact ratio of planetary reducer is twice higher than vertical one.Smooth running, high output torque and low backlash are distinguished features.y.



To gain the best abrasion performance and impact resistance · Chromium Molybdenum Vanadium Alloy steel is selected as raw material.Accompany with quenching and tempering heat treatment process · the core hardness is increased to 25 HRC . Accompany with plasma nitriding heat treatment process · the surface hardness is increased to 600 HV.

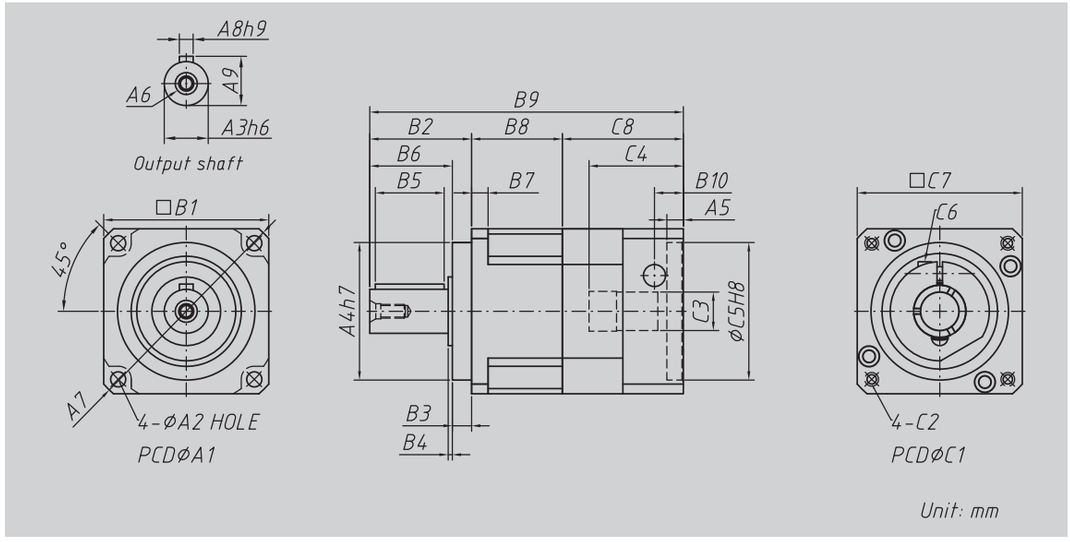


Motor adapter and bushing module are modularized designed · which applied to types of servomotors.

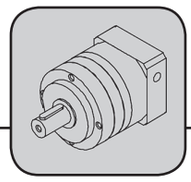
MODEL : SG SERIES

1-Stage (Ratio:3~10)

SG SERIES

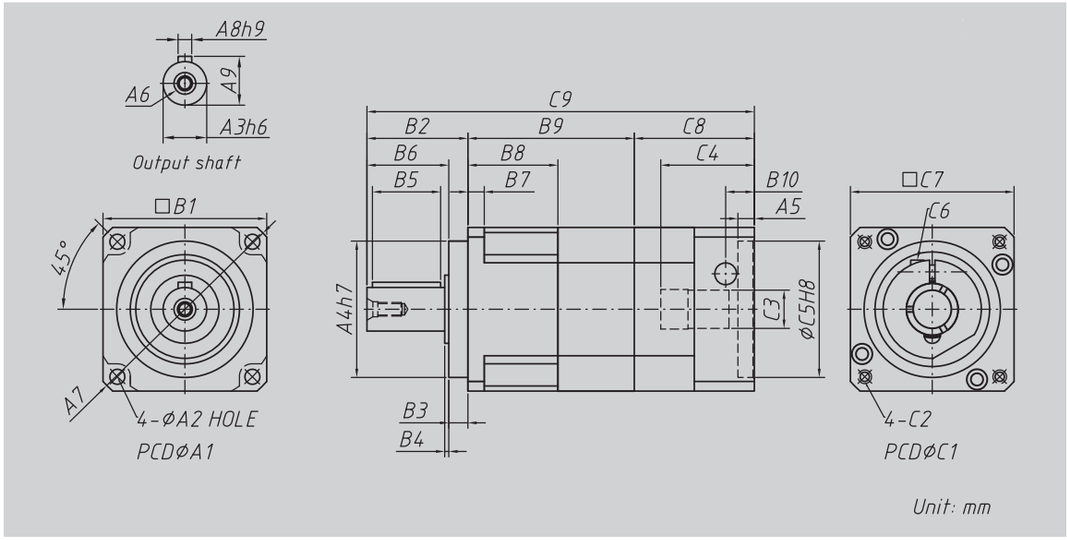


Code \ Model	42	60	90	115	142	180
A1	50	70	100	130	165	215
A2	3.5	5.5	6.5	8.5	10.5	13.5
A3	13	16	22	32	40	55
A4	35	50	80	110	130	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	56	80	116	148	185	240
A8	5	5	6	10	12	16
A9	15	18	24.5	35	43	60
B1	42.6	60	90	115	142	180
B2	25.8	37	48	65	97	104.5
B3	5.5	7	10	12	15	20
B4	1.6	1.5	1.5	2	3	2.5
B5	15	25	30	40	63	70
B6	20.5	30	38	53	82	84.5
B7	4	6	8	10	12	16
B8	28.3	33	43	54	72	87.5
B9	88.65	114	138	190	251	292
B10	11	13.5	14	15	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.35	44	47	71	82	100

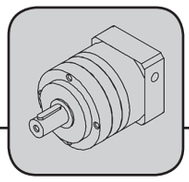


MODEL : SG SERIES

2-Stage (Ratio:15~100)



Model / Code	42	60	90	115	142	180
A1	50	70	100	130	165	215
A2	3.5	5.5	6.5	8.5	10.5	13.5
A3	13	16	22	32	40	55
A4	35	50	80	110	130	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	56	80	116	148	185	240
A8	5	5	6	10	12	16
A9	15	18	24.5	35	43	60
B1	42.6	60	90	115	142	180
B2	25.8	37	48	65	97	104.5
B3	5.5	7	10	12	15	20
B4	1.6	1.5	1.5	2	3	2.5
B5	15	25	30	40	63	70
B6	20.5	30	38	53	82	84.5
B7	4	6	8	10	12	16
B8	28.3	33	43	54	72	87.5
B9	54.3	61	83	102	123	177.5
B10	11	13.5	14	15	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.35	44	47	71	82	100
C9	114.65	142	178	238	312	382

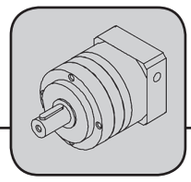


Reducer Performance Information

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Nominal Output Torque T_{2N}	Nm	L1	3	21	57	135	216	352	603
			4	20	52	145	298	552	1065
			5	23	62	165	338	660	1215
			6	21	57	155	318	610	1115
			7	20	52	145	308	560	1115
			8	18	47	125	268	510	1015
			9	15	42	105	238	460	915
			10	15	42	105	238	460	915
		L2	15	21	57	135	216	352	603
			20	20	52	145	298	552	1065
			25	23	62	165	338	660	1215
			30	21	57	155	318	610	1115
			35	20	52	145	308	560	1115
			40	18	47	125	268	510	1015
			50	23	62	165	338	660	1215
			60	21	57	155	318	610	1115
			70	20	52	145	308	560	1115
			80	18	47	125	268	510	1015
			90	15	42	105	238	460	915
			100	15	42	105	238	460	915
Max. Input Speed n_{1B}	rpm	L1/L2	3~100	10,000	10,000	8,000	8,000	6,000	6,000
Nominal Input Speed n_{1N}	rpm	L1/L2	3~100	5,000	5,000	4,000	4,000	3,000	3,000
Micro Backlash PS	arcmin	L1	3~10	≦ 1					
		L2	15~100	≦ 3					
Reduced Backlash P0	arcmin	L1	3~10	≦ 3					
		L2	15~100	≦ 5					
Standard Backlash P1	arcmin	L1	3~10	≦ 5					
		L2	15~100	≦ 7					
[A] Maximum Torque Spike T_{2B}	Nm	L1/L2	3~100	1.8 Times of nominal output torque					
Emergency Stop Torque T_{2NOT} [B]	Nm	L1/L2	3~100	3 Times of nominal output torque					
Torsional Rigidity	Nm/arcmin	L1/L2	3~100	3	7	14	25	50	145
Max. Radial Load F_{2rB} [C]	N	L1/L2	3~100	780	1,530	3,250	6,700	9,400	14,500
Max. Axial Load F_{2aB} [C]	N	L1/L2	3~100	390	765	1,625	3,350	4,700	7,250
Service Life	hr	L1/L2	3~100	S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)					
Operating Temp	℃	L1/L2	3~100	-25℃ ~ 90℃					
Efficiency η	%	L1	3~10	≦ 97					
		L2	15~100	≦ 94					
Lubrication		L1/L2	3~100	Synthetic Lubrication Grease					
Noise	dB	L1	3~10	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
		L2	15~100	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
Degree of Gearbox Protection	IP	L1/L2	3~100	IP 65					
Mounting Position		L1/L2	3~100	Any direction					
Weight	kg	L1	3~10	0.5	1.2	3.5	7.5	15.5	38
		L2	15~100	0.8	1.8	5.2	11.2	22.5	48

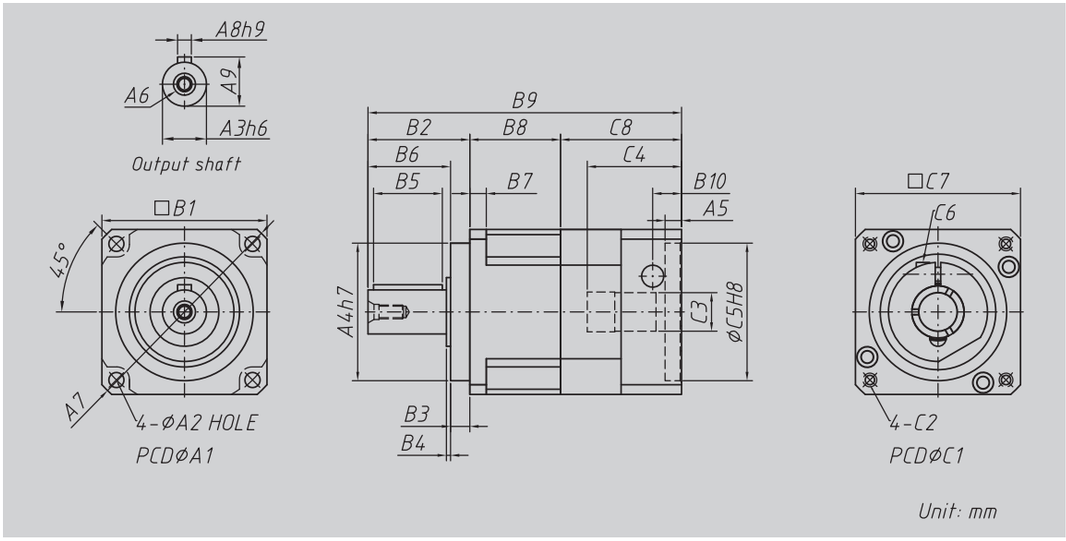
Reducer Moment of Inertia

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Mass Moments of Inertia J_1	kg.cm²	L1	3	0.03	0.16	0.61	3.25	9.21	28.98
			4	0.03	0.14	0.48	2.74	7.54	23.67
			5	0.03	0.13	0.47	2.71	7.42	23.29
			6	0.03	0.13	0.45	2.65	7.25	22.75
			7	0.03	0.13	0.45	2.62	7.14	22.48
			8	0.03	0.13	0.44	2.58	7.07	22.59
			9	0.03	0.13	0.44	2.57	7.04	22.53
			10	0.03	0.13	0.44	2.57	7.03	22.51
		L2	15	0.03	0.03	0.13	0.47	2.71	7.42
			20	0.03	0.03	0.13	0.47	2.71	7.42
			25	0.03	0.03	0.13	0.47	2.71	7.42
			30	0.03	0.03	0.13	0.47	2.71	7.42
			35	0.03	0.03	0.13	0.47	2.71	7.42
			40	0.03	0.03	0.13	0.47	2.71	7.42
			50	0.03	0.03	0.13	0.44	2.57	7.03
			60	0.03	0.03	0.13	0.44	2.57	7.03
			70	0.03	0.03	0.13	0.44	2.57	7.03
			80	0.03	0.03	0.13	0.44	2.57	7.03
			90	0.03	0.03	0.13	0.44	2.57	7.03
			100	0.03	0.03	0.13	0.44	2.57	7.03



MODEL : SGS SERIES

1-Stage (Ratio:3~10)

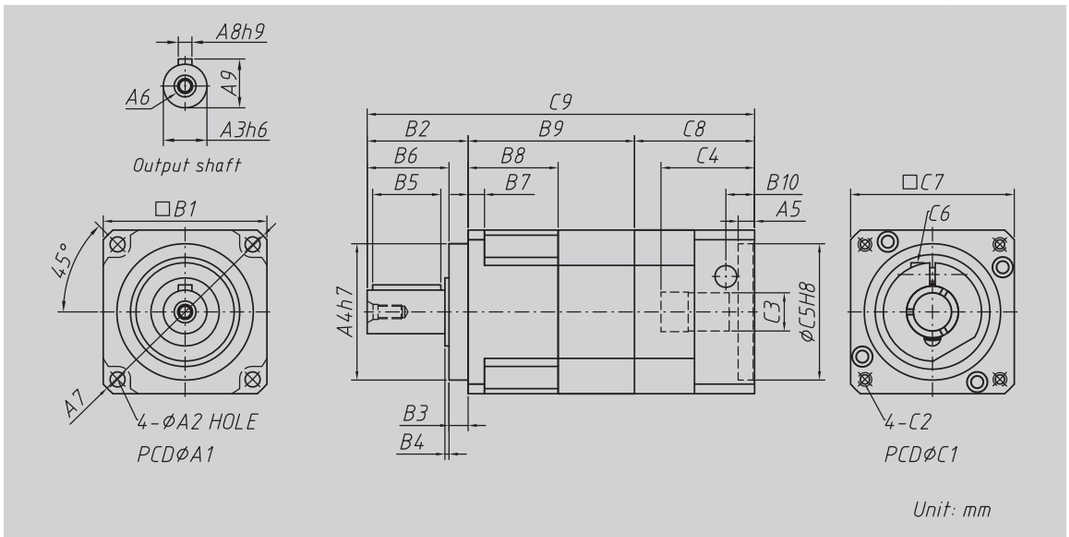


Model / Code	42	60	90	115	142	180
A1	50	70	100	130	165	215
A2	3.5	5.5	6.5	8.5	10.5	13.5
A3	13	16	22	32	40	55
A4	35	50	80	110	130	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	56	80	116	148	185	240
A8	5	5	6	10	12	16
A9	15	18	24.5	35	43	60
B1	42.6	60	90	115	142	180
B2	25.8	37	48	65	97	104.5
B3	5.5	7	10	12	15	20
B4	1.6	1.5	1.5	2	3	2.5
B5	15	25	30	40	63	70
B6	20.5	30	38	53	82	84.5
B7	4	6	8	10	12	16
B8	28.3	33	43	54	72	87.5
B9	88.65	114	138	190	251	292
B10	11	13.5	14	15	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.35	44	47	71	82	100

MODEL : SGS SERIES

2-Stage (Ratio:15~100)

SGS SERIES



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A2	3.5	5.5	6.5	8.5	10.5	13.5
A3	13	16	22	32	40	55
A4	35	50	80	110	130	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	56	80	116	148	185	240
A8	5	5	6	10	12	16
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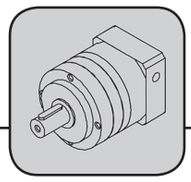
B1	42.6	60	90	115	142	180
B2	25.8	37	48	65	97	104.5
B3	5.5	7	10	12	15	20
B4	1.6	1.5	1.5	2	3	2.5
B5	15	25	30	40	63	70
B6	20.5	30	38	53	82	84.5
B7	4	6	8	10	12	16
B8	28.3	33	43	54	72	87.5
B9	54.3	61	83	102	123	177.5
B10	11	13.5	14	15	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.35	44	47	71	82	100
C9	114.65	142	178	238	312	382



Reducer Performance Information

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Nominal Output Torque T_{2N}	Nm	L1	3	21	57	135	216	352	603
			4	20	52	145	298	552	1065
			5	23	62	165	338	660	1215
			6	21	57	155	318	610	1115
			7	20	52	145	308	560	1115
			8	18	47	125	268	510	1015
			9	15	42	105	238	460	915
			10	15	42	105	238	460	915
		L2	15	21	57	135	216	352	603
			20	20	52	145	298	552	1065
			25	23	62	165	338	660	1215
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			60	21	57	155	318	610	1115
			70	20	52	145	308	560	1115
			80	18	47	125	268	510	1015
			90	15	42	105	238	460	915
			100	15	42	105	238	460	915
Max. Input Speed n_{1B}	rpm	L1/L2	3~100	10,000	10,000	8,000	8,000	6,000	6,000
Nominal Input Speed n_{1N}	rpm	L1/L2	3~100	5,000	5,000	4,000	4,000	3,000	3,000
Micro Backlash PS	arcmin	L1	3~10	≦ 1					
		L2	15~100	≦ 3					
Reduced Backlash P0	arcmin	L1	3~10	≦ 3					
		L2	15~100	≦ 5					
Standard Backlash P1	arcmin	L1	3~10	≦ 5					
		L2	15~100	≦ 7					
Regular Backlash P2	arcmin	L1	3~10	≦ 7					
		L2	15~100	≦ 9					
Maximum Torque Spike T_{2B}	Nm	L1/L2	3~100	1.8 Times of nominal output torque					
Emergency Stop Torque T_{2NOT}[B]	Nm	L1/L2	3~100	3 Times of nominal output torque					
Torsional Rigidity	Nm/arcmin	L1/L2	3~100	3	7	14	25	50	145
Max. Radial Load F_{2rB}[C]	N	L1/L2	3~100	610	1,400	4,100	9,200	14,000	18,000
Max. Axial Load F_{2aB}[C]	N	L1/L2	3~100	320	1,100	3,700	5,820	11,400	19,500
Service Life[D]	hr	L1/L2	3~100	S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)					
Operating Temp	℃	L1/L2	3~100	-25℃ ~ 90℃					
Efficiency η	%	L1	3~10	≦ 97					
		L2	15~100	≦ 94					
Lubrication		L1/L2	3~100	Synthetic Lubrication Grease					
Noise	dB	L1	3~10	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
		L2	15~100	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
Degree of Gearbox Protection	IP	L1/L2	3~100	IP 65					
Mounting Position		L1/L2	3~100	Any direction					
Weight	kg	L1	3~10	0.5	1.2	3.5	7.5	15.5	38
		L2	15~100	0.8	1.8	5.2	11.2	22.5	48

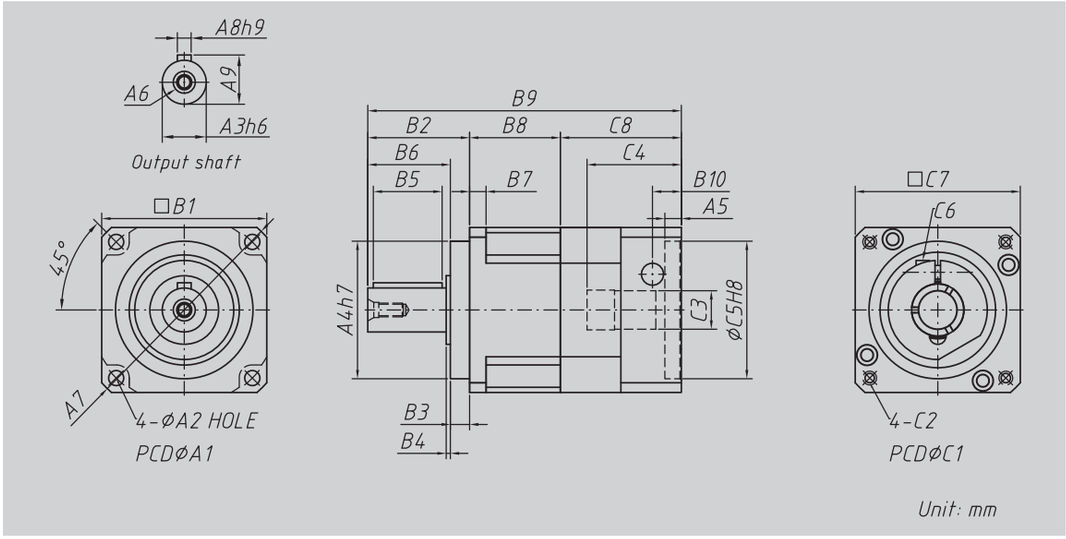
Reducer Moment of Inertia

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Mass Moments of Inertia J_1	kg.cm²	L1	3	0.03	0.16	0.61	3.25	9.21	28.98
			4	0.03	0.14	0.48	2.74	7.54	23.67
			5	0.03	0.13	0.47	2.71	7.42	23.29
			6	0.03	0.13	0.45	2.65	7.25	22.75
			7	0.03	0.13	0.45	2.62	7.14	22.48
			8	0.03	0.13	0.44	2.58	7.07	22.59
			9	0.03	0.13	0.44	2.57	7.04	22.53
			10	0.03	0.13	0.44	2.57	7.03	22.51
		L2	15	0.03	0.03	0.13	0.47	2.71	7.42
			20	0.03	0.03	0.13	0.47	2.71	7.42
			25	0.03	0.03	0.13	0.47	2.71	7.42
			30	0.03	0.03	0.13	0.47	2.71	7.42
			35	0.03	0.03	0.13	0.47	2.71	7.42
			40	0.03	0.03	0.13	0.47	2.71	7.42
			50	0.03	0.03	0.13	0.44	2.57	7.03
			60	0.03	0.03	0.13	0.44	2.57	7.03
			70	0.03	0.03	0.13	0.44	2.57	7.03
			80	0.03	0.03	0.13	0.44	2.57	7.03
			90	0.03	0.03	0.13	0.44	2.57	7.03
			100	0.03	0.03	0.13	0.44	2.57	7.03

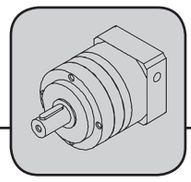
MODEL : SGL SERIES

1-Stage (Ratio:3~10)

SGL SERIES

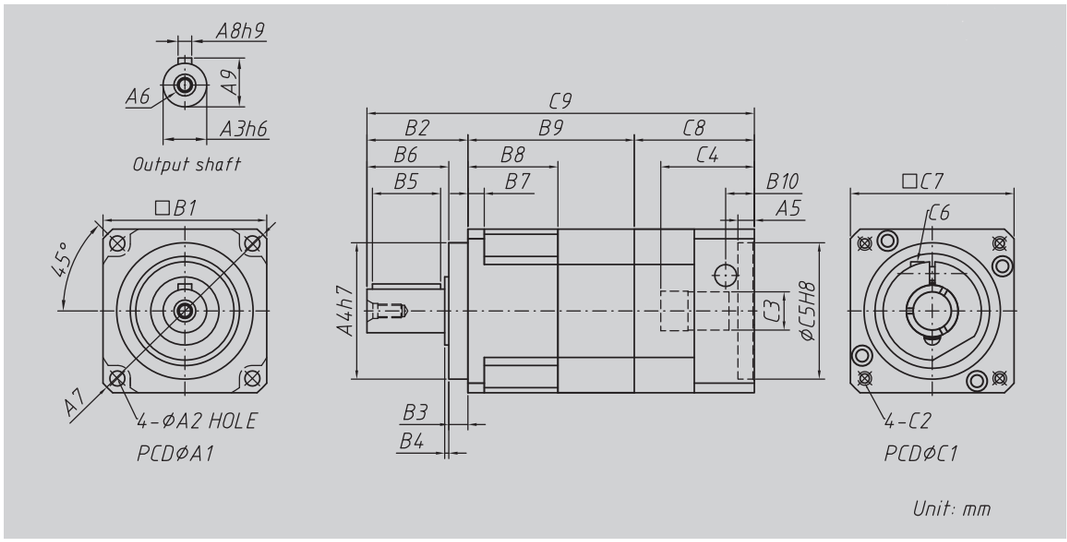


Code \ Model	42	60	90	115	142	180
A1	50	70	100	130	165	215
A2	3.5	5.5	6.5	8.5	10.5	13.5
A3	13	16	22	32	40	55
A4	35	50	80	110	130	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	56	80	116	148	185	240
A8	5	5	6	10	12	16
A9	15	18	24.5	35	43	60
B1	42.6	60	90	115	142	180
B2	25.8	37	48	65	97	104.5
B3	5.5	7	10	12	15	20
B4	1.6	1.5	1.5	2	3	2.5
B5	15	25	30	40	63	70
B6	20.5	30	38	53	82	84.5
B7	4	6	8	10	12	16
B8	28.3	33	43	54	72	87.5
B9	88.65	114	138	190	251	292
B10	11	13.5	14	15	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.35	44	47	71	82	100

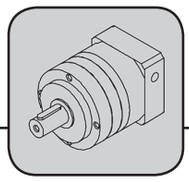


MODEL : SGL SERIES

2-Stage (Ratio:15~100)



Model / Code	42	60	90	115	142	180
A1	50	70	100	130	165	215
A2	3.5	5.5	6.5	8.5	10.5	13.5
A3	13	16	22	32	40	55
A4	35	50	80	110	130	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	56	80	116	148	185	240
A8	5	5	6	10	12	16
A9	15	18	24.5	35	43	60
B1	42.6	60	90	115	142	180
B2	25.8	37	48	65	97	104.5
B3	5.5	7	10	12	15	20
B4	1.6	1.5	1.5	2	3	2.5
B5	15	25	30	40	63	70
B6	20.5	30	38	53	82	84.5
B7	4	6	8	10	12	16
B8	28.3	33	43	54	72	87.5
B9	54.3	61	83	102	123	177.5
B10	11	13.5	14	15	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.35	44	47	71	82	100
C9	114.65	142	178	238	312	382

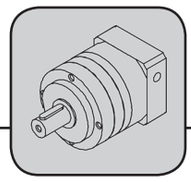


Reducer Performance Information

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Nominal Output Torque T_{2N}	Nm	L1	3	21	57	135	216	352	603
			4	20	52	145	298	552	1065
			5	23	62	165	338	660	1215
			6	21	57	155	318	610	1115
			7	20	52	145	308	560	1115
			8	18	47	125	268	510	1015
			9	15	42	105	238	460	915
			10	15	42	105	238	460	915
		L2	15	21	57	135	216	352	603
			20	20	52	145	298	552	1065
			25	23	62	165	338	660	1215
			30	21	57	155	318	610	1115
			35	20	52	145	308	560	1115
			40	18	47	125	268	510	1015
			50	23	62	165	338	660	1215
			60	21	57	155	318	610	1115
			70	20	52	145	308	560	1115
			80	18	47	125	268	510	1015
			90	15	42	105	238	460	915
			100	15	42	105	238	460	915
Max. Input Speed n_{1B}	rpm	L1/L2	3~100	10,000	10,000	8,000	8,000	6,000	6,000
Nominal Input Speed n_{1N}	rpm	L1/L2	3~100	5,000	5,000	4,000	4,000	3,000	3,000
Regular BacklashP2	arcmin	L1	3~10	≦ 8					
		L2	15~100	≦ 12					
Maximum Torque Spike T_{2B}	Nm	L1/L2	3~100	1.8 Times of nominal output torque					
Emergency Stop Torque T_{2NOT} [a]	Nm	L1/L2	3~100	3 Times of nominal output torque					
Torsional Rigidity	Nm/arcmin	L1/L2	3~100	3	7	14	25	50	145
Max. Radial Load F_{2rB} [c]	N	L1/L2	3~100	780	1,530	3,250	6,700	9,400	14,500
Max. Axial Load F_{2aB} [c]	N	L1/L2	3~100	390	765	1,625	3,350	4,700	7,250
Service Life [d]	hr	L1/L2	3~100	S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)					
Operating Temp	℃	L1/L2	3~100	-25℃ ~ 90℃					
Efficiency η	%	L1	3~10	≦ 97					
		L2	15~100	≦ 94					
Lubrication		L1/L2	3~100	Synthetic Lubrication Grease					
Noise	dB	L1	3~10	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
		L2	15~100	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
Degree of Gearbox Protection	IP	L1/L2	3~100	IP 65					
Mounting Position		L1/L2	3~100	Any direction					
Weight	kg	L1	3~10	0.5	1.2	3.5	7.5	15.5	38
		L2	15~100	0.8	1.8	5.2	11.2	22.5	48

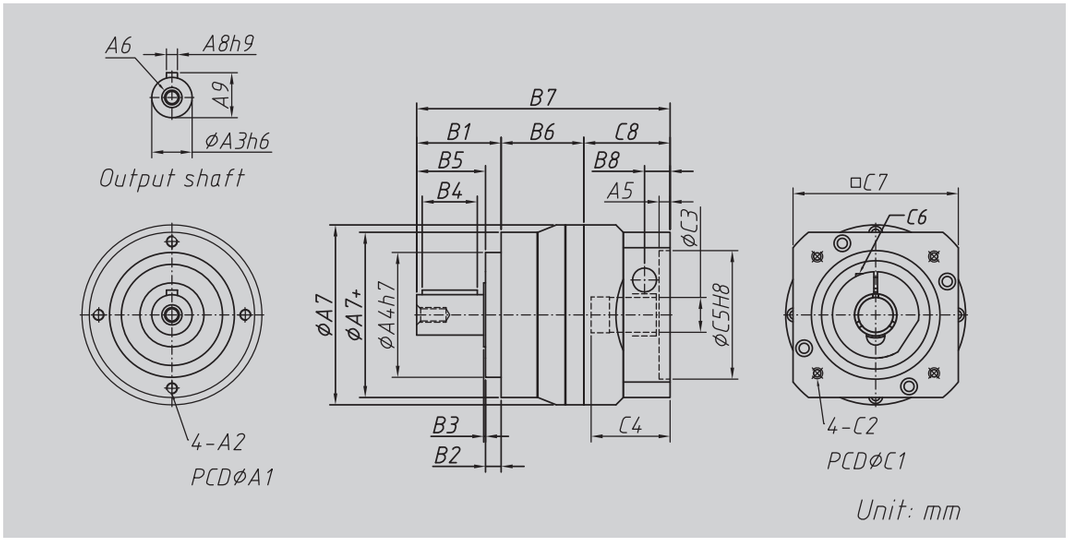
Reducer Moment of Inertia

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Mass Moments of Inertia J_1	kg.cm²	L1	3	0.03	0.16	0.61	3.25	9.21	28.98
			4	0.03	0.14	0.48	2.74	7.54	23.67
			5	0.03	0.13	0.47	2.71	7.42	23.29
			6	0.03	0.13	0.45	2.65	7.25	22.75
			7	0.03	0.13	0.45	2.62	7.14	22.48
			8	0.03	0.13	0.44	2.58	7.07	22.59
			9	0.03	0.13	0.44	2.57	7.04	22.53
			10	0.03	0.13	0.44	2.57	7.03	22.51
		L2	15	0.03	0.03	0.13	0.47	2.71	7.42
			20	0.03	0.03	0.13	0.47	2.71	7.42
			25	0.03	0.03	0.13	0.47	2.71	7.42
			30	0.03	0.03	0.13	0.47	2.71	7.42
			35	0.03	0.03	0.13	0.47	2.71	7.42
			40	0.03	0.03	0.13	0.47	2.71	7.42
			50	0.03	0.03	0.13	0.44	2.57	7.03
			60	0.03	0.03	0.13	0.44	2.57	7.03
			70	0.03	0.03	0.13	0.44	2.57	7.03
			80	0.03	0.03	0.13	0.44	2.57	7.03
			90	0.03	0.03	0.13	0.44	2.57	7.03
			100	0.03	0.03	0.13	0.44	2.57	7.03



MODEL : SE SERIES

1-Stage (Ratio:3~10)

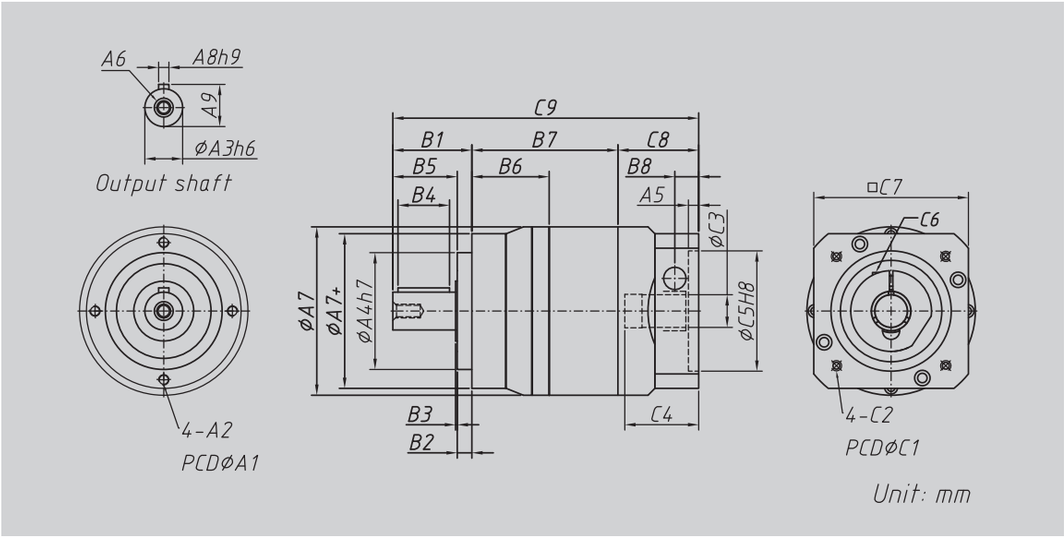


Model / Code	42	60	90	115	142	180
A1	44	62	80	108	140	184
A2	M4 X P0.7	M5 x P0.8	M6 x P1.0	M6 x P1.0	M10 x P1.25	M12 x P1.75
A3	13	16	22	32	40	55
A4	35	52	68	90	120	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	59	70	98	125	156	212
A7+	50	70	90	120	156	212
A8	5	5	6	10	12	16
A9	15	18	24.5	35	43	60
B1	26	36.5	46	70	97	104.5
B2	5.5	6.5	8.5	17	15	20
B3	1.6	1.5	1	2	3	2.5
B4	15	25	30	40	63	70
B5	20.5	30	37.5	53	82	84.5
B6	28.3	33.5	45	49	72	87.5
B7	114.8	114	138	190	251	283
B8	11	10.5	14	30	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34.1	43	67.5	68.1	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.5	44	47	71	82	91

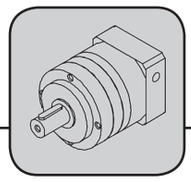
MODEL : SE SERIES

2-Stage (Ratio:15~100)

SE SERIES



Code \ Model	42	60	90	115	142	180
A1	44	62	80	108	140	184
A2	M4 X P0.7	M5 x P0.8	M6 x P1.0	M6 x P1.0	M10 x P1.25	M12 x P1.75
A3	13	16	22	32	40	55
A4	35	52	68	90	120	160
A5	6	6	7.5	22.5	11	12
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0	M20 x P2.5
A7	59	70	98	125	156	212
A7+	50	70	90	120	156	212
A8	5	5	6	10	12	16
A9	15	18	24.5	35	43	60
B1	26	36.5	46	70	97	104.5
B2	5.5	6.5	8.5	17	15	20
B3	1.6	1.5	1	2	3	2.5
B4	15	25	30	40	63	70
B5	20.5	30	37.5	53	82	84.5
B6	28.3	33.5	45	49	72	87.5
B7	54.3	61.5	85	97	133	177.5
B8	11	10.5	14	30	23	27.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34.1	43	67.5	68.1	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	34.5	44	47	71	82	91
C9	114.8	142	178	238	312	373



Reducer Performance Information

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Nominal Output Torque T_{2N}	Nm	L1	3	21	57	135	216	352	603
			4	20	52	145	298	552	1065
			5	23	62	165	338	660	1215
			6	21	57	155	318	610	1115
			7	20	52	145	308	560	1115
			8	18	47	125	268	510	1015
			9	15	42	105	238	460	915
			10	15	42	105	238	460	915
		L2	15	21	57	135	216	352	603
			20	20	52	145	298	552	1065
			25	23	62	165	338	660	1215
			30	21	57	155	318	610	1115
			35	20	52	145	308	560	1115
			40	18	47	125	268	510	1015
			50	23	62	165	338	660	1215
			60	21	57	155	318	610	1115
			70	20	52	145	308	560	1115
			80	18	47	125	268	510	1015
			90	15	42	105	238	460	915
			100	15	42	105	238	460	915
Max. Input Speed n_{1B}	rpm	L1/L2	3~100	10,000	10,000	8,000	8,000	6,000	6,000
Nominal Input Speed n_{1N}	rpm	L1/L2	3~100	5,000	5,000	4,000	4,000	3,000	3,000
Regular Backlash P2	arcmin	L1	3~10	≦ 8					
		L2	15~100	≦ 12					
Maximum Torque Spike T_{2B}	Nm	L1/L2	3~100	1.8 Times of nominal output torque					
Emergency Stop Torque T_{2NOT}	Nm	L1/L2	3~100	3 Times of nominal output torque					
Torsional Rigidity	Nm/arcmin	L1/L2	3~100	3	7	14	25	50	145
Max. Radial Load F_{2rB}	N	L1/L2	3~100	780	1,530	3,250	6,700	9,400	14,500
Max. Axial Load F_{2aB}	N	L1/L2	3~100	390	765	1,625	3,350	4,700	7,250
Service Life	hr	L1/L2	3~100	S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)					
Operating Temp	℃	L1/L2	3~100	-25℃ ~ 90℃					
Efficiency η	%	L1	3~10	≦ 97					
		L2	15~100	≦ 94					
Lubrication		L1/L2	3~100	Synthetic Lubrication Grease					
Noise	dB	L1	3~10	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
		L2	15~100	≦ 56	≦ 60	≦ 63	≦ 63	≦ 65	≦ 67
Degree of Gearbox Protection	IP	L1/L2	3~100	IP 65					
Mounting Position		L1/L2	3~100	Any direction					
Weight	kg	L1	3~10	0.6	1.4	3.3	6.9	13	31
		L2	15~100	0.9	1.6	4.7	8.7	17	35

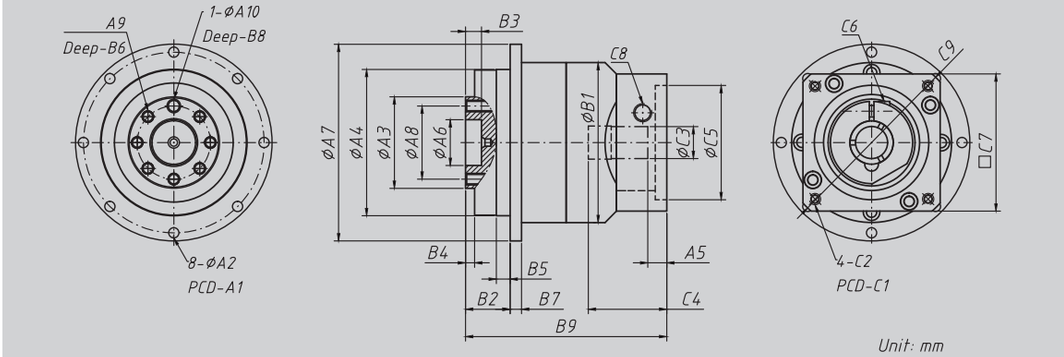
Reducer Moment of Inertia

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Mass Moments of Inertia J_1	kg.cm²	L1	3	0.03	0.16	0.61	3.25	9.21	28.98
			4	0.03	0.14	0.48	2.74	7.54	23.67
			5	0.03	0.13	0.47	2.71	7.42	23.29
			6	0.03	0.13	0.45	2.65	7.25	22.75
			7	0.03	0.13	0.45	2.62	7.14	22.48
			8	0.03	0.13	0.44	2.58	7.07	22.59
			9	0.03	0.13	0.44	2.57	7.04	22.53
			10	0.03	0.13	0.44	2.57	7.03	22.51
		L2	15	0.03	0.03	0.13	0.47	2.71	7.42
			20	0.03	0.03	0.13	0.47	2.71	7.42
			25	0.03	0.03	0.13	0.47	2.71	7.42
			30	0.03	0.03	0.13	0.47	2.71	7.42
			35	0.03	0.03	0.13	0.47	2.71	7.42
			40	0.03	0.03	0.13	0.47	2.71	7.42
			50	0.03	0.03	0.13	0.44	2.57	7.03
			60	0.03	0.03	0.13	0.44	2.57	7.03
			70	0.03	0.03	0.13	0.44	2.57	7.03
			80	0.03	0.03	0.13	0.44	2.57	7.03
			90	0.03	0.03	0.13	0.44	2.57	7.03
			100	0.03	0.03	0.13	0.44	2.57	7.03

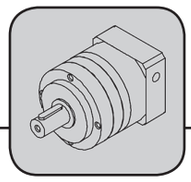
MODEL : SD SERIES

1-Stage (Ratio:3~10)

SD SERIES

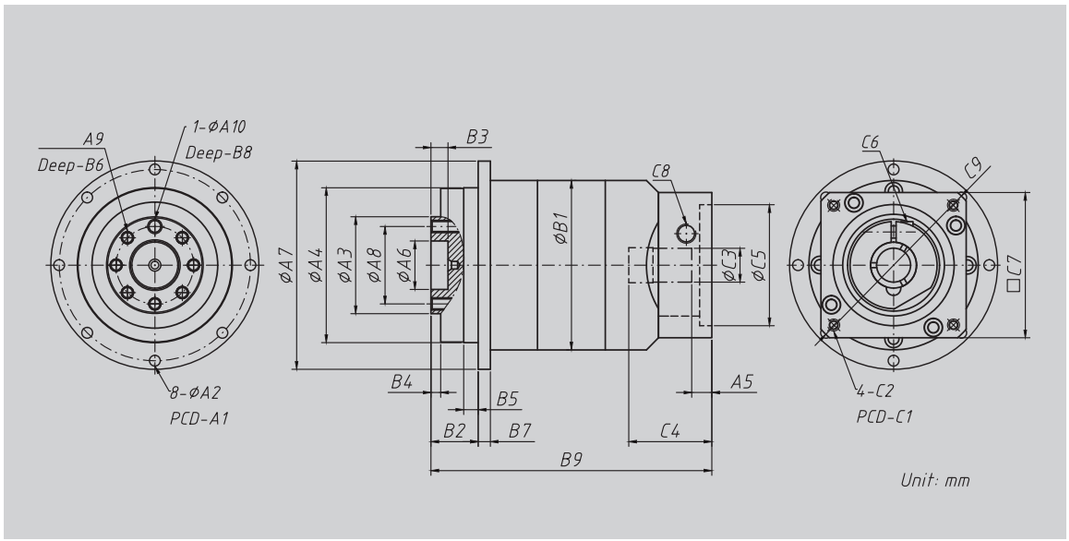


Model / Code	47	64	90	110	140	200
A1	67	79	109	135	168	233
A2	3.4	4.5	5.5	5.5	6.6	12-9.0
A3	28	40	63	80	100	160
A4	47	64	90	110	140	200
A5	6	6	7.5	22.5	11	12
A6	12	20	31.5	40	50	80
A7	72	86	118	146	179	248
A8	20	32	50	63	80	125
A9	4-M3 x P0.5	7-M5 x P0.8	7-M6x P1.0	11-M6 x P1.0	11-M8 x P1.25	11-M10 x P1.5
A10	3	5	6	6	8	10
B1	59	70	98	125	156	212
B2	19.5	19.5	30	29	44	50
B3	5	7	12	12	12	16
B4	3	4	6	12	6	8
B5	5	6	10	10	15	15
B6	6.5	13	18	18	24	24
B7	4	5	7	8	10	12
B8	4	7	8	10	10	10
B9	71.3	88	106	149	175	228.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	M8 x P1.25	M8 x P1.25	M12 x P1.75	M16 x P2.0	M16 x P2.0	M16 x P2.0
C9	Ø 56	Ø 80	Ø 116	Ø 160	Ø 189	Ø 240

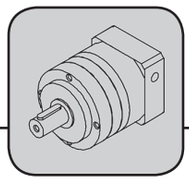


MODEL : SD SERIES

2-Stage (Ratio:20~100)



Model / Code	47	64	90	110	140	200
A1	67	79	109	135	168	233
A2	3.4	4.5	5.5	5.5	6.6	12-9.0
A3	28	40	63	80	100	160
A4	47	64	90	110	140	200
A5	6	6	7.5	22.5	11	12
A6	12	20	31.5	40	50	80
A7	72	86	118	146	179	248
A8	20	32	50	63	80	125
A9	4-M3 x P0.5	7-M5 x P0.8	7-M6x P1.0	11-M6 x P1.0	11-M8 x P1.25	11-M10 x P1.5
A10	3	5	6	6	8	10
B1	59	70	98	125	156	212
B2	19.5	19.5	30	29	44	50
B3	5	7	12	12	12	16
B4	3	4	6	12	6	8
B5	5	6	10	10	15	15
B6	6.5	13	18	18	24	24
B7	4	5	7	8	10	12
B8	4	7	8	10	10	10
B9	97.3	116	146	197	236	318.5
C1	46	70	90	145	165	200
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C3	8	14 , 19	19 , 24	24 , 28	35 , 42	42
C4	26	34	43	67.5	68	72.5
C5	30	50	70	110	130	114.3
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M12 x P1.75
C7	42.6	60	90	130	142	180
C8	M8 x P1.25	M8 x P1.25	M12 x P1.75	M16 x P2.0	M16 x P2.0	M16 x P2.0
C9	Ø 56	Ø 80	Ø 116	Ø 160	Ø 189	Ø 240



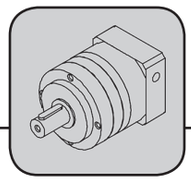
SD SERIES

Reducer Performance Information

Model NO.	Unit	Stage	Ratio	47	64	90	110	140	200
Nominal Output Torque T_{2N}	Nm	L1	4	20	50	135	278	570	1115
			5	23	62	165	338	660	1215
			7	20	52	145	308	560	1115
			10	15	42	105	238	460	915
		L2	20	20	50	135	278	570	1115
			25	23	62	165	338	660	1215
			35	20	52	145	308	560	1115
			40	20	50	135	278	570	1115
			50	23	62	165	338	660	1215
			70	20	52	145	308	560	1115
			100	15	42	105	238	460	915
Max. Input Speed n_{1B}	rpm	L1/L2	4~100	10,000	10,000	8,000	8,000	6,000	6,000
Nominal Input Speed n_{1N}	rpm	L1/L2	4~100	5,000	5,000	4,000	4,000	3,000	3,000
Micro Backlash PS	arcmin	L1	4~10	≦1					
		L2	20~100	≦3					
Reduced Backlash P0	arcmin	L1	4~10	≦3					
		L2	20~100	≦5					
Standard Backlash P1	arcmin	L1	4~10	≦5					
		L2	20~100	≦7					
Maximum Torque Spike T_{2B}	Nm	L1/L2	4~100	1.8 Times of nominal output torque					
Emergency Stop Torque T_{2NOT}[B]	Nm	L1/L2	4~100	3 Times of nominal output torque					
Torsional Rigidity	Nm/arcmin	L1/L2	4~100	7	13	31	82	151	440
Max. Bending moment M_{2KB}	N	L1/L2	4~100	43	125	235	430	1,300	3,064
Max. Axial Load F_{2aB}[C]	N	L1/L2	4~100	990	1050	2,850	2,990	10,590	16,660
Service Life[D]	hr	L1/L2	4~100	S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)					
Operating Temp	℃	L1/L2	4~100	-25℃ ~ 90℃					
Efficiency η	%	L1	4~10	≦97					
		L2	20~100	≦94					
Lubrication		L1/L2	4~100	Synthetic Lubrication Grease					
Noise	dB	L1	4~10	≦56	≦58	≦63	≦60	≦65	≦67
		L2	20~100	≦56	≦58	≦63	≦60	≦65	≦67
Degree of Gearbox Protection	IP	L1/L2	4~100	IP 65					
Mounting Position		L1/L2	4~100	Any direction					
Weight	kg	L1	4~10	0.7	1.4	4.2	7.4	13.9	32.4
		L2	20~100	1	1.9	4.8	9.4	16.7	40.2

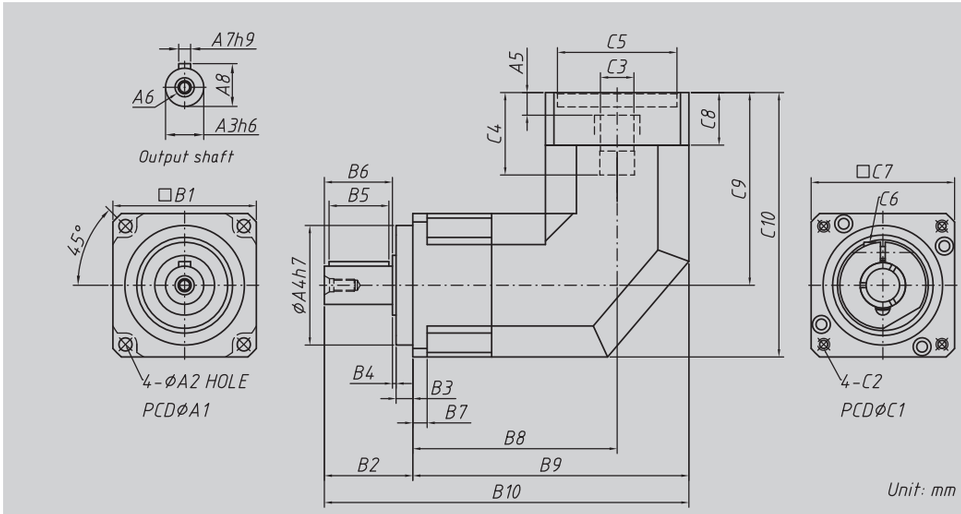
Reducer Moment of Inertia

Model NO.	Unit	Stage	Ratio	42	60	90	115	142	180
Mass Moments of Inertia J_1	kg.cm²	L1	4	0.03	0.14	0.51	2.87	7.54	25.03
			5	0.03	0.13	0.47	2.71	7.42	23.29
			7	0.03	0.13	0.45	2.62	7.14	22.48
			10	0.03	0.13	0.44	2.57	7.03	22.51
		L2	20	0.03	0.03	0.13	0.47	2.71	7.42
			25	0.03	0.03	0.13	0.47	2.71	7.42
			35	0.03	0.03	0.13	0.47	2.71	7.42
			40	0.03	0.03	0.13	0.44	2.57	7.03
			50	0.03	0.03	0.13	0.44	2.57	7.03
			70	0.03	0.03	0.13	0.44	2.57	7.03
			100	0.03	0.03	0.13	0.44	2.57	7.03



MODEL : SGR SERIES

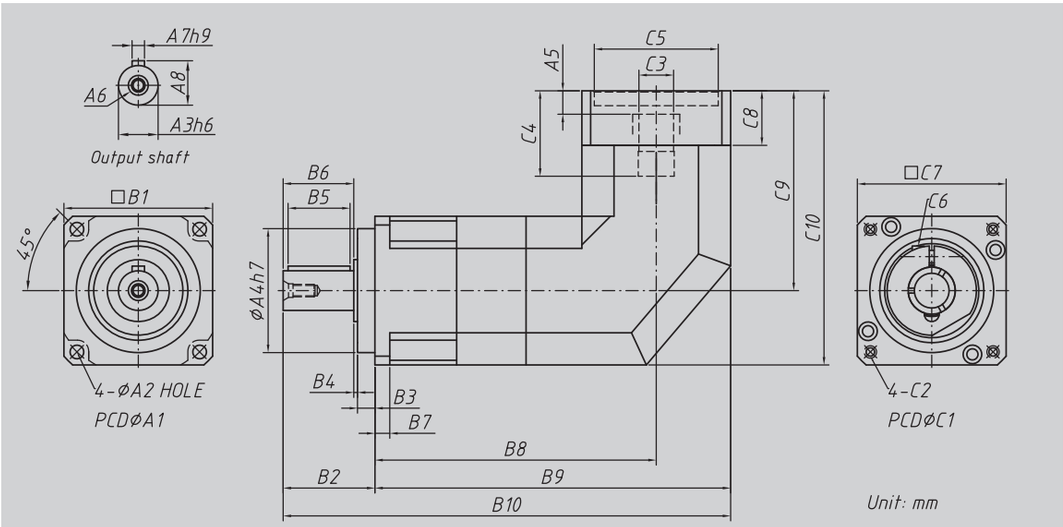
1-Stage (Ratio:3~10)



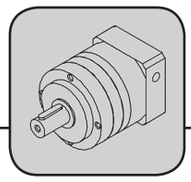
Model / Code	42	60	90	115	142
A1	50	70	100	130	165
A2	3.5	5.5	6.5	8.5	10.5
A3	13	16	22	32	40
A4	35	50	80	110	130
A5	6.14	6.47	7.5	19.1	11
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0
A7	5	5	6	10	12
A8	15	18	24.5	35	43
B1	42.6	60	90	115	142
B2	26	37	48	65	97
B3	5.5	7	10	12	15
B4	1.6	1.5	1.5		3
B5	15	25	30	40	63
B6	18.9	28.5	36.5	51	79
B7	4	6	8	10	12
B8	76	85.5	122.1	140	178
B9	97.3	115.5	167.1	197.5	249
B10	123.3	152.5	215.1	262.5	346
C1	46	70	90	145	165
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C3	8	14 , 19	19 , 24	24 , 28	35 , 42
C4	26	34	53	78	74
C5	30	50	70	110	130
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C7	42.6	60	90	130	142
C8	20	22	25.5	45	35
C9	61	80.6	106.35	144.2	151
C10	82.3	110.6	151.35	201.7	222

MODEL : SGR SERIES
2-Stage (Ratio:15~100)

SGR SERIES



Model / Code	42	60	90	115	142
A1	50	70	100	130	165
A2	3.5	5.5	6.5	8.5	10.5
A3	13	16	22	32	40
A4	35	50	80	110	130
A5	6	6	7.5	19	11
A6	M4 x P0.7	M5 x P0.8	M8 x P1.25	M12 x P1.75	M16 x P2.0
A7	5	5	6	10	12
A8	15	18	24.5	35	43
B1	42.6	60	90	115	142
B2	26	37	48	65	97
B3	5.5	7	10	12	15
B4	1.6	1.5	1.5	2	3
B5	15	25	30	40	63
B6	18.9	28.5	36.5	51	79
B7	4	6	8	10	12
B8	102	113.5	162.1	188	239
B9	123.3	143.5	207.1	245.5	310
B10	149.3	180.5	255.1	310.5	407
C1	46	70	90	145	165
C2	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C3	8	14 , 19	19 , 24	24 , 28	35 , 42
C4	26	34	53	78	74
C5	30	50	70	110	130
C6	M3 x P0.5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C7	42.6	60	90	130	142
C8	20	22	25.5	45	35
C9	61	80.6	106.35	144.2	151
C10	82.3	110.6	151.35	201.7	222



Reducer Performance Information

Model NO.	Unit	Stage	Ratio	42	60	90	115	142
Nominal Output Torque T_{2N}	Nm	L1	3	10	38	95	203	352
			4	13	50	125	268	530
			5	16	62	155	333	660
			6	19	57	155	318	610
			7	20	52	145	308	560
			8	18	47	125	268	510
			9	15	42	105	238	460
			10	15	62	155	333	660
			14	15	44	145	308	560
			20	15	42	105	238	460
		L2	25	16	62	155	333	660
			30	21	57	155	318	610
			35	20	52	145	308	560
			40	18	47	125	268	510
			50	15	62	105	238	660
			60	21	57	155	318	610
			70	20	52	145	308	560
			80	18	47	125	268	510
			90	15	42	105	238	460
			100	15	42	105	238	460
Max. Input Speed n_{1B}	rpm	L1/L2	3~100	10,000	10,000	8,000	8,000	6,000
Nominal Input Speed n_{1N}	rpm	L1/L2	3~100	5,000	5,000	4,000	4,000	3,000
Reduced Backlash P0	arcmin	L1	3~10	≦ 2				
		L2	15~100	≦ 4				
Standard Backlash P1	arcmin	L1	3~10	≦ 4				
		L2	15~100	≦ 7				
regular backlash P2	arcmin	L1	3~10	≦ 6				
		L2	15~100	≦ 9				
maximum torque spike T_{2B}	Nm	L1/L2	3~100	1.8 Times of nominal output torque				
Emergency Stop Torque T_{2NOT} [A]	Nm	L1/L2	3~100	3 Times of nominal output torque				
Torsional Rigidity	Nm/arcmin	L1/L2	3~100	3	7	14	25	50
Max. Radial Load F_{2rB} [C]	N	L1/L2	3~100	780	1,530	3,250	6,700	9,400
Max. Axial Load F_{2aB} [C]	N	L1/L2	3~100	390	765	1,625	3,350	4,700
Service Life [D]	hr	L1/L2	3~100	S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)				
Operating Temp	℃	L1/L2	3~100	-25℃ ~ 90℃				
Efficiency η	%	L1	3~10	≦ 95				
		L2	15~100	≦ 92				
Lubrication		L1/L2	3~100	Synthetic Lubrication Grease				
Noise	dB	L1	3~10	≦ 61	≦ 63	≦ 65	≦ 68	≦ 70
		L2	15~100	≦ 61	≦ 63	≦ 65	≦ 68	≦ 70
Degree of Gearbox Protection	IP	L1/L2	3~100	IP 65				
Mounting Position		L1/L2	3~100	Any direction				
Weight	kg	L1	3~10	1	2.3	6.6	13.2	24.5
		L2	15~100	1.2	3	8.2	14.2	27.5

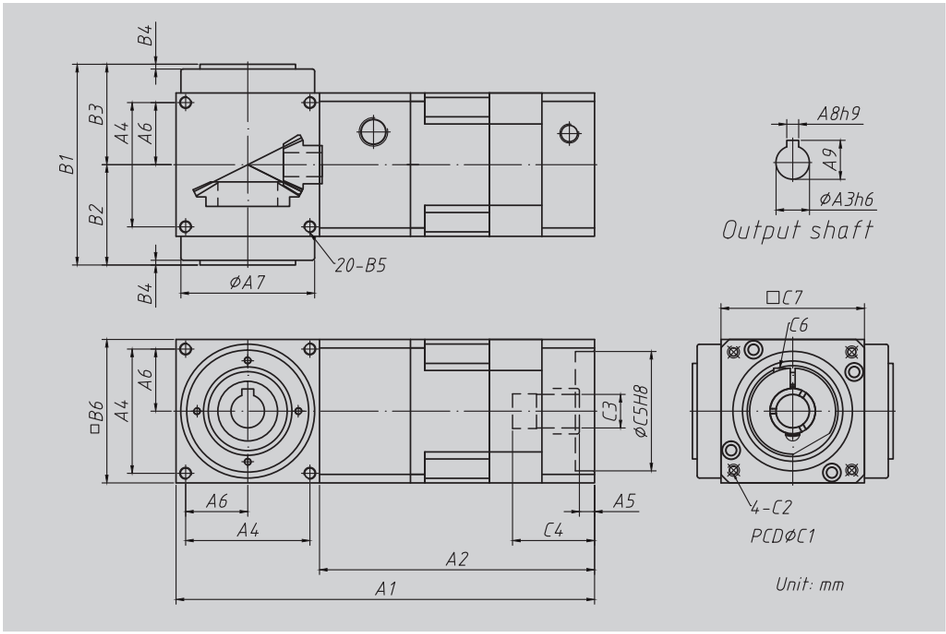
Reducer Moment of Inertia

Model NO.	Unit	Stage	Ratio	42	60	90	115	142
Mass Moments of Inertia J_1	kg.cm²	L1	3	0.09	0.35	2.25	6.84	23.4
			4	0.09	0.35	2.25	6.84	23.4
			5	0.09	0.35	2.25	6.84	23.4
			6	0.09	0.35	2.25	6.84	23.4
			7	0.09	0.35	2.25	6.84	23.4
			8	0.09	0.35	2.25	6.84	23.4
			9	0.09	0.35	2.25	6.84	23.4
			10	0.09	0.35	2.25	6.84	23.4
			14	0.09	0.07	1.87	6.25	21.8
			20	0.09	0.07	1.87	6.25	21.8
		L2	25	0.09	0.09	0.35	2.25	6.84
			30	0.09	0.09	0.35	2.25	6.84
			35	0.09	0.09	0.35	2.25	6.84
			40	0.09	0.09	0.35	2.25	6.84
			50	0.09	0.09	0.35	2.25	6.84
			60	0.09	0.09	0.35	2.25	6.84
			70	0.09	0.09	0.35	2.25	6.84
			80	0.09	0.09	0.35	2.25	6.84
			90	0.09	0.09	0.35	2.25	6.84
			100	0.09	0.09	0.35	2.25	6.84

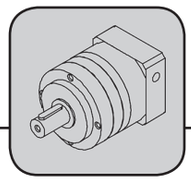
MODEL : ST SERIES

1-Stage (Ratio:1~10)

ST SERIES

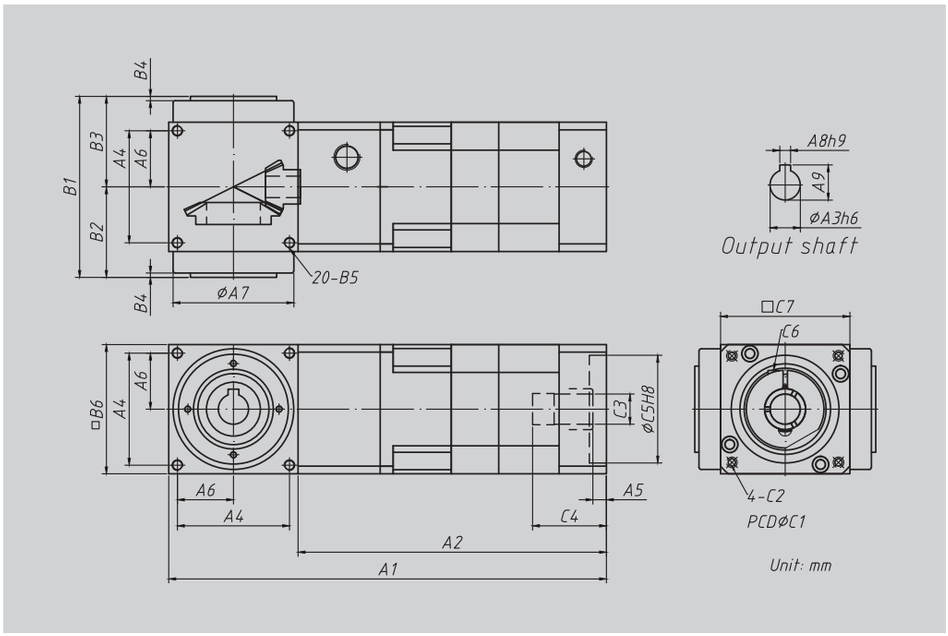


Code \ Model	60	90	115	142
A1	175.1	225.8	310.5	343
A2	115.1	135.8	195.5	193
A3	14	18	22	32
A4	52	72	88	110
A5	6	7.5	22.5	11.7
A6	26	36	44	55
A7	62	88	106	135
A8	5	6	8	10
A9	16.3	20.8	25.3	35.3
B1	84	118	144	194
B2	42	59	72	97
B3	42	59	72	97
B4	2	2	2	2
B5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
B6	60	90	115	150
C1	70	90	145	165
C2	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C3	14 , 19	19 , 24	24 , 28	35 , 42
C4	34	43	67.5	68.8
C5	50	70	110	130
C6	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C7	60	90	130	142

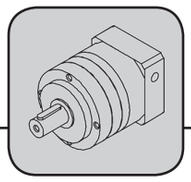


MODEL : ST SERIES

2-Stage (Ratio:15~50)



Model / Code	60	90	115	142
A1	203.1	265.8	358.5	404
A2	143.1	175.8	243.5	254
A3	14	18	22	32
A4	52	72	88	110
A5	6	7.5	22.5	11.7
A6	26	36	44	55
A7	62	88	106	135
A8	5	6	8	10
A9	16.3	20.8	25.3	35.3
B1	84	118	144	194
B2	42	59	72	97
B3	42	59	72	97
B4	2	2	2	2
B5	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
B6	60	90	115	150
C1	70	90	145	165
C2	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C3	14 , 19	19 , 24	24 , 28	35 , 42
C4	34	43	67.5	68.8
C5	50	70	110	130
C6	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5
C7	60	90	130	142



Reducer Performance Information

Model NO.	Unit	Stage	Ratio	60	90	115	142
Nominal Output Torque T_{2N}	Nm	L1	3	25	78	150	360
			4	25	78	150	360
			5	25	78	150	360
			10	24	68	150	330
			20	24	68	150	330
		L2	15	25	78	150	360
			25	25	78	150	360
			30	24	68	150	330
			40	24	68	150	330
			50	25	78	150	360
Max. Input Speed n_{1B}	rpm	L1/L2	3~50	6,000	6,000	6,000	6,000
Nominal Input Speed n_{1N}	rpm	L1/L2	1~50	3,000	3,000	3,000	3,000
Reduced Backlash P0	arcmin	L1	1~50	≦4			
		L2	1~50	≦6			
Standard Backlash P1	arcmin	L1	1~50	≦7			
		L2	1~50	≦9			
Regular Backlash P2	arcmin	L1	1~50	≦10			
		L2	1~50	≦12			
Maximum Torque Spike T_{2B}	Nm	L1/L2	1~50	1.5 Times of nominal output torque			
Emergency Stop Torque T_{2NOT}[B]	Nm	L1/L2	1~50	3 Times of nominal output torque			
Max. Radial Load F_{2rB}[C]	N	L1/L2	1~50	600	1,000	2,000	3,000
Max. Axial Load F_{2aB}[C]	N	L1/L2	1~50	300	500	1,000	1,500
Service Life[D]	hr	L1/L2	1~50	S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)			
Operating Temp	℃	L1/L2	1~50	-25℃ ~ 90℃			
Efficiency η	%	L1	1~10	≦94			
		L2	15~50	≦90			
Lubrication		L1/L2	1~50	Synthetic Lubrication Grease			
Noise	dB	L1	1~10	≦68	≦73	≦74	≦75
		L2	15~50	≦71	≦76	≦77	≦78

Reducer Moment of Inertia

Model NO.	Unit	Stage	Ratio	60	90	115	142
Moment of Inertia J_1	kg.cm²	L1	3	0.05	0.18	0.41	0.56
			4	0.05	0.18	0.41	0.56
			5	0.05	0.18	0.41	0.56
			10	0.05	0.18	0.41	0.56
			20	0.05	0.18	0.41	0.56
		L2	15	0.05	0.18	0.41	0.56
			25	0.05	0.18	0.41	0.56
			30	0.05	0.16	0.38	0.53
			40	0.05	0.16	0.38	0.53
			50	0.05	0.16	0.38	0.53