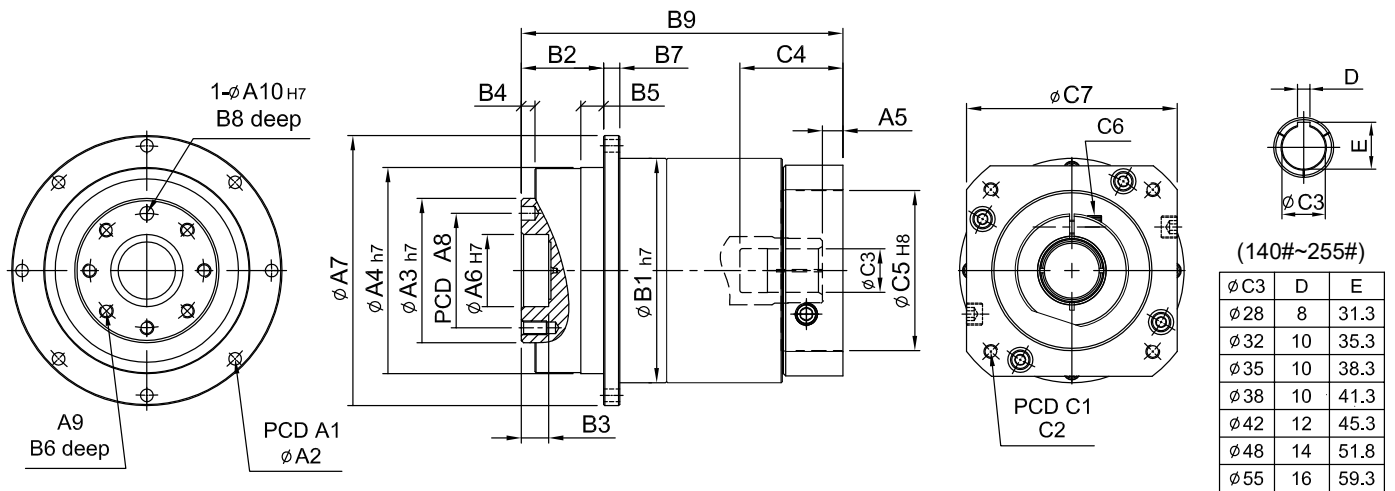
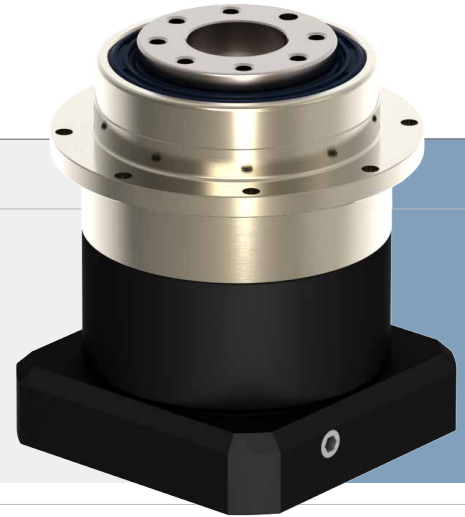


SERVOBOX Planetary Reducers

MODEL : SD

單段 1-Stage

RATIO : 4, 5, 7, 10



unit: mm

Model Code	47	64	90	110	140	200	255
A1	67	79	109	135	168	233	280
A2	8-3.4	8-4.5	8-5.5	8-5.5	12-6.6	12-9.0	16-13.5
A3	28	40	63	80	100	160	180
A4	47	64	90	110	140	200	255
A5	5	6	9·23.5	10·20	10	11.5·13.5	10.5·12.5
A6	12	20	31.5	40	50	80	100
A7	72	86	118	146	179	248	300
A8	20	31.5	50	63	80	125	140
A9	4 - M3 x P0.5	7 - M5 x P0.8	7 - M6 x P1.0	11 - M6 x P1.0	11 - M8 x P1.25	11 - M10 x P1.5	12 - M16 x P2.0
A10	3	5	6	6	8	10	12
B1	59	70	98	125	156	212	255
B2	19.5	19.5	30	29	38	50	66
B3	5	7	12	12	12	16	20
B4	3	4	6	6	6	8	12
B5	5	6	10	10	15	15	20
B6	6.5	8	12	12	16	22	32
B7	4	5	7	8	10	12	18
B8	4	6	6	7	7	10	10
B9	74.7	84.5·92.5	133·147.5	153·173	186.5	250.5·252.5	263·265
C1	46·60·63	70·75·90	90·100·115·145	115·145·165	145·165·215	200·215·265	200·265·300
C2	M3·M4·M5	M4·M5·M6	M5·M6·M8	M6·M8·M10	M8·M10·M12	M10·M12·M16	M12·M16
C3	8·11	11·14·16·19	16·19·22·24	24·28·32·35	28·32·35·38	35·38·42·48·55	38·42·48·55
C4	32	34·41.5	58.5·73	67·82	84.5	114.5·116.5	115.5·117.5
C5	30·40·50	50·60·70	70·80·95·110	95·110·130	110·130·180	114.3·180·230	114.3·230·250
C6	M4 x P0.7	M5 x P0.8	M6 x P1.0	M8 x P1.25	M10 x P1.5	M10 x P1.5	M10 x P1.5
C7	46·55	64·70·80	92·110·130	122·130·150	146·150·190	182·200·250	222·250·265

High Precision Planetary Reducer

規格 Parameter	代號	單位 Unit	速比 Ratio	47	64	90	110	140	200	255
額定輸出扭矩 Rated Output Torque (Nominal output torque)	T_{2N}	Nm	4	22	60	160	335	650	1,200	2,020
			5	20	50	155	333	618	1,189	2,010
			7	19	47	142	309	573	1,108	1,870
			10	16	43	136	294	549	1,059	1,779
最大加速扭矩 Max. Acceleration Torque	T_{2B}	Nm	4 ~ 10	1.8 倍額定輸出力矩 1.8 Times of Rated Output Torque						
最大輸出扭矩 Max. Output Torque 急停扭矩 Emergency Stop Torque	T_{2NOT}	Nm	4 ~ 10	3 倍額定輸出力矩 3 Times of Rated Output Torque						
額定輸入轉速 Rated Input Speed	n_{1N}	rpm	4 ~ 10	3,000	3,000	3,000	3,000	3,000	3,000	2,000
最大輸入轉速 Max. Input Speed	n_{1B}	rpm	4 ~ 10	6,000	6,000	6,000	6,000	5,000	4,000	3,000
背隙 Backlash Ps		arcmin	4 ~ 10	-	-	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
背隙 Backlash P0		arcmin	4 ~ 10	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3
背隙 Backlash P1		arcmin	4 ~ 10	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5
背隙 Backlash P2		arcmin	4 ~ 10	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7	≤ 7
扭轉剛性 Torsional Rigidity		Nm/arcmin	4 ~ 10	6	14	30	86	155	450	1126
容許徑向力 Max. Radial Force 滾珠軸承 Ball Bearing	F_{2rB}	N	4 ~ 10	2,040	2,520	8,460	12,720	14,070	35,200	39,600
容許軸向力 Max. Axial Force 滾珠軸承 Ball Bearing	F_{2aB}	N	4 ~ 10	1,020	1,260	4,230	6,360	7,035	17,600	19,800
容許徑向力 Max. Radial Force 滾錐軸承 Taper Bearing	F_{2rB}	N	4 ~ 10	-	-	14,660	23,000	37,200	73,600	107,200
容許軸向力 Max. Axial Force 滾錐軸承 Taper Bearing	F_{2aB}	N	4 ~ 10	-	-	7,330	11,500	18,600	36,800	53,600
最大傾斜力矩 Max. Tilting Moment 滾珠軸承 Ball Bearing ※	M_{2K}	Nm	4 ~ 10	31	98	185	320	940	2,200	4,300
最大傾斜力矩 Max. Tilting Moment 滾錐軸承 Taper Bearing ※	M_{2K}	Nm	4 ~ 10	-	-	280	480	1,400	3,300	6,480
使用壽命 Service Life	L_H	hr	4 ~ 10	S5 周期運轉: >30,000 (S1 連續運轉: >15,000 hrs) S5 Cycle Operation: >30,000 (S1 Continuous Operation: >15,000 hrs)						
效率 Efficiency	η	%	4 ~ 10	≥ 97%						
使用溫度 Operating Temperature		°C	4 ~ 10	- 25° C ~ + 90° C						
潤滑 Lubrication			4 ~ 10	全合成潤滑油脂 Synthetic Grease						
防護等級 Protection Class			4 ~ 10	IP65						
安裝方向 Mounting Position			4 ~ 10	任意方向 Any						
噪音值 Noise Level		dB	4 ~ 10	≤ 56	≤ 58	≤ 60	≤ 63	≤ 65	≤ 67	≤ 70
重量 Weight ±3%		Kg	4 ~ 10	0.7	1.4	4.2	7.4	13.9	32.4	55

※Applied to the output shaft center at 100 rpm.

■ 轉動慣量 Mass Moments of Inertia (kg.cm²)

Ratio	47	64	90	110	140	200	255
4	0.03	0.13	0.47	2.75	7.46	24.00	55
5	0.03	0.12	0.45	2.70	7.41	23.23	53.19
7	0.03	0.12	0.45	2.64	7.12	22.11	50.78
10	0.03	0.12	0.43	2.56	7.01	22.21	50.50