

# SGS series

**high precision**

**planetary reducer**



## 減速機性能資料 Reducer Performance Information

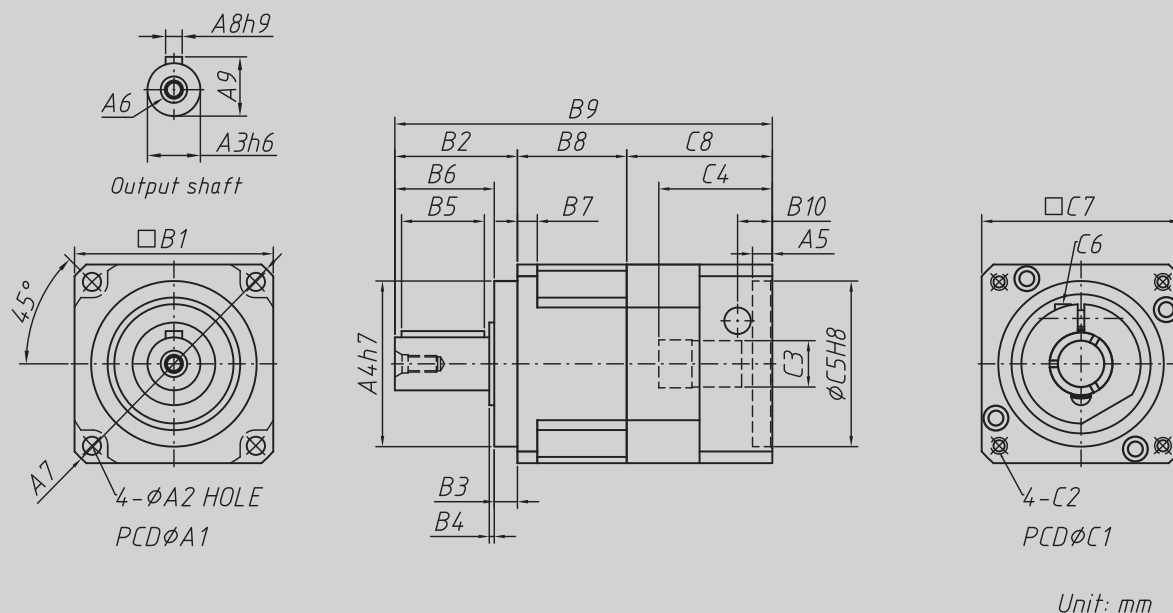
規格 Model NO.	單位 Unit	節數 Stage	減速比 Ratio	42	60	90	115	142	180	
額定輸出力矩 $T_{2N}$ Rated Output Torque	Nm	L1	3	21	57	135	216	352	603	
			4	20	52	145	298	552	1065	
			5	23	62	165	338	660	1215	
			6	21	57	155	318	610	1115	
			7	20	52	145	308	560	1115	
			8	18	47	125	268	510	1015	
			9	15	42	105	238	460	915	
			10	15	42	105	238	460	915	
			15	21	57	135	216	352	603	
			20	20	52	145	298	552	1065	
		L2	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			
最大輸入轉速 $n_{1B}$ Max. Input Speed	rpm	L1/L2	3~100	10,000	10,000	8,000	8,000	6,000	6,000	
額定輸入轉速 $n_{1N}$ Rated Input Speed	rpm	L1/L2	3~100	5,000	5,000	4,000	4,000	3,000	3,000	
超精密背隙 PS Backlash PS	arcmin	L1	3~10							≤ 1
		L2	15~100							≤ 3
精密背隙 P0 Backlash P0	arcmin	L1	3~10							≤ 3
		L2	15~100							≤ 5
精密背隙 P1 Backlash P1	arcmin	L1	3~10							≤ 5
		L2	15~100							≤ 7
最大加速扭矩 $T_{2B}$ Max. Acceleration Torque	Nm	L1/L2	3~100	1.8倍額定輸出力矩 / 1.8 Times of nominal output torque						
最大輸出(急停)扭矩 $T_{2NOT}$ Max. Output(Emergency Stop) Torque	Nm	L1/L2	3~100	3倍額定輸出力矩 / 3 Times of nominal output torque						
扭轉剛性 Torsional Rigidity	Nm/arcmin	L1/L2	3~100	3	7	14	25	50	145	
容許徑向力 $F_{2rB}$ Max. Radial Force	N	L1/L2	3~100	610	1,400	4,100	9,200	14,000	18,000	
容許軸向力 $F_{2aB}$ Max. Axial Force	N	L1/L2	3~100	320	1,100	3,700	5,820	11,400	19,500	
使用壽命 Service Life	hr	L1/L2	3~100	S5週期運轉 > 20,000 ; (S1連續運轉 > 10,000 hrs ) S5 Cycle Operation ; > 20,000 (S1 Continuous Operation ; > 10,000 hrs)						
使用溫度 Operation Temperature	°C	L1/L2	3~100	-25°C ~ 90°C						
效率 $\eta$ Efficiency	%	L1	3~10	≤ 97						
		L2	15~100	≤ 94						
潤滑 Lubrication		L1/L2	3~100	合成潤滑油脂 / Synthetic Lubrication Grease						
噪音值 Noise Level	dB	L1	3~10	≤ 56	≤ 60	≤ 63	≤ 63	≤ 65	≤ 67	
		L2	15~100	≤ 56	≤ 60	≤ 63	≤ 63	≤ 65	≤ 67	
防護等級 Protection Class	IP	L1/L2	3~100	IP 65						
安裝方向 Mounting Position		L1/L2	3~100	任意方向 / Any direction						
重量 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	

## 減速機轉動慣量 Reducer Moment of inertia

規格 Model NO.	單位 Unit	節數 Stage	減速比 Ratio	42	60	90	115	142	180
轉動慣量 $J_1$	kg.cm <sup>2</sup>	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
			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
		L2	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

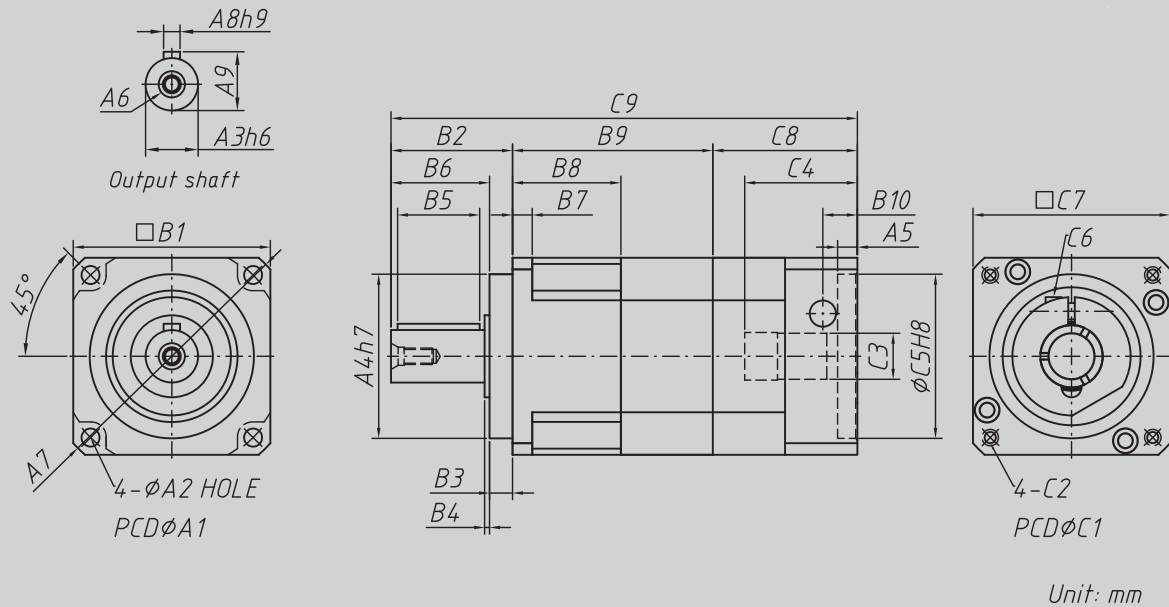
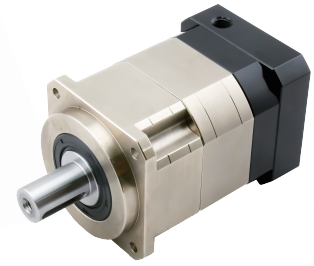
## 1-Stage (Ratio:3~10)



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	26	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)



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	26	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