



SGS High Precision Planetary Reducer series

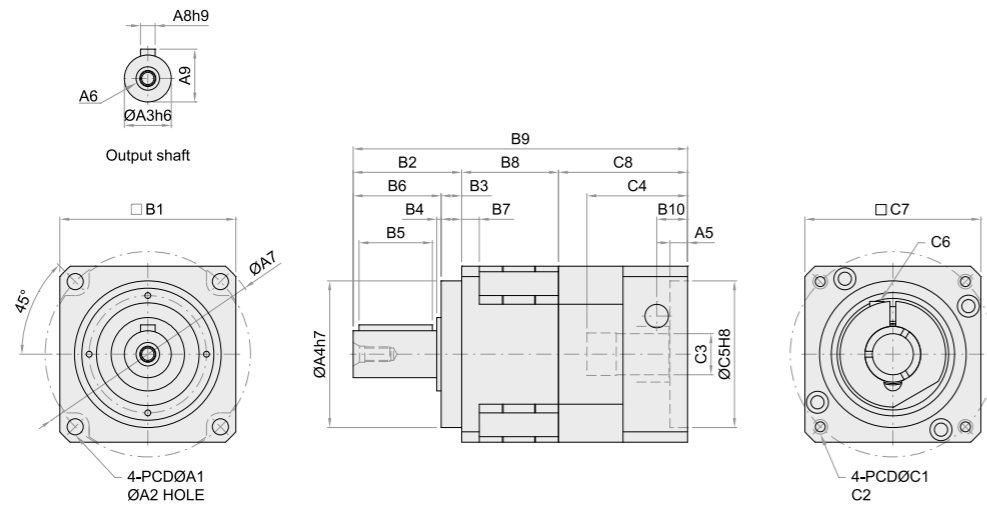
減速機性能資料 REDUCER PERFORMANCE INFORMATION

規格 Model NO.	符號 Symbol	單位 Unit	節數 Stage	減速比 Ratio	42	60	90	115	142	180	
額定輸出力矩 Rated Output Torque	T _{2N}	Nm	L1	3	21	57	160	333	620	1,200	
				4	20	52	145	298	552	1,065	
				5	23	62	158	338	615	1,215	
				6	21	57	155	318	610	1,115	
				7	20	52	145	308	580	1,115	
				8	18	47	140	288	555	1,060	
				9	15	42	143	270	520	980	
				10	15	42	138	285	548	1,050	
				L2	15	21	57	160	330	620	2,000
					20	20	52	145	298	552	1,800
			25		23	62	156	338	615	1,980	
			30		21	57	155	318	610	1,900	
			35		20	52	145	308	560	1,850	
			40		18	47	140	290	550	1,821	
			50		23	62	165	338	610	1,980	
			60		21	57	155	318	570	1,900	
			70		20	52	145	308	560	1,850	
			80		18	47	141	290	548	1,821	
			90	15	42	144	270	510	1,650		
			100	15	42	138	288	540	1,700		
最大輸入轉速 Max. Input Speed	n _{1B}	rpm	L1 / L2	3~100	10,000	10,000	8,000	8,000	6,000	6,000	
額定輸入轉速 Rated Input Speed	n _{1N}	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 Max. Acceleration Torque	T _{2B}	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 Max. Output(Emergency Stop) Torque	T _{2NOT}	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 Max. Radial Force	F _{2rB}	N	L1 / L2	3~100	610	1,400	4,100	9,200	14,000	18,000	
容許軸向力 Max. Axial Force	F _{2aB}	N	L1 / L2	3~100	320	1,100	3,700	5,820	11,400	19,500	
使用壽命 Service Life	hr	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 Efficiency	η	%	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	30	
			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

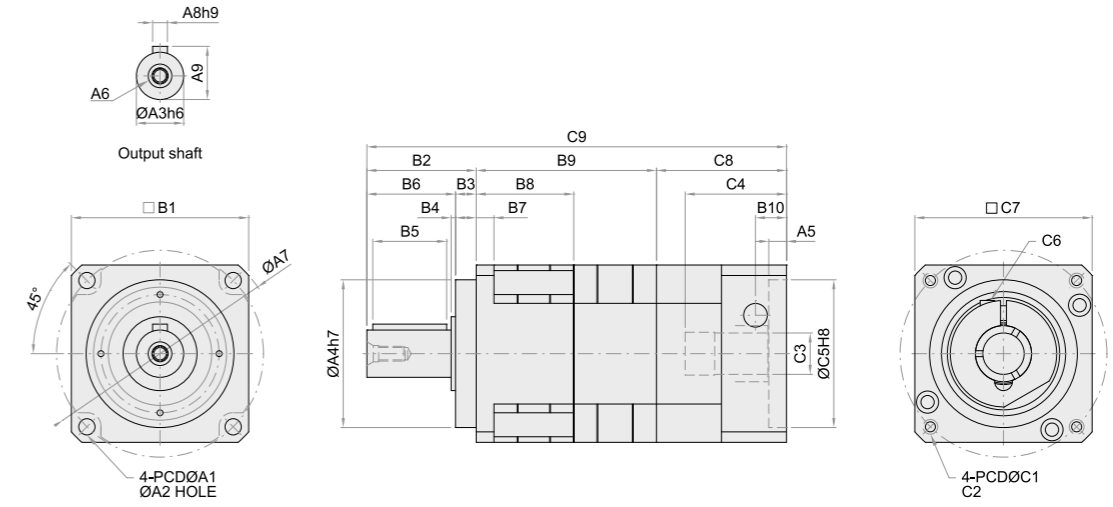
規格 Model NO.	符號 Symbol	單位 Unit	節數 Stage	減速比 Ratio	42	60	90	115	142	180	
轉動慣量 Moment of Inertia	J ₁	kg.cm ²	L1	3	0.03	0.16	0.61	3.25	9.21	28.98	
				4	0.03	0.14	0.48	2.74	7.54	23.67	
				5	0.03	0.13	0.47	2.71	7.42	23.29	
				6	0.03	0.13	0.45	2.65	7.25	22.75	
				7	0.03	0.13	0.45	2.62	7.14	22.48	
				8	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 L1-Stage (Ratio: 3~10)



Model	Code	42	60	90	115	142	180	220				
A1		50	70	100	130	165	215	250				
A2		3.5	5.5	6.5	8.5	10.5	13.5	17				
A3		13	16	22	32	40	55	75				
A4		35	50	80	110	130	160	180				
A5		6	6	6	7	7	8	10				
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	M20 x P2.5				
A7		56	80	116	148	185	240	292				
A8		5	5	6	10	12	16	20				
A9		15	18	24.5	35	43	59	79.5				
B1		42.6	60	90	115	142	180	220				
B2		26	37	48	65	97	104.5	150				
B3		5.5	7	10	12	15	20	30				
B4		1.6	1.5	1.5	2	3	2.5	15				
B5		15	25	30	40	60	70	90				
B6		20.5	30	38	53	82	84.5	120				
B7		4	6	8	10	12	16	20				
B8		28.3	33	43	54	72	87.5	97.4				
B9		88.65	114	138	190	251	292	391.4				
B10		11	10.5	14	30	23	27.5	45				
C1		46	70	90	145	165	200	265				
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	M14 x P2.0				
C3		8	14	19	19	24	24	35	35	42	42	55
C4		26.15	34.3	43	68.2	68.1	81.5	116				
C5		30	50	70	110	130	114.3	230				
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	M12 x P1.75				
C7		42.6	60	90	130	142	180	250				
C8		34.35	44	47	71	82	100	144				
C9		114.65	142	178	238	312	382	505.4				

MODEL: SGS SERIES L2-Stage (Ratio: 15~100)



Model	Code	42	60	90	115	142	180	220				
A1		50	70	100	130	165	215	250				
A2		3.5	5.5	6.5	8.5	10.5	13.5	17				
A3		13	16	22	32	40	55	75				
A4		35	50	80	110	130	160	180				
A5		6	6	6	7	7	8	10				
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	M20 x P2.5				
A7		56	80	116	148	185	240	292				
A8		5	5	6	10	12	16	20				
A9		15	18	24.5	35	43	59	79.5				
B1		42.6	60	90	115	142	180	220				
B2		26	37	48	65	97	104.5	150				
B3		5.5	7	10	12	15	20	30				
B4		1.6	1.5	1.5	2	3	2.5	15				
B5		15	25	30	40	60	70	90				
B6		20.5	30	38	53	82	84.5	120				
B7		4	6	8	10	12	16	20				
B8		28.3	33	43	54	72	87.5	97.4				
B9		88.65	114	138	190	251	292	391.4				
B10		11	10.5	14	30	23	27.5	45				
C1		46	70	90	145	165	200	265				
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	M14 x P2.0				
C3		8	14	19	19	24	24	35	35	42	42	55
C4		26.15	34.3	43	68.2	68.1	81.5	116				
C5		30	50	70	110	130	114.3	230				
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	M12 x P1.75				
C7		42.6	60	90	130	142	180	250				
C8		34.35	44	47	71	82	100	144				
C9		114.65	142	178	238	312	382	505.4				