

SGC SGE

The stainless steel planetary gearboxes SGC series and SGE series are specially developed and constructed for use in food, pharmaceutical, chemical, biotechnology, aerospace, anti-magnetic applications and those environments where corrosion protection is required. They are precision in-line servo gearboxes with smooth appearance and permanent laser engraving label to provide outstanding corrosion resistance in wash-down environments. Customized requirements such as high level IP protection or surface treatment are available to apply high temperature and pressure wash-down or hygienic environments. Feel free to contact us for further information.

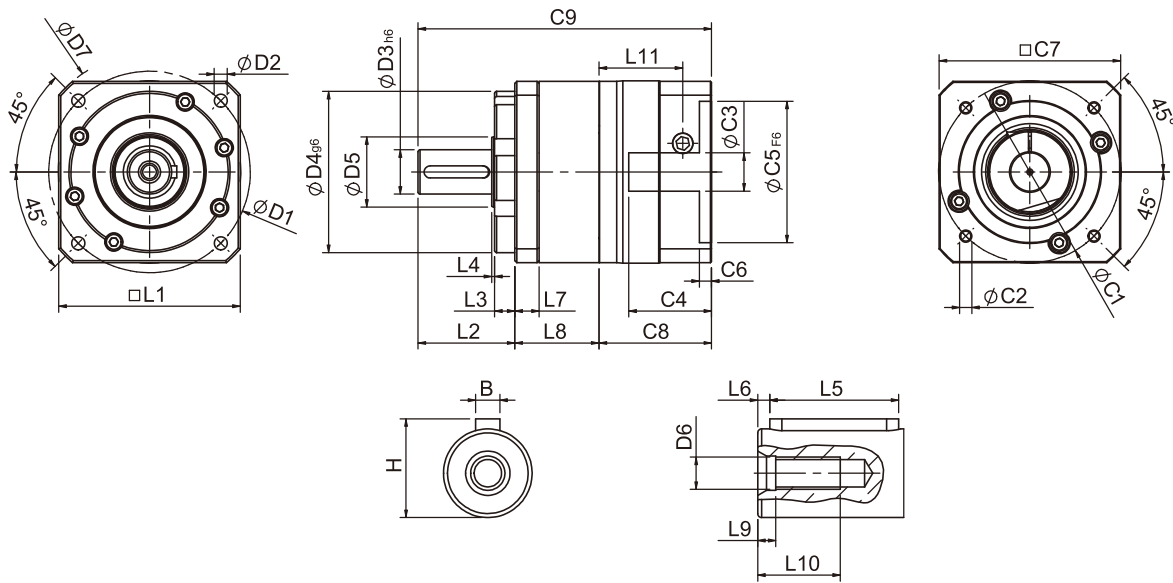


	SGC	SGE
Frame Size (mm)	50, 70, 90, 120	42, 60, 90, 115
Ratio	3 : 1-100:1	
Nominal Input Speed (rpm)	2,500 - 4,000	
Max Input Speed (rpm)	5,000 - 6,000	
Backlash (arc-min)	1 Stage: 6 - 9 2 Stages: 8 -12	
Noise Level (dBA / 1m)	61 - 67	

SGC/ SGE Features

- ▶ Corrosion resistance.
- ▶ One-piece constructed output shaft and gear carrier.
- ▶ Permanent laser engraving label.
- ▶ Lubricated for life.
- ▶ Customization available.
- ▶ Taiwan patent no. M524896.

SGE Single Stage Dimensions



Specifications

Unit:mm

Dimensions	SGE-42	SGE-60	SGE-90
D1	-	70	100
D2	-	5.5	6.5
D3h6	-	16	22
D4g6	-	50	80
D5	-	20	35
D6	-	M5x0.8P	M8x1.25P
D7	-	80	118
L1	-	62.5	90
L2	-	37	48
L3	-	7	10
L4	-	1.5	1.5
L5	-	25	32
L6	-	2	3
L7	-	10	12.1
L8	-	36.3	41.8
L9	-	4	4.5
L10	-	16.5	20.5
L11	-	34.3	41.5
C1 ²	-	70	90
C2 ²	-	M5x0.8P	M6x1.0P
C3 ²	-	≤14/≤19	≤19/≤24/≤28
C4 ²	-	33.5	41
C5 ² _{F6}	-	50	70
C6 ²	-	4	6
C7 ²	-	60	90
C8 ²	-	44.8	55.8
C9 ²	-	118.1	145.6
B	-	5	6
H	-	18	24.5

★ C1~C9 are motor specific dimensions (metric std shown). Size may vary according to motor flange.

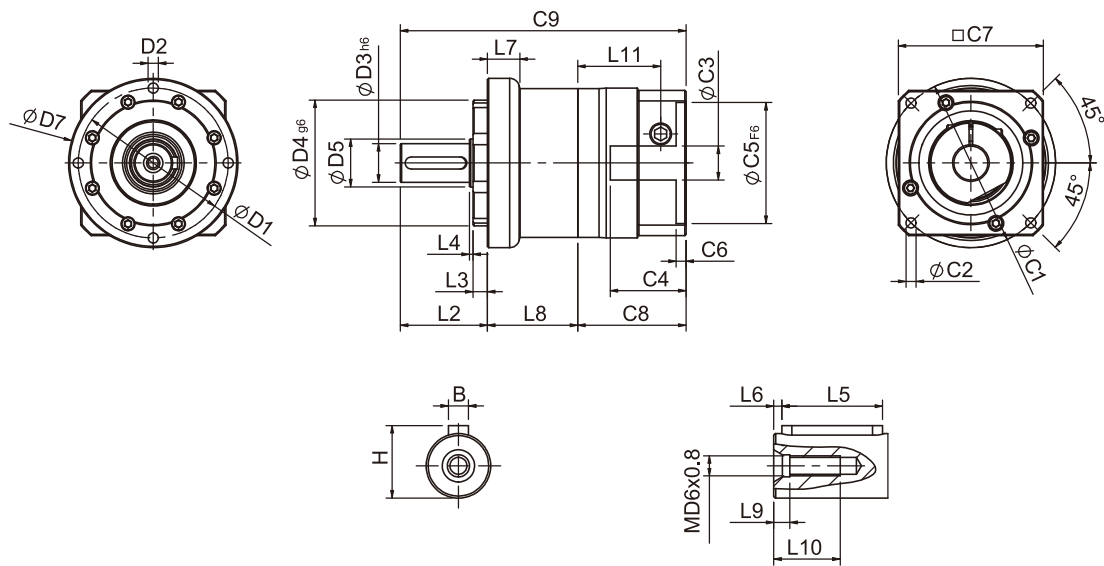
★ Specification subject to change without notice.

SGE Specifications

Specifications		Stage	Ratio	SGE-42	SGE-60	SGE-90	SGE-115
Nominal Output Torque T_{2N}	N · m	1	3	9	28	85	220
			4	10	32	80	240
			5	11	35	95	270
			7	10	28	85	220
			9	8	23	75	210
		10	8	21	65	190	
		Stage	Ratio	SGE-42	SGE-60(T)	SGE-90(T)	SGE-115(T)
		2	15	11	34	90	250
			20	10	32	80	240
			25	11	35	95	270
			35	11	35	95	270
			45	11	35	95	270
			49	10	28	85	220
			63	10	28	85	220
81	8	23	75	210			
100	8	21	65	190			
Emergency Stop Torque T_{2NOT}	N · m	(3.0 times of Nominal Output Torque) (*Max. Output Torque T_{2B} =60% of Emergency Stop Torque)					
Nominal Input Speed n_{1N}	rpm	1,2	3-100	4000	4000	3000	2500
Max. Input Speed n_{1max}	rpm	1,2	3-100	6000	6000	6000	5000
Standard Backlash P2	arcmin	1	3-10	≤ 9	≤ 8	≤ 7	≤ 6
		2	15-100	≤ 12	≤ 10	≤ 9	≤ 8
Torsional Rigidity	N · m / arcmin	1,2	3-100	1.5	4.0	8.5	17
Max. Radial Load F_{2rB}^1	N	1,2	3-100	760	1250	2030	4200
Max. Axial Load F_{2aB}^1	N	1,2	3-100	410	700	1200	2600
Operating Temp.	°C	1,2	3-100	-10°C ~ +90°C			
Service Life	hr	1,2	3-100	20,000 (10,000 Continuous operation)			
Efficiency	%	1	3-100	≥ 95%			
		2	15-100	≥ 90%			
Weight	kg	1	3-10	0.9	1.9	4.8	11.5
		2	15-100	1.1	2.4(2.2)	6.5(5.4)	13.5
Mounting Position	-	1,2	3-100	Any Direction			
Noise Level ²	dB(A)/1m	1,2	3-100	61	63	66	67
Protection Class	-	1,2	3-100	IP65 (Optional : IP67)			
Lubrication	-	1,2	3-100	Synthetic Lubricant (Optional: Food Grade Grease)			
Inertia (J1)							
Stage	Ratio	unit	SGE-42(ψ8)	SGE-60(ψ14)	SGE-90(ψ19)	SGE-115(ψ24)	
1	3	Kg · cm ²	0.04	0.23	0.77	2.30	
	4		0.03	0.21	0.67	1.92	
	5		0.03	0.21	0.61	1.71	
	7		0.03	0.21	0.60	1.65	
	9/10		0.03	0.21	0.60	1.63	
Stage	Ratio		SGE-42(ψ8)	SGE-60(ψ14)/ SGE-60T(ψ8)	SGE-90(ψ19)/ SGE-90T(ψ14)	SGE-115(ψ19)	
2	15/20/25		0.03	0.21(0.03)	0.61(0.21)	0.61	
	35/49		0.03	0.21(0.03)	0.60(0.21)	0.60	
	45/63/81/100		0.03	0.21(0.03)	0.60(0.21)	0.60	
<p>* 1. Applied to the output shaft center at 100 rpm.</p> <p>* 2. Environment noise level 30 dB; distance 1m; measured under free loading with input speed 3000 rpm; ratio = 10 (1-stage) or ratio = 100 (2-stage).</p> <p>※The above figures/specifications are subject to change without prior notice.</p>							

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SGC Single Stage Dimensions



Specifications

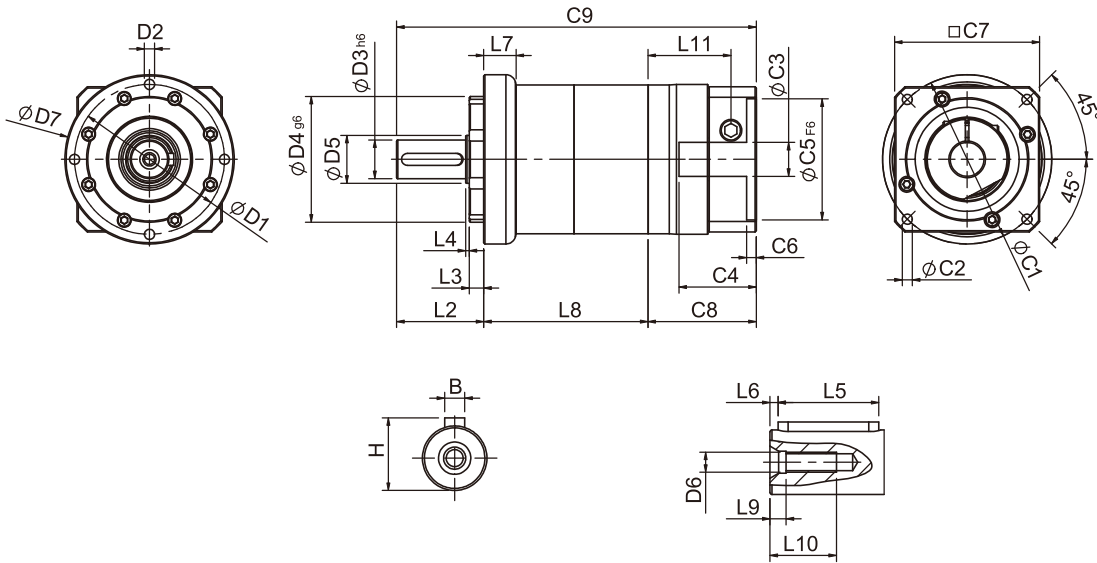
Unit:mm

Dimensions	SGC-50	SGC-70	SGC-90
D1	-	62	80
D2	-	M5x0.8P	M6x1.0P
D3 _{h6}	-	16	22
D4 _{g6}	-	52	68
D5	-	20	35
D6	-	M5x0.8P	M8x1.25P
D7	-	70	90
L2	-	36	46
L3	-	6	7
L4	-	1.5	2.5
L5	-	25	32
L6	-	2	3
L7	-	13.4	14.1
L8	-	37.3	43.8
L9	-	4	4.5
L10	-	16.5	20.5
L11	-	34.3	41.5
C1 ²	-	70	90
C2 ²	-	M5x0.8P	M6x1.0P
C3 ²	-	≤14/≤19	≤19/≤24/≤28
C4 ²	-	33.5	41
C5 ² _{F6}	-	50	70
C6 ²	-	4	6
C7 ²	-	60	90
C8 ²	-	44.8	55.8
C9 ²	-	118.1	145.6
B	-	5	6
H	-	18	24.5

★ C1~C9 are motor specific dimensions (metric std shown). Size may vary according to motor flange.

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D7	-	70	90
L2	-	36	46
L3	-	6	7
L4	-	1.5	2.5
L5	-	25	32
L6	-	2	3
L7	-	13.4	14.1
L8	-	67.9	84.7
L9	-	4	4.5
L10	-	16.5	20.5
L11	-	34.3	41.5
C1 ²	-	70	90
C2 ²	-	M5x0.8P	M6x1.0P
C3 ²	-	≤14/≤19	≤19/≤24/≤28
C4 ²	-	33.5	41
C5 ² _{F6}	-	50	70
C6 ²	-	4	6
C7 ²	-	60	90
C8 ²	-	44.8	55.8
C9 ²	-	148.7	186.5
B	-	5	6
H	-	18	24.5

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SGC Specifications

Specifications		Stage	Ratio	SGC-50	SGC-70	SGC-90	SGC-120
Nominal Output Torque T_{2N}	N · m	1	3	9	28	85	220
			4	10	32	80	240
			5	11	35	95	270
			7	10	28	85	220
			9	8	23	75	210
			10	8	21	65	190
		Stage	Ratio	SGC-50(T)	SGC-70(T)	SGC-90(T)	SGC-120(T)
		2	15	11	34	90	250
			20	10	32	80	240
			25	11	35	95	270
			35	11	35	95	270
			45	11	35	95	270
			49	10	28	85	220
			63	10	28	85	220
81	8		23	75	210		
100	8	21	65	190			
Emergency Stop Torque T_{2NOT}	N · m	(3.0 times of Nominal Output Torque) (*Max. Output Torque T_{2B} =60% of Emergency Stop Torque)					
Nominal Input Speed n_{1N}	rpm	1,2	3-100	4000	4000	3000	2500
Max. Input Speed n_{1max}	rpm	1,2	3-100	6000	6000	6000	5000
Standard Backlash P2	arcmin	1	3-10	≤ 9	≤ 8	≤ 7	≤ 6
		2	15-100	≤ 12	≤ 10	≤ 9	≤ 8
Torsional Rigidity	N · m /arcmin	1,2	3-100	1.5	4.0	8.5	17
Max. Radial Load F_{2rB}^{-1}	N	1,2	3-100	760	1250	2030	4200
Max. Axial Load F_{2aB}^{-1}	N	1,2	3-100	410	700	1200	2600
Operating Temp.	°C	1,2	3-100	-10°C ~ +90°C			
Service Life	hr	1,2	3-100	20,000 (10,000 Continuous Operation)			
Efficiency	%	1	3-100	≥ 95%			
		2	15-100	≥ 90%			
Weight	kg	1	3-10	0.9	1.9	4.8	11.5
		2	15-100	1.1	2.4(2.2)	6.5(5.4)	13.5
Mounting Position	-	1,2	3-100	Any Direction			
Noise Level ²	dB(A/1m)	1,2	3-100	61	63	66	67
Protection Class	-	1,2	3-100	IP65 (Optional : IP67)			
Lubrication	-	1,2	3-100	Synthetic Lubricant (Optional: Food Grade Grease)			
Inertia (J1)							
Stage	Ratio	unit		SGC-50(ψ8)	SGC-70(ψ14)	SGC-90(ψ19)	SGC-120(ψ24)
1	3	Kg · cm ²		0.04	0.23	0.77	2.30
	4			0.03	0.21	0.67	1.92
	5			0.03	0.21	0.61	1.71
	7			0.03	0.21	0.60	1.65
	9/10			0.03	0.21	0.60	1.63
Stage	Ratio			SGC-50(ψ8)	SGC-70(ψ14)/ SGC-70T(ψ8)	SGC-90(ψ19)/ SGC-90T(ψ14)	SGC-120(ψ19)
2	15/20/25			0.03	0.21(0.03)	0.61(0.21)	0.61
	35/49			0.03	0.21(0.03)	0.60(0.21)	0.60
	45/63/81/100			0.03	0.21(0.03)	0.60(0.21)	0.60
* 1. Applied to the output shaft center at 100 rpm. * 2. Environment noise level 30 dB; distance 1m; measured under free loading with input speed 3000 rpm; ratio = 10 (1-stage) or ratio = 100 (2-stage). ※The above figures/specifications are subject to change without prior notice.							

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