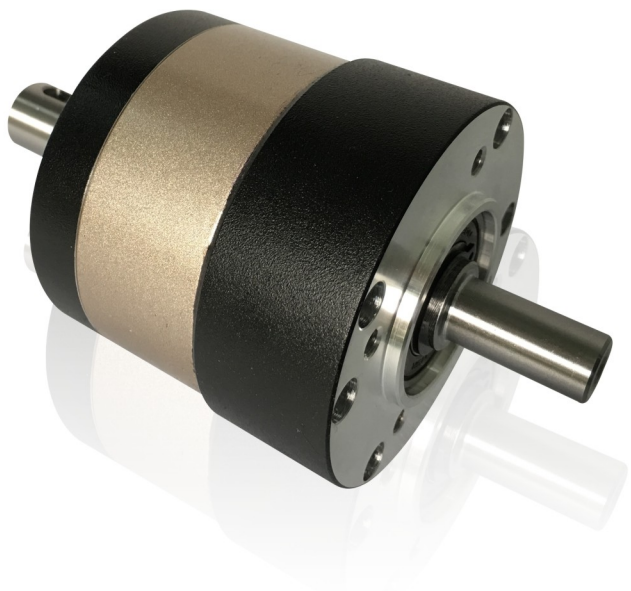
SPLS

SERIES SERVO PLANETARY GEARBOX

SPLS is our highly successful precision gearbox series. All SPLS gears adopt the alloy forged steel as the raw material, the powerful heat treatment, the latest helical gear design, full needle roller bearings, and the high level gear grinding craft. For any regular industrial applications, SPLS would be your great option for gearbox.



Gearbox Options

- Output shaft key way, without key be available.
- Synthetic Lubrication Grease, low temperature grease available.
- Adaptor flange solution available.

Gearbox Features

- Precision gearing and cost-effective.
- High efficiency and low noise control.
- Long constant operation service lifetime.
- Optimized inertia moment.
- Limited temperature rise.
- Flexible input mounting dimensions.
- Maintenance free for whole service lifetime.

SPLS Technical Data

Model		SPLS070	SPLS090	SPLS120	SPLS160	Ratio	Stage
Nominal Output Torque	Nm	35	100	190	440	3	1
		42	110	240	544	4	
		44	115	245	585	5	
		40*	105*	240*	500*	6	
		40*	100	235*	480	7	
		38	95	210	450	8	
		36	90	200	415	9	
		32	81	196	400	10	
		37	100	210	450	12	2
		37	100	210	450	15	
		44	110	230	450	16	
		44	110	230	564	20	
		44	110	255	608	25	
		44	110	255	608/35	32	
		44	110	250	608	40	
		38	95	210	450/63	64	
		45	120	255	580	80	3
		45	120	255	580	100	
		45	120	255	580	125	
		45	120	255	580	160	
		45	120	255	608	200	
		45	120	255	608/224	256	
		45	120	255	580/280	320	
		38	95	210	450/504	512	
Emergency Stop Torque	Nm	Double Rated Output Torque					
Max Radial Force[1]	N	550	1020	2070	7300		
Max Axial Force[1]	N	375	570	970	6400		
Operating Temperature	℃	−25~90					
Mouting Position		Any Directions					
Lubrication		Synthetic Lubrication Grease					
Protection Class		IP65					
Efficiency at full load	%	97					1
		95					2
		93					3
Service Lifetime	h	20,000 (Continuous Operation)					
Unit Weight	kg	1	2.4	6	20		1
		1.2	3.7	8	25		2
		1.4	5	10	30		3

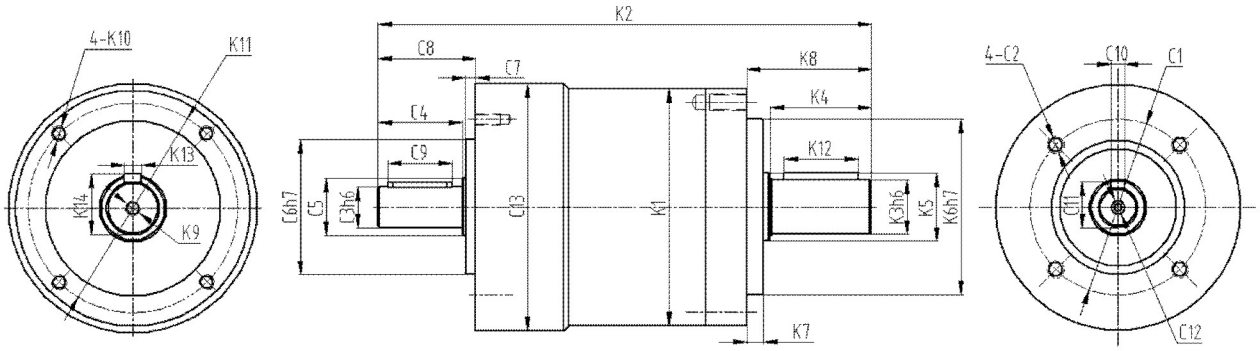
1. Values based on the output shaft speed n2=100 RPM

SPLS Technical Data

Model		SPLS070	SPLS090	SPLS120	SPLS160	Ratio	Stage
Mass Moment of Inertia	kgcm^2	0.135	0.77	2.63	12.1	3	1
		0.093	0.52	1.79	7.75	4	
		0.078	0.45	1.53	6	5	
		0.07	0.42	1.5	5.52	6	
		0.069	0.4	1.4	5.1	7	
		0.065	0.39	1.32	3.74	8	
		0.065	0.39	1.32	3.62	9	
		0.065	0.39	1.32	3.62	10	
		0.105	0.67	1.63	10.1	12	2
		0.095	0.51	1.67	8.1	15	
		0.088	0.5	1.75	7.47	16	
		0.075	0.44	1.53	6.65	20	
		0.075	0.44	1.49	5.81	25	
		0.064	0.39	1.32	6.34	32	
		0.064	0.39	1.32	5.36	40	
		0.064	0.39	1.32	4.08	64	
		0.075	0.5	1.53	7.4	80	3
		0.064	0.44	1.49	7.3	100	
		0.064	0.7	2.57	7.3	125	
		0.064	0.39	1.3	6.5	160	
		0.064	0.39	1.3	6.5	200	
		0.064	0.39	1.3	6.5	256	
		0.064	0.39	1.3	6.5	320	
		0.064	0.39	1.3	6.5	512	
Backlash	arcmin	<8	<8	<8	<8	P2	1
		<10	<10	<10	<10	P2	2
		<12	<12	<12	<12	P2	3
Torsional Rigidity	Nm/arcmin	3	4.8	10	28.7		
Running Noise[1]	dB(A)	<58	<60	<62	<68		
Max Input Speed[2]	min^{-1}	6000	6000	6000	6000		
Rated Input Speed[2]	min^{-1}	4000	3000	3000	3000		

1. Measured on input running speed at n1=3000 RPM without loading, 1m distance.

SPLS Dimensions



Model	SPLS070			SPLS090			SPLS120			SPLS160		
Stage	1	2	3	1	2	3	1	2	3	1	2	3
K1	Φ70			Φ89			Φ120			Φ160		
K2	145.5	169.2	192.9	163.7	195	226.3	248	283	318	340.5	401.5	401
K3	Φ14			Φ20			Φ25			Φ40		
K4	30			36			50			80		
K5	Φ17			Φ25			Φ35			Φ50		
K6	Φ40			Φ60			Φ80			Φ130		
K7	3			3			4			5		
K8	35			40			55			87		
K9	M5X12			M6X15			M10X26			M12X25		
K10	M5X12			M6X12			M10X20			M12X20		
K11	Φ52			Φ70			Φ100			Φ145		
K12	22			28			40			70		
K13	5			6			8			12		
K14	16			22.5			28			43		
C1	Φ52			Φ70			Φ100			Φ145		Φ100
C2	M5X11			M6X15			M10X20			M12X20		M10X20
C3	Φ12			Φ16			Φ22			Φ35		Φ22
C4	25			26			40			57		40
C5	Φ17			Φ25			Φ35			Φ50		Φ35
C6	Φ40			60			Φ80			Φ130		Φ80
C7	3			3			4			5		4
C8	29			30			45			65		45
C9	18			20			32			45		32
C10	4			5			6			10		6
C11	13.5			18			24.5			38		24.5
C12	M4X8			M5X10			M6X16			M12X25		M6X16
C13	Φ73			Φ92			Φ120			Φ162		Φ123

Order Instructions

Order Code: SPLS – 120 – 2 – 15 – S1 – P2 – Servo Motor

SPLS

Gearbox Series: SPLS

120

Gearbox Size

2

Gearbox Stage

15

Gearbox Ratio

S1

S1: Output shaft with key
S2: Output shaft without key

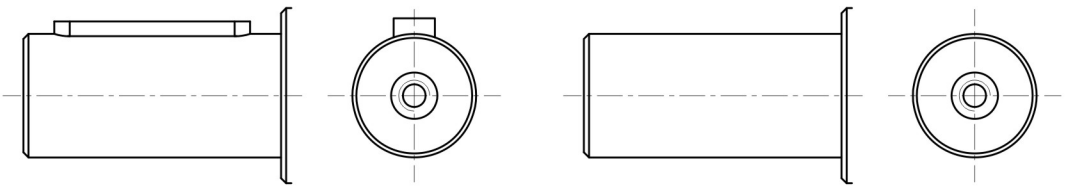
P2

Gearbox Precision

Servo Motor

Motor Manufacturer and model

Output Shaft Key Option



S1: Output shaft with key

S2: Output shaft without key

Ordering Example: SPLS120-2-15-S1-P2-ABB-8M1230

If there is any question, please ask our engineering sales for solutions.

Solution Memo



KOFON
www.kofon-motion.com