SVX

SERIES SERVO PLANETARY GEARBOX

SVX is our highly successful precision gearbox series. All SVX 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, SVX 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.

SVX Technical Data

Model		SVX065	SVX085	SVX115	SVX142	SVX180	SVX220	Ratio	Stage
Nominal Output Torque	Nm	35	100	190	440	600	1000	3	1
		42	110	240	544	1050	1600	4	
		44	115	245	585	1000	1850	5	
		40*	105*	240*	500*	800*	1650*	6	
		40*	100	235*	480	800	1550*	7	
		38	95	210	450	800	1350	8	
		36	90	200	415	710	1300*	9	
		32	81	196	400	710	1300	10	
		37	100	210	450	650	1000	12	2
		37	100	210	450	650	1000	15	
		44	110	230	450	1050	1600	16	
		44	110	230	564	1000	1850	20	
		44	110	255	608	1000	1850	25	
		44	110	255	608/35	1050/35	1800	32	
		44	110	250	608	1000	1850	40	
		38	95	210	450/63	800/63	1350	64	
		45	120	255	580	1000	1850	80	3
		45	120	255	580	1000	1850	100	
		45	120	255	580	1000	1850	125	
		45	120	255	580	1000/140	1850/140	160	
		45	120	255	608	1000/180	1850/180	200	
		45	120	255	608/224	1000/252	1850/252	256	
		45	120	255	580/280	1000/315	1850/315	320	
		38	95	210	450/504	800/441	1350/504	512	
Emergency Stop Torque	Nm	Double Rated Output Torque							
Max Radial Force[1]	N	550	1020	2070	7300	12000	14000		
Max Axial Force[1]	N	375	570	970	6400	6800	7800		
Operating Temperature	℃	−25~90							
Mouting Position		Any Directions							
Lubrication		Synthetic Lubrication Grease							
Protection Class		IP65							
Efficiency at full load	%	95							1
		92							2
		89							3
Service Lifetime	h	20,000 (Continuous Operation)							
Unit Weight	kg	2.2	5.3	8.5	26	41	68		1
		2.4	6.5	12	31	49	78		2
		3.6	7.5	15	35	54	90		3

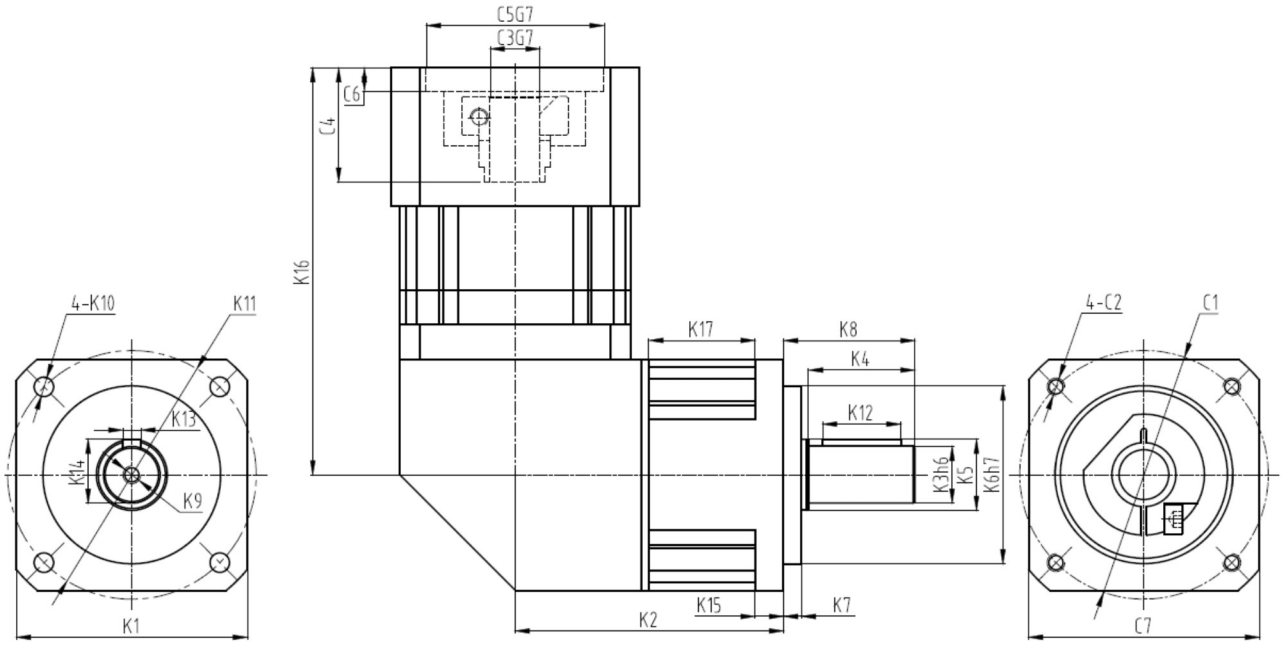
1. Values based on the output shaft speed n2=100 RPM

SVX Technical Data

Model		SVX065	SVX085	SVX115	SVX142	SVX180	SVX220	Ratio	Stage
Mass Moment of Inertia	$kgcm^2$	0.135	0.77	2.63	12.1	28.98	69.61	3	1
		0.093	0.52	1.79	7.75	23.67	54.37	4	
		0.078	0.45	1.53	6	22.75	53.27	5	
		0.07	0.42	1.5	5.52	22.48	50.84	6	
		0.069	0.4	1.4	5.1	22.48	50.84	7	
		0.065	0.39	1.32	3.74	22.59	50.84	8	
		0.065	0.39	1.32	3.62	22.59	50.84	9	
		0.065	0.39	1.32	3.62	22.55	50.56	10	
		0.105	0.67	1.63	10.1	18.98	59.61	12	2
		0.095	0.51	1.67	8.1	16.98	48.61	15	
		0.088	0.5	1.75	7.47	7.54	23.67	16	
		0.075	0.44	1.53	6.65	7.42	22.75	20	
		0.075	0.44	1.49	5.81	7.54	22.75	25	
		0.064	0.39	1.32	6.34	7.14	22.59	32	
		0.064	0.39	1.32	5.36	7.14	22.59	40	
		0.064	0.39	1.32	4.08	7.54	22.59	64	
		0.075	0.5	1.53	7.4	7.54	22.75	80	3
		0.064	0.44	1.49	7.3	7.42	22.59	100	
		0.064	0.7	2.57	7.3	7.42	22.75	125	
		0.064	0.39	1.3	6.5	7.14	22.75	160	
		0.064	0.39	1.3	6.5	7.14	22.75	200	
		0.064	0.39	1.3	6.5	7.14	22.75	256	
		0.064	0.39	1.3	6.5	7.14	22.75	320	
		0.064	0.39	1.3	6.5	7.14	22.59	512	
Backlash	arcmin	<10	<10	<10	<10	<10	<10	P2	1
		<12	<12	<12	<12	<12	<12	P2	2
		<15	<15	<15	<15	<15	<15	P2	3
Torsional Rigidity	Nm/arcmin	3	4.8	10	28.7	120	200		
Running Noise[1]	dB(A)	<58	<60	<62	<68	<70	<72		
Max Input Speed[2]	min^{-1}	6000	6000	6000	6000	4000	3000		
Rated Input Speed[2]	min^{-1}	4000	3000	3000	3000	2000	1500		

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

SVX Dimensions



Model	SVX065			SVX085			SVX115			SVX142			SVX180			SVX220		
Stage	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
K1	65			85			110			142			180			220		
K2	75.5	93	116.7	95	113.7	145	119.5	154	195.8	141	202	263	202	234	266.5	241	285.5	315
K3	Φ16			Φ22			Φ32			Φ40			Φ55			Φ75		
K4	30			36			50			80			82			105		
K5	Φ20			Φ25			Φ40			Φ50			Φ60			Φ85		
K6	Φ50			Φ80			Φ110			Φ130			Φ160			Φ180		
K7	5			10			12			15			20			30		
K8	37			48			65			97			105			138		
K9	M5X12			M6X16			M10X22			M12X26			M20X40			M20X40		
K10	Φ5.5			Φ6.5			Φ9			Φ11			Φ13			Φ17		
K11	Φ70			Φ100			Φ130			Φ165			Φ215			Φ250		
K12	22			28			40			70			70			90		
K13	5			6			10			12			16			20		
K14	18			24.5			35			43			59			79.5		
K15	8			10			14			15			20			25		
K16	114.5			150			194			246.5			170	145		220	170	145
K17	30	31	54.7	37.5	46.2	77.5	42.5	63	104.8	55	101	149.5	62.5	62.5	62.5	76	76	76
C1	Φ70			Φ90			Φ145			Φ200			Φ215	Φ200		Φ235	Φ215	Φ200
C2	M5X12			M6X15			M8X20			M12X12			M12X25	M12X25		M12X25	M12X25	M12X25
C3	Φ14			Φ19			Φ24			Φ35			Φ42	Φ35		Φ55	Φ42	Φ35
C4	32.1			41.3			61.3			81.3			82.5	81.3		116	82.5	81.3
C5	Φ50			Φ70			Φ110			Φ114.3			Φ180	Φ114.3		Φ200	Φ180	Φ114.3
C6	6.5			6.5			8			6.5			8	8		8	8	8
C7	65			85			120			175			190	175		220	190	175

Order Instructions

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

SVX

Gearbox Series: SVX

120

Gearbox Size

2

Gearbox Stage

15

Gearbox Ratio

S1

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

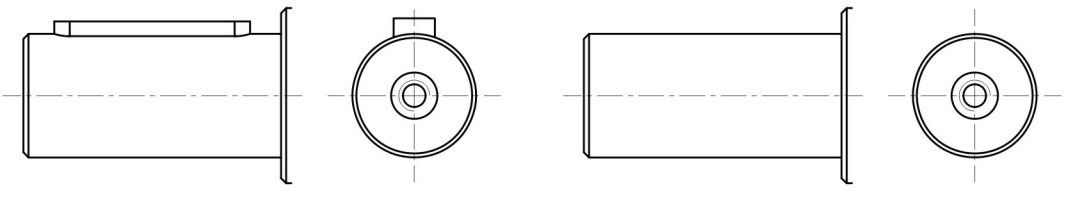
P2

Gearbox Precision

Servo Motor

Motor Manufacturer and model

Output Shaft Key Option



S1: Output shaft with key

S2: Output shaft without key

Ordering Example: SVX120-2-15-S1-P2-ABB-8M1230

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

Solution Memo



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