

SAX RANGE DC BRUSHED SERVOMOTORS



Complete line of DC Servomotors for use with Microspeed, Minispeed and Masterspeed Servo Drives that range from 0.045Nm to 2.7 Nm (6.4 to 386 oz.-in.)

With restricted dimensions, the **SAX 100** series Servomotors offer the most dynamic features along with high peak torque, therefore they are particularly suitable for driving any type of movement applications where great motion regularity at low speed is important.

Series: **SAX 117**: 2 poles, Torque range: 0.045 to 0.75 Nm (6.4 to 10.7 oz-in)
 Series: **SAX 130**: 2 poles, Torque range: 0.13 to 0.49 Nm (18.6 to 70 oz-in)
 Series: **SAX 156/163**: 2 poles, Torque range: 0.46 to 0.9 Nm (65.7 to 128.6 oz-in)
 Series: **SAX 165/175**: 4 poles, Torque range: 0.85 to 2.7 Nm (121.4 to 386 oz-in)



STANDARD FEATURES

- ✓ Complete line of DC Servomotors starting with extremely small sizes
- ✓ Ferrite permanent magnets
- ✓ Extremely favorable cost to performance ratio
- ✓ Easy installation and use
- ✓ Full torque in a wide range of speeds
- ✓ High overload capacity
- ✓ Encoder predisposition (see table on reverse)
- ✓ Environmental working temperature: 5°C ~ 40°C

TYPICAL APPLICATIONS

Small Robotics, X-Y Tables, Medical Equipment, Textile Equipment, Conveyors, Graphic Machinery, Packaging Machinery, Positioners, Converting Machinery, Feeders.

TECHNICAL SPECIFICATIONS

SERIES	SAX 117 (2 poles)			SAX 130 (2 poles)				SAX 156 / 163 (2 poles)					SAX 163 (2 poles)			SAX 165 / 175 (4 poles)					175 (4 poles)							
	SIZE	S	M	S	M	L	XL	S	M			L	S	M			L											
Nm	.045	.06	.075	.13	.17	.3	.3	.43	.49	.55	.65	.7	.75	.75	.65	.8	.9	1.15	1.0	.85	1.7	1.45	1.45	1.8	2.2	2.7		
Mo (Stall Torque) ($\Delta t=115^{\circ}\text{C}$) oz.-in.	6.4	8.6	11	19	24	43	43	61	70	70	79	93	100	107	107	93	115	129	165	143	121	243	207	207	257	314	386	
N _n Nominal Speed RPM	3900	3500	1100	2750	2800	3200	3150	2750	2750	2800	2650	2900	3100	3000	2000	3200	2250	3000	2100	3300	4600	2250	3500	4850	3200	3400	2100	
InO ADC ($\Delta t=115^{\circ}\text{C}$)	24V DC	1.4	1.7	.75	2.5	3.1	5.2	-	6.3	-	7.3	-	10	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-
	48V DC	-	-	-	-	-	-	2.5	-	4.1	-	4	-	5.6	-	-	-	5.6	5.9	-	-	-	-	-	-	-	-	-
BLOCKED ROTOR RATED CURRENT	65V DC	-	-	-	-	-	-	-	-	-	-	-	-	4	2.9	-	-	-	-	4.6	5.8	6.5	6.8	8.5	11.5	-	-	-
	90V DC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	8.8	7
Rotor Inertia J kgm ² ·10 ⁻⁴		0.03	0.052	0.2	0.28	0.43	0.75		2.8		3.8		5		3.9		7		8.5									
Tacho (OPTIONAL)	DT03 - 3V/1000 Rpm (2 POLES)	DT10 - 10V/1000 Rpm (2 POLES)															DT10 - 10V/1000 Rpm (2 POLES)											
Tacho Inertia J _t kgm ² ·10 ⁻⁴		0.015			0.057															0.8								
Brake (OPTIONAL)	Not available	1 Nm - 24 Vdc - 0.3A															2 Nm - 24 Vdc - 0.4A											
Brake Inertia J _b kgm ² ·10 ⁻⁴	—	0.1															0.24											

MECHANICAL DIMENSIONS

VERSION WITH BRAKE: N+35 mm		WITH TACHO		SAX	117S	117M			
				N	73	97			
Motor WT		TACHO WT		0.3 (Kg) 0.7 (Lbs)	0.4 (Kg) 0.9 (Lbs)	0.2 (Kg) 0.4 (Lbs)			
VERSION WITH BRAKE: N+35 mm		WITH TACHO		SAX	130 S	130 M	130 L	130 XL	
				D	6	7	7	9	
Motor WT		TACHO WT		0.7 (Kg) 1.5 (Lbs)	0.9 (Kg) 2.0 (Lbs)	1.3 (Kg) 2.9 (Lbs)	2 (Kg) 4.4 (Lbs)	0.58 Kg - 1.3 (Lbs)	
VERSION WITH BRAKE: N+35 mm		WITH TACHO		SAX	156 S	156 M	163 S	163 M	163 L
				B	50	50	60	60	60
Motor WT		TACHO WT		2.7 (Kg) 5.9 (Lbs)	3.2 (Kg) 7.0 (Lbs)	2.7 (Kg) 5.9 (Lbs)	3.2 (Kg) 7.0 (Lbs)	4.0 (Kg) 8.8 (Lbs)	0.38 Kg - 0.8 (Lbs)
VERSION WITH BRAKE: N+35 mm		WITH TACHO		SAX	165 S	165 M	175 S	175 M	175 L
				D	11	11	14	14	14
Motor WT		TACHO WT		3.1 (Kg) 6.8 (Lbs)	5.2 (Kg) 11.4 (Lbs)	3.1 (Kg) 6.8 (Lbs)	5.2 (Kg) 11.4 (Lbs)	6.8 (Kg) 15 (Lbs)	0.8 Kg - 1.8 (Lbs)

ORDERING CODE: **SAX - 175 - S - 3.90 / 024 - XX - 09 - P - 00**

SERIES: 117, 130, 156, 163, 165, 175

SIZE: S, M, L or XL

NOMINAL SPEED (KRPM): e.g. 3.9=39000rpm

NOMINAL VOLTAGE: 24, 48, 65 or 90VDC

FLANGES & SHAFTS:
XX= Standard

OPTIONS:

09= Only motor (standard)

01= With Tacho

06= Brake+Tacho

... contact us for other options

CUSTOM MADE:
00= Standard

ELECTRICAL CONNECTIONS:
P= Flying leads, 1.5m length
C= Connectors (optional)
F= Fast-on