



SureServo™ AC SERVO SYSTEMS

Servo motor overview

Motor Power and Brake Connector
1-meter cable with 6-position connector
(Not liquid tight)

750W and below

- Low Inertia Motors**
- 100W 40 mm flange
 - 200W 60 mm flange
 - 400W 60 mm flange
 - 750W 80 mm flange

- Keyless Shafts**
- 100W 8 mm diameter
 - 200W 14 mm diameter
 - 400W 14 mm diameter
 - 750W 19 mm diameter

Encoder Connector
1-meter cable with 9-position connector
(Not liquid tight)



Without Shaft Seal
(not liquid tight)

All SureServo motors have keyless shafts for use with servo-grade clamp or compression.

Motor Power and Brake Connector
(Liquid tight when using AutomationDirect cables)

Encoder Connector
(Liquid tight when using AutomationDirect cables)

1 kW and above

IP65 Housing

- Keyless Shafts**
- Low Inertia Model**
- 1 kW 22 mm diameter
- Medium Inertia Models**
- 1 kW 22 mm diameter
 - 2 kW 35 mm diameter
 - 3 kW 35 mm diameter

- Low and Medium Inertia Motors**
- Low Inertia Model**
- 1 kW 100 mm flange
- Medium Inertia Models**
- 1 kW 130 mm flange
 - 2 kW 180 mm flange
 - 3 kW 180 mm flange



With Shaft Seal
(liquid tight)



AC SERVO SYSTEMS - MOTOR SPECS

Motor Specifications										
Inertia Range		Low					Medium			
Model Name: Sxx-xxx		SVL-201	SVL-202	SVL-204	SVL-207	SVL-210	SVM-210	SVM-220	SVM-230	
Price										
Model with brake: Sxx-xxxB		SVL-201B	SVL-202B	SVL-204 B	SVL-207B	SVL-210B	SVM-210B	SVM-220B	SVM-230B	
Price										
Rated output power	W	100	200	400	750	1000	1000	2000	3000	
	N-m	0.318	0.64	1.27	2.39	3.3	4.8	9.4	14.3	
Rated torque	lb-in	2.8	5.7	11.2	21.2	29.2	42.5	83.2	125.7	
	N-m	0.95	1.91	3.82	7.16	9.9	15.7	23.5	35.8	
Maximum torque	lb-in	8.4	16.9	33.8	63.4	87.6	138.9	208.0	316.8	
	rpm	3000					2000			
Rated speed	rpm	5000			4500			3000		
Max. speed	rpm	5000			4500			3000		
Rated current	A	1.1	1.7	3.3	5.0	6.8	5.6	13.1	17.4	
Max. current	A	3.0	4.9	9.3	14.1	18.7	17.6	31.4	42.3	
Drive input current	1 phase A	1.0	1.7	3.4	5.9	8.0	8.0	-	-	
	3 phase A	0.8	1.3	2.6	4.7	6.2	6.2	9.1	13.6	
Max. radial shaft load	N	78.4	196		343	490		784		
	lb	18	44		77	110		176		
Max. thrust shaft load	N	39.2	68.6		98			392		
	lb	9	15		22			88		
Brake	Voltage	VDC								
	Current	0.21		0.38		0.4		0.75		0.83
	Holding	0.32		1.27		2.55		9.3		7.5
	Torque	2.83		11.24		22.57		82.3		66.38
Rotor inertia w/o brake	kg-m2	0.03E-4	0.18E-4	0.34E-4	1.08E-4	2.6E-4	5.98E-4	15.8E-4	43.3E-4	
	lb-in-s2	0.27E-4	1.59E-4	3.0E-4	9.56E-4	23.0E-4	52.9E-4	139.8E-4	383.2E-4	
Rotor inertia with brake	kg-m2	0.06E-4	0.28E-4	0.44E-4	1.32E-4	3.1E-4	8.8E-4	27.8E-4	56.3E-4	
	lb-in-s2	0.53E-4	2.48E-4	3.9E-4	11.7E-4	27.4E-4	77.9E-4	246.0E-4	498.3E-4	
Mechanical time constant	ms	0.6	0.9	0.7	0.6	1.7	1.4	1.6	0.9	
Static friction torque	N-m	0.02	0.04		0.08	0.49	0.29	0.98		
Torque constant-KT	N-m/A	0.32	0.39	0.4	0.5	0.56	0.91	0.77	0.86	
Voltage constant-KE	V/rpm	33.7E-3	41.0E-3	41.6E-3	52.2E-3	58.4E-3	95.71E-3	81.1E-3	90.5E-3	
Armature resistance	T	20.3	7.5	3.1	1.3	2.052	1.98	0.6	0.162	
Armature inductance	mH	32	24	11	6.3	8.4	13.2	6.1	2.3	
Electrical time constant	ms	1.6	3.2	3.2	4.8	4.1	6.7	10.1	14.2	
Insulation class	Class F									
Insulation resistance	>100 MΩ , 500 VDC									
Insulation strength	1500 VAC, 50 Hz, 60 seconds									
Operating temperature	0 to 40°C (32°F to 104°F)									
Storage temperature	-20 to 65°C (-4 to 149°F)									
Operating humidity	20 to 90% RH (non-condensing)									
Storage humidity	20 to 90% RH (non-condensing)									
Vibration / Shock	2.5G / 5.0G									
Environmental rating	IP65 motor body; IP40 shaft and connector					IP65 (requires SureServo cables)				
Weight without brake	kg	0.5	0.9	1.3	2.5	4.7	4.8	12.0	17.0	
	lb	1.1	1.98	2.87	5.5	10.36	10.58	26.46	37.48	
Weight with brake	kg	0.7	1.4	1.8	3.4	6.3	7.5	19.0	24.0	
	lb	1.54	3.09	3.97	7.5	13.89	16.53	41.89	52.9	
Agency Approvals	CE: UL recognized (U.S. and Canada)									

NOTE: U.S. customary units are for reference only.