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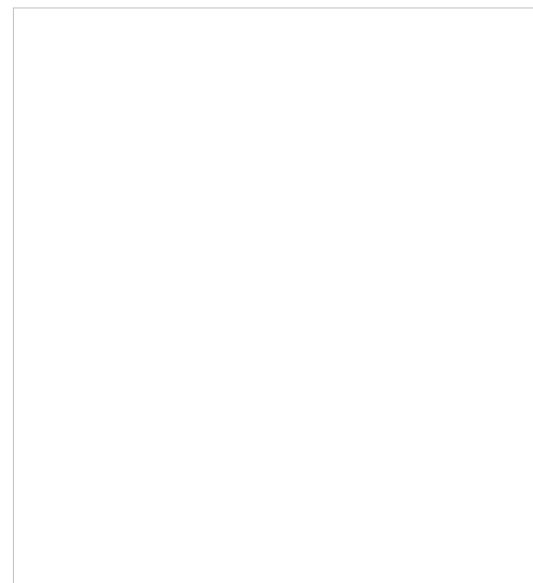
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Product Datasheet

www.Applied-Motion.com

SV7-S-AF

Motion Controller Compatible Servo Drive



Product Features

- Digital servo drive in a compact package
- DSP-based current control, sinusoidal commutation and jerk filter
- Operates from 24-80 VDC
- Provides motor current up to 7.0 A rms continuous, 14.0 A rms peak
- Analog torque/velocity control
- Three pulse-based control modes: step & direction, A/B quadrature, CW/CCW pulse
- Streaming serial command mode (SCL) for commands sent from a host controller
- Buffered encoder outputs for connection to external motion controller or other devices
- 8 digital inputs, 4 digital outputs, all optically isolated
- 2 analog inputs, +/-10 volt range
- RS-232 port for programming and communications

Description

The SV series servo drives are suitable for a wide range of motion applications. They are built around a powerful digital signal processor coupled to an efficient MOSFET PWM amplifier. The SV drives include 12 optically isolated I/O points plus analog inputs. A sophisticated, yet easy to tune position loop has independent digital settings for proportional, integral and derivative gains plus velocity feedback and velocity and acceleration feedforward.

All SV drives are capable of running brushless, brushed, and linear servo motors. A timing wizard

automatically configures the encoder and commutation timing for virtually any brushless or brushed DC motor. Tuning is easy with our Quick Tuner™ software, featuring a built-in digital oscilloscope.

Specifications

Model Number:

SV7-S-AF

Part Number:

5000-169

Supply Voltage:

24-80 VDC

Supply Voltage Type:

DC

Control Modes:

Step & Direction

Analog Torque / Velocity

Streaming Commands

Output Current, Continuous:

7.0

Output Current, Peak:

14.0

Communication Ports:

RS-232

Feedback:

Halls + Incremental encoder

Setup Method:

Software setup

Digital Inputs:

8

Digital Outputs:

4

Analog Inputs:

1 differential or 2 single-ended

Dimensions:

5 x 3 x 1.78 inches

Weight:

10.0 oz

Ambient Temperature Range:

0 to 40 °C

Ambient Humidity:

90% max, non-condensing

Status LEDs:

1 red, 1 green

Circuit Protection:

Short circuit

Over-voltage

Under-voltage

Over-temp

Software

Software:

[DSP Firmware Downloader](#) [3]

[Quick Tuner™](#) [5]

[SCL Utility](#) [6]

Sample Code:

[scldemo.zip](#) [7]

Downloads

Manuals:

[SV7-S_Q_QuickSetup_920-0062.pdf](#) [95]

[SV7_HardwareManual_920-0012G.pdf](#) [96]

[Host-Command-Reference-920-0002T.pdf](#) [9]

Product PDF - S3 Link:

<http://s3.amazonaws.com/applied-motion-pdf/SV7-S-AF.pdf> [113]

Datasheet:

[Servo-Products-Datasheet-925-0008.pdf](#) [11]

2D Drawing:

[SV7-S-AF_simple3D.pdf](#) [114]

[SV7_2D_Drawing.pdf](#) [99]

3D Drawing:

[SV7-S-AE_solid.igs](#) [100]

Speed-Torque Curves:

[SV7_Speed_Torque_Curves_5-10-2018.pdf](#) [101]

Agency Approvals:

[SV7-S_Q_Si_CE_DOC.pdf](#) [102]

Application Notes:

[APPN0026B-LabVIEW-communication-using-streaming-commands.zip](#) [74]

[APPN0018_EZ-Series-Touchpanel-HMI.zip](#) [16]

[APPN0017_Wiring-integral-holding-brakes.pdf](#) [17]

[APPN0016_Simple-25-pin-mating-connections.pdf](#) [18]

[APPN0015_Make-a-serial-programming-cable.pdf](#) [19]

2D Drawings

□

Products in the Series *J Series Servo Motors*

* Items with web only pricing are highlighted in yellow.

* Closeout priced products are highlighted in green.

Part Number	Frame Size	Continuous Torque	Peak Torque	Motor Length	Rated Power	Rotor Inertia	1pc.
J0100-301-3-000	40 mm	2.8	8.1	4.33	100	5.98E-04	\$355.00
J0100-303-3-000	40 mm	2.83	8.5	4.29	100	6.06E-04	\$406.00
J0100-351-3-000	40 mm	2.83	8.14	5.82	100	7.39E-04	\$557.00
J0100-353-3-000	40 mm	2.83	8.5	5.79	100	6.99E-04	\$557.00
J0200-301-4-000	60 mm	5.66	16.8	4.17	200	2.34E-03	\$425.00
J0200-302-4-000	60 mm	5.66	16.8	4.17	200	2.34E-03	\$425.00
J0200-304-4-000	60 mm	5.66	16.8	3.86	200	2.34E-03	\$425.00

J0200-351-4-000 Part Number	Frame Size	Continuous Torque	Peak Torque	Motor Length	Rated Power	Rotor Inertia	Price 1pc.
J0200-352-4-000	60 mm	5.66	16.8	5.45	200	3.12E-03	\$606.00
J0200-354-4-000	60 mm	5.66	16.8	5.43	200	3.12E-03	\$606.00
J0400-301-4-000	60 mm	11.23	33.63	4.68	400	3.85E-03	\$493.00
J0400-302-4-000	60 mm	11.24	33.63	4.68	400	3.85E-03	\$493.00
J0400-305-4-000	60 mm	11.24	33.63	4.65	400	3.85E-03	\$493.00
J0400-351-4-000	60 mm	11.24	33.63	6.24	400	4.62E-03	\$666.00
J0400-352-4-000	60 mm	11.24	33.63	6.24	400	4.62E-03	\$666.00
J0400-355-4-000	60 mm	11.24	33.63	6.22	400	4.62E-03	\$666.00
J0750-302-5-000	80 mm	21.24	61.07	5.19	750	1.26E-02	\$594.00
J0750-352-5-000	80 mm	21.24	61.15	7.04	750	1.37E-02	\$852.00