

## SV7-Si-AE

Si Programmable Servo Drive

1pc. - \$490.00  
50pc. - \$367.50



### Product **Features**

- Programmable 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
- Si Programmer™ for icon-based motion control programming
- 100 lines of Si program capability
- Easiest-to-use motion programming tools
- 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

|                                    |  |
|------------------------------------|--|
| <b>Model Number</b>                | SV7-Si-AE  |
| <b>Part Number</b>                 | 5000-170   |
| <b>Supply Voltage</b>              | 24-80 VDC  |
| <b>Supply Voltage Type</b>         | DC   |
| <b>Control Modes</b>               | <ul style="list-style-type: none"><li>• Si Programming</li></ul>   |
| <b>Output Current, Continuous</b>  | 7.0 A rms  |
| <b>Output Current, Peak</b>        | 14.0 A rms   |
| <b>Communication Ports</b>         | <ul style="list-style-type: none"><li>• RS-232</li></ul>   |
| <b>Feedback</b>                    | Halls + Incremental encoder  |
| <b>Setup Method</b>                | Software setup   |
| <b>Digital Inputs</b>              | 8  |
| <b>Digital Outputs</b>             | 4  |
| <b>Analog Inputs</b>               | 1 differential or 2 single-ended   |
| <b>Dimensions</b>                  | 5 x 3 x 1.78 inches  |
| <b>Weight</b>                      | 10.0 oz  |
| <b>Operating Temperature Range</b> | NA   |
| <b>Ambient Temperature Range</b>   | 0 to 40 °C   |
| <b>Ambient Humidity</b>            | 90% max, non-condensing  |
| <b>Status LEDs</b>                 | 1 red, 1 green   |
| <b>Circuit Protection</b>          | <ul style="list-style-type: none"><li>• Short circuit</li><li>• Over-voltage</li><li>• Under-voltage</li><li>• Over-temp</li></ul> |

## Software

|                           |   |
|---------------------------|---|
| <b>Software Downloads</b> | <ul style="list-style-type: none"><li>• <a href="#">DSP Firmware Downloader</a></li><li>• <a href="#">Si Firmware Downloader</a></li><li>• <a href="#">Si Programmer™</a></li></ul> |
| <b>Sample Code</b>        | There are no sample code documents at this time.  |

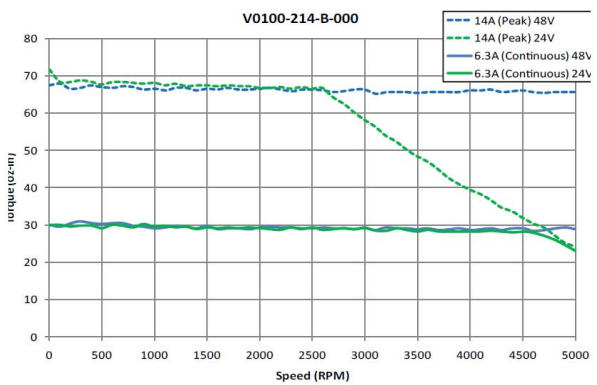
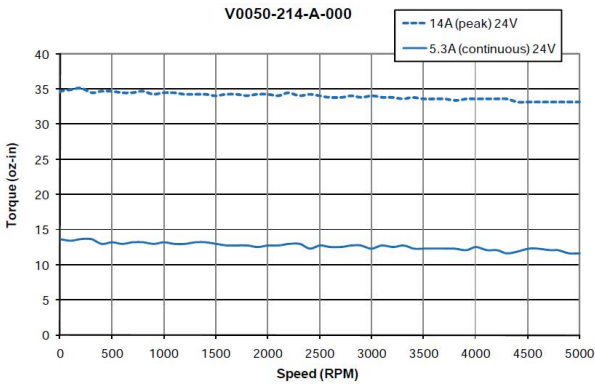
Downloads

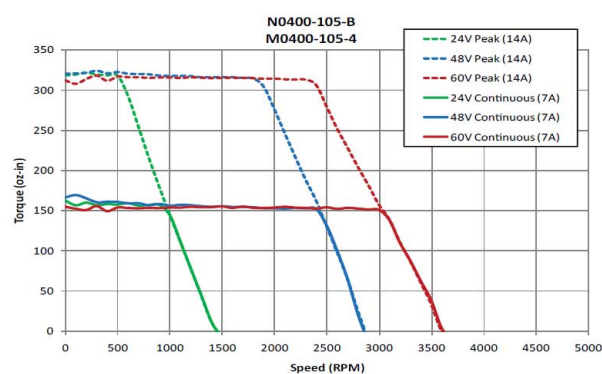
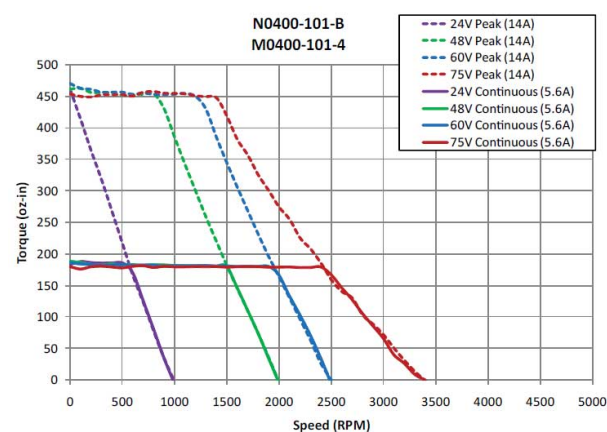
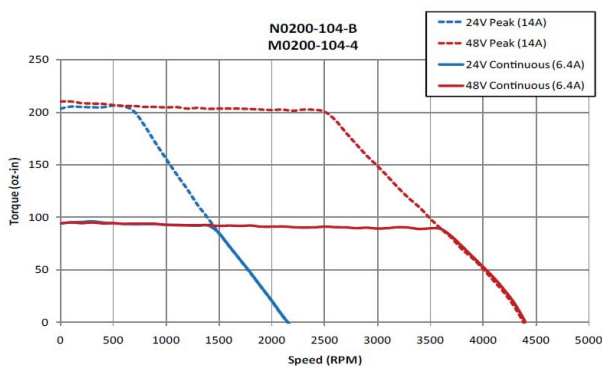
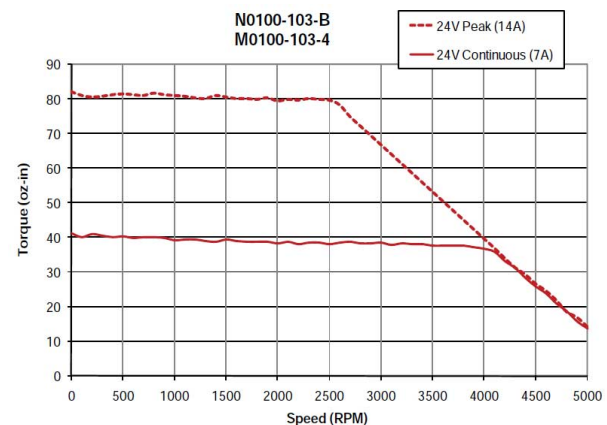
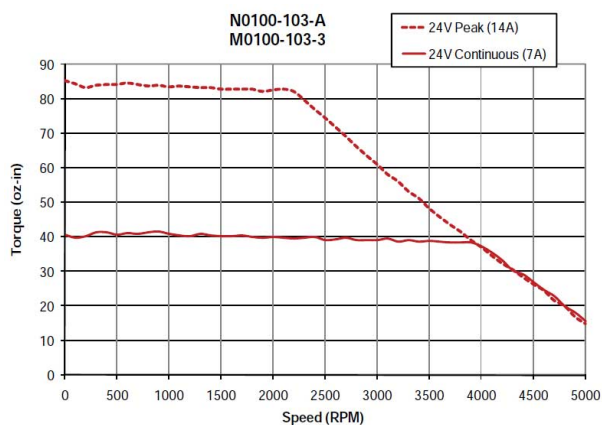
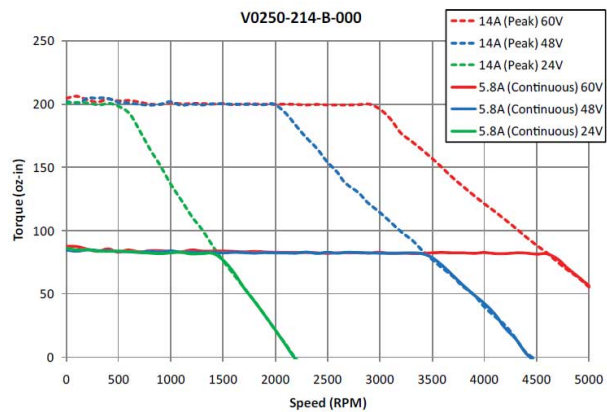
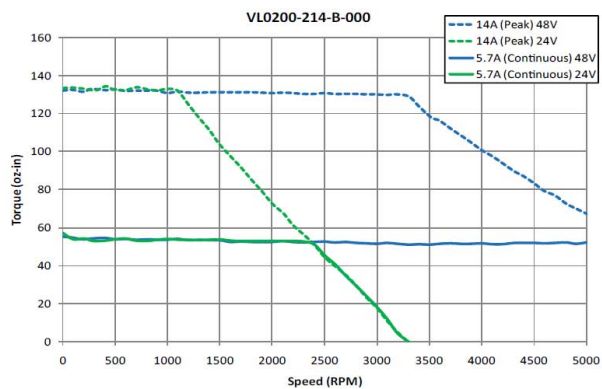
|                     |  |
|---------------------|--|
| Manuals             | <a href="#">SV7_HardwareManual_920-0012.pdf</a><br><a href="#">SV7-Si_QuickSetup_920-0063.pdf</a>  |
| Datasheet           | <a href="#">Servo-Products-Datasheet-925-0008.pdf</a>  |
| 2D Drawing          | <a href="#">SV7-S-AE_simple3D.pdf</a><br><a href="#">SV7_2D_Drawing.pdf</a>  |
| 3D Drawing          | <a href="#">SV7-S-AE_solid.igs</a>   |
| Speed-Torque Curves | <a href="#">SV7_speed-torque.pdf</a>   |
| Agency Approvals    | <a href="#">SV7-S_Q_Si_CE_DOC.pdf</a>  |
| Application Notes   | <a href="#">APPN0017_Wiring-integral-holding-brakes.pdf</a><br><a href="#">APPN0016_Simple-25-pin-mating-connections.pdf</a><br><a href="#">APPN0015_Make-a-serial-programming-cable.pdf</a> |

Pricing

|        | SV7-Si-AE<br>Part No. 5000-170                     |
|--------|--|
| 1pc.   | \$490.00   |
| 25pc.  | \$421.40   |
| 50pc.  | \$367.50   |
| 100pc. | <a href="#">Contact us</a> for 100+ piece pricing. |

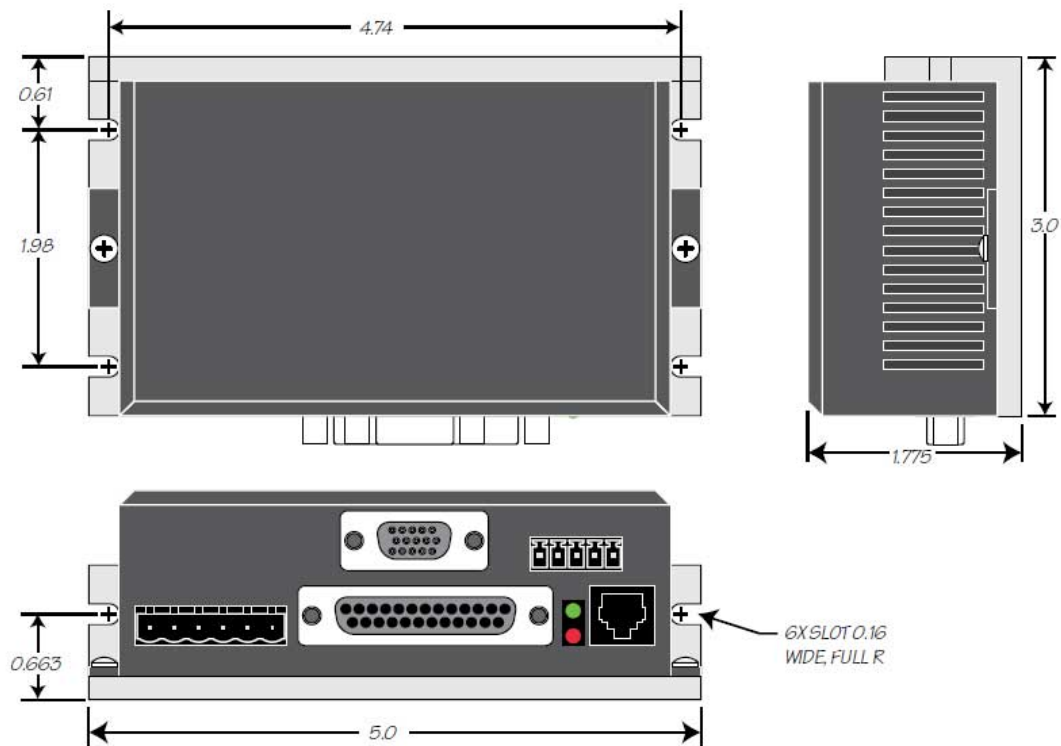
Torque Curves





## 2D Drawings

### Mechanical Outline



## Products in the Series *SV7 Servo Drives*

\* Closeout priced products are highlighted in green.

\* Items with web only pricing are highlighted in yellow.

| Model Number                     | Supply Voltage | Control Modes   | Output Current, Continuous (A rms) | Output Current, Peak (A rms) | Communication Ports     | 1pc./50pc.             |
|----------------------------------|----------------|---|------------------------------------|------------------------------|-------------------------|------------------------|
| <a href="#"><u>SV7-C-CE</u></a>  | 24-80 VDC      | CANopen   | 7.0                                | 14.0                         | RS-232<br>CANopen       | \$585.00 /<br>\$438.75 |
| <a href="#"><u>SV7-IP-EE</u></a> | 24-80 VDC      | Streaming Commands<br>Analog Positioning<br>Encoder Following<br>Q Programming<br>EtherNet/IP | 7.0                                | 14.0                         | Ethernet<br>EtherNet/IP | \$597.00 /<br>\$447.75 |
| <a href="#"><u>SV7-Q-AE</u></a>  | 24-80 VDC      | Streaming Commands<br>Analog Positioning<br>Encoder Following<br>Q Programming                | 7.0                                | 14.0                         | RS-232                  | \$450.00 /<br>\$337.50 |
| <a href="#"><u>SV7-Q-AF</u></a>  | 24-80 VDC      | Streaming Commands<br>Analog Positioning<br>Encoder Following<br>Q Programming                | 7.0                                | 14.0                         | RS-232                  | \$530.00 /<br>\$397.50 |
| <a href="#"><u>SV7-Q-EE</u></a>  | 24-80 VDC      | Streaming Commands<br>Analog Positioning<br>Encoder Following<br>Q Programming                | 7.0                                | 14.0                         | Ethernet                | \$597.00 /<br>\$447.75 |
| <a href="#"><u>SV7-Q-RE</u></a>  | 24-80 VDC      | Streaming Commands<br>Analog Positioning<br>Encoder Following<br>Q Programming                | 7.0                                | 14.0                         | RS-232<br>RS-485        | \$560.00 /<br>\$420.00 |
| <a href="#"><u>SV7-S-AE</u></a>  | 24-80 VDC      | Step & Direction<br>Analog Torque / Velocity<br>Streaming Commands<br>SiNet Hub Compatible    | 7.0                                | 14.0                         | RS-232                  | \$422.00 /<br>\$316.50 |
| <a href="#"><u>SV7-S-AF</u></a>  | 24-80 VDC      | Step & Direction<br>Analog Torque / Velocity<br>Streaming Commands                            | 7.0                                | 14.0                         | RS-232                  | \$478.00 /<br>\$358.50 |
| <a href="#"><u>SV7-S-RE</u></a>  | 24-80 VDC      | Step & Direction<br>Analog Torque / Velocity<br>Streaming Commands                            | 7.0                                | 14.0                         | RS-232<br>RS-485        | \$484.00 /<br>\$363.00 |
| <a href="#"><u>SV7-Si-AE</u></a> | 24-80 VDC      | Si Programming  | 7.0                                | 14.0                         | RS-232                  | \$490.00 /<br>\$367.50 |
| <a href="#"><u>SV7-Si-AF</u></a> | 24-80 VDC      | Si Programming  | 7.0                                | 14.0                         | RS-232                  | \$606.00 /<br>\$454.50 |