

## SVAC3-S-E120

Digital Servo Drive w/ Ethernet



### Product Features

- Digital servo drive in a compact package
- DSP-based current control
- Operates from 120 VAC
- Provides motor current up to 3.5 A rms continuous, 7.5 A rms peak
- Fast 10/100 Ethernet for programming and communications
- Three pulse-based control modes: step & direction, A/B quadrature, CW/CCW pulse
- Velocity (oscillator) control mode with sophisticated joystick operation
- Streaming serial command mode (SCL) for commands sent from a host controller
- UDP & TCP support
- 4 digital inputs, 2 digital outputs, all optically isolated
- 1 analog input, +/-10 volt range
- Jerk filter for S-curve acceleration ramps



### Description

The SVAC3-S-E120 is a compact and cost-effective servo drive that is compatible with a variety of servo motors and a great choice for many OEM applications. Its all-digital design and DSP-based current control allow for smooth motion and a quick response from the specially matched set of Applied Motion motors available with it. Power to the drive comes from single-phase 120 VAC and the drive can output up to 3.5 A rms continuous, 7.5 A rms peak to the servo motor. The drive also has built-in protection features like over-voltage, over-temperature, and over-current, which prevent damage to the drive while running in adverse conditions.

The SVAC3-S-E120 can operate in analog torque/velocity, pulse & direction, and streaming serial (SCL) control modes. Select the control mode, tune the servo motor and configure the drive using the [Quick Tuner™](#) software.

For connecting to external devices such as limit switches, proximity or photoelectric sensors, PLC I/O, lamps, and other devices, the drive comes with 4 digital inputs, 2 digital outputs, and 1 analog input. The drive also features an Ethernet port for configuration and communications. The Ethernet port is fast 10/100 Mbit, and the drive supports both TCP and UDP communication protocols.

This servo motor drive is UL Recognized (File No. E332730), CE approved, and RoHS compliant.

## Specifications

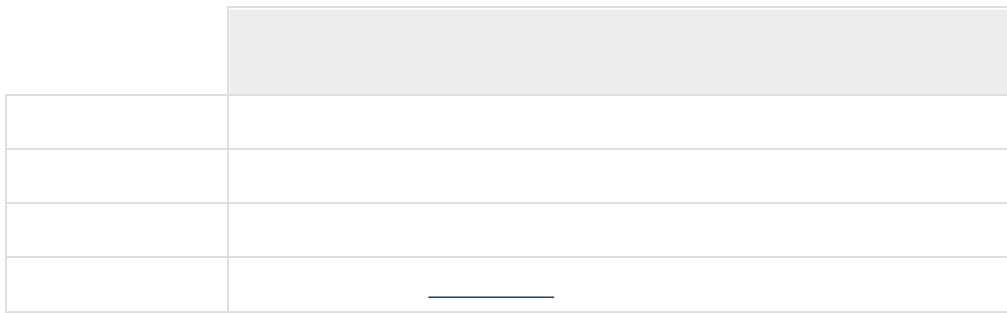
<b>Model Number</b>	SVAC3-S-E120
<b>Part Number</b>	5000-226
<b>Supply Voltage</b>	108-132 VAC
<b>Supply Voltage Type</b>	AC
<b>Control Modes</b>	<ul style="list-style-type: none"><li>• Step &amp; Direction</li><li>• Analog Torque / Velocity</li><li>• Streaming Commands</li></ul>
<b>Output Current, Continuous</b>	3.5 A rms
<b>Output Current, Peak</b>	7.5 A rms
<b>Communication Ports</b>	<ul style="list-style-type: none"><li>• Ethernet</li></ul>
<b>Feedback</b>	Halls + Incremental encoder
<b>Setup Method</b>	Software setup
<b>Digital Inputs</b>	4
<b>Digital Outputs</b>	2
<b>Analog Inputs</b>	1 single-ended
<b>Dimensions</b>	5.5 x 4.5 x 2.0 inches
<b>Weight</b>	22.4 oz
<b>Operating Temperature Range</b>	0 to 70 °C
<b>Ambient Temperature Range</b>	0 to 55 °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

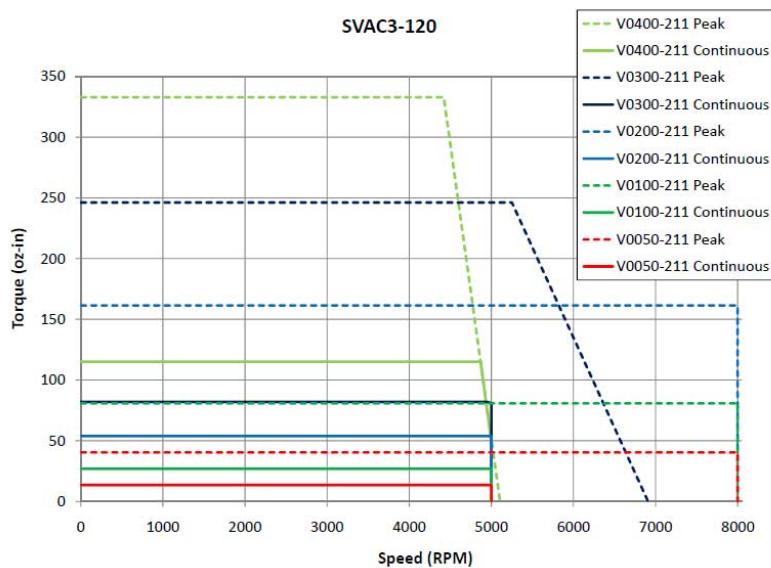
<b>Software Downloads</b>	<ul style="list-style-type: none"><li>• <a href="#">ARM Firmware Downloader</a></li><li>• <a href="#">DSP Firmware Downloader</a></li><li>• <a href="#">Quick Tuner™</a></li><li>• <a href="#">SCL Utility</a></li></ul>
<b>Sample Code</b>	<ul style="list-style-type: none"><li>• <a href="#">C_sharp_UDP_example.zip</a></li><li>• <a href="#">VB6_UDP_example.zip</a></li><li>• <a href="#">VB6_TCP_example.zip</a></li></ul>

## Downloads

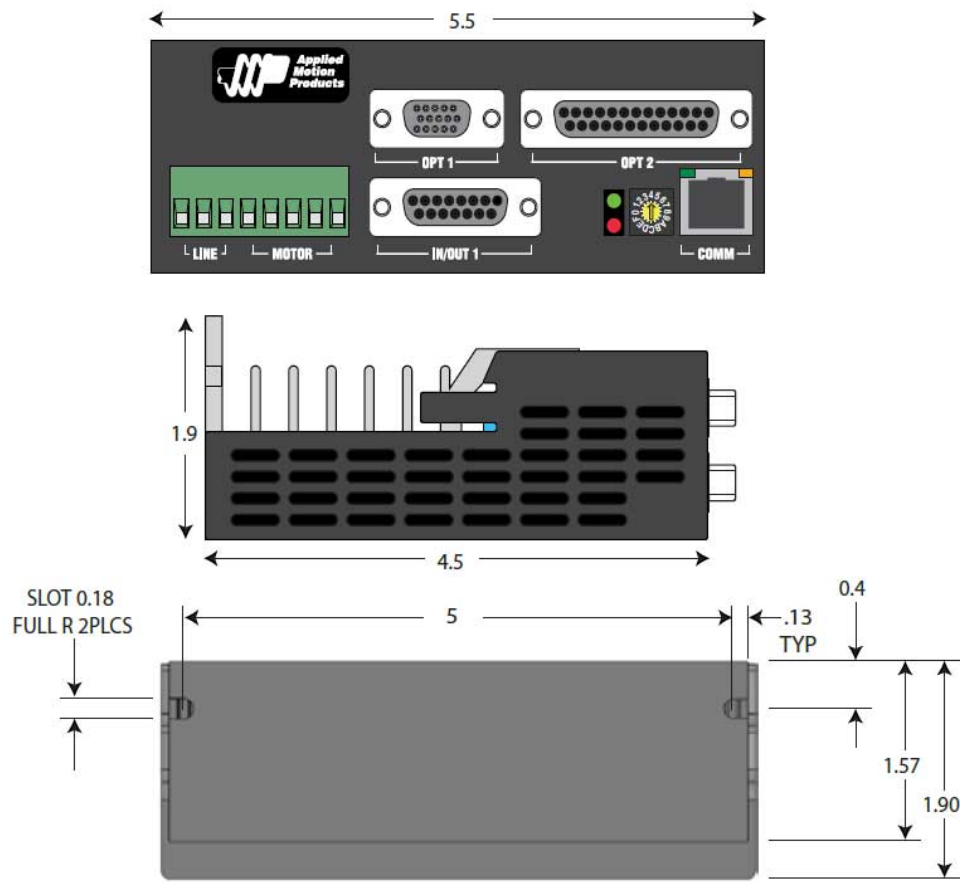
<b>Manuals</b>	<a href="#">SVAC3 Hardware Manual 920-0028.pdf</a> <a href="#">SVAC3 QuickSetupGuide 920-0052.pdf</a> <a href="#">Host Command Reference Rev I.pdf</a> <a href="#">eSCL Comm Reference.pdf</a>
<b>Datasheet</b>	<a href="#">Servo-Products-Datasheet-925-0008.pdf</a>
<b>2D Drawing</b>	<a href="#">SVAC3.pdf</a>
<b>3D Drawing</b>	<a href="#">SVAC3.igs</a>
<b>Speed-Torque Curves</b>	<a href="#">SVAC3_speed-torque.pdf</a>
<b>Agency Approvals</b>	<a href="#">STAC5_SVAC3_CE_DOC.PDF</a>
<b>Application Notes</b>	There are currently no Application Notes available for this product.



## Torque Curves



**Mechanical Outline**



**Products in the Series SVAC3 Servo Drives**

Model Number	Supply Voltage	Control Modes	Output Current, Continuous (A rms)	Output Current, Peak (A rms)	Communication Ports
<a href="#">SVAC3-IP-E120</a>	108-132 VAC	Streaming Commands Q Programming EtherNet/IP	3.5	7.5	Ethernet EtherNet/IP
<a href="#">SVAC3-IP-E220</a>	108-242 VAC	Streaming Commands Q Programming EtherNet/IP	1.8	3.75	Ethernet EtherNet/IP
<a href="#">SVAC3-Q-E120</a>	108-132 VAC	Streaming Commands Analog Positioning Encoder Following Q Programming	3.5	7.5	Ethernet
<a href="#">SVAC3-Q-E220</a>	108-242 VAC	Streaming Commands Analog Positioning Encoder Following Q Programming	1.8	3.75	Ethernet
<a href="#">SVAC3-S-E120</a>	108-132 VAC	Step & Direction Analog Torque / Velocity Streaming Commands	3.5	7.5	Ethernet
<a href="#">SVAC3-S-E220</a>	108-242 VAC	Step & Direction Analog Torque / Velocity Streaming Commands	1.8	3.75	Ethernet