SureServo systems run “out-of-the-box”... but may be reconfigured for many applications!

The SureServo drives are fully digital and include over 165 programmable parameters. For convenience, the parameters are grouped into five categories:

- 1) Monitor parameters
- 2) Basic parameters
- 3) Extended parameters
- 4) Communication parameters
- 5) Diagnostic parameters.

All parameters have commonly used default values which allow you to operate the SureServo system “out-of-the-box”. However, the programmability and large variety of parameters make the SureServo systems suitable for a very broad range of applications, including almost all types of general purpose industrial machinery such as assembly, test, packaging, machine tool, and robotics.
## AC Servo Drive Specifications

### Servo drive specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Drive Specifications</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Permissible Frequency</strong></td>
<td>50/60 Hz ±5%</td>
</tr>
<tr>
<td><strong>Encoder Resolution / Feedback Resolution</strong></td>
<td>2500 lines / 10000 ppr</td>
</tr>
<tr>
<td><strong>Control of Main Circuit</strong></td>
<td>SVPWM (Space Vector Pulse Width Modulation) Control</td>
</tr>
<tr>
<td><strong>Tuning Modes</strong></td>
<td>Easy / Auto / Manual</td>
</tr>
<tr>
<td><strong>Dynamic Brake</strong></td>
<td>Built-in control</td>
</tr>
<tr>
<td><strong>Analog Monitor Outputs (2)</strong></td>
<td>Monitor signal can be set by parameters (Output voltage range: ±8V, Resolution: 12.8 mV/count)</td>
</tr>
<tr>
<td><strong>8 Programmable Digital Inputs</strong></td>
<td>Servo enable, Alarm reset, Gain switching, Pulse counter clear, Fault stop, CW/CCW over-travel</td>
</tr>
<tr>
<td><strong>5 Programmable Outputs</strong></td>
<td>Encoder signal output A, /A, B, /B, Z, /Z, Line Driver</td>
</tr>
<tr>
<td><strong>Scalable Encoder Output</strong></td>
<td>Encoder signal output A, /A, B, /B, Z, /Z, Line Driver</td>
</tr>
<tr>
<td><strong>5 Programmable Outputs</strong></td>
<td>Servo ready, Servo On, Low velocity, Velocity reached, In Position, Torque limiting, Servo fault, Electromagnetic brake control, Home search completed</td>
</tr>
<tr>
<td><strong>Communication Interface</strong></td>
<td>RS-232 / RS-485 / RS-422 / Modbus ASCII &amp; RTU up to 115k Baud</td>
</tr>
<tr>
<td><strong>Protective Functions</strong></td>
<td>Overcurrent, Overvoltage, Undervoltage, Overload, Excessive velocity/position error, Encoder error, Regeneration error, Communication error</td>
</tr>
<tr>
<td><strong>Installation Site</strong></td>
<td>Indoor location (free from direct sunlight), no corrosive liquid and gas (far away from oil mist, flammable gas, dust)</td>
</tr>
<tr>
<td><strong>Altitude</strong></td>
<td>1000m (3281 ft) above sea level – maximum</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>0 to 55 °C (32 to 131 °F) (If operating temperature is above 55°C, forced cooling is required). For long-term reliability, the ambient temperature of SureServo systems should be under 45°C (113°F).</td>
</tr>
<tr>
<td><strong>Storage Temperature</strong></td>
<td>-20° to 65°C (-4° to 149°F)</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>0 to 90% (non-condensing)</td>
</tr>
<tr>
<td><strong>Vibration</strong></td>
<td>9.81 m/s² (1G) less than 20Hz, 5.88 m/s² (0.6G) 20 to 50 Hz</td>
</tr>
<tr>
<td><strong>Protection</strong></td>
<td>IP 20</td>
</tr>
<tr>
<td><strong>Agency Approvals</strong></td>
<td>CE; UL Certified (U.S. and Canada)</td>
</tr>
</tbody>
</table>

For the latest prices, please check AutomationDirect.com.
Summarizing the key specifications of the AC Servo Drive, we have:

**AC Servo Model**
- SVA-2040
- SVA-2100
- SVA-2300

**Price**
- $483.00
- $667.00
- $1,113.00

**Voltage Phase**
- Single-phase or Three-phase

**Voltage and Frequency Range**
- 3-phase: 170–255 VAC @ 50/60 Hz ±5%;
- 1-phase: 200–255 VAC @ 50/60 Hz ±5%
- 170–255 VAC @ 50/60 Hz ±5%

**Main Circuit Input Current**
- Single Phase
  - 3.4A @ 400W
  - 8.0A @ 1kW
  - 2.6A @ 400W
  - 6.2A @ 1kW
  - 13.6A @ 3kW

**Main Circuit Inrush Current**
- 44A
- 77A
- 87A

**Main Circuit Power Cycling**
- Maximum 1 power cycle per minute

**Control Circuit Current and Voltage**
- 43 mA @ 200–255 VAC, 1 phase

**Control Circuit Inrush Current**
- 32A maximum

**Cooling System**
- Natural Air Circulation
- Internal Cooling Fan

**Drive Heat Loss**
- Motor driven *
- Heat Loss

**Position Control Mode**
- Max. Input Pulse Frequency
  - Max. 500 kpps (Line driver); Max. 200 kpps (Open collector)
- Pulse Type
  - Pulse + Direction, A phase + B phase Quadrature, CCW pulse + CW pulse
- Command Source
  - External pulse train / Onboard indexer
- Electronic Gear
  - Electronic gear N/M multiple; N: 1–32767, M: 1–32767 (1/50 < N/M < 200)
- Torque Limit Operation
  - Set by parameters or by analog input
- Feed Forward Compensation
  - Set by parameters

**Velocity Control Mode**
- Analog Input Command
  - Voltage Range
    - Bipolar ±10 VDC
  - Input Resistance
    - 10 kΩ
  - Time Constant
    - 2.2 µs
  - Resolution
    - (Varies with input voltage) 13 bits @ 0V–1V, 13–10 bits @ 1V–2V, 10 bits @ 2V–10V
- Speed Control Range
  - 1:5000
- Command Source
  - External analog signal / Onboard indexer
- Smoothing Strategy
  - Low-pass and S-curve filter
- Torque Limit Operation
  - Set by parameters or via analog input
- Frequency Response Characteristic
  - Maximum 450 Hz
- Speed Accuracy
  - 0.01% or less at 0 to 100% load fluctuation
  - 0.01% or less at ±10% power fluctuation
  - 0.01% or less at 0 to 50°C ambient temperature fluctuation

**Torque Control Mode**
- Analog Input Command
  - Voltage Range
    - Bipolar ±10 VDC
  - Input Resistance
    - 10 kΩ
  - Time Constant
    - 2.2 µs
  - Resolution
    - 10 bits
- Permissible Time for Overload
  - 8 sec. under 200% rated output
- Command Source
  - External analog signal / Onboard indexer
- Smoothing Strategy
  - Low-pass filter
- Speed Limit Operation
  - Set by parameters or via analog input

* Drive heat loss varies depending upon which motor is connected to the drive.
AC Servo Motor Specifications

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

Low Inertia Motors
- 1 kW 100 mm flange
- 200W 60 mm flange
- 400W 60 mm flange
- 750W 80 mm flange

Low Inertia Motors
- 1 kW 130 mm flange
- 2 kW 180 mm flange
- 3 kW 180 mm flange

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

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

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

Encoder Connector (Liquid tight when using AutomationDirect cables)

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

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

1 kW and above

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

750W and below

Encoder Connector
1-foot 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 couplings.

For the latest prices, please check AutomationDirect.com.
# AC Servo Motor Specifications

## Motor Specifications

<table>
<thead>
<tr>
<th>Inertia Range</th>
<th>Low</th>
<th>Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model Name: Sxx-xxx</strong></td>
<td><strong>SVL-201</strong></td>
<td><strong>SVL-202</strong></td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>$322.00</td>
<td>$415.00</td>
</tr>
<tr>
<td><strong>Model with brake: Sxx-xxxB</strong></td>
<td><strong>SVL-201B</strong></td>
<td><strong>SVL-202B</strong></td>
</tr>
<tr>
<td><strong>Price</strong></td>
<td>$554.00</td>
<td>$614.00</td>
</tr>
</tbody>
</table>

| **Rated output power** (W) | **100** | **200** | **400** | **750** | **1000** | **1000** | **2000** | **3000** |
| **Rated torque** (N·m) | **0.32** | **0.64** | **1.27** | **2.39** | **3.3** | **4.8** | **29.2** | **42.5** |
| **lb·in** | **2.83** | **5.7** | **11.2** | **21.2** | **29.2** | **42.5** | **3.9** | **5.7** |

- **Maximum torque** (N·m) | **0.95** | **1.91** | **3.82** | **7.16** | **9.9** | **15.7** | **23.5** | **35.8** |
| **lb·in** | **8.4** | **16.9** | **33.8** | **63.4** | **87.6** | **138.9** | **206.0** | **316.8** |

- **Rated speed** (rpm) | **3000** | **2000** |

### Drive input current

- **1 phase A** | **1.0** | **1.7** | **3.4** | **5.9** | **8.0** |
- **3 phase A** | **0.8** | **1.3** | **2.6** | **4.7** | **6.2** |

### Other specifications

- **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** | **22** | **88** |
- **lb** | **9** | **15** |

### Brake specifications

<table>
<thead>
<tr>
<th>Voltage</th>
<th>VDC</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current</strong></td>
<td><strong>0.21</strong></td>
<td><strong>0.38</strong></td>
</tr>
<tr>
<td><strong>Holding Torque</strong></td>
<td><strong>0.32</strong></td>
<td><strong>1.27</strong></td>
</tr>
<tr>
<td><strong>N·m</strong></td>
<td><strong>2.83</strong></td>
<td><strong>11.24</strong></td>
</tr>
</tbody>
</table>

### Other specifications

- **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** |

### Other specifications

- **Armature inductance (mH)** | **32** | **24** | **11** | **8.3** | **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** |

## Motor Type

- **Brushless, AC, permanent magnet [Neodymium (Nd), Iron (Fe), Boron (B)]**

## Insulation class

- **Class F**

## Insulation resistance

- >100 MΩ, 500 VDC

## Insulation strength

- 1500 VAC, 50 Hz, 60 seconds

## Ambient temperature range

- 0 to 40°C (32°F to 104°F)

## Operating temperature

- 70°C (158°F)

## Maximum operating temperature

- 70°C + 40°C = 110°C (230°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; IP20 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** |

- **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.
Standard wiring examples

This wiring diagram shows basic wiring only, and additional wiring configurations are possible for some I/O. Refer to the "Installation and Wiring" chapter of the User Manual for more detailed wiring information.

Position (Pr & Pt) Control Modes

- Connect 35 to 17 only with open collector pulse
- **Remove jumper if external 24 VDC is used**
- **Optional user Supplied 24 VDC**

Default Settings

- Servo Ready
- At Zero Speed
- Homing Complete
- At Position
- Alarm
- User Supplier 24 VDC

Default Settings

- 100 mA max
- 1.5k Ohm min load impedance
- Use diode if driving inductive load

Servo Enable

- Com.Trig. (Pr mode)/Clear Com. (Pt mode)
- PCS0 (Pr mode) / TCS0 (Pt mode)
- PCS1 (Pr mode) / TCS1 (Pt mode)
- Alarm Reset
- Reverse Inhibit Overtravel
- Forward Inhibit Overtravel
- Fault Stop

CN1*

CN2**

CN3***

CN1*

† Remove Jumper at D if using External Resistor

†† Remove Jumper at D if using External Resistor

†† Optional user Supplied 24 VDC

††† Optional user Supplied 24 VDC

†††† Optional user Supplied 24 VDC

For the latest prices, please check AutomationDirect.com.
Standard wiring examples (continued)

Velocity and Torque Control Modes

This wiring diagram shows basic wiring only, and additional wiring configurations are possible for some I/O. Refer to the “Installation and Wiring” chapter of the User Manual for more detailed wiring information.

[Diagram showing AC Servo System Wiring]

† Remove Jumper at D if using External Resistor

†† Remove jumper if external 24VDC is used

†† Optional user Supplied 24 VDC

††† Optional user Supplied 24 VDC

* Use connection kit part #s ZL-RTB50 & ZL-SVC-CBL-50(-x) for CN1 terminal connections.

** Use cable part # SVC-Exx-0x0 for CN2 terminal connections.

*** Use cable part # SVC-MDCOM-CBL for CN3 terminal Modbus network connections.

For the latest prices, please check AutomationDirect.com.
Servo drive dimensions

**SVA-2040**

- **RECOMMENDED USER SUPPLIED MOUNTING SCREW IS M6.**
- **TIGHTEN TO 14 KGf-CM (1.37 N·m).**

**SVA-2100**

- **RECOMMENDED USER SUPPLIED MOUNTING SCREW IS M6.**
- **TIGHTEN TO 14 KGf-CM (1.37 N·m).**
AC Servo System Dimensions

Servo drive dimensions (continued)

SVA-2300

**Servo motor dimensions**

**Low inertia models** SVL-201(B), SVL-202(B), SVL-SVL-204(B), SVL-207(B)

**SureServo® Motor Dimensions – 100W-750W Low Inertia**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>SVL-201(B)</th>
<th>SVL-202(B)</th>
<th>SVL-204(B)</th>
<th>SVL-207(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>4.5 [0.1772]</td>
<td>5.5 [0.2165]</td>
<td>6.6 [0.2598]</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>8+0.0/-0.009 (8h6)</td>
<td>14+0.0/-0.011 (14h6)</td>
<td>19+0.0/-0.013 (19h6)</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>30+0.0/-0.021 (30h7)</td>
<td>50+0.0/-0.025 (50h7)</td>
<td>70+0.0/-0.030 (70h7)</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>25 [0.98]</td>
<td>30 [1.18]</td>
<td>35 [1.38]</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>5 [0.197]</td>
<td>6 [0.236]</td>
<td>8 [0.315]</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>2.5 [0.098]</td>
<td>3 [0.118]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cable length** 300mm (12 inches)

**UNITS: mm [in]. (Inches are for reference only; not included on diameter dimensions for accuracy.)**

---

**NOTE:** Recommended user supplied mounting screw is M6. Tighten to 14 kgf-cm (1.37 N·m).

UNITS: mm (in)

(Inch values are for reference only.)

Mounting Screw: M6; quantity (3)
Mounting Screw Torque: 14 kgf·cm (1.37 N·m)

For the latest prices, please check AutomationDirect.com.
Servo motor dimensions (continued)

Low inertia models **SVL-210(B)**

---

Medium inertia models **SVM-210(B), SVM-220(B), SVM-230(B)**

---

### SureServo® Motor Dimensions -1000W Low Inertia

<table>
<thead>
<tr>
<th>Dimension</th>
<th>SVL-210(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100 [3.937]</td>
</tr>
<tr>
<td>B</td>
<td>9 [0.3543]</td>
</tr>
<tr>
<td>C</td>
<td>115 $\pm 0.2$ [4.528]</td>
</tr>
<tr>
<td>D</td>
<td>22 $\pm 0.1$ [22h6]</td>
</tr>
<tr>
<td>E</td>
<td>95 $\pm 0.0$ [-0.035] [95h7]</td>
</tr>
<tr>
<td>F</td>
<td>158 [6.22]</td>
</tr>
<tr>
<td>(w/o brake)</td>
<td>190 [7.48]</td>
</tr>
<tr>
<td>G</td>
<td>45 [1.77]</td>
</tr>
<tr>
<td>H</td>
<td>17 [0.669]</td>
</tr>
<tr>
<td>I</td>
<td>7 [0.28]</td>
</tr>
</tbody>
</table>

**UNITS**: mm [in] (Inches are for reference only; not included on diameter dimensions for accuracy.)

### SureServo® Motor Dimensions -1000W-3000W Medium Inertia

<table>
<thead>
<tr>
<th>Dimension</th>
<th>SVM-210(B)</th>
<th>SVM-220(B)</th>
<th>SVM-230(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>130 [5.118]</td>
<td>180 [7.087]</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>9 [0.3543]</td>
<td>13.5 [0.5315]</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>145 $\pm 0.2$ [-0.2] [5.709]</td>
<td>200 $\pm 0.2$ [-0.2] [7.874]</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>22 $\pm 0.1$ [-0.013] [22h6]</td>
<td>35 $\pm 0.1$ [-0.016] [35h6]</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>110 $\pm 0.0$ [-0.035] (110h7)</td>
<td>114.3 $\pm 0$ [-0.035] (114.3h7)</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>55 [2.17]</td>
<td>75 [2.95]</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>15 [0.591]</td>
<td>20 [0.787]</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>4 [0.157]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**UNITS**: mm [in] (Inches are for reference only; not included on diameter dimensions for accuracy.)
Accessories

External Regeneration Resistors
Use external resistors to provide additional regenerative capacity and to dissipate heat away from the servo drive.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Resistance</th>
<th>SureServo Drives</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS-25P0-BR</td>
<td>40Ω</td>
<td>SVA-2040</td>
<td>$80.00</td>
</tr>
<tr>
<td>GS-2010-BR-ENC</td>
<td>20Ω</td>
<td>SVA-2100, SVA-2300</td>
<td>$242.00</td>
</tr>
</tbody>
</table>

AC Line Filters
Input EMI filters reduce electromagnetic interference or noise on the input side of the servo drive. They are required for CE compliance and recommended for installations prone to or sensitive to electromagnetic interference.

<table>
<thead>
<tr>
<th>SureServo Drives</th>
<th>AC Input Power</th>
<th>EMI Filter Rating</th>
<th>EMI Filter Part Number</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVA-2040</td>
<td>Single-Phase 250V, 1-phase, 20A</td>
<td>20DRT1W3S</td>
<td>$81.00</td>
<td></td>
</tr>
<tr>
<td>Three-Phase 250V, 3-phase, 10A</td>
<td>10TD1W4C</td>
<td>$86.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVA-2100</td>
<td>Single-Phase 250V, 1-phase, 20A</td>
<td>20DRT1W3S</td>
<td>$81.00</td>
<td></td>
</tr>
<tr>
<td>Three-Phase 250V, 3-phase, 10A</td>
<td>10TD1W4C</td>
<td>$86.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVA-2300</td>
<td>Three-Phase 250V, 3-phase, 26A</td>
<td>26TD1W4C</td>
<td>$119.00</td>
<td></td>
</tr>
</tbody>
</table>

Note: These EMI filters are electrically compatible with the SureServo drives. However, they are intended to be mounted next to the servo drive. Do not mount the filter under the drive. The drive mounting holes on these units are intended to be used only with AutomationDirect’s line of VFDs.

Edison Fuses & Fuji Contactors

<table>
<thead>
<tr>
<th>SureServo Drives</th>
<th>Input Type</th>
<th>Input Voltage</th>
<th>Edison Fuse - Class CC</th>
<th>Price*</th>
<th>Contactor**</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVA-2040</td>
<td>Main Input Power</td>
<td>230V 3-Phase</td>
<td>HCTR4</td>
<td>$103.00</td>
<td>SC-E02-xxx</td>
<td>varies</td>
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<td>SVA-2100</td>
<td>Main Input Power</td>
<td>230V 3-Phase</td>
<td>HCTR7-5</td>
<td>$114.00</td>
<td>SC-E03-xxx</td>
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<td>HCTR15</td>
<td>$97.00</td>
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<td>varies</td>
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<td>SVA-2040</td>
<td>Control Input Power</td>
<td>230V 1-phase</td>
<td>HCTR4</td>
<td>$103.00</td>
<td>SC-E02-xxx</td>
<td>varies</td>
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<td>230V 1-phase</td>
<td>HCTR10</td>
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<td>SC-E03-xxx</td>
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<td>Control Input Power</td>
<td>230V 1-phase</td>
<td>HCTR2-5</td>
<td>$106.00</td>
<td>SC-E02-xxx</td>
<td>varies</td>
</tr>
</tbody>
</table>

* Fuses are sold in packages of 10.
** Note: For contactors, xxx = coil voltage (for example, SC-E02-220VAC).
AC Servo System Configuration

SureServo series drives and motors part numbering system

Series
SV: SureServo AC servo

Component Option
0: Drive
Blank: Motor without brake
B: Motor with brake

Rated Output Power
01: 100W
02: 200W
04: 400W
07: 750W
10: 1000W
20: 2000W
30: 3000W

Nominal Input Voltage
2: 230VAC; 50/60 Hz

Here is what you will need to order a complete servo system:

1. Servo Drive
2. Servo Motor
3. Motor Power Cable
4. Motor Encoder Cable
5. ZIPLink I/O Interface

NOTE: Unit can be programmed via keypad.
Optional programming software (free download) and optional programming cable available.

NOTE: If you need a gear box for your configuration, you can do it easily online:
http://www.sureservo.com/gearbox/selector

SureServo AC servo drive, motor, and cable combinations

<table>
<thead>
<tr>
<th>Inertia &amp; Power</th>
<th>Drive and Motor</th>
<th>Power Cables (from Drive to Motor)</th>
<th>Encoder Feedback Cables</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low inertia</td>
<td>Servo Drive</td>
<td>Servo Motor without brake (note)</td>
<td>10 ft 20 ft 30 ft 60 ft</td>
<td></td>
</tr>
<tr>
<td>100W</td>
<td>SVA-2040</td>
<td>SVC-PFL-010 SVC-PFL-020 SVC-PFL-030 SVC-PFL-060</td>
<td>SVC-EFL-010 SVC-EFL-020 SVC-EFL-030 SVC-EFL-060</td>
<td>ZL-RTB50</td>
</tr>
</tbody>
</table>

| Medium inertia  | Servo Drive     | Servo Motor with brake (note)    | 10 ft 20 ft 30 ft 60 ft |                |

**Note:** Each servo motor requires an encoder feedback cable and a power cable. The motor power cable includes brake power wires for the optional motor brake.

For the latest prices, please check AutomationDirect.com.