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AMCI SD17060E Ethernet/IP Stepper Motor Indexer / Drive

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Finally! A Motion Solution For MicroLogix 1100 & 1400 PLCs



Ethernet/IP Stepper Motor Indexer / Drive - 6.0 Arms/8.5A peak (115VAC)

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▶ **FEATURES:**

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- Designed exclusively for Allen-Bradley PLCs.
- Programming is easy! No additional software is required. No second programming language to learn. All commands are configured through your PLC, using RSLogix500 or RSLogix5000, delivering seamless integration.
- AMCI's SD17060E uses Stepper commands familiar to AMCI and Rockwell Automation's PLC customers.
- Antiresonance circuitry eliminates motor shaft jitter, unwanted vibration and stalling.
- Vari-step control delivers exceptionally smooth performance at all speeds.
- Output current is programmable over the network. Range = 1.0A to 6.0A in 0.2A increments.
- Three configurable auxiliary inputs that can be used as Home, Emergency Stop, Over Travel Limit Switches, Stop Jog input, or all three can be configured as inputs from a quadrature encoder.
- One programmable open collector output .
- Closed Loop position control using encoder.
- ODVA Conformance tested

Have you seen the AMCI SMD23 Size 23 Integrated Stepper Motor Drive?



SMD23 (size 23)

DESCRIPTION[back to top ^](#)AMCI Model: **#SD17060E**

AMCI's SD17060E **Stepper Indexer / Driver for the Ethernet/IP network** reduces stepper control system costs by eliminating the need for a separate stepper controller in your Allen-Bradley PLC - we've built the indexer into the driver! Plus, programming and configuration over the network is easy because it uses standard Logix commands through RSLogix500 or RSLogix5000. No extra software is required, and you don't need to learn another programming language. AMCI's SD17060E integrates with your Allen-Bradley PLC, saving you time and money!



If you're seeking flexibility, AMCI's SD17060E scores high marks. We've made it easy to add stepper axes wherever you need them on your Ethernet/IP network, just plug in another SD17060E and configure your network - done.

Besides connectivity with Ethernet/IP, AMCI's SD17060E boasts several features over conventional stepper drivers. Our vari-step velocity control provides unsurpassed smoothness and performance independent of the user's configured resolution. Smoothness is guaranteed even at the lowest resolutions. Plus, a narrow and compact design saves space, and versatile mounting options allow for panel or side installation.

Standard AMCI safeguards also remain; including an interlock connection to prevent injury if the motor connector is removed while the driver is powered. Additional protections include short circuit protection - phase to phase and phase to ground- and overtemperature circuitry.

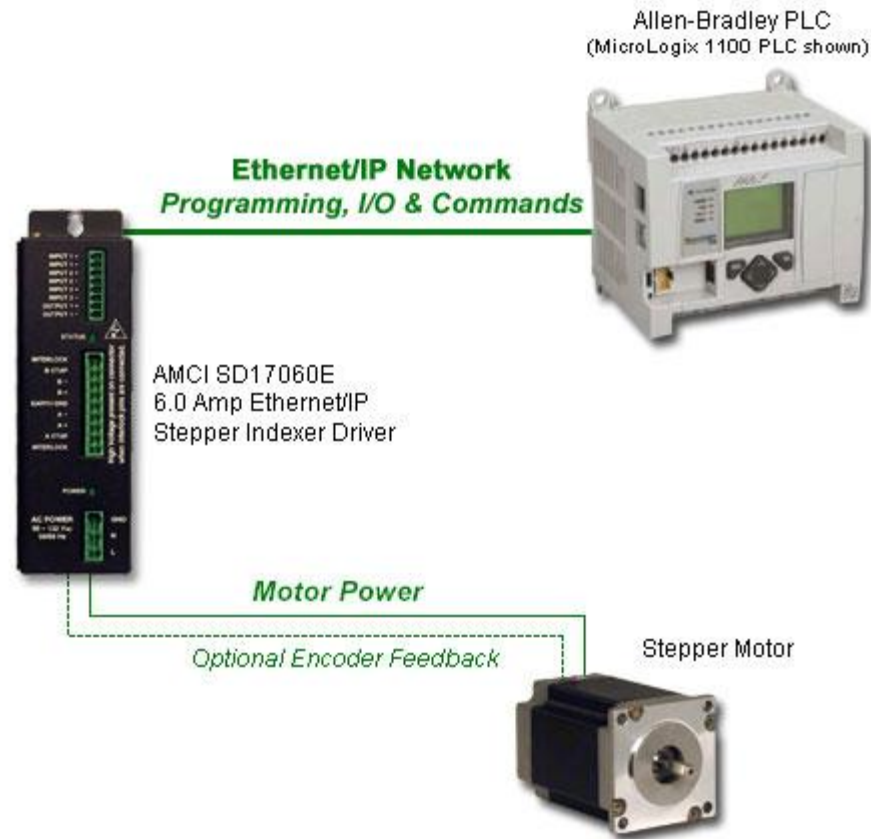
Besides AMCI's trademark reliability, the SD17060E *Stepper Indexer / Driver for the Ethernet/IP networks* was engineered to power AMCI's complete line of high torque stepper motors, ranging in size from NEMA 23 to NEMA 42.

This combination of stepper motor driver and indexer provides the best performance for your application. Performance, price, and product all combine to offer you the best value.

SOLUTION OVERVIEW[back to top ^](#)

Designed exclusively for Allen-Bradley PLCs, AMCI's SD17060E eliminates the need for a PLC Stepper Control Module, saving you time & money. Stepper system costs are reduced, set-up is simplified, and seamless integration is guaranteed.

Customers seeking a low-cost, full featured motion solution for Allen-Bradley's MicroLogix 1100 or 1400 PLCs have found their solution! Plus, closed loop control is not a problem. [Contact AMCI Sales for more information today »](#)



AMCI's SD17060E Stepper Indexer/Driver is compatible with the following Ethernet/IP enabled Allen-Bradley PLCs.



Allen-Bradley PLCs



- ControlLogix
- CompactLogix
- MicroLogix
- SLC500
- PLC-5

▶ **ELECTRICAL SPECIFICATIONS:**

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Ethernet/IP Stepper Motor Indexer / Drive - 6.0 Arms/8.5A peak (115VAC)
Amplifier type: Bipolar with two MOSFET H-bridges; RMS current control, 20 kHz PWM
Number of phases: (2) two
Supply voltage: 95-132 Vac, 50/60 Hz, 10 Amps max.

Auxiliary Input Specifications:

Differential optically isolated inputs
 Off State Voltage: 0 to 1.5Vdc
 On State Voltage: 3.3 to 27Vdc
 Input Requires 10mA of current to operate

The three inputs can be configured to be used as Home, Emergency Stop, Over Travel Limit Switches, Stop Jog input, or all three can be configured as inputs from a quadrature encoder.

Fault output:

open collector/emitter 30Vdc max & 20 mA max

One output is configurable as a Fault Output or as a General Purpose Output

Note:

AMCI stepper motors are designed for 170 Vdc operation. Other manufacturer's motors may not be compatible with the SD17060E 170V bus. Contact the motor manufacturer for compatibility.

OPERATIONAL SPECIFICATIONS:

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Ethernet/IP Stepper Motor Indexer / Drive - 6.0 Arms/8.5A peak (115VAC)**Current rating:**

6.0 Arms (average current) / 8.5A peak (peak current)

NOTE: There are 2 ways to express the magnitude of current in microstepping stepper motor drivers, RMS and Peak.

1 amp RMS = 1.414 amp Peak.

AMCI's SD17060E stepper motor controller/driver is rated for **6.0 amp RMS** or **8.5 amp Peak**.

Available Commands:

- Absolute Move
- Relative Move
- Hold Move
- Resume Move
- Immediate Stop
- Homing
- Jogging
- Blend Moves
- Reset Errors
- Preset Position
- Preset Encoder Position
- Electronic Gearing (only when the SD17060E is configured to use a quadrature encoder)

Resolution:

Programmable to any value between 200 and 32767 steps per revolution. The SD17060E uses variable step size motion for extreme smoothness regardless of programmed resolution.

Maximum velocity:

motor/load dependent

Output current:

1.0A - 6.0A rms selectable in 0.2 amp increments, programmable over Ethernet/IP

Maximum operating temperature:

50°C ambient temperature

Idle current:

40% to 100% after 1.5 seconds without a step

Motor connections:

Eight lead series or parallel, six lead series or center tapped, or four lead motors using AMCI's standard motor connector.

▶ HARDWARE PROTECTION
[back to top ^](#)**Ethernet/IP Stepper Motor Indexer / Drive - 6.0 Arms/8.5A peak (115VAC)****Hardware protection:**


Interlock connection to prevent damage if motor connector is removed with power applied. Short circuit protection - phase to phase and phase to ground. Overtemperature circuitry.

See additional stepper motor drives by AMCI:

[SD7540A](#) | [SD17040](#) | [SD17060B](#) | [SD17080](#) | [SD17098i](#) | [SD31045](#) | [SD31060i](#)**▶ ORDERING INFORMATION:**[back to top ^](#)**Ethernet/IP Stepper Motor Indexer / Drive - 6.0 Arms/8.5A peak (115VAC)**

AMCI makes buying the SD17060E Stepper Driver easy...our sales office will help you:

- Select the right Stepper Driver for your application
- Pay by credit card using your Visa, Mastercard, Discover, or American Express
- Coordinate alternative payment methods (P.O., wire transfers, etc.)
- Locate a distributor convenient to your region of the country

**Contact AMCI Sales today:**
 telephone: 860-585-1254

 email: sales@amci.com

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