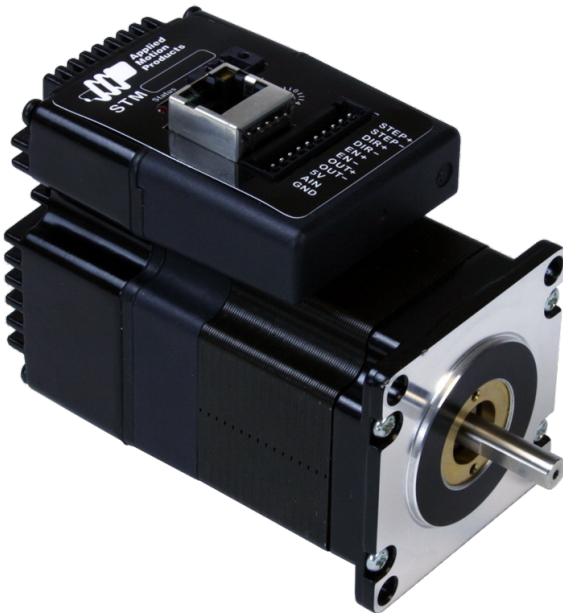


STM23S-2EN

NEMA 23 Integrated Drive+Motor w/ Ethernet



Product Features

- Sophisticated current control
- Anti-resonance
- Torque ripple smoothing
- Microstep emulation
- NEMA 23 frame size
- Step & direction, CW/CCW pulse, and A/B quadrature pulse control modes
- Velocity (oscillator) control mode
- Streaming serial commands (SCL) control mode
- Fast 10/100 Ethernet for programming and communications
- UDP & TCP support



Description

The STM23S-2EN integrated stepper is a drive+motor unit, fusing a NEMA 23 step motor and a sophisticated 5.0 A/phase (peak-of-sine) stepper drive into a single device. Power to the drive, located at the rear of the motor, must be supplied by an external DC supply. See Related and Recommended Products below for compatible 24 and 48 volt DC [power supplies](#).

The STM23S-2EN integrated stepper can operate in the following control modes: step (pulse) & direction, velocity (oscillator), and streaming serial commands (SCL). The STM23S is setup and configured using Applied Motion's [ST Configurator™](#) software.

Each STM23S integrated stepper comes with 3 digital inputs, 1 digital output, and 1 analog input. The digital inputs accept signals of 5-24 VDC and can be used for connecting pulse & direction signals, end-of-travel limit switches, jog switches, quadrature encoder signals, PLC outputs, sensors, or many other signal types. The digital output can be connected to PLC inputs, counters, lights, relays, or other devices. The analog input accepts 0-5 VDC signals and can be used for velocity and position control.

The STM23S-2EN comes with 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.

All STM23S models are CE approved and RoHS compliant.

Specifications

Part Number	STM23S-2EN
Supply Voltage	12-70 VDC

Supply Voltage Type	DC
Control Modes	<ul style="list-style-type: none"> • Step & Direction • Velocity (Oscillator) • Streaming Commands
Communication Ports	<ul style="list-style-type: none"> • Ethernet
Encoder Feedback	No
Step Resolution	<ul style="list-style-type: none"> • Full • Half • Microstepping • Microstep Emulation
Idle Current Reduction	0-90%
Setup Method	Software setup
Digital Inputs	3
Digital Outputs	1
Analog Inputs	1 single-ended
Circuit Protection	<ul style="list-style-type: none"> • Short circuit • Over-voltage • Under-voltage • Over-temp
Status LEDs	1 red, 1 green
Frame Size	NEMA 23
Holding Torque	125 oz-in
Step Angle	1.8 deg
Rotor Inertia	3.68E-03 oz-in-sec ²
Length	3.64 inches
Weight	30 oz
Operating Temperature Range	0 to 85 °C
Ambient Temperature Range	0 to 40 °C
Ambient Humidity	90% max, non-condensing
Insulation Class	Class B (130 °C)
Maximum Radial Load	NA
Maximum Thrust Load	NA
Shaft Run Out	NA
Radial Play	NA
End Play	NA
Perpendicularity	NA
Concentricity	NA