Applied Motion Products

Applied Motion Products, Inc.
404 Westridge Dr.
Watsonville, CA 95076, USA

1-888-680-6674
Tel (831) 761-6555
Fax (831) 761-6544

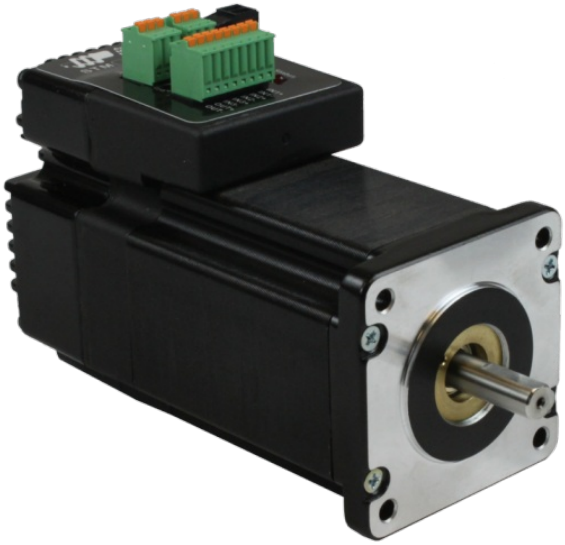
Product Datasheet

www.Applied-Motion.com

STM24C-3CN

NEMA 24 Integrated CANopen Drive+Motor

1pc. - 588.00
50pc. - 441.00



Product Features

- *Sophisticated current control*
- *Anti-resonance*
- *Torque ripple smoothing*
- *Microstep emulation*
- *NEMA 24 frame size*
- *DS301 and DSP402 supported*
- *Profile position and velocity modes*
- *Several homing modes*
- *Objects for Q programming*
- *Objects for data registers*
- *RS-232 port for programming*

Description

The STM24C-3CN integrated stepper is a drive+motor unit, fusing a NEMA 24 step motor and a sophisticated, 6.0 A/phase (peak-of-sine) step motor 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 STM24C-3CN integrated stepper is designed to operate on a CANopen communication network and conforms to Can in Automation (CiA) DS301 and DSP402 specifications. It supports Profile Position, Profile Velocity, and Homing modes, as well as the ability to run stored Q programs via Applied Motion-specific CANopen objects. All STM24 integrated steppers are setup and configured using Applied Motion's *ST Configurator™* software.

The STM24C-3CN comes with 3 digital inputs and 1 digital output. The digital inputs accept signals of 5-24 VDC and can be used for connecting 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 unit also comes with 1 analog input that accepts 0-5 VDC signals, which can be used for velocity and position control.

The STM24C-3CN comes with an RS-232 port for programming and a CANopen port for network communications.

A VL series gearhead purchased for this motor will require a special mounting adaptor and 2 weeks lead time. Please contact customer service for the price of this adaptor.

Specifications

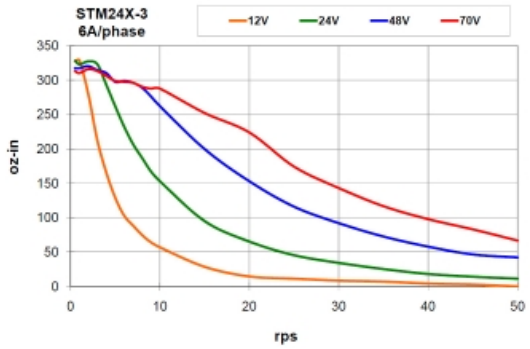
Part Number:	STM24C-3CN
Supply Voltage:	12-70 VDC
Supply Voltage Type:	DC
Control Modes:	CANopen
Communication Ports:	RS-232 CANopen
Encoder Feedback:	No
Step Resolution:	Full Half Microstepping Microstep Emulation
Idle Current Reduction:	0-90%
Setup Method:	Software setup
Digital Inputs:	3
Digital Outputs:	1
Circuit Protection:	Short circuit Over-voltage Under-voltage Over-temp
Status LEDs:	1 red, 1 green
Frame Size:	NEMA 24
Holding Torque:	340 oz-in
Step Angle:	1.8 deg
Rotor Inertia:	1.27E-02 oz-in-sec^2
Length:	4.94 inches
Weight:	56 oz
Operating Temperature Range:	0 to 70 °C
Ambient Temperature Range:	0 to 40 °C
Ambient Humidity:	90% max, non-condensing
Insulation Class:	Class B (130 ºC)

Downloads

Speed-Torque Curves:	STM24_speed-torque.pdf
Manuals:	STM24 Hardware Manual_920-0044E.pdf STM23C-STM24C_QuickSetup_920-0043.pdf CANopen_Manual_920-0025K.pdf
Datasheet:	http://s3.amazonaws.com/applied-motion-pdf/STM24C-3CN.pdf
Family Datasheet:	STM-Datasheet-925-0009.pdf CANopen_FAQ2.pdf STM-CANopen-EDS.eds
2D Drawing:	STM24_3D_Model-Simple.pdf STM24X-3X_2D.pdf
3D Drawing:	STM24_3D_model.igs
Agency Approvals:	STM17_23_24_CE_DOC.pdf

Torque Curves

Note: all torque curves were measured at 20,000 steps/rev.



Software

Software:	ST Configurator™
Sample Code:	CANopen_Example.zip

Pricing

	STM24C-3CN Part No. STM24C-3CN
1pc.	$588.00
25pc.	$505.68
50pc.	$441.00
100pc.	Contact us for 100+ piece pricing.

Products in the Series *CANopen Products*

Part Number	Frame Size	Supply Voltage	Control Modes	Holding Torque	Communication Ports	Encoder Feedback	1pc./50pc.
5000-136	NA	24-48 VDC	CANopen	NA	RS-232, CANopen	No	$541.00 / $405.75
5000-137	NA	24-48 VDC	CANopen	NA	RS-232, CANopen	Yes	$585.00 / $438.75
5000-146	NA	24-80 VDC	CANopen	NA	RS-232, CANopen	No	$631.00 / $473.25
5000-147	NA	24-80 VDC	CANopen	NA	RS-232, CANopen	Yes	$682.00 / $511.50
5000-152	NA	94-135 VAC	CANopen	NA	RS-232, CANopen	Yes	$1107.00 / $830.25
5000-153	NA	94-265 VAC	CANopen	NA	RS-232, CANopen	Yes	$1212.00 / $909.00
5000-160	NA	24-80 VDC	CANopen	NA	RS-232, CANopen	NA	$585.00 / $438.75
STM17C-3CE	NEMA 17	12-48 VDC	CANopen	68	RS-232, CANopen	Yes	$470.00 / $352.50
STM17C-3CN	NEMA 17	12-48 VDC	CANopen	68	RS-232, CANopen	No	$408.00 / $306.00
STM23C-3CE	NEMA 23	12-70 VDC	CANopen	210	RS-232, CANopen	Yes	$535.00 / $401.25
STM23C-3CN	NEMA 23	12-70 VDC	CANopen	210	RS-232, CANopen	No	$460.00 / $345.00
STM24C-3CE	NEMA 24	12-70 VDC	CANopen	340	RS-232, CANopen	Yes	$663.00 / $497.25
STM24C-3CN	NEMA 24	12-70 VDC	CANopen	340	RS-232, CANopen	No	$588.00 / $441.00