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

1-800-525-1609
Tel (831) 761-6555
Fax (831) 761-6544

Product Datasheet

www.Applied-Motion.com

STAC6-C

AC CANopen Advanced Microstep Drive w/ Encoder Input

1pc. - 1,107.00
50pc. - 830.25

Product Features

- *DS301 and DSP402 supported*
- *Profile position and velocity modes*
- *Several homing modes*
- *Objects for Q programming*
- *Objects for data registers*
- *7 digital inputs, 3 digital outputs, all optically isolated*
- *RS-232 cable and all mating connectors are included*

Description

The STAC6-C stepper drive is a powerful, two-phase, bipolar step motor drive for high-speed, high-torque applications. It employs sophisticated current control designed for optimal smoothness over a wide speed range. Anti-resonance, torque ripple smoothing, and microstepping work together to bring step motor performance to a new high.

The STAC6-C operates on single-phase 120 VAC and outputs up to 6.0 A/phase (peak-of-sine) to the step motor. It features over-voltage, over-temperature, and over-current protection and is complemented by a specially matched set of low-loss NEMA 23 and NEMA 34 frame step motors.

The STAC6-C 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.

For connecting to external devices such as limit switches, proximity or photoelectric sensors, PLC I/O, lamps, and other devices, the STAC6-C stepper drive comes with 7 digital inputs, 3 digital outputs, and 2 single-ended analog inputs (analog inputs can be wired together as 1 differential analog input).

The STAC6-C stepper drive comes with an RS-232 port for configuration and programming. It also comes with a CANopen port for connecting to the CANopen data network.

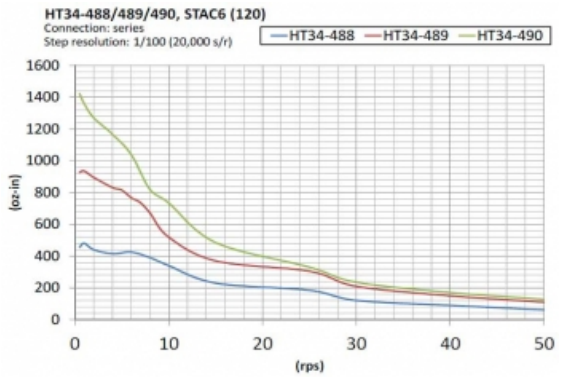
Each STAC6 drive comes with an encoder feedback connector for applications that demand a higher level of position control than ordinary open-loop step motor systems can provide. Use our double-shaft step motors with incremental encoders and activate either Stall Detection or Stall Prevention in the drive. Stall Detection notifies the system as soon as the required torque is too great for the motor, which results in a loss of synchronization between the rotor and stator, also known as stalling. Stall Prevention automatically adjusts motor speed to maintain synchronization of the rotor to the stator under all conditions. This unique feature allows step motors to operate in a much broader range of applications than previously possible, such as torque-control. The Stall Prevention feature also performs static position maintenance, which maintains the position of the motor shaft when at rest. Additionally, the inclusion of the optional encoder allows the motor to be precisely homed to the index (marker) pulse.

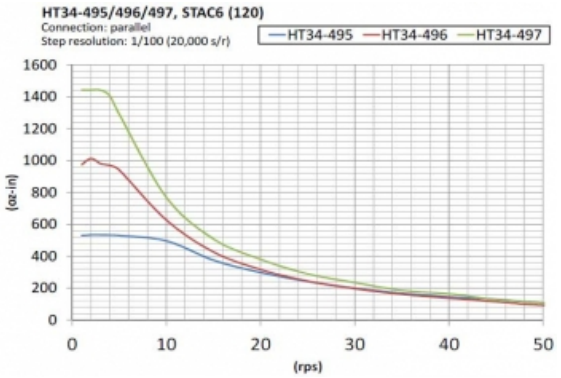
The STAC6-C is UL Recognized (File No. E310506), CE approved, and RoHS compliant.

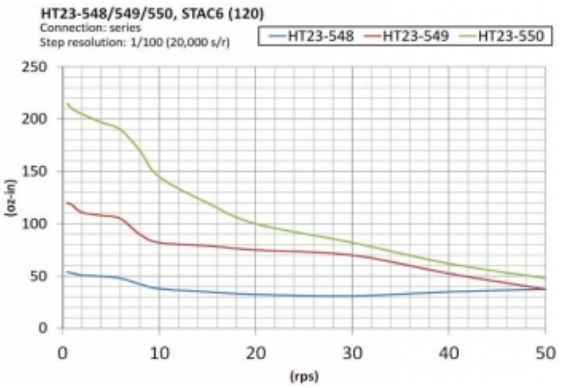
Specifications

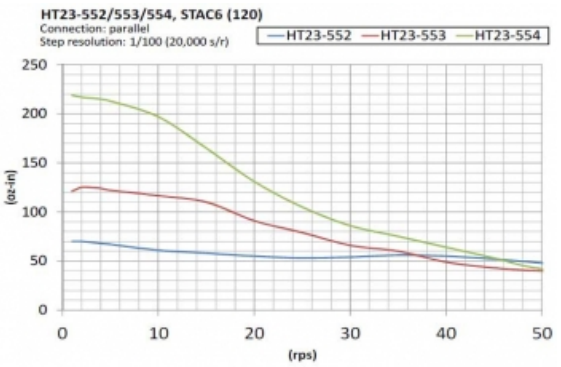
Model Number:	STAC6-C
Part Number:	5000-152
Supply Voltage:	94-135 VAC
Supply Voltage Type:	AC
Control Modes:	CANopen
Output Current:	0.5-6.0 A/phase
Communication Ports:	RS-232 CANopen
Encoder Feedback:	Yes
Step Resolution:	Full Half Microstepping Microstep Emulation
Idle Current Reduction:	0-100%
Setup Method:	Software setup
Digital Inputs:	7
Digital Outputs:	3
Analog Inputs:	1 differential or 2 single-ended
Dimensions:	6.35 x 4.66 x 2.31 inches
Weight:	32 oz
Operating Temperature Range:	0-55 °C
Ambient Temperature Range:	0-55 °C
Ambient Humidity:	90% max, non-condensing
Status LEDs:	1 red, 1 green
Circuit Protection:	Short circuit Over-voltage Under-voltage Over-temp

Torque Curves









Software

Software:	ST Configurator™
Sample Code:	CANopen_Example.zip

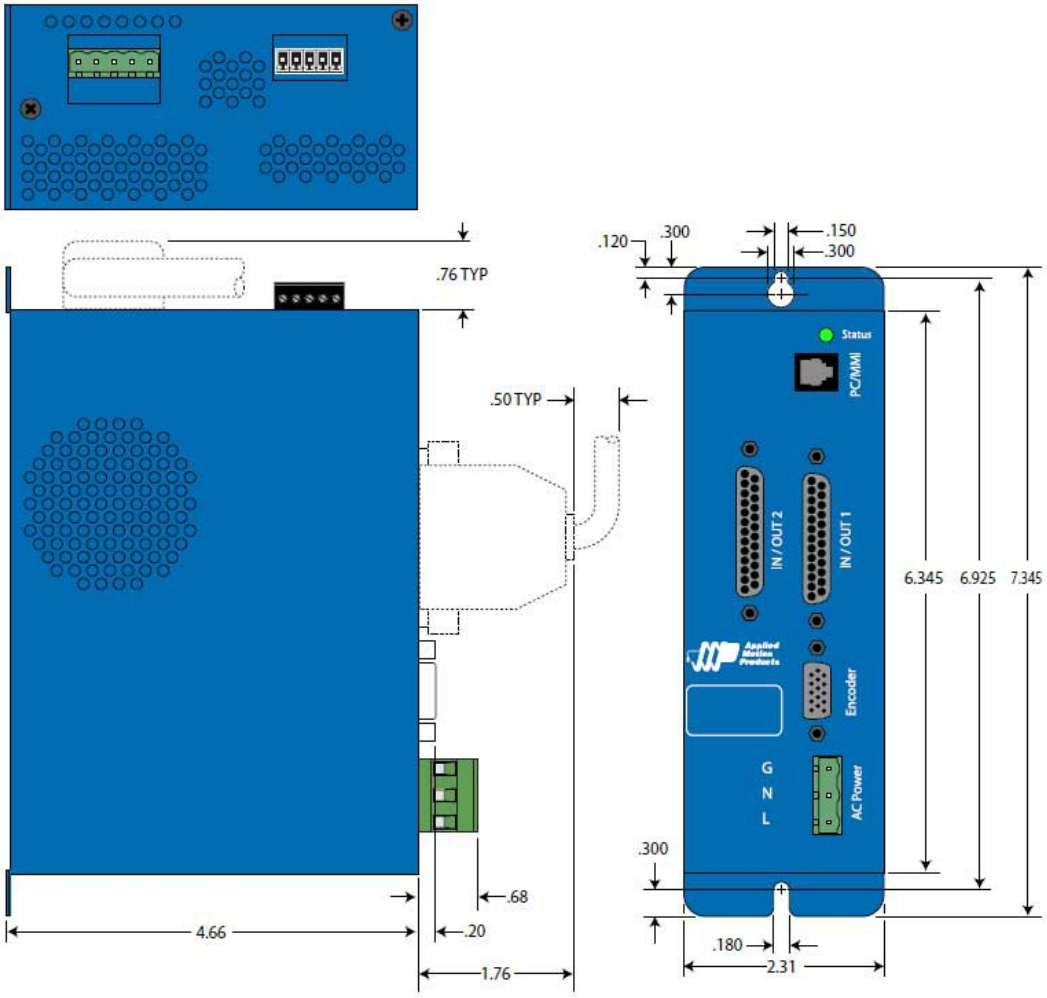
Downloads

Manuals:	STAC6_Hardware_Manual_920-0029.pdf STAC6-C_QuickSetup_920-0046.pdf CANopen_Manual_920-0025K.pdf
Datasheet:	http://s3.amazonaws.com/applied-motion-pdf/STAC6-C.pdf
Family Datasheet:	STAC6_Datasheet_925-0012.pdf CANopen_FAQ2.pdf STAC6-CANopen-EDS.eds
2D Drawing:	STAC6_Three_Views.pdf STAC6_simple3D.pdf
3D Drawing:	STAC6_Simple.igs
Speed-Torque Curves:	STAC6_speed-torque.pdf
Agency Approvals:	STAC6_EMC_CE_DOC.pdf STAC6_LVD_CE_DOC.pdf
Application Notes:	APPN0016_Simple-25-pin-mating-connections.pdf APPN0015_Make-a-serial-programming-cable.pdf

Pricing

	STAC6-C Part No. 5000-152
1pc.	$1,107.00
25pc.	$952.02
50pc.	$830.25
100pc.	Contact us for 100+ piece pricing.

2D Drawings



Products in the Series *CANopen Products*

Model Number	Supply Voltage	Control Modes	Output Current	Communication Ports	Encoder Feedback	1pc./50pc.
	12-70 VDC	CANopen	NA	RS-232, CANopen	Yes	$674.00 / $505.50
	12-70 VDC	CANopen	NA	RS-232, CANopen	No	$588.00 / $441.00
	12-70 VDC	CANopen	NA	RS-232, CANopen	Yes	$710.00 / $532.50
	12-70 VDC	CANopen	NA	RS-232, CANopen	No	$588.00 / $441.00
	12-48 VDC	CANopen	NA	RS-232, CANopen	Yes	$513.00 / $384.75
	12-48 VDC	CANopen	NA	RS-232, CANopen	No	$408.00 / $306.00
ST10-C-CE	24-80 VDC	CANopen	0.1-10.0 A/Phase	RS-232, CANopen	Yes	$682.00 / $511.50
ST10-C-CN	24-80 VDC	CANopen	0.1-10.0 A/Phase	RS-232, CANopen	No	$631.00 / $473.25
ST5-C-CE	24-48 VDC	CANopen	0.1-5.0 A/Phase	RS-232, CANopen	Yes	$585.00 / $438.75
ST5-C-CN	24-48 VDC	CANopen	0.1-5.0 A/Phase	RS-232, CANopen	No	$541.00 / $405.75
STAC6-C	94-135 VAC	CANopen	0.5-6.0 A/Phase	RS-232, CANopen	Yes	$1107.00 / $830.25
STAC6-C-220	94-265 VAC	CANopen	0.5-3.2 A/Phase	RS-232, CANopen	Yes	$1212.00 / $909.00
SV7-C-CE	24-80 VDC	CANopen	NA	RS-232, CANopen	NA	$585.00 / $438.75

Products in the Series *STAC6 Stepper Drives*

Model Number	Supply Voltage	Control Modes	Output Current	Communication Ports	Encoder Feedback	1pc./50pc.
STAC6-C	94-135 VAC	CANopen	0.5-6.0 A/Phase	RS-232, CANopen	Yes	$1107.00 / $830.25
STAC6-C-220	94-265 VAC	CANopen	0.5-3.2 A/Phase	RS-232, CANopen	Yes	$1212.00 / $909.00
STAC6-Q	94-135 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming	0.5-6.0 A/Phase	RS-232, RS-485	Yes	$1005.00 / $753.75
STAC6-Q-220	94-265 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming	0.5-3.2 A/Phase	RS-232, RS-485	Yes	$1140.00 / $855.00
STAC6-QE	94-135 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming	0.5-6.0 A/Phase	RS-232, RS-485	Yes	$1160.00 / $870.00
STAC6-QE-220	94-265 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming	0.5-3.2 A/Phase	RS-232, RS-485	Yes	$1305.00 / $978.75
STAC6-S	94-135 VAC	Step & Direction, Velocity (Oscillator), Streaming Commands, SiNet Hub Compatible	0.5-6.0 A/Phase	RS-232, RS-485	Yes	$820.00 / $615.00
STAC6-S-220	94-265 VAC	Step & Direction, Velocity (Oscillator), Streaming Commands, SiNet Hub Compatible	0.5-3.2 A/Phase	RS-232, RS-485	Yes	$973.00 / $729.75
STAC6-Si	94-135 VAC	Si Programming	0.5-6.0 A/Phase	RS-232, RS-485	Yes	$1077.00 / $807.75
STAC6-Si-220	94-264 VAC	Si Programming	0.5-3.2 A/Phase	RS-232, RS-485	Yes	$1205.00 / $903.75