Applied Motion Products, Inc.
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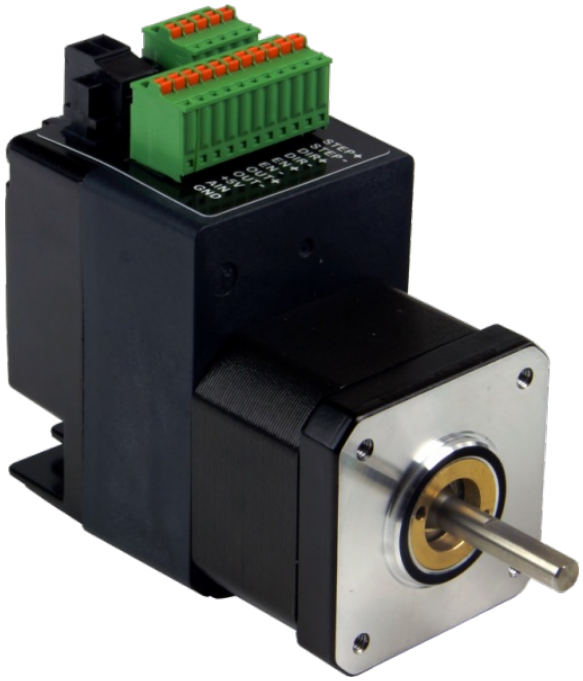
1-800-525-1609
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Product Datasheet

www.Applied-Motion.com

STM17Q-2RN

NEMA 17 Integrated Drive+Motor w/ Q Programming



Product Features

- *Sophisticated current control*
- *Anti-resonance*
- *Torque ripple smoothing*
- *Microstep emulation*
- *NEMA 17 frame size*
- *Modbus/RTU for easy PLC and HMI communication*
- *Q programming control mode for stand-alone operation*
- *Capable of all “S” control modes*
- *RS-485 port for programming and communications*

Description

The STM17Q-2RN integrated stepper is a drive+motor unit, fusing a NEMA 17 step motor and a sophisticated 2.0 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 STM17Q-2RN integrated stepper can operate in all of the same control modes as the S option, plus the ability to run a Q program stored in non-volatile memory. Q programs are created using Applied Motion’s *Q Programmer™* software, which provides powerful commands for motion, I/O, conditional processing, multi-tasking, math functions, and more. All STM17 units are setup and configured using Applied Motion’s *ST Configurator™* software.

Each STM17 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 STM17Q-2RN comes with an RS-485 port for programming and serial communications.

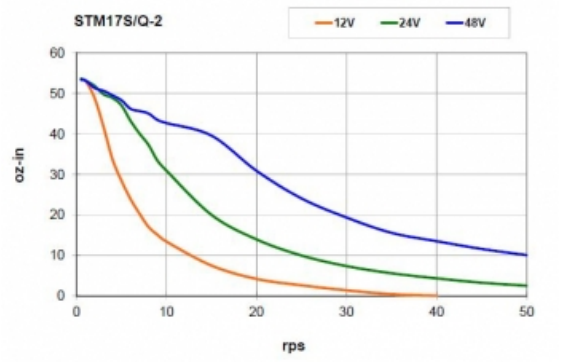
Specifications

Part Number:	STM17Q-2RN
Supply Voltage:	12-48 VDC
Supply Voltage Type:	DC
Control Modes:	Streaming Commands Analog Positioning Encoder Following Q Programming Modbus RTU
Communication Ports:	RS-485
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
Analog Inputs:	1 single-ended
Circuit Protection:	Short circuit Over-voltage Under-voltage Over-temp
Status LEDs:	1 red, 1 green
Frame Size:	NEMA 17
Holding Torque:	54 oz-in
Step Angle:	1.8 deg
Rotor Inertia:	8.03E-04 oz-in-sec^2
Length:	2.85 inches
Weight:	12.7 oz
Operating Temperature Range:	0-85 °C
Ambient Temperature Range:	0-40 °C
Ambient Humidity:	90% max, non-condensing
Insulation Class:	Class B (130 ºC)

Downloads

Speed-Torque Curves:	STM17S_Q-2 Torque Curves.pdf
Manuals:	STM17_Hardware_Manual_920-0034B.pdf STM17_Quick_Setup_Guide.pdf ModbusManual__920-0072F.pdf Host-Command-Reference_920-0002R.pdf
Product PDF - S3 Link:	http://s3.amazonaws.com/applied-motion-pdf/STM17Q-2RN.pdf
Datasheet:	STM-Datasheet-925-0009.pdf
2D Drawing:	STM17S-Q-2XX_RevB.pdf
3D Drawing:	STM17S-2X_Simple.igs
Agency Approvals:	STM17_23_24_CE_DOC.pdf
Application Notes:	APPN0034B-ModbusRTU-from-Proface-HMI-with-Q.zip APPN0026B-LabVIEW-communication-using-streaming-commands.zip APPN0019_Analog-positioning-using-Q-program.zip APPN0018_EZ-Series-Touchpanel-HMI.zip

Torque Curves



Software

Software:	SCL Utility ST Configurator™
Sample Code:	scldemo.zip

Products in the Series *Modbus RTU Products*

Part Number	Frame Size	Supply Voltage	Control Modes	Holding Torque	Communication Ports	Encoder Feedback	1pc.
5000-128	NA	24-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Modbus RTU	NA	RS-232	No	$560.00
5000-130	NA	24-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Modbus RTU	NA	RS-232	Yes	$648.00
5000-132	NA	24-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-232, RS-485	No	$684.00
5000-134	NA	24-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-232, RS-485	Yes	$750.00
5000-138	NA	24-80 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Modbus RTU	NA	RS-232	No	$618.00
5000-140	NA	24-80 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Velocity Control, Modbus RTU	NA	RS-232	Yes	$696.00
5000-142	NA	24-80 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-232, RS-485	No	$756.00
5000-144	NA	24-80 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-232, RS-485	Yes	$828.00
5000-244	NA	24-48 VDC	Step & Direction, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Velocity Control, Modbus RTU	NA	RS-232	Yes	$636.00
			Step & Direction, Streaming Commands,				

5000-245	NA	24-80 VDC	Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Velocity Control, Modbus RTU	NA	RS-232	Yes	$668.00
STF03-R	NA	12-48 VDC	Streaming Commands, Q Programming, CANopen, EtherNet/IP, Modbus RTU, Modbus TCP, EtherCAT	NA	RS-485, CANopen, Ethernet, EtherNet/IP, EtherCAT, Ethernet, dual-port	No	$185.00
STF06-R	NA	12-48 VDC	Streaming Commands, Q Programming, CANopen, EtherNet/IP, Modbus RTU, Modbus TCP, EtherCAT	NA	RS-485, CANopen, Ethernet, EtherNet/IP, EtherCAT, Ethernet, dual-port	No	$198.00
STF10-R	NA	24-70 VDC	Streaming Commands, Q Programming, CANopen, EtherNet/IP, Modbus RTU, Modbus TCP, EtherCAT	NA	RS-485, CANopen, Ethernet, EtherNet/IP, EtherCAT, Ethernet, dual-port	No	$211.00
STM17Q-1AE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-232	Yes	$416.00
STM17Q-1AN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-232	No	$326.00
STM17Q-1RE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-485	Yes	$424.00
STM17Q-1RN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-485	No	$334.00
STM17Q-2AE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-232	Yes	$420.00
STM17Q-2AN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-232	No	$330.00
STM17Q-2RE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-485	Yes	$427.00
STM17Q-2RN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-485	No	$337.00
STM17Q-3AE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	68	RS-232	Yes	$424.00
STM17Q-3AN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	68	RS-232	No	$346.00
STM17Q-3RE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	68	RS-485	Yes	$432.00
			Streaming Commands, Analog Positioning,				

STM17Q-3RN	NEMA 17	12-48 VDC	Encoder Following, Q Programming, Modbus RTU	68	RS-485	No	$354.00
STM23Q-2AE	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Modbus RTU	125	RS-232	Yes	$528.00
STM23Q-2AN	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Modbus RTU	125	RS-232	No	$438.00
STM23Q-2RE	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	125	RS-485	Yes	$536.00
STM23Q-2RN	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	125	RS-485	No	$446.00
STM23Q-3AE	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Modbus RTU	210	RS-232	Yes	$547.00
STM23Q-3AN	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, SiNet Hub Compatible, Modbus RTU	210	RS-232	No	$457.00
STM23Q-3RE	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	210	RS-485	Yes	$556.00
STM23Q-3RN	NEMA 23	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	210	RS-485	No	$466.00
STM24QF-3AE	NEMA 24	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	340	RS-232	Yes	$677.00
STM24QF-3AN	NEMA 24	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	340	RS-232	No	$587.00
STM24QF-3RE	NEMA 24	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	340	RS-485	Yes	$686.00
STM24QF-3RN	NEMA 24	12-70 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	340	RS-485	No	$596.00
SV2A3-Q-RE	NA	78-139 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-485	NA	$623.00
SV2A5-Q-RE	NA	78-139 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-485	NA	$779.00
			Streaming Commands,				

SV2B3-Q-RE	NA	156-264 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-485	NA	$623.00
SV2B5-Q-RE	NA	156-264 VAC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-485	NA	$779.00
SV2D10-Q-AE	NA	24-60 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming	NA	RS-232	NA	$431.00
SV2D10-Q-RE	NA	24-60 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	NA	RS-485	NA	$431.00
SWM24QF-3AE	NEMA 24	12-70 VDC	Step & Direction, Analog Torque / Velocity, Velocity (Oscillator), Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	340	RS-232	Yes	$926.00
TSM11Q-1RM	NEMA 11	15-30 VDC	Step & Direction, Streaming Commands, Encoder Following, Q Programming, Velocity Control, Modbus RTU	9.2	RS-485	Yes	$308.00
TSM11Q-1RM-H01	NEMA 11	15-30 VDC	Step & Direction, Streaming Commands, Encoder Following, Q Programming, Velocity Control, Modbus RTU	9.2	RS-485	Yes	$325.00
TSM11Q-2RM	NEMA 11	15-30 VDC	Step & Direction, Streaming Commands, Encoder Following, Q Programming, Velocity Control, Modbus RTU	11.3	RS-485	Yes	$317.00
TSM11Q-2RM-H01	NEMA 11	15-30 VDC	Step & Direction, Streaming Commands, Encoder Following, Q Programming, Velocity Control, Modbus RTU	11.3	RS-485	Yes	$334.00
TSM11Q-3RM	NEMA 11	15-30 VDC	Step & Direction, Streaming Commands, Encoder Following, Q Programming, Velocity Control, Modbus RTU	17.7	RS-485	Yes	$325.00
TSM11Q-3RM-H01	NEMA 11	15-30 VDC	Step & Direction, Streaming Commands, Encoder Following, Q Programming, Velocity Control, Modbus RTU	17.7	RS-485	Yes	$342.00
TSM17Q-1AG	NEMA 17	12-48 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	40	RS-232	Yes	$494.00
TSM17Q-1RG	NEMA 17	12-48 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	40	RS-485	Yes	$502.00
			Analog Torque / Velocity, Streaming				

TSM17Q-2AG	NEMA 17	12-48 VDC	Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	59	RS-232	Yes	$498.00
TSM17Q-2RG	NEMA 17	12-48 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	59	RS-485	Yes	$505.00
TSM17Q-3AG	NEMA 17	12-48 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	73	RS-232	Yes	$502.00
TSM17Q-3RG	NEMA 17	12-48 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	73	RS-485	Yes	$509.00
TSM23Q-2AG	NEMA 23	12-70 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	142	RS-232	Yes	$608.00
TSM23Q-2RG	NEMA 23	12-70 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	142	RS-485	Yes	$617.00
TSM23Q-3AG	NEMA 23	12-70 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	212	RS-232	Yes	$625.00
TSM23Q-3RG	NEMA 23	12-70 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	212	RS-485	Yes	$635.00
TSM23Q-4AG	NEMA 23	12-70 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	340	RS-232	Yes	$691.00
TSM23Q-4RG	NEMA 23	12-70 VDC	Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	340	RS-485	Yes	$701.00
TSM34Q-1AG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	382	RS-232	Yes	$661.00
TSM34Q-1RG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder	382	RS-485	Yes	$682.00

			Following, Q Programming, Velocity Control, Modbus RTU				
TSM34Q-3AG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	736	RS-232	Yes	$732.00
TSM34Q-3RG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	736	RS-485	Yes	$752.00
TSM34Q-5AG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	949	RS-232	Yes	$823.00
TSM34Q-5RG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	949	RS-485	Yes	$844.00
TSM34Q-6AG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	1161	RS-232	Yes	$925.00
TSM34Q-6RG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	1161	RS-485	Yes	$946.00
TXM24Q-1AG	NEMA 24	12-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	116	RS-232	Yes	$916.00
TXM24Q-1RG	NEMA 24	12-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	116	RS-485	Yes	$929.00
TXM24Q-3AG	NEMA 24	12-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	340	RS-232	Yes	$968.00
TXM24Q-3RG	NEMA 24	12-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q	340	RS-485	Yes	$982.00

			Programming, Velocity Control, Modbus RTU				
TXM34Q-1AG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	382	RS-232	Yes	$1075.00
TXM34Q-1RG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	382	RS-485	Yes	$1170.00
TXM34Q-3AG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	736	RS-232	Yes	$1146.00
TXM34Q-3RG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	736	RS-485	Yes	$1241.00
TXM34Q-5AG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	949	RS-232	Yes	$1237.00
TXM34Q-5RG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	949	RS-485	Yes	$1332.00
TXM34Q-6AG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	1161	RS-232	Yes	$1339.00
TXM34Q-6RG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	1161	RS-485	Yes	$1434.00

Products in the Series *STM17 Integrated Steppers*

Part Number	Frame Size	Supply Voltage	Control Modes	Holding Torque	Communication Ports	Encoder Feedback	1pc.
STM17C-3CE	NEMA 17	12-48 VDC	CANopen	68	RS-232, CANopen	Yes	$564.00
STM17C-3CN	NEMA 17	12-48 VDC	CANopen	68	RS-232, CANopen	No	$474.00
STM17Q-1AE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-232	Yes	$416.00
STM17Q-1AN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-232	No	$326.00
STM17Q-1RE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-485	Yes	$424.00
STM17Q-1RN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	31	RS-485	No	$334.00
STM17Q-2AE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-232	Yes	$420.00
STM17Q-2AN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-232	No	$330.00
STM17Q-2RE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-485	Yes	$427.00
STM17Q-2RN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	54	RS-485	No	$337.00
STM17Q-3AE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	68	RS-232	Yes	$424.00
STM17Q-3AN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	68	RS-232	No	$346.00
STM17Q-3RE	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	68	RS-485	Yes	$432.00
STM17Q-3RN	NEMA 17	12-48 VDC	Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Modbus RTU	68	RS-485	No	$354.00
STM17R-3ND	NEMA 17	12-48 VDC	Step & Direction	68	NA	No	$118.00
STM17R-3NE	NEMA 17	12-48 VDC	Step & Direction	68	NA	Yes	$204.00
STM17R-3NN	NEMA 17	12-48 VDC	Step & Direction	68	NA	No	$118.00
STM17S-1AE	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	31	RS-232	Yes	$380.00
STM17S-1AN	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	31	RS-232	No	$290.00
STM17S-1RE	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	31	RS-485	Yes	$390.00
STM17S-1RN	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	31	RS-485	No	$300.00
STM17S-2AE	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	54	RS-232	Yes	$389.00
STM17S-2AN	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	54	RS-232	No	$299.00
STM17S-2RE	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	54	RS-485	Yes	$397.00

STM17S-2RN	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	54	RS-485	No	$307.00
STM17S-3AE	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	68	RS-232	Yes	$394.00
STM17S-3AN	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	68	RS-232	No	$316.00
STM17S-3RE	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	68	RS-485	Yes	$402.00
STM17S-3RN	NEMA 17	12-48 VDC	Step & Direction, Velocity (Oscillator), Streaming Commands	68	RS-485	No	$324.00