

NEMA 34 StepSERVO Integrated Motors

Closed loop for high performance, energy efficiency and quiet operation



Product Features

- *Closed-loop servo control using high torque step motors*
- *Hi-resolution 20,000 count encoder for closed-loop control*
- *High acceleration for faster machine cycles and greater productivity*
- *Energy efficient, cool running, and quiet operation*
- *All-in-one compact solution*
- *NEMA 34 frame size*
- *IP65 versions for wet and dusty environments*
- *Stand-alone operation (stored Q programming)*
- *Dual-port Ethernet, CANopen, RS-232 and RS-485*
- *EtherNet/IP industrial networking option*
- *CANopen fieldbus option*
- *Modbus RTU and TCP options for easy PLC/HMI connection*



Series Details:

Customers who build high throughput production machinery demand cost effective high performance motion control. Applied Motion has responded to this demand by developing a broad range of StepSERVO™ motors.

Ideally suited for applications such as packaging and labeling, automated test and measurement, automated assembly and life sciences, StepSERVO™ motors use closed loop feedback and advanced control technology to create more torque, fast dynamic response and high operating efficiency. This approach combines the best features of step motor and servo system performance in a cost effective motion control solution. Download the [white paper](#) to learn more.

Why choose StepSERVO™ ?

StepSERVO™ is the next evolution in step motor technology. Starting with a proven integrated motor design, we add a high-resolution incremental encoder and closed-loop servo firmware to create a motor that offers the best step motor performance available today. StepSERVO™ motors offer the same high-torque-at-low-speed and excellent holding torque characteristics of open loop stepping motors with the advantages of true closed-loop control. These advantages include the ability to create peak torques from the motor up to 50% higher than the normal torque range of the same step motor running open loop. Closed-loop also means the motor only draws current when it needs it, so step motors now run cooler than ever before.

NEMA 34 Frame Size

TSM34 and TXM34 StepSERVO integrated motors come in 4 lengths, offering machine designers a broad range of torque values to choose from. The longest motors (-6) offer holding torque values of 1,161 oz-in and peak torque values over 1,300 oz-in. Click on one of the motors in the table below to view speed-torque data. TSM34 integrated motors are IP40 rated with screw terminal and pluggable connectors for power, communication, and I/O connections. TXM34 integrated motors are IP65 rated with M12 connectors for all connections and a shaft seal at the front shaft.

Products in the Series *NEMA 34 StepSERVO Integrated Motors*

Part Number	Frame Size	Supply Voltage	Control Modes	Holding Torque	Communication Ports	Encoder Feedback	1pc.
TSM34C-1CG	NEMA 34	24-70 VDC	CANopen	382	CANopen	Yes	\$702.00
TSM34C-3CG	NEMA 34	24-70 VDC	CANopen	736	CANopen	Yes	\$773.00
TSM34C-5CG	NEMA 34	24-70 VDC	CANopen	949	CANopen	Yes	\$864.00
TSM34C-6CG	NEMA 34	48-70 VDC	CANopen	1161	CANopen	Yes	\$966.00
TSM34IP-1DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity Control, Modbus TCP	382	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$803.00
TSM34IP-3DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity Control, Modbus TCP	736	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$874.00
TSM34IP-5DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity Control, Modbus TCP	949	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$965.00
TSM34IP-6DG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity Control, Modbus TCP	1161	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$1066.00
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-1DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	382	Ethernet, Ethernet, dual-port	Yes	\$743.00
TSM34Q-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	\$682.00
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-3DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	736	Ethernet, Ethernet, dual-port	Yes	\$814.00
			Step & Direction, Analog				

TSM34Q-3RG	NEMA 34	24-70 VDC	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-5DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	949	Ethernet, Ethernet, dual-port	Yes	\$905.00
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-6DG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	1161	Ethernet, Ethernet, dual-port	Yes	\$1006.00
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
TXM34C-1CG	NEMA 34	24-70 VDC	CANopen	382	CANopen	Yes	\$1190.00
TXM34C-3CG	NEMA 34	24-70 VDC	CANopen	736	CANopen	Yes	\$1261.00
TXM34C-5CG	NEMA 34	24-70 VDC	CANopen	949	CANopen	Yes	\$1352.00
TXM34C-6CG	NEMA 34	48-70 VDC	CANopen	1161	CANopen	Yes	\$1454.00
TXM34IP-1DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity Control, Modbus TCP	382	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$1291.00
TXM34IP-3DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity Control, Modbus TCP	736	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$1362.00
TXM34IP-5DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity Control, Modbus TCP	949	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$1453.00
TXM34IP-6DG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, EtherNet/IP, Velocity	1161	Ethernet, EtherNet/IP, Ethernet, dual-port	Yes	\$1555.00

			Encoder / Velocity Control, Modbus TCP				
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-1DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	382	Ethernet, Ethernet, dual-port	Yes	\$1231.00
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-3DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	736	Ethernet, Ethernet, dual-port	Yes	\$1302.00
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-5DG	NEMA 34	24-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	949	Ethernet, Ethernet, dual-port	Yes	\$1393.00
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-6DG	NEMA 34	48-70 VDC	Step & Direction, Analog Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus TCP	1161	Ethernet, Ethernet, dual-port	Yes	\$1495.00
			Step & Direction, Analog Torque / Velocity, Streaming				

TXM34Q-6RG	NEMA 34	48-70 VDC	Torque / Velocity, Streaming Commands, Analog Positioning, Encoder Following, Q Programming, Velocity Control, Modbus RTU	1161	RS-485	Yes	\$1434.00
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