

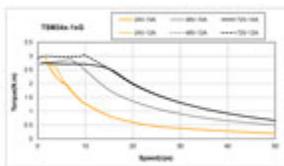
New NEMA 34 Frame Size StepSERVO Motors

We are pleased to announce the release of NEMA 34 frame size StepSERVO Integrated Motors. The addition of these larger frame sizes in the successful StepSERVO product offering represents a widening of the product range, which already included smaller frame sizes NEMA 11, 17, 23 and 24. With the larger NEMA 34 frame size, StepSERVO Integrated Motors can now be installed in more demanding applications where greater torque is required.

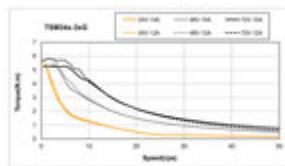


High Torque

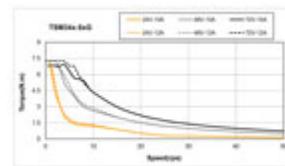
TSM34 and TXM34 StepSERVO integrated motors come in 4 lengths, offering machine designers a broad range of torque values to choose from. The longest motors (-6) offer holding torque values of 1,161 oz-in (8.2 N-m) and peak torque values over 1,300 oz-in (9.2 N-m). Click the speed-torque curves below to enlarge.



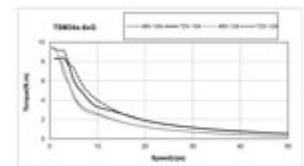
TSM/TXM-1 torque curves



TSM/TXM-3 torque curves



TSM/TXM-5 torque curves



TSM/TXM-6 torque curves

IP65 Rating

TXM34 integrated motors are IP65 rated with M12 connectors for all connections and a shaft seal at the front shaft. TSM34 integrated motors are IP40 rated with screw terminal and crimp-style connectors for power, communication, and I/O connections.



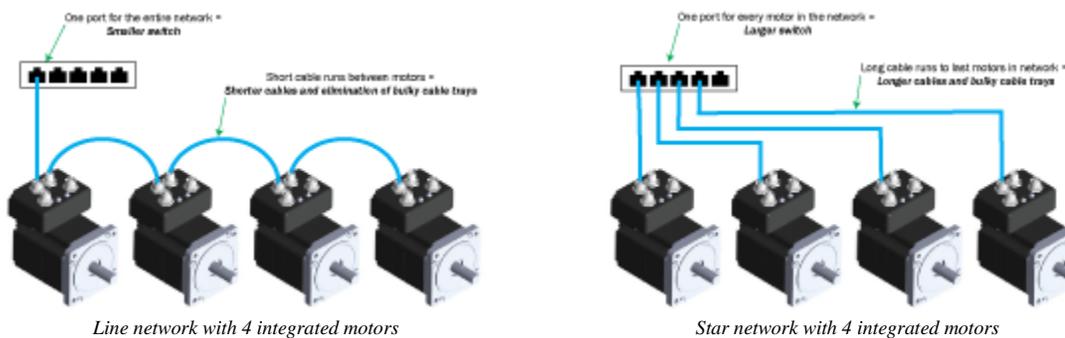
IP65 rated TXM with M12 connectors



IP40 rated TSM with screw terminal and crimp-style connectors

Dual-Port Ethernet

A highly anticipated feature of the NEMA 34 StepSERVO Integrated Motors is dual-port Ethernet, which simply means two Ethernet ports per motor instead of one. The motors can now be connected (daisy-chained) in a line network topology in addition to the traditional star network topology. This small but important improvement allows for cost savings and design simplification via the reduction of cable lengths, the omission of bulky cable runs, and the downsizing of network switches. In a star network every single motor must connect to the central switch on a dedicated cable. In a line network, the motor furthest from the switch can connect directly to its nearest neighbor motor, which in turn can connect to its nearest neighbor, and so on all the way back to the switch. The diagram below shows a simple comparison using 4 integrated motors. Imagine what this would look like with 40 motors.



Multiple Control and Communications Options

These integrated motors support a wide variety of control options, including step & direction, velocity and streaming command modes. They also support stored program execution using Applied Motion's Q programming language. Communication options include dual-port Ethernet, RS-232, RS-485, and CAN bus. Communication protocols include Serial Command Language (SCL) over RS-232, RS-485, Ethernet UDP and TCP/IP; EtherNet/IP; Modbus RTU and TCP; and CANopen. All TSM34 and TXM34 StepSERVO integrated motors include two power supply connections, main and auxiliary, so that motor power can be removed while maintaining power to the controller and communications. This feature eliminates the need to re-home the system after an emergency stop (e-stop) event, and for many applications this can provide the same end result as using a motor with an absolute encoder.

Product Features

- StepSERVO closed loop stepper technology featuring space vector current control
- Peak torques for greater acceleration and throughput
- Higher efficiency, lower power consumption than open loop steppers
- Hi-resolution 20,000 count encoder for closed-loop control
- NEMA 34 frame size; IP65 rated option for wet and dusty environments
- Multiple control options including step & direction, velocity, streaming commands, stored program
- Multiple communication options including dual-port Ethernet, RS-232, RS-485, and CAN bus
- Communication protocols include SCL, EtherNet/IP, Modbus RTU and TCP, and CANopen



More Information

- To view the newly added NEMA 34 StepSERVO Integrated Motors [click here](#).
- To view all StepSERVO Integrated Motors [click here](#).
- Watch the StepSERVO Torque video [here](#).
- Watch the StepSERVO Efficiency video [here](#).



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