

Stepper Servo Controller



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\$995.00

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EvoDrive ST-34

Stepper Motor Controller



Graceful Grunt

The EvoDrive ST-34 combines precision servo control with unyielding power. All in a package which can be integrated with your motor.

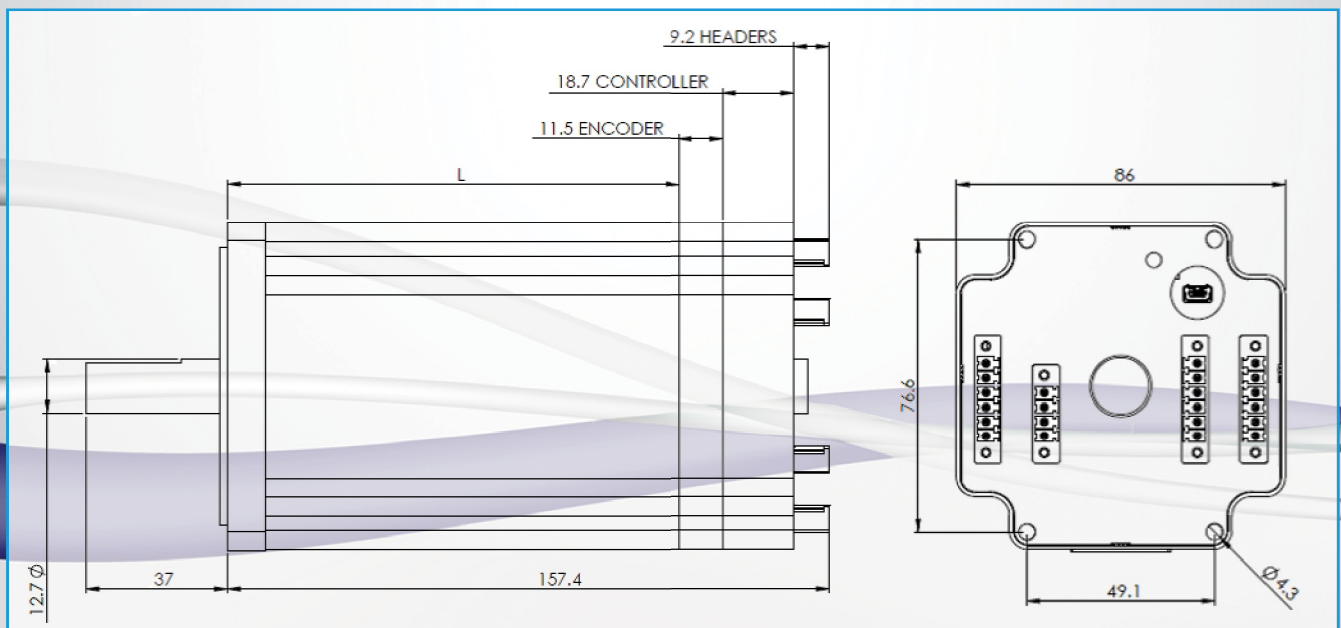
The ST-34 is perfect for heavy CNC and factory automation. But is also very flexible, supporting a wide range of motors and the ability to incorporate your own custom custom designs.

ST-34 Stepper Servo

The ST-34 is combined with our own 32,768 count encoder and a range of high-torque stepper motors to produce stepper servo's.

These are true closed-loop servo motors, taking advantage of all the stepper motor's strengths, and eliminating their weaknesses.

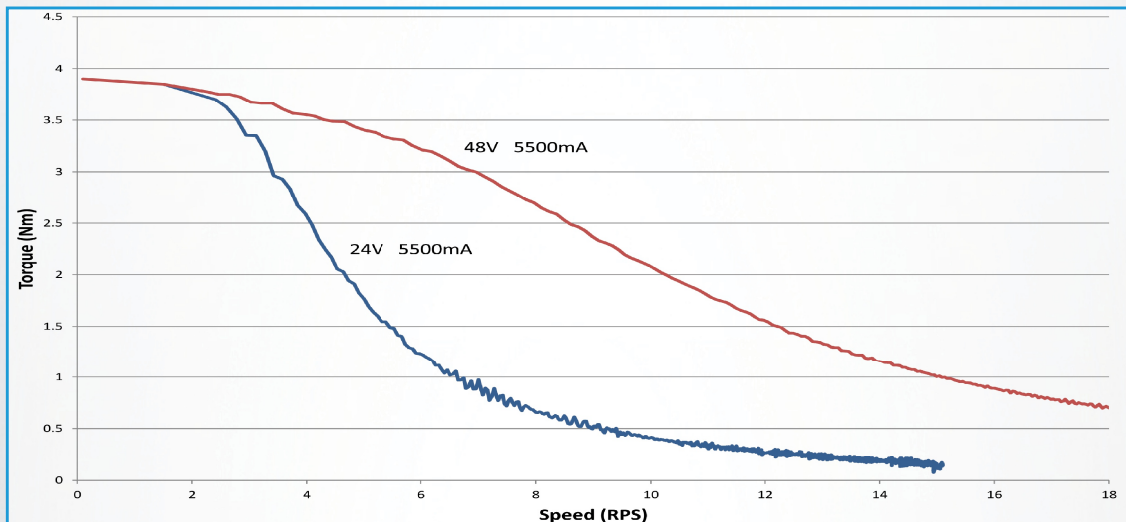
The result is a true closed-loop servo motor with all the advantages of a stepper motor.



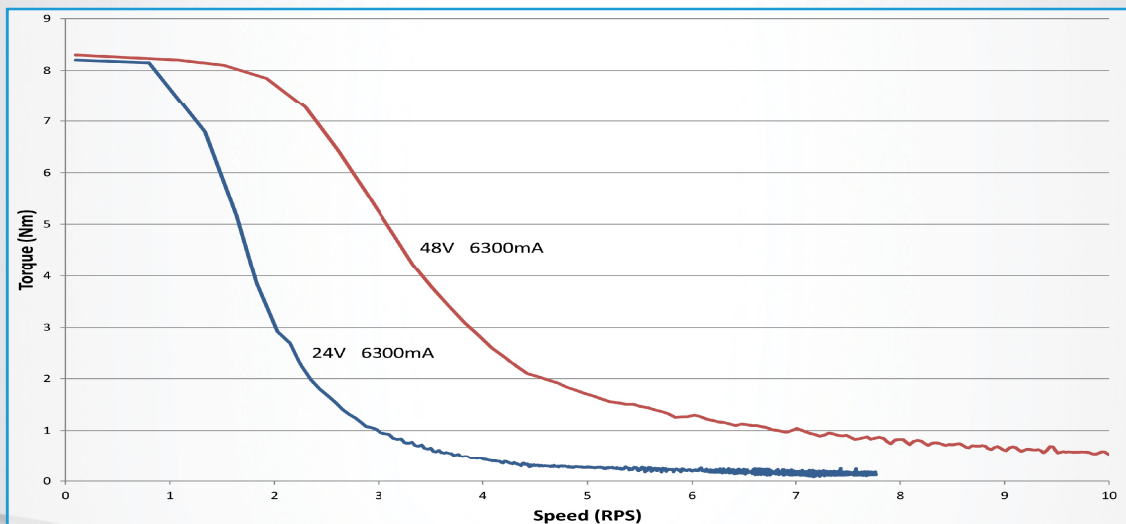
ST-34 Stepper Servo Torque Curves

Part Number	Motor Length (L)	Rated Current	Holding Torque	Rotor Inertia	Weight
FW-A303-80	80mm	5.5A	4.0 Nm (567 oz-in)	1.4 Kg.cm ²	2.3Kg
FW-A303-120	116mm	6.3A	8.3 Nm (1175 oz-in)	2.7 Kg.cm ²	4.1Kg
FW-A303-160	155mm	6.5A	10.5 Nm (1487 oz-in)	3.6 Kg.cm ²	5.5Kg

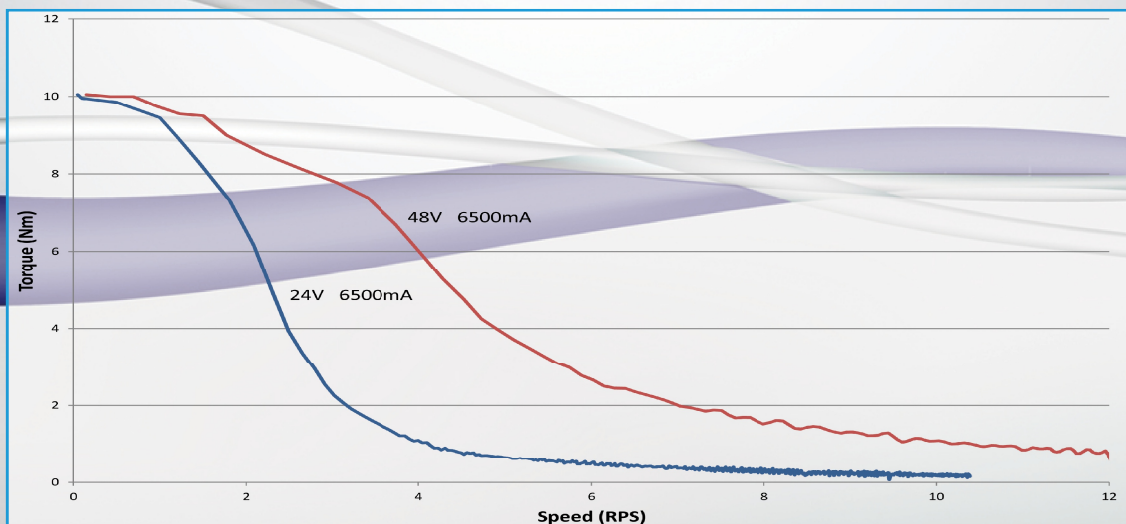
FW-A303-80



FW-A303-120



FW-A303-160



ST-34 Controller Specifications

Motor Driver	Minimum	Nominal	Maximum
Power Supply Voltage	24V DC	48V DC	60V DC
Peak Motor Current	0.03 A	7 A	10 A
Maximum Resolution	102400 steps / rev		
PWM Frequency		33.3 KHz	
Motor Compatibility	2-Phase Bipolar Stepper Motors Any step size (0.9° to 7.2°)		
Motor Speed (RPM)		Motor dependent	3000 RPM

Accuracy	Minimum	Nominal	Maximum
Open-loop step size	0.00352° (102400 steps/rev)		
Open-loop accuracy		Dependent on load	1 motor step
Closed-loop Encoder Resolution CPR (After Quad)	2048 (8192)	4096 (16384)	25600 (102400)
Standard Encoder Resolution CPR (After Quad)		8192 (32768)	
Standard Closed-loop Accuracy	0.02197° (Encoder/2)		
Closed-loop Control Mode	Four-Quadrant Servo Control		

Communications	Minimum	Nominal	Maximum
Comms Interfaces Channel 1	RS232 Virtual RS232 over USB		
Comms Interfaces Channel 2	RS485		
RS232 BAUD Rate	9600	9600	115200
RS485 BAUD Rate	9600	115200	230400
RS485 Max nodes			34
Command Protocols Both Channels	Stacked ASCII Commands Non-Stacked Binary commands		
Max Command Length			128 Characters

Digital I/O	Minimum	Nominal	Maximum
General Purpose Inputs	4 Logic Inputs (weak pull-down)		
General Purpose Outputs	4 NPN Outputs (Switch to GND)		
Digital Input Voltage	0V DC	5V DC	24V DC
Digital Output Voltage	0V DC		5V DC
Digital Output Current (Active, Sinking current to GND)			250mA
Power Rails Available	5.0V DC (250mA max)		
Digital Control Modes	Step/Dir CW/CCW Triggered Programs		
Triggered Programs	10 single-line programs which can be triggered by: Each Input (Pos or Neg Edge), Driver Startup, Encoder Index Pulse		
Triggered Program Length	64 Characters		
Digital Output Status	Each output can be set to reflect one of 8 motor states: (Driver Enabled, Motor Busy, Motor Moving, Motor Moving CW, Motor Moving CCW, Any Error Flag, Collision Error Flag, Soft Limit Flag)		

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