

STR8

DC Advanced Microstep Drive



Product Features

- *Current range 2.35A to 8.0A peak of sine*
- *Electronic damping (anti-resonance)*
- *Microstepping & microstep emulation*
- *Built-in self test move profile*
- *Step & direction inputs*
- *CW Pulse/CCW pulse operation*
- *Idle current reduction*
- *Selectable digital input filter*



Description

The STR8 stepper drive is a compact, powerful, digital step & direction drive, great for OEM applications requiring basic step & direction control of a 2-phase step motor. The STR8 outputs up to 8 A/phase to the step motor, and is compatible with a variety of 2-phase step motors that have been selected to optimize performance of both the drive and motor.

The STR8 drive features advanced microstepping performance and sophisticated current control with anti-resonance. Anti-resonance electronically damps motor and system resonances, which improves motor smoothness and torque over a wide speed range.

Each STR8 step motor drive operates in either Step & Direction or Pulse/Pulse control mode. Selecting between these two modes is done by moving a jumper located under the cover of the drive. Each STR8 drive can microstep up to 20,000 steps/rev with a 1.8° step motor (1/100 step), and can even microstep the step motor when the command pulses are low resolution. This feature is called Microstep Emulation. All drive setup is done via dip switches and a rotary switch on the side of the drive, including motor selection, running current, idle current, and step resolution.

Specifications

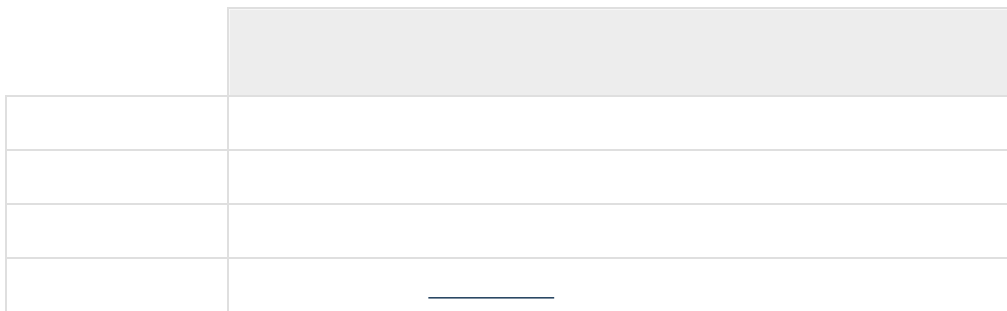
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|------------------------------------|---|
| Model Number | STR8 |
| Part Number | 5000-158 |
| Supply Voltage | 24-75 VDC |
| Supply Voltage Type | DC |
| Control Modes | <ul style="list-style-type: none">• Step & Direction |
| Output Current | 2.35-8.0 A/phase |
| Communication Ports | NA |
| Encoder Feedback | No |
| Step Resolution | <ul style="list-style-type: none">• Full• Half• Microstepping• Microstep Emulation |
| Idle Current Reduction | 50% or 90% |
| Setup Method | Switch / potentiometer |
| Digital Inputs | 3 |
| Digital Outputs | 1 |
| Analog Inputs | NA |
| Dimensions | 4.65 x 2.97 x 1.30 inches |
| Weight | 10.8 oz |
| Operating Temperature Range | 0 to 70 °C |
| Ambient Temperature Range | 0 to 50 °C |
| Ambient Humidity | 90% max, non-condensing |
| Status LEDs | 1 red, 1 green |
| Circuit Protection | <ul style="list-style-type: none">• Short circuit• Over-voltage• Under-voltage |

Software

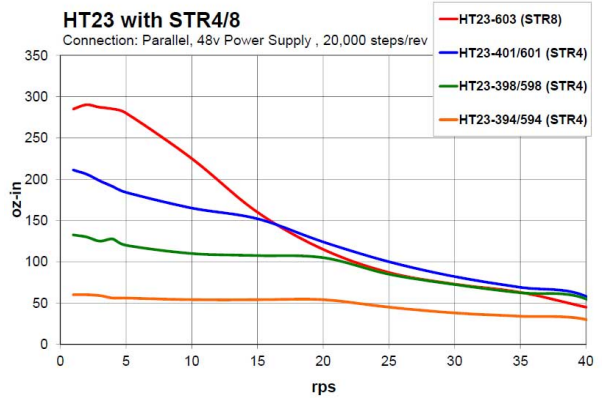
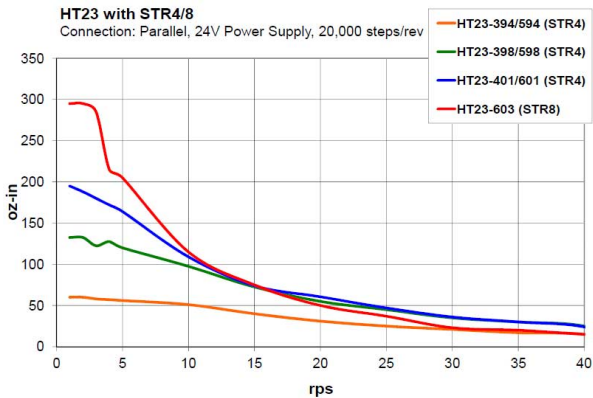
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|---------------------------|--|
| Software Downloads | There is no software related to this product. |
| Sample Code | There are no sample code documents at this time. |

Downloads

| | |
|----------------------------|---|
| Manuals | STR4-8 Hardware Manual 920-0030G.pdf STR Quick Setup Guide.pdf |
| Datasheet | STR Datasheet 925-0002.pdf |
| 2D Drawing | STR4_8_drawing.pdf ST4_8_simple_3D.pdf |
| 3D Drawing | STR4_8.igs |
| Speed-Torque Curves | STR_speed-torque.pdf |
| Agency Approvals | STR_CE_DOC.PDF |
| Application Notes | There are currently no Application Notes available for this product. |

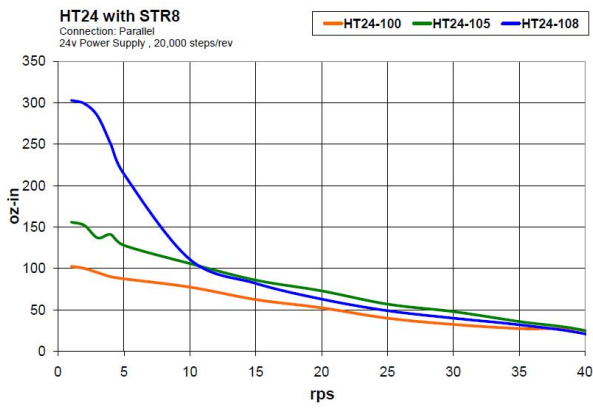


Torque Curves



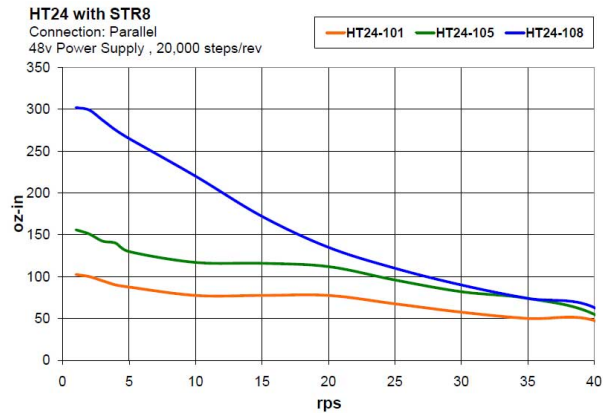
HT24 with STR8

Connection: Parallel
24v Power Supply , 20,000 steps/rev



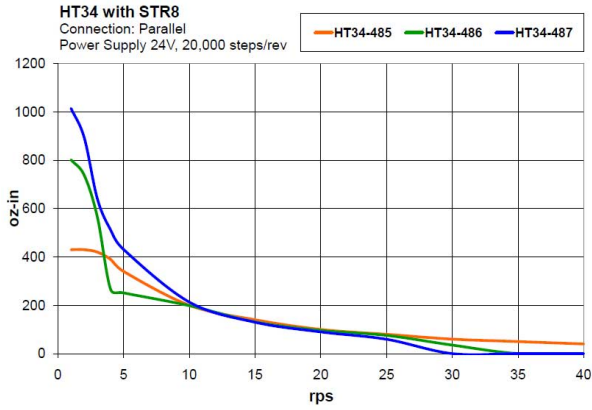
HT24 with STR8

Connection: Parallel
48v Power Supply , 20,000 steps/rev



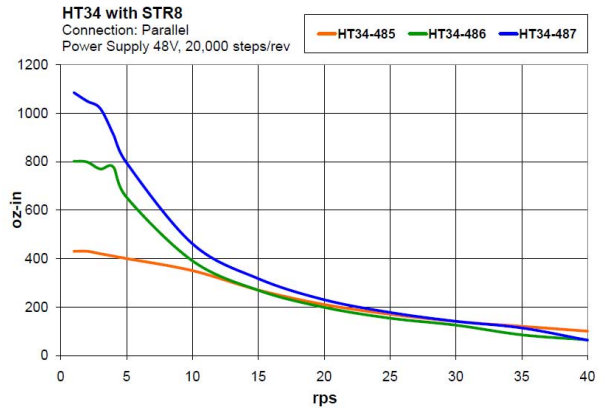
HT34 with STR8

Connection: Parallel
Power Supply 24V, 20,000 steps/rev



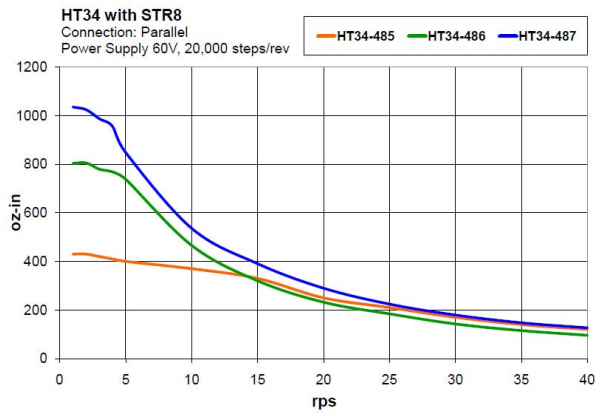
HT34 with STR8

Connection: Parallel
Power Supply 48V, 20,000 steps/rev



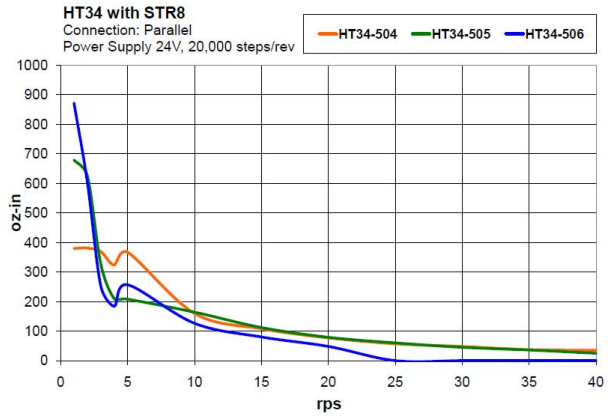
HT34 with STR8

Connection: Parallel
Power Supply 60V, 20,000 steps/rev



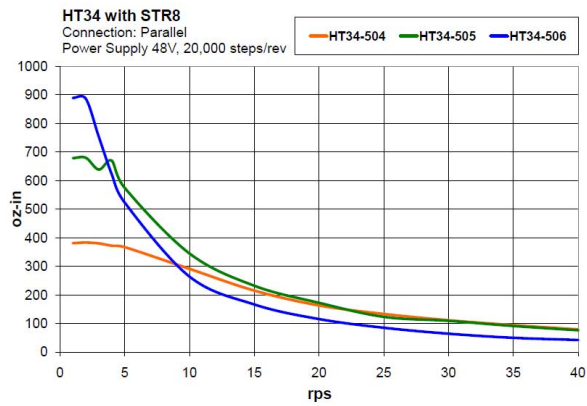
HT34 with STR8

Connection: Parallel
Power Supply 24V, 20,000 steps/rev



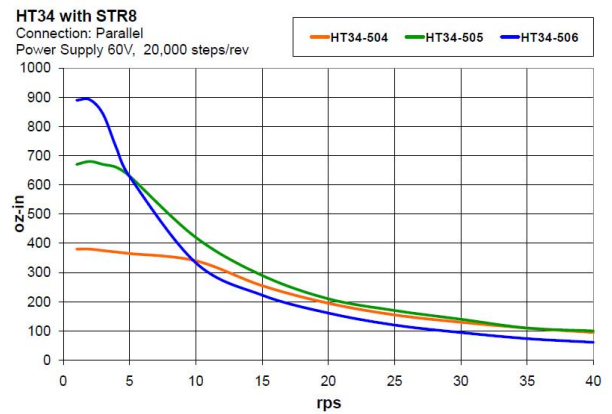
HT34 with STR8

Connection: Parallel
Power Supply 48V, 20,000 steps/rev

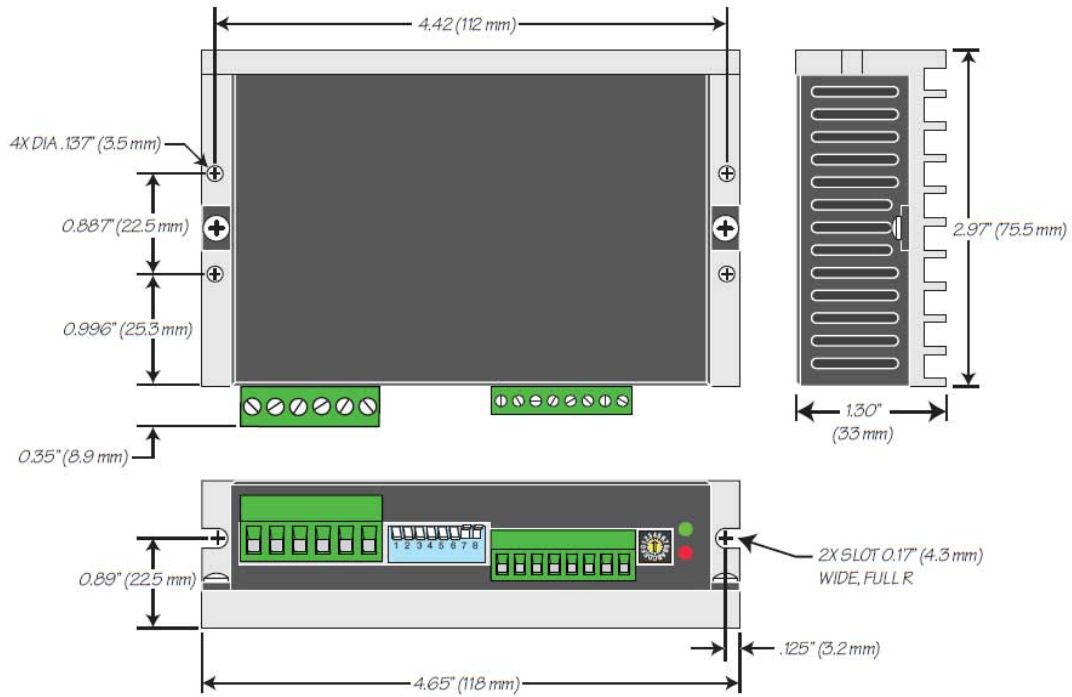


HT34 with STR8

Connection: Parallel
Power Supply 60V, 20,000 steps/rev



2D Drawings



Products in the Series *STR Stepper Drives*

| Model Number | Supply Voltage | Control Modes | Output Current | Communication Ports | Encoder Feedback | 1pc./50pc. |
|----------------------|----------------|------------------|------------------|---------------------|------------------|------------|
| STR2 | 12-48 VDC | Step & Direction | 0.3-2.2 A/Phase | NA | No | |
| STR4 | 24-48 VDC | Step & Direction | 1.12-4.5 A/Phase | NA | No | |
| STR8 | 24-75 VDC | Step & Direction | 2.35-8.0 A/Phase | NA | No | |