

## 3540i Programmable Step Motor Indexer/Drive

### Microstepping

3.5 amps, 40 VDC

#### Features

- Programmable for stand alone operation with Applied Motion's easy to use *Si Programmer™* Windows software (software and programming cable included)
- Can be operated in real time form a host PC or PLC using Applied Motion's *Si Command Language™ (SCL)*.
- Can be networked with all other *Si™* products via Applied Motion's *SiNet™* Hub
- DC bus voltage 12-42 VDC motor supply (including ripple)
- Software selectable from 0.2–3.5 amps/phase motor current
- Software selectable Step resolutions from 2,000 to 50,800 steps per revolution
- Software selectable idle current reduction 0%, 25%, 50% or 100%
- 8 user programmable inputs
- 3 optically isolated 5–24 VDC outputs
- Communication via RS232 or optional encoder/RS485 daughter board
- 140 watts of usable power
- Screw terminal connector blocks for power, motor and I/O. RJ11 for RS232 port
- MOSFET, dual H-Bridge, inaudible PWM amplifier
- 3 state, pulse width modulated current control, switching at 20–30 kHz
- Optional RS485 and encoder input board
- Optional operator terminal (MMI) either standard or backlit
- Drives 4, 6 or 8 lead size 11, 14, 17, 23 or 34 step motors
- CE and TUV compliant

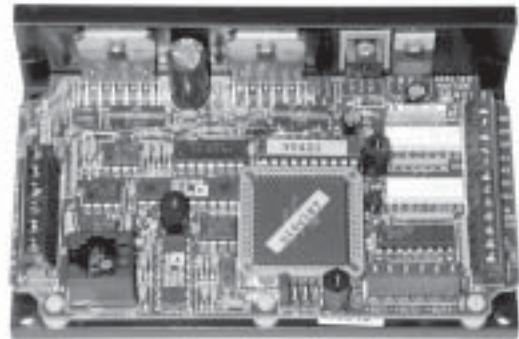
#### Description

The 3540i is a programming step motor driver suitable for a wide range of motion control applications. It includes a sophisticated controller integrated with a 140 watt microstepping amplifier.

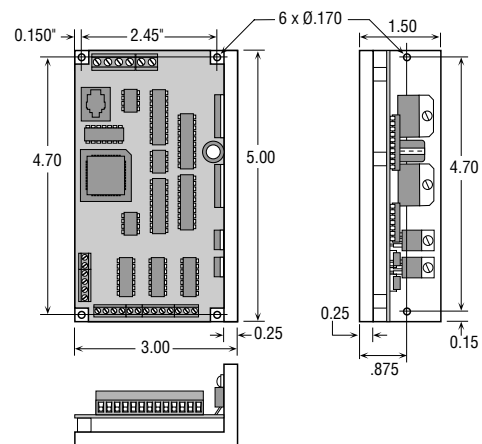
The 3540i includes Applied Motion's easy to use *Si Programmer™* Windows software for the rapid development of stand-alone motion control programs. The 3540i can also be commanded in real time from a host PC or PLC, using the *Si Command Language™*.

For multi-axis applications, up to eight Applied Motion *Si™* drives (stepper or Servo) can be networked using a single *SiNet™* Hub.

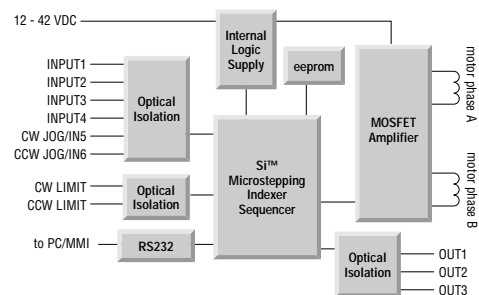
The 3540i includes 8 optically isolated programmable inputs for triggering, branching, position sensing and end of travel detection. 3 optically isolated programmable outputs can send signals to other electronic devices and activate relays.



#### MECHANICAL OUTLINE



#### BLOCK DIAGRAM



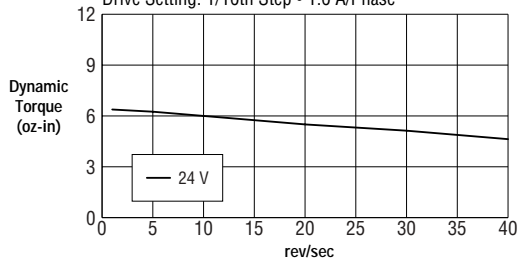
#### Recommended motors for the 3540i drive:

| Size 11  | Size 14  | Size 17  | Size 23  |
|----------|----------|----------|----------|
| HT11-012 | 5014-842 | HT17-068 | HT23-394 |
| HT11-013 |          | HT17-071 | HT23-397 |
|          |          | HT17-075 | HT23-400 |
| Size 34  |          |          |          |
| 5034-348 |          |          |          |

## 3540i Torque Curves

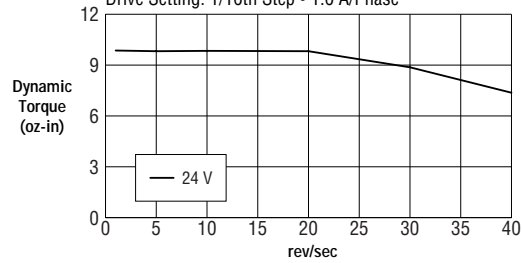
### HT11-012 MOTOR

Motor Connection: 4 Lead Bipolar  
Drive Setting: 1/10th Step • 1.0 A/Phase



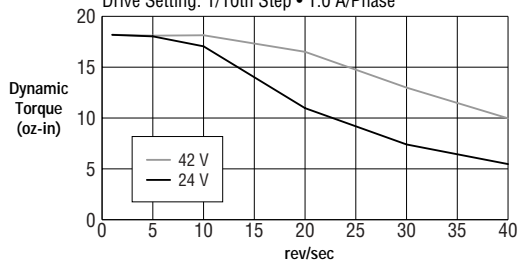
### HT11-013 MOTOR

Motor Connection: 4 Lead Bipolar  
Drive Setting: 1/10th Step • 1.0 A/Phase



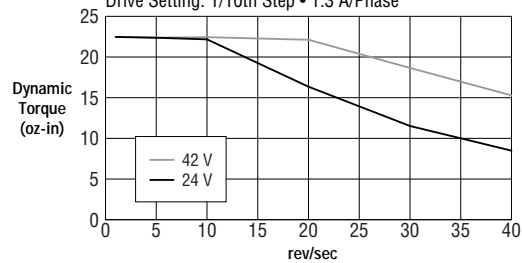
### 5014-842 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Step • 1.0 A/Phase



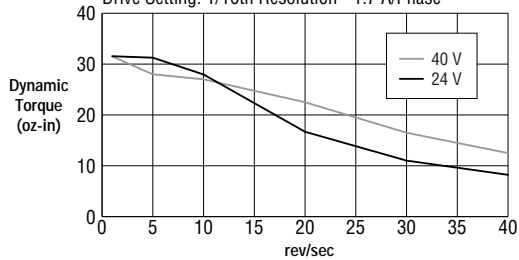
### HT17-068 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Step • 1.3 A/Phase



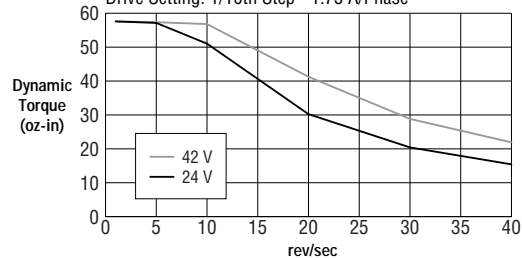
### HT17-071 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Resolution • 1.7 A/Phase



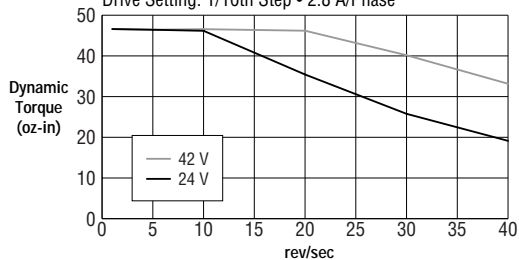
### HT17-075 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Step • 1.75 A/Phase



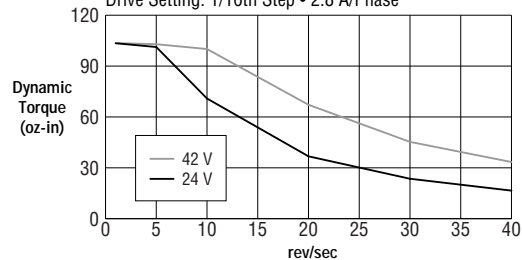
### HT23-394 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Step • 2.8 A/Phase



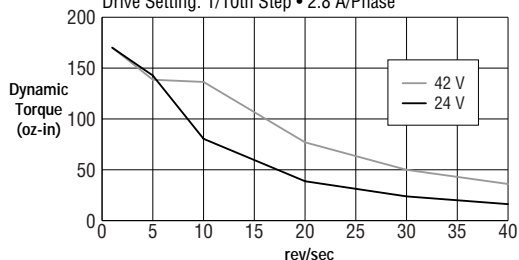
### HT23-397 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Step • 2.8 A/Phase



### HT23-400 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Step • 2.8 A/Phase



### 5034-348 MOTOR

Motor Connection: Parallel  
Drive Setting: 1/10th Step • 3.5 A/Phase

