

7080i Programmable Step Motor Indexer/Drive

Microstepping
7.0 amps, 80 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 from 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 24-80 VDC motor supply (including ripple)
- Software selectable from 0.8–7.0 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 24 VDC outputs
- Short circuit and over temperature protection
- Communication via RS232
- 560 watts of usable power
- Screw terminal connector blocks for power and motor, Wago cage clamp connector for 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 operator terminal (MMI) either standard or backlit
- Drives 4, 6 or 8 lead size 11, 14, 17, 23 and 34 step motors
- CE compliant

Description

The 7080i is a programming step motor driver suitable for a wide range of motion control applications. It includes a sophisticated controller integrated with a 560-watt microstepping amplifier.

The 7080i includes Applied Motion's easy to use *Si Programmer™* Windows software for the rapid development of stand alone motion control programs. The 7080i can also be commanded in real time from a host PC or PLC, using the *Si Command Language™*.

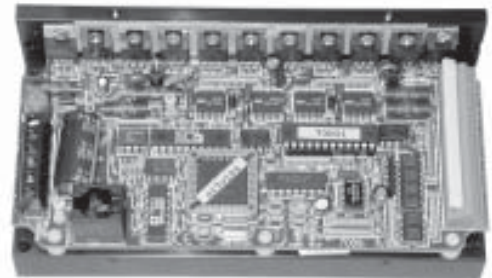
For multi-axis applications, up to eight Applied Motion *Si™* drives (stepper or Servo) can be networked using a single *SiNet™* Hub.

The 7080i includes 8 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.

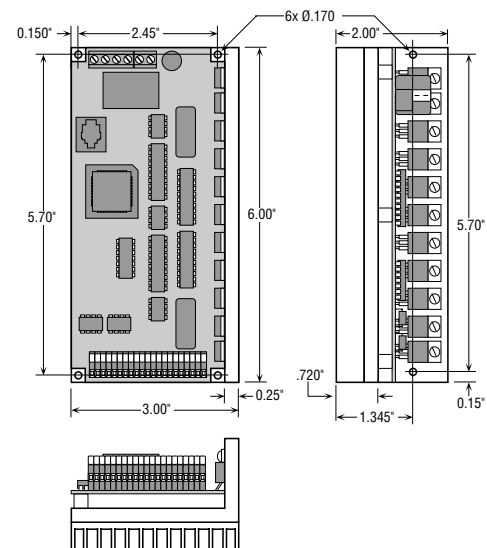
The 7080i is a PC board mounted on an aluminum angle heat transfer chassis. Drive dimensions are 2" by 3" by 6".

Recommended motors for the 7080i drive:

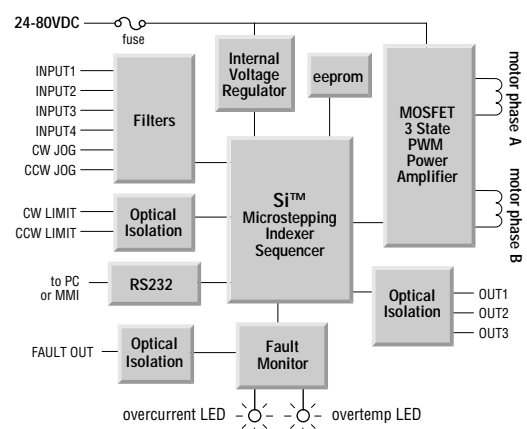
Size 17	Size 23	Size 34
HT17-068	HT23-395	HT34-474
HT17-071	HT23-398	HT34-476
HT17-075	HT23-401	HT34-478



MECHANICAL OUTLINE



BLOCK DIAGRAM

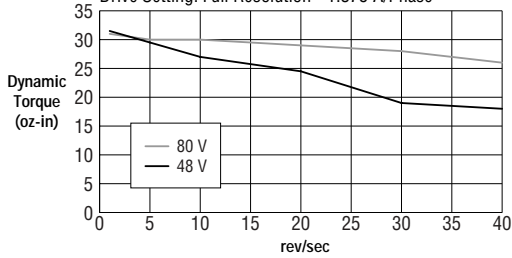


7080i Torque Curves

HT17-068 MOTOR

Motor Connection: Parallel

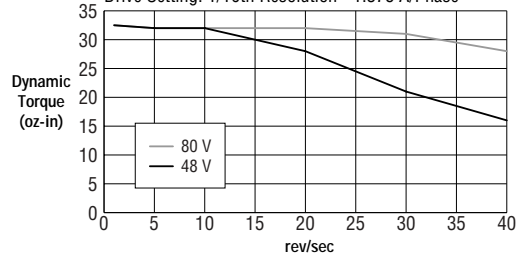
Drive Setting: Full Resolution • 1.375 A/Phase



HT17-068 MOTOR

Motor Connection: Parallel

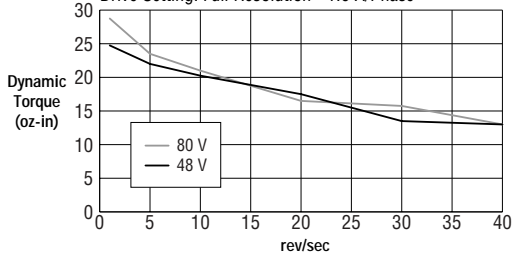
Drive Setting: 1/10th Resolution • 1.375 A/Phase



HT17-071 MOTOR

Motor Connection: Parallel

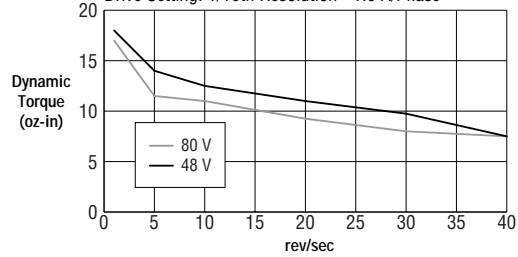
Drive Setting: Full Resolution • 1.0 A/Phase



HT17-071 MOTOR

Motor Connection: Parallel

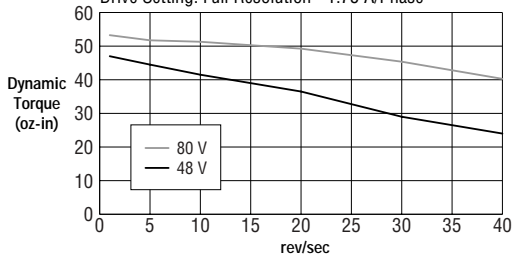
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HT17-075 MOTOR

Motor Connection: Parallel

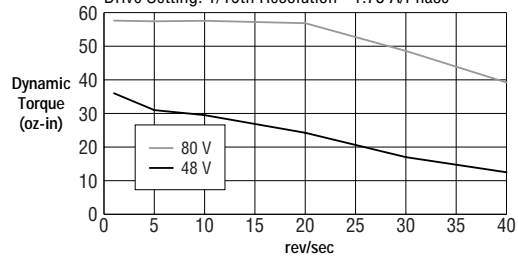
Drive Setting: Full Resolution • 1.75 A/Phase



HT17-075 MOTOR

Motor Connection: Parallel

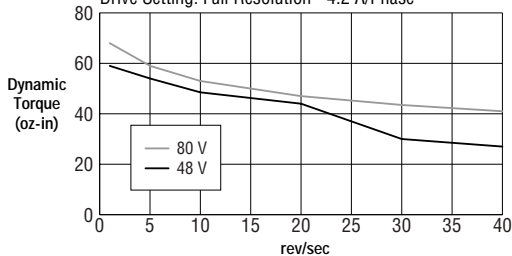
Drive Setting: 1/10th Resolution • 1.75 A/Phase



HT23-395 MOTOR

Motor Connection: Parallel

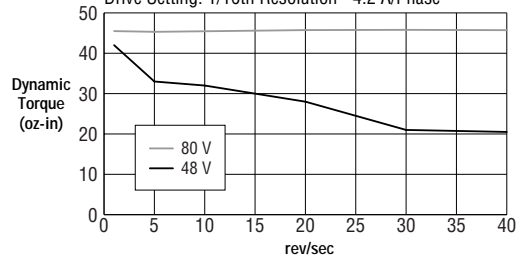
Drive Setting: Full Resolution • 4.2 A/Phase



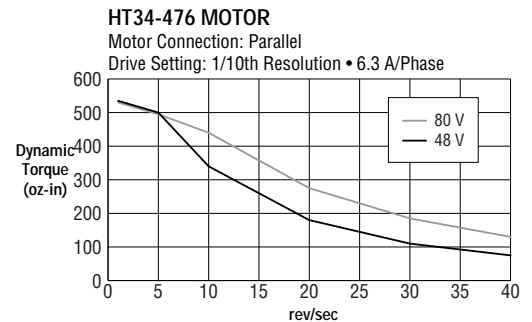
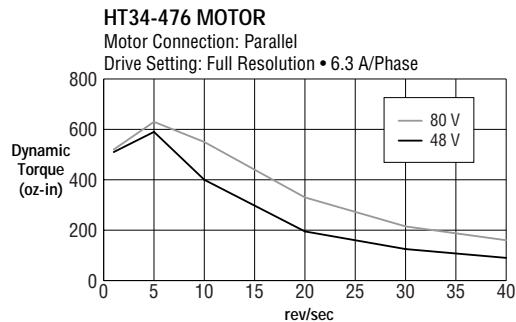
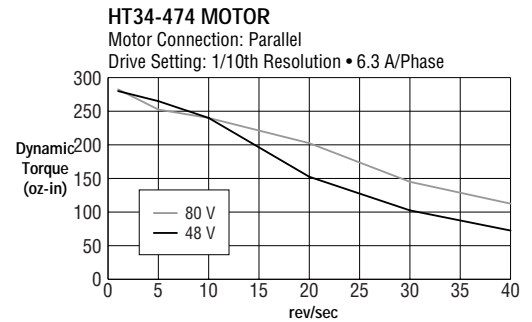
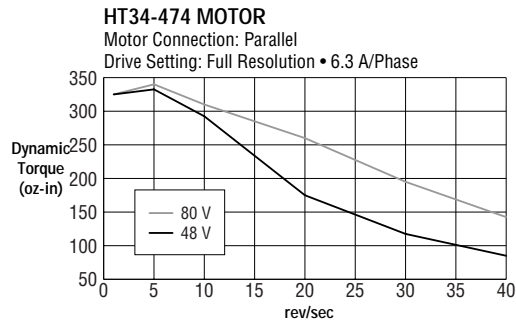
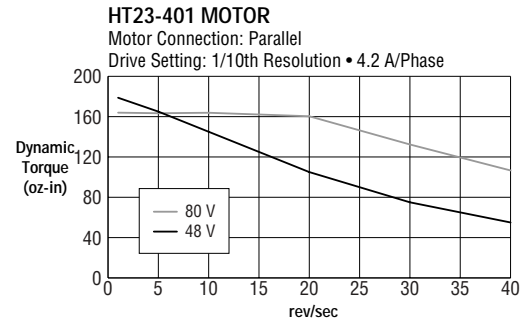
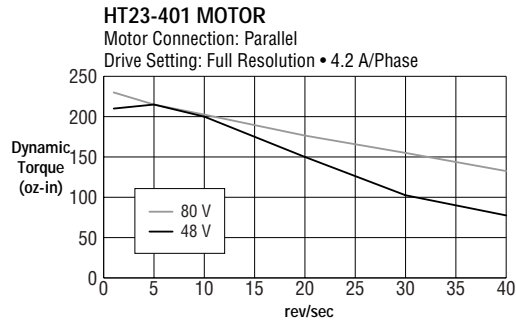
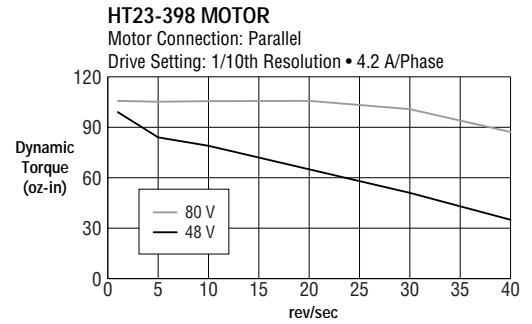
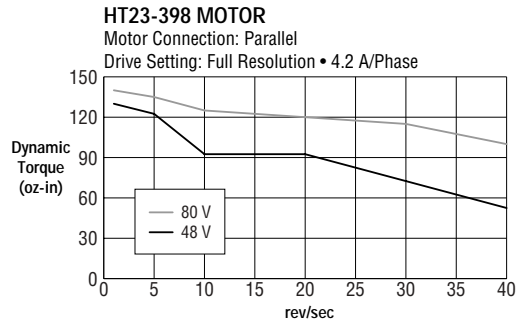
HT23-395 MOTOR

Motor Connection: Parallel

Drive Setting: 1/10th Resolution • 4.2 A/Phase



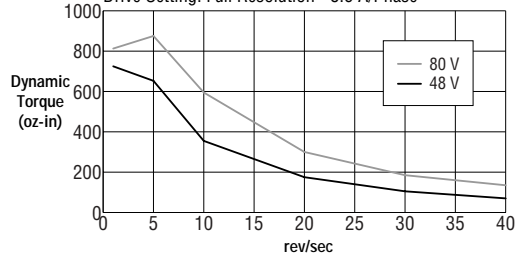
7080i Torque Curves



HT34-478 MOTOR

Motor Connection: Parallel

Drive Setting: Full Resolution • 5.6 A/Phase



HT34-478 MOTOR

Motor Connection: Parallel

Drive Setting: 1/10th Resolution • 5.6 A/Phase

