

ABB motion control products

MotiFlex e180 servo drives

The MotiFlex e180 servo drive delivers capability and performance you can depend on. It combines Ethernet technology, advanced multitasking programming and safety as standard.

The MotiFlex e180 can operate from 200 to 480 V AC three-phase with motor rms current range from 3 to 50 A servo duty.

Ethernet and motor feedback interfaces are fully integrated and optimized for demanding motion applications.

Highlights

- Wide range of motion functions
- EtherCAT®, Modbus TCP, EtherNet/IP™, and PowerLink
- Dynamic control of rotary and linear servo motors
- Safety as standard with integrated safe torque off in accordance to IEC 61800-5-2, SIL3, PL e

Applications

- Metal cutting and forming
- Printing and converting
- Laser/water-jet/textile cutting
- Rubber and plastics
- Wood working
- Textiles
- Packaging

Motion control

The MotiFlex e180 is designed to control a wide range of applications from simple point-to-point to advanced motion. Motion features include homing, indexing, change of target “on the fly”, electronic gearing, CAM profiler, flying shear and high speed position latch features for registration.

Embedded Ethernet

Ethernet support includes EtherCAT® or PowerLink for real-time control of multi-axis systems. In addition EtherNet/IP™, Modbus TCP and RAW Ethernet are supported with other controllers such as PLCs and Industrial PCs.

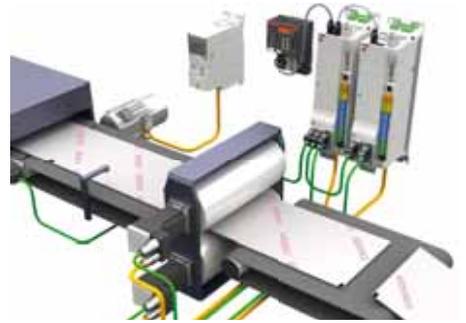
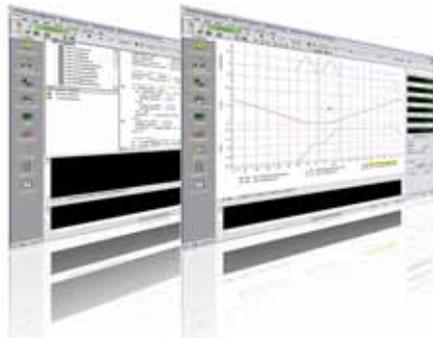
Dynamic control of rotary and linear motors

Overload modes up to 300 percent provide dynamic control of servo motors, both rotary and linear. Universal encoder interface can be simply configured by software to support a wide range of feedback types.

Memory unit

The compact memory unit stores all drive settings, parameters and application programs. It allows preparing drive settings off-site, manage functionality levels or move settings from one drive to another without PC.





Real-time control of multi-axis system with EtherCAT®

EtherCAT® connectivity offers a real-time drive control interface for advanced multi-axis systems. The drive is an ideal partner to the ABB AC500 PLC product line, providing an industry standard solution with IEC 61131 programming and PLCopen motion functions.

Advanced motion with simple and easy commissioning

Mint WorkBench PC tool offers fast and simple setup, commissioning and monitoring in a single software tool. In addition to a step by step configuration wizard, oscilloscope view and parameter handling, it also includes motion programming. For fast help and support the tool can package all data as a single file, which can be sent by email.

Motion technology fully integrated

The drive can be used as a stand alone single axis machine controller. Mint programming and Ethernet connectivity combined with on board I/O and HMI connectivity is offering a cost competitive solution in typical motion applications.

Integrated Ethernet

Software selectable protocol including:

- EtherCAT® (slave)
- PowerLink (CN)

Feedback options

- Serial encoder + Sin/Cos (1Vpp)
 - EnDat, SSI, BiSS, SmartAbs, Hiperface
- Resolver
- Incremental encoder (A,B,Z channels + Halls)
- DSL

Incremental encoder input

- Dual loop or line shaft functions

Simulated encoder output

Motor thermal PTC (isolated)

24 V control supply

- Maintain communications and position with AC power removed



Memory unit

- Firmware, settings and functionality level
- Easy drive swap out

Other features

- 7 segment display alarm/status
- 2 x hex switches for node ID
- 2 x DIP switches comms functions

Ethernet commissioning

- Modbus TCP (server/client)
- EtherNet/IP™

2-channel safe torque off, SIL3, PL e

I/O features

- 2 x fast latch inputs
- 6 x DI
- 4 x DO
- 2 x AI (12 bit, +/-10 V)
- 1 x AO (12 bit, +/-10 V)
- 1 x Relay out 1 x c/o 250 V AC / 30 V DC, 2 A

For more information please contact your local ABB representative or visit:

- www.abb.com/motion
- www.abb.com/drives
- www.abb.com/plc
- www.abb.com/drivespartners
- www.abb.com/motors&generators

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