ABB motion control drives
MicroFlex e100

The MicroFlex e100 servo drives combine real-time Ethernet POWERLINK technology, advanced motor control and single-phase operation in a compact package.

The MicroFlex e100 can operate from 105 to 250 V AC single or three-phase and is available in multiple current/ power ratings.

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

Integrated Ethernet technology

The MicroFlex e100 servo drive is designed to control a wide range of motion applications from simple point-to-point motion to more complex applications. POWERLINK offers real-time control of many axes and Modbus TCP and Ethernet RAW offer a wide variety of control possibilities with PLCs, industrial PCs and other controllers.

Advanced servo motor control

The drive provides dynamic control of brushless servo motors, both rotary and linear. A universal encoder interface (UEI) provides support for TTL incremental encoders (with or without Halls), 1V pk-pk SinCos, BiSS, SSI, EnDat 2.1 and 2.2 simply by software configuration.

Programmable as standard

The MicroFlex e100 is an intelligent drive, offering Mint programming as standard. Mint is tailored for motion applications, providing multitasking control of communications, logic, motion and HMI interaction in a powerful yet simple programming language. Motion features include homing, indexing, change of target 'on the fly', and dual 1µs position latch inputs for registration functions.

e100 family of real-time Ethernet control products

The NextMove e100 is a powerful motion controller which integrates management of a real-time Ethernet network of Drives, I/O devices, sensors, absolute encoders. Combined with MotiFlex e100 and MicroFlex e100 drives, e100 products greatly simplify system design and installation while providing high performance control.

PC tool offers simple and intuitive 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 graphing, parameter view/edit/compare it also includes motion programming, integrated help and a tool to package a single concise email to streamline technical support when you need it.
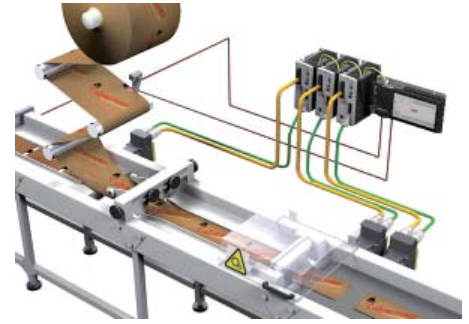
Motion technology fully integrated

The MicroFlex e100 drives can be used as a stand alone single axis machine controller, fully programmable in Mint and with Ethernet connectivity combined with on board I/O and serial port for a simple HMI interface. In all a very cost competitive solution to simple single axis applications requiring cut to length, infeed control, or point-to-point positioning.

Ethernet - POWERLINK and TCP/IP

- Integrated 2-port hub - ease of connection
- Real-time Ethernet performance
- TCP/IP mode of operation (non real-time)
- ActiveX support for TCP/IP communications

AC servo - 1-phase or 3-phase

- 105 to 250 V AC 50/60Hz
- AC servo motors, rotary and linear
- 3, 6 and 9 A rms with 200% for 3 s
- One IP20 frame size: 180 x 80 x 157 mm (H x W x D)/1.5 kg
- Fanless operation < 4 A rms @40 °C
- Space saving footprint EMC filter to meet IEC 61800-3 category 2

Drive I/O - opto-isolated

- Drive enable input
- 2 x fast inputs 1µs latency ideal for registration
- 1 x additional input
- 2 x digital outputs (eg. motor brake control)

24 V DC supply to maintain position and communications

Motor feedback - universal encoder

- Incremental encoders with/without Halls
- Absolute single/multiturn BiSS and SSI
- EnDat 2.1/2.2 absolute encoders
- 1wV SinCos encoders
- Tamagawa absolute encoders

CANopen Port - simple expansion

- CANopen network manager
- Expand the system I/O via the drive
- Isolated CAN interface

Status LEDs - node ID and USB

- Power/health status
- CANopen and Ethernet communications

USB and serial - communications

- USB for configuration and customer PC
- Application interfaces (supported by free ActiveX components)
- RS485 serial for PLC, HMI or other device communications (2 wire)

Mint Lite - simple motion programming

- Powerfull Mint multitasking software
- Motion capability including linear motion, indexing, tuning, registration and more
- HMI, communications and logic handling

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

www.abb.com/motion
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