DATASHEET

MicroFlex e190 servo drive

One drive, many possibilities.

MicroFlex e190 is a compact high-performance servo drive, reimagined for future machine designs.

MicroFlex e190 embraces all major motor feedback types, together with selectable Ethernet technologies. Its versatility provides a migration path for existing designs and future network-centric automation solutions.

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01 MicroFlex e190 servo drive

One drive, many possiblities
MicroFlex e190 is designed to carry today's control designs into the future. By supporting PTO and analog control, it provides flexible options for existing or legacy applications as well as a migration platform to Ethernet based control and 'IoTSP ready' machine designs through integrated Ethernet:

- EtherCAT® and Powerlink
- EtherNet/IP™
- Modbus TCP
- PROFINET IO

Rethining usability
MicroFlex e190 breaks the mould of similar products by rethinking usability throughout the product life cycle. MicroFlex e190 introduces a simpler approach to selection, installation, operation and maintenance.

Small improvements that all add up
MicroFlex e190 adds numerous improvements to the MicroFlex series, such as side by side flush mounting and a removable memory unit to prepare drive settings off-site or move settings from one drive to another. MicroFlex e190 supports all major Ethernet protocols (software selectable).

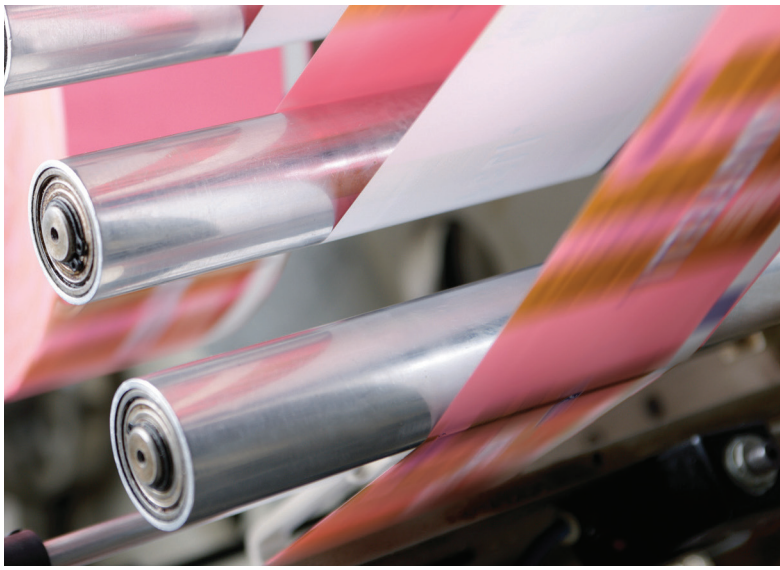
Absolute precision and performance
When matched with e-Series servo motors MicroFlex e190 provides highly dynamic acceleration through 300% peak torque, with high resolution feedback as standard for absolute performance and productivity.

Powerful motion option
With features such as a second encoder input, an encoder output, and optional motion programming, applications such as electronic gearing, CAM, flying shear, labelling and registration control can easily be implemented without the use of an external controller, making it far more versatile than other drives in its class.

Technical data

Type Code	ABB Part Number	300% Cont/**Peak** A rms	200% Cont/**Peak** A rms
MFE190-04UP-01A6-2+N8020	3AXD50000038806	1.6 / **4.8**	1.6 / **3.2**
MFE190-04UP-03A0-2+N8020	3AXD50000038570	2.5 / **7.5**	3 / **6**
MFE190-04UP-06A0-2+N8020	3AXD50000038571	5.25 / **15.75**	6 / **12**
MFE190-04UP-09A0-2+N8020	3AXD50000038572	7.5 / **22.5**	9 / **18**

Operating voltage	200...240 V AC ±10%



Simple mounting
- 2 x key-hole

PE connection for AC supply

AC power 1 ph or 3 ph
- 180 - 264 V AC 50/60 Hz

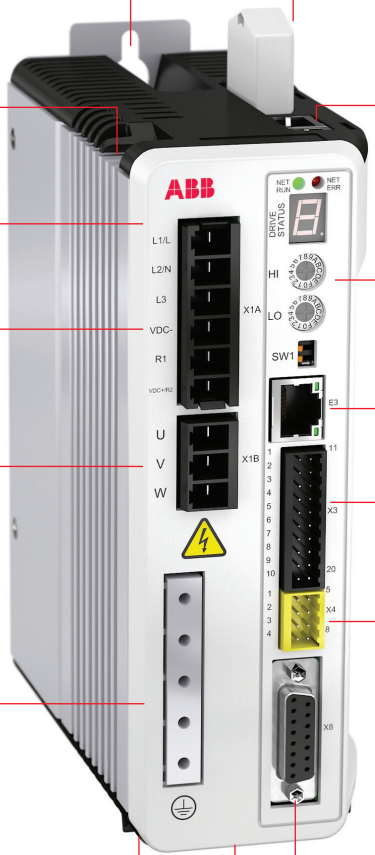
DC bus connection and Braking resistor connection

Separate motor power
- Ease of wiring
- Easy to isolate the motor during startup/service

EMC / PE plate
- Shield bonding
- Motor PE

24 V control supply
- Maintain communications and position with AC power removed

Simulated encoder output/2nd incremental encoder input
- electronic gearing (line-shaft) or dual-loop feedback operation



Memory unit
100% backed-up - Configuration, firmware, and motion programming

Real-time Ethernet
- 2 x Ethernet connections with LED indicators for EtherCAT® or POWERLINK

Status / Node ID
- 2 x LED Network status/Error
- 7 segment status display
- 2 x hex switches for node ID / protocol

Ethernet (non-real-time)
- Port for drive commissioning
- Modbus TCP (server/client)
- EtherNet/IP™
- PROFINET IO

Digital and analog I/O
- 4 x DI, 3 x DO, 1 x AI, 1 x AO
- including 2 x latch inputs for position registration <1 µs latency
- Expandable via OPT-SIO-1 to a total of 10 x DI, 6 x DO, 2 x AI, 1 x A0 + serial port 2 wire RS485 or 4 wire RS422

STO PLe SIL 3
- daisy chain and pulse tolerance
- allows removal of STO leaving main I/O in-place for system testing

Universal encoder interface
- Incremental (ABZ) + Halls
- 1 V SinCos, SSI, BiSS, EnDat 2.1/2.2
- Smart Inc/Smart Abs and Hiperface
- 5 V/8 V selectable encoder supply
- Resolver support via adapter OPT-MF-201

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