

# MIP 10

The complete system for DC motors up to 50 watts



## Applications

- Test, evaluation and training
- Work equipment and examination equipment manufacturing
- Small series manufacturing

## Order Number

- |        |                            |
|--------|----------------------------|
| 111091 | MIP 10 set (incl. cable)   |
| 108971 | MIP 10 set (without cable) |

## Characteristics

- Easy and fast start-up procedure
- All cables included
- Supply voltage 9 - 24 VDC

DIGITAL

RS485

RS232

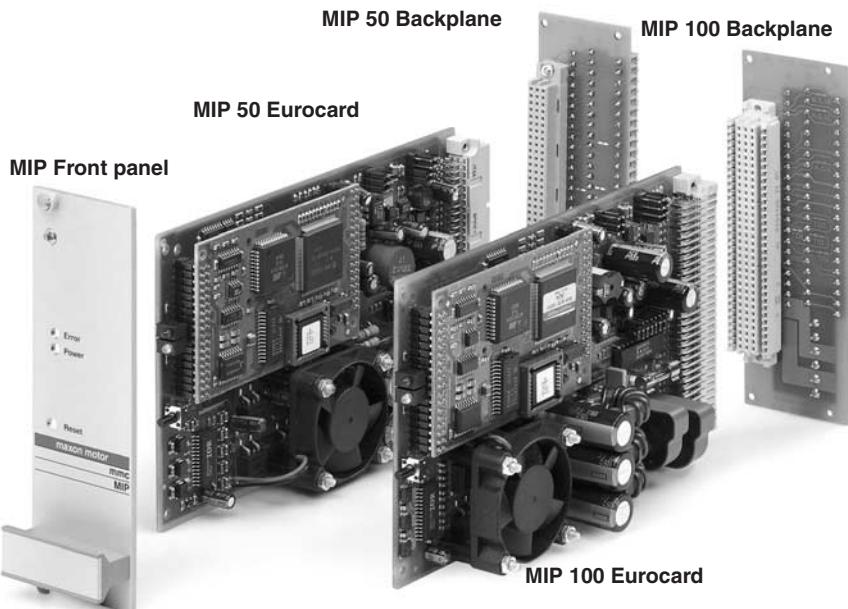
GUI

## Technical Data

- Operating voltage 9 - 24 VDC
- Max. output current  $I_{max}$  2 A (5 s)
- Continuous output current  $I_{cont}$  1.8 A
- Switching frequency 60 kHz
- Built-in motor choke per phase 1 mH
- Current limit digital adjustable
- Current resolution 5 mA
- Sample rate of PI-current controller 8 kHz
- Sample rate of PID-positioning control 1 kHz
- Max. speed 65 000 rpm
- I/O level max. 24 V
- I/O logic configurable by Jumper
- Digital inputs (ESD protected):  
STOP, Enable, Reference, Limit  
cw / ccw and 8 standard inputs
- Analog inputs (ESD protected): 2 x 0 ... 5 VDC
- Encoder input 1 x incremental encoder / RS422  
(5 V, channels A, A\, B, B\, I, I\)
- Max. input frequency 250 kHz
- Digital outputs: Error and 4 standard outputs  
24 V-switching max. 100 mA each  
GND-switching total 450 mA
- Other outputs 1 x PWM (50 kHz), freely adjustable
- Interface RS232 & RS485 (max. 57 600 Baud)
- Operating temperature 0 ... 40°C
- Housing Metal, 132 x 114 x 31 mm
- Connector 3 x 9 poles DSUB  
(COM, Encoder, Power / Motor)  
1 x 25 poles DSUB (I/O)

# MIP 50 / 100

The modular solution for DC and EC motors up to 500 watts



## Applications

- Machine tool industry
- Work equipment and examination equipment manufacturing
- Small and large series manufacturing

## Order Number

- |        |                             |
|--------|-----------------------------|
| 200640 | MIP front panel (3HE / 8TE) |
| 200629 | MIP 50 eurocard             |
| 199950 | MIP 50 backplane            |
| 246244 | MIP 100 eurocard            |
| 245963 | MIP 100 backplane           |

## Characteristics

- To be installed in a 19"-subrack or in a plug-in card system
- Networks of up to 64 drives are possible by RS485 interface
- Complex digital inputs and outputs, configurable to high- or low-active logic

DIGITAL

RS485

RS232

GUI

## Technical Data

- Operating voltage MIP 50 24 - 48 VDC  
MIP 100 24 - 48 VDC
- Max. output current  $I_{max}$   
MIP 50 11 A (5 s), 13 A (200 ms)  
MIP 100 15 A (5 s), 20 A (200 ms)
- Continuous output current  $I_{cont}$   
MIP 50 5 A  
MIP 100 10 A
- Switching frequency 60 kHz
- Built-in motor choke per phase MIP 50 3 x 0.16 mH  
MIP 100 none (min. 3 x 0.09 mH)
- Current limit digital adjustable
- Current resolution MIP 50 15 mA  
MIP 100 45 mA
- Sample rate of PI-current controller 8 kHz
- Sample rate of PID-positioning control 1 kHz
- Max. speed (motor with 2 poles) 65 000 rpm
- I/O-level max. 24 V
- I/O-logic configurable by Jumper
- Digital inputs (ESD protected):  
STOP, Enable, Reference, Limit  
cw / ccw and 8 standard inputs
- Analog inputs (ESD protected):  
MIP 50 2 x 0 ... 5 VDC  
MIP 100 1 x 0 ... 5 VDC
- Encoder input 1 x incremental encoder / RS422  
(5 V, channels A, A\, B, B\, I, I\)
- Max. input frequency 250 kHz
- Digital outputs: Error and 6 standard outputs  
24 V-switching max. 100 mA each  
GND-switching total 450 mA
- Other outputs 1 x PWM (50 kHz), freely adjustable
- Interface RS232 & RS485 (max. 57 600 Baud)
- Operating temperature 0 ... 40°C
- Version single eurocard 3HE / 8TE
- Connector, DIN41612-connector, type C  
MIP 50 96-Pin  
MIP 100 160-Pin