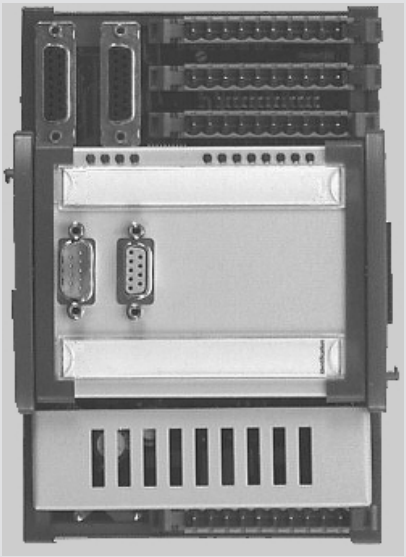

MC 100

Intelligent
CAN BUS Servo Controllers

MC100-1
1 brushless DC motor with hall and/or resolver interface

Output 300 Watts

MC100-2
2 brushed DC motors

Output 2 x 300 Watts

Motor voltage up to 75 V DC

PROFILE
The MC 100-1, MC 100-1R and MC 100-2 modules from the Berghof CANtrol series are intelligent servo controllers.
The MC 100-1 with Hall interface and the MC 100-1R with resolver interface each control a brushless DC motor with up to 300 Watts.

The MC 100-2 controls two brushed DC motors up to 300 Watts per motor.

The module technology is based on a digital signal processor (DSP) specially designed for driving tasks. With CANbus capability, slimline construction and a snap-on assembly facility, the intelligent CANbus servo controllers are excellently suited to distributed drive concepts.

DESCRIPTION
The MC 100-1, MC 100-1R and MC 100-2 servo controllers are designed for voltages of up to 75 VDC with a peak current of 12 A and a constant current of 6 A.

Messages are reported for target position reached, status modifications, contouring errors, digital I/O status and limit violations.

The cyclically transmitted dynamic data concerning position and speed permit user-friendly axis control and optimisation. They make possible on-the-fly switching between different target trajectories and ramps between positioning and speed modes, automatic ramping up/down and/or running reversal, according to target position and ramp.

Features

- CAN Bus interface
- Firmware loadable via CAN or serial interface
- Overtemperature protection
- Watchdog function
- 6 digital inputs
- 2 digital outputs
- 3 analog inputs
- 10 programmable ramps (trapezoidal, triangular, slide, S-curve)
- Programmable failure functions
- Programmable event messages (limit violations, final position reached, change of status, ...)
- Programmable markers (position events, messages, functions, ...)
- Cyclic transmission of axis data (optimisation, performance tests, statistics)

Configuration, parameterisation, operation
Via PC and P-open software tools using CAN, SIO or Ethernet (with CEDIO 16/16-0,5).

Current Supply and Connectors
The module's supply voltage is 24 VDC. The motor power supply (<75 VDC) is isolated from the module supply.
The I/O connectors are designed for 3 wire front connection.

There is a choice of three connector types: screwing, crimping and cage-clamp connectors.

LEDs on the front panel provide information on the I/O status and module operating state. I/O channels can be clearly identified using insertable labelling strips.

TECHNICAL DATA

DIEMENSIONS, WEIGHT, ETC.

LxHxD measurements (mm)
124 x 170 x 85,5
(butt dimensions B 113/118,5)

Weight
ca. 1000 g

Working temperature range
5 °C bis 40 °C; no condensation

Prodective system
IP 20

Assembly
Mounting rail NS 35/7,5 (EN 50022)

VOLTAGE, CURRENT

Module supply
24 V_{DC}; approx. 0,5 A

Motor voltage
< 75 V_{DC}; 6 A

Electrical isolation
Between CANbus, digital I/O and motor supply

DIGITAL INPUTS AND OUTPUTS

6 x digital IN
24 V_{DC} polarised, limited voltage

2 x digital OUT
24 V_{DC} max. 0,5 A; short-circuit proof, voltage-limited

Connectors
3-conductor technology; connectors with threaded terminal end, elastic force terminal or crimp terminal

OPERATION DISPLAY COMPONENTS

4 modul-status LED
Module functions

8 status LED
Status of I/O channels

PARAMETERISATION

VIA CANbus
with Tools CNW/ E-Tool for MC 100

Configuration
CNW/ CPRDC configuration software

INTERFACES

CANbus
9-pin MIN-D (plug/socket)

Serial
9-pin MIN-D (socket) for configuration tools

E-Bus
for local expansion via P-open modules

Interfaces
(2 x 15-pin Min-D (socket)

MC 100-1 encoder-/hall interface
MC 100-1R resolver interface
MC 100-2 2 x encoder

ORDERING DATA

Type		Order-No.
MC 100-1	for connection of 1 brushless DC-motor, max. 300 W	**9407 704 00001**
MC 100-1R	for connection of 1 brushless DC-motor, max. 300 W CAN CAL/CANopen-Protocol Program memory: FLASH on board	**9407 704 00011**
MC 100-2	for connection of 2 brushed DC-motors, max. 300 W	**9407 704 00021**

ACCESSORIES

Description	Order-No.
18-pole screw terminal strip Phoenix type FRONT-MSTB 2,5/10 ST-5,08	**9407 799 00001**
10-pole screw terminal strip Phoenix type FRONT-MSTB 2,5/10 ST-5,08	**9407 799 00021**
CANbus cable for connecting CANbus modules, standard length 5 m	**9407 800 90041**
CANbus termination resistor with plug	**9407 800 90021**

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