Motion Controllers

V2.5, 4-Quadrant PWM
with RS232 or CAN interface

MCDC 3006 S

Values at 22°C		MCDC 3006 S	
Power supply electronic	U_B/U_{EL}	12 ... 30	V DC
Power supply motor [1]	--/U_B	0 ... 30	V DC
PWM switching frequency	f_{PWM}	78,12	kHz
Efficiency electronic	η	95	%
Max. continuous output current	I_{cont}	6	A
Max. peak output current [2]	I_{max}	10	A
Standby current for electronic (at U_B=24V)	I_{el}	0,06	A
Operating temperature range		-40 ... +85	°C
Housing material		zinc, black coated	
Mass		160	g

[1] Only available for option 3085 (separate power supply)
[2] S2 mode for max. 9s

Interfaces	MCDC 3006 S RS	MCDC 3006 S CO
Interface	RS232	CAN (CiA)
Protocol	FAULHABER - ASCII	CANopen

Basic features

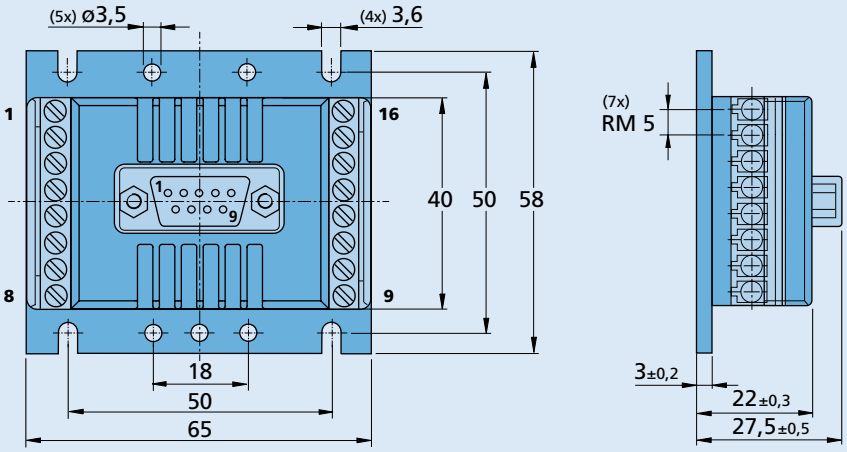
- Operation of brushed DC-Micromotors
- Supported sensor systems: incremental encoders
- Positioning resolution per revolution depending on the used encoder type
- Max. 5 digital inputs, max. 1 digital output, 1 analog input. Not all I/Os available depending on wiring
- Setpoint specification via fieldbus, quadrature signal, pulse and direction or analog inputs
- Optional stand-alone operation via application programs with the RS232 interface version

Range of functions

Operating modes (RS Versions)	Position, speed and torque control with setpoint specification via interface or analog. Position control with Gearing Mode or stepper motor operation. Operation as Servo Amplifier in voltage controller mode
Operating modes (CO Version)	Profile Position Mode (PP), Profile Velocity Mode (PV), Homing Mode.
Speed range	5 min^{-1} ... 30 000 min^{-1}
Application programs	Available in versions with RS232 interface
Additional functions	Overload protection for electronics and motor, self-protection from overheating, over-voltage protection in generator mode.
Indicator	Trace as logger
Motor types	Brushed DC-Micromotors with incremental encoders

Dimensional drawing

Scale reduced



MCDC 3006 S

Options and connection information

Example product designation: **MCDC 3006 S RS 3085**

Option	Type	Description
3085	Supply	Separate power supply for motor and electronics

Connection

No.	Function	No.	Function
1	TxD / CAN_H	9	5. In
2	RxD / CAN_L	10	4. In
3	AGND	11	Ch A
4	Fault	12	Ch B
5	AnIn	13	U_{CC}
6	U_B	14	SGND
7	GND	15	Mot +
8	3. In	16	Mot -

D-SUB connector

RS-232		CAN	
No.	Function	No.	Function
2	RxD	2	CAN_L
3	TxD	3	GND
5	GND	5	-
7	-	7	CAN_H

Note: For details on the connection assignment, see device manual MC.

Product combination

DC-Motors

1741 ... CXR
2224 ... SR
2230 ... S
2232 ... SR
2233 ... S
2237 ... CXR
2342 ... CR
2642 ... CR
2642 ... CXR
2657 ... CR
2657 ... CXR
2668 ... CR
3242 ... CR
3257 ... CR
3272 ... CR
3863 ... CR
3890 ... CR

Cables / Accessories

To view our large range of accessory parts, please refer to the „Accessories“ chapter.