Motion Controllers

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

MCBL 3006 S AES

Values at 22°C		MCBL 3006 S AES	
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	MCBL 3006 S AES RS	MCBL 3006 S AES CO
Interface	RS232	CAN (CiA)
Protocol	FAULHABER - ASCII	CANopen

Basic features

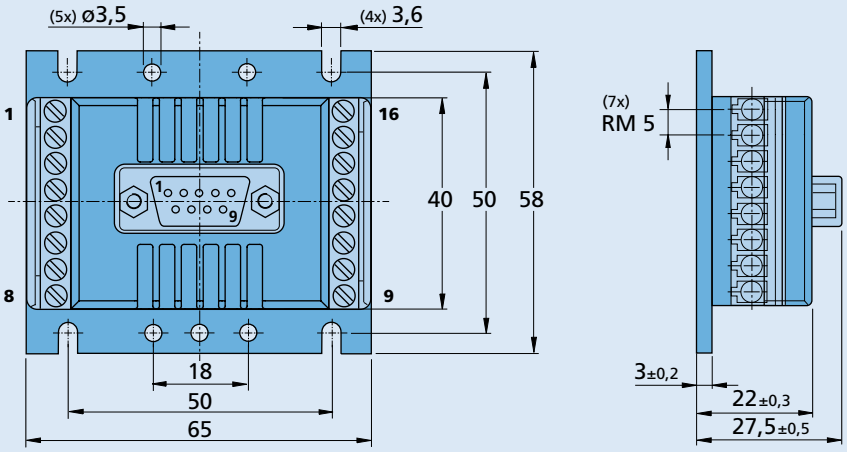
- Supported sensor systems: single-turn absolute encoders
- Positioning resolution when using absolute encoders as position encoder: 4096 steps per revolution
- Max. 3 digital inputs, max. 1 digital output, 1 analog input. Not all I/Os available depending on wiring
- Setpoint specification via fieldbus, 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 for brushless motors with number of pole pairs 1	5 min^{-1} ... 30 000 min^{-1} (with sinus commutation)
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	Brushless DC-motors with absolute encoders and number of pole pairs 1 or 2

Dimensional drawing

Scale reduced



MCBL 3006 S AES

Options and connection information

Example product designation: **MCBL 3006 S AES RS 3085**

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

Connection

No.	Function	No.	Function
1	TxD / CAN_H	9	Sensor A / DATA
2	RxD / CAN_L	10	Sensor B / $\overline{CS}$
3	AGND	11	Sensor C / CLK
4	Fault	12	U_{CC}
5	AnIn	13	SGND
6	U_B	14	Motor A
7	GND	15	Motor B
8	3. In	16	Motor C

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

Brushless DC-Motors

2232 ... BX4
2250 ... BX4
3242 ... BX4
3268 ... BX4

Cables / Accessories

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