

MC 3001 C RS/CO AEMT

V3.0, 4-Quadrant PWM
 with RS232 or CANopen interface
 for multi-turn encoder AEMT-12/16 L

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Values at 22°C		MC 3001 S RS/CO	DC/BL/LM
Power supply	U_P	6 ... 30	V DC
PWM switching frequency	f_{PWM}	100	kHz
Efficiency electronic	η	95	%
Max. continuous output current	I_{cont}	1.4	A
Max. peak output current ¹⁾	I_{max}	5	A
Standby current for electronic (@ $U_P = 24V$)	I_{el}	0.04	A
Operating temperature range		-40 ... +85	°C
Mass		90	g

¹⁾ $I_{cont} = 2.1A @ U_{mot} = 12V$, $I_{cont} = 1.3A @ U_{mot} = 24V$

²⁾S2 mode for max. 2s

Interfaces	MC 3001 S RS/CO
Configuration from Motion Manager 6.7	RS232 / CANopen / USB
Fieldbus	RS232 / CANopen

Basic features

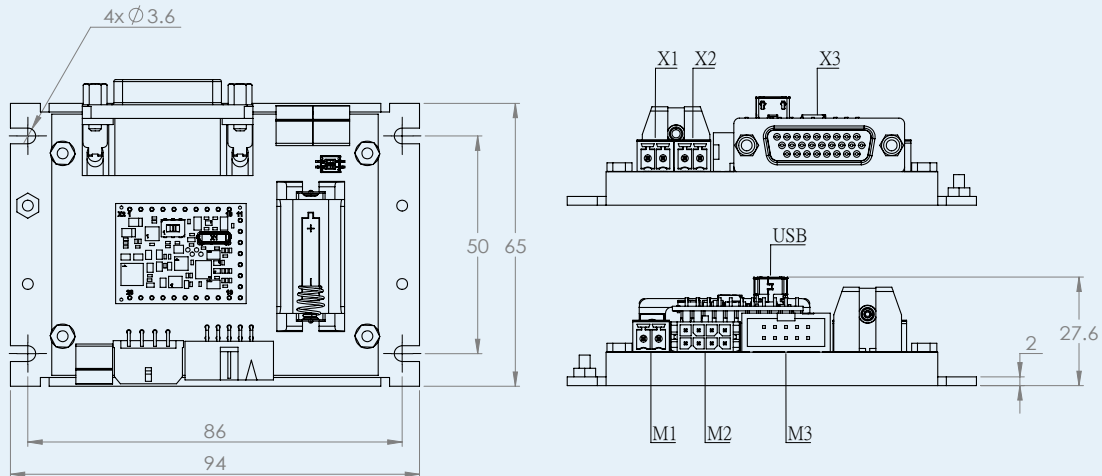
- Control of brushless motors
- Supported sensor systems: Multi-turn absolute encoders, Hall sensors (digital)
- 3 digital inputs, 2 digital outputs, 2 analog inputs, flexible configuration
- Setpoint specification via fieldbus, quadrature signal, pulse and direction or analog inputs
- Optional stand-alone operation via application programs in all interface versions
- If the power supply fails or is switched off, the AEMT-12/16L multi-turn encoder automatically switches to a battery mode with greatly reduced energy consumption.
- In combination with a suitable backup battery board ensures that the multi-turn functionality of the encoder is temporarily maintained.
- In addition to the buffer function, the board also contains a preset connection for resetting the revolution counter when commissioning or during maintenance work.
- For details on the functionality, see the technical manual of the AEMT-12/16 .
- NOTE: The battery is included in the delivery contents of the board. Recommended battery types: SL-350, ER 14259, LS 14250.

Range of functions

Operating modes	PP, PV, PT, CSP, CSV, CST and homing acc. to IEC 61800-7-201 or IEC 61800-7-301 as well as position-, speed- and torque control via analog setpoint or voltage controller
Speed range for brushless motors with number of pole pairs 1	0 min ⁻¹ ... 30 000 min ⁻¹ with sinusoidal commutation (optionally to 60 000 min ⁻¹ with block commutation)
Application programs	Max. 8 application programs (BASIC), one of which is an autostart function
Additional functions	Touch-probe input, connection of a second incremental encoder, control of a holding brake
Indicator	LEDs for displaying the operating state Trace as recorder (scope function) or logger
Motor types	Brushless motors

Dimensional drawing (version B - DC Brushless Servomotor)

Scale reduced mm



Connection information

Designation	Function
M1(U _p)	Power supply
M2(Motor+Sensor)	Connection of the motor phases and the Hall sensors
M3(Encoder)	Connection of an encoder AEMT-12/16 L
USB	Connection of the USB communication
X1(Battery)	Connection of battery
X2(Preset)	Preset input for external circuits
X3(I/O)	Inputs or outputs for external circuits

Option

Scale reduced mm

