

EPOS2 P programmable positioning controller Data

NEW

DIGITAL

CANopen

RS232

GUI



USB

EPOS2 P 24/5

Matched with DC brush motors with encoder or brushless EC motors with Hall sensors and encoder, from 5 to 120 watts.

Additional information

Controller versions

Master-Version (programmable)

Electrical Data

Operating voltage V_{CC}	11 - 24 VDC
Logic supply voltage V_C (optional)	11 - 24 VDC
Max. output voltage	$0.9 \times V_{CC}$
Max. output current I_{max} (<1 s)	10 A
Continuous output current I_{cont}	5 A
Sample rate of PI - current controller	10 kHz
Sample rate of PI - speed controller	1 kHz
Sample rate of PID - positioning control	1 kHz
Max. speed (1 pole pair)	25 000 rpm (sinusoidal); 100 000 rpm (block)
Built-in motor choke per phase	15 μ H / 5 A

Input

Hall sensor signals	H1, H2, H3
Encoder signals	A, A', B, B', I, I' (max. 5 MHz)
Digital inputs	6 digital inputs
Analogue inputs	2 analogue inputs 12-bit resolution, 0 ... +5 V

CAN-ID (CAN node identification) Configurable with DIP switch 1 ... 7

Output

Digital outputs	4 digital outputs
Encoder voltage output	+5 VDC, max 100 mA
Hall sensor voltage output	+5 VDC, max. 30 mA
Auxiliary voltage output	V_{CC} , max. 1300 mA

Interface

RS232	RxD; TxD (max. 115 200 bit/s)
CAN	high; low (max. 1 Mbit/s)
USB 2.0	Data+; Data- (max.12 Mbit/s)

Indicator

Operating/Error/Program green, red and blue LED

Ambient temperature / Humidity range

Operation	-10 ... +45°C
Storage	-40 ... +85°C
No condensation	20 ... 80 %

Mechanical Data

Weight	Approx. 180 g
Dimensions (L x W x H)	105 x 83 x 24 mm
Mounting threads	Flange for M3-screws

Order Number

378308 EPOS2 P 24/5

Accessories

309687 DSR 50/5 Shunt regulator

Order accessories separately, see page 310

Operating modes

CANopen Profile Position, Profile Velocity- and Homing Mode

Position, Velocity and Current Mode

Path generating with trapezoidal or sinusoidal velocity profiles

Feed forwarding for velocity and acceleration

Interpolated Position Mode (PVT)

Sinusoidal or block commutation for EC motors

Communication

Programming interface (Windows) via USB 2.0 or RS232

Communication via CANopen, RS232 or USB 2.0 maxon protocol

Inputs / Outputs

Free configurable digital inputs e.g. for limit switches and reference switches

Free configurable digital outputs e.g. for brakes

Free analogue inputs

Available software

EPOS Studio - programming according to IEC 61131-3

IEC 61131-3 standard libraries

motion control library

maxon utility function block library

CANopen function block library

maxon utility library

Application Examples

Best Practice Examples

Firmware

Available documentation

Getting Started

Cable Starting Set

Hardware Reference

Firmware Specification

Programming Reference

Application Notes

Cable

A comprehensive range of cables is available as an option. Details can be found on page 310.