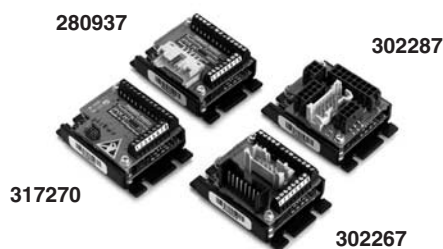


# EPOS Positioning control unit Data



## EPOS 24/1

Matched with DC brush motors with encoder or brushless EC motors with Hall sensors and encoder up to 20 watts.

## EPOS 24/5

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

### Controller versions

	Slave version	Slave version
<b>Electrical Data</b>		
Operating voltage $V_{cc}$	9 - 24 VDC	11 - 24 VDC
Logic supply voltage $V_c$ (optional)		11 - 24 VDC
Max. output voltage	$0.98 \times V_{cc}$	$0.9 \times V_{cc}$
Max. output current $I_{max}$ (<1 s)	2 A	10 A
Continuous output current $I_{cont}$	1 A	5 A
Sample rate of PI - current controller	10 kHz	10 kHz
Sample rate of PI - speed controller	1 kHz	1 kHz
Sample rate of PID - positioning control	1 kHz	1 kHz
Max. speed (1 pole pair)	25 000 rpm	25 000 rpm
Built-in motor choke per phase	150 $\mu$ H / 1 A (DC / EC motors) 300 $\mu$ H / 0.7 A (EC 6 / EC 10 flat)	15 $\mu$ H / 5 A
<b>Input</b>		
Hall sensor signals	H1, H2, H3	H1, H2, H3
Encoder signals	A, A $\bar$ , B, B $\bar$ , I, I $\bar$ (max. 1 MHz)	A, A $\bar$ , B, B $\bar$ , I, I $\bar$ (max. 1 MHz)
Digital inputs	6 digital inputs	6 digital inputs
Analogue inputs	2 analogue inputs 10-bit resolution, 0 ... +5 V	2 analogue inputs 10-bit resolution, 0 ... +5 V
CAN-ID (CAN node identification)	Configurable with DIP switch 1 ... 4	Configurable with DIP switch 1 ... 7
<b>Output</b>		
Digital outputs	2 digital outputs	4 digital outputs
Encoder voltage output	+5 VDC, max. 100 mA	+5 VDC, max. 100 mA
Hall sensor voltage output	+5 VDC, max. 30 mA	+5 VDC, max. 30 mA
Auxiliary voltage output	+5 VDC, max. 10 mA	$V_{cc}$ , max. 1300 mA
<b>Interfacen</b>		
RS232	RxD; TxD (max. 115 200 bit/s)	RxD; TxD (max. 115 200 bit/s)
CAN	high; low (max. 1 Mbit/s)	high; low (max. 1 Mbit/s)
USB 2.0		
<b>Indicator</b>		
LED green = READY, red = ERROR	Red LED, green LED	Bi-colour LED
<b>Ambient temperature / Humidity range</b>		
Operation	-10 ... +45°C	-10 ... +45°C
Storage	-40 ... +85°C	-40 ... +85°C
No condensation	20 ... 80 %	20 ... 80 %
<b>Mechanical data</b>		
Weight	Approx. 45 g	Approx. 170 g
Dimensions (L x W x H)	55 x 40 x 25 mm	105 x 83 x 24 mm
Mounting threads	Flange for M3-screws	Flange for M3-screws
<b>Order Number</b>		
	<b>280937</b> EPOS 24/1 for DC motors	<b>275512</b> EPOS 24/5
	<b>317270</b> EPOS 24/1 for EC 6 / EC 10 flat	
	<b>302267</b> EPOS 24/1 for EC 16 / EC 22 motors	
	<b>302287</b> EPOS 24/1 for DC / EC motors	
<b>Accessories</b>		
	<b>309687</b> DSR 50/5 Shunt regulator	<b>309687</b> DSR 50/5 Shunt regulator
	Order accessories separately, see page 299	Order accessories separately, see page 299