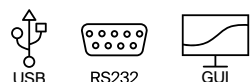


EPOS4 Positioning Controllers Data

EtherCAT  CANopen



EPOS4 Compact 24/1.5 CAN

Ready-to-install compact solution, designed for use with brushed DC motors with encoders or brushless EC motors with Hall sensors and encoders up to 36/108 Watt.

EPOS4 Compact 24/1.5 EtherCAT

Ready-to-install compact solution, designed for use with brushed DC motors with encoders or brushless EC motors with Hall sensors and encoders up to 36/108 Watt.

Controller version	CANopen Slave	EtherCAT Slave
Electrical data		
Operating voltage V_{CC}	10 - 24 VDC	10 - 24 VDC
Logic supply voltage V_C (optional)	10 - 24 VDC	10 - 24 VDC
Max. output voltage	$0.9 \times V_{CC}$	$0.9 \times V_{CC}$
Max. output current I_{max}	4.5 A (<30 s)	4.5 A (<30 s)
Continuous output current I_{cont}	1.5 A	1.5 A
Switching frequency of power stage	100 kHz	100 kHz
Sampling rate of PI current controller	25 kHz (40 μ s)	25 kHz (40 μ s)
Sampling rate of PI speed controller	2.5 kHz (400 μ s)	2.5 kHz (400 μ s)
Sampling rate of PID position controller	2.5 kHz (400 μ s)	2.5 kHz (400 μ s)
Max. speed (1 pole pair)	50 000 rpm (sinusoidal), 100 000 rpm (block)	50 000 rpm (sinusoidal), 100 000 rpm (block)
Built-in motor choke per phase	94 μ H / 1.5 A	100 μ H / 1.5 A
Inputs		
Hall sensor signals	H1, H2, H3	H1, H2, H3
Encoder signals	A, A', B, B', I, I' (max. 6.25 MHz)	A, A', B, B', I, I' (max. 6.25 MHz)
Sensor signals	A, A', B, B', I, I', Clock, Clock', Data, Data'	A, A', B, B', I, I', Clock, Clock', Data, Data'
Digital inputs	4 (level switchable: logic/PLC)	4 (level switchable: logic/PLC)
Digital inputs "High-speed"	4, differential	4, differential
Analog inputs	2 (12-bit resolution, -10...+10 V)	2 (12-bit resolution, -10...+10 V)
CAN ID / DEV ID	configurable with DIP switch 1...5	configurable with DIP switch 1...5
Outputs		
Digital outputs	2	2
Digital outputs "High-speed"	1, differential	1, differential
Analog outputs	2 (12-bit resolution, -4...+4 V, max. 1 mA)	2 (12-bit resolution, -4...+4 V, max. 1 mA)
Encoder voltage output	+5 VDC, max. 70 mA	+5 VDC, max. 70 mA
Hall sensor voltage output	+5 VDC, max. 30 mA	+5 VDC, max. 30 mA
Auxiliary voltage output	+5 VDC, max. 145 mA	+5 VDC, max. 145 mA
Interfaces		
CAN	high; low (max. 1 Mbit/s)	-
EtherCAT	-	100 Mbit/s (Full Duplex)
RS232	RxD; TxD (max. 115 200 bit/s)	-
USB 2.0/3.0	Data+; Data- (Full Speed)	Data+; Data- (Full Speed)
Indicator		
LED green = READY, red = ERROR	Green LED, red LED	Green LED, red LED
Environmental conditions		
Temperature - Operation	-30...+45°C	-30...+45°C
Temperature - Extended Range	+45...+70°C; Derating: -0.060 A/°C	+45...+70°C; Derating: -0.060 A/°C
Temperature - Storage	-40...+85°C	-40...+85°C
Humidity (condensation not permitted)	5...90%	5...90%
Mechanical data		
Weight	approx. 58 g	approx. 78 g
Dimensions (L x W x H)	55.0 x 40.0 x 31.1 mm	55.0 x 56.5 x 31.7 mm
Mounting	M2.5 screws	M2.5 screws
Part numbers		
	546714 EPOS4 Compact 24/1.5 CAN	628092 EPOS4 Compact 24/1.5 EtherCAT
Accessories		
	309687 DSR 50/5 Shunt regulator	309687 DSR 50/5 Shunt regulator
	Order accessories separately, see page 578	Order accessories separately, see page 578