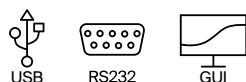


# EPOS4 Positioning Controllers Data

EtherCAT  CANopen 



## EPOS4 Disk 60/8 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 480/1440 Watt.

## EPOS4 Disk 60/8 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 480/1440 Watt.

Controller version	CANopen Slave	EtherCAT Slave
<b>Electrical data</b>		
Operating voltage $V_{CC}$	12 - 60 VDC	12 - 60 VDC
Logic supply voltage $V_C$ (optional)	12 - 60 VDC	12 - 60 VDC
Max. output voltage	$0.9 \times V_{CC}$	$0.9 \times V_{CC}$
Max. output current $I_{max}$	24 A (<10 s)	24 A (<10 s)
Continuous output current $I_{cont}$	8 A	8 A
Switching frequency of power stage	50 kHz	50 kHz
Sampling rate of PI current controller	25 kHz (40 $\mu$ s)	25 kHz (40 $\mu$ s)
Sampling rate of PI speed controller	2.5 kHz (400 $\mu$ s)	2.5 kHz (400 $\mu$ s)
Sampling rate of PID position controller	2.5 kHz (400 $\mu$ s)	2.5 kHz (400 $\mu$ 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	-	-
<b>Inputs</b>		
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	Clock, Clock\, Data, Data\	Clock, Clock\, Data, Data\
Digital inputs	4 (logic level)	4 (logic level)
Digital inputs "High-speed"	1, differential	1, 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...4	Configurable with DIP switch 1...4
<b>Outputs</b>		
Digital outputs	2	2
Digital outputs "High-speed"	1, differential	1, differential
Analog outputs	1 (12-bit resolution, -4...+4 V, max. 1 mA)	1 (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. 150 mA	+5 VDC, max. 150 mA
<b>Interfaces</b>		
RS232	-	-
CAN	high; low (max. 1 Mbit/s)	-
USB 2.0/3.0	Data+; Data- (Full Speed)	Data+; Data- (Full Speed)
EtherCAT	-	100 Mbit/s (Full Duplex)
<b>Indicator</b>		
LED green = READY, red = ERROR	Green LED, red LED	Green LED, red LED
<b>Environmental conditions</b>		
Temperature - Operation	-30...+45°C	-30...+35°C
Temperature - Extended Range	+45...+75°C; Derating: -0.267 A/°C	+35...+65°C; Derating: -0.267 A/°C
Temperature - Storage	-40...+85°C	-40...+85°C
Humidity (condensation not permitted)	5...90%	5...90%
<b>Mechanical data</b>		
Weight	approx. 24 g	approx. 26 g
Dimensions (L x W x H)	60.0 x 60.0 x 22.0 mm	60.0 x 60.0 x 22.0 mm
Mounting	M2 screws	M2 screws
<b>Part numbers</b>		
	<b>688770 EPOS4 Disk 60/8 CAN</b>	<b>688772 EPOS4 Disk 60/8 EtherCAT</b>
<b>Accessories</b>		
	<b>235811 DSR 70/30 Shunt regulator</b>	<b>235811 DSR 70/30 Shunt regulator</b>
	Order accessories separately, see page 558	Order accessories separately, see page 558