

EL7211 | EtherCAT Terminal, 1-channel motion interface, servomotor, 48 V DC, 4.5 A, resolver

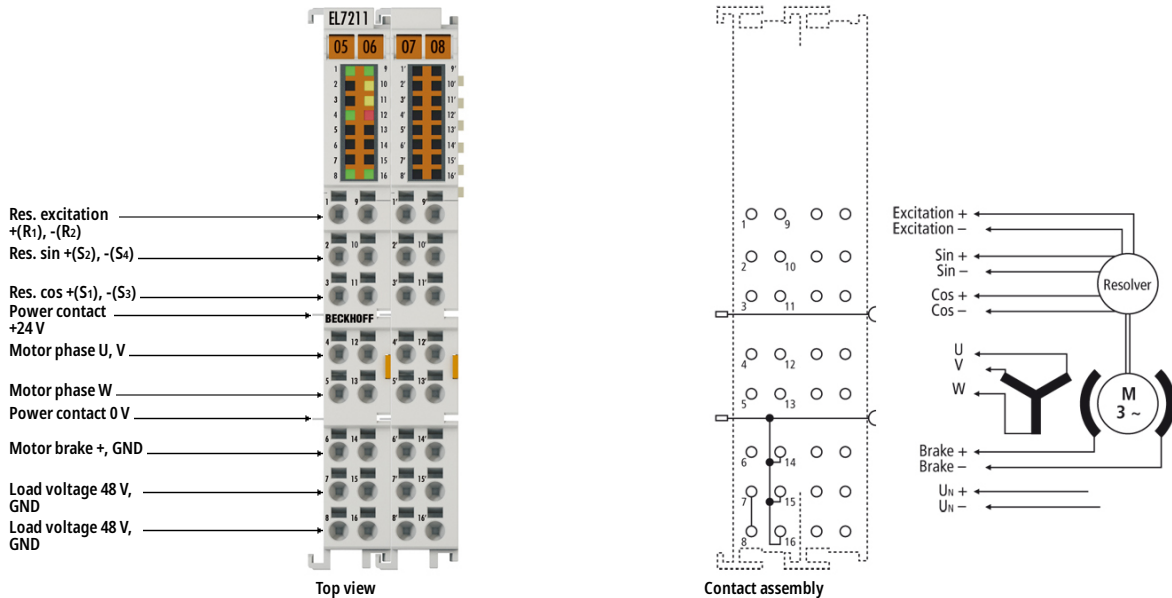
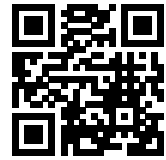


Image similar, may contain optional accessories

i **Product status:** regular delivery

The EL7211 servomotor EtherCAT Terminal with integrated resolver interface offers high servo performance in a very compact design for motors from the AM8100 and AM3100 series up to 4.5 A (I_{rms}). The fast control technology, based on field-orientated current and PI speed control, supports fast and highly dynamic positioning tasks.

Monitoring of numerous parameters, such as overvoltage and undervoltage, overcurrent, terminal temperature or motor load via the calculation of a I^2T model, offers maximum operational reliability. EtherCAT, as a high-performance system communication, and CAN-over-EtherCAT (CoE), as the application layer, enable ideal interfacing with PC-based control technology. The latest power semiconductors guarantee minimum power loss and enable feedback into the DC link when braking. 16 LEDs indicate status, warning and error messages as well as possibly active limitations.

Product information

Technical data

Technical data	EL7211
Technology	compact drive technology
Connection method	direct motor connection + feedback
Number of inputs	1 x feedback
Load type	permanent magnet-excited three-phase synchronous motor

Number of channels	1
Number of outputs	1 x servomotor, 1 x motor brake
Supply voltage electronics	24 V DC (via power contacts)
Supply voltage power	8...48 V DC (external)
Output current (rms)	4.5 A
Peak current (rms)	max. 9.0 A for 1 s
Performance increase	–
Rotating field frequency	0...599 Hz
PWM clock frequency	16 kHz
Current controller frequency	32 kHz
Rated speed controller frequency	16 kHz
Output voltage motor brake	24 V DC
Output current motor brake	max. 0.5 A
Current consumption power contacts	typ. 50 mA + holding current motor brake
Current consumption E-bus	typ. 120 mA
Distributed clocks	yes
Special features	compact and system-integrated
Electrical isolation	500 V (E-bus/field potential)
Weight	approx. 95 g
Operating/storage temperature	0...+55°C/-25...+85°C
Relative humidity	95%, no condensation
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
Protect. rating/installation pos.	IP20/see documentation
Approvals/markings	CE, UL

Housing data	EL-24-2x16pin
Design form	HD (High Density) housing with signal LEDs
Material	polycarbonate
Dimensions (W x H x D)	24 mm x 100 mm x 68 mm
Installation	on 35 mm DIN rail, conforming to EN 60715 with lock
Side by side mounting by means of	double slot and key connection
Marking	labeling of the BZxxx series
Wiring	solid conductors (s): direct plug-in technique; fine-stranded conductors (st) and ferrule (f): spring actuation by screwdriver

Connection cross-section	s*: 0.08...1.5 mm ² , st*: 0.25...1.5 mm ² , f*: 0.14...0.75 mm ²
Connection cross-section AWG	s*: AWG28...16, st*: AWG22...16, f*: AWG26...19
Stripping length	8...9 mm
Current load power contacts	I _{max} : 10 A

*s: solid wire; st: stranded wire; f: with ferrule