



EL7211 | Servomotor terminal for resolver, 50 V DC, 4.5 A (I_{rms})

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-oriented 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.

Technical data	EL7211
Technology	Compact Drive Technology
Load type	permanent magnet-excited three-phase synchronous motor
Number of channels	1
Number of outputs	1 x servo motor, 1 x motor brake
Number of inputs	1 x feedback
Connection method	direct motor connection + feedback
Supply voltage electronics	24 V DC (via power contacts)
Supply voltage power	8...50 V DC (external)
Output current (rms)	4.5 A
Peak current (rms)	max. 9.0 A for 1 s
Performance increase	–
Frequency range	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
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. class/installation pos.	IP 20/see documentation
Pluggable wiring	–

Approvals	CE, UL
-----------	--------

Accessories	
EL9576	brake chopper terminal, 72 V, 155 µF
AM812x	Servomotor 0.50...0.80 Nm for servo I/Os (EL72xx, EP72xx)
AM813x	Servomotor 1.35...2.35 Nm for servo I/Os (EL72xx, EP72xx)
AG2250	Planetary gear units for compact Drive Technology
ZK4704-0411-2xxx	motor cables for AM31xx/AM81xx servomotors to EL7201 EtherCAT Terminal
ZK4724-0410-2xxx	resolver cables for AM31xx/AM81xx servomotors to EL7201 EtherCAT Terminal
ZK47x4-04xx, ZK4000-xxxx	Supply cables for Compact Drive Technology
ZB85xx	Shield busbar with mounting rail holder, shield busbar clamps

Related products	
EL7201	servomotor terminal for resolver 50 V DC, $I_{rms} = 2.8$ A