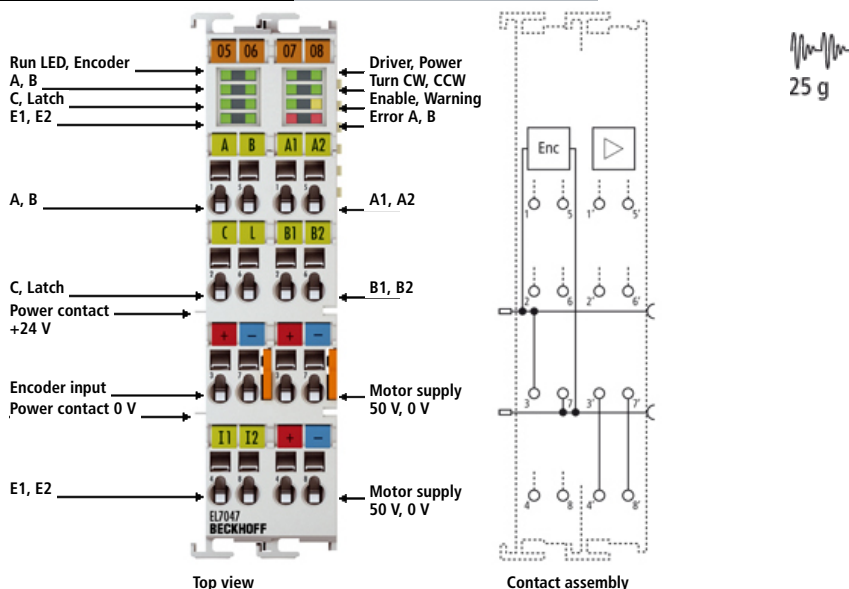




EL7047 | Stepper motor terminal 50 V DC, 5 A, with incremental encoder, vector control

The EL7047 EtherCAT Terminal is intended for stepper motors with medium performance range. The PWM output stages cover a wide range of voltages and currents. Together with two inputs for limit switches, they are located in the EtherCAT Terminal. The EL7047 can be adjusted to the motor and the application by changing just a few parameters. With its torsion-proof, integrated encoder (1,024 inc/rev), the AS2000 stepper motor is ideal for the closed-loop control of the EL7047.

The output power of the terminal can be further increased when used with the ZB8610 fan cartridge (continuous operation and under full load).

Technical data	EL7047
Technology	direct motor connection
Number of outputs	1 stepper motor, 2 phases, 1 brake configurable (0.5 A)
Number of inputs	2 limit position, 4 for an encoder system
Load type	uni- or bipolar stepper motors
Nominal voltage	8...50 V DC
Power supply	via the E-bus
Max. output current	5 A (overload- and short-circuit-proof)
Performance increase	Yes, through ZB8610 fan cartridge
output current with ZB8610	max. 6.5 A (overload- and short-circuit-proof)
Max. step frequency	1000, 2000, 4000, 8000 or 16,000 full steps/s (configurable)
Step pattern	64-fold micro stepping
Current controller frequency	approx. 30 kHz
Diagnostics LED	error phase A and B, loss of step/stagnation, power, enable
Resolution	approx. 5000 positions in typ. applications (per revolution)
Electrical isolation	500 V (E-bus/signal voltage)
Current consumption power contacts	typ. 50 mA
Current consumption E-bus	typ. 100 mA
Distributed clocks	yes
Encoder input signal	5...24 V DC, 5 mA, single-ended
Pulse frequency	max. 400,000 increments/s (with 4-fold evaluation)
Special features	travel distance control, encoder input, vector control
Weight	approx. 90 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
Approvals	CE, UL

Accessories	
EL9576	brake chopper terminal, 72 V, 155 µF
ZB8610	fan cartridge for EtherCAT and Bus Terminals
AS2022-wHy0	stepper motor, 50 V DC, 1.5 Nm standstill torque, 5.6 A standstill current
AS2023-wJy0	stepper motor, 50 V DC, 2.3 Nm standstill torque, 6.4 A standstill current
AS2042-wHy0	stepper motor, 50 V DC, 6.4 Nm standstill torque, 5.6 A standstill current
Cables, gears and couplings	accessories for AS2000 stepper motors

Related products	
EL7041	stepper motor EtherCAT Terminal, I _{MAX} = 5 A, 50 V, IP 20
EL7037	stepper motor EtherCAT Terminal, I _{MAX} = 1.5 A, 24 V, IP 20, vector control
EL7031	stepper motor EtherCAT Terminal, I _{MAX} = 1.5 A, 24 V, IP 20
EP7041-0002	stepper motor EtherCAT Box (industrial housing), I _{MAX} = 5 A, 50 V, IP 67
KL2531	stepper motor Bus Terminal, I _{MAX} = 1.5 A, 24 V, IP 20
KL2541	stepper motor Bus Terminal, I _{MAX} = 5 A, 50 V, IP 20