

ECI Motor

ECI-80.40-K1

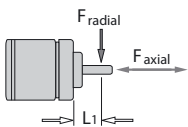


- Highly dynamic 3-phase internal rotor motor with EC technology
- Robust, noise-optimized ball bearing system for a long service life
- Mechanical design and interfaces designed for modular flexibility
- High efficiency and high power density realized in a compact design
- Basic motor with electronic module K1 for operation with external drive electronics
- Protection rating IP 40 / IP 54 and connection by connector system

| Nominal data | | | |
|---------------------------------------|------------------------------------|------------------|------------------|
| Type | | ECI-80.40-K1 B00 | ECI-80.40-K1 D00 |
| Nominal voltage (U_n) | VDC | 24 | 48 |
| Nominal speed (n_n) | min ⁻¹ | 4000** | 4000** |
| Nominal torque (M_n) | mNm | 1200** | 1200** |
| Nominal current (I_n) | A | 25** | 12** |
| Nominal output power (P_n) | W | 503** | 503** |
| Free-running speed (n_f) | min ⁻¹ | 4700 | 4850 |
| Permanent holding torque (M_{HO}) | mNm | 1200 | 1200 |
| Permiss. peak current (I_{max}) | A | 100 | 100 |
| Motor constant (K_e) | mVs/rad | 48.2 | 96 |
| Terminal resistance (R_v) | Ω | 0.03 | 0.1 |
| Terminal inductance (L_v) | mH | 0.2 | 0.6 |
| Starting torque (M_{max}) | mNm | 3900 | 5000 |
| Ambient temperature range (TU) | °C | -30...+40 | -30...+40 |
| Rotor moment of inertia (J_B) | kgm ² x10 ⁻⁶ | 500 | 500 |
| Motor mass (m) | kg | 2.1 | 2.1 |
| Order number (IP 40) | Wire interface | 932 8040 103 | 932 8040 105 |
| Order number (IP 54)* | Connector interface | on request | on request |

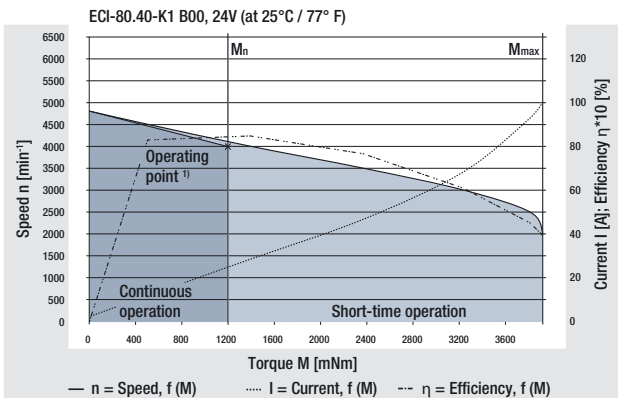
subject to alterations

* Classification of protection class refers to installed state with sealing on the flange side
 ** at T_U max. 40 °C / 104 °F

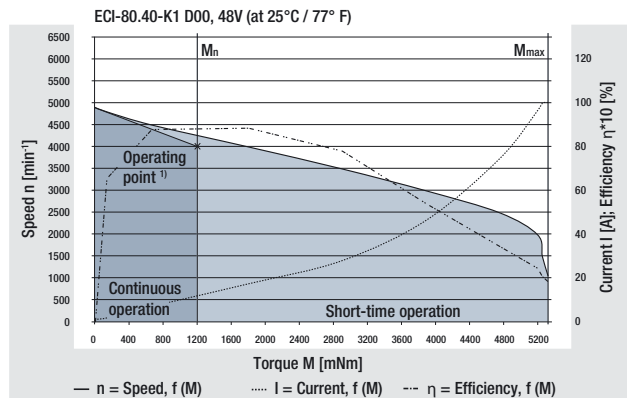


F_{axial} 280 N
 F_{radial} 280 N
 $L_1 = 20$ mm

Permissible shaft load at nominal speed and
 life expectancy L_{10} of 20 000 h**



¹⁾ Nominal data, see table above

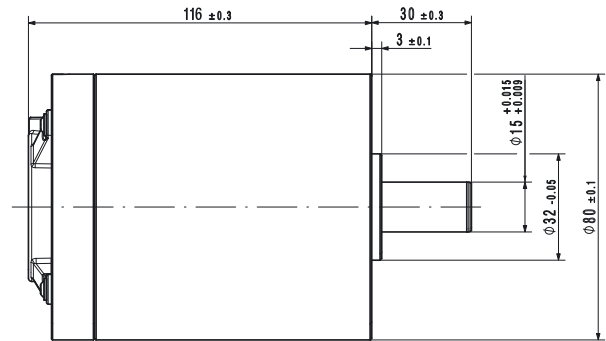
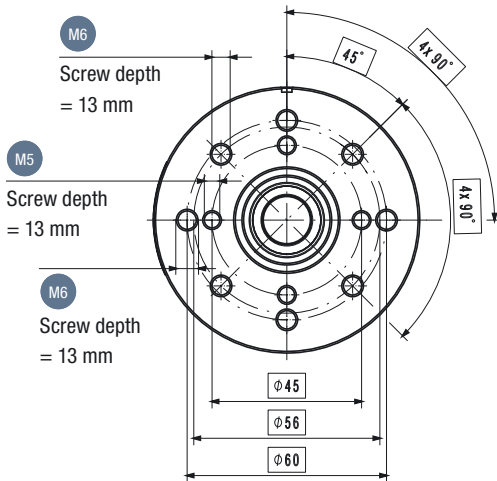


¹⁾ Nominal data, see table above

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Technical drawing



Tapped blind holes for thread-forming screws in accordance to DIN 7500.

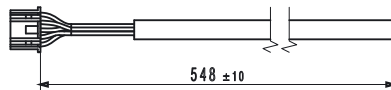
Tightening torque: **M5** 6 ± 0.2 Nm
M6 10 ± 0.2 Nm

Accessory (must be ordered separately)

Sensor cable with wires and plug AWG 24 (0.22 mm²)

| Type | Order number |
|--------------|--------------|
| Sensor cable | 992 0800 001 |

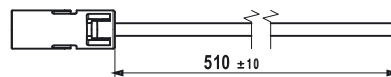
motor side



Winding connector AWG 12 (4 mm²)

| Type | Colour | Order number |
|---------------|--------|--------------|
| Power wire L1 | brown | 992 0800 012 |
| Power wire L2 | purple | 992 0800 011 |
| Power wire L3 | yellow | 992 0800 010 |

motor side



Possible gearbox variants

| Type | |
|------------|--|
| on request | |

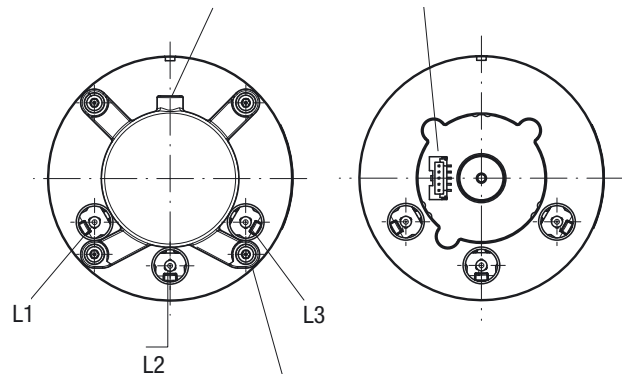
Connection description Motor (IP 40 version)

Picture 1 = with cover (simplified design)

Picture 2 = cover removed (simplified design)

Cable outlet sensor cable

Socket for sensor cable



Tightening torque: **M3** 1.5 ± 0.2 Nm

Recommended external control electronics

| Type | Order number |
|----------|--------------|
| VT-MI-35 | 992 0801 035 |