

ECI Motor

ECI-80.20-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

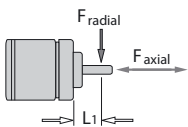
Nominal data

Type		ECI-80.20-K1 B00	ECI-80.20-K1 D00
Nominal voltage (U_n)	VDC	24	48
Nominal speed (n_n)	min ⁻¹	4000**	4000**
Nominal torque (M_n)	mNm	700**	700**
Nominal current (I_n)	A	13.5**	7.5**
Nominal output power (P_n)	W	293**	293**
Free-running speed (n_f)	min ⁻¹	4800	4800
Permanent holding torque (M_{HO})	mNm	700	700
Permiss. peak current (I_{max})	A	100	60
Motor constant (K_e)	mVs/rad	47.2	94.1
Terminal resistance (R_v)	Ω	0.07	0.3
Terminal inductance (L_v)	mH	0.3	1.3
Starting torque (M_{max})	mNm	2400	2500
Ambient temperature range (TU)	°C	-30...+40	-30...+40
Rotor moment of inertia (J_B)	kgm ² x10 ⁻⁶	300	300
Motor mass (m)	kg	1.4	1.4
Order number (IP 40)	Wire interface	932 8020 103	932 8020 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

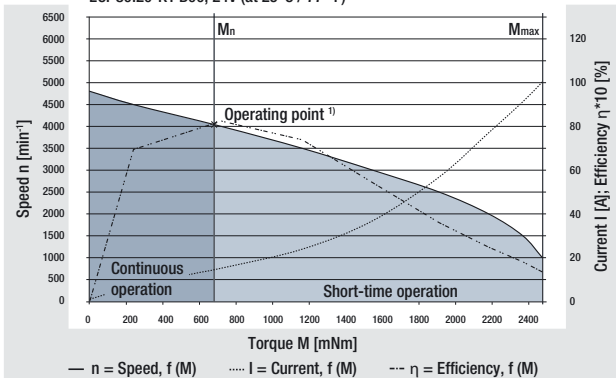
** at T_U max. 40 °C / 104 °F



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

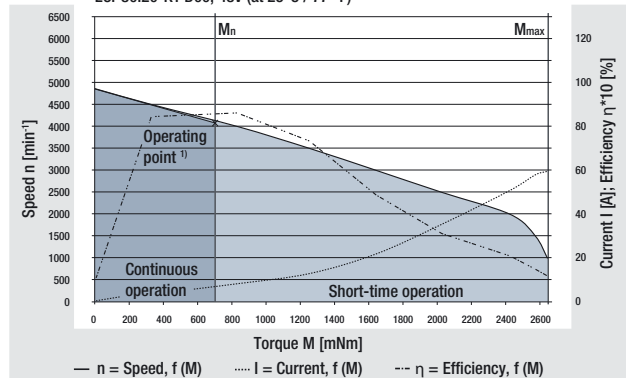
Permissible shaft load at nominal speed and
 life expectancy L_{10} of 20 000 h**

ECI-80.20-K1 B00, 24V (at 25°C / 77° F)



¹⁾ Nominal data, see table above

ECI-80.20-K1 D00, 48V (at 25°C / 77° F)

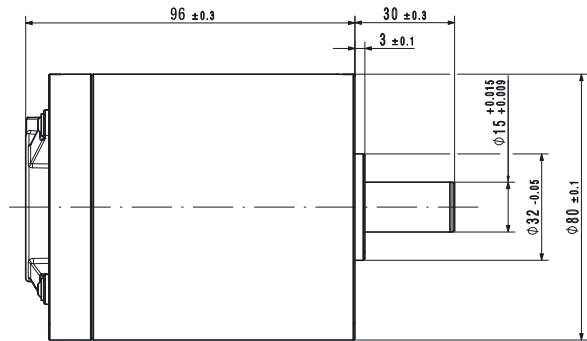
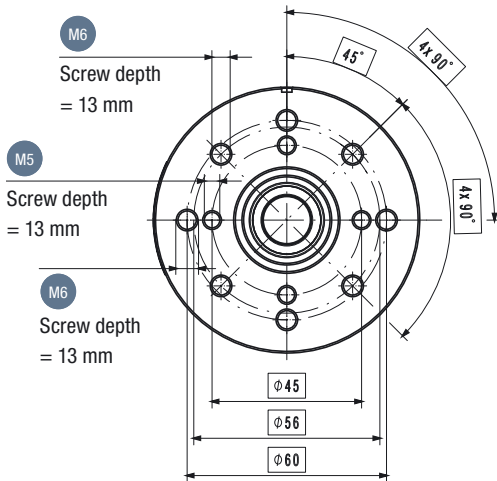


¹⁾ Nominal data, see table above

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Technical drawing



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

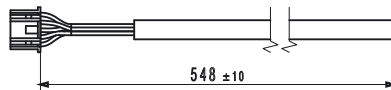
Tightening torque: $M5$ 6 ± 0.2 Nm
 $M6$ 10 ± 0.2 Nm

Accessory (must be ordered separately)

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

Type	Order number
Sensor cable	992 0800 001

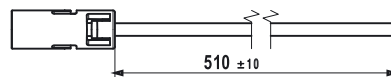
motor side



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	

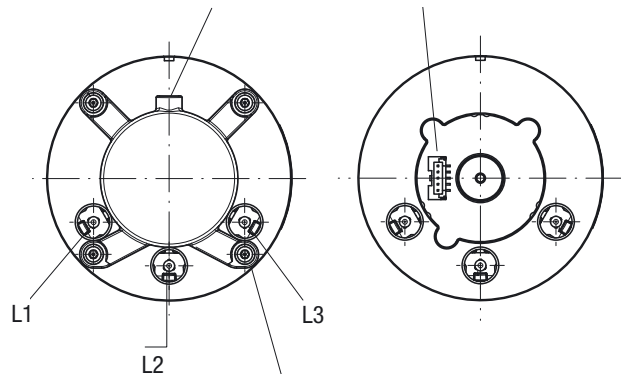
Connection description Motor (IP 40 version)

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