

ECI motor.

ECI-80.XX-K1



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

Nominal data

Type		ECI-80.20-K1 -B00	ECI-80.20-K1 -D00	ECI-80.40-K1 -B00	ECI-80.40-K1 -D00	ECI-80.60-K1 -D00
Nominal voltage (U_N)	V DC	24	48	24	48	48
Nominal speed (n_n)*	rpm	4 000				
Nominal torque (M_N)*	mNm	700	700	1 200	1 200	1 800
Nominal current (I_N)*	A	13.5	7.50	25.0	12.0	18.0
Nominal output power (P_N)*	W	293	293	503	503	754
Starting torque (M_{max})	mNm	2 400	2 500	3 900	5 000	5 600
Permissible peak current (I_{max})**	A	100	60	100	100	100
Permanent stall torque (M_{NO})	mNm	700	700	1 200	1 200	1 800
Speed at no-load operation (n_0)	rpm	1.00	0.70	1.50	0.90	1.00
No-load current (I_0)	A	0 ... 4 000				
Speed at no-load operation (n_0)	rpm	4 800	4 800	4 700	4 850	6 100
Rotor moment of inertia (J_R)	kgm ² x10 ⁻⁶	54	54	104	104	155
Motor constant (K_E)	mVs/rad	47.2	94.1	48.2	96.0	72.15
Connection resistance (R_c)	Ω	0.07	0.30	0.03	0.10	0.04
Connection inductance (L_c)	mH	0.30	1.30	0.20	0.60	0.20
Overload protection		integrated				
Permissible ambient temperature range (T_a)	°C	-30 ... +40				
Weight	kg	1.40	1.40	2.10	2.10	2.70
Order no. (wire interface)***	IP 40	932 8020 103	932 8020 105	932 8040 103	932 8040 105	932 8060 105
Order no. (cable routing)***	IP 54	On request				

Subject to alterations

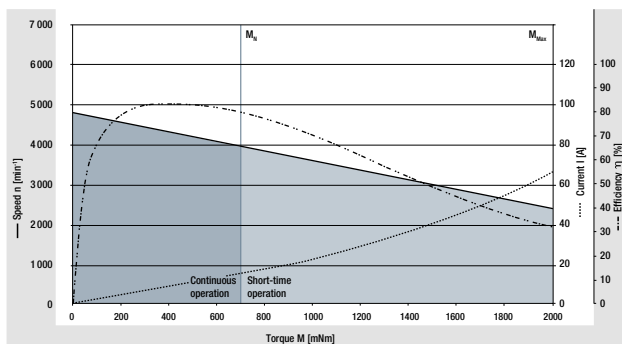
* At T_a max. 40°C

** Permissible time for peak current: max. 5 sec. – to be repeated only after complete cool down

*** Classification of protection class refers to installed state with sealing on the flange side

Characteristic curve

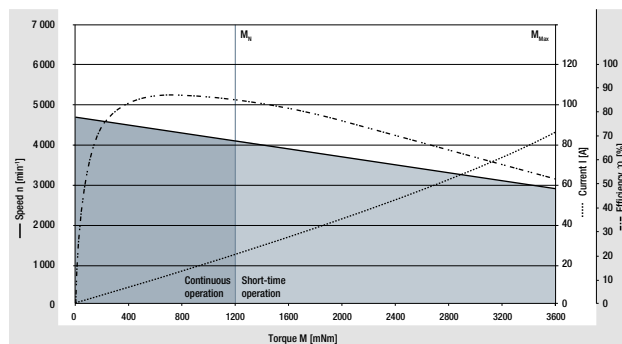
ECI-80.20-K1, 24 V (at 25°C)



¹⁾ Nominal data, see table

Characteristic curve 48 V on request

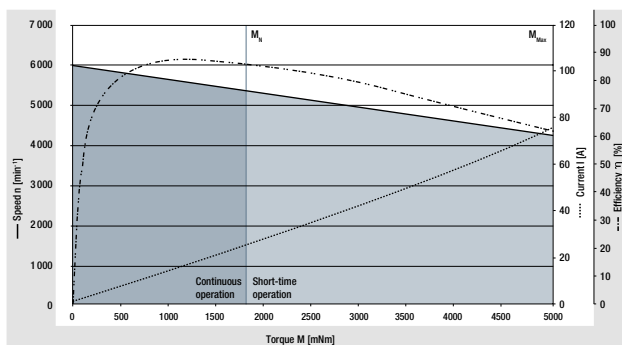
ECI-80.40-K1, 24 V (at 25°C)



¹⁾ Nominal data, see table

Characteristic curve 48 V on request

ECI-80.60-K1, 48 V (at 25°C)



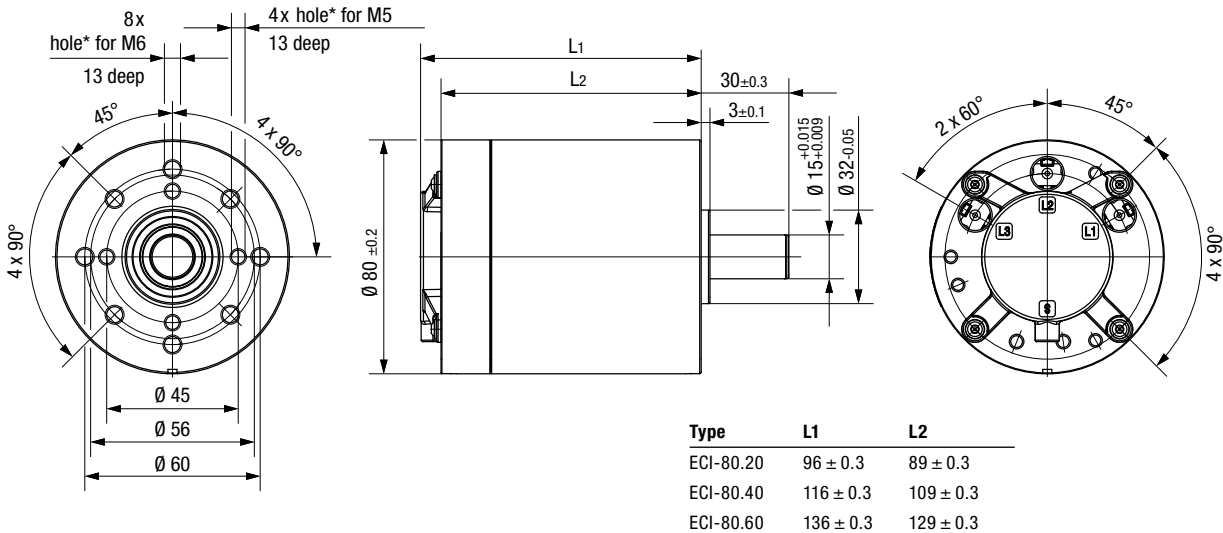
¹⁾ Nominal data, see table

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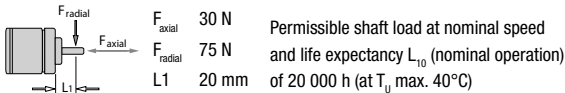
ECI-80.XX-K1

Technical drawing

All dimensions in mm



* For thread-rolling screws according to DIN 7500



Electrical connection

Supply wire		
No.	Color	Function
1	brown	Phase L1
2	violet	Phase L2
3	yellow	Phase L3

Signal wire		
No.	Color	Function
1	red	U_B
2	black	GND
3	green	Hall A
4	white	Hall B
5	gray	Hall C

