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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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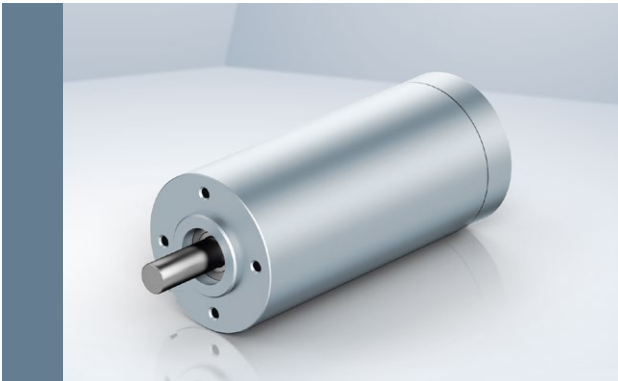
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# ECI Motor

## ECI-42.XX-K1



- Highly dynamic 3-phase internal rotor motor with EC technology
- Robust, noise-optimized ball bearing system for a long service life
- High efficiency and high power density realized in a compact design
- Basic motor with electronic module K1 for operation with external drive electronics
- Low cogging torque

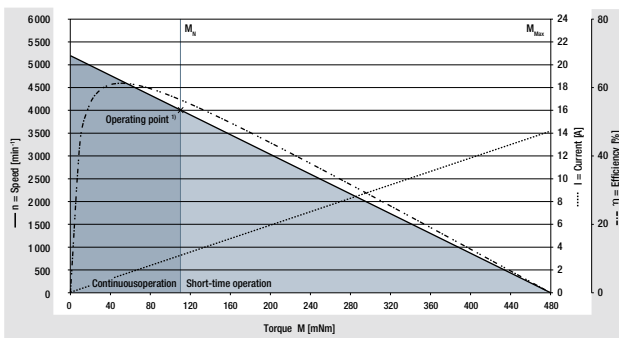
Nominal data					
Type		ECI-42.20-K1 B00	ECI-42.20-K1 D00	ECI-42.40-K1 B00	ECI-42.40-K1 D00
Nominal voltage ( $U_N$ )	V DC	24	48	24	48
Nominal speed ( $n_N$ )**	rpm	4 000**	4 000**	4 000**	4 000**
Nominal torque ( $M_N$ )**	mNm	110**	110**	220**	220**
Nominal current ( $I_N$ )**	A	2.5**	1.3**	5.1**	2.6**
Nominal output power ( $P_N$ )**	W	46**	46**	92**	92**
Free-running speed ( $n_f$ )	rpm	5 900	5 900	5 700	5 700
Permanent holding torque ( $M_{HO}$ )	mNm	110	110	220	220
Permiss. peak current ( $I_{max}$ )***	A	14***	7***	21***	10.5***
Motor constant ( $K_E$ )	mVs/rad	40.9	84.2	42.8	83.9
Terminal resistance ( $R_t$ )	$\Omega$	0.9	3.25	0.39	1.5
Terminal inductance ( $L_t$ )	mH	1.1	4.5	0.5	1.84
Starting torque ( $M_{max}$ )	mNm	480	480	960	960
Ambient temperature range ( $T_U$ )	$^{\circ}\text{C}$	0...+40	0...+40	0...+40	0...+40
Rotor moment of inertia ( $J_r$ )	$\text{kgm}^2 \times 10^{-6}$	3.42	3.42	6.7	6.7
Motor mass (m)	kg	0.33	0.33	0.48	0.48
Order number (IP 40)	Litzenausführung	932 4220 122	932 4220 123	932 4240 122	932 4240 123

Subject to change

\* Classification of degree of protection refers to installed state with sealing on the flange side  
 \*\* At TU max. 40  $^{\circ}\text{C}$  / 104  $^{\circ}\text{F}$   
 \*\*\* Permissible time for peak current: max. 5 sec. – to be repeated only after complete cool down

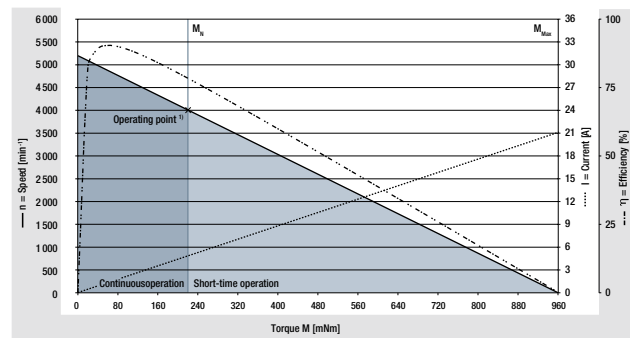
### Characteristic curve

ECI-42.20, 24 V (at 25  $^{\circ}\text{C}$  / 77  $^{\circ}\text{F}$ )



1) Nominal data, see table above

ECI-42.40, 24 V (at 25  $^{\circ}\text{C}$  / 77  $^{\circ}\text{F}$ )

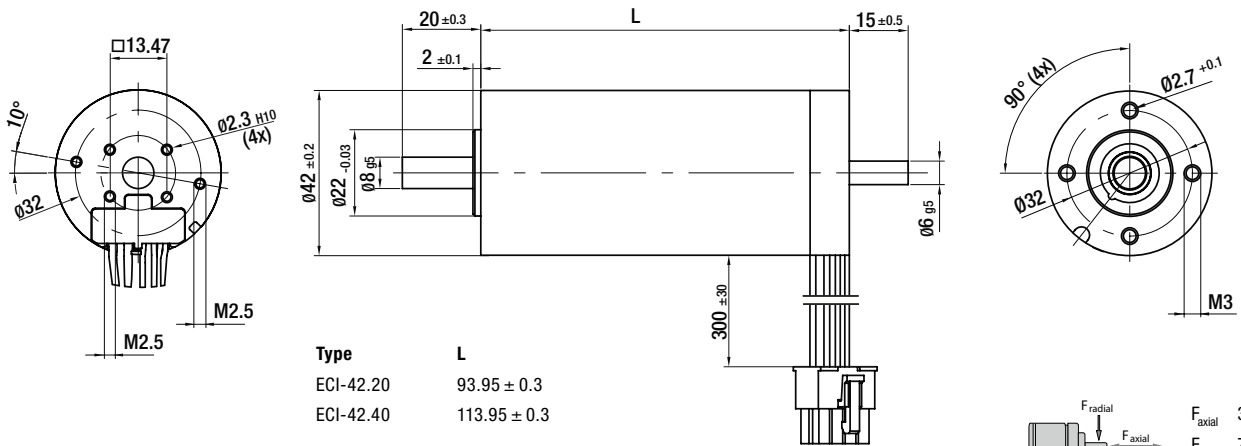


1) Nominal data, see table above

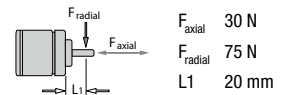
# ECI Motor

## ECI-42.XX-K1

### Technical drawing



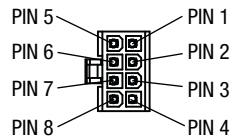
Permissible shaft load at nominal speed and life expectancy  $L_{10}$  (rated operation) of 20 000 h



### Electrical connection

#### Signal wire

No.	Colour	Function
4	green	Hall A
3	white	Hall B
8	grey	Hall C
2	red	UB
7	black	GND



Molex pin  
No. 39-01-2085

#### Supply wire

No.	Colour	Function
1	yellow	Phase W
5	purple	Phase V
6	brown	Phase U

### Modular construction kit

#### Brake system

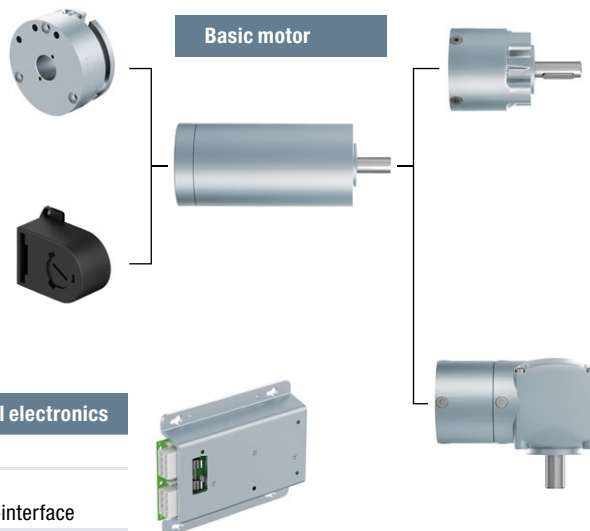
Principle spring applied brake	
BFK 457-01	
Braking torque Nm	0.12

#### Encoder system

Optical incremental encoder	
HEDS 5500	
Impulse / rotation Z	512

#### Recommended external control electronics

VT-D	Speed control
VT-MI-14	Positioning control with CANopen Bus-interface



#### Planetary gearhead

Noiseless Plus 42	
Torque ( $M_N$ ) Nm	bis 4.1
Reductions i	4.3:1 - 121:1
Performax® 42	
Torque ( $M_N$ ) Nm	bis 5.6
Reductions i	3.18:1 - 102:1
Performax®Plus 42	
Torque ( $M_N$ ) Nm	bis 12.1
Reductions i	3.18:1 - 102:1

#### Crown gearhead

EtaCrown® 52	
Torque ( $M_N$ ) Nm	bis 3.5
Reductions i	4:1 - 113:1
EtaCrown®Plus 42	
Torque ( $M_N$ ) Nm	bis 10
Reductions i	54:1 - 289:1

For motor-gearbox combinations, depending on the choice of the single components, the maximum allowable torque (gearbox) can be exceeded respectively not reached.