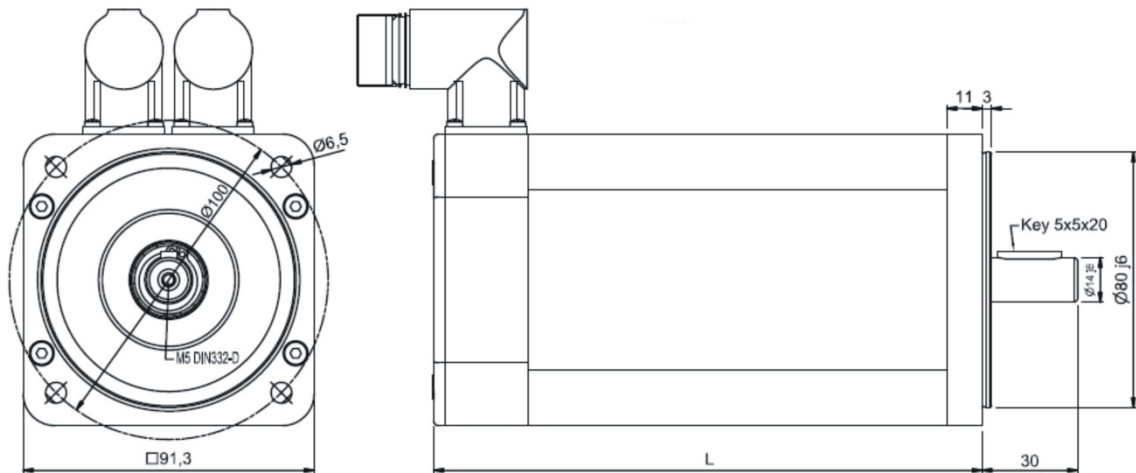




## E°MOTORS – E°SL3-056...

### Dimensions



All dimensions indicated in mm

Type of motor	Max. length (L) with encoder	
	Without brake	With brake
E°SL3-056-03-30-21...	174	209
E°SL3-056-E3-60-21...	152	187



# Technical data

	Type of motor		E°SL3-056-03-30...	E°SL3-056-E3-60...
	Recommended servo drive		E°Darc K04	E°Darc K04

## Motor

M <sub>0</sub>	Stall torque	Nm	2.6	1.35
M <sub>max</sub>	Peak torque	Nm	10.0	5.0
M <sub>N</sub>	Rated torque	Nm	2.5	1.0
n <sub>N</sub>	Rated speed	rpm	3000	6000
M <sub>k</sub>	Cutoff torque (at operating temperature)	Nm	2.5	1.0
n <sub>k</sub>	Cutoff speed (at operating temperature)	min <sup>-1</sup>	1500	3000
J	Moment of inertia	kgcm <sup>2</sup>	0.88	0.47
F <sub>r</sub>	Maximum radial force	N	235	213
F <sub>a</sub>	Maximum axial force	N	24	21
m	Weight (without brake)	kg	4.4	3.5
p	Number of pole pairs		4	4
k <sub>T</sub>	Torque constant	Nm/A <sub>RMS</sub>	0.94	0.47
k <sub>E</sub>	Voltage constant	V/krpm	57	29
I <sub>0</sub>	Stall current	A <sub>RMS</sub>	2.8	2.9
I <sub>N</sub>	Rated current	A <sub>RMS</sub>	2.7	2.1
P <sub>N</sub>	Rated power	kW	0.8	0.6
R <sub>W</sub>	Phase resistance	Ohm	2.7	1.55
L <sub>W</sub>	Phase inductance	mH	12.1	5.6
U	Supply voltage	V AC	310	310

## Brake

M	Maximum torque at 20 °C	Nm	3.2	3.2
J	Moment of inertia	kgcm <sup>2</sup>	0.38	0.38
m	Weight	kg	0.6	0.6
U	Voltage DC +/- 10 %	V DC	24	24
I <sub>B</sub>	Power consumption	A DC	0.45	0.45
R	Resistance	Ohm	53.2	53.2

## Cable

Q	Cross section (at < 20 m length)	mm <sup>2</sup>	1.0	1.0
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Eckelmann Group – Source of inspiration

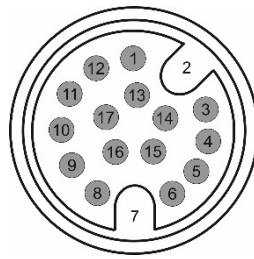
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E°SL3-056-XX-XX\_DB\_EN  
 Effective 12/2017  
 Subject to technical changes.  
 Errors excepted.

# Encoder connection

## Incremental encoder

Pin	Assignment
1	+ 5 V
2	GND
3	A
4	/A
5	B
6	/B
7	T1
8	T2
9	U
10	/U
11	V
12	/V
13	NC
14	Z
15	/Z
16	W
17	/W



## Power connection

Pin	Assignment
1	Phase U
2	PE
3	Phase V
4	Phase W
A	NC
B	NC
C	Brake (+)
D	Brake (-)

M23 8-PIN

