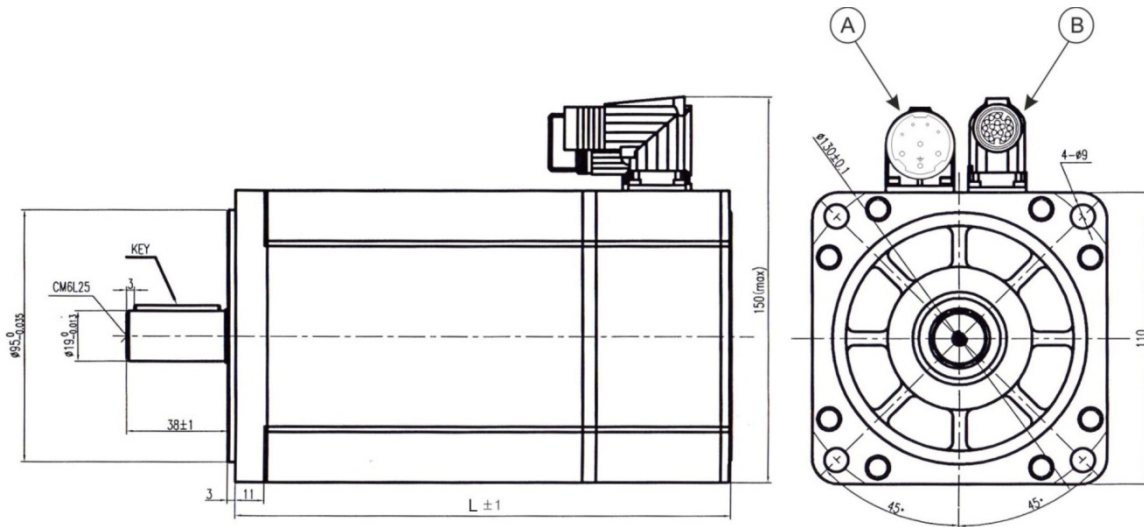




## E°MOTORS – E°SC3-055...

### Dimensions



All dimensions indicated in mm

**A:** Power connection  
**B:** Encoder connection

Type of motor	Length (L) without brake	Length (L) with brake
E°SC3-055-07-20-21...	202 mm	262 mm



## Technical Data

Type of motor	E°SC3-055-07-20-21...
Recommended servo drive	E°Darc K10

### Motor

$M_0$	Stall torque	N m	6.6
$M_{max}$	Peak torque	N m	18.0
$M_N$	Rated torque	N m	6.0
$n_N$	Rated speed	rpm	2000
$M_k$	Cutoff torque (at operating temperature)	N m	6.0
$n_k$	Cutoff speed (at operating temperature)	rpm	2000
$I_{max}$	Peak current	$A_{RMS}$	18.45
$J$	Rotor moment of inertia	kgcm <sup>2</sup>	8.55
$F_r$	Maximum radial force	N	630
$F_a$	Maximum axial force	N	315
$m$	Weight (without brake)	kg	10.2
$p$	Number of pole pairs		4
$k_T$	Torque constant	N m/ $A_{RMS}$	1.058
$k_E$	Voltage constant	V/krpm	64
$I_0$	Stall current	$A_{RMS}$	6.765
$I_N$	Rated current	$A_{RMS}$	6.15
$P_N$	Rated power	W	1260
RW	Phase resistance	Ohm	0.63
LW	Phase inductance	mH	4.8
U	Supply voltage	V DC	300

### Brake

M	Holding torque at 100 °C	N m	10
U	Voltage DC +/- 10 %	V DC	24
P	Power	W	19

### Cable

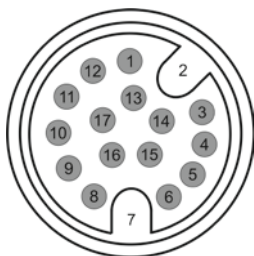
Q	Cross section (at < 50 m length)	mm <sup>2</sup>	1
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## Encoder connection

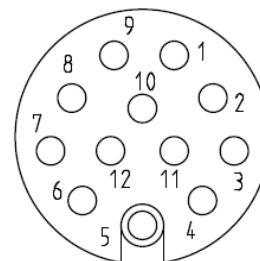
### Incremental encoder

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



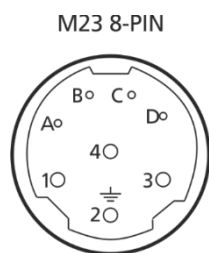
### Absolute encoder

Pin	Assignment
1	DC + 5 V
2	GND_5V
3	SD
4	/SD
5	NC
6	NC
7	KTY +
8	KTY -
9	V_batt
10	GND_batt
11	NC
12	NC



## Power connection

Pin	Assignment
1	Phase U
2	PE
3	Phase V
4	Phase W
5	NC
6	NC
7	Brake B+
8	Brake B-





## Speed/torque curves

E°SC3-055-07-20-21....:

