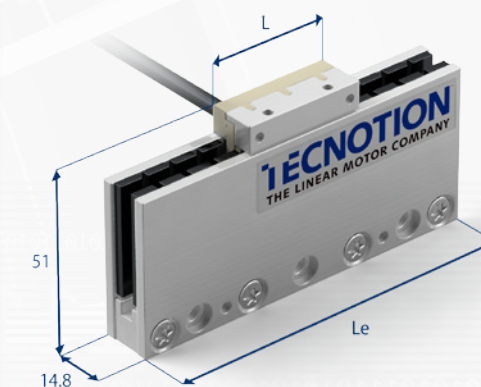


	Parameter	Remarks	Symbol	Unit	UC3	UC6
Performance	Motortype, max voltage ph-ph				3-phase synchronous Ironless, 45V <sub>ac rms</sub> (60V <sub>dc</sub> )	
	Peak Force @ 20°C/s increase	magnet @ 25°C	F <sub>p</sub>	N	36	72
	Continuous Force*	coils @ 80°C	F <sub>c</sub>	N	10	20
	Maximum Speed**	@ 60 V	v <sub>max</sub>	m/s	5	5
	Motor Force Constant	mount. sfc. @ 20°C	K	N/A <sub>rms</sub>	11.4	11.4
	Motor Constant	coils @ 25°C	S	N <sup>2</sup> /W	9.2	18.3
Electrical	Peak Current	magnet @ 25°C	I <sub>p</sub>	A <sub>rms</sub>	3.1	6.2
	Maximum Continuous Current	coils @ 80°C	I <sub>c</sub>	A <sub>rms</sub>	0.87	1.75
	Back EMF Phase-Phase <sub>peak</sub>		B <sub>emf</sub>	V / m/s	9.3	9.3
	Resistance per Phase*	coils @ 25°C ex. cable	R <sub>f</sub>	Ω	4.7	2.4
	Induction per Phase	I < 0.6 I <sub>p</sub>	L <sub>f</sub>	mH	0.75	0.38
	Electrical Time Constant*	coils @ 25°C	τ <sub>e</sub>	ms	0.16	0.16
Thermal	Maximum Continuous Power Loss	all coils	P <sub>c</sub>	W	13	26
	Thermal Resistance	coils to mount. sfc.	R <sub>th</sub>	°C/W	3.6	1.8
	Thermal Time Constant*	to max. coil temp.	τ <sub>th</sub>	s	25	25
	Temperature Sensors				none	none
Mechanical	Coil Unit Weight	ex. cables	W	kg	0.031	0.062
	Coil Unit Length	ex. cables	L	mm	34	67
	Motor Attraction Force		F <sub>a</sub>	N	0	0
	Magnet Pitch NN		τ	mm	16.5	16.5
	Cable Mass		m	kg/m	0.07	0.07
	Cable Type (Power)	length 1 m	d	mm (AWG)	4.3 (24)	
	Cable Type (Sensor)				N/A	
	Cable Life (Power FLEX)***	minimum			15,000,000 cycles	
	Bending Radius Static	minimum			5x cable diameter	
	Bending Radius Dynamic	minimum			8x cable diameter	

\* These values are only applicable when the mounting surface is at 20°C and the motor is driven at maximum continuous current. If these values differ in your application, please check our simulation tool.

\*\* Actual values depend on bus voltage. Please check the F/V diagram in our simulation tool.

\*\*\* Depending on Bending Radius, Velocity and Acceleration.



UC3 in 99mm magnet yoke shown

Approvals



#### Magnet yoke dimensions

Le (mm)	66	99	264
M4 bolts	2	3	8
Mass (kg/m)	3.2		

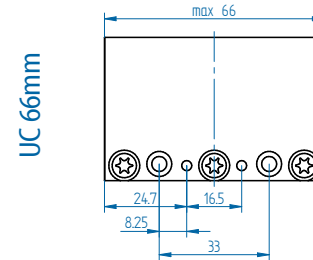
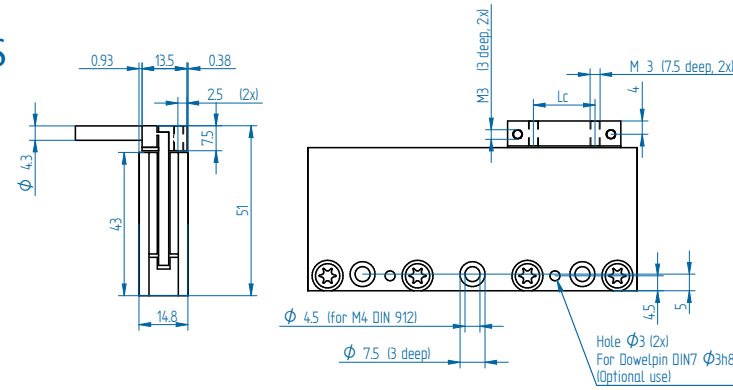
Magnet yokes can be butted together.

All specifications ±10%

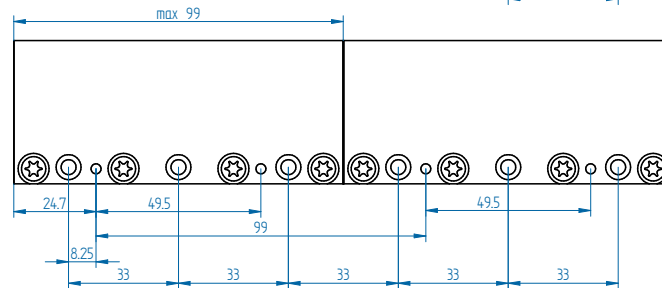
Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

Mounting instructions and flatness or parallelism requirements can be found in the Ironless installation manual. CAD files and 3D models can be downloaded from our website.

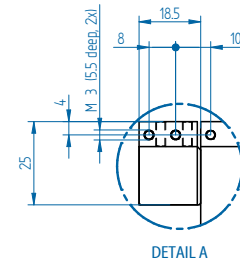
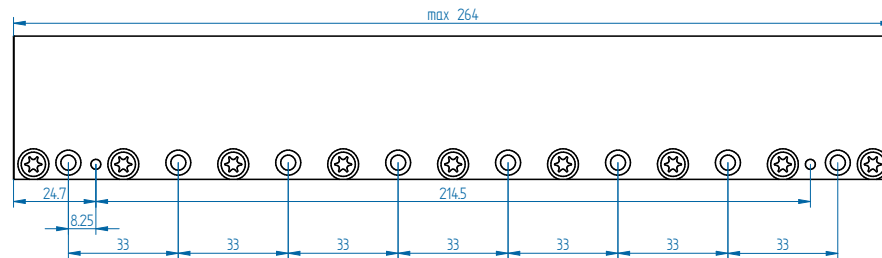
**MAGNET YOKES**



2x UC 99mm

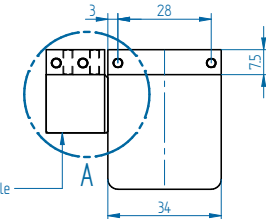
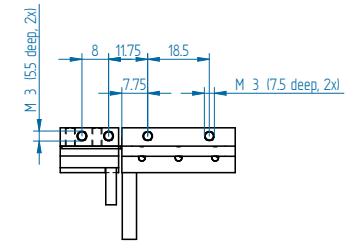


UC 264mm

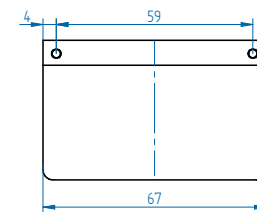


UC 3

Optional: Digital Hall Module



UC 6



	Dig. Hall cable (mm)	Lc (mm)
UC3	$\phi 3.2$	18.5
UC6	$\phi 3.2$	51.5