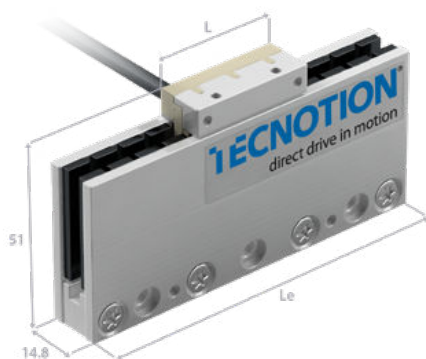




UC3 in 99mm magnet yoke shown

Magnet yoke dimensions

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

Magnet yokes can be butted together.

Approvals



UC series ironless

	Parameter	Remarks	Symbol	Unit	UC3 + UC3 inline	UC6 + UC6 inline
Performance	Motor type, max voltage ph-ph	3-phase synchronous	U _{max}	V _{ac,rms} (V _{dc})	45 (60)	
	Peak force @ 20 K/s increase	magnets @ 25°C	F _p	N	36	72
	Continuous force ¹	coils @ 80°C	F _c	N	10	20
	Maximum speed ²	@ U _{max} @ F _c	v _{max}	m/s	5.0	
	Motor force constant	I ≤ I _c	K _f	N/A _{rms}	11.4	
	Motor constant	coils @ 25°C	S	N ² /W	9.2	18.1
Electrical	Peak current	magnets @ 25°C	I _p	A _{rms}	3.1	6.2
	Continuous current ¹	coils @ 80°C	I _c	A _{rms}	0.87	1.75
	Back EMF ph-ph _{peak}		K _e	V _{dc} /m/s	9.3	
	Resistance per phase	coils @ 25°C ex. cable	R _{ph}	Ω	4.7	2.4
	Induction per phase		L _{ph}	mH	0.75	0.38
	Electrical time constant		τ _e	ms	0.16	
Thermal	Continuous power loss ¹	coils @ 80°C	P _c	W	13	26
	Thermal resistance	coils to mount. sfc.	R _{th}	K/W	3.6	1.8
	Thermal time constant		τ _{th}	s	25	
	Temperature sensor				none	
Mechanical	Coil unit mass	ex. cables	m	kg	0.031	0.062
	Coil unit length	ex. cables	L	mm	34	67
	Motor attraction force	rms @ 0 A	F _a	N	0	
	Magnet pitch NN		τ	mm	16.5	
	Cable mass	all cables		kg/m	0.07	
	Cable type (power)	length 1 m	d	mm (AWG)	4.3 (24)	
	Cable type (sensor)		d	mm (AWG)	none	
	Cable life (power FLEX) ³	minimum		cycles	15,000,000	
	Bending radius static (power FLEX)	minimum			5x cable diameter	
	Bending radius dynamic (power FLEX)	minimum			8x cable diameter	

All specifications ±10%

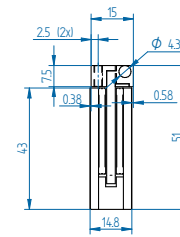
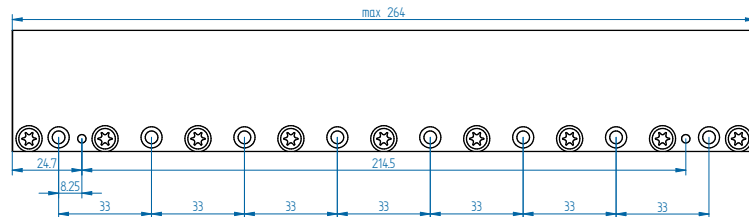
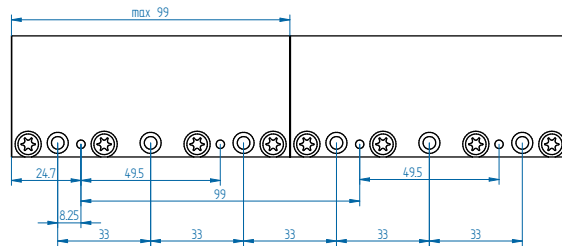
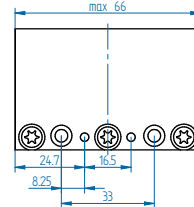
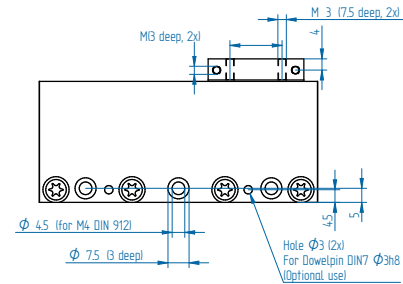
¹ These values are only applicable when the mounting surface is at 20°C and the motor is driven at continuous current. If these values differ in your application, please check our simulation tool.

² Actual values depend on bus voltage. Please check the F/v diagram in our simulation tool.

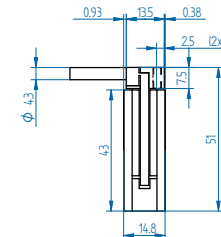
³ Depending on bending radius, velocity and acceleration.

Magnet yokes		Coil units	
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

Magnet yokes		Coil units	
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

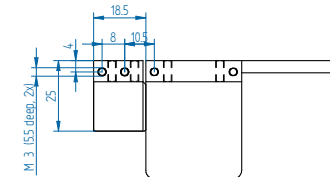
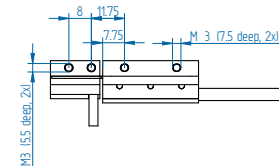


UC 3 inline

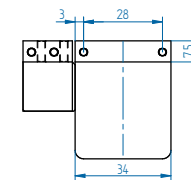
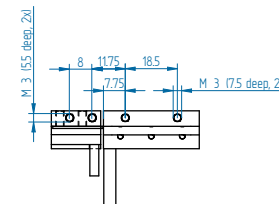


UC 3/UC 6

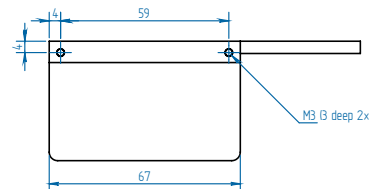
UC 3 inline



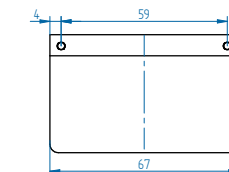
UC 3



UC 6 inline



UC 6



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

* All sizes are in mm