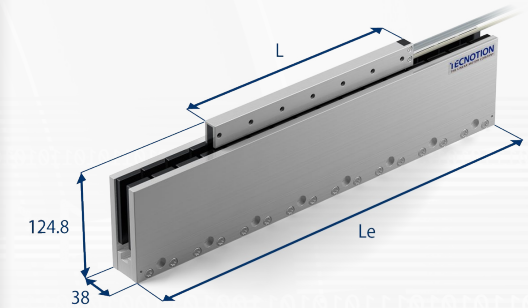


Parameter	Remarks	Symbol	Unit	UXA3		UXA6		UXA9		UXA12		UXA18
Winding type				N	S	N	S	N	S	N	S	N
Motor type, max voltage ph-ph				3-phase synchronous Ironless, 300V _{dc}								
Peak Force @ 20°C/s	magnet @ 25°C	F _p	N	615		1230		1845		2460		3690
Continuous Force*	coils @ 110°C	F _c	N	120		240		360		480		720
Maximum Speed**	@ 300 V	v _{max}	m/s	2.9	7.2	2.9	7.2	2.9	7.2	2.9	7.2	2.9
Motor Force Constant	coils @ 25°C	K	N/A _{rms}	107	43.4	107	43.4	107	43.4	107	43.4	107
Motor Constant	coils @ 25°C	S	N ² /W	244		488		732		976		1464
Peak Current	magnet @ 25°C	I _p	A _{rms}	5.7	14.2	11.5	28.4	17.2	42.5	23.0	56.7	34.5
Maximum Continuous Current	coils @ 110°C	I _c	A _{rms}	1.12	2.77	2.24	5.53	3.37	8.30	4.49	11.06	6.73
Back EMF Phase-Phase Peak		B _{emf}	V _{dc} / m/s	87	35	87	35	87	35	87	35	87
Resistance per Phase	coils @ 25°C ex. cable	R _f	Ω	15.9	2.6	7.9	1.29	5.3	0.86	4.0	0.65	2.6
Induction per Phase	l < 0.6 l _p	L _f	mH	29	4.6	14	2.3	10	1.5	7	1.2	4.8
Electrical Time Constant	coils @ 25°C	τ _e	ms	1.8		1.8		1.8		1.8		1.8
Maximum Continuous Power Loss	all coils	P _c	W	79		158		237		316		474
Thermal Resistance		R _{th}	°C/W	1.04		0.52		0.35		0.26		0.17
Thermal Time Constant	minimum	τ _{th}	s	156		156		156		156		156
Temperature Sensors				PTC 1kΩ and NTC								
Coil Unit Weight	ex. cables	M	kg	0.55		0.95		1.35		1.75		2.55
Coil Unit Length	ex. cables	L	mm	134		248		362		476		704
Motor Attraction Force		F _a	N	0		0		0		0		0
Magnet Pitch NN		τ	mm	57		57		57		57		57
Cable Weight		m	gr/m	180		180		180		180		180
Cable Type (Power)	length 1 m	d	mm (AWG)	6.4 (18) except UXA3S***								
Cable Type (Sensor)	length 1 m	d	mm (AWG)	4.3 (26)								



UXA6 in 456mm magnet yoke shown

UXA3S Power Cable (FLEX)	
Cable Type	9.0 (21) mm (AWG)
Cable Life	5,000,000 cycles
Bending Radius Static	4x cable diameter
Bending Radius Dynamic	10x cable diameter

Magnet yoke dimensions			
Le (mm)	114	171	456
M6 bolts	2	3	8
Mass (kg/m)	19		
Magnet yokes can be butted together.			

All specifications ±10%

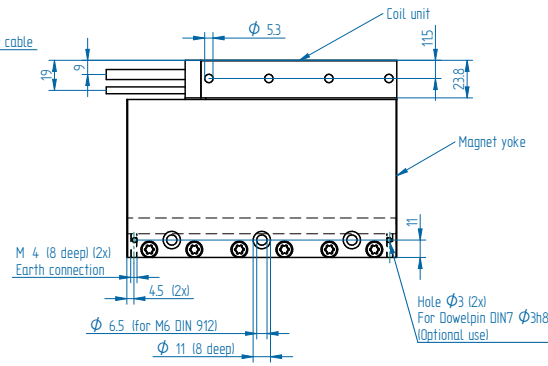
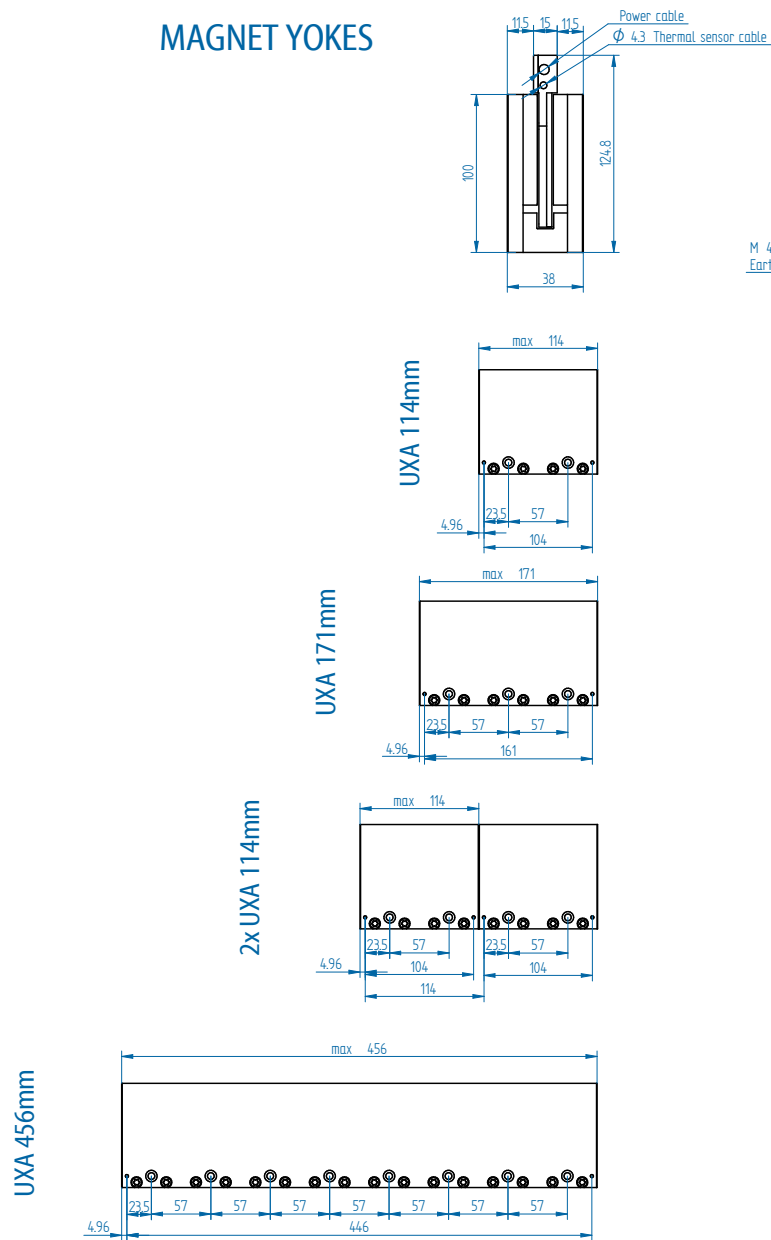
*Max. continuous force depends on the thermal resistance, cooling surface and ambient temperature of your application. Download our simulation tool to check the motor's thermal behavior in the application.

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

*** The UXA3S is only available with a FLEX power cable. The specifications for this cable can be found in the box on the right side of this page.

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



COIL UNITS

