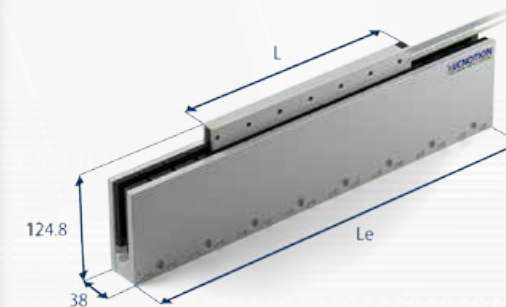


	Parameter	Remarks	Symbol	Unit	UXA3		UXA6		UXA9		UXA12		UXA18
					N	S	N	S	N	S	N	S	N
Performance	Winding type				N	S	N	S	N	S	N	S	N
	Motor type, max voltage ph-ph				3-phase synchronous Ironless, 230V _{ac rms} (300V _{dc})								
	Peak Force @ 20°C/s increase	magnet @ 25°C	F _p	N	615		1230		1845		2460		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	mount. sfc. @ 20°C	K	N/A _{rms}	107	43.4	107	43.4	107	43.4	107	43.4	107
Electrical	Motor Constant	coils @ 25°C	S	N ² /W	244		488		732		976		1464
	Peak Current	magnet @ 25°C	I _p	A _{rms}	5.6	13.9	11.3	28	16.9	42	22.6	56	34
	Maximum Continuous Current	coils @ 110°C	I _c	A _{rms}	1.14	2.80	2.27	5.6	3.4	8.4	4.5	11.2	6.8
	Back EMF Phase-Phase Peak		B _{emf}	V/m/s	87	35	87	35	87	35	87	35	87
	Resistance per Phase*	coils @ 25°C ex. cable	R _{ph}	Ω	15.8	2.6	7.9	1.29	5.3	0.86	4.0	0.65	2.6
	Induction per Phase		L _{ph}	mH	28	4.6	14	2.3	9	1.5	7	1.2	4.7
Thermal	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	82		165		247		330		494
	Thermal Resistance	coils to mount. sfc.	R _{th}	°C/W	1.04		0.52		0.35		0.26		0.17
	Thermal Time Constant	up to 63% max. coiltemp.	τ _{th}	s	156		156		156		156		156
Mechanical	Temperature Cut-off / Sensor*				PTC 1kΩ / NTC								
	Coil Unit Weight	ex. cables	W	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 Mass		m	kg/m	0.18		0.18		0.18		0.18		0.18
	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

Approvals



UXA3S Power Cable (FLEX cable of 3m)

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

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

Magnet yoke dimensions

Le (mm)	114	171	456
M6 bolts	2	3	8
Mass (kg/m)	19		

Magnet yokes can be butted together.

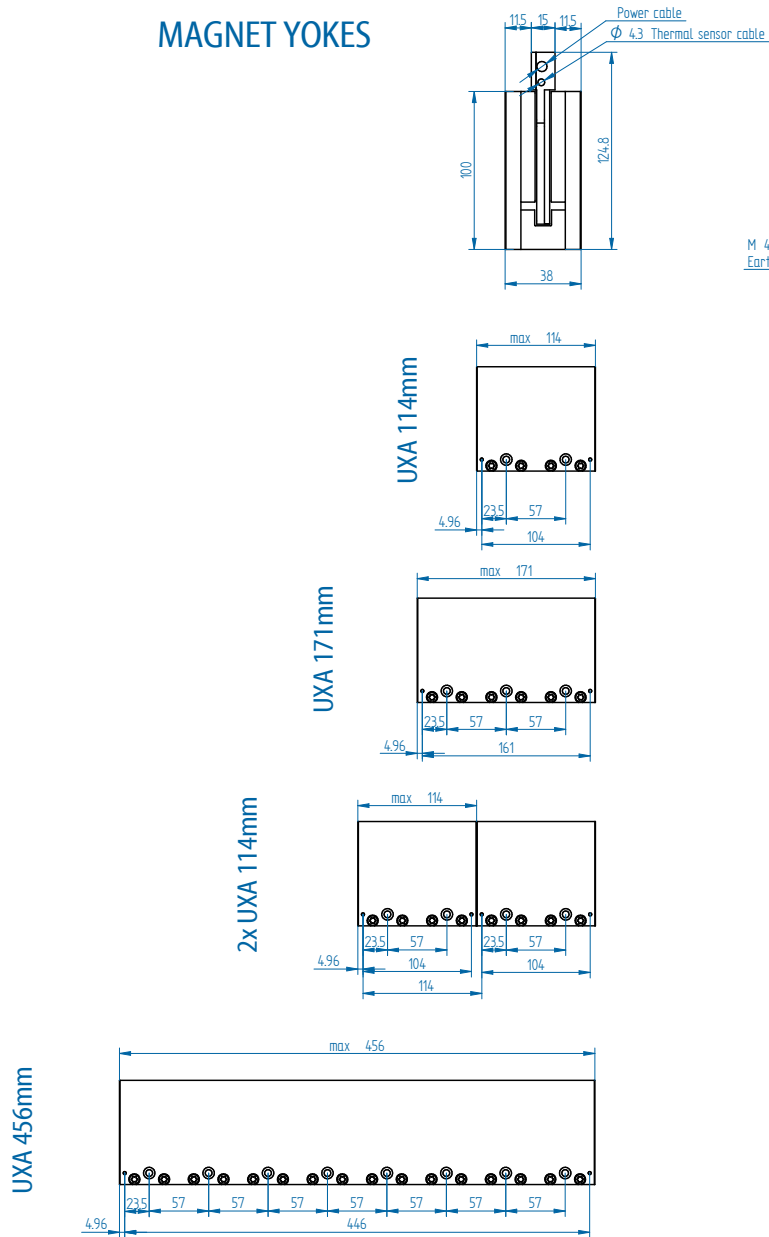
* These values are only applicable when the mounting surface is at 20°C and the motor is driven at maximum continuous current. If these values differ in your application, please check our simulation tool.

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

*** The UXA3S is only available with a FLEX power cable. The specifications for this cable can be found in the table 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

