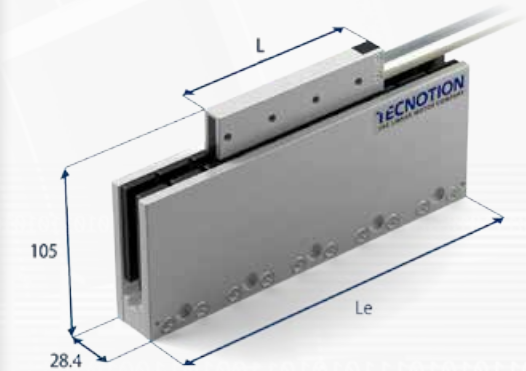


Parameter		Remarks	Symbol	Unit	UL3		UL6		UL9		UL12		UL15			
Performance	Winding type				N	S	N	S	N	S	N	S	N	S		
	Motor type, max voltage ph-ph				3-phase synchronous Ironless, 230V _{ac rms} (300V _{dc})											
	Peak Force @ 20°C/s increase	magnet @ 25°C	F _p	N	240		480		720		960		1200			
	Continuous Force*	coils @ 110°C	F _c	N	70		140		210		280		350			
	Maximum Speed**	@ 300 V	v _{max}	m/s	5	12	5	12	5	12	5	12	5	12		
	Motor Force Constant	mount. sfc. @ 20°C	K	N/A _{rms}	68	27.5	68	27.5	68	27.5	68	27.5	67.5	27.5		
	Motor Constant	coils @ 25°C	S	N ² /W	97		195		290		390		485			
Electrical	Peak Current	magnet @ 25°C	I _p	A _{rms}	3.5	8.7	7	17.5	10.5	26.2	14.1	35	17.8	44		
	Maximum Continuous Current	coils @ 110°C	I _c	A _{rms}	1.03	2.6	2.1	5.1	3.1	7.6	4.2	10.2	5.2	12.9		
	Back EMF Phase-Phase _{peak}		B _{emf}	V/m/s	55.5	22.5	55.5	22.5	55.5	22.5	55.5	22.5	55.5	22.5		
	Resistance per Phase*	coils @ 25°C ex. cable	R _{ph}	Ω	15.9	2.6	8.0	1.28	5.3	0.85	4.0	0.64	3.3	0.53		
	Induction per Phase		L _{ph}	mH	13	2.0	6.5	1.0	4.2	0.7	3.2	0.5	3	0.4		
	Electrical Time Constant*	coils @ 25°C	τ _e	ms	0.8		0.8		0.8		0.8		0.8			
Thermal	Maximum Continuous Power Loss	all coils	P _c	W	67		134		200		270		335			
	Thermal Resistance	coils to mount. sfc.	R _{th}	°C/W	1.3		0.65		0.43		0.32		0.26			
	Thermal Time Constant*	up to 63% max. coiltemp.	τ _{th}	s	72		72		72		72		72			
	Temperature Cut-off / Sensor				PTC 1kΩ / NTC											
Mechanical	Coil Unit Weight	ex. cables	W	kg	0.25		0.47		0.69		0.91		1.13			
	Coil Unit Length	ex. cables	L	mm	106		190		274		358		442			
	Motor Attraction Force		F _a	N	0		0		0		0		0			
	Magnet Pitch NN		τ	mm	42		42		42		42		42			
	Cable Mass		m	kg/m	0.09		0.09		0.09		0.105		0.105			
	Cable Type (Power)	length 1 m	d	mm (AWG)					5.8 (20)				6.4 (18)			
	Cable Type (Sensor)	length 1 m	d	mm (AWG)					4.3 (26)				4.3 (26)			



UL3 in 210mm magnet yoke shown

Approvals



Magnet yoke dimensions

Le (mm)	126	168	210	546
M5 bolts	3	4	5	13
Mass (kg/m)	11.2			

Magnet yokes can be butted together.

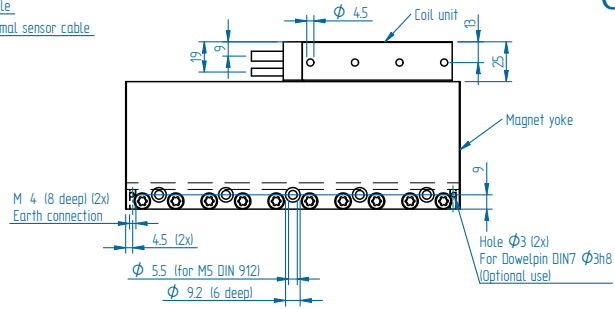
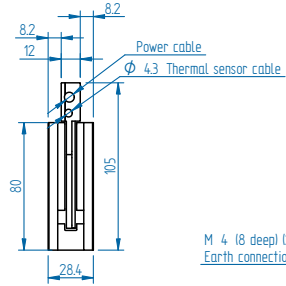
All specifications ±10%

* 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.

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

