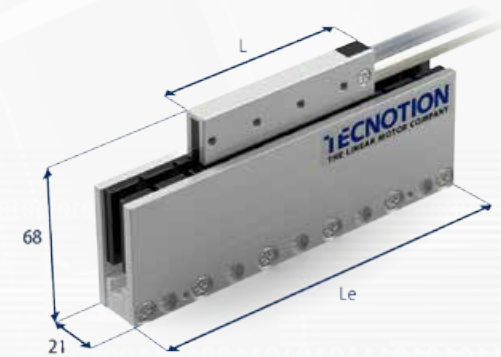


Parameter	Remarks	Symbol	Unit	UM3		UM6		UM9		UM12	
Winding type				N	S	N	S	N	S	N	S
Motor type, max voltage ph-ph				3-phase synchronous Ironless, 230V _{ac rms} (300V _{dc})							
Peak Force @ 20°C/s increase	magnet @ 25°C	F _p	N	100		200		300		400	
Continuous Force*	coils @ 110°C	F _c	N	29		58		87		116	
Maximum Speed**	@ 300 V	v _{max}	m/s	10	18	10	18	10	17	10	16
Motor Force Constant	mount. sfc. @ 20°C	K	N/A _{rms}	36.3	19.9	36.3	19.9	36.3	19.9	36.3	19.9
Motor Constant	coils @ 25°C	S	N ² /W	24		48		71		95	
Peak Current	magnet @ 25°C	I _p	A _{rms}	2.8	5.0	5.5	10.0	8.3	15.0	11.0	20.0
Maximum Continuous Current	coils @ 110°C	I _c	A _{rms}	0.8	1.5	1.6	2.9	2.4	4.4	3.2	5.8
Back EMF Phase-Phase _{peak}		B _{emf}	V/m/s	30	16	30	16	30	16	30	16
Resistance per Phase*	coils @ 25°C ex. cable	R _{ph}	Ω	18.5	5.5	9.3	2.8	6.2	1.8	4.6	1.4
Induction per Phase		L _{ph}	mH	6	1.8	3	0.9	2	0.6	1.5	0.4
Electrical Time Constant*	coils @ 25°C	τ _e	ms	0.35		0.35		0.35		0.35	
Maximum Continuous Power Loss	all coils	P _c	W	47		95		142		190	
Thermal Resistance	coils to mount. sfc.	R _{th}	°C/W	1.8		0.9		0.6		0.45	
Thermal Time Constant*	up to 63% max. coiltemp.	τ _{th}	s	36		36		36		36	
Temperature Cut-off / Sensor				PTC 1kΩ / NTC							
Coil Unit Weight	ex. cables	W	kg	0.084		0.162		0.240		0.318	
Coil Unit Length	ex. cables	L	mm	78		138		198		258	
Motor Attraction Force		F _a	N	0		0		0		0	
Magnet Pitch NN		τ	mm	30		30		30		30	
Cable Mass		m	kg/m	0.08		0.08		0.08		0.08	
Cable Type (Power)	length 1 m	d	mm (AWG)	5.3 (22)							
Cable Type (Sensor)	length 1 m	d	mm (AWG)	3.2 (26)							



UM3 in 150mm magnet yoke shown

Approvals



Magnet yoke dimensions

Le (mm)	90	120	150	390
M4 bolts	3	4	6	13
Mass (kg/m)	4.8			

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.

