

KMC71S SERIES - IRON CORE LINEAR MOTOR

DIMENSIONS AND SPECIFICATIONS

Magnet plate dimensions		
Code	KMM710064	KMM710128
Le (mm)	64	128
M5 bolts	4	8
Mass (kg/m)	1,6	
Magnet plates can be butted together.		

FLEX Cable

The KMC-Serie comes standard with a 3m long FLEX power cable.



Parameter		Remarks	Sym	Unit	KMC71S	
Performance	Winding type				II01H	II02H
	Motor type, max voltage ph-ph				3-phase synchronous Iron core, 220V _{ac rms} (320V _{dc})	
	Ultimate force @ 10°C/s increase	Magnet @ 25°C	F _u	N	110	220
	Peak force @ 6°C/s increase	Magnet @ 25°C	F _p	N	95	190
	Continuous force*	Coils @ 110°C	F _c	N	45	90
	Maximum speed**	@ 320 V	V _{max}	m/s	6	6
	Motor force constant	Mount. sfc. @ 20°C	K	N/A _{rms}	30	30
Electrical	Motor constant	Coils @ 25°C	S	N ² /W	40	80
	Ultimate current	Magnet @ 25°C	I _u	A _{rms}	5	9,9
	Peak current	Magnet @ 25°C	i _p	A _{rms}	3,7	7,3
	Maximum continuous current*	Coils @ 110°C	I _c	A _{rms}	1,5	3,0
	Back EMF Phase-Phase _{peak}		B _{emf}	V/m/s	24	24
	Resistance per phase	Coils @ 25°C ex. cable	R _{ph}	Ω	5	2,5
	Induction per phase	l < 0.6 lp	I _{ph}	mH	30	15
Electrical time constant	Coils @ 25°C	T _e	ms	6		
Thermal	Max. continuous power loss	All coils	P _c	W	66	132
	Thermal resistance	Coils to mount. sfc.	R _{th}	°C/W	1.85	0,94
	Temperature cut-off / sensor				PTC 1kΩ / KTY 83-122	
Mechanical	Coil unit weight	ex. cables	W	kg	0.4	0,7
	Coil unit length	ex. cables	L	mm	96	160
	Motor attraction force	rms @ 0 A	F _a	N	220	500
	Magnet pitch NN		t	mm	32	
	Cable Type (power FLEX)***	Length 3 m	d	mm (AWG)	6.6 (21)	
	Cable Type (sensor)	Length 3 m	d	mm (AWG)	4.9 (26)	
Cable Life Time (power FLEX)***	Minimum			5.000.000 cycles		
Bending Radius Static	Minimum			4x cable diameter		
Bending Radius Dynamic	Minimum			17.5x cable diameter		

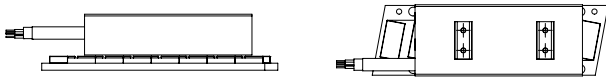
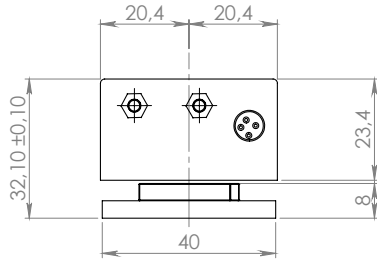
* These values are only applicable when the mounting surface is at 20°C and the motor is driven at maximum continuous current. If these values differ in your application, please check our simulation tool.

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

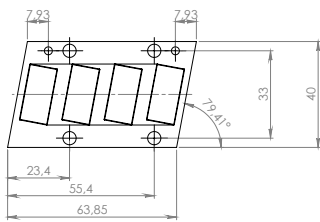
*** Depending on bending radius, velocity and acceleration.

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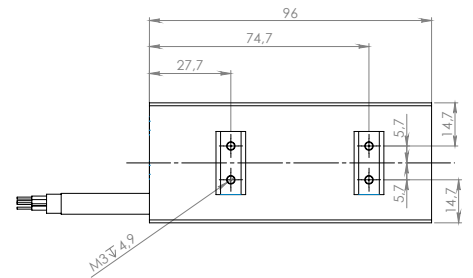
MAGNET PLATES



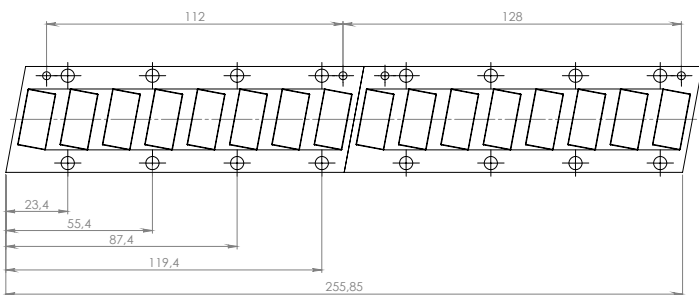
KMM710064



KMC71S-II01H



KMM710128



KMC71S-II02H

