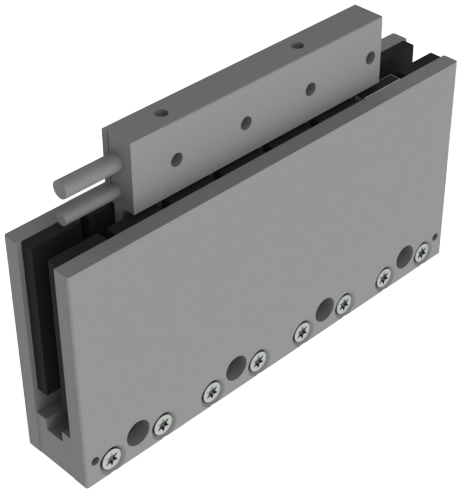
KMC95S SERIES - IRONLESS LINEAR MOTOR
DIMENSIONS AND SPECIFICATIONS

Magnet plate dimensions		
Code	**KMM950126**	**KMM950168**
Le (mm)	126	168
M5 bolts	3	4
Mass (kg/m)	11,2	
Magnet yokes can be butted together.		

Code	**KMM950210**	**KMM950546**
Le (mm)	210	546
M5 bolts	5	13
Mass (kg/m)	11,2	
Magnet yokes can be butted together.		



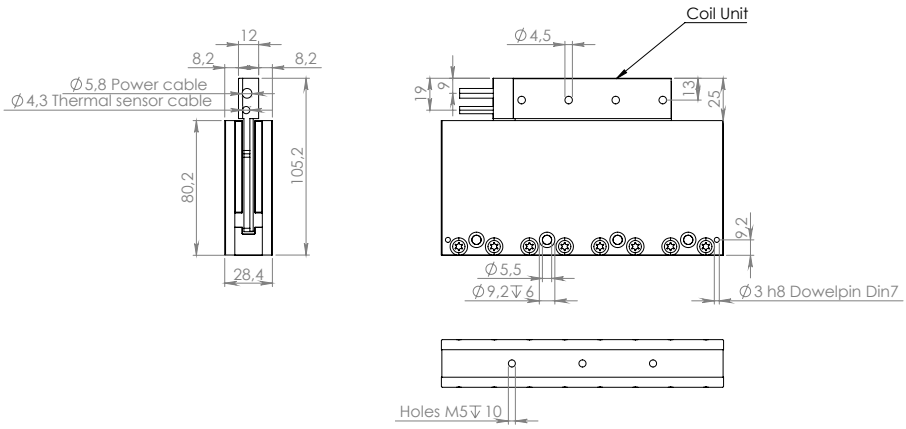
	Parameter	Remarks	Sym	Unit	KMC95S									
Performance	**Winding type**				IU02N	IU02H	IU05N	IU05H	IU07N	IU07H	IU10N	IU10H	IU12N	IU12H
	Motortype, max voltage ph-ph				3-phase synchronous Iron core, 230V $_{ac\ rms}$ (325V$_{dc}$)									
	Peak force @ 20°C/s increase	Magnet @ 25ºC	F_p	N	240		480		720		960		1200	
	Continuous force*	Coils @ 110ºC	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. @ 20ºC	K	N/A$_{rms}$	68	27,5	68	27,5	68	27,5	68	27,5	68	27,5
	Motor constant	Coils @ 25ºC	S	N^2/W	97		195		290		390		485	
Electrical	**Peak current**	Magnet @ 25ºC	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 @ 110ºC	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 @ 25ºC 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 @ 25ºC	t_e	ms	0,8									
Thermal	**Max. continuous power loss**	All coils	P_c	W	67		134		200		270		335	
	Thermal resistance	Coils to mount. sfc.	R_{th}	ºC/W	1,3		0,65		0,43		0,32		0,26	
	Thermal time constant*	up to 63% max. coiltemp.	t_{th}	s	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		t	mm	42									
	Cable mass		m	kg/m	0,09		0,09		0,09		0,105		0,105	
	Cable type (power)	Length 3 m	d	mm (AWG)	5,8 (20)						6,4 (18)			
	Cable type (sensor)	Length 3 m	d	mm (AWG)	5,8 (26)						4,3 (26)			

** 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.*

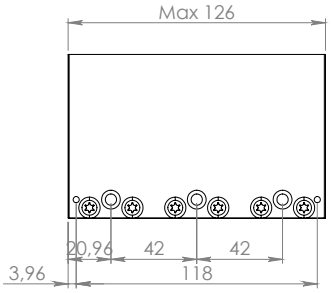
KMC95S SERIES - IRONLESS LINEAR MOTOR

DIMENSIONS AND SPECIFICATIONS

MAGNET PLATES



KMM950126



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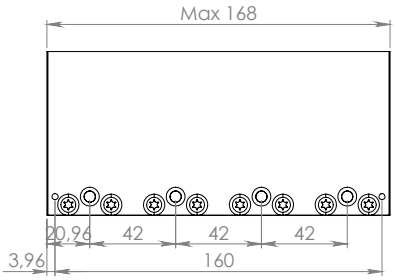
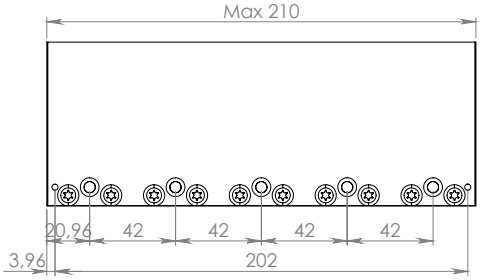
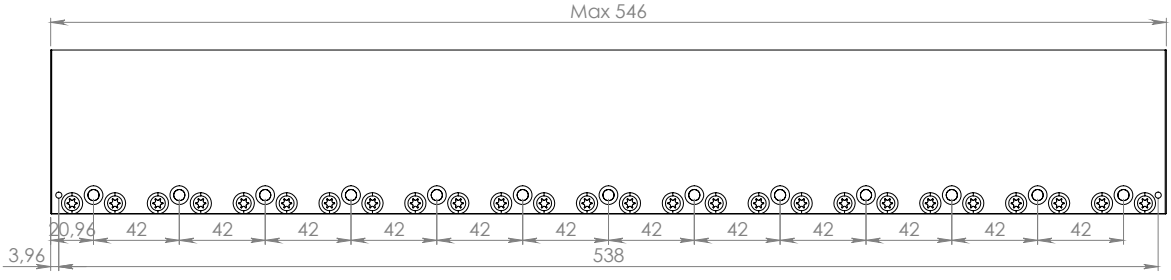


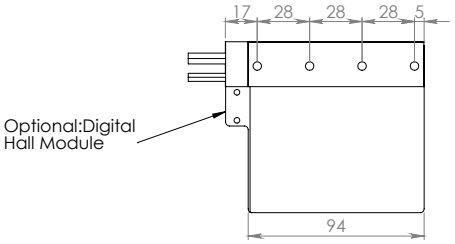
KMM950210



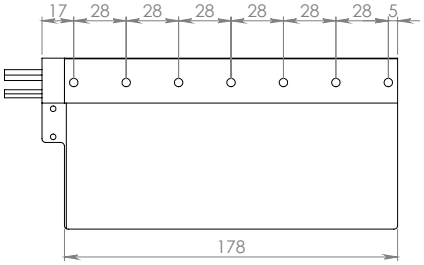
KMM950546



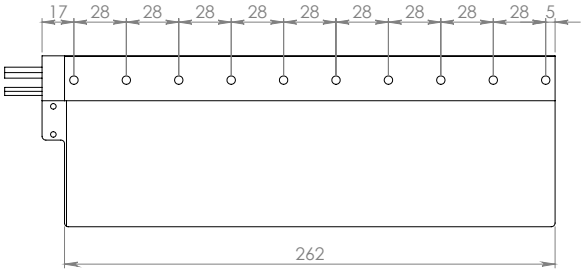
KMC95S-IU02N / IU02H



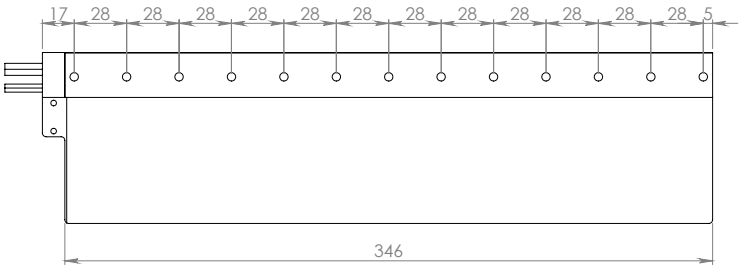
KMC95S-IU05N / IU05H



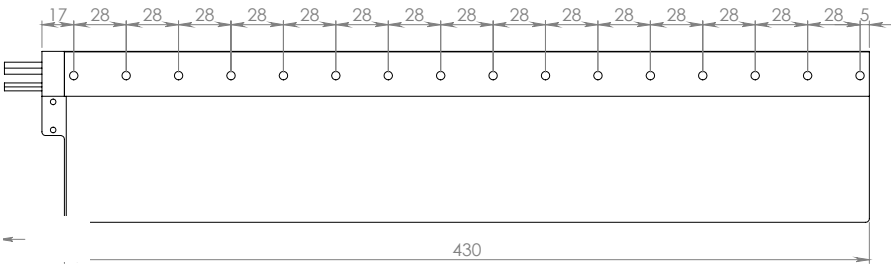
KMC95S-IU07N / IU07H



KMC95S-IU10N / IU10H



KMC95S-IU12N / IU12H



Mounting instructions and flatness or parallelism requirements can be found in the iron core installation manual. CAD files, 3D models and the manual can be downloaded from our website.
** All sizes are in mm*