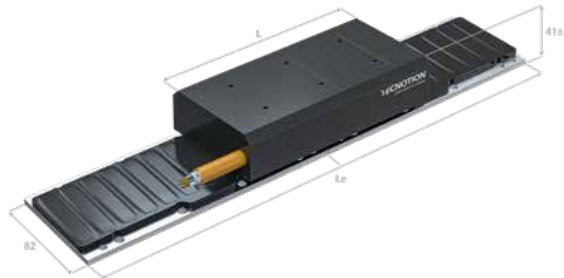


TD82 series



TD82-6 on 2xTD82-192 mm magnet plates

Magnet plate dimensions

Le (mm) 192 288

M5 bolts 8 12

Mass (kg/m) 3.73

Magnet plates can be butted together.

Approvals



Parameter		Remarks	Symbol	Unit	TD82-3	TD82-6	TD82-9	TD82-12
Performance	Winding type				N	N	N	N
	Motor type, max voltage ph-ph	3-phase synchronous	U _{max}	V _{ac,rms} (V _{dc})	480 (680)			
	Ultimate force @ 10 K/s increase	magnets @ 25°C	F _u	N	453	905	1358	1811
	Peak force @ 6 K/s increase	magnets @ 25°C	F _p	N	403	805	1208	1611
	Continuous force ¹	coils @ 105°C	F _c	N	262	524	786	1048
	Maximum speed ²	@ U _{max} @ F _c	V _{max}	m/s	6.4			
	Motor force constant	I ≤ I _c	K _f	N/A _{rms}	93.6			
	Motor constant	coils @ 25°C	S	N ² /W	498	996	1495	1993
Electrical	Ultimate current	magnets @ 25°C	I _u	A _{rms}	6.5	13.1	19.6	26.1
	Peak current	magnets @ 25°C	I _p	A _{rms}	5.0	10.0	15.0	20.0
	Continuous current ¹	coils @ 105°C	I _{cw}	A _{rms}	2.8	5.6	8.4	11.2
	Back EMF ph-ph _{peak}		K _e	V _{dc} /m/s	76.5			
	Resistance per phase	coils @ 25°C ex. cable	R _{ph}	Ω	5.9	2.9	1.96	1.47
	Induction per phase	I < 0.6 I _p	L _{ph}	mH	54.6	27.3	18.2	13.6
	Electrical time constant		τ _e	ms	9.3			
Thermal	Continuous power loss ¹	coils @ 105°C	P _c	W	182	364	545	727
	Thermal resistance	coils to mount. sfc.	R _{th}	K/W	0.44	0.22	0.15	0.11
	Thermal time constant		τ _{th}	s	36			
	Temperature sensor				Pt1000 / PTC 1kΩ (2x)			
Mechanical	Coil unit mass	ex. cables	m	kg	1.20	2.13	3.1	4.0
	Coil unit length	ex. cables	L	mm	95	159	223	287
	Motor attraction force	rms @ 0 A	F _a	N	704	1408	2112	2816
	Magnet pitch NN		τ	mm	32			
	Cable mass	all cables		kg/m	0.17			
	Cable type	length 1 m	d	mm (AWG)	10.6 (4x19+2x22+2x26)			

¹ These values are only applicable when the mounting surface is at 20°C and the motor is driven at continuous current. If these values differ in your application, please check our simulation tool.

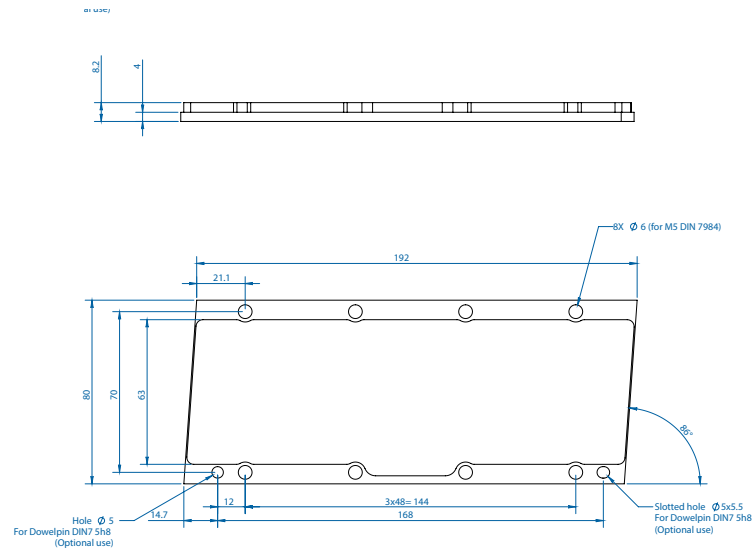
² Actual values depend on bus voltage. Please check the F/v diagram in our simulation tool.

All specifications ±10%

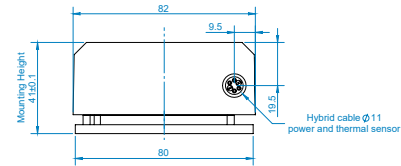
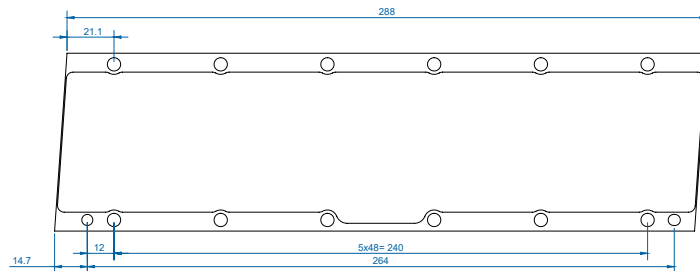
Magnet plates

Coil units

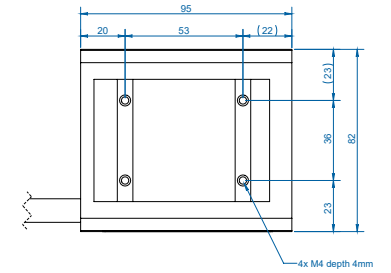
TD82 192 mm



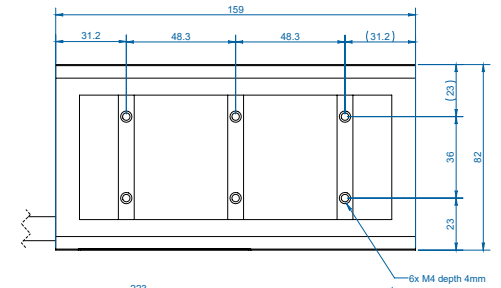
TD82 288 mm



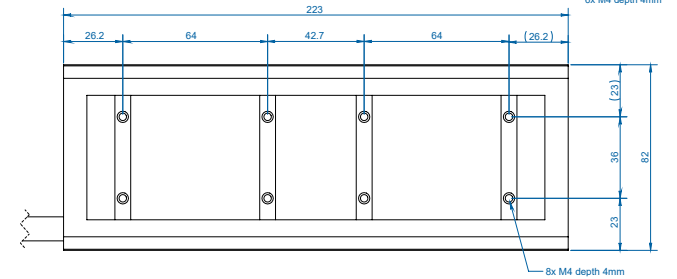
TD82-3



TD82 -6



New
TD82 -9



New
TD82 -12

