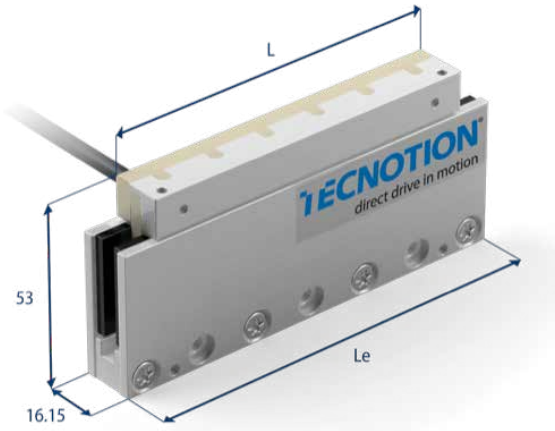


UF6 in 120mm magnet yoke shown

UF Series Ironless

	Parameter	Remarks	Symbol	Unit	UF3	UF6
Performance	Motortype, max voltage ph-ph				3-phase synchronous Ironless, 45$V_{ac\,rms}$ (60V_{dc})	
	Peak force @ 20°C/s increase	magnet @ 25°C	F_p	N	42.5	85
	Continuous force*	coils @ 110°C	F_c	N	19.5	39
	Maximum speed**	@ 60 V	v_{max}	m/s	5.1	5.1
	Motor force constant	mount. sfc. @ 20°C	K	N/A_{rms}	12.3	12.3
	Motor constant	coils @ 25°C	S	N^2/W	14.6	29.2
Electrical	Peak current	magnet @ 25°C	I_p	A_{rms}	3.5	6.9
	Maximum continuous current	coils @ 110°C	I_c	A_{rms}	1.58	3.17
	Back EMF phase-phase$_{peak}$		B_{emf}	V/m/s	10.1	10.1
	Resistance per phase*	coils @ 25°C ex. cable	R_{ph}	Ω	3.5	1.8
	Induction per phase		L_{ph}	mH	1.24	0.62
	Electrical time constant*	coils @ 25°C	τ_e	ms	0.36	0.36
Thermal	Maximum continuous power loss	all coils	P_c	W	35	70
	Thermal resistance	coils to mount. sfc.	R_{th}	°C/W	2.4	1.2
	Thermal time constant*	up to 63% max. coiltemp.	τ_{th}	s	34	34
	Temperature sensor				NTC	NTC
Mechanical	Coil unit weight	ex. cables	W	kg	0.045	0.087
	Coil unit length	ex. cables	L	mm	49	97
	Motor attraction force		F_a	N	0	0
	Magnet pitch NN		τ	mm	24	24
	Cable mass		m	kg/m	0.07	0.07
	Cable type (power and sensor)	length 1 m	d	mm (AWG)	4.3 (24)	
	Cable life (FLEX)***	minimum			15,000,000 cycles	
	Bending radius static	minimum			5x cable diameter	
	Bending radius dynamic	minimum			8x cable diameter	

All specifications ±10%

Magnet yoke dimensions		
Le (mm)	72	120
M4 bolts	2	3
Mass (kg/m)	3.2	
Magnet yokes can be butted together.		

Approvals

CE RoHS

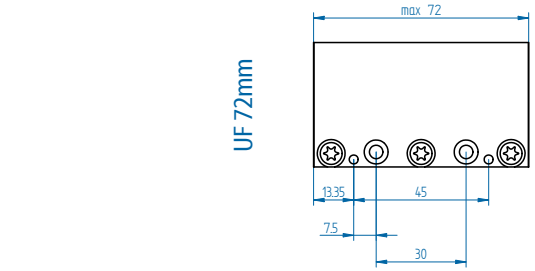
** These values are only applicable when the mounting surface is at 20°C and the motor is driven at maximum continuous current. If these values differ in your application, please check our simulation tool.*

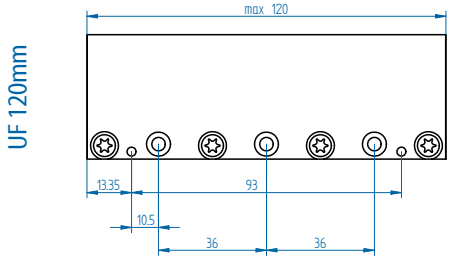
*** Actual values depend on bus voltage. Please check the F/v diagram in our simulation tool.*

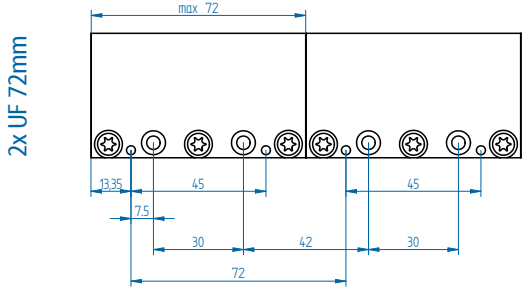
**** Depending on bending radius, velocity and acceleration.*

TECNOTION® direct drive in motion

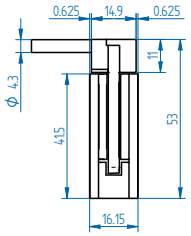
Magnet yokes

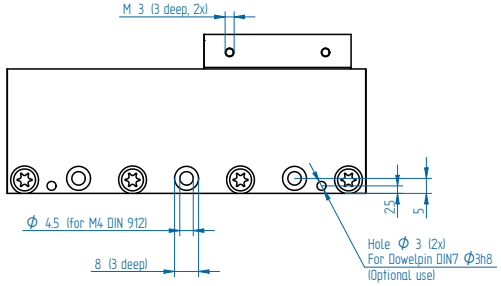


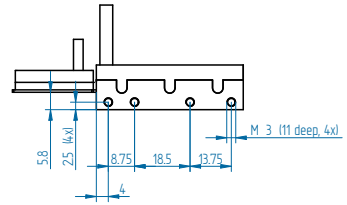


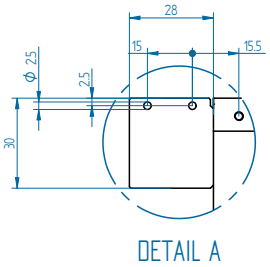


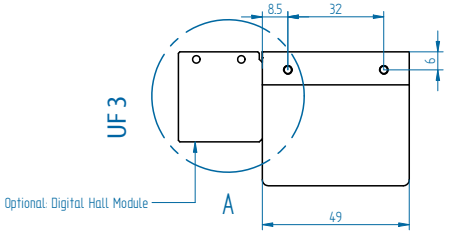
Coil units

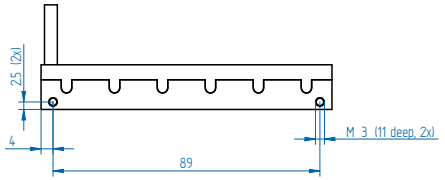


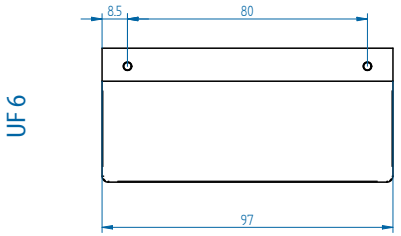












Mounting instructions and flatness or parallelism requirements can be found in the ironless installation manual. CAD files and 3D models can be downloaded from our website.

** All sizes are in mm*