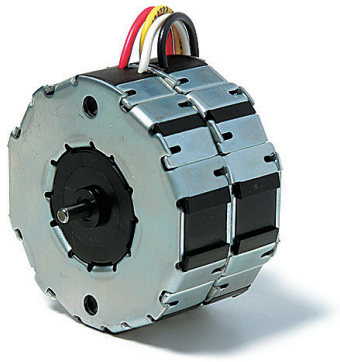
UFD

UFD1/2

Dimensions (mm)	∅ 52 x 28
Step angle (°)	7.5
Holding torque (cNm)	6.4/6.4
Detent torque (cNm)	0.45
Winding	bipolar/unipolar
Gear combination	D, M, B, F, V, J, O, P



Standard Data

Climatic class	wide-spread according to DIN IEC 60721-2-1 : 1992
Ambient temperature operation	°C -15...+55
Ambient temperature storage	°C -20...+100
Thermal resistance at f=0 R_{therm}	13 K/W
Thermal class	105 (A) according to DIN EN 60085 : 2004 (130 / B on request)
Approval	standard (UL/CSA on request)
Mounting	any position
Electrical connection	lead wires AWG22, insulation Ø 1.72 ± 0.08 mm
Protection	IP40 according to DIN EN 60529 : 2000
Weight	180 g
Rotor stalling	motor can be stopped when voltage is applied, without being overheated
Bearings	sintered bronze, self-lubricating
Electric strength	according to DIN EN 60034-1/DIN EN 60335-1

Order Reference

Type	Stepper Motor						UFD	1	0	N	52	R	N	
Configuration	1	bipolar, two coils												
	2	unipolar, two coils												
Rotor shaft, mounting	0	centring 8 mm, shaft 3.0 mm, clip		E	centring 10 mm, shaft 3.0 mm, screw plate									
	1	centring 8 mm, shaft 2.0 mm, clip		K	centring 10 mm, shaft 2.0 mm, screw plate									
	2	centring 8 mm, shaft 1.5 mm, clip		M	centring 10 mm, shaft 1.5 mm, screw plate									
	3	centring 8 mm, shaft 3.0 mm, screw plate		B	centring 10 mm, shaft 3.0 mm, clip									
	4	centring 8 mm, shaft 2.0 mm, screw plate		A	centring 10 mm, shaft 2.0 mm, clip									
	5	centring 8 mm, shaft 1.5 mm, screw plate		C	centring 10 mm, shaft 1.5 mm, clip									
Approval	N	Approval Standard												
Resistance		See next page Resistance per winding for bipolar or unipolar.												
Direction		reversible												
Cable		E cable 150 mm (other on request)												

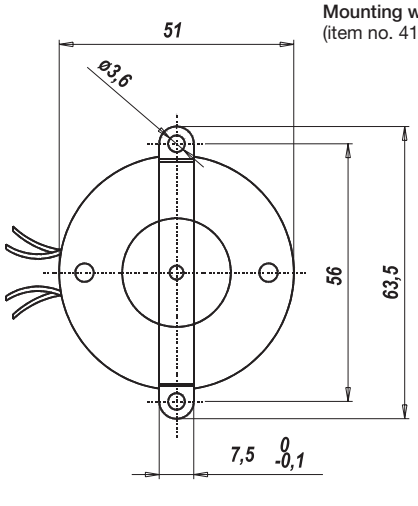
UFD

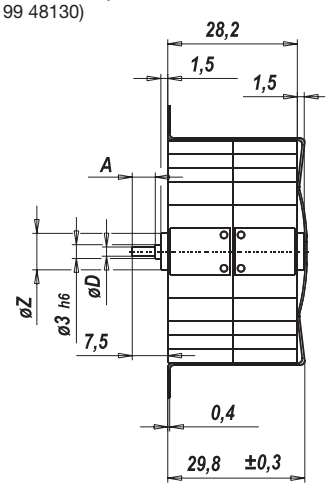
Technical Data

bipolar (UFD1)	Holding torque M_H	cNm	6.4		
	Detent torque M_S	cNm	0.45		
	Rotor inertia J_R	gcm2	14.4		
	Rated voltage U_N	V	6	12	24
	Duty cycle	%	100	100	100
	Resistance R_{20}	Ω	9.5	52	250
	Winding code		01	02	03
unipolar (UFD2)	Holding torque M_H	cNm	4.6		
	Detent torque M_S	cNm	0.45		
	Rotor inertia J_R	gcm2	14.4		
	Rated voltage U_N	V	6	12	24
	Duty cycle	%	100	100	100
	Resistance R_{20}	Ω	15	61	251
	Winding code		01	02	03
	Steps per revolution		48		
	Winding temperature Tmax		°C	105	
	Direction of rotation		reversible		
	Rotor shaft		3, ∅ D = 3h6, Dim. A = „-"		

Dimensions

Mounting with screw clip
(item no. 4199 48130)





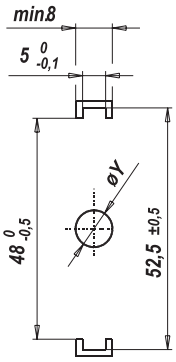
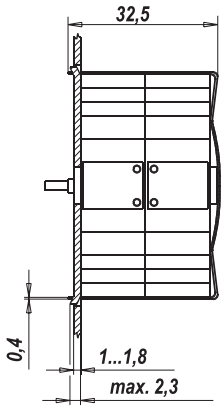
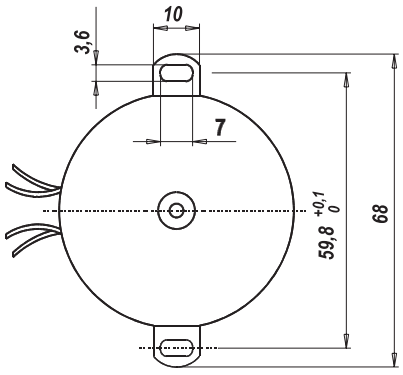


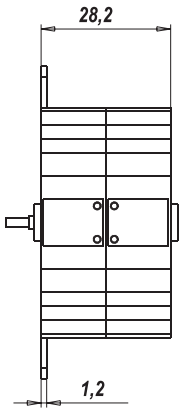
Plate cut-out

Mounting with snap-on clip
(item no. 4199 48100)



Mounting with screw plate

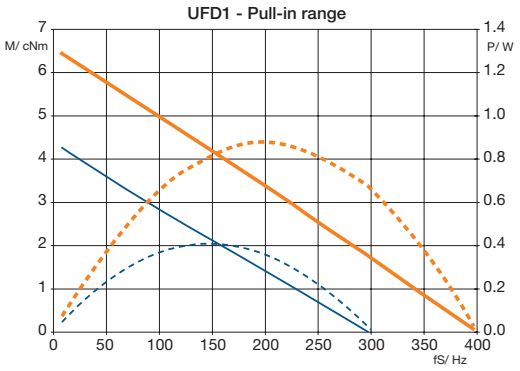


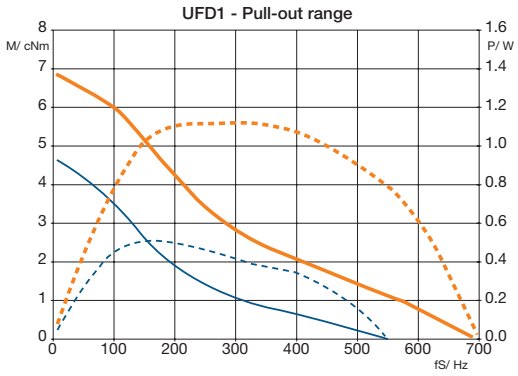


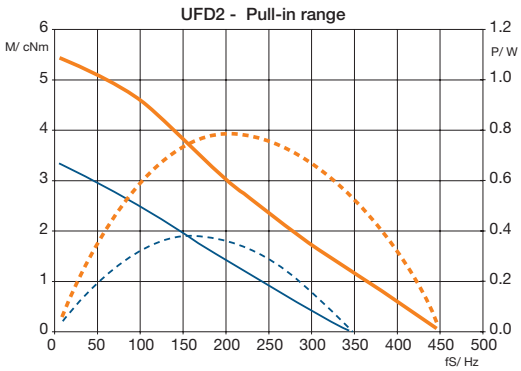
øRotor-shaft	øD	Dim. A
1,5	1,5js8	5
2	2js8	5
3	3h6	–

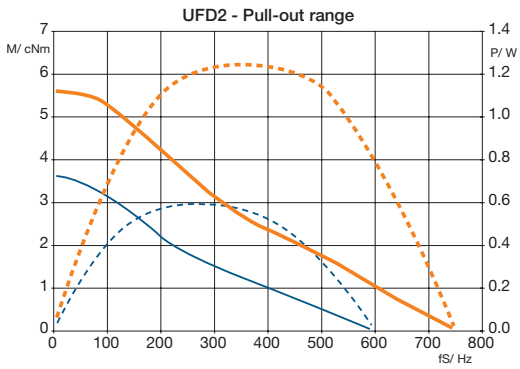
Type	øZ	øY
UFD	8 0 -0,05	8F8
	10 0 -0,05	10F8

Performance Chart



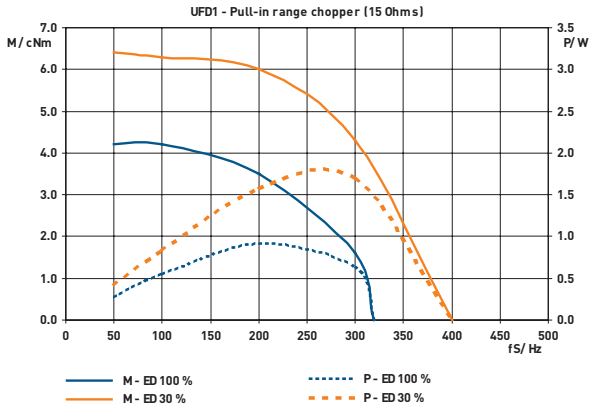




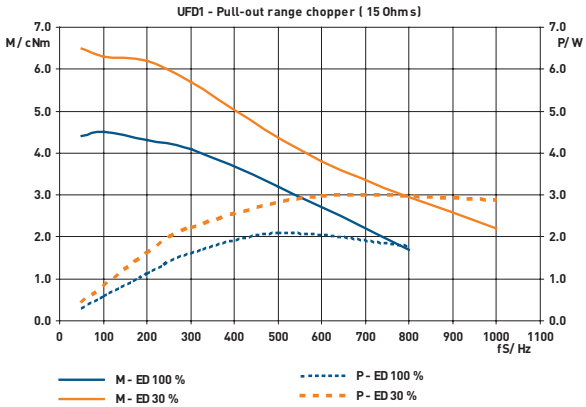


M - Duty cycle 30 %
M - Duty cycle 100%

P - Duty cycle 30 %
P - Duty cycle 100 %



100% duty cycle: max. current per phase 290mA
30% duty cycle: max. current per phase 500mA



100% duty cycle: max. current per phase290mA
30% duty cycle: max. current per phase 500mA