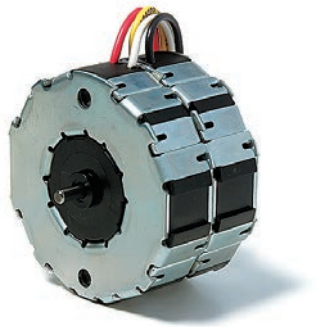
UFB

UFB1/2/5; UFB3/4



Dimensions (mm)	∅ 52 x 28 / ∅ 52 x 56
Step angle (°)	15
Holding torque (cNm)	3.7–4.7 (UFB1/2); 7.0 (UFB5); 6.5–8.8 (UFB3/4)
Detent torque (cNm)	0.4 (UFB1/2); 0.68 (UFB5); 0.68 (UFB3/4)
Winding	bipolar/unipolar
Gear combination	D, M, B, F, V, J, O, P

Note: All torque and power output values are minimum values, at rated voltage and motor temperature 23°C.

Standard Data

Climatic class	wide-spread according to DIN IEC 60721-2-1 : 2015
Ambient temperature operation	°C -15...+55
Ambient temperature storage	°C -20...+100
Thermal resistance at f=0 R_{therm}	11 K/W (UFB1/2/5), 7 K/W (UFB3/4)
Thermal class	105 (A) according to DIN EN 60085 : 2008 [130 (B) on request]
Approval	standard (UL/CSA on request)
Mounting	any position
Electrical connection	lead wires AWG22, insulation Ø 1.75 ± 0.08 mm
Protection	IP40 according to DIN EN 60529 : 2014
Weight	180 g (UFB1/2/5), 350 g (UFB3/4)
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					UFB	1	0	N	01	R	N
Configuration	1	bipolar, two coils, standard magnet	3	bipolar, four coils, standard magnet								
	2	unipolar, two coils, standard magnet	4	unipolar, four coils, standard magnet								
	5	bipolar, two coils, stronger magnet										
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										
Winding code		see next page										
Direction		reversible										
Cable	N	cable 150 mm (other on request)										

* screw plate not for UFB3 and UFB4

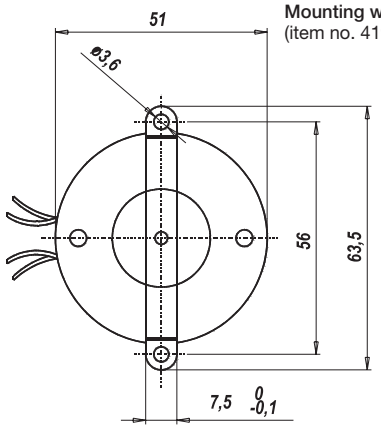
All specifications are representative only and maybe subject to variation. For confirmation of values, please contact Johnson Electric. Please also read "Saia Motors Important Notes" on catalog or at www.johnsonelectric.com/SaiaMotorsNotes

Technical Data

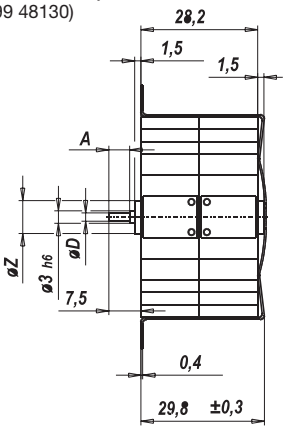
bipolar			UFB1	UFB3	UFB5
	Holding torque M_H	cNm	4.7	8.8	7.0
	Detent torque M_S	cNm	0.4	0.68	0.68
	Rotor inertia J_R	gcm^2	14.2	24.2	17.8
UFB1/5	Rated voltage U_N	V	6	12	24
	Duty cycle	%	100	100	100
	Resistance R_{20}	Ω	9.5	52	250
	Winding code		01	02	04
UFB3	Rated voltage U_N	V	6	12	24
	Duty cycle	%	100	100	100
	Resistance R_{20}	Ω	5	25.5	125
	Winding code		01	02	04
unipolar			UFB2	UFB4	
	Holding torque M_H	cNm	3.7	6.5	
	Detent torque M_S	cNm	0.4	0.68	
	Rotor inertia J_R	gcm^2	14.2	24.2	
UFB2	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
UFB4	Rated voltage U_N	V	6	12	24
	Duty cycle	%	100	100	100
	Resistance R_{20}	Ω	7.5	30.5	125
	Winding code		01	02	03
	Steps per revolution	24			
	Winding temperature T_{max}	105° C			
	Direction of rotation	reversible			

Dimensions

UFB1/2/5



Mounting with screw clip
(item no. 4199 48130)



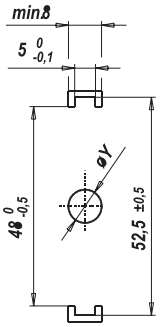
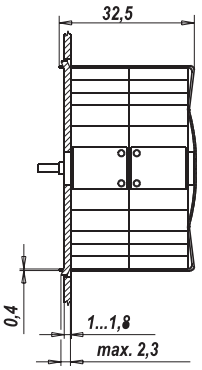
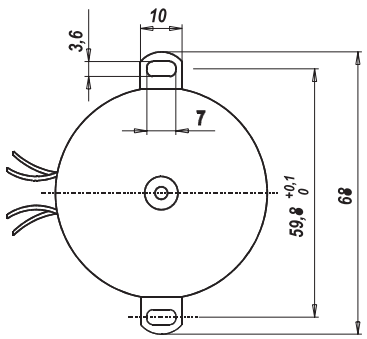


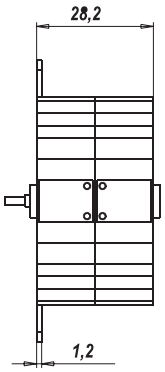
Plate cut-out

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



Mounting with screw plate

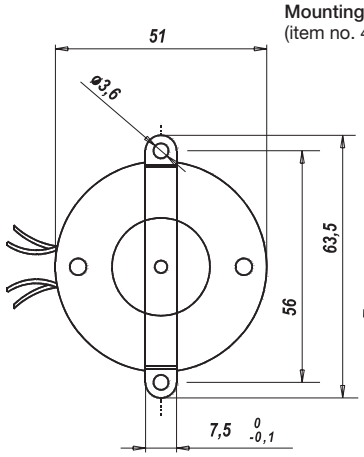




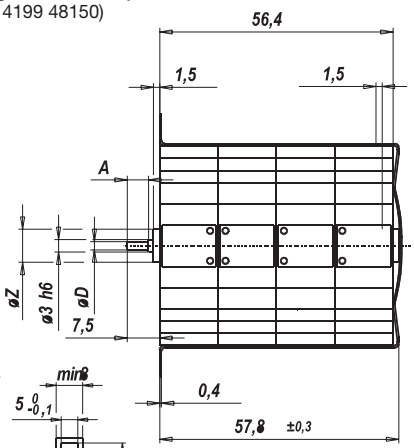
øRotor-shaft	øD	Dim. A
1,5	1,5js8	5
2	2js8	5
3	3h6	-

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

UFB3/4



Mounting with screw clip
(item no. 4199 48150)



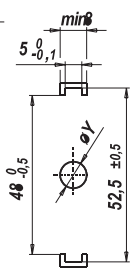
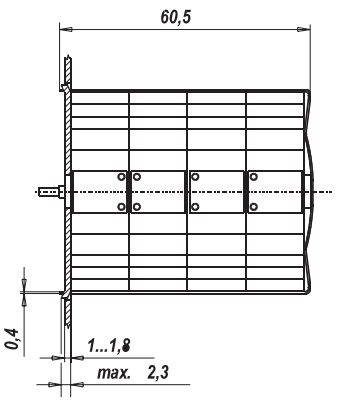


Plate cut-out

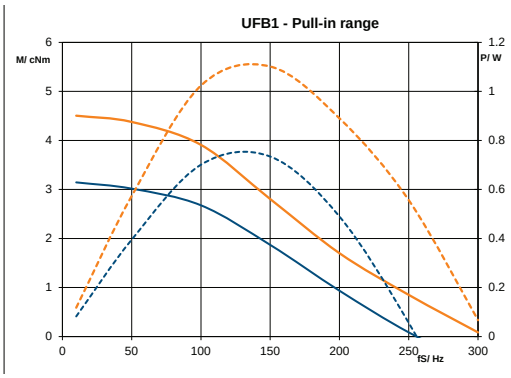
Mounting with snap-on clip
(item no. 4199 48120)

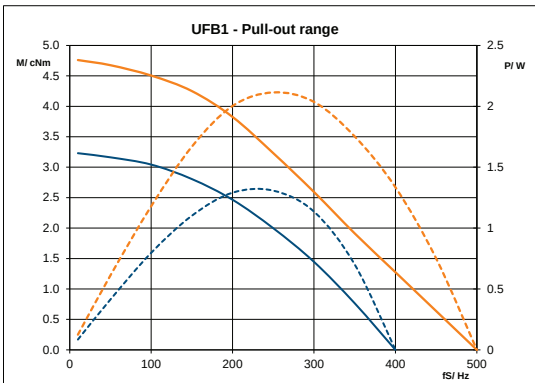


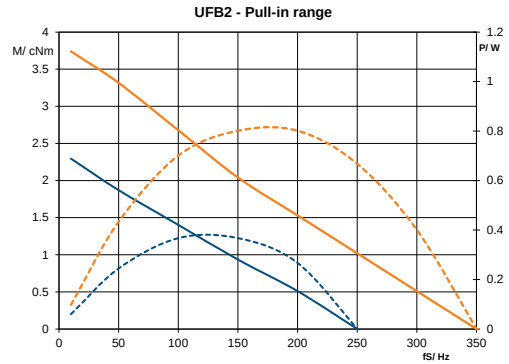
øRotor-shaft	øD	Dim. A
2	2 js8	5
3	3 h6	-

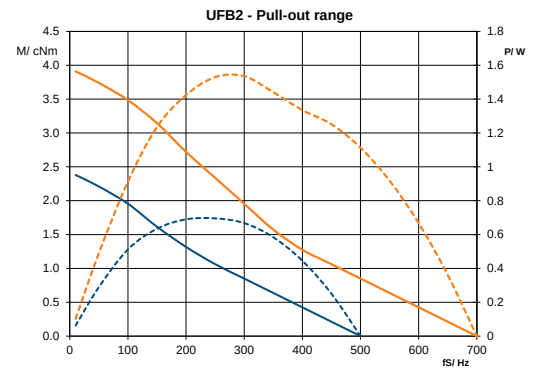
	øZ	øY
	8 0 -0.05	8F8
	10 0 -0.05	10F8

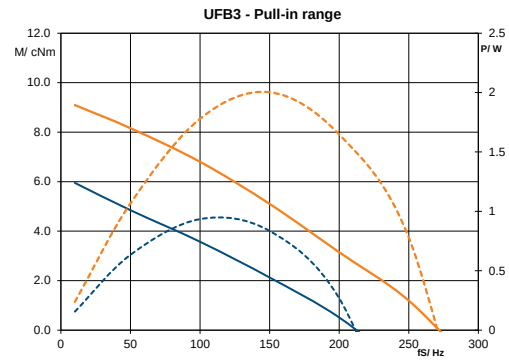
Performance Chart

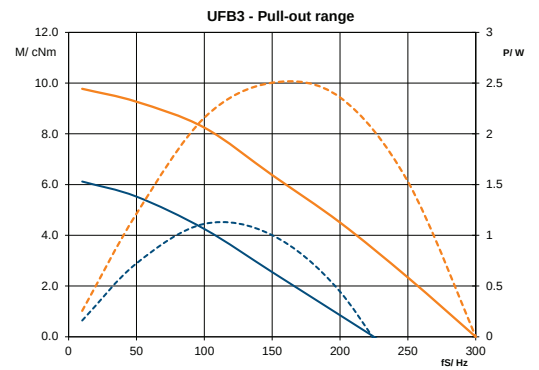


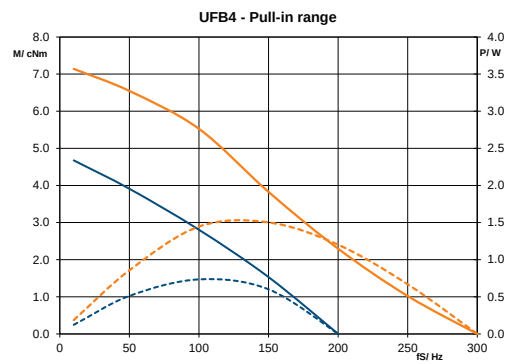


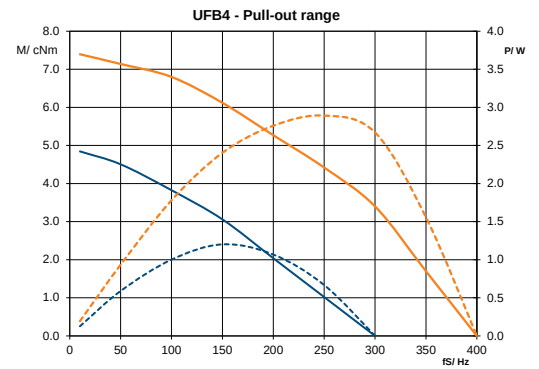






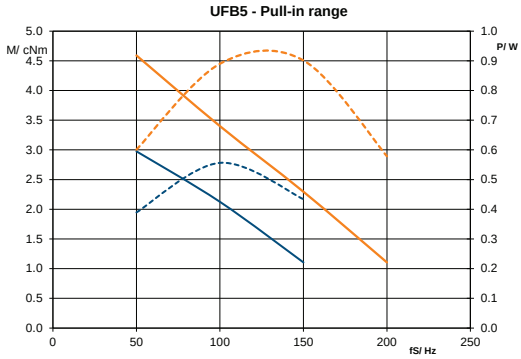


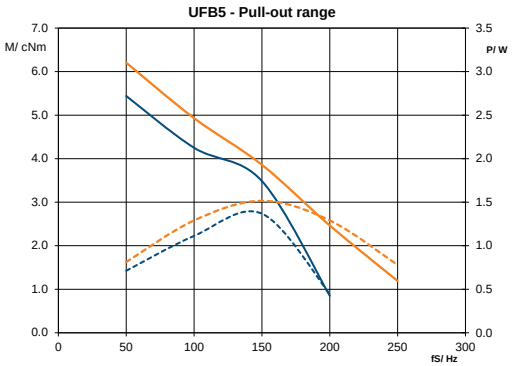


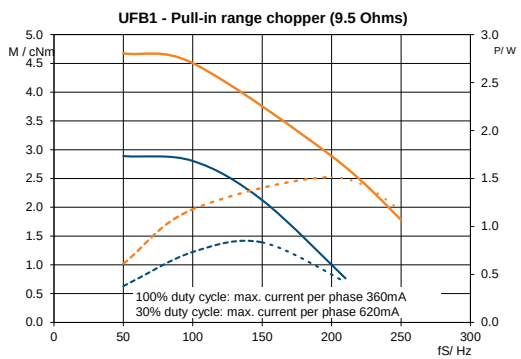


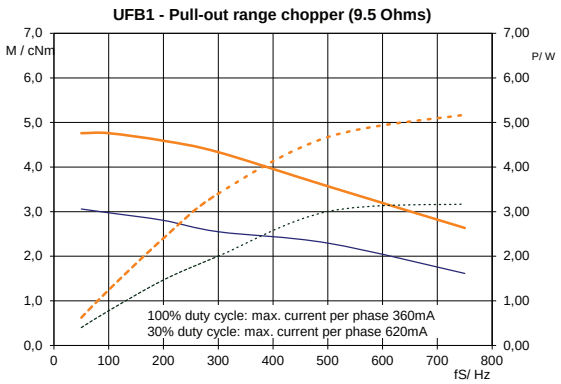
M - Duty cycle 30 %
M - Duty cycle 100%
P - Duty cycle 30 %
P - Duty cycle 100 %

Performance Chart









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