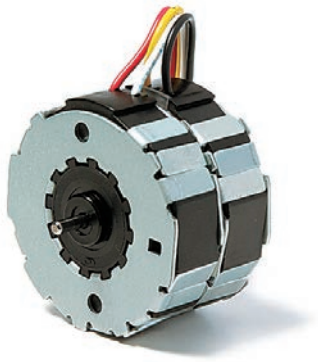
UBD

UBD1/2/5/6

Dimensions (mm)	∅ 36 x 21
Step angle (°)	7.5
Holding torque (cNm)	1.1–1.6
Detent torque (cNm)	0.19/0.23
Winding	bipolar/unipolar
Gear combination	D, M, B, F, V



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}	27 K/W
Thermal class	105 (A) according to DIN EN 60085 : 2008
Approval	standard (UL/CSA on request)
Mounting	any position
Electrical connection	cable
Protection	IP40 according to DIN EN 60529 : 2014
Weight	60 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						UBD	1	0	N	03	R	E
Configuration	1	bipolar, standard magnet	5	bipolar, stronger magnet									
	2	unipolar, standard magnet	6	unipolar, stronger magnet									
Rotor shaft, mounting	0	centring 8 mm, shaft 2.0 mm, clip	A	centring 10 mm, shaft 2.0 mm, clip									
	1	centring 8 mm, shaft 1.5 mm, clip	C	centring 10 mm, shaft 1.5 mm, clip									
	3	centring 8 mm, shaft 2.0 mm, screw plate	E	centring 10 mm, shaft 2.0 mm, screw plate									
	4	centring 8 mm, shaft 1.5 mm, screw plate	K	centring 10 mm, shaft 1.5 mm, screw plate									
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)											

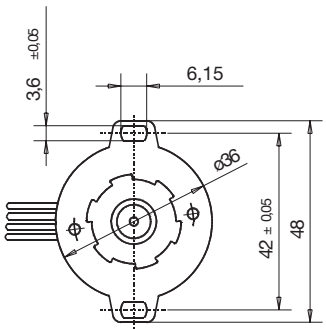
All specifications are representative only and maybe subject to variation. For confirmation of values, please contact Johnson Electric.
Please also read "Saia Motors Important Notes" on catalog or at www.johnsonelectric.com/SaiaMotorsNotes

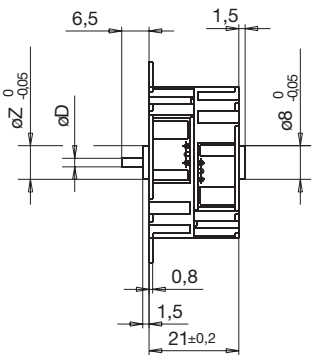
Technical Data

bipolar			UBD1		UBD5			
	Holding torque M_H	cNm	1.5		1.6			
	Detent torque M_S	cNm	0.19		0.23			
	Rotor inertia J_R	gcm2	2.8		2.9			
UBD1/5	Rated voltage U_N	V	6	12	24	6	12	24
	Duty cycle	%	100	100	100	100	100	100
	Resistance R_{20}	Ω	18.5	100	460	27.5	133	535
	Winding code		03	05	06	01	04	07
unipolar			UBD2		UBD6			
	Holding torque M_H	cNm	1.1		1.35			
	Detent torque M_S	cNm	0.19		0.23			
	Rotor inertia J_R	gcm2	2.8		2.9			
UBD2/6	Rated voltage U_N	V	6	12	24	6	12	24
	Duty cycle	%	100	100	100	100	100	100
	Resistance R_{20}	Ω	28	120	500	41	172	700
	Winding code		07	08	09	01	02	03
UBD3/7	Rated voltage U_N	V	6	12	24			
	Duty cycle	%	100	100	100			
	Resistance R_{20}	Ω	18.5	100	460			
	Winding code		03	05	06			
UBD4/8	Rated voltage U_N	V	6	12	24			
	Duty cycle	%	100	100	100			
	Resistance R_{20}	Ω	28	120	500			
	Winding code		07	08	09			
	Steps per revolution		48					
	Winding temperature T_{max}	°C	105					
	Direction of rotation		reversible					

Dimensions

Mounting with screw plate





Mounting with snap-on clip
(item no. 4199 48230)

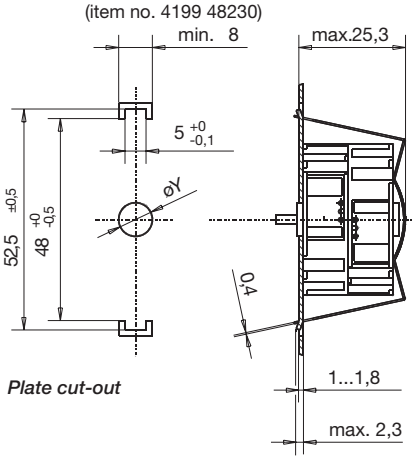
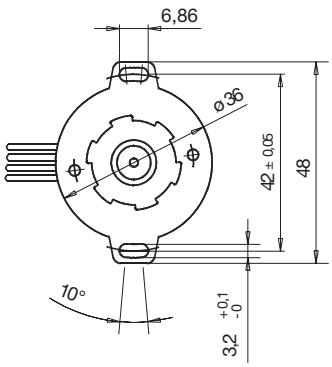


Plate cut-out

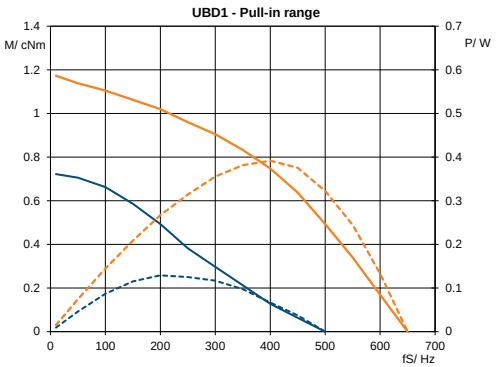
Mounting with screw plate

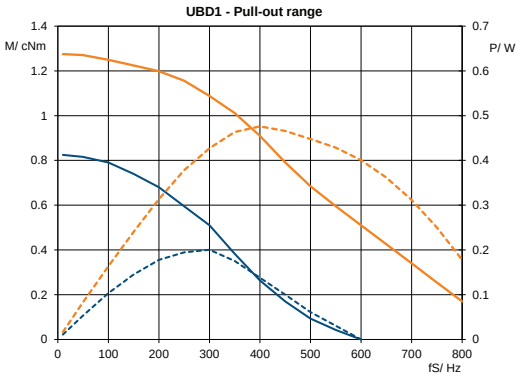


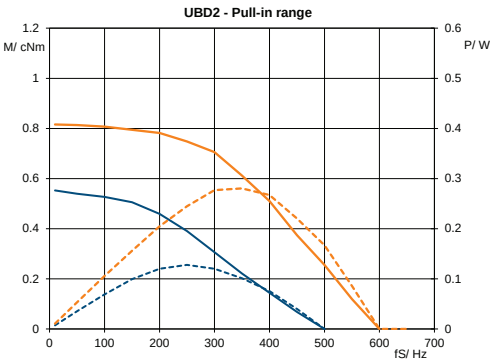
øD Rotor shaft	
ø 2 h6	
ø 1.5 js8	
øZ	**øY**
8	8F8
10	10F8

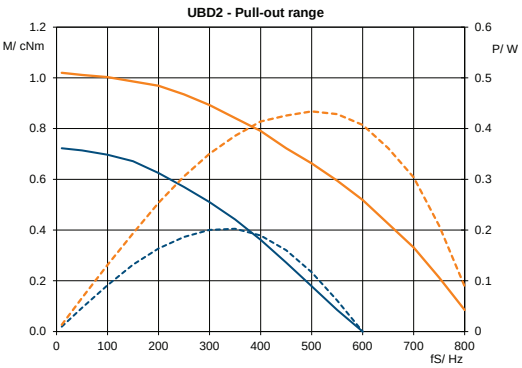
Screw clip: 4199 48450

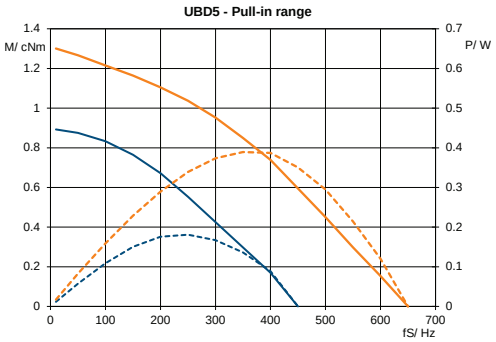
Performance Chart

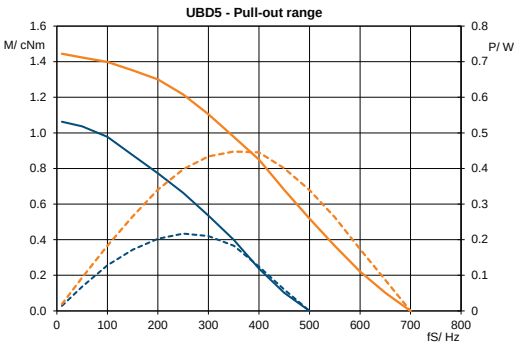


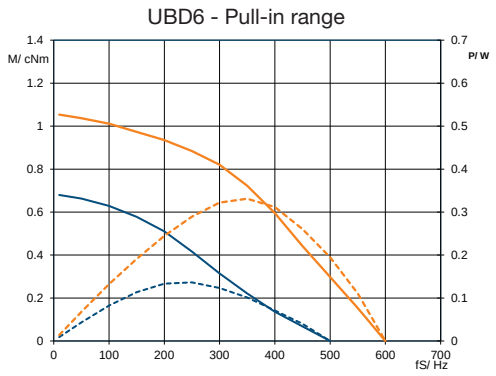


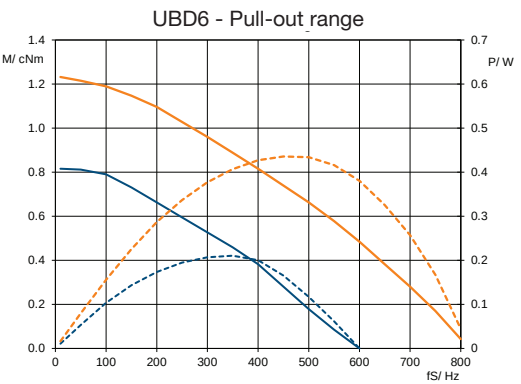












M - Duty cycle 30 %
M - Duty cycle 100%
P - Duty cycle 30 %
P - Duty cycle 100 %