

# UBD

## UBD1/2/5/6

Dimensions (mm)  $\varnothing$  36 x 21

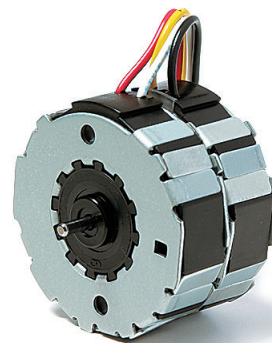
Step angle (°) 7.5

Holding torque (cNm) 1.3–1.9

Detent torque (cNm) 0.22/0.27

Winding bipolar/unipolar

Gear combination D, M, B, F, V



## 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 <sub>therm</sub>	27 K/W
Thermal class	105 (A) according to DIN EN 60085 : 2004
Approval	standard (UL/CSA on request)
Mounting	any position
Electrical connection	cable
Protection	IP40 according to DIN EN 60529 : 2000
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

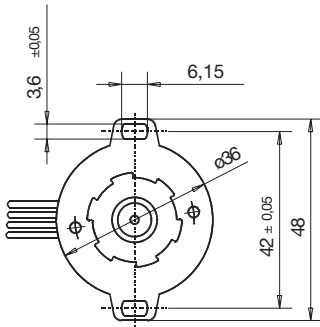
Type	Stepper Motor	UBD	1	0	N	18.5	R	E
Configuration	1 bipolar, standard magnet 2 unipolar, standard magnet	5 bipolar, stronger magnet 6 unipolar, stronger magnet						
Rotor shaft, mounting	0 centring 8 mm, shaft 2.0 mm, clip 1 centring 8 mm, shaft 1.5 mm, clip 3 centring 8 mm, shaft 2.0 mm, screw plate 4 centring 8 mm, shaft 1.5 mm, screw plate	A centring 10 mm, shaft 2.0 mm, clip C centring 10 mm, shaft 1.5 mm, clip E centring 10 mm, shaft 2.0 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)							

## Technical Data

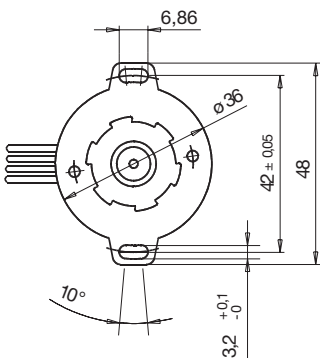
bipolar			UBD1		UBD5			
Holding torque $M_H$	cNm		1.8		1.9			
Detent torque $M_S$	cNm		0.22		0.27			
Rotor inertia $J_R$	gcm <sup>2</sup>		2.8		2.9			
UBD1/5	Rated voltage $U_N$	V	6	12	24	6	12	24
	Duty cycle	%	100	100	100	100	100	100
	Resistance $R_{20}$	$\Omega$	18.5	100	460	27.5	133	535
	Winding code		03	05	06	01	04	07
unipolar			UBD2		UBD6			
Holding torque $M_H$	cNm		1.3		1.6			
Detent torque $M_S$	cNm		0.22		0.27			
Rotor inertia $J_R$	gcm <sup>2</sup>		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 $R_{20}$	$\Omega$	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 $R_{20}$	$\Omega$	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 $R_{20}$	$\Omega$	28	120	500			
	Winding code		07	08	09			
	Steps per revolution		48					
	Winding temperature $T_{max}$	$^{\circ}C$	105					
	Direction of rotation		reversible					

### Dimensions

#### Mounting with screw plate

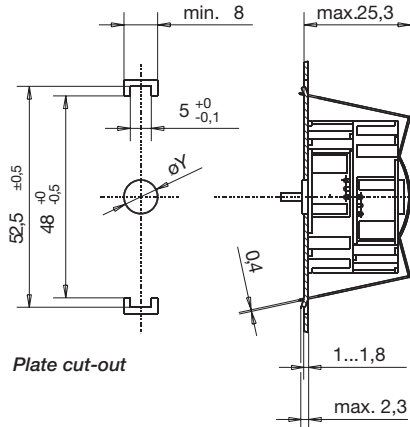


#### Mounting with screw plate



#### Mounting with snap-on clip

(item no. 4199 48230)



#### Plate cut-out

#### ØD Rotor shaft

Ø 2 h6

Ø 1.5 js8

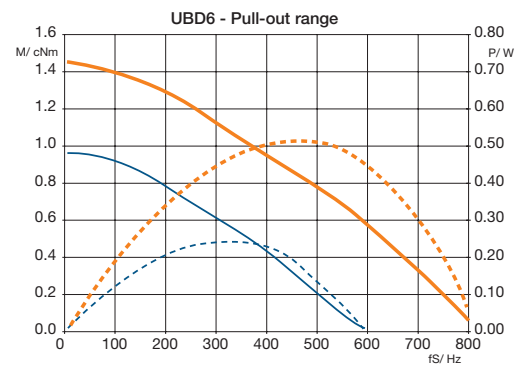
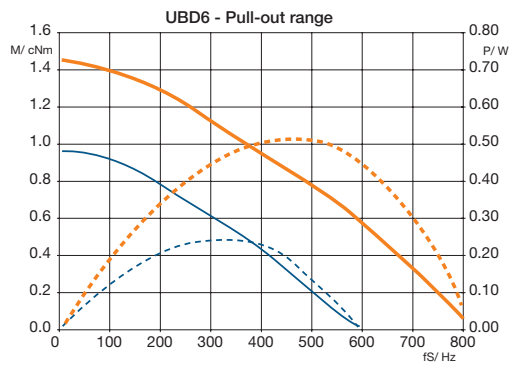
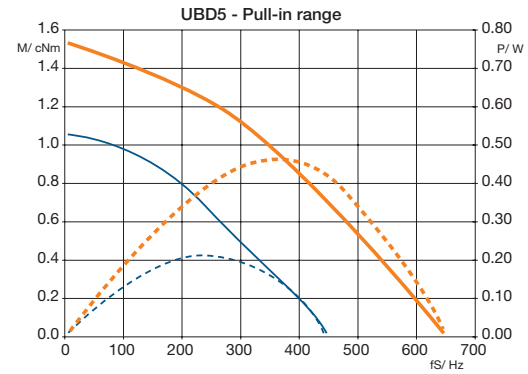
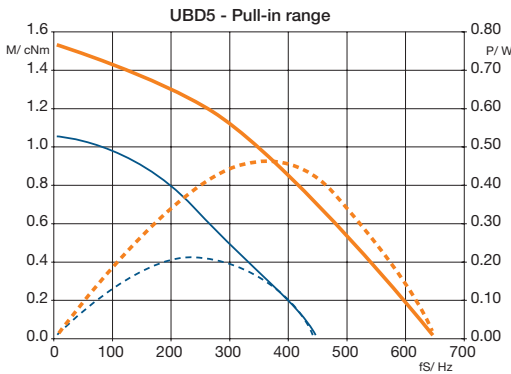
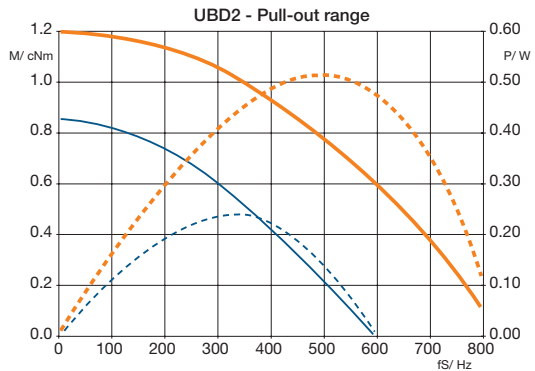
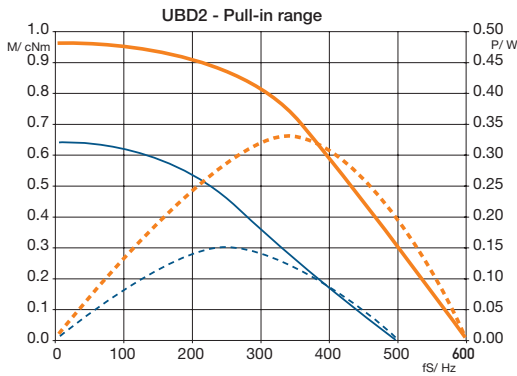
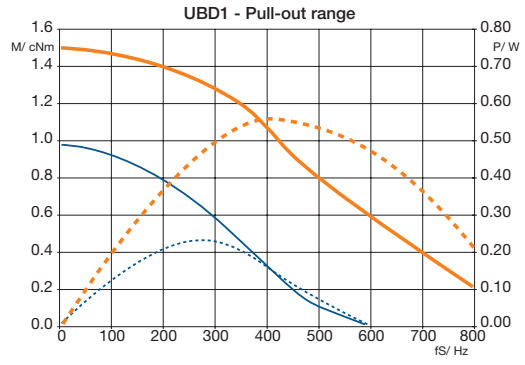
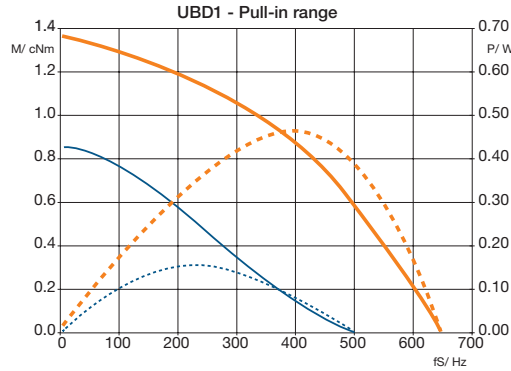
ØZ ØY

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 %