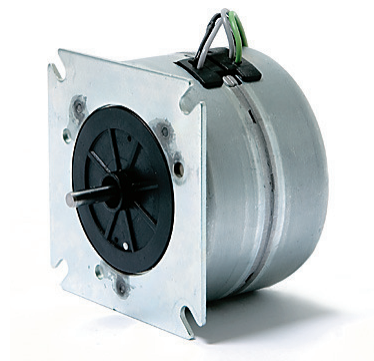


## UPJ

Dimensions (mm)	Ø 64 x 43
Step angle (°)	11.25
Holding torque (cNm)	30 (UPJ1); 45 (UPJ5)
Detent torque (cNm)	2 (UPJ1); 7 (UPJ5)
Winding	bipolar
Gear combination	O, P, R



## Standard Data

Climatic class	wide-spread according to DIN IEC 60721-2-1 : 1992
Ambient temperature operation	°C -15 ... +40
Ambient temperature storage	°C -20 ... +100
Thermal resistance at f=0 R <sub>therm</sub>	29 K/W
Thermal class	130 (B) according to DIN EN 60085 : 2004
Approval	standard
Mounting	any position
Electrical connection	lead wires AWG22, insulation Ø 1.6 ± 0.1 mm
Protection	IP30 according to DIN EN 60529 : 2000
Weight	500 g (UPJ1); 550 g (UPJ5)
Rotor stalling	motor can be stopped when voltage is applied, without being overheated
Bearings	Sintered bronze, self-lubricating

## Order Reference

Type	Stepper Motor	UPJ	1	1	N	01	R	E
Configuration	1 standard magnet 5 stronger magnet							
Rotor shaft, mounting	1 centring 10 mm, shaft length 8,1 mm, screw plate 2 centring 10 mm, shaft length 15,5 mm, screw plate A centring 14 mm, shaft length 8,1 mm, screw plate C centring 14 mm, shaft length 15,5 mm, screw plate							
Approval	N standard							
Winding code	see next page							
Direction	R reversible							
Cable	E 150 mm (other upon request)							

## Technical Data

bipolar (UPJ1)	Step angle	°	11.25
	Holding torque MH	cNm	30
	Detent torque Ms	cNm	2
	Rotor inertia JR	gcm <sup>2</sup>	85
	Steps per revolution		32
	Winding temperature increase	K	90
	Current per winding	A	1.25
	Inductance per winding	mH	9.5
	Power consumption	W	11.5
	Driver mode		Chopper drive

bipolar (UPJ5)	Step angle	°	11.25
	Holding torque MH	cNm	45
	Detent torque Ms	cNm	7
	Rotor inertia JR	gcm <sup>2</sup>	180
	Steps per revolution		32
	Winding temperature increase	K	90
	Current per winding	A	1.25
	Inductance per winding	mH	8
	Power consumption	W	11.5
	Driver mode		Chopper drive

Rated voltage U <sub>N</sub>	V	4.5
Duty cycle	%	100
Resistance R <sub>20</sub>	Ω	3.7
Winding code		01

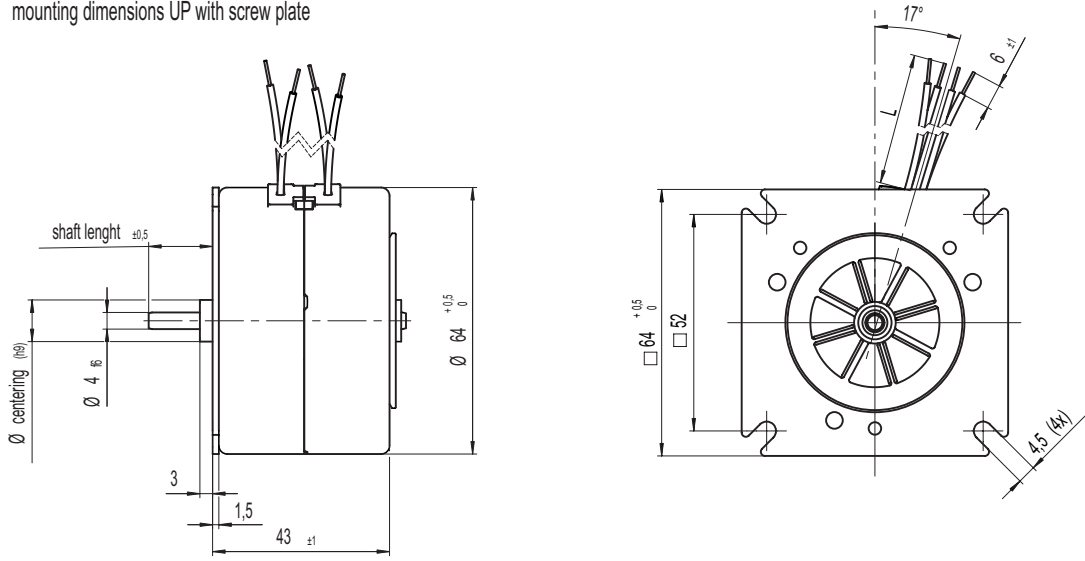
Circuit diagram Motor connections - bipolar

lead wire color	step			
	I	II	III	IV
red	+	+	-	-
blue	-	-	+	+
black	-	+	+	-
brown	+	-	-	+

→ clockwise rotation

← counter-clockwise rotation

Dimensions mounting dimensions UP with screw plate



## Performance Chart

