

# Moteur pas à pas linéaire bipolaire

## Spécifications du Moteur

Pas à pas

Linéaire

Bipolaire

24 Volts

48 pas par millimètre

46±0,13 mm d'entraxe

Force axial minimum de 50 N

Course de 10 mm

Voir annexe 1

Série/Type	Fabricant	Référence Fabricant	Annexe
	SAIA BURGESS	UCE73N01B1A	1

			Level: 0
Date: 07/06/27	Visa: MRO Control: EME	<b>Moteur pas-à-pas linéaire 24V</b>	Page: 1/1
<b>EMS</b> <sup>+</sup> CH-1260 NYON		Reference: <b>CC-030</b>	Revision: <b>b</b>

# UCE

## UCE1/7; UCE2/8

Dimensions (mm)	Ø 28 x 31
Travel (mm)	10/13
Travel per step (mm)	0.021
Thread pitch (mm)	1.0
Speed (mm/s) at 200 Hz	4.16
Step angle (°)	7.5
Max. Force (N)*	35



\*Depends on winding, frequency and lifetime required.

Drive against end stops only permissible after clarification of operating conditions and approval by Saia-Burgess.

Linear

## Standard Data

Climatic class	wide-spread according to DIN IEC 60721-2-1
Ambient temperature operation	°C -15 ... +60
Ambient temperature storage	°C -20 ... +100
Thermal resistance at f=0 R <sub>therm</sub>	29 K/W
Thermal class	B according to DIN EN 60085
Approval	standard
Mounting	any position
Electrical connection	connector type C, D
Protection	IP 40 according to DIN EN 60529
Weight	67 g
Rotor stalling	motor can be stopped when voltage is applied, without being overheated
Bearings	ball bearing

## Order Reference

Type	Stepper Motor	UCE	13	N	24 Ω	B	1A
Configuration	13 bipolar, standard magnet 23 unipolar, standard magnet	73 bipolar, stronger magnet 83 unipolar, stronger magnet					
Approval	N						
Resistance	see next page, Resistance per winding for bipolar or unipolar						
Connection	C see next pages „Connection Types“ D						
Shaft	1A Travel 10 mm ± 0.7 mm 1B Travel 13 mm ± 0.7 mm						

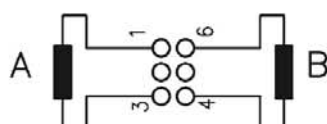
Date: 07/06/27	Visa: MRO Control: EME	<b>Moteur pas-à-pas linéaire 24V Annexe 1</b>		Level: 0
<b>EMS</b>		CH-1260 NYON	Reference: <b>CC-030</b>	Page: 1/5
				Revision: <b>b</b>

## Technical Data

bipolar	type			UCE1	UCE1	UCE5	UCE5
	Operating frequency	Hz		100	200	100	200
	max. Push/Pull force *	30% duty cycle 100% duty cycle	N N	49 42	42 28	50 49	50 39
unipolar	type			UCE2	UCE2	UCE6	UCE6
	Operating frequency	Hz		100	200	100	200
	max. Push/Pull force *	30% duty cycle 100% duty cycle	N N	35 21	28 17	49 29	39 23
Rated voltage $U_N$ :			V	6	12	24	
Resistance per winding $R_{20}$			$\Omega$	24	90	380	
Steps per mm				48			
Duty cycle				100 %			
Winding temperature $T_{max}$			$^{\circ}\text{C}$	130			
Linear travel max.			mm	10/13			
Axial play at $\pm 20$ N force			mm	< 0.25			

\* measured at 23 °C, lifetime depends on load characteristics and ambient conditions

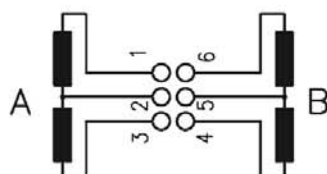
Circuit diagram bipolar



	0	I	II	III	IV
1	+	+	-	-	+
3	-	-	+	+	-
4	-	+	+	-	-
6	+	-	-	+	+

→ Pull (in)  
← Push (out)

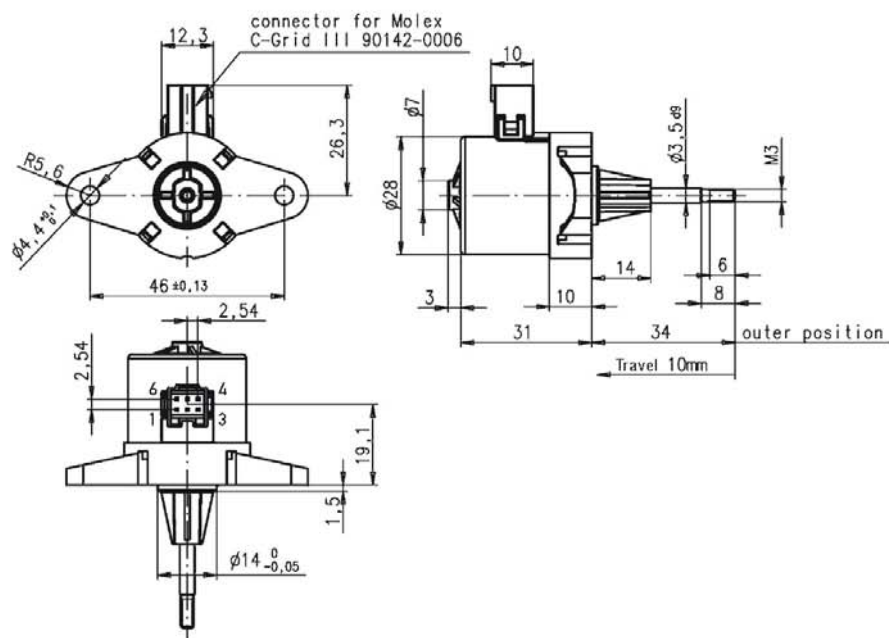
unipolar



	0	I	II	III	IV
1	-	-			-
2	+	+	+	+	+
3			-	-	
4		-	-		
5	+	+	+	+	+
6	-			-	-

→ Pull (in)  
← Push (out)

Dimensions Version with connector D. 10 mm travel



Linear

			Level: 0
Date: 07/06/27	Visa: MRO Control: EME	<b>Moteur pas-à-pas linéaire 24V Annexe 1</b>	Page: 3/5
<b>EMS</b> <sup>+</sup>		Reference: <b>CC-030</b>	Revision: <b>b</b>
CH-1260 NYON			

## EG declaration by the manufacturer

Supplier

Name / address:

Saia-Burgess Dresden GmbH  
Wilhelm-Liebkecht-Strasse 6  
D-01257 Dresden  
Germany

We declare under our sole responsibility that the product in the delivered version

Product name:

**Stepper and Synchronous Motor UC**

Serial number / type:

**UCB/UCD and UCR/UCM up to 50V supply voltage  
UCL/UCE and UCK/UCC up to 50V supply voltage**

to which this declaration relates is in conformity with the following provisions of the Directive

- **98/37/EWG** Machine Safety
- **89/336/EWG** Electromagnetic Compatibility

and the following harmonised standards or other normative documents:

DIN EN 60034-1: 1999	Rotating electrical machines - Part 1: Rating and performance
DIN EN 60034-5: 2001	Rotating electrical machines - Part 5: Degrees of protection provided by the integral design
DIN EN 60085: 2004	Electrical insulation - Thermal classification
DIN EN 60664-1: 2003	Isolation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests
DIN EN 61000-6-2: 2005	Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity for industrial environments
DIN EN 61000-6-3: 2001 + A11:2004	Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments

Additionally the motors fulfil the following parts of appliance standards, which are applicable to motors:

DIN EN 60335-1: 2002+ A11:2004 + A1:2004	Household and similar electrical appliances - Safety - Part 1: General requirements Chapter 1-5, 8-18, 20-32
--	---

Described motors fulfil basic insulation according to EN 60664 and EN 60335-1. The requirements for protection class I, II or III according to EN60335-1, Chapter 6 have to be fulfilled inside the application.

This EG declaration of conformity becomes invalid if the product is changed without confirmation of the supplier.

Dresden, 01.04.2006

  
Diethard Genauck  
Managing Director

  
Dr. Thomas Roschke  
Manager Research&Development

Saia-Burgess Dresden GmbH  
Geschäftsführer: Anthony Smith | Diethard Genauck | Preben Sundenees  
Sitz und Gerichtsstand: Dresden HRB 6940 | Ust-IdNr.: DE 140 132 304 | Steuer-Nr.: 64/201/59818  
Dresdner Bank Dresden | BLZ 850 500 00 | Kto. 506 600 100  
Deutsche Bank Dresden | BLZ 870 700 00 | Kto. 7 941 420  
Zertifiziert nach DIN EN ISO 9001 und ISO / 16949

Date: 07/06/27	Visa: MRO Control: EME	<b>Moteur pas-à-pas linéaire 24V Annexe 1</b>	Level: 0
<b>EMS</b> CH-1260 NYON			Page: 4/5
Reference: <b>CC-030</b>			Revision: <b>b</b>

Saia-Burgess Dresden GmbH

W.-Liebknecht-Str. 6 | D-01279 Dresden | Germany

T +49 (0)351 20 786 300 | F +49 (0)351 20 786 300 | www.saia-burgess.com

saia-burgess  
Smart solutions for comfort and safety

## Statement

We Saia-Burgess GmbH, D-1257 Dresden (Germany) hereby certify that the:

**UC type synchronous and stepper motors (linear and rotary)**

- as single motors
- or in combination with gear boxes type UG

complies with the requirements of the European Directives

- 2002/95/EC (RoHS)
- 2002/96/EC (WEEE)
- 2003/11/EC

To the best of our knowledge, our material suppliers do not use in the manufacture of their products the hazardous substances which are listed in the above mentioned EU Directives. However, we do not routinely analyse the materials for the hazardous substances nor do we require our material suppliers to do so.

Dresden, 15. November 2005  
Saia-Burgess Dresden GmbH

i.V. H. Knäbel

i.V. Heiko Knäbel  
Product Manager

Carsten Heiland

Carsten Heiland  
Quality Manager

This statement is based on our current level of knowledge and covers the products as supplied by Saia-Burgess at the date of issue. Since conditions of use are outside Saia-Burgess's control, Saia-Burgess makes no warranties, express or implied, and assumes no liability in connection with any use of this information.

1/1

			Level: 0
Date: 07/06/27	Visa: MRO Control: EME	<b>Moteur pas-à-pas linéaire 24V Annexe 1</b>	Page: 5/5
<b>EMS</b> <sup>+</sup>		Reference: <b>CC-030</b>	Revision: <b>b</b>
CH-1260 NYON			