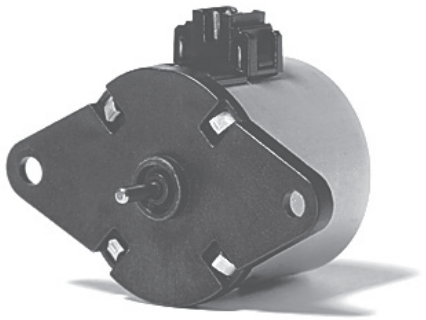
UCR

UCR1/7



Dimensions (mm)	∅ 28 x 24
Voltage (V) *	12–230
Speed (rpm) 50 Hz	500
Pole number	12
Running torque (cNm) 50 Hz	0.76–1.2
60 Hz	0.72–1.05
Power output (W) 50 Hz	0.40–0.63
60 Hz	0.45–0.66
Gear combination	D, M, B, F

* regard circuit diagram and connector type

Note: Running torque = Pull-out torque (starting motor at no load, then torque increase)
Running torque and Power output 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 ... +60
Ambient temperature storage	°C -20 ... +100
Thermal resistance at f=0 R_{therm}	29 K/W
Thermal class	130 (B) according to DIN EN 60085 : 2008
Approval	standard
Mounting	any position
Electrical connection	connector type D or N
Protection	IP30 according to DIN EN 60529 : 2014
Weight	54 g
Rotor stalling	motor can be stopped when voltage is applied, without being overheated
Bearings	Sintered bronze, self-lubricating

Order Reference

Type	Synchronous Motor			UCR	1	0	N	B4	R	D
Configuration	1	standard magnet								
	7	stronger magnet								
Rotor shaft, mounting	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						
	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						
Approval	N	Approval Standard								
Voltage/Frequency		see next pages								
Direction	R	reversible								
Connection	D	see next pages “Connection Types” and page 145 “Connection Types” for B								
	N	Cable								

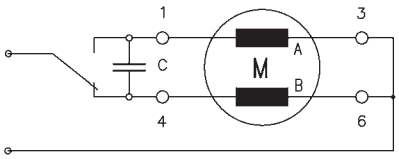
All specifications are representative only and maybe subject to variation. For confirmation of values, please contact Johnson Electric. Please also read “Saia Motors Important Notes” on catalog or at www.johnsonelectric.com/SaiaMotorsNotes

Technical Data

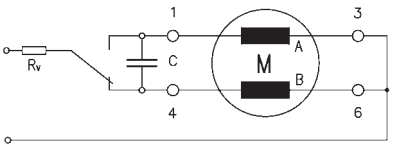
			UCR1	UCR1	UCR7	UCR7
Rated frequency		Hz	50	60	50	60
	Speed n	rpm	500	600	500	600
	Detent torque M_S	cNm	0.2	0.2	0.45	0.45
	Power consumption	VA	2.4	2.5	2.3	2.4
	Rotor inertia J_R	gcm2	2.1	2.1	2.4	2.4
	Tolerance of voltage		standard power supply system +10%/–10%			
	Duty cycle		100%			
	Winding temperature T_{max}	°C	130			
	Direction of rotation		reversible			
	Specific Technical Data Lead Wire Versions (Connection N)					
Performance	Running torque	cNm	0.76	0.72	0.93	0.85
	Power output	W	0.40	0.45	0.49	0.53
Capacitors	Rated voltage U_N	V	12	24	110	
	Duty cycle	%	100	100	100	
	Resistance R_{20}	Ω	60	230	5500	
	Capacitor C_n(50Hz)	µF/V ±10%	22/20	5.6/40	0.27/200	
	Winding code	50Hz/60Hz	B1/G1	B4/G4	C8/H8	
	Specific Technical Data Connector Versions (Connector D and B)					
Performance	Running torque	cNm	0.94	0.87	1.2	1.05
	Power output	W	0.50	0.54	0.63	0.66
Capacitors	Rated voltage U_N	V	12	24		
	Duty cycle	%	100	100		
	Resistance R_{20}	Ω	59	230		
	Capacitor C_n(50Hz)	µF/V ±10%	22/20	5.6/40		
	Winding code	50Hz/60Hz	B1	B4		

Circuit diagram

Parallel circuit 12 V, 24 V, 48 V, 110 V



Parallel circuit 230 V (only for lead wire versions) with 110 V motor and resistor R_V



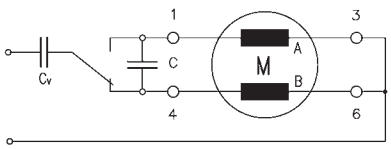
switch to

1 clockwise rotation

4 counter clockwise rotation

6 counter clockwise rotation (for series circuit)

Parallel circuit 230 V (only for lead wire versions) with 110 V motor and capacitor C_V

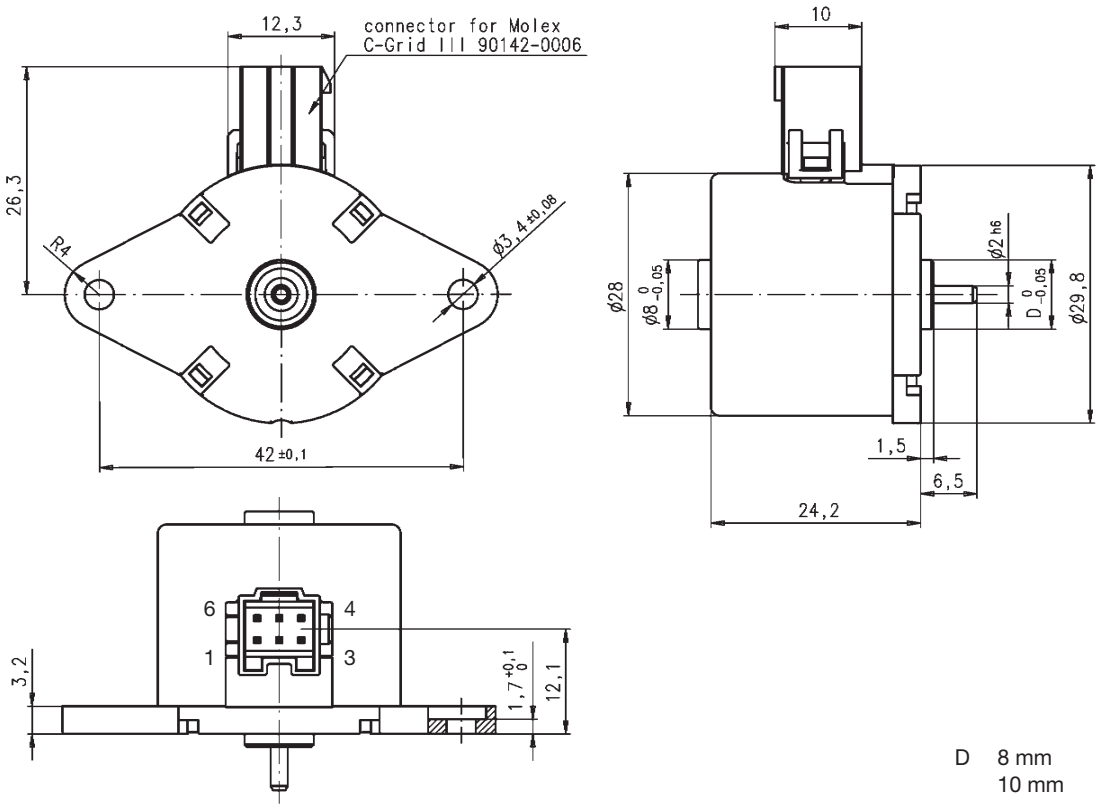


Series resistor R_V = 5.6 kΩ, 3 W

Series capacitor C_V = 0.33 µF, 250 VAC

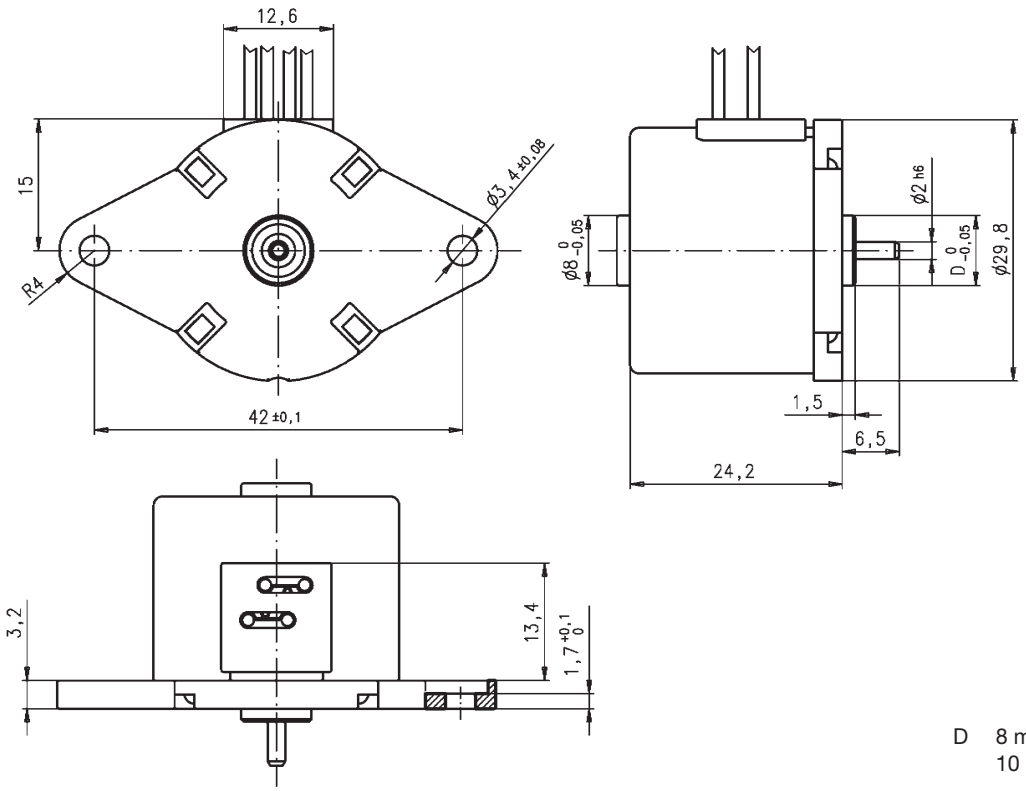
UCR

Dimensions Version with Connector D



D 8 mm
10 mm

Version with Connection N



D 8 mm
10 mm