

# UBR2

Rotational

## UBR2

Dimensions (mm) Ø 36 x 21

Voltage (V) 12-230

Speed (rpm) 50 Hz 500  
60 Hz 600

Pole number 12

Running torque (cNm) 50 Hz 0.64  
60 Hz 0.61

Power output (W) 50 Hz 0.33  
60 Hz 0.38

Gear combination D, M, B, F, V, J



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

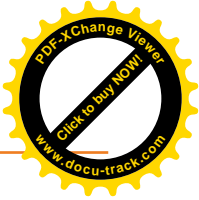
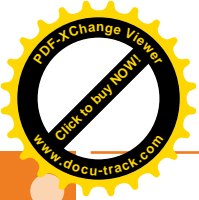
## Standard Data

Climatic class	wide-spread according to DIN IEC 60721-2-1 : 2015
Ambient temperature operation	°C -15...+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 : 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	Synchronous Motor	UBR2	0	N	B4	R	E
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						
Voltage/Frequency	See next page						
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](http://www.johnsonelectric.com/SaiaMotorsNotes)



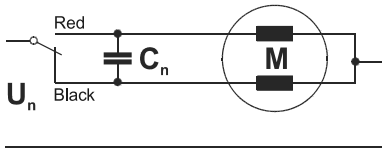
# UBR2

Rotational

## Technical Data

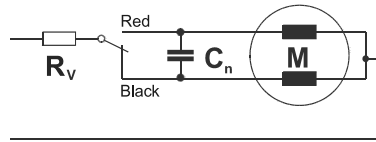
Rated frequency	Hz	50	60			
Speed n	rpm	500	600			
Power consumption	W	1.6	1.6			
Power output	W	0.33	0.38			
Running torque	cNm	0.64	0.61			
Rotor inertia J <sub>R</sub>	gcm <sup>2</sup>	2.8				
Detent torque M <sub>s</sub>	cNm	0.21				
Tolerance of voltage		standard power supply system + 10% / - 10%				
Winding temperature T <sub>max</sub>	°C	105				
Direction of rotation		reversible				
UBR2 Rated voltage U <sub>N</sub>	V	12	24	48	110	230
Duty cycle	%	100	100	100	100	100
Resistance R <sub>20</sub>	Ω	87	344	1370	7650	12600
Capacitor C <sub>n</sub> (50Hz, 60Hz)	μF/V ±10%	15/20	3.9/40	1/70	0.18/170	0.27;0.22/170
Winding code	50Hz/60Hz	B1/G1	B4/G4	C1/H1	D1/J1	D5/J5
UBR3 Rated voltage U <sub>N</sub>	V	12	24	48		
Duty cycle	%	100	100	100		
Resistance R <sub>20</sub>	Ω	87	344	1370		
Capacitor C <sub>n</sub> (50Hz)	μF/V ±10%	15/20	3.9/40	1/70		
Winding code	50Hz/60Hz	B1/G1	B4/G4	C1/H1		

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

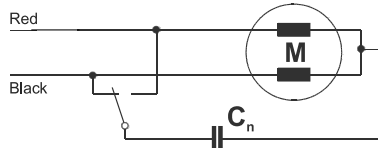


Parallel circuit 230V

R<sub>v</sub>=8.2k Ω/1.5W for motors with resistance R<sub>20</sub>= 7650 Ω, code D1/J1

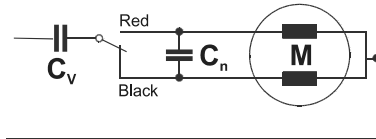


Series circuit 230V (for motors with resistance R<sub>20</sub>= 12600 Ω)



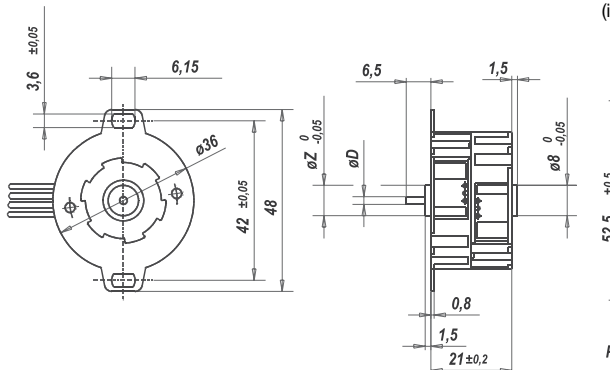
Parallel circuit 230V

C<sub>v</sub>=0.22 μF (50Hz)/ 0.18 μF (60Hz)/200 Vac with resistance R<sub>20</sub>=7650 Ω

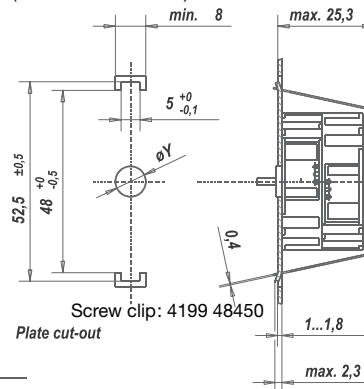


Red = clockwise rotation  
Black = counter clockwise rotation

Dimensions Mounting with screw plate



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



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