

ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Visit our website - *Click HERE*

UFR

Synchronous **Motors**

Rotational

UFR1/UFR3/UFR4

Dimensions (mm)	∅ 52 x 28 / ∅ 52 x 42 / ∅ 52 x 56
Voltage (V)	24–230
Speed (rpm.) 50 Hz	500
60 Hz	600
Pole number	12
Running torque (cNm)	
50 Hz	2,8 / 3,7 / 5,3
60 Hz	2,6 / 3,1 / 4,7
Power output (W)	
50 Hz	1,5 / 1,9 / 2,8
60 Hz	1,6 / 2 / 3
Gear combination	A, D, M, B, F, V, J



Standard Data

Climatic class	wide-spread according to IEC 721, part 2-1
Ambient temperature operation	°C -15...+60
Ambient temperature storage	°C -20...+100
Thermal resistance at f=0 R_{therm}	11 K/W (UFR1), 7 K/W (UFR4)
Thermal class	A according to IEC 85
Approval	Standard/UL/CSA
Mounting	any position
Electrical connection	wire
Protection	IP 40 according to DIN 40 050 / DIN EN 60034-5
Weight	180 g (UFR1), 370 g (UFR4)
Rotor stalling	motor can be stopped when voltage is applied, without being overheated
Bearings	sintered bronze, self-lubricating
Surge voltage strength	according to EN 60 034-1/EN 60-335-1

Order Reference

Type	Synchronous Motor			UFR	1	0	N	24 V/50 Hz	R	N
Configuration	1	Two coils								
	3	Three coils								
	4	Four coils								
Rotor shaft, mounting	0	centre bolt 8 mm, shaft 3,0 mm, clip	3	centre bolt 8 mm, shaft 3,0 mm, screw plate						
	1	centre bolt 8 mm, shaft 2,0 mm, clip	4	centre bolt 8 mm, shaft 2,0 mm, screw plate						
	2	centre bolt 8 mm, shaft 1,5 mm, clip	5	centre bolt 8 mm, shaft 1,5 mm, screw plate						
Approval	N	Approval Standard								
	UL	Approval UL								
	CSA	Approval UL/CSA								
Voltage/Frequency		See page 26								
Direction		reversible								
Cable	N	wire 150 mm (other on request)								

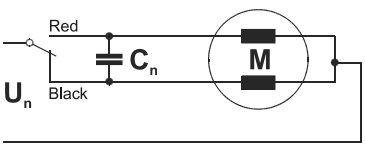
Technical Data

UFR1	Rated frequency	Hz	50		60	
	Speed n	rpm	500		600	
	Power output P_{mech}*	W	1,5		1,6	
	Running torque M_n*	cNm	2,8		2,6	
	Power consumption P_{el}*	W	3,3		3,6	
	Detent torque M_S	cNm	0,46			
	Rotor inertia J_R	gcm^2	14,2			
	Capacitors at Rated voltage U_N	V	24	48	110	230
	Operation capacitor C_{50}	µF/VAC	10/45	2,7/90	0,47/200	0,1/400
	Operation capacitor C_{60}	µF/VAC	8,2/45	2,2/90	0,39/200	0,082/440
UFR3	Rated frequency	Hz	50		60	
	Speed n	rpm	500		600	
	Power output P_{mech}*	W	1,9		2	
	Running torque M_n*	cNm	3,7		3,1	
	Power consumption P_{el}*	W	6,1		5,1	
	Detent torque M_S	cNm	0,54			
	Rotor inertia J_R	gcm^2	17			
	Capacitors at Rated voltage U_N	V	24	48	110	230
	Operation capacitor C_{50}	µF/VAC	39/24	10/50	1,8/110	0,39/240
	Operation capacitor C_{60}	µF/VAC	27/24	6,8/50	1,2/110	0,27/240
UFR4	Rated frequency	Hz	50		60	
	Speed n	rpm	500		600	
	Power output P_{mech}*	W	2,8		3	
	Running torque M_n*	cNm	5,3		4,7	
	Power consumption P_{el}*	W	6,4		6,9	
	Detent torque M_S	cNm	0,8			
	Rotor inertia J_R	gcm^2	24,2			
	Capacitors at Rated voltage U_N	V	24	48	110	230
	Operation capacitor C_{50}	µF/VAC	18/45	7/90	0,82/200	0,22/440
	Operation capacitor C_{60}	µF/VAC	15/45	3,9/90	0,68/200	0,18/440
	Tolerance of voltage		Standard power supply system + 10% ... - 10%			
	Winding temperature T_{max}		105°C			
	Duty cycle		100%			
	Direction of rotation		reversible			

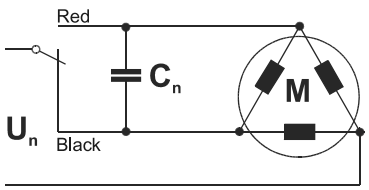
* at rated voltage

Connection sheet

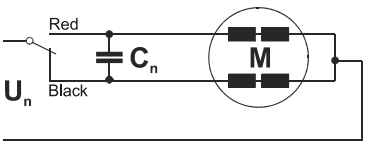
UFR1 Parallel circuit



UFR3 Parallel circuit



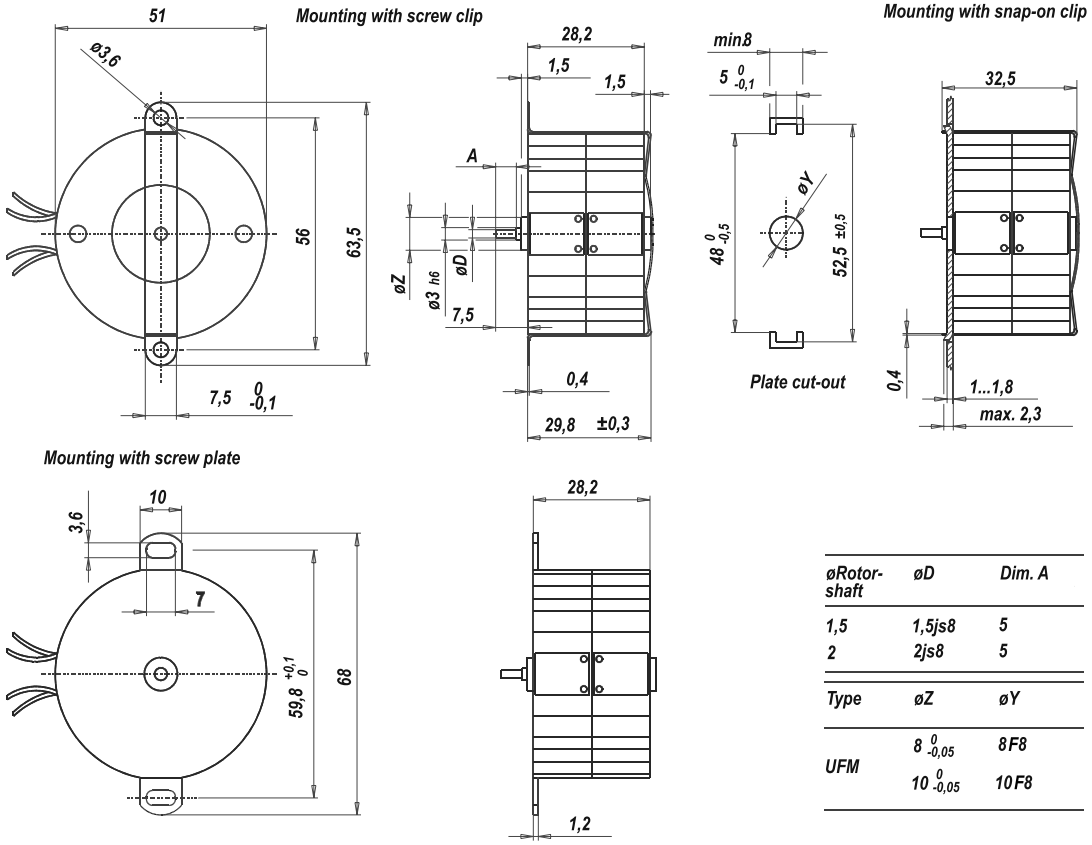
UFR4 Parallel circuit



Red = clockwise rotation
Black = anti clockwise rotation

Drawing

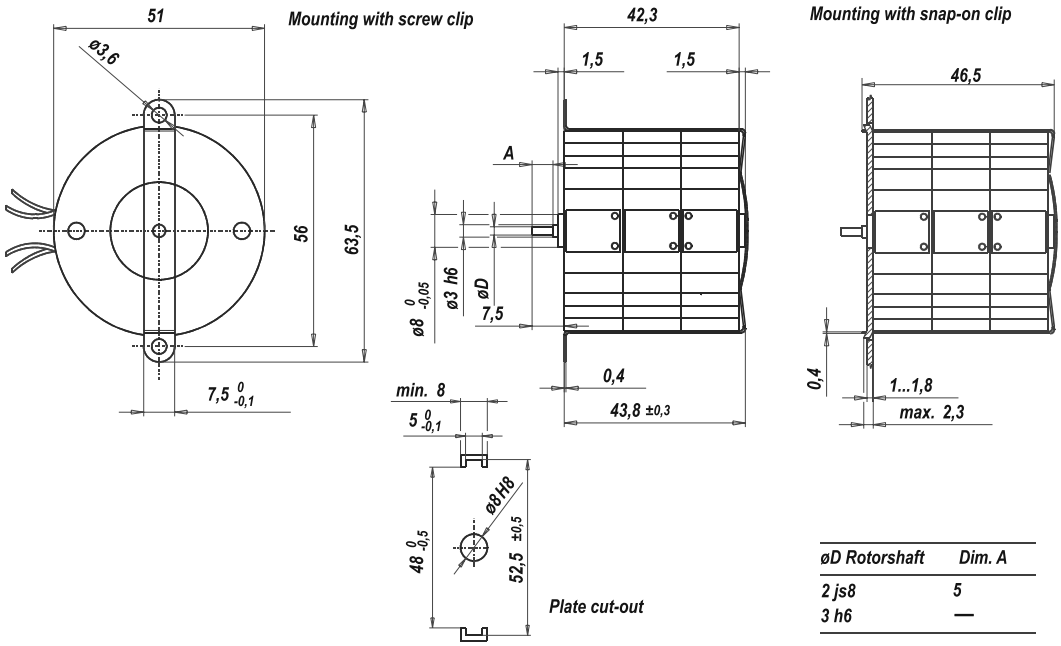
UFR1



øRotor-shaft	øD	Dim. A
1,5	1,5js8	5
2	2js8	5

Type	øZ	øY
UFM	8 0 -0,05	8F8
	10 0 -0,05	10F8

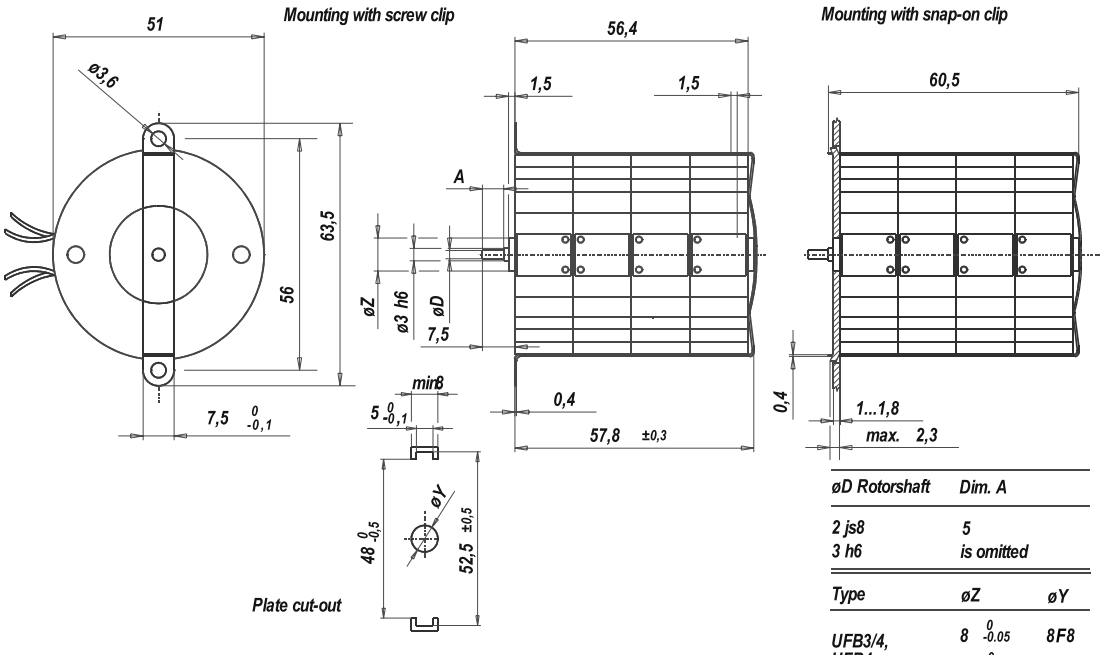
UFR3



øD Rotorshaft	Dim. A
2 js8	5
3 h6	—

Drawing

UFR4



øD Rotorshaft	Dim. A
2 js8	5
3 h6	is omitted

Type	øZ	øY
UFB3/4, UFR4	8 0 -0.05	8F8
	10 0 -0.05	10F8

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP