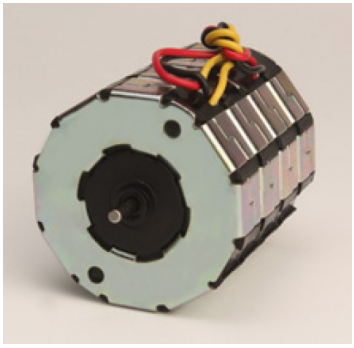
MTRD4b



Reversible Synchronous Motor - 500 RPM

Design
MTRD4b reversing synchronous motor is of the permanent magnet type with two stator windings, for single phase AC 50/60 Hz. Phase displacement of the excitation current is achieved by connecting a capacitor in parallel with one of the stator windings. The sense of rotation is determined by the resulting circular rotating field. Electrical reversal of the sense of rotation is effected by means of a single-pole changeover switch. The 12 pole rotor which has a steel shaft polished to a mirror-finish rotates in sintered bronze bearings. Motor can be provided with Mounting plate/ Screw clip for fixing.

Features
MTRD4b reversing synchronous motor is of the permanent magnet type with two stator windings, for single phase AC 50/60 Hz. Phase displacement of the excitation current is achieved by connecting a capacitor in parallel with one of the stator windings. The sense of rotation is determined by the resulting circular rotating field. Electrical reversal of the sense of rotation is effected by means of a single-pole changeover switch. The 12 pole rotor which has a steel shaft polished to a mirror-finish rotates in sintered bronze bearings. Motor can be provided with Mounting plate/ Screw clip for fixing.

Application
Recorders, Instrumentation, Diamond machinery, Valve Actuators, Light displays, Textile machinery, Medical equipment, Air conditioning & refrigeration, Dampers, Peristaltic Pumps, Dosing Pumps, Vending machines, CCTV Camera positioning, any timing and positioning Application.

Options
MTRD4b reversing synchronous motor is of the permanent magnet type with two stator windings, for single phase AC 50/60 Hz. Phase displacement of the excitation current is achieved by connecting a capacitor in parallel with one of the stator windings. The sense of rotation is determined by the resulting circular rotating field. Electrical reversal of the sense of rotation is effected by means of a single-pole changeover switch. The 12 pole rotor which has a steel shaft polished to a mirror-finish rotates in sintered bronze bearings. Motor can be provided with Mounting plate/ Screw clip for fixing.

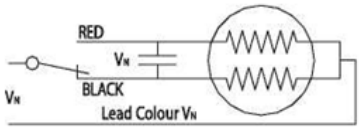
Standard Data

Parameter	Value	Unit
Motor type	Reversible synchronous	
Ambient temperature operation	-15...+55	°C
Ambient temperature storage	-20...+100	°C
Thermal class	105	°C
Electrical Enclosure	40	IP
Connections	Flexible Leads 22 AWG, 200mm length; ends stripped 10 mm	
Sense of rotation	Indicated by lead colour (red-CW & black ACW)	
Life expectancy	3 Years in continuous operation	
Mounting	any position	
HVT	As per standard 1EC60034-1	
Weight	400	g
Rotor stalling	Motor can be stopped when voltage is applied, without being overheated	
Rotor shaft	Hardened steel, ground and polished	
Bearings	Sintered bronze,self-lubricating, (Ball bearing on request)	
External dimensions	dia.51.5x57 mm	

Technical Data

Parameter	Value	Unit
Standard Motor voltage (VN)	24, 48, 110, 220	V
Operation capacitor (50 Hz) CN at 24v	18/50	µF/VAC
Operation capacitor (50 Hz) CN at 48v	4.7/100	µF/VAC
Operation capacitor (50 Hz) CN at 110v	0.82/250	µF/VAC
Operation capacitor (50 Hz) CN at 220v	0.22/500	µF/VAC
Operation capacitor (60 Hz) CN at 24v	15/50	µF/VAC
Operation capacitor (60 Hz) CN at 48v	3.9/100	µF/VAC
Operation capacitor (60 Hz) CN at 110v	0.68/250	µF/VAC
Operation capacitor (60 Hz) CN at 220v	0.18/500	µF/VAC
Lead colour (VN) Blue (24v)	Blue	
Lead colour (VN) Brown (48v)	Brown	
Lead colour (VN) White (110v)	White	
Lead colour (VN) Yellow (230v)	Yellow	
Tolerance of voltage	-10...+15% of rated voltage	%
Duty cycle	100	%
Rated frequency	50, 60	Hz
Power output at rated voltage at (50Hz)	2.77	W
Power output at rated voltage at (60Hz)	2.95	W
Speed at (50Hz)	500	Rpm
Speed at (60Hz)	600	Rpm
Running torque at rated voltage at (50Hz)	5.1	Ncm
Running torque at rated voltage at (60Hz)	4.5	Ncm
Power consumption at rated voltage at (50Hz)	7	W
Power consumption at rated voltage at (60Hz)	7.5	W
Detent torque at (50Hz)	0.8	Ncm
Detent torque at (60Hz)		Ncm

Connection Diagram



Dimensional Drawing