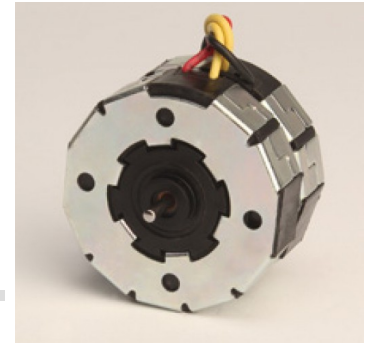




MTR3b



Reversible Synchronous Motor - 500 RPM

Design

MTR3b 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

MTR3b 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.

Options

MTR3b 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	V
Ambient temperature operation	-15...+55	°C
Ambient temperature storage	-20...+100	°C
Thermal class	105	°C
Electrical Enclosure	IP	40
Connections	Flexible Leads 26 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 IEC60034-1	
Weight	65	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	
External dimensions	dia.36x21.5 mm	

Technical Data

Parameter	Value	Unit
Standard Motor Voltages(VN)	12, 24, 48, 110, 230*	V
Operation capacitor(50 Hz)Cn at 12v	15/20	µF/VAC
Operation capacitor(50 Hz)Cn at 24v	3.9/50	µF/VAC
Operation capacitor(50 Hz)Cn at 48v	1.0/100	µF/VAC
Operation capacitor(50 Hz)Cn at 110v	0.22/200	µF/VAC
Operation capacitor(50 Hz)Cn at 230v	With add on units	µF/VAC
Operation capacitor(60 Hz)Cn at 12v	15/20	µF/VAC
Operation capacitor(60 Hz)Cn at 24v	3.9/50	µF/VAC
Operation capacitor(60 Hz)Cn at 48v	1.0/100	µF/VAC
Operation capacitor(60 Hz)Cn at 110v	0.22/200	µF/VAC
Operation capacitor(60 Hz)Cn at 230v	-	µF/VAC
Lead colour (Vn) Grey (12v)	Grey	
Lead colour (Vn) Blue (24v)	Blue	
Lead colour (Vn) Brown (48v)	Brown	
Lead colour (Vn) White (110v)	White	
Lead colour (Vn) White (230v with add on units)	White	
Tolerance of voltage	-10...+15% of rated voltage	%
Duty cycle	100	%
Rated frequency	50, 60	Hz
Power output at rated voltage at (50Hz)	0.39	W
Power output at rated voltage at (60Hz)	0.45	W
Speed at (50Hz)	500	Rpm
Speed at (60Hz)	600	Rpm
Running torque at rated voltage at (50Hz)	0.65	Ncm
Running torque at rated voltage at (60Hz)	0.6	Ncm
Power consumption at rated voltage at (50Hz)	1.5	W
Power consumption at rated voltage at (60Hz)	1.5	W
Detent Torque at (50Hz)	0.25	Ncm
Detent Torque at (60Hz)	-	Ncm

Dimensional Drawing

