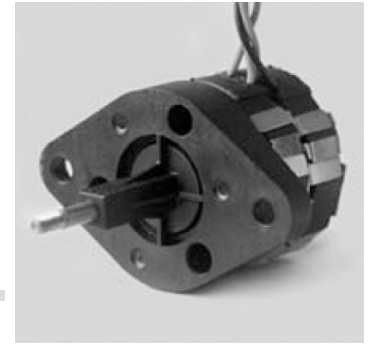




MTR3L



Synchronous Linear Actuators

Design

MTR3L is a linear reversing synchronous motor 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 series with one of the stator windings. Axial movement is determined by the resulting circular rotating field. Electrical reversal of the axial movement is effected by means of a single-pole changeover switch. The 12 pole rotor causes to & fro movement when motor is energised.

Features

MTR3L is a linear reversing synchronous motor 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 series with one of the stator windings. Axial movement is determined by the resulting circular rotating field. Electrical reversal of the axial movement is effected by means of a single-pole changeover switch. The 12 pole rotor causes to & fro movement when motor is energised.

Application

Instrumentation, Machinery, Valve Actuators, Medical Equipment, Dampers, HVAC, Factory Automation, Valves etc.

Options

MTR3L is a linear reversing synchronous motor 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 series with one of the stator windings. Axial movement is determined by the resulting circular rotating field. Electrical reversal of the axial movement is effected by means of a single-pole changeover switch. The 12 pole rotor causes to & fro movement when motor is energised.

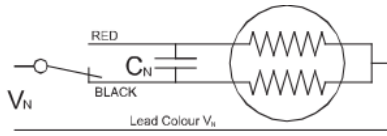
Standard Data

Parameter	Value	Unit
Motor type	Reversible Synchronous Linear Actuators	
Ambient temperature operation	-15...+55	°C
Ambient temperature storage	-20...+100	°C
Thermal class	105	°C
Electrical Enclosure	40	IP
Connections	Flexible Leads 26 AWG, 200mm length; ends stripped 10 mm	
Life expectancy	> 100k cycles at rated torque	
Mounting	any position	
HVT	As per standard IEC 60034-1	
Weight	90	g
Rotor stalling	Motor can be stopped when voltage is applied, without being overheated	
Rotor shaft	Copper alloy	
Bearings	Ball bearing	
External dimensions	dia. 36x40.5 mm	

Technical Data

Parameter	Value	Unit
Standard Motor Voltages(VN)	12, 24, 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 110v	0.18/250	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 110v	0.18/250	µF/VAC
Operation capacitor(60 Hz)Cn at 230v	White	µF/VAC
Lead colour (Vn) Grey (12v)	Grey	
Lead colour (Vn) Blue (24v)	Blue	
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* (* other duty cycles on request)	%
Rated frequency	50, 60	Hz
Linear speed at (50Hz)	6.67	mm/sec
Linear speed at (60Hz)	8	mm/sec
Linear travel at (50Hz)	13	mm
Linear travel at (60Hz)	13	mm
Power Consumption at VN at (50Hz)	1.6	W
Power Consumption at VN at (60Hz)	1.6	W
Max force at (50Hz)	20* (* for special winding only)	N
Max force at (60Hz)		N

Connection Diagram



Dimensional Drawing

