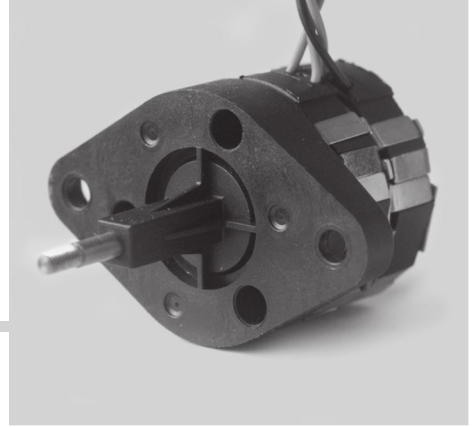


Motor Series MTR3L



Synchronous Linear Actuator

Application

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

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.

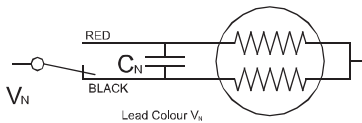
Standard Data

Motor type		Reversible synchronous linear actuator
Ambient temperature operation	°C	-15...+55
Ambient temperature storage	°C	-20...+100
Thermal class	°C	105
Electrical Enclosure	IP	40
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	g	90
Rotor stalling		Motor can be stopped when voltage is applied, without being overheated
Rotor shaft		Copper alloy
Bearings		Ball bearing
External dimensions		dia. 36 x 40.5 mm

Technical Data

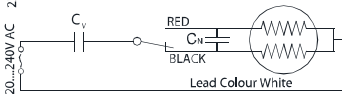
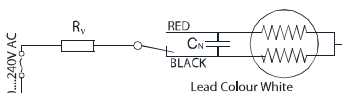
Standard Motor Voltages (V_N)	V	12	24	110	230 *
Operation capacitor (50 Hz) C_N	$\mu\text{F}/\text{VAC}$	15/20	3.9/50	0.18/250	With add on units
Operation capacitor (60 Hz) C_N	$\mu\text{F}/\text{VAC}$	15/20	3.9/50	0.18/250	
Lead colour (V_N)		Grey	Blue	White	White
Tolerance of Voltage	%	-10... +15% of rated voltage			
Duty Cycle	%	100* (* other duty cycles on request)			
Rated Frequency	Hz	50		60	
Linear speed	mm/sec	6.67		8	
Linear travel	mm	13	13	(others on request)	
Power Consumption at V_N	W	1.6		1.6	
Max force	N	20* (* for special winding only)			

Connection Diagram



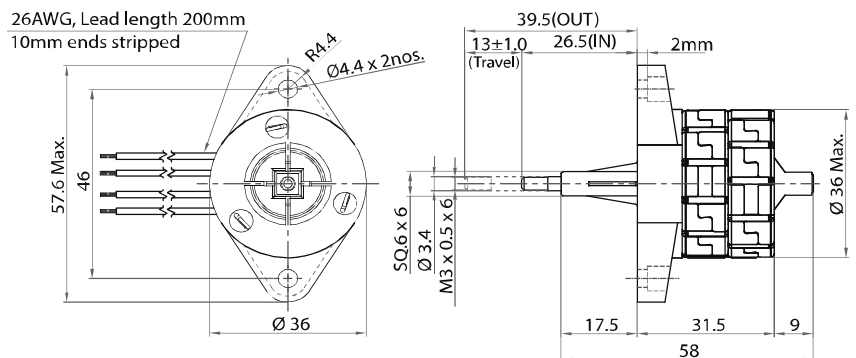
Add on units for 220 & 240 V

220.....240 V (V_N motor 110V)



Unit	220V	240V
R_v (1.5W) 50/60Hz	8.2 K Ω	8.2 K Ω
C_v (200 VAC) 50 Hz	0.22 μF	0.22 μF
C_v (200 VAC) 60 Hz	0.18 μF	0.18 μF

Dimensional Drawing



Ordering Data (eg.)

