

Motor Series **MTR3b**

Reversible Synchronous Motor



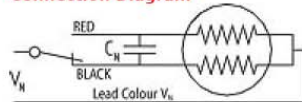
Application

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.

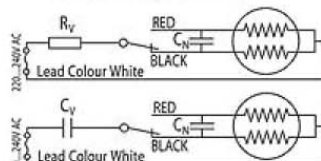
Design

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 series 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.

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	10 K Ω	10 K Ω
C_N (200 VAC) 50 Hz	0.22 μ F	0.22 μ F
C_N (200 VAC) 60 Hz	0.18 μ F	0.18 μ F

Standard data

Motor type	Reversible synchronous	
Ambient temperature operation	$^{\circ}$ C	-15...+55
Ambient temperature storage	$^{\circ}$ C	-20...+100
Thermal class	$^{\circ}$ C	105
Motor speed	r.p.m	500 @ 50 Hz
Life Expectancy	3 years in continuous operation	
Mounting	any position	
Standard motor voltage	V	12,24,48,110,220* (others on request)
HVT	1.5 KV (motor voltage > 40V) or 1.5 KV (motor voltage < 40V); 30sec.	
Weight	Gm	65
Rotor Stalling	Motor can be stopped when the voltage is applied, without being overheated.	
Rotor Shaft	Hardened steel, ground and polished.	
Bearings	Sintered bronze, self lubricating	
External Dimensions	dia. 36 x 21 mm max.	

Technical Data

Rated Voltage V_N	V	12	24	48	110	220*
Operation capacitor (50 Hz) C_N	μ F/VAC	15/20	3.9/50	1.0/100	0.18/200	
Operation capacitor (60 Hz) C_N	μ F/VAC	15/20	3.9/50	1.0/100	0.18/200	
Lead colour (V_N)		Grey	Blue	Brown	White	Yellow
Tolerance of voltage	%	-10...+15% of rated voltage				
Duty Cycle	%	100				
Rated Frequency	Hz	50			60	
Power output at rated voltage	W	0.23			0.25	
Speed	rpm	550			600	
Running torque at rated voltage	gm-cm	45			40	
Power consumption at rated voltage	W	1.5			1.5	
Detent torque	gm-cm	13				

Motor Drawing

