

Datasheet

Reversible Synchronous Motor - 375 RPM

RS Stock No: 9180815, 9180821, 9180824, 9180827, 9180830, 9180833, 9180883



Application

Reversible power drive for actuators, pumps, label printing machines, medical and optical equipment, office machines, automatic vending machines, machine automation.

Design

The MTR8c reversing synchronous motor with permanent magnet rotor is electrically reversible and due to its unique stator design it is moderately priced. The rotating field is produced with a phase-shift capacitor and double-stator with coils thus ensuring extremely quiet running. Long life is guaranteed by the robust design (sintered bronze bearings; self-centering type). The MTR8c is operated with single-phase AC current.

The same motor version can be used at 50Hz and 60Hz

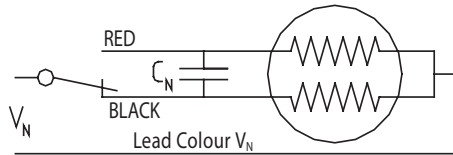
Various windings of motor are available that are tailored to specific requirements. Only some types are listed.

Standard Data

Motor type		Reversible synchronous
Ambient temperature operation	°C	-15...+55
Ambient temperature storage	°C	-20...+100
Thermal class	°C	130
Motor speed	rpm	375 @ 50 Hz
Life expectancy		3 years in continuous operation
Mounting		any position
Standard motor voltages	V	24,110,220 & 240
HVT		2.0KV (motor voltage>40V) or 0.6KV (motor voltage<40V); for 1min
Weight	g	450
Temperature rise above ambient	°C	Up to 80° C max.
Rotor shaft		Hardened steel, ground and polished
Bearings		Sintered bronze, self-lubricating, self centering
External dimensions	mm	Dia 66.4 X 40.4

Technical data

Rated voltage V_N	V	24	110	220	240		
Operation capacitor (50 Hz) C_N	$\mu\text{F}/\text{VAC}$	27	1.33	0.33	0.27		
Operation capacitor (60 Hz) C_N	$\mu\text{F}/\text{VAC}$	27	1.33	0.33	0.27		
Lead colour (V_N)		Blue	White	Yellow	Yellow		
Tolerance of voltage	%	-10...+15% of rated voltage					
Rated frequency	Hz	50			60		
Speed	rpm	375			450		
Running torque at rated voltage	gm-cm	1050			850		
Duty cycle	%	90 (90min)		50 (60min)	90 (90min)		50 (60min)
Power output at V_N	W	4.6		7.3	4.9		8
Power consumption at V_N	W	11.5		18	12.5		20
Running torque at rated voltage	gm-cm	1200		1850	1050		1700
Detent torque	gm-cm	180					

Connection Diagram

Duty cycle, Power Input & Torque of motor with STRONG magnet

Duty cycle	%	100	20 (10min)	10 (5min)	100	20 (10min)	10 (5min)
Power consumption at V_N	W	11.5	25	32	9.5	25	32
Running torque at rated voltage	gm-cm	1700	2700	3400	1450	2100	3000
Detent torque	gm-cm	750					

Motor Drawing
