MECHTEX

MTR8c

Reversible Synchronous Motor - 375 RPM

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 singlephase 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.

Features

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 singlephase 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.

Options

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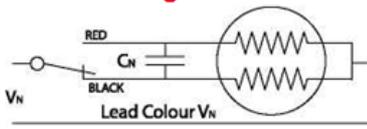
Standard Data

Parameter	Value	Unit
Motor type	Reversible synchronous	-
Ambient temperature operation	-15...+55	°C
Ambient temperature storage	-20...+100	°C
Thermal class	130	°C
Electrical Enclosure	40	IP
Connections	Flexible Leads 22 AWG, 200mm length; ends stripped 10mm	-
Sense of rotation	Indicated by lead colour (red-CW & black ACW)	-
Life expectancy	3 Years in continuous operation	
Mounting	any position	
Weight	450	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 & self centering	
External dimensions	dia. 66.4 x 40.4 mm	
HVT	As per standard IEC60034-1	

Technical Data

Parameter	Value	Unit
Standard Motor voltage VN	24, 110, 230	V
Operation capacitor (50Hz) CN at 24V	30/63	µF/VAC
Operation capacitor (50Hz) CN at 110V	1.33/250	µF/VAC
Operation capacitor (50Hz) CN at 230V	0.27/500	µF/VAC
Operation capacitor (60Hz) CN 24V	30/63	µF/VAC
Operation capacitor (60Hz) CN 110V	1.33/250	µF/VAC
Operation capacitor (60Hz) CN 230V	0.27/500	µF/VAC
Lead colour (VN) Blue (24V)	Blue	-
Lead colour (VN) White (110V)	White	-
Lead colour (VN) Yellow (230V)	Yellow	-
Tolerance of voltage	-10... +15% of rated voltage	%
Duty Cycle	100	%
Rated frequency	50, 60	Hz
Speed at (50Hz)	375	Rpm
Speed at (60Hz)	450	Rpm
Power consumption at rated voltage at (50Hz)	10.5	W
Power consumption at rated voltage at (60Hz)	8.5	W
Running torque at rated voltage at (50Hz)	9.5	Ncm
Running torque at rated voltage at (60Hz)	9.7	Ncm
Intermittent Duty cycle	90 (90min), 70 (60 min)	%
Power output at VN 90 (90min) at (50Hz)	4.6	W
Power output at VN 70 (60 min) at (50Hz)	7.3	W
Power output at VN 90 (90min) at (60Hz)	4.9	W
Power output at VN 70 (60 min) at (60Hz)	8	W
Power consumption at VN 90 (90min) at (50Hz)	11.5	W
Power consumption at VN 70 (60 min) at (50Hz)	18	W
Power consumption at VN 90 (90min) at (60Hz)	12.5	W
Power consumption at VN 70 (60 min) at (60Hz)	20	W
Running torque at rated voltage 90 (90min) at (50Hz)	12	Ncm
Running torque at rated voltage 70 (60 min) at (50Hz)	18.5	Ncm
Running torque at rated voltage 90 (90min) at (60Hz)	10.5	Ncm
Running torque at rated voltage 70 (60 min) at (60Hz)	17	Ncm
Detent torque at (50Hz)	2	Ncm
Detent torque at (60Hz)		Ncm

Connection Diagram

RED

C_N

BLACK

V_N

Lead Colour V_N

Dimensional Drawing

22AWG, Lead length 200mm
10mm ends stripped

87.3

79.5

70mm

Ø66.4 max

4.5

2.2

2

2.2

40.4

"L"

Ø 'D'

Ø 'A'

0'A'
012 -0.10/-0.00(Std)
010* -0.10/-0.00
014* -0.10/-0.00
*Upon special request

0 'D' Rotorshaft
-0.016
-0.022

0 3±0.010
(upon special request)

"L"	
LI	12.2
L2	19.2
L3	9.0