



Motor Series **MTRD7a**

Reversible Synchronous Motor - 250 RPM



Application

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

Design

The MTRD7a 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 MTRD7a is operated with single-phase AC current.

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

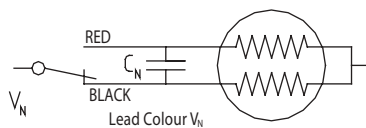
Standard Data

| | | |
|-------------------------------|-----|-------------------------------------------------------------------------|
| Motor type | | Reversible synchronous |
| Ambient temperature operation | °C | -15...+55 |
| Ambient temperature storage | °C | -20...+100 |
| Thermal class | °C | 105 |
| Motor speed | rpm | 250 @ 50 Hz |
| Life expectancy | | 3 years in continuous operation |
| Mounting | | any position |
| Standard motor voltages | V | 12,24,48,110,220 & 240 |
| HVT | | 2.0 KV (motor voltage > 40V) or 0.6 KV (motor voltage < 40V) for 1 min. |
| Weight | gm | 580 |
| 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 |
| External dimensions | | dia. 59 x 70 mm |

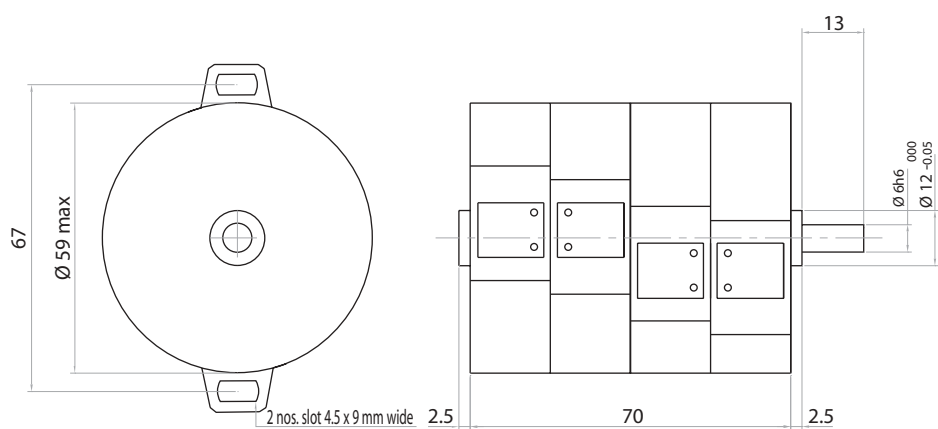
Technical data

| Rated voltage V_N | V | 12 | 24 | 48 | 110 | 220 | 240 |
|------------------------------------|-------------------|------------------------------|-------|---------|-----------|----------|----------|
| Operation capacitor (50 Hz) C_N | $\mu\text{F/VAC}$ | 100/40 | 27/50 | 6.8/100 | 1.2/250 | 0.33/400 | 0.33/400 |
| Operation capacitor (60 Hz) C_N | $\mu\text{F/VAC}$ | 47/40 | 15/50 | 4.7/100 | 0.82/250 | 0.15/400 | 0.15/400 |
| Lead colour (V_N) | | Grey | Blue | Brown | White | Yellow | Yellow |
| Tolerance of voltage | % | -10... +15% of rated voltage | | | | | |
| Duty cycle | % | 100 | | | | | |
| Rated frequency | Hz | 50 | | | 60 | | |
| Power output at rated voltage | W | 3.9 | | | 3.0 | | |
| Speed | rpm | 250 | | | 300 | | |
| Running torque at rated voltage | gm-cm | 1200 | | | 900 | | |
| Power consumption at rated voltage | W | 10 | | | 9.0 | | |
| Detent torque | gm-cm | 340 | | | | | |

Connection Diagram



Motor Drawing



Ordering Data

