Micromotors | Coreless DC Motors | SVTN B 01-1640-03-S-OM





SVTN B 01-1640-03-S-OM

Nominal voltage 3 V

No load speed 10000 rpm

No load current 50 mA

Nominal speed 8000 rpm

Nominal torque 3.100 mNm

Nominal current 1.140 A

Stall torque 15.500 mNm

Stall current 5.500 A

Max. efficiency 81.800 %

Terminal resistance* 0.550 ?

 $\textbf{Terminal inductance*}\ 0.010\ mH$

Torque constant 2.840 mNm/A Speed constant 3333 mNm/V

Notice: The provided technical data are the higher limits recommended in static condition. To obtain the correct dimensioning of the product, it is necessary to hold account of all the applicable dynamic forces, including the inertia of the manipulator, the configuration of the tools and the external forces applied.

2 Pole Brushed DC Motors

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Speed/torque gradient 646.40 rpm/mNm

Mechanical time constant 11.300 ms

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Rotor inertia

1.670 gcm²

The specific design construction of a coreless DC motor provides several advantages over the traditional, iron core, technology. A first added value it is given by rotor lower mass and inertia, so very rapid acceleration and deceleration rates are possible. Furthermore, the lack of iron reduces "iron losses" to provide higher efficiencies (up to 90 percent) than traditional DC motors. Last, but not least, the coreless design reduces winding inductance, so sparking between the brushes and commutator is reduced, increasing motor life and reducing electromagnetic interference (EMI). Our Coreless DC Motors are available on a wide range of sizes and we can show high flexibility on custom requirements.



Advantages



Benefits

- Winding technology without metal bodies
- Good heat dissipation and high overload capacity
- Long life expectancy

- Light and compact, easy integration
- High reliability
- Good return on investment



expertise in connectivity