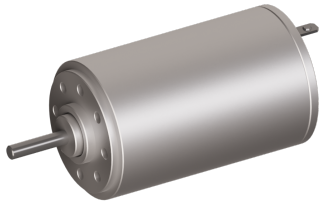

Coreless DC Motor

High Power Density - High Efficiency - High Reliability
Low Inductance - Low Inertia - Good Heat Dissipation
Long Operational Lifetime - Cost Effective - No Cogging

## Feature

| | SVTN B 01-1524-06-S-WM |
|---|---|
| Nominal voltage | 6 V |
| No load speed | 12300 rpm |
| No load current | 20 mA |
| Nominal speed | 9840 rpm |
| Nominal torque | 1.800 mNm |
| Nominal current | 0.400 A |
| Stall torque | 9.100 mNm |
| Stall current | 2.000 A |
| Max. efficiency | 81.000 % |
| Terminal resistance* | 3.000 Ω |
| Terminal inductance* | 0.050 mH |
| Torque constant | 4.610 mNm/A |
| Speed constant | 2050 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.

| | SVTN B 01-1524-06-S-WM |
|---|---|
| Speed/torque gradient | 1347.10 rpm/mNm |
| Mechanical time constant | 10.100 ms |
| Rotor inertia | 0.720 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

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

## Benefits

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