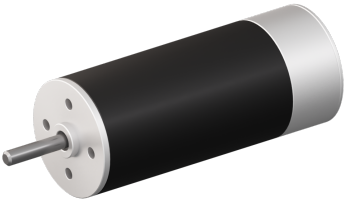

Coreless BLDC motor

Long Lifetime - High Efficiency - Low Noise - High Reliability No Cogging - Low Inertia - Cost-effective

Feature

	SVTN A 03-1638-12-D-0
Nominal voltage	12 V
No load speed	17664 rpm
No load current	100 mA
Nominal speed	14491 rpm
Nominal torque	2.000 mNm
Nominal current	0.430 A
Stall torque	11.130 mNm
Stall current	1.910 A
Max. efficiency	59.500 %
Torque constant	6.110 mNm/A
Speed constant	1562 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 A 03-1638-12-D-0
Speed/torque gradient	1604.00 rpm/mNm
Mechanical time constant	7.200 ms
Rotor inertia	0.400 gcm²

The benefits of this technology join the simplicity of use of a brushed DC motor with the longevity of a brushless motor, maintaining cost-effectiveness and ease of integration. The lack of cogging is typical of the coreless motors and guarantees a reduced ripple torque, a linear correlation between torque, speed, and low inertia. The miniaturization of the electronics allows maintaining the diameter of the motor unvaried with a slight increase in length.

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
- No need for external drive