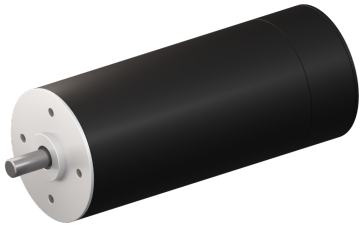

Coreless BLDC motor

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

Feature

	SVTN A 03-3683-12-S-1
Nominal voltage	12 V
No load speed	3277 rpm
No load current	137 mA
Nominal speed	2294 rpm
Nominal torque	100.000 mNm
Nominal current	3.040 A
Stall torque	333.000 mNm
Stall current	9.800 A
Max. efficiency	77.800 %
Torque constant	34.500 mNm/A
Speed constant	277 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 03-3683-12-S-1
Speed/torque gradient	9.83 rpm/mNm
Mechanical time constant	2.200 ms
Rotor inertia	21.500 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