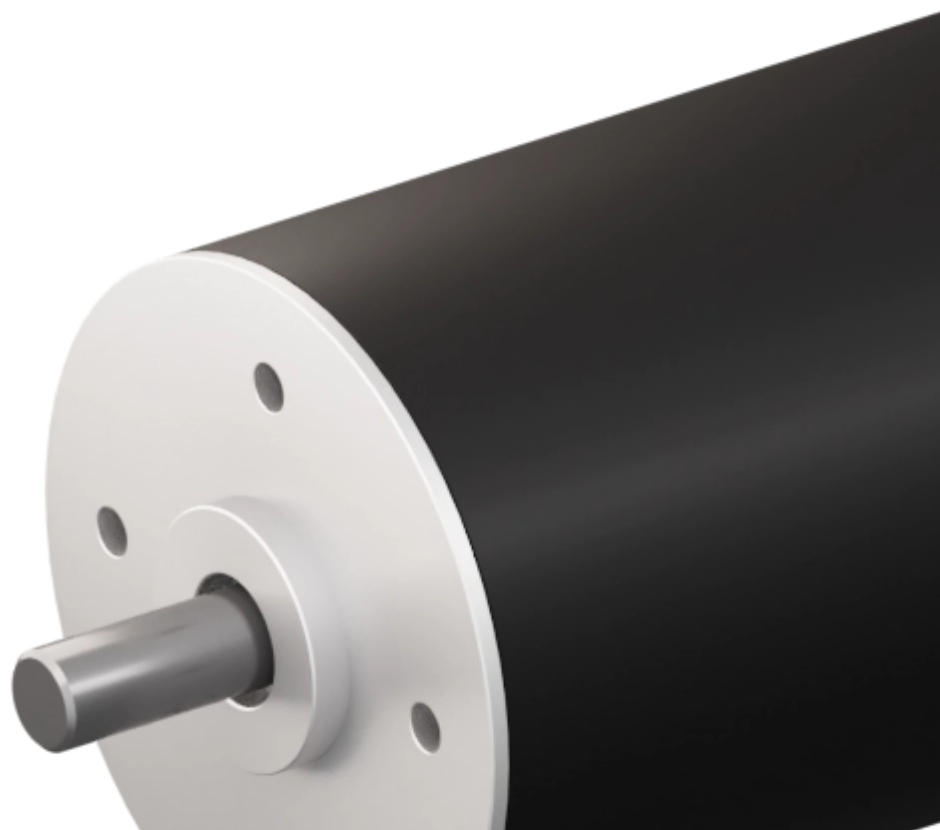


variables/V-color

# **Micromotors | Coreless BLDC motors | SVTN A 03-3683-12-D-0**







## Feature

### SVTN A 03-3683-12-D-0

|                        |              |
|------------------------|--------------|
| <b>Nominal voltage</b> | 12 V         |
| <b>No load speed</b>   | 3277 rpm     |
| <b>No load current</b> | 137 mA       |
| <b>Nominal speed</b>   | 2294 rpm     |
| <b>Nominal torque</b>  | 100.000 mNm  |
| <b>Nominal current</b> | 3.040 A      |
| <b>Stall torque</b>    | 333.000 mNm  |
| <b>Stall current</b>   | 9.800 A      |
| <b>Max. efficiency</b> | 77.800 %     |
| <b>Torque constant</b> | 34.500 mNm/A |
| <b>Speed constant</b>  | 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.

## 2 Pole Brushless DC Motors with Integrated Electronics

### SVTN A 03-3683-12-D-0

|                                 |                         |
|---------------------------------|-------------------------|
| <b>Speed/torque gradient</b>    | 9.83 rpm/mNm            |
| <b>Mechanical time constant</b> | 2.200 ms                |
| <b>Rotor inertia</b>            | 21.500 gcm <sup>2</sup> |

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



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