## MICROMOTORS | CORELESS BLDC MOTORS | SVTN A 01-3670-48-D-H



Coreless BLDC motor.

High Power Density - High Efficiency - Cost Effective Low noise - Low inductance - Good Heat Dissipation Long Lifetime - No Cogging - Low Inertia - Robust



|                      | SVTN A 01-3670-48-D-H |
|----------------------|-----------------------|
| Nominal voltage      | 48 V                  |
| No load speed        | 6545 rpm              |
| No load current      | 78 mA                 |
| Nominal speed        | 5401 rpm              |
| Nominal torque       | 120.000 mNm           |
| Nominal current      | 1.810 A               |
| Stall torque         | 687.000 mNm           |
| Stall current        | 10.000 A              |
| Max. efficiency      | 83.100 %              |
| Terminal resistance* | 4.800 Ω               |
| Terminal inductance* | 1.520 mH              |
| Torque constant      | 69.480 mNm/A          |
| Speed constant       | 137 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

|                          | SVTN A 01-3670-48-D-H   |
|--------------------------|-------------------------|
| Speed/torque gradient    | 9.50 rpm/mNm            |
| Mechanical time constant | 2.100 ms                |
| Rotor inertia            | 21.500 gcm <sup>2</sup> |

The benefits of this new technology are torque and high-speed when compared to the same sizing. The lack of cogging, a reduced ripple torque, a linear correlation between speed and torque, low inertia bring performance to a greater level in terms of power, dynamics by means of reduced weights and reduced dimensions. Servotecnica's brushless motors apply hall sensors as a standard option, in addition to having the magnetic encoder option. Thanks to the sensors it is possible to control rotation speed, and, thanks to the lack of cogging, provide high performance and accuracy.

## 🙆 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

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