Coreless BLDC motor.

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

Feature

	SVTN A 01-2453-48-S-O
Nominal voltage	48 V
No load speed	15310 rpm
No load current	94 mA
Nominal speed	14263 rpm
Nominal torque	20.000 mNm
Nominal current	0.770 A
Stall torque	293.000 mNm
Stall current	10.000 A
Max. efficiency	81.500 %
Terminal resistance*	4.800 Ω
Terminal inductance*	0.760 mH
Torque constant	29.660 mNm/A
Speed constant	322 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.

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Speed/torque gradient	52.30 rpm/mNm
Mechanical time constant	3.200 ms
Rotor inertia	5.900 gcm²

The bene?ts 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

- 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