

Brushless 3-Phase DC Motor BLDC FDB DTOV-S

Minebea

Features

- Fluid dynamic bearing technology
- Low noise, sound power overall
max. 20 dB(A) re 1 pW
- Low vibration
- Low NRRO < 40 nm
- Wobble error < 3"
- Run out rotor
axial: < 10 µm
radial: < 10 µm
- Static imbalance < 15 mg · cm



General Information

Mounting position: arbitrary

Bearing system: FDB
(Fluid Dynamic Bearing)

Torque constant kt: 2.83 mN · m/A

Motor weight: max. 18 g

Polar rotor inertia: $7.9 \cdot 10^{-7} \text{ kg} \cdot \text{m}^2$

Temperature range:

operating: -40 °C to +105 °C**

non operating: -40 °C to +105 °C**

Direction of rotation: CCW only

Number of poles/slot: 12/9

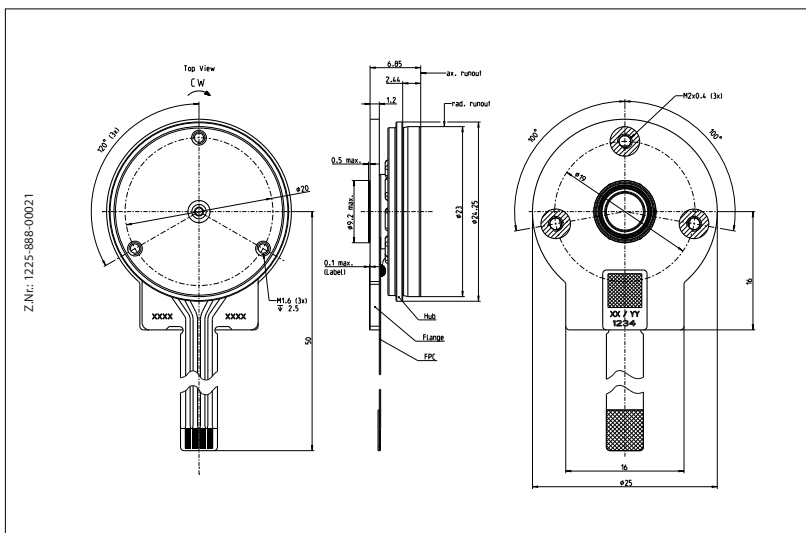
Speed range: 1000 - 12000 rpm**

Recommended load: < 20 g**

Specifications

Rated Voltage* [v]	Rated Speed* [rpm]	Power at Rated Speed [w]	Friction Torque at Rated Speed [mNm]	Current at Rated Speed [without load]
5	6400	0.277	0.413	0.146

Dimensions



Options

Integrated drive electronic: No

Planetary gearbox: No

Sensorless operation: Yes

*These parameters are just example values at 23 °C. They depend on individual requirements and electronics used.

**Operating conditions and load depending on specific application requirements.