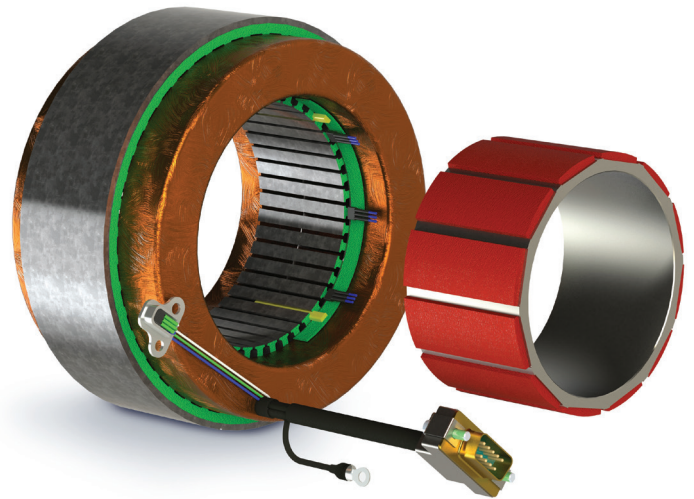


# Frameless Brushless Motors

## F-064

This brushless frameless motor series is designed for optimal servomotor applications. It incorporates rare earth magnet for high torque capabilities for both continuous and intermittent duty cycles. Built-in Hall effect sensors provide commutation. This series is characterized by superior dynamic performance and a very high torque to weight ratio. Mechanically, this series is designed to be highly robust to withstand harsh environmental conditions. Toughquality control procedures assure an ideal motor for your demanding requirements.



### Applications

- Ground & airborne systems
- Precision Servo systems

### Performance

Specification	Unit	F-064-019	F-064-037
Operating Voltage	Vdc	16 ÷ 32	16 ÷ 32
Peak Torque	Nm	16.5	38
Continuos Stall Torque	Nm	3	7.5
Max Speed (1)	rpm	2,500	2,500
Torque Constant	Nm/A	0.83	1.12
BEMF Constant	V/rad/sec	0.92	1.14
Terminal Resistance	Ω	3	2
Terminal Inductance	mH	10.5	7.8
Thermal Resistance	°C/W	1.2	1.2
Inertia	Kgm <sup>2</sup>	4.1·10 <sup>-4</sup>	4.5·10 <sup>-4</sup>
Weight	Kg	1.9	2.8
Built-in Hall effect Sensors			

### Notes

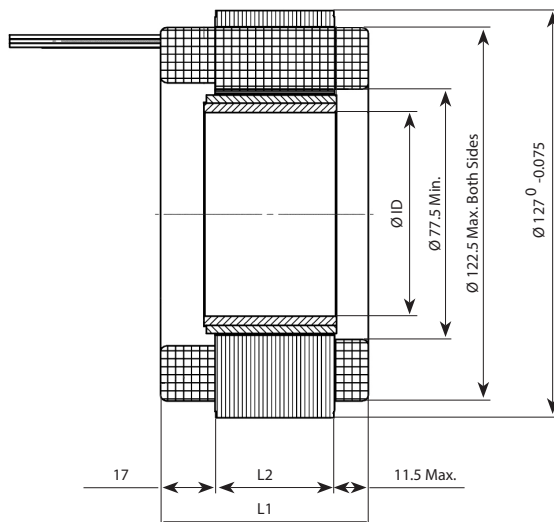
(1) Mechanical speed limit @250Vdc winding

### Options

- Housed Configuration
- Feedbacks+Gears integration
- Mechanical & Electrical Modifications

Built to Need

## F-064

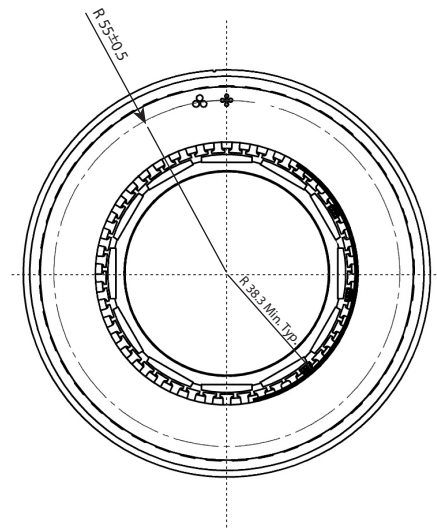


### Features

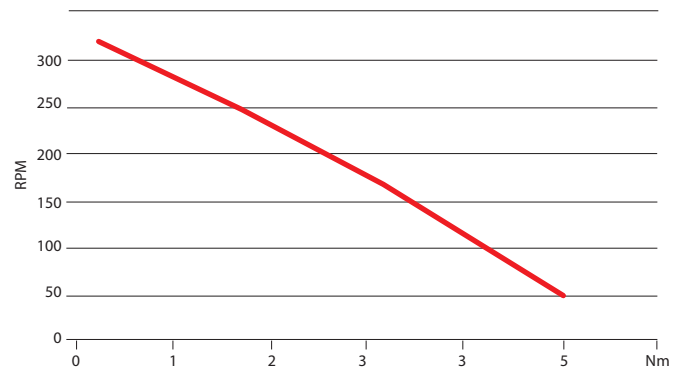
- High reliability
- Storage temperature:  $-34 \div +71^{\circ}\text{C}$
- Operating temperature:  $-15 \div +71^{\circ}\text{C}$
- Max. winding temperature:  $180^{\circ}\text{C}$
- Insulation class: H

### Performance

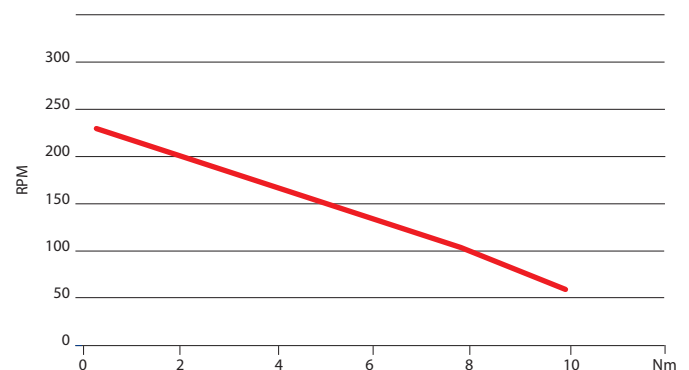
Motor Type	L1(Total)	L2(Stack)	Ø ID
F-064-019	46	18.5	54
F-064-037	65.3	36.8	63.5



Rotation Speed vs Torque F-064-019 @ 28 VDC



Rotation Speed vs Torque F-064-037 @ 28 VDC



### Gevasol Group

Bental is a member of Gevasol Group. Gevasol is a group of companies, oriented toward developing and producing customized and tailored solutions, developed together with its customers. Gevasol' diverse disciplines skilled engineers and operational teams allow us to turn an idea into a product quickly. The design process starts with listening to the customer and fully understanding his needs. Our customers rely on our responsiveness.

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