



## Xtrafors BR AC Servomotors

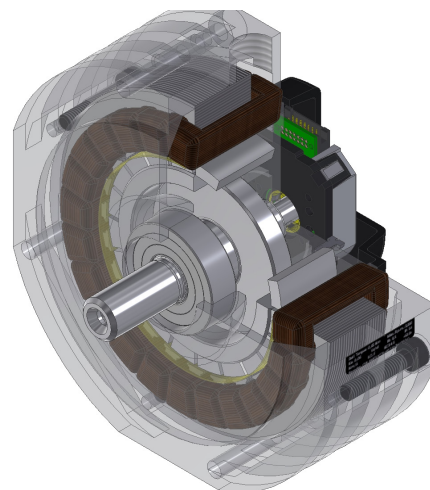


### Features

- Solid and Hollow shaft.
- Reduced weight brushless motors.
- Small volume.
- High torque/weight ratio.
- Pancake size. Low center of gravity.

# XtraforsBR, AC Servomotors

BR series multi-pole brushless motor, originally developed for direct drive use in exoskeletons, targeting a high torque-to-weight ratio.

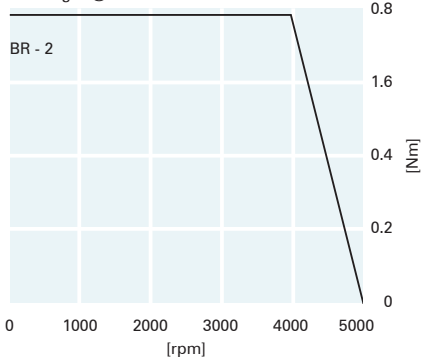


## Technical data

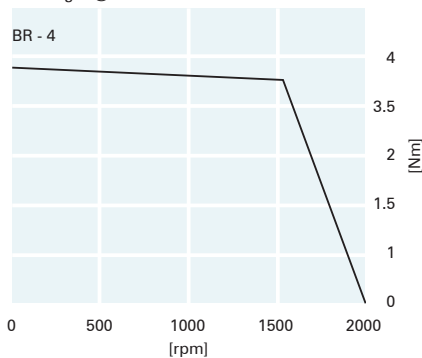
|              | Stall Torque<br>(Ms)<br>(Nm) | Rated speed<br>(M)<br>(rpm) | Rated current<br>(I)<br>(Arms) | EMF constant<br>( $K_E$ )<br>(Vs/rad) | Winding resistance<br>(R)<br>( $\Omega$ ) | Rotor Inertia<br>(J)<br>( $\text{kg}\cdot\text{m}^2\cdot 10^{-3}$ ) | Mass<br>(M)<br>(kg) |
|--------------|------------------------------|-----------------------------|--------------------------------|---------------------------------------|---|---|---------------------|
| <b>BR- 2</b> | 0.8                          | 3000                        | 8.00                           | 0.06                                  | 0.71                                      | 0.016   | 0.47                |
| <b>BR- 3</b> | 2.6                          | 3000                        | 18.5                           | 0.08                                  | 0.21                                      | 0.105   | 1.2                 |
| <b>BR- 4</b> | 3.85                         | 1500                        | 15.0                           | 0.15                                  | 0.25                                      | 0.385   | 2.18                |

## Torque curves

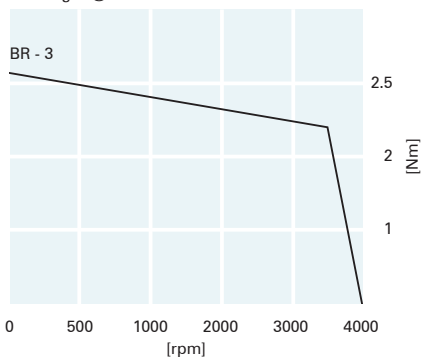
Winding A @48VDC



Winding A @48VDC



Winding A @48VDC



## Standard version

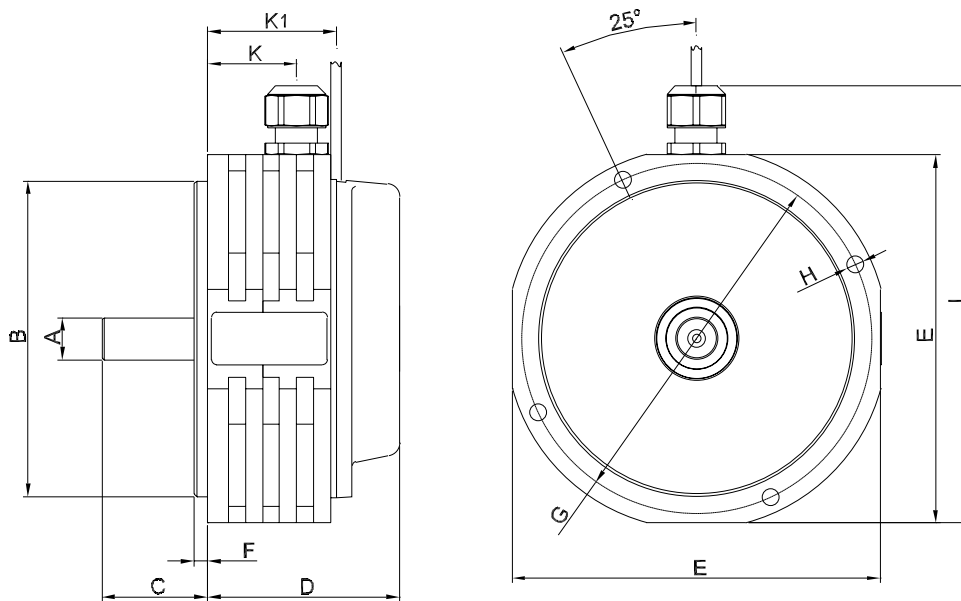
- Incremental encoder with commutation tracks
- 10 pair poles rotor
- Round flange
- Protection IP 54
- Flying leads output cables
- 48 VDC winding

## Options

- Programmable encoder resolution 1000, 1024, 2000, 2048, 4000, 4096 ppr

XtraforsBR high efficiency allows high autonomy in Battery powered systems.

## Mechanical dimensions



| Dimensions [mm] | BR - 2 | BR - 3 | BR - 4 |
|-----------------|--------|--------|--------|
| A               | 8 k6   | 11 k6  | 16 k6  |
| B               | 60j6   | 80 j6  | 115j6  |
| C               | 20     | 23     | 40     |
| D               | 36.5   | 40     | 53     |
| E Ø             | 70     | 100    | 130    |
| F Ø             | 2.5    | 3      | 3.5    |
| G               | 66.5   | 95     | 127    |
| H Ø             | 4xM3   | 4xM4   | 4xM4   |
| I               | 83     | 121    | 153.5  |
| K               | 17     | 27.5   | 27.5   |
| K1              | 26     | 38.1   | 41     |

# Addresses

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## The Infranor Group

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Based on strong working relationships, Infranor offers extensive market know-how, comprehensive engineering skills and a wide range of high-quality products leading to productivity gains and therefore to comparative advantages for its customers in their respective markets.