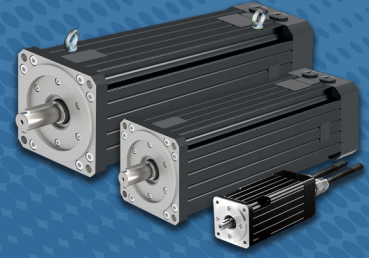


# EXPLOSION PROOF DYNAMIC BRUSHLESS SERVO MOTORS EXD SERIES

For Explosive Atmospheres and Dusty Environments in Battery Production Applications



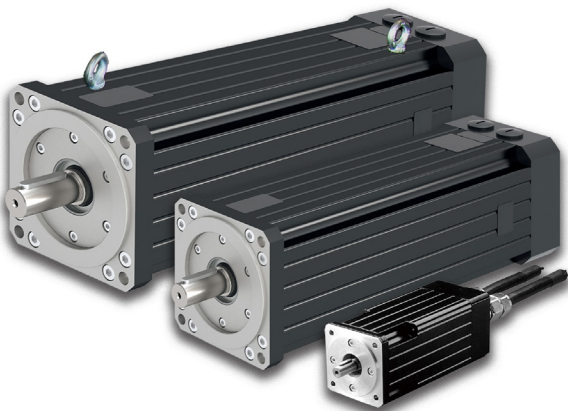
## Explosion-proof servo motor for global battery production sites

The electrification of all mobility, including Electric Vehicles (eVs), is growing globally. Lithium-ion batteries are at the core of this growth. Manufacturing units (mainly lithium-ion batteries) which were prevalent in Asia regions are now coming up in Europe, North America and South America to reduce supply chain risks.

Some processes in the manufacture of rechargeable batteries require explosion-proof products that meet the standards of the manufacturing area. Moog Explosion Proof Motors are ideally suited to cater to the stringent requirement in these battery manufacturing units.

## Why Moog explosion-proof servo motors are chosen:

|                  |  |
|------------------|--|
| Certifications:  | Meets certification requirements across the globe: ATEX zone 1, IECEx, NEC, KOSHA, CCC Ex, UL and CE |
| Motor Size:      | Frame Sizes 70 mm, 140 mm, 190 mm  |
| Capacity:        | 0.35 kW ~ 8.4 kW   |
| Max. Torque:     | 1.6 Nm ~ 240 Nm  |
| Feedback:        | Resolver or Encoder  |
| Holding Brake:   | Optional   |
| Winding Voltage: | 325 Vdc / 565 Vdc  |
| Ignition Temp.:  | -40 °C ~ +120 °C (-40 ~ +248 °F)   |



## APPLICATIONS

- Industrial machinery where fumes or gases are generated where there is a risk of fire or explosion
- Lithium-ion battery manufacturing process
- Coating and drying process
- Electrolytic solution injection process
- Oil and gas drilling application
- Painting robot
- Mining equipment
- Transport shaft of a large cold storage warehouse



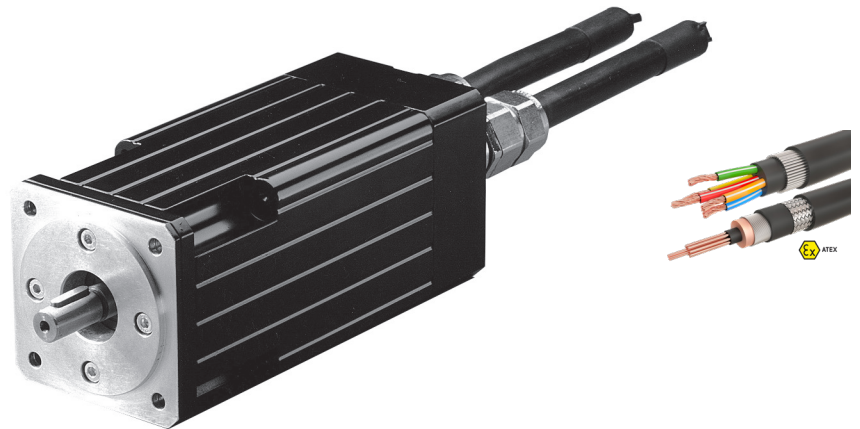
# SYSTEM OVERVIEW

## TECHNICAL DATA

| Model No. | Maximum Torque<br>Nm (lbf in)   | Cont. Stall Torque<br>Nm (lbf in) | Rotor Inertia<br>kg cm <sup>2</sup> (10 <sup>-4</sup> lbf in s <sup>2</sup> ) | Rated Speed<br>r/min | Frame Size<br>mm (in) |
|-----------|---------------------------------|-----------------------------------|---|----------------------|-----------------------|
| G3        | 1.6 ~ 13.2<br>(14.2 ~ 117)      | 0.52 ~ 3.26<br>(4.6 ~ 28.9)       | 0.16 ~ 0.97<br>(1.4 ~ 8.6)  | 7,800 ~ 3,800        | ~ 70<br>(2.8)         |
| G5        | 12.2 ~ 108<br>(108 ~ 542)       | 5.79 ~ 25.4<br>(51.2 ~ 225)       | 4.6 ~ 18.4<br>(40.7 ~ 163)  | 4,800 ~ 2,000        | ~ 140<br>(5.5)        |
| G6        | 40.13 ~ 239.91<br>(355 ~ 2,118) | 12.91 ~ 66.68<br>(114 ~ 590)      | 28.6 ~ 157<br>(253 ~ 1,390)   | 4,000 ~ 2,000        | ~ 190<br>(7.5)        |

## CUSTOM OPTIONS

- Custom Winding
- Shaft Shapes



## ASK US FOR RECOMMENDED ACCESSORY PARTS

Accessory parts samples: Power & encoder cables, cable gland, drives

Since the standard varies depending on the cable laying method, we recommend the selection by the equipment manufacturer and the end-user. If the cable is of ATEX standard, Moog can provide it.

Consult with us for selecting other standards products.



Moog drive DM2020



Moog drive DS2020

For more information, visit [www.moog.com](http://www.moog.com)  
or email us [em-motioncontrol@moog.com](mailto:em-motioncontrol@moog.com)

Moog is a registered trademark of Moog Inc. and its subsidiaries. All trademarks as indicated herein are the property of Moog Inc. and its subsidiaries. ©2024 Moog Inc. All rights reserved. All changes are reserved.

Moog-ExD\_Motor\_Battery\_Application\_Leaflet-en

# MOOG