# Standard Downhole Size 8 Motor: Power & Reliability Redefined

At Moog, our extensive experience in developing custom downhole tools has led to the creation of our Standard Downhole Size 8 Motor.

#### Why Choose Moog's Standard Downhole Size 8 Motor

Our Size 8 motor is designed to reduce your new downhole tool development time, shorten time to market, and increase productivity.

With its standard configuration, you can develop a highly reliable drilling tool equipped to withstand high environmental pressures (1,723 bar/25,000 PSI) and max winding temperatures (220° C/425° F). The motor is encased in a shock and vibration resistant housing for maximum durability and equipment life.

Moog's design experience and expertise in supplying motors to leading global manufacturers can be seen in our Standard Size 8 Motor. The size 8 motor is a suitable drop in replacement to competing motors fit and form all while providing improved functionality. It is built, stocked, and supported by staff in the United States and stands strong against our competitors.

We recognize the importance of lead time to our customers, so we are providing the size 8 motor with a 12 week lead time, ensuring our customers get the products they need, when they need them.

A key aspect of our standard motor series is their higher torgue density. This means our standard motors deliver more



torque for each unit of current, making them more efficient and powerful than many other options on the market. In terms of power density, our motors are among the best in the industry. We've achieved this through our commitment to innovation and our focus on delivering the best possible products to our customers.

#### **Advantages**

- Our Size 8 Motor is a brushless motor capable of operating in severe duty High Pressure High Temperature (HPHT) downhole service tool environments including shock, vibration, fluid filled environments, and more.
- Proven downhole brushless motor technologies with Moog downhole application knowledge, experience and support.
- Experience superior performance with our cost-effective, meticulously tested motors, delivered swiftly for your convenience.



Size 8 Motor Comparison (48V and 175°C)

The above chart shows the highest continuous torque capacity to maximize torque delievery at a small diameter package. It also highlights the highest torque constant (torque output per unit current input) allowing more efficient operation in torque demanding applications.



## **SIZE 8 MOTOR**

Outside Diameter: 21.9 mm (.862 in) Continuous Output Power: Up to 48 Watts **Operating Terminal Peak: 48 Volts** 

<b>Optional Gearbox</b> Length (L1) [mm (in)]	<b>Continuous Rated Torque</b> [N-m (lbf-in)]	<b>Gear Ratio Options</b> [XX:1]
23.93 (.942)	0.2 (1.77)	4
30.93 (1.218)	1 (8.85)	16
37.93 (1.493)	1.5 (13.28)	64

### **PRODUCT DIMENSIONS**

Motor with Gearbox



Dimensions: mm (in.)





**Operating Environment: Motor fully** immersed insynthetic lubrication oil at 25,000 PSI (1,723 Bar) pressure and up to ambient pressure of 175° C (347° F).

All components insude the motor are designed to withstand 220°C (428°F) maximum winding temperature.

For product information, visit www.moog.com/industrial For service information, visit **www.moogglobalsupport.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. ©2021 Moog Inc. All rights reserved. All changes are reserved.

Downhole Standard Motor Size 8 STS/Rev. A, December 2023, CDL 67688-en

**MOOG** | Shaping the way our world moves<sup>™</sup>