

DIFFERENCE BETWEEN BRUSHED AND BRUSHLESS MOTORS

Compared to Brush DC motors, Brushless DC motors have a number of performance advantages.

Torque: They have high starting torque, and the torque is flat up to rated speed. Due to the real-time electronic control, their speed regulation is precise and insensitive to load variations.

they have less shaft friction, much better torque-to-weight ratios (**power density**), so they're much smaller in size than a comparable brush DC motor.

Heat: Since the heat is generated in the external stator and not the internal rotor, they are easier to keep cool.

Noise: The lack of brushes means they produce less electrical noise and can run at higher speeds up to 100,000 RPM in some cases."

Maintenance: With no mechanical commutator or brushes to wear out, brushless DC motors are low maintenance and non-sparking.

(Source <https://www.arrow.com/en/research-and-events/articles/which-dc-motor-is-best-for-your-application>)

