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Press Release

Key Advantages of Permanent Magnet Motors

Permanent magnet motors may be found in a wide range of everyday items, from toothbrushes to mobility solutions; but what precisely are they and what are their benefits? This article will focus on PMDC motors, the most popular form of permanent magnet motor. As trusted manufacturers of motors for 75 years, Parvalux PMDC motors are specified by manufacturers in a huge range of industries.

What is a PMDC Motor?

Like an AC motor, a permanent magnet motor uses electromagnetism to generate torque. PMDC motors have permanent magnets in the stator that provide the magnetic field needed to make it function. This is an alternative to traditional brushed or brushless DC motor, where the magnetic field is created in the stator windings.

As the magnets are fixed in a permanent magnet motor, you cannot control the magnetic field strength externally. This means that you are likely to find PMDC motors in applications where the speed doesn't need to be controlled. This being said, control can be achieved by controlling armature voltage, so they are not necessarily excluded from use in industries where speed and torque need to vary.

They are an excellent choice for products in the leisure and healthcare industries because PMDC motors offer an impressive output and are high performance, despite being generally smaller than other motors.

Advantages of PMDC Motors

- **Smaller in size** – As mentioned above, PMDC motors are generally smaller than other motors, but this doesn't mean they are less useful. In fact, they are perfect for small applications such as windshield wipers, air conditioning units and even electric toothbrushes. This also helps with portability, making them easy to transport globally.

- **Use in multiple applications** – Permanent magnet motors can be used in a variety of industries because they can be designed to meet a number of needs, such as size and power. You are just as likely to find a PMDC motor in a computer drive, as you are in a child's toy.

- **High starting torque** – Like other DC motors, PM motors have a high start-up power, making them perfect for a variety of industries. Despite a lower speed, these motors are still very reliable and when combined with one of our gearboxes they create the ultimate geared motor solution.

- **Cost-Effective** – Due to their smaller size and lack of field windings, permanent magnet motors are a reliable and cheaper option for your application. At Parvalux, we can create a custom solution for your application, ensuring you have a long-lasting motor that works to your precise specification.

Depending on whether you are using it as a motor-only or in combination with a gearbox, any Parvalux permanent magnet DC motor can be built to fit your power requirements.

Learn more about Parvalux electric motors by getting in touch:

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The press release is available on the internet at: www.maxongroup.net.au

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The Swiss specialist for quality drives

maxon is a developer and manufacturer of brushed and brushless DC motors. as well as gearheads, encoders, controllers, and entire mechatronic systems. maxon drives are used wherever the requirements are particularly high: in NASA's Mars rovers, in surgical power tools, in humanoid robots and in precision industrial applications, for example. To maintain its leadership in this demanding market, the company invests a considerable share of its annual revenue in research and development. Worldwide, maxon has more than 3000 employees at nine production sites and is represented by sales companies in more than 30 countries.