Configurable CAD Models For Brushless DC Motors

PITTMAN Motors, a unit of AMETEK Precision Motion Control, has introduced configurable 3D CAD model downloads for its entire offering of brushless DC motors. The 3D model system is an online system through the PITTMAN website that allows an engineer to fully configure a motor with a wide variety of optional components, such as planetary and spur gearboxes, brakes, and encoders.

The online 3D model system makes it very easy for an engineer to evaluate different part configurations in a virtual environment. A customer can configure a part by choosing such parameters as motor voltage, torque rating, gearbox ratio, and encoder resolution. After configuring a part as many times as necessary, the file can then be downloaded in the most commonly used CAD software file formats including Solid Works, CATIA, and Pro/E. The file also can be downloaded in a vendor-neutral format, such as an .IGS or .STP file. The system allows the creation of a fully dimensioned outline drawing generated directly from the configured CAD model.

After a virtual configuration is created using the online 3D model system, a product engineer can work closely with PITTMAN applications engineers to create a more customized application-specific solution. Options include optimized motor windings, unique shaft configurations, various bearing systems, output devices such as pinions and pulleys, special lead wire assemblies, and various other features. Engineers can be reached at 267-933-2105 to discuss an application in more detail.

PITTMAN offers a wide range of brushless DC motors, which are available in a variety of frame sizes, torque and power ratings. Frame sizes range from 0.375-in (9.5mm) for miniature high-speed brushless DC motors up to 5.25-in (133mm) for high- torque brushless DC motors with integrated controllers. Output torque ranges from 0.3 oz-in (0.002 Nm) to 1824 oz-in (12.88 Nm) without a gear box. Both

planetary and spur gearboxes are available for most brushless DC motors, greatly increasing the available torque output. Gear ratios up to 4732.5:1 are possible. A wide variety of encoder types are also available designed to meet just about any application requirement.

PITTMAN
www.Pittman-Motors.com [1]

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