

Portescap expands its Athlonix DCT high torque range of motors with a new 17mm DC miniature motor

Portescap expands the newly launched DCT range of Athlonix™ Brush DC motors with the introduction of the 17DCT brush dc mini motor. The 17DCT motor features Portescap's proven energy efficient coreless design with an optimized self-supporting coil and magnetic circuit which enables higher performance in a compact 17 mm diameter size.

With high torque carrying capabilities reaching up to 6.14 mNm, the 17DCT provides outstanding performance with efficiency reaching up to 85% while providing a long lifetime. Due to the inherent design of the 17DCT motor, it can deliver higher torque per ampere resulting in better battery life. This makes it ideal for demanding applications such as medical and industrial pumps, drug delivery systems, miniature industrial power tools, tattoo machines, mesotherapy guns, dental tools, watch winders and more. Other applications, including lab automation, security and access and humanoid robots, can benefit from the features of the 17DCT Athlonix motor.

Athlonix 17DCT miniature dc motors are available in 2 variations, precious metal commutation and graphite commutation with a neodymium magnet inside. The unique constant force spring design for carbon brush provides consistent performance. An REE (Restriction of Electro Erosion) coil is an available option, which prolongs the life of the motor and provides an environment of intrinsic safety especially at high speed conditions.

“Athlonix motors are powered by a proprietary self-supporting coil resulting in maximized magnetic flux and ampere-turns for a given diameter” says Sunil Kumar, Brush DC Product Line Manager at Portescap. “In contrast, typical self-supporting coils have inherent ampere-turns limitations that affect the magnetic flux density in the magnetic circuit, which further limits power output and endurance of the motor”.

Component standardization and design modularity allow quick customization capability for samples across various applications.

“Due to a lower motor regulation factor compared to comparable motors available in the market, our new 17DCT has a higher load carrying capacity at minimum reduction in speed leading to more uniform power” says Sunil Kumar.

Athlonix motors are available with encoders and gearheads of various sizes and ratios. They are manufactured in an ISO certified facility and are RoHS compliant.

Motor regulation factor				
	Voltage	Frame Size		Motor regulation factor
	(V)	Diameter(mm)	Length(mm)	R/K2 (1000/Nms)
Portescap	12	17	26	61.92
Comparative motors	12	16-17	24-26	79.22 - 84.89