

New High Torque 24DCT Coreless Brush DC Motor

Portescap introduces the new DCT range of Athlonix™ Brush DC motors. The 24DCT miniature motor features Portescap's proven energy efficient coreless design with an optimized self-supporting coil and magnetic circuit which ensures higher performance is delivered, all in a compact 24mm diameter size.

With torque carrying capabilities reaching up to 14.96 mNm, the 24DCT provides high performance with efficiency reaching up to 90% while maintaining a long lifetime. Due to the inherent design of the 24DCT motor, it can deliver higher torque per ampere which leads to better battery life. This makes it ideal for battery driven applications such as medical and industrial pumps, drug delivery systems, robotic systems (bionic fingers), miniature industrial power tools, tattoo machines, mesotherapy guns, dental tools, watch winders and more. Other applications such as lab automation, security and access and humanoid robots can also excel using the 24DCT Athlonix motor.

Athlonix 24DCT miniature dc motors are available in 2 variations, precious metal commutation and graphite commutation with a Neo 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.

“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. Standard configurations can be delivered with maximum one week lead-time. Athlonix motors are compatible with encoders and

gearheads of various sizes and ratios and are also available on our online motor configurator MotionCompass™. They are manufactured in an ISO certified facility, and are RoHS compliant.

Maximum Continuous Torque				
	Voltage	Frame Size		Torque
	(V)	Diameter	Length	mNm
Portescap	12	24	32	14.81
Comparative Motors	12	24	32-32.2	10.33-10.37
*Max continuous torque at equivalent input voltage(V)				

