

QINETIQ

Modular E-X-Drive[®]

Scalable electric drive technology for tracked military vehicles



Integrating M-EXD[®] as part of a hybrid or all-electric powertrain delivers significant operational, capability and cost saving advantages to a range of tracked platforms

As military organisations increasingly embrace the merits of electrification, it is clear that conventional drive systems that are reliant solely on fossil fuel for power will not endure.

The transition to a carbon neutral future operating environment is underway and needs to be balanced with maintaining tracked platform capability while ensuring solid foundations are laid in order to meet the needs of the future electrified battlespace.

Contact us to find out more:

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How does the Modular E-X-Drive[®] help?

M-EXD[®] is the most advanced electric tank transmission on the market. Validated to TRL 7 through military trials and evaluation programmes to 80 tonnes, it is suitable for retro-fit into existing vehicles and new platforms as part of a hybrid or all electric powertrain.

The M-EXD[®] architecture makes it readily configurable to a range of tracked vehicles from light UGVs to Main Battle Tank (MBT), with improved safety features inherent in the design. The electric motors are sized for propulsion, enabling excellent acceleration and agility with the high torque demands for hill climb and obstacle crossing being handled by multi-speed gearboxes. When integrated as part of a hybrid powertrain the M-EXD[®] becomes a cornerstone to the All-Electric Combat Vehicle (AECV).

Key Benefits of M-EXD[®] as part of an electrified powertrain



Improved mobility



Improved automotive performance



Reduced fuel consumption by 10-20%



Regenerative steering



Improved safety and redundancy



Increased electrical power



Silent manoeuvre and extended silent watch



Reduced through life support cost



Future proof - a cornerstone to the All-Electric Combat Vehicle (AECV)

Collaborating with QinetiQ

At QinetiQ we bring organisations and people together to provide innovative solutions to real world problems, creating customer advantage.

Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

For further information please contact:

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