

## Dana Delivers Superior Torque, Longer Range for Light Vehicles Through its Enhanced TM4® MOTIVE™ Motor and Inverter

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SHANGHAI, April 17, 2019 /PRNewswire/ -- Dana Incorporated (NYSE: DAN) today announced the introduction of its enhanced TM4<sup>®</sup> MOTIVE™ motor and inverter for the light-vehicle market. The product makes its debut today at AutoShanghai.



The new TM4 MOTIVE motor and inverter from Dana are an integrated system featuring high-RPM permanent magnet electric motors, power-dense electronic inverters, and advanced controls that enable electric vehicles to meet the highest standards for efficiency, reliability, and performance.

It is designed for seamless integration into Dana's Spicer<sup>®</sup> gearboxes and e-Axles, providing a cost-effective, three-in-one turnkey solution to manufacturers of electric vehicles.

Optimized for passenger-car applications up to Class 2 commercial vehicles, the TM4 MOTIVE motor and inverter can be used individually as the front or rear drive for small passenger vehicles, or multiple systems can be configured to operate in tandem for higher gross vehicle weight applications.

Dana's TM4 MOTIVE motor and inverter are the latest and most advanced package in the series, offering superior torque and power densities, extended driving range, and application versatility. It weighs 50 kg and is scalable up to 150 kW and 11,000 rpm. Also, the integrated inverter is 33 percent smaller than the previous generation.

The system is available now for customer testing, with production in China scheduled for 2020.

"Technologies in the electric vehicle market are advancing quickly, delivering higher power densities, lighter weight, and maximum torque capability," said Bob Pyle, president of Dana Light Vehicle Driveline Technologies. "Dana helps vehicle manufacturers in China power into e-Drive through a full portfolio of drive components, global systems expertise in electrification, and nearly 30 years of experience in the country."

With an active and growing footprint in China to support vehicle electrification, Dana's presence in China dates to 1991, and today operates 23 facilities in China that employ more than 6,750 people, including those operations in which Dana holds a minority interest.

Dana serves numerous light-vehicle manufacturers in China, including BMW, Daimler, Dongfeng Motor, Ford, GAC, Great Wall, Jinbei, Lamborghini, Porsche, SAIC, SGMW, Southeast Motor Corporation, Toyota, and VW Group.

In March, TM4 announced the production of its 12,000th TM4 SUMO<sup>TM</sup> electric powertrain for buses and commercial vehicles in China. Key Chinese customers include Higer, Yaxing, Foton, Yinlong, and King Long.

The TM4 MOTIVE motor and inverter are available from Dana are designed and engineered at TM4 in Boucherville, Québec, Canada, and manufactured in Weifang, Shandong province.

TM4 is a joint-venture between Dana and Hydro-Québec, Canada's largest electricity producer and one of the world's largest hydroelectric power producers.

## Dana at Auto Shanghai

Auto Shanghai attendees may visit hall 6.2, stand 6BF060 in the National Exhibition and Convention Center to see the TM4 MOTIVE motor and inverter from Dana as part of a comprehensive portfolio of driveline solutions for passenger vehicles and light trucks.

## About Dana Incorporated

Dana is a world leader in highly engineered solutions for improving the efficiency, performance, and sustainability of powered vehicles and machinery. Dana supports the passenger vehicle, commercial truck, and off-highway markets, as well as industrial and stationary equipment applications. Founded in 1904, Dana employs more than 36,000 people in 33 countries on six continents who are committed to delivering long-term value to customers. The company reported sales of \$8.1 billion in 2018. Based in Maumee, Ohio, USA, it is a people-centric organization and has been named a top employer of choice around the world, including significant honors in Asia, India, Italy, Mexico, and the United States. For more information, please visit <u>www.dana.com</u>.

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Jeff Cole, +1-419-887-3535, jeff.cole@dana.com