

Latest News

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Calm Sea? No Problem for Full Electric Motor Sailboats

Sailing boats are not only for fun, sports and leisure: New concepts try to use wind energy even for cargo ships. It might still take some time until these environment-friendly vessels are ready, but good to see that such concepts are considered and tried out. No matter if it is a small yacht or a still to be developed cargo ship: An auxiliary engine is mandatory for sailing boats, not only when the sea is calm, but also to leave and enter the port. Full electric motor drives are already available for smaller ships. Advantages over the traditional combustion engines are as follows: They are quiet, emission-free and easy to start.

Diotec's new Dual Power MOSFET [DIO28N10PQ2-AQ](#) offers a space saving solution for electric auxiliary motor drives. It contains two N channel types in a single PowerQFN5x6 package. Both with 100 V of Drain-Source voltage, 28 A of continuous Drain current and logic level Gate drive capability.



Two such parts in a H-bridge configuration are already enough to drive a brushed DC motor with adjustable speed and reversal of propulsion. Just three parts are enough to form a three-phase bridge capable for driving brushless DC motors (BLDC). The on-state resistance of typical 15 mOhm at 10 V Gate-Source voltage or maximum 26 mOhm at 4.5 V helps to save energy and therefore prolongs the runtime of the drive.