

Integrated hybrid drives for marine applications – 28 V/48 V

An integrated hybrid drive for marine applications consists of an electronic controller, an electromechanical engine unit, battery and internal combustion engine. The electromechanical engine unit is installed between the internal combustion engine and the reduction gear of the marine drive. In operating the integrated hybrid drive for marine applications with a mechanical clutch, we are able to disconnect the internal combustion engine from the electromechanical motor unit.

The system allows four modes of operation. It starts the internal combustion engine and in this way replaces the existing starter. It works in parallel with the internal combustion engine and hence increases the output power of the entire drive by 10 kW for a short time. During the internal combustion engine's operation, it functions as a 5 kW generator for supplying power and charging batteries. The system can also function as an independent 5 kW electric drive for a vessel.

The integrated hybrid drive is particularly appropriate for smaller vessels, hovercraft, motorboats and smaller yachts, houseboats, commercial, purpose-built and other vessels.

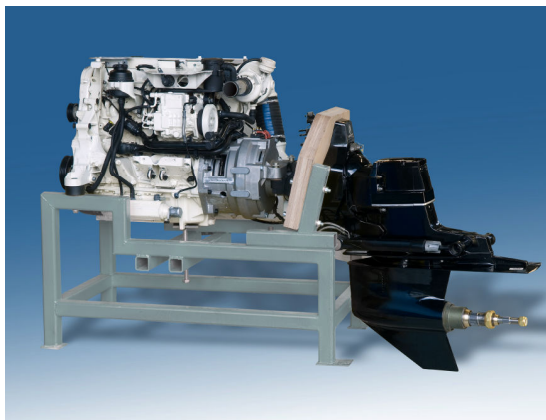
Special advantages of the integrated hybrid drive for the vessels are continuous control of the electric drive for fine manoeuvring of a vessel, quiet and ecological navigation with an electric drive for reduced noise and emissions of CO₂ in the ports, high generator efficiency for more electric energy, and additional power for the driving motor for acceleration.



VW TDI 165 with IHMD



IHMD controller



VW TDI 165 engine with



Elan Impression 384