

1. A demonstration boat equipped with the new technology can be tested on Lago Maggiore in Italy

New electric machine

Legislation worldwide has specified steep reduction figures in emissions of petrol and diesel engines, but these systems are far from being completely 'green'

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The system is highly efficient, providing a long range and low power consumption. It provides comfort on board thanks to the reduction of vibration and its low noise level. It is also extremely eco-friendly with zero emissions. Tier G is also very compact in size and has a high power-to-weight ratio. The very flexible torque profile makes it applicable for various boats, which may need different torque curves.

Technical specifications

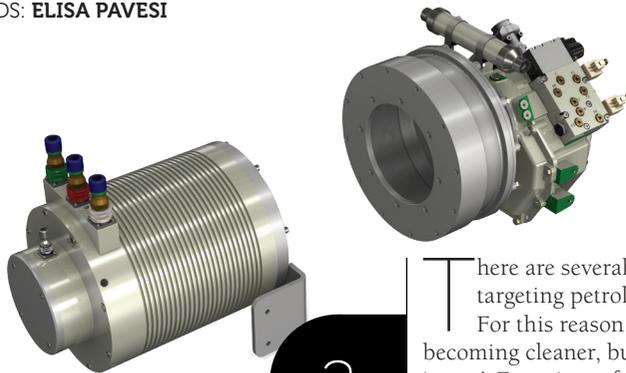
The Tier G engine has a peak power of 130kW (174hp), with permanent magnet technology yielding a 97% efficiency. It works with a 384V DC battery or 400V AC grid.

The SAE 4-10in (SAE J617-620) output with two SAE B bolts power take-off (PTO) make it easily fittable in various configurations, while liquid (glycol or water) cooling and temperature and pressure switch gauges ensure consistently high performance.

It can be applied in full electric systems, for auxiliary propulsion; or in a hybrid system combined with a diesel engine. This configuration makes four different operating modes possible – pure electric, solo diesel, diesel with the electric motor used as a generator, and 'boost' with both engines' power combined. According to Transfluid, this is one of the few systems where the switch between modes can be activated while in operation, without having to switch to neutral or Orpm.

Tier G complements Transfluid's electric and hybrid machine range, increasing the power of the largest engine in its range and offering further ways to exploit the huge peak power that its largest hybrid module can tolerate (up to 1,450kW).

Transfluid's experts will be on hand at Electric & Hybrid Marine World Expo 2018 on Stand 6000. 



2. The Tier G engine can be purchased as a standalone component, or with the full set of accessories (battery, controller, electric box, inverter, etc)

3. Supplied as a turnkey solution, it can be used to re-engineer an existing boat, but is also suitable for application on a new one

There are several regulations in place targeting petrol and diesel engines. For this reason, these engines are becoming cleaner, but will never be fully 'green'. Experience from more than a century of internal combustion engine development is, however, invaluable. With this in mind, an eco-friendly motor must not only be powerful, reliable and flexible, but it must also provide similar, if not better performance than existing systems. Transfluid has developed a new electric machine called the Tier G.

