

## CASE STUDY

# ELHAND Transformatory for Maritime Industry

## CLIENT

Praxis Automation Technology B.V. develops and manufactures ship automation and electric propulsion systems for all types of vessels. With all applied products of the automation and electric propulsion systems developed and manufactured in-house, Praxis offers a unique package which requires little to no system integration work. This approach is unique on the market and ensures unsurpassed cost efficiency and safety.

## THE CHALLENGE

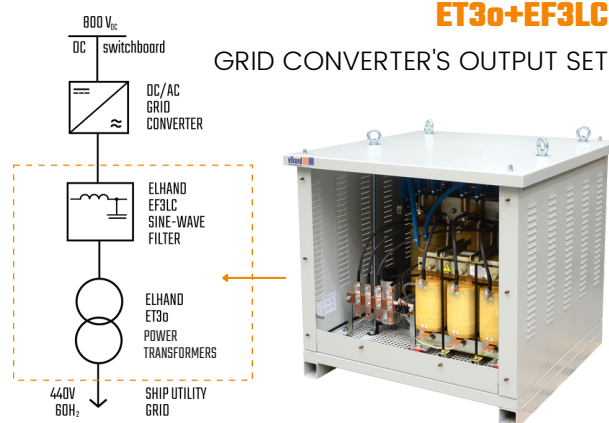
Praxis is a leader in supplying electrical systems for fast motor yachts. Market trend is to minimize the weight and dimensions of all ship equipment. That forces the manufacturers to look for the most optimized solutions. Products need to be small and light, while keeping top performance and high reliability.

## THE SOLUTION

GRID CONVERTER'S OUTPUT SET is a ready-made solution, which enables connection of a grid converter to the ship utility grid. Frequency converter's output voltage is transformed from PWM to sinusoidal waveform thanks to the sine-wave LC filter. Then the transformer eliminates common-mode voltage and adjusts its value to the customer's requirements.

## RESULTS

Elhand offered individual, compact design. To reduce the weight, both the windings and the enclosure were made of aluminum. Thanks to the water cooling system, the footprint was minimized. The final product was easy to integrate with the yacht's electrical system.



The devices made by ELHAND Transformatory, and implemented by Praxis Automation in their systems, are failure-free and pose no operational problems. Both the transformers and filters supplied by ELHAND are reliable and made with the utmost care.

### Benjamin van Dam

Sales Director  
Praxis Automation Technology B.V.