PRAXIS
AUTOMATION TECHNOLOGY

FLEETVIEW

PRAXIS
AUTOMATION TECHNOLOGY

Welcome demo

Profile

System setting

Vessel data

Fleet overview

Vessel detail

> Praxis Trader 1
> Praxis Trader 2
> Praxis Trader 3
> Praxis Innovation
> Praxis Queen
> Praxis Vision

Vessel location

Statistic

Ship view

Support area

Contact to Praxis

Help

Sign out

| Overview | Engine | Tank | Power | Cargo |

Praxis Trader 2

Emergency	2	IMO:	
Warning	2	Health:	9238818
No alarm	2	Consumption:	91%
			225 t/d

Speed: 14 Kn

Course: 63°

Praxis Trader 2

Google

| Fuel Consumption: | 225 t/d |
| Exhaust Temperature: | 95°C |

| Generator Load: | 3.200 kW |
| Shaft Generator Load: | 1.100 kW |

| Overrun hour Pump 1: | 242 / 250 h |
| Overrun hour Generator 2: | 512 / 550 h |

| Vessel maintenance: | 2 days left |
| Generator 3: | Unexpected error |

Tank capacity: (%)

Fuel tank 1 Fuel tank 2 Water tank Waste tank

PRAXIS

Fleet
Management
System

Fleet Management System

Features

FMS Fleet Management System

The Mega-Guard Fleet Management System (FMS) is an Internet-based application for the monitoring and reporting of data derived from seagoing vessels. All data will be collected from the vessel's alarm, monitoring and control system in a fully automated manner and will be transferred to the database meeting highest security standards.

The Fleet Management System offers the following functions to the shipowners:

▸ The Fleet Overview page lists user selectable status information for all vessels of the fleet.
▸ The Vessel View page shows user selectable parameters of individual vessels including the possibility to highlight vessel-related information of special interest – e.g. the fuel consumption or the CO_2 emission rate.
▸ The automated creation of reports on the Statistic View page allows to plot freely selectable parameters over a defined timespan.
▸ The Map View shows the recent position of any individual vessel.
▸ Secure communication and data storage with double log-in procedures.

Onshore monitoring of relevant fleet parameters

One major aim of the FMS is to significantly reduce the administrative effort of the report creation - e.g. CO_2 emission reports according to the IMO MRV rule. These documents can be created in a fully automated manner.

At the same time the FMS helps shipowners with the optimization of cost-critical parameters of their vessel's fuel economy, e.g. by comparing fuel consumption over speed plots of different vessels or timespans.

Next to the shoreside fleet-monitoring functions the vessel operations will benefit from direct shoreside guidance of individual vessels during critical situations.
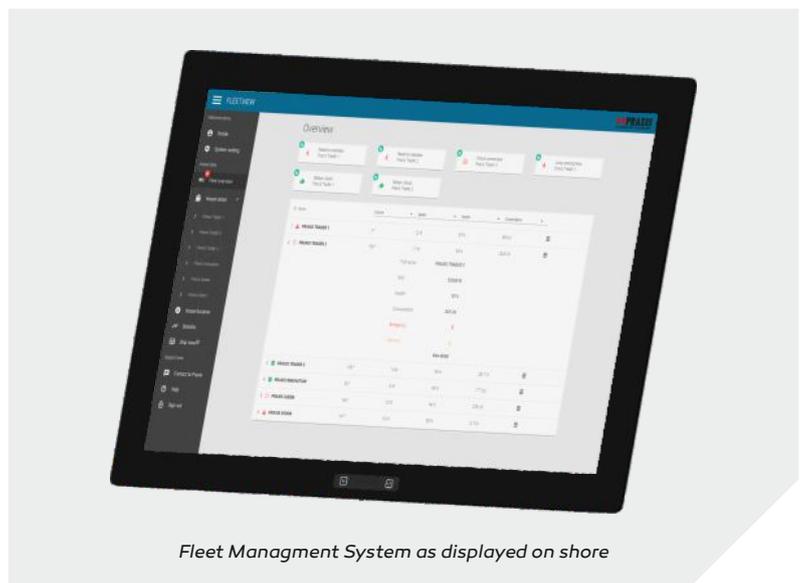
Fleet Managment System as displayed on shore

Vessel View

Vessel View as viewed on Fleet Management Workstation
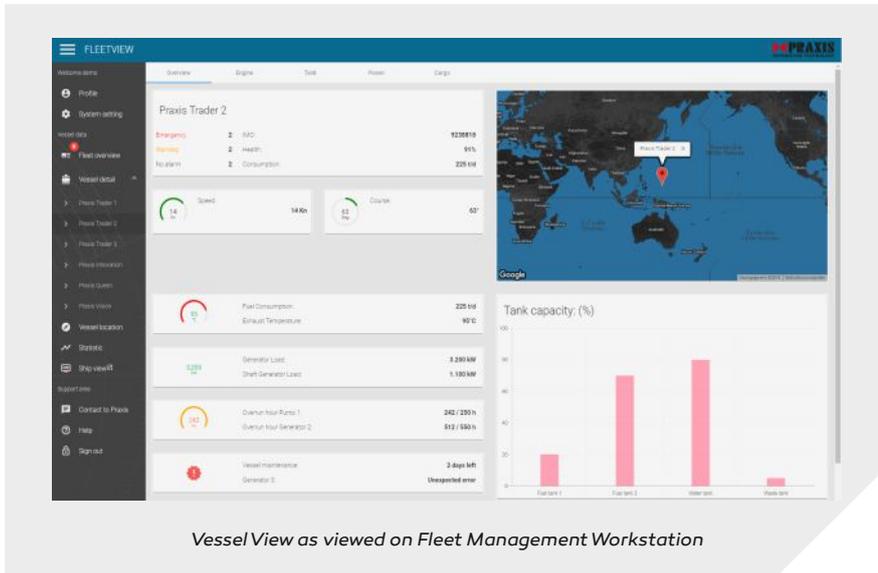
The Vessel View offers a cockpit window including the current status of selectable hotspot parameters.

It includes an overview of your range of predefined reports in order to track any available channel over time.

If required you are able to enter the vessel's alarm, monitoring and control system view via a remote desktop connection.

Please note:

▶ Next to standard parameters, as fuel consumption, speed and position data, a wide range of indications can be created for every single vessel. These can include tank, trim and list gauges and all kind of engine related parameters.

Position View

Position View as viewed on Fleet Management Workstation
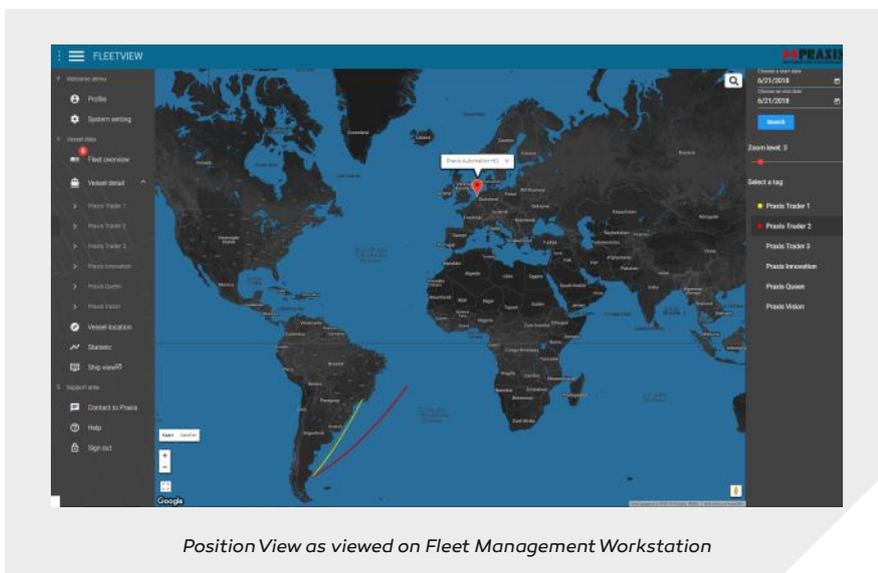
The Position View offers a map view including all vessels of your fleet equipped with the Mega-Guard FMS system.

It includes the tracked route and a heading projection.

Individual vessels may be selected to enter the Vessel View.

Please note:

▶ This function is due to the availability of vessel specific GPS/ and AIS information.
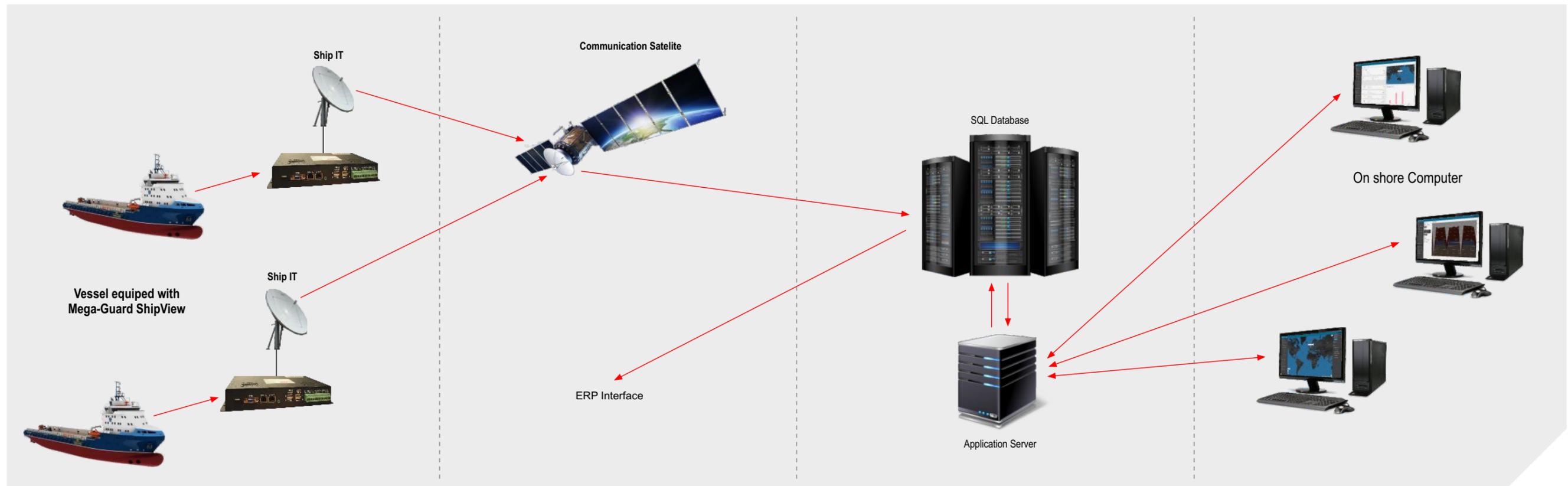
FMS system lay-out

System lay-out

In order to provide on-shore operational staff access to both vessel and fleet data instantly the Mega-Guard Fleet Management System consists out of the following components:

▶ The Interface Application running on a Mega-Guard Marine PC equipped with Internet Ship View (ISV) software connects the automation system and the vessel's communication equipment which is accessible via the Internet.
▶ The SQL database stores the data feed out of the selected automation channels at an adjustable time schedule.
▶ The Web application runs on the application server to provide the SQL database functions to the HTML website. It interacts with the interfaces onboard.
▶ The Frontend Application enables the user to comfortably access all system functions.

The FMS is part of the modular range of Mega-Guard ship automation, navigation and electric propulsion solutions, ready to provide the flexibility needed to meet each individual vessel's demands. Any digital or analog onboard sensor and every serial interface can be connected via the vessel's automation environment.

This modular approach means that the FMS solution can adapt to collect data from any marine environment, from the basic up to the most complex ones, and provide it to the onshore staff in a comfortable and reliable manner.

Ship IT

Communication Satelite

SQL Database

On shore Computer

Vessel equiped with Mega-Guard ShipView

Ship IT

ERP Interface

Application Server

After a successful double log-in onto the Fleet Managemant System the Fleet Overview screen appears. The Fleet Overview page contains the following functions:
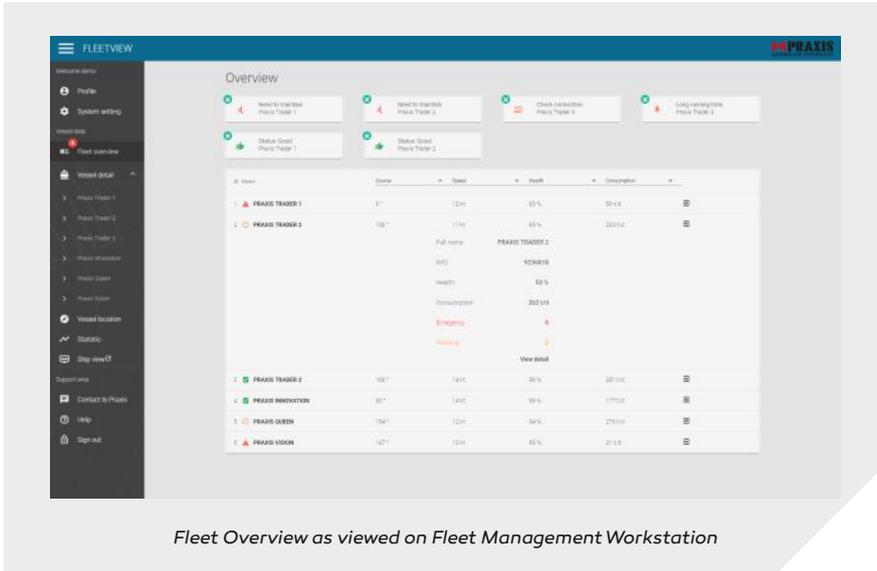
▶ It offers a menu including all vessels of the customer specific fleet equipped with the Mega-Guard FMS system.
▶ It lists compact freely definable status lines for each vessel.
▶ It enables the customer to select any individual vessel in order to enter the vessel specific view.

With a Mega-Guard Vessel Management System and an ISV Marine PC being present onboard a vessel the installation process of the FMS can be completely performed online. This approach saves both, time and cost.

Also, the maintenance and service effort of all Mega-Guard ship automation, navigation and electric propulsion systems onboard will be significantly reduced due to the online access possibilities. In many cases an onboard service attendance might become obsolete. However, if it is required to physically visit the vessel, our worldwide team of fully trained service agents will be on hand to provide maintenance to any vessel, wherever it may be.

FMS functional description

Fleet Overview

Fleet Overview as viewed on Fleet Management Workstation

After a successful double log-in the Fleet Overview screen appears. This page contains a menu including all vessels of the customer specific fleet equipped with the Mega-Guard FMS system.

It lists compact and freely definable status lines for each vessel with the possibility to put the focus to a vessel of specific interest.

It enables the customer to select any individual vessel in order to enter the vessel specific view.

Statistic View

Statistic View as viewed on Fleet Management Workstation

The Statistic View enables the user to print a set of selectable vessel specific parameters over a definable timespan.

Additionally, special report functions can be realized. This includes the plotting of definable parameters (e.g. the fuel consumption) of the currently selected vessel in comparison with the same parameter of a different vessel within his fleet.

Please note:

▶ Optionally, customer specific report views can be created upon request. These could be report documents which require a certain standardized form, as CO_2 emission reports according to the IMO MRV rule.
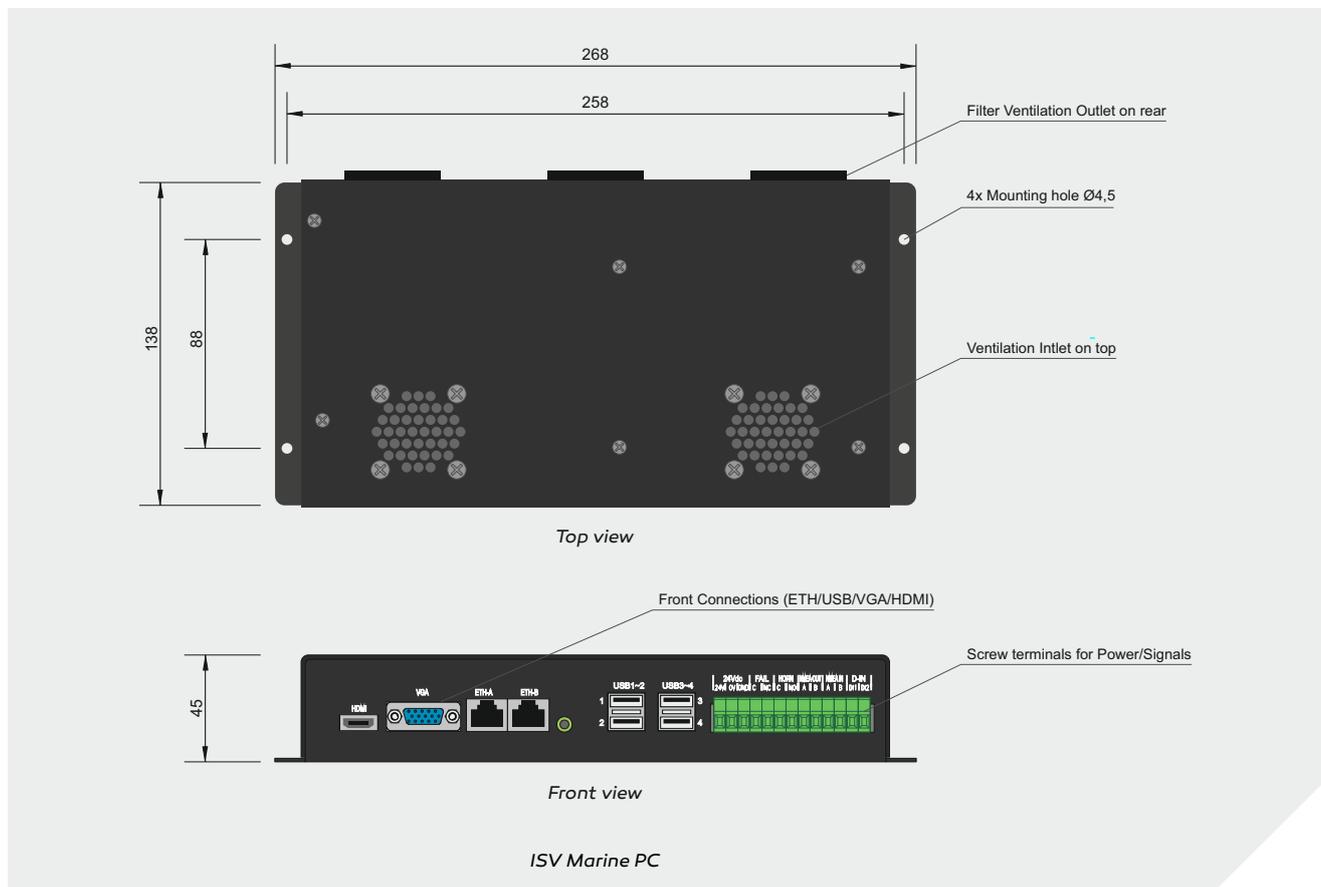
On-Board interfacing hardware

The Mega-Guard Fleet Management System as internet–based application will connect to the ship's alarm, monitoring and control system using a Marine PC with Internet Ship View (ISV) software. The ISV Marine PC acts as interfacing hardware between the automation and the vessel's communication equipment which is accessible via the Internet. An ISV Marine PC can be connected directly to a Mega-Guard Vessel Management System via the Ethernet communication network. In case other maker alarm, monitoring and control system is installed on the vessel communication to the ISV Marine PC can take place through standard communication protocols such as Modbus and NMEA. The ruggedized on board ISV Marine PC is equipped with Internet Ship View software which realizes a secure communication link with dual access protocols in order to safely connect to the shore based Fleet Management System via the Internet.

ISV Marine PC - Performance	
Operating System	Windows 10 embedded
CPU	Quad core Celeron at 2GHz
Solid state disk	32GB
Ethernet	2 port; 3rd port optional
NMEA input	1 port
NMEA output	1 port
NMEA extension	up to 8 port optional
RS422 extension	up to 4 port optional
USB	4 port; 5th to 12th port optional
HDMI and VGA	1 port
Horn output	Potential free relay
Fail output	Potential free relay
Power supply	24VDC (-25% ~ +30%)
Power consumption	25W

ISV Marine PC

Mounting & dimensions

268

258

Filter Ventilation Outlet on rear

4x Mounting hole Ø4,5

138

88

Ventilation Intlet on top

Top view

Front Connections (ETH/USB/VGA/HDMI)

Screw terminals for Power/Signals

45

HDMI VGA ETH-A ETH-B USB1~2 USB3~4

Front view

ISV Marine PC

PRAXIS
AUTOMATION TECHNOLOGY

Vessel
Management System

Power
Management System

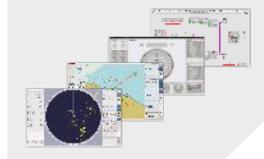Fire
Alarm System

CCTV
Video Distribution

Ship
Performance Monitor

Fleet
Management System

Integrated
Navigation System

Heading
Control System

Propulsion
Control System

Dynamic
Positioning System

BNWAS
Watch Alarm System

Navigation
Light Control

Wiper
Control System

Energy
Management System

Electric
Propulsion Motor

Electric
Steerable POD

High
Power Inverter

DC bus
Generator

Electric
Energy Storage

Electric Fin
Stabilizer

Ship automation,
navigation and
electric propulsion