

Marpower Power Management System (PMS)



The Marpower Power Management System (PMS) manages the availability of power and contributes to a stable power supply with high continuity. The system will be customer-specific configured. Using the operating profile and the operator's workflow as a base for a continuous balance in consumed and produced power.

Marpower PMS switches the various energy sources according to need and preference. There are presets for specific situations with higher power demand, such as loading and unloading with an onboard crane.

If all resources are in use, Marpower PMS will inform the user that the power demand cannot be met. This can lead to the disconnection or power reduction of a consumer (black-out prevention). If an energy source is not available, an alternative source will be used until the emergency generator remains.

Marpower PMS can be integrated in the Marpower Automation System. With all data available in a blink, the operator will always be in control.



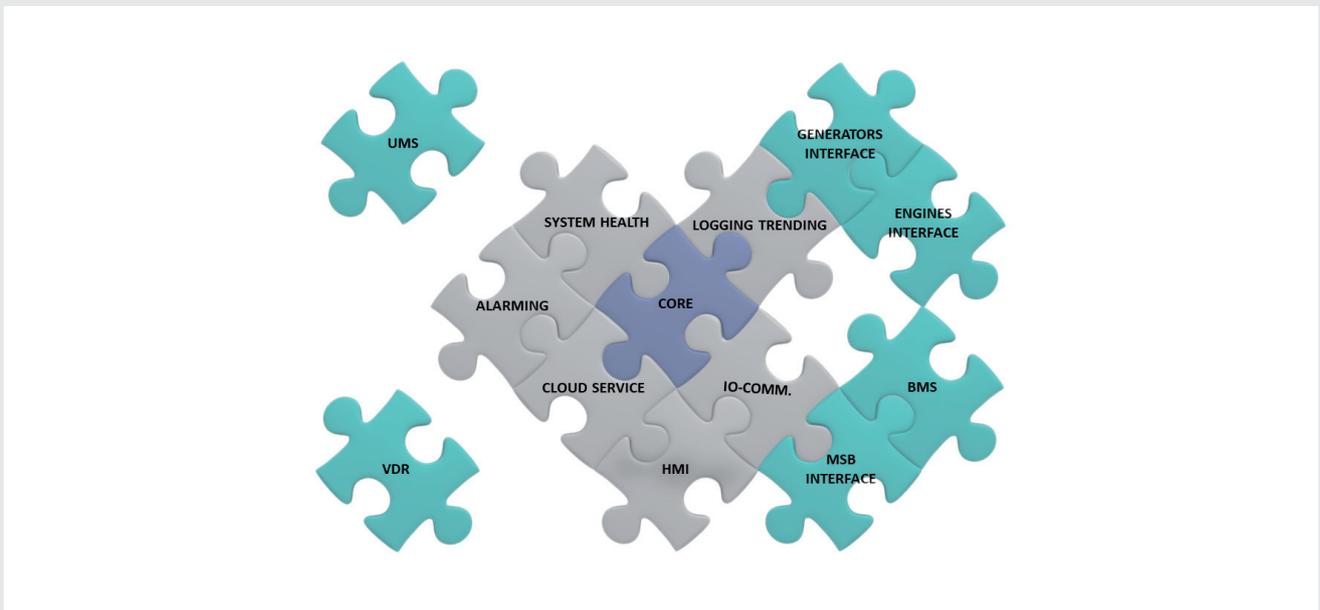
Advantages of the Marpower Power Management System

- ✓ Full management of the power distribution
- ✓ Fully automated, with use of presets
- ✓ Widely applicable, simple configuration
- ✓ Hardware-independent
- ✓ Optional redundant design, easily expandable
- ✓ Efficient use of energy
- ✓ Fast system response time
- ✓ Easy to use
- ✓ Accurate current status of energy supply

The PMS implements the strategy of the energy needs on board, which can be done in various ways. Very simplified, like a time switch with presets. Or based on requested power needs and preferences.

The chosen strategy is not decisive for the required modules as it is an interpretation of available data. The data required for both solutions is approximately the same, for example 'operational' signals, power output, etc. The PMS also contains

the required visualization of the system with operating possibilities. This system requires a MAS comfort system that is already suitable for control. Logging / trending supports engineer in the analysis of the system. Interfacing with the generators for monitoring and control can be realized in various ways; Modbus / TCP, Modbus / RTU, CAN, J1939 etc. or via hardwired signals.



Marpower is a brand name for automation systems, frequency converters, electronics and power converters which are produced in-house.

The Marpower Automation System is a flexible and scalable platform for alarming, monitoring and control of systems. The graphical user interface is intuitive, user-friendly and scalable, it can be adapted to user specific requirements. A unique feature of the Marpower Automation System is ability to configure the system in a multiple redundant configuration. In addition, the software components are hot-standby, so seamless redundant services can provide an optimal user experience in case of a system failure. The minimum system consists of 2 industrial workstations or industrial panel PCs, combined with PLC hardware and remote I/O.

The Marpower Automation System can process large I/O amounts (> 10000) without losing reaction speed. With optimum tuning of the system components via a gigabit network, reaction times of 250 ms maximum can be realized. The system is executed from a Linux environment for optimum speed, stability and security. Due to this operating system, no licenses are needed for our software. Another advantage is the use of commercial off-the-shelf hardware which is world-wide available. With the Marpower Automation System, a suitable solution can be offered for each ship, from coaster to cruise ship!

Marpower Automatisering System

- BCS - Ballast control system
- EMS - Energy management system
- FOMS - Fuel oil monitoring system
- PMS - Power management system
- TMS - Tank monitoring system
- VCS - Valve control system