ABB Ability™ System 800xA for marine
Versatile, flexible and seamlessly integrated automation within one environment

ABB offers the widest portfolio of automation products, marine software and optimization systems to the maritime market. With ABB's Automation technology, Marine Software, remote connections & predictive capabilities, and service built around the solution, we enable customers to digitalize their operations.

The system
With the ABB Ability™ System 800xA, the crew have access to a fully integrated ship where all systems and equipment work seamlessly together, operated from an intuitive, single-screen access to all information needed to operate the vessel more effectively and safely. The core of ABB's Integrated Automation is the globally leading and industry proven 800xA platform. All automation modules involved provide a similar look and feel and offer integrated automated control from bridge to propeller. The versatility and scalability of System 800xA for vessel management, propulsion control, power distribution management and cargo control make it possible to meet the unique needs of individual ship types.

Improved User Interface
The latest generation of ABB Ability™ System 800xA provides a modern user interface that excels in user-friendliness, usability and consistency. ABB's total Automation and Marine Software portfolio now demonstrates a clear and similar look and feel.

Automation modules
Power Management:
• Diesel Generator Monitoring System
• Power Management System
• Power & Energy Management System

Vessel Management:
• Alarm, Monitoring & Control
• Propulsion Control
• Remote Control System
• Intelligent Manoeuvring Interface

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The new and improved graphical user interface offers intuitive and user-friendly night and day vision.

Process Control:
- LNG Cargo & Gas Management System
- Cargo Control System
- HVAC Control
- Drilling Drives Control System
- Propulsion/Thruster Drives Control System

Safety Systems:
- Fire & Gas System
- Emergency Shut Down System

Dynamic Positioning:
- DP integration

Customer benefits
Energy efficiency:
- Electrical and power know-how and integration to control systems
- Optimized system design through simulation
- Optimum loading of the power plant resulting in saved energy
- Integration to advisory systems for optimum voyage execution and reporting

Integration
- Same HW with power and control systems
- Reduced cabling due to fieldbus solutions and highest redundancy
- Uniform look and feel of all systems
- Pre-testing of all power and automation systems interfaces possible at in-house ABB
- All information available on all systems

Project Execution
- Common project management for power and control systems
- Integration for power systems done by ABB in-house.
- Control of documentation and interfaces
- Less communication points and interfaces
- Faster commissioning time due to pre-testing
- Clear responsibility by one party

Life-cycle
- Optimized maintenance, common spare parts
- Global marine service network, single service contact
- Life-cycle management through asset monitoring and modernizations

Integration to Ability™ software
The total offering from ABB's Digital Solutions portfolio is the most comprehensive suite available within the maritime industry. The complete suite provides seamless exchange of data, full integration of sensors, automation, ship software and cloud solutions. The total offering consists out of several important elements, being decision support software for safety and comfort and energy efficient operations, and remote diagnostics technology that preventatively and continuously monitors critical equipment onboard of a ship. ABB optimizes the day-to-day shipping industry in many ways. Whether is increasing the efficiency, safety or workability of a ship, or helping ship-owners to comply with increasing demands from environmental regulations such as the IMO Ship Energy Efficiency Management Plan (SEEMP) and future European Union Monitoring, Reporting and Verification (MRV) rules.

WRITING THE FUTURE. TOGETHER WITH ABB.
With our ABB AbilityTM Collaborative Operation Centers we are enabling next generation vessel and customer onshore operations. We are bringing advanced analytics, portals, and the possibilities given with digital twin technology, to drive the digitalization of ship operations.

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