PLEASURE BOATS: INTUITIVE OPERATION, SMOOTH SAILING

Pleasure Boats

Intuitive Operation, Smooth Sailing

Maximising accommodation space is a primary challenge in contemporary yacht construction.

Understanding the need to optimise engine rooms and electrical switchboards, DEIF's PPM-3 Protection and Power Management System unit has been designed to fit the smallest switchboards and requires no PLC.

With high levels of flexibility and configuration, it is simple to add features and functionality after HW installation using DEIF design tools and free software downloads from www.deif.com.

Utilising advanced power management calculations and redundant communication lines, our solutions generate safe, optimal and intuitive operation. Stressing how correct system handling and operation by educated personnel optimises fuel costs and maintenance, we also offer comprehensive hands-on training for your crew at our regional and local training centres.

With subsidiaries and distributors strategically located near our customers, DEIF secures fast delivery and immediate response to support and service requests – anywhere in the world.

Simona Rossi
Sales Engineer
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Pleasure Boat Applications Include:

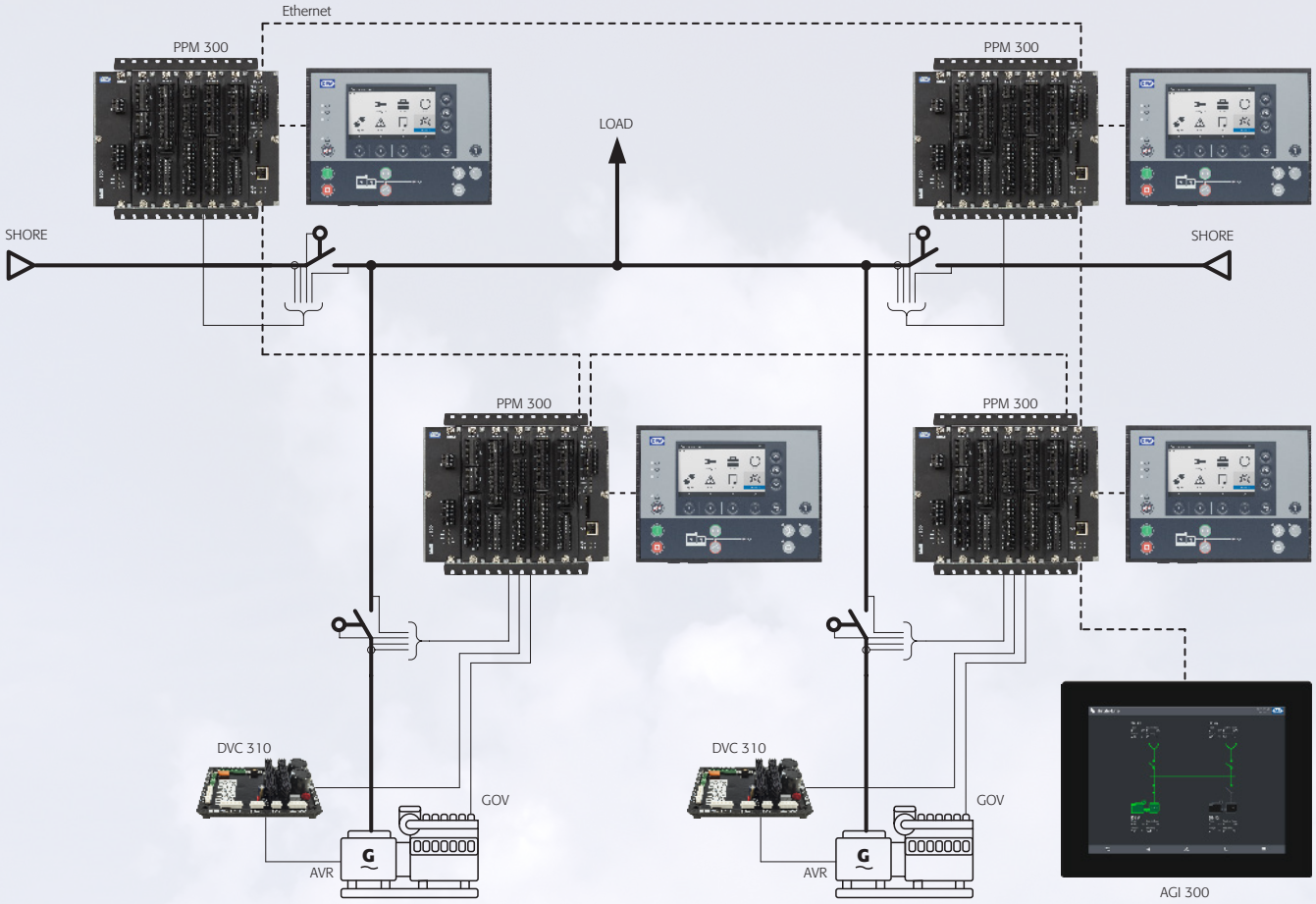
Super Yacht

Mega Yacht

Intelligent & Intuitive User Solutions
✓ Intuitive one-touch auto sequences
✓ Synchronised service intervals (based on running hours)
✓ User display information messages
✓ Advanced trouble shooting tools

Compact Designs for Engine Rooms & Switchboards

Intuitive, Easy-to-use Controller Solutions, Bridge Instrumentation & Switchboard Equipment



Up-to-date Technology
✓ Shore supply controller, inverter interface
✓ Graphical colour touch screen solution
✓ Advanced & Integrated power management
✓ TCP/IP-based communication & J1939 interface possibility

Cost Savings
✓ Fully automatic system
✓ Stable operation
✓ Record time commissioning
✓ Free internet access to documentation & software

Pleasure Boats Case Study

The DEIF staff and support through the entire process has been an extreme pleasure… Barry Baadte, GM at Island Marine, Florida

M/Y Casual Water is a striking 33.68m Feadship motor yacht that has changed hands a few times since she was first launched under the name Roverling. Originally built in 1987 with a shallow draft specifically for cruising around the Boston area, today she is mainly seen in the Caribbean.

The motor yacht offers accommodation for up to eight guests with a crew of five members to guarantee guests an outstanding boating experience.

Preserving the luxury yacht's classic lines and presentation right down to the operation of the main switchboard, Casual Water has seen a lot of love from its current owner.

Application Challenge

Casual Water's original main switchboard was state of the art at the time of installation, but after 25 years of service, it had obsolete parts and was becoming increasingly difficult to maintain: its moving potentiometers, for instance, had become impossible to adjust.

Island Marine Electric recommended DEIF as the supplier of not just the switchboard functions but also of the vessel's generator controls and interface to the existing shore power system.

Suitable for a broad range of marine and offshore applications, DEIF's versatile and fully redundant multi-master system PPM-3, Protection and Power Management 3, has been developed with safe, cost-effective engine operation in view: with up to three powerful microprocessors, the PPM-3 can cut fuel costs by up to 15 %.

Island Marine Electric

Operating out of Fort Lauderdale, Florida, since 1985, Island Marine Electric serves the yachting community in the United States and the Caribbean.

Island Marine Electric

www.islandmarineelectric.com

Data

- Fully redundant multi-master system
- Automatic split bus state mode for bow thruster operation
- Simple and seamless implementation
- Up to 15 % reduced fuel consumption

Product

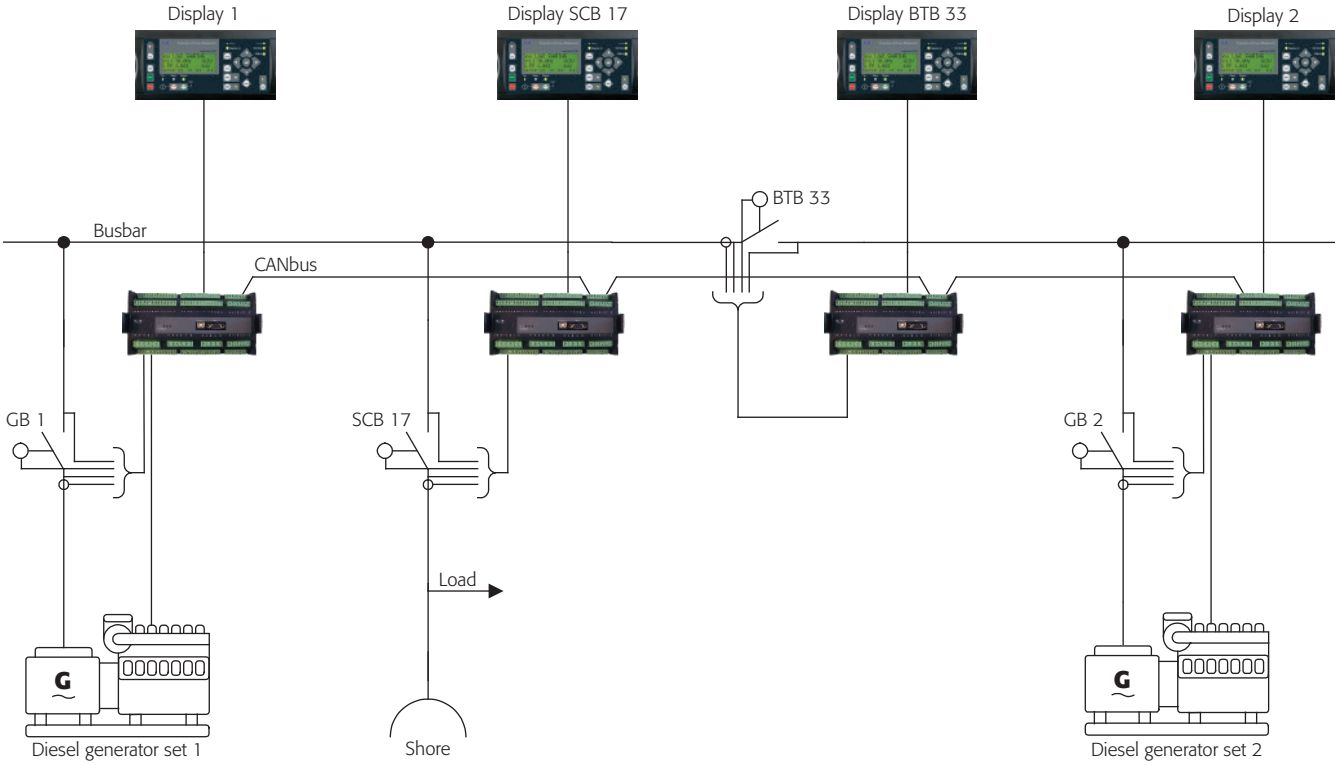
Protection and Power Management, PPM-3

DEIF Solution

DEIF's PPM 3 solution enables Casual Water to operate on a single generator, saving fuel and generator maintenance cost. For Baadte, what truly makes the DEIF solution stand out, though, is, "Reliability, customer support and the system's incredible adaptability." When Casual Water requested a unique mode for Bow Thruster Operation – the system will automatically enter a split bus state – we delivered on the request, adding custom M-Logic programming featured in the PPM-3 controllers."

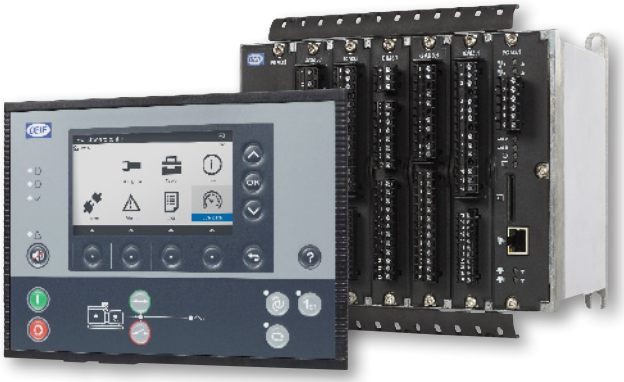
According to Island Marine, retrofitting the systems proved an exceptionally seamless and pleasant experience with new functionalities and options adapted specifically for the yacht. Island Marine is particularly hopeful about the return on investment of the retrofit: "The return on investment for the owner and crew should be very apparent. The system offers exceptionally intuitive operation along with a high level of reliability and required no major modification to the main distribution panel to implement. The yacht is quite happy."

Case Diagram



Protection & Power Management, PPM 300

A versatile, intelligent controller concept for applications in the marine and offshore industry.



Designed for applications in the marine and offshore industry, DEIF's innovative Protection and Power Management PPM 300 solution is a versatile, intelligent controller platform.

Incorporating an extensive range of control, protection and supervision functions, PPM 300 applications range from genset control and protection to engineered power management solutions developed for diesel generators (including emergency diesel generators), shaft generators, shore connections, and bus tie breakers.

PPM 300 power management systems control and monitor applications meet and maintain set power requirements and guarantee stable operation. PPM 300 power management systems also incorporate market-leading fuel optimisation technology.

In multi-master solutions, the integrated PPM 300 controllers connect and communicate as a closed circuit to eradicate single point failures: in cases of unit fall-out, the master functionality automatically moves to another host keeping the system not just operational but safe and reliable at all times.

Built as a sturdy piece of market-leading quality hardware, the PPM 300 features the latest processor technology and long-life adaptability.

Uniquely, the PPM 300's modular build supports on-site replacement of processor, communication, measurement and input-output modules with comprehensive class approvals. Changes to the unit at sea or in the field are assisted with automatic recognition functionality facilitating fast, easy and cost-saving service, repairs, and upgrades.

The controller display unit includes a 5" colour graphic screen with intuitive sequences and icons for fast readout of live data, and easy access to alarms handling and controller setup.

Functionality is defined and targeted according to user permission levels.

PPM 300 Type Approvals

DNV GL Lloyd's Register Marine

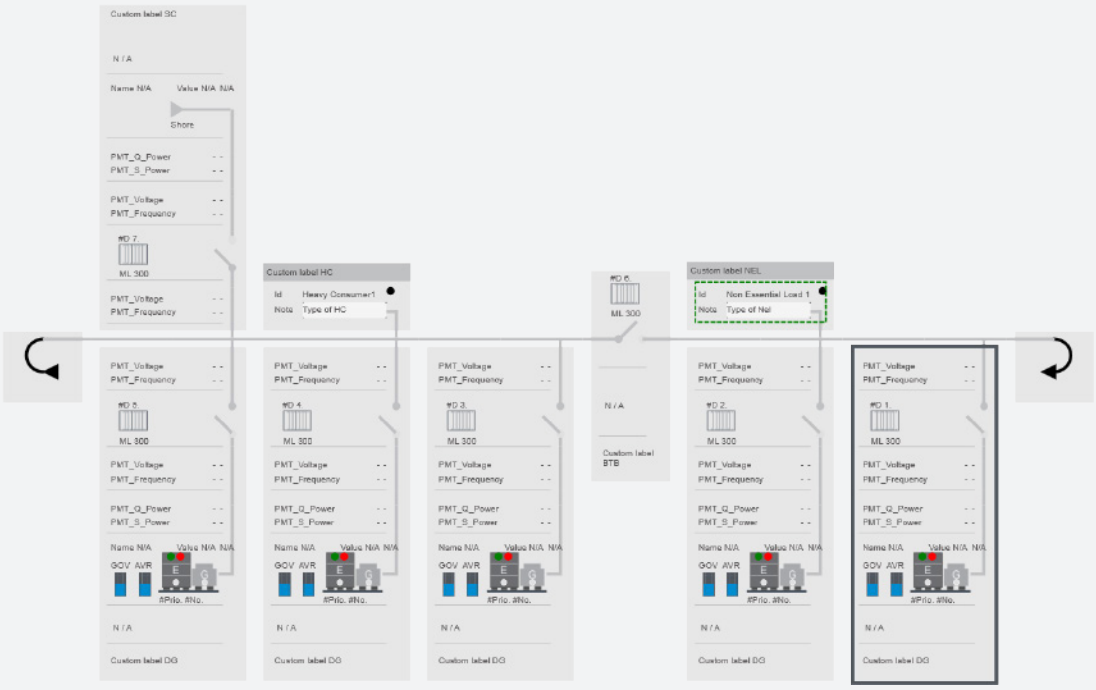
Protection & Power Management, PPM 300

Built From a Can-do Philosophy

PPM 300 Features

- ✓ Modular controller: customise hardware modules according to wiring diagram, retrofit or specific design
- ✓ Add or replace hardware modules in the controller rack on-site: only print circuit boards leave the site for repair, or are replaced
- ✓ Display unit with 5" colour graphic display: user-friendly design with colour-focus for special attention areas
- ✓ Default configuration of input/output hardware modules with pre-set software settings based on DEIF experience & class recommendation
- ✓ One-touch sequences for simple handling of advanced sequences involving multiple start/stop and synchronising
- ✓ Software broadcast cuts manual procedure repeats & saves times in connection with updating
- ✓ Context-sensitive help in the controller display unit: instant, on-site functionality guide & manual with up-to-the minute documentation
- ✓ Industrial grade SD card lifetime logging: detailed data for analysis
- ✓ Event and alarm log with real-time clock alignment facilitates comparative log data analysis
- ✓ Fast load reduction of less than 100ms: avoid overload situations without disconnecting consumers
- ✓ Emulation: perform time-saving design & functionality test in a no-risk environment – with no wear on engines and breakers
- ✓ Monitor operation & pre-test logic lines; comparable to Emulation in the PMS system
- ✓ Display unit push-buttons for genset start/stop, breaker operations, & changing control mode integrates external equipment control, depending on class approvals
- ✓ Pre-defined alarm actions (fail classes): simple need for nominal settings entry and fine tuning cuts commissioning time
- ✓ Logic configuration tool, based on ladder logic: recognisable user interface for PMS functionality customisation
- ✓ Redundant communication between controllers eliminates single point of failure within communication, informs user and keeps the system running
- ✓ Password-protected, with customisable permission levels: controlled access with user logs & customised user profile functionality
- ✓ Switch between metric (default) and US engineering units: easy conversion to familiar reference values

PPM 300 Application Example



DEIF is a market leader with a proven record of more than 80 years of technological achievement and innovation in engine & genset controls, marine bridge instrumentation, switchboard instrumentation and renewable energy controls.

Our goal is to always bring a competitive edge to our customers' businesses by providing green, safe and reliable product lines with flexible features and first class service and support.

The DEIF Group is committed to maintaining and expanding its position as a trusted global supplier of quality solutions.

DEIF
-power in control

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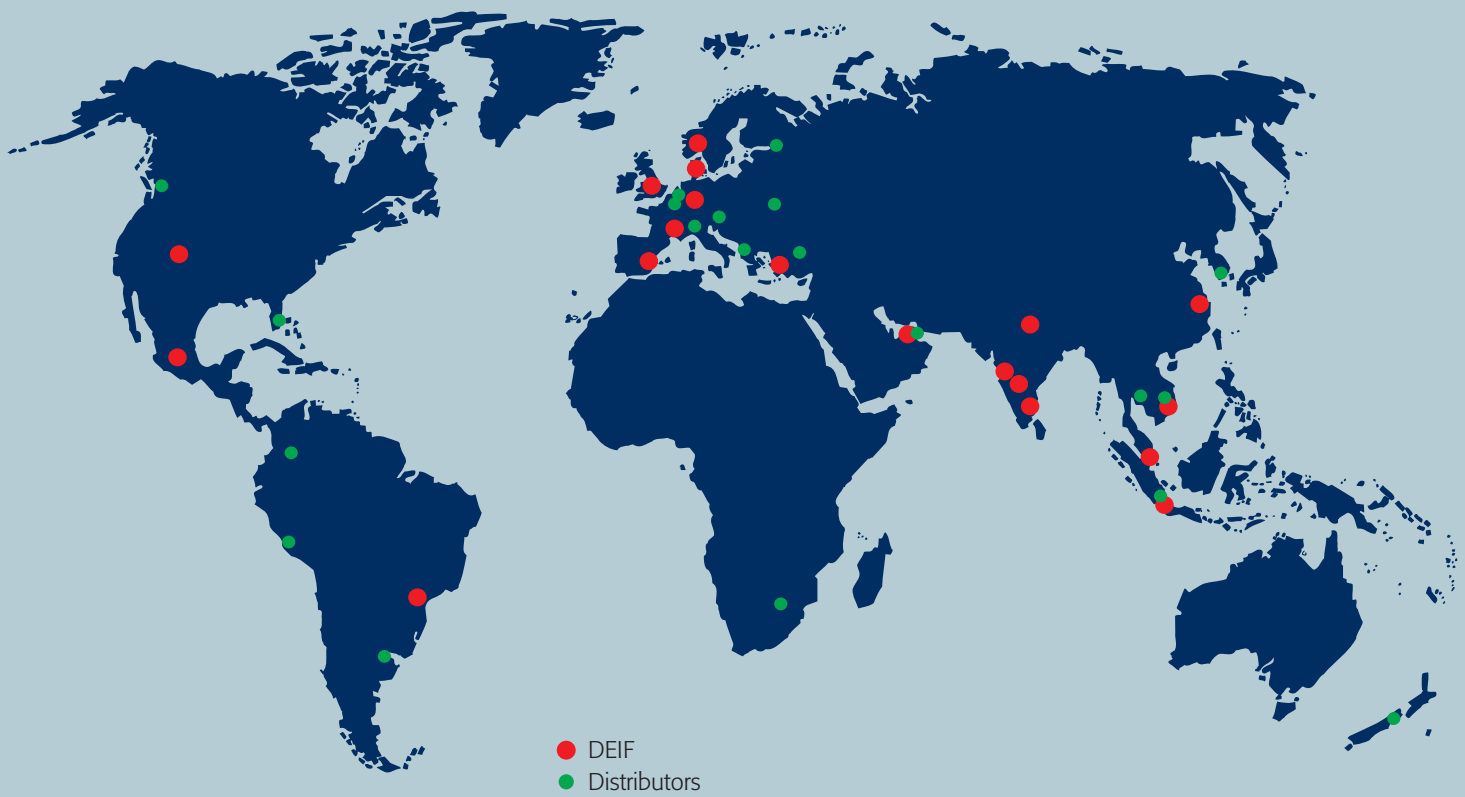

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