



# A NEW APPROACH

INTUITIVE, CAN-DO POWER MANAGEMENT SYSTEM TECHNOLOGY



**PROTECTION AND POWER MANAGEMENT: PPM 300**



*power in control*

# Protection & Power Management 300, PPM 300

## Marine Power Technology Has Changed

DEIF is proud to launch the first unit of a ground-breaking range of future-proof, advanced controller solutions.

Conceived and designed to anticipate user needs today and in years to come, these products respond to market demands for easier integration, improved user-friendliness, fuel economy and high return-on-investment.

Multi-line 300, ML 300, the intelligent controller range is a versatile and modular base-mounted hardware platform developed for all levels of control solutions: from simple stand-alone engine control to complex and engineered power management systems.

First off the assembly line, Protection & Power Management 300, PPM 300, is about giving you critical market advantages and cutting-edge, top-performing results with built-in troubleshooting, fuel-efficient technology and other features to optimise your system.

*Featuring super-fast performance and user-friendly operation, this technological advance captures DEIF's hallmarks of green, safe and reliable performance.*



Finn Nielsen  
Vice President  
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### INCREASE UPTIME

Onboard hardware stock enables on-the-fly repairs.



### OPTIMISE OPERATION

Market-leading power management system.



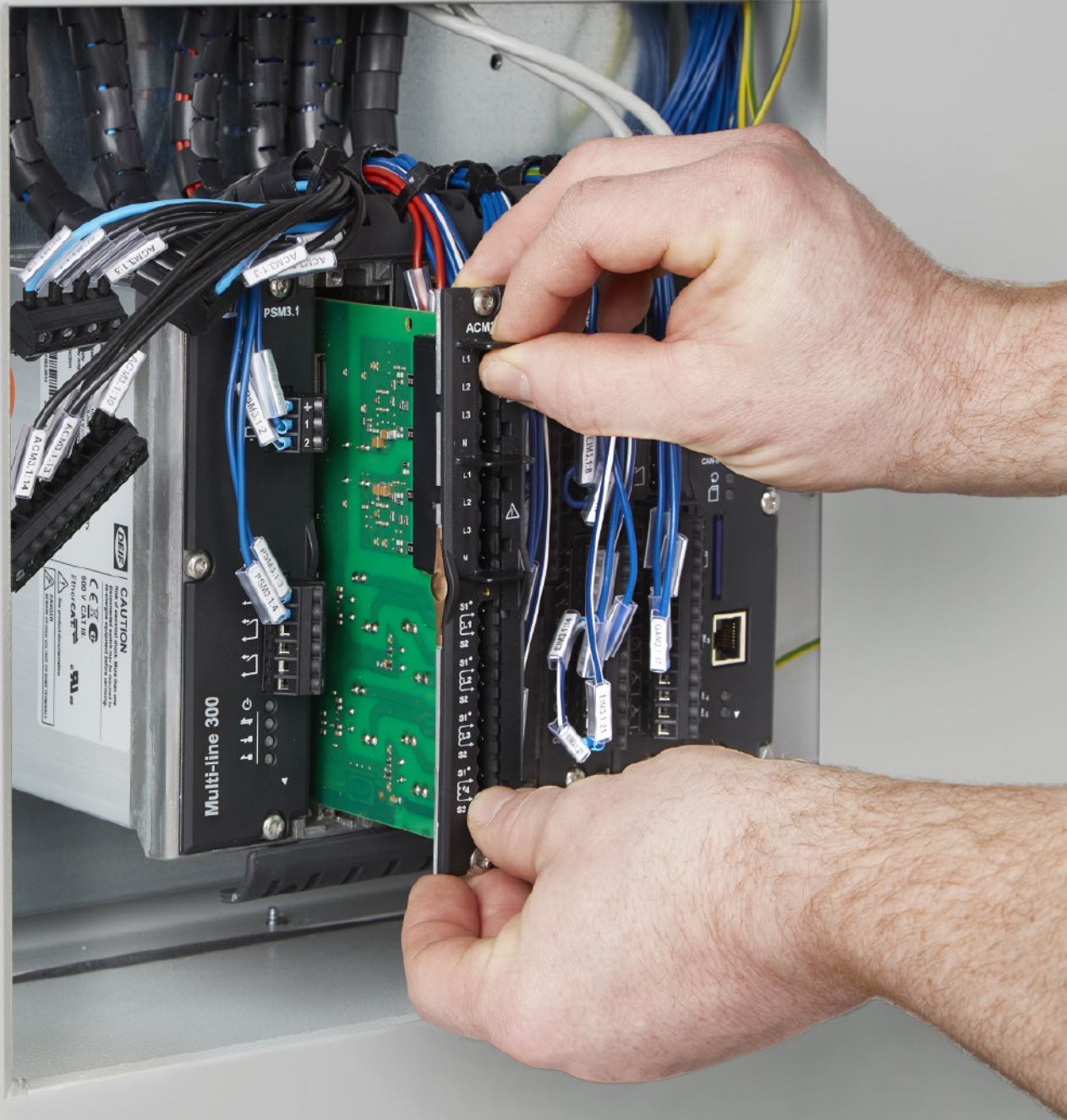
### DIY INSTALLATION

On-site replacement by crew.



# Intuitive, Can-do Power Management System Solution

Innovative, Modular Hardware & New Levels of Operator Control



**Multi-line 300**

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# Protection & Power Management 300, PPM 300

Shipowners

## A Break-through For The Industry

Using PPM 300, shipowners will discover that switchboard builders, integrators and service engineers will know how to use this unit on sight: introducing DEIF's new user-friendly PC tool PICUS there's a fast learning curve for product configuration, set-up and handling. The cost savings in terms of training and testing are self-evident.

Representing another major advance, the PPM 300 features aluminium housing with flexible and modular functionality. Because hardware modules are class approved as individual products, you don't need to dock or fly in specialists to install, repair & upgrade your equipment. Retaining warranties, trust your crew to slide hardware modules into designated slots and watch the unit perform self-configuration of new modules with no risk of configuration errors.

For large-scale genset applications, using DEIF Network with Multi-line 300 all you need to do is install software on one controller: the software will then proceed to install itself automatically on other controllers in the system, again saving time and minimising the risk of error.

*You've never had more functionality, greater user flexibility and better quality hardware.*

*The PPM 300 sets a new standard in marine power control technology.*



Michael Westerby  
Global Export Manager, Marine Applications  
mwe@deif.com



### ENGINEER LEVEL MANAGEMENT FOR OPERATORS

Annual savings on service costs.



### FAST LOAD REDUCTION: <100MS

Avoid overload without disconnecting consumers.



### DATA SAFETY

Industrial grade SD card. Fast restore & update.



# Fast & Substantial Return-On-Investment

Designed to Avoid Downtime & Support Cost-optimised Operation

**Maximise Your  
Fleet's Operation  
Time**

**Container**



**Tugboat**



**LPG/LNG**



**Yacht**



**Naval**



# Market-leading Configuration Flexibility

Designers & Engineers

## Fast, On-the-spot Commissioning

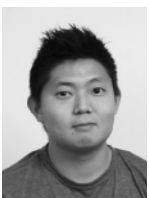
Switchboard builders, integrators and service engineers will know and understand this unit on sight: introducing DEIF's user-friendly PC tool PICUS, there's a fast learning curve for product configuration, set-up and handling.

Promising on-the-spot training & verification, the PPM 300's context-sensitive display help is a unique feature that gives integrators access to instant, on-site information in their own language about features and functionality.

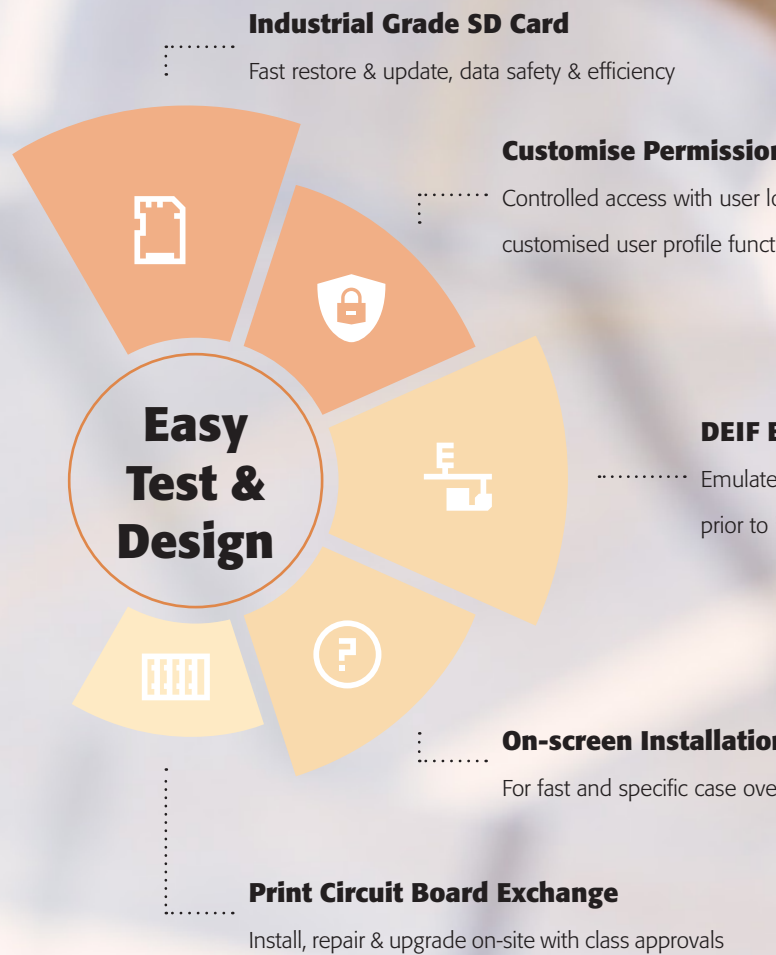
Aided by DEIF Emulation's tools for true test functionality prior to installation, you can design and resolve key challenges before commissioning, saving time, money and eliminating risks to your assets.

Meeting 2015 demands with flying colours, the platform's built-in communication interfaces are state-of-the-art 21st century design: because the unit integrates universally compatible plugs and cables and standard protocols like IPv6 and EtherCat with flexible modbus and easy configuration of communication to PLC and SCADA, this solution requires no special training and no external equipment.

*The outside-in approach with display help and hardware modules will speed up the commissioning, understanding & verification of design features.*



Simon H. Pedersen  
Application Engineer  
shp@deif.com



# Save Time, Money & Eliminate Asset Risks

PPM 300 Features Display Help & Documentation For Configuration & Commissioning

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ionality

## Emulation

& true test functionality  
installation

## Help

overview & properties access



### ADAPTIVE HARDWARE SET-UP

Self-configuration of new modules, no risk of error.



### NO-RISK COMMISSIONING

Design key issues in a safe, no-risk environment.

# Advanced Display Functionality & Modular Hardware

## Operators

### It's Hit & Run Operation

Boasting an intelligent recognition and detection platform and detailed reporting and analysis capabilities, the ambitious philosophy behind the PPM 300 is to empower users to optimise operation and facilitate easy implementation of the advanced technology.

The PPM 300's modular build cuts downtime and service costs by enabling operators to execute repairs and upgrades on-site. In most cases, you can replace or add extra functionality yourself by simply inserting new hardware modules in the unit's sturdy aluminium housing, retaining your warranty and class approvals. Watch the unit perform self-configuration of new modules with no risk of configuration errors.

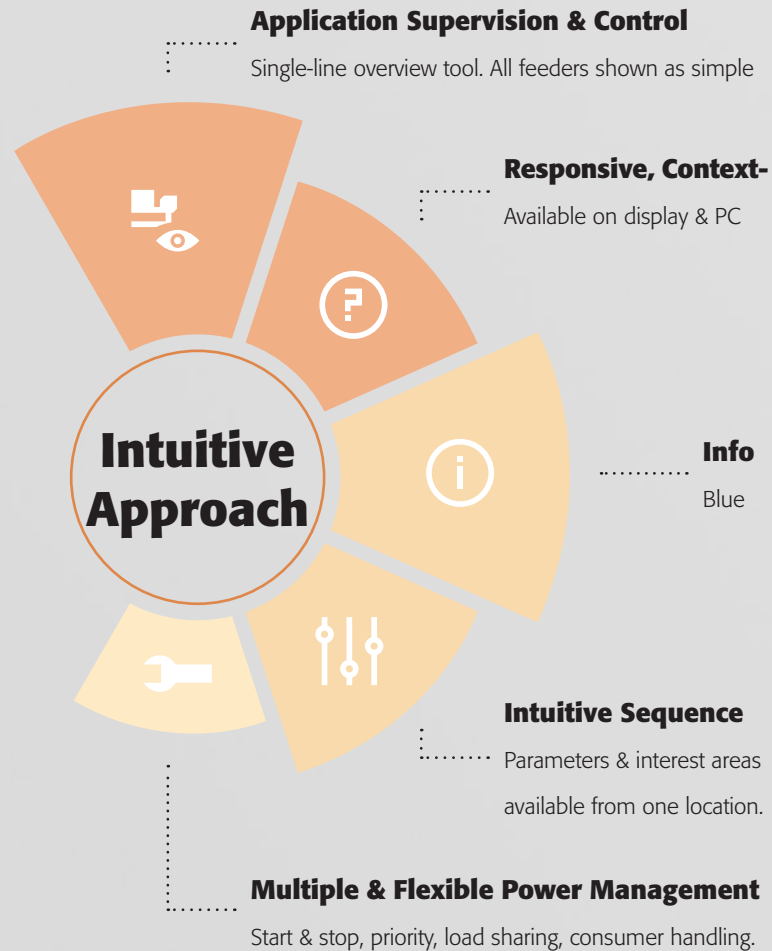
Functionality is defined and targeted according to customised user profiles, and operators will benefit from context-sensitive help available through the display.

With access to instant integrated help responses, technical documentation, and guidelines in local languages, making the most of your equipment has never been more straightforward.

*Adding and removing firmware is a fast and flexible procedure that you can perform without assistance, without risk to your equipment, and without voiding warranties.*



Hamid Mohammed Haddaj  
Support Engineer  
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#### GUIDED OPERATOR HELP

Info pop-ups & responsive, context-sensitive help.



#### ANSI/ISA 18.2-2009 ALARM HANDLING

Incorporates standard structures & systems.



#### ON-THE-FLY REPAIRS CUT DOWNTIME

Install new HW retaining warranties & approvals.



# Understand This User Universe On Sight

Full Operator Ownership With a Fast Learning Curve

SCADA.

## sensitive Help

tools in local languages.

## Pop-ups

display info help select correct operation modes.

## Set-up

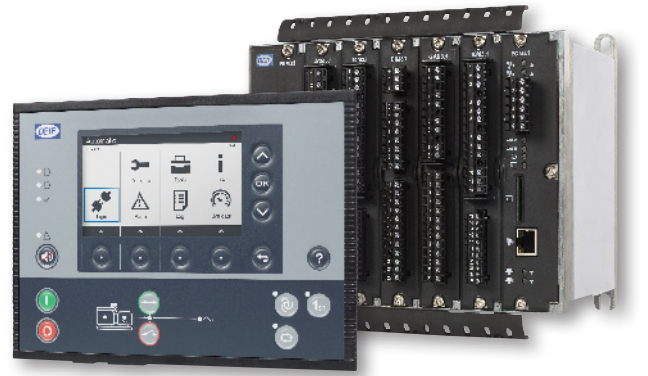
for an entire sequence

## Modes



# 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.

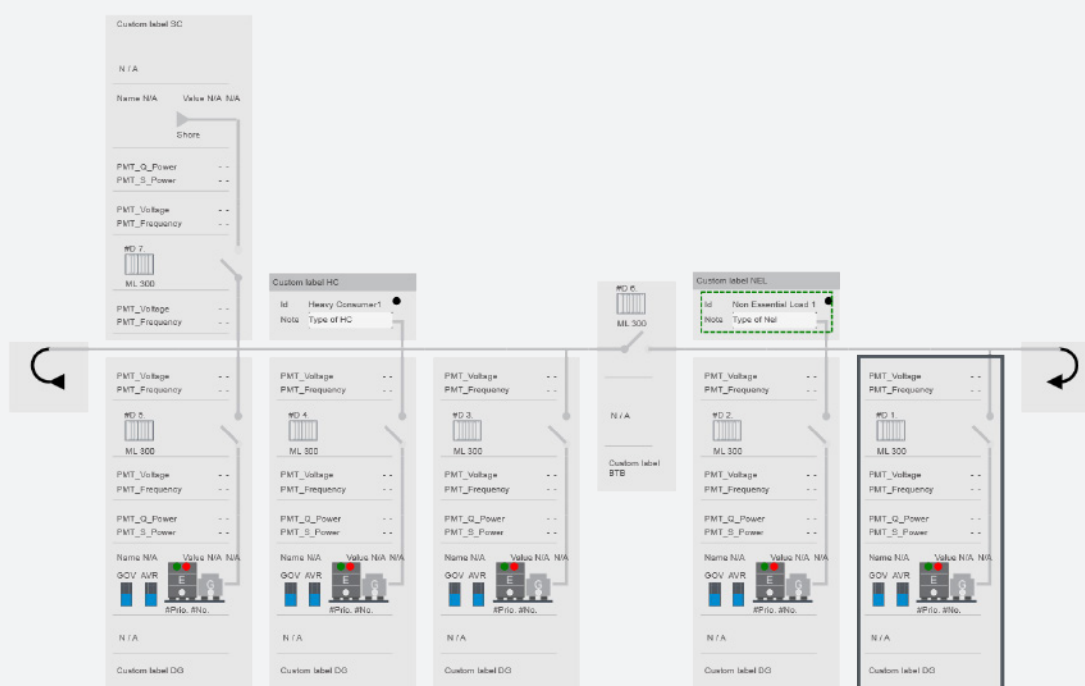
## PPM 300 Type Approvals



### 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.

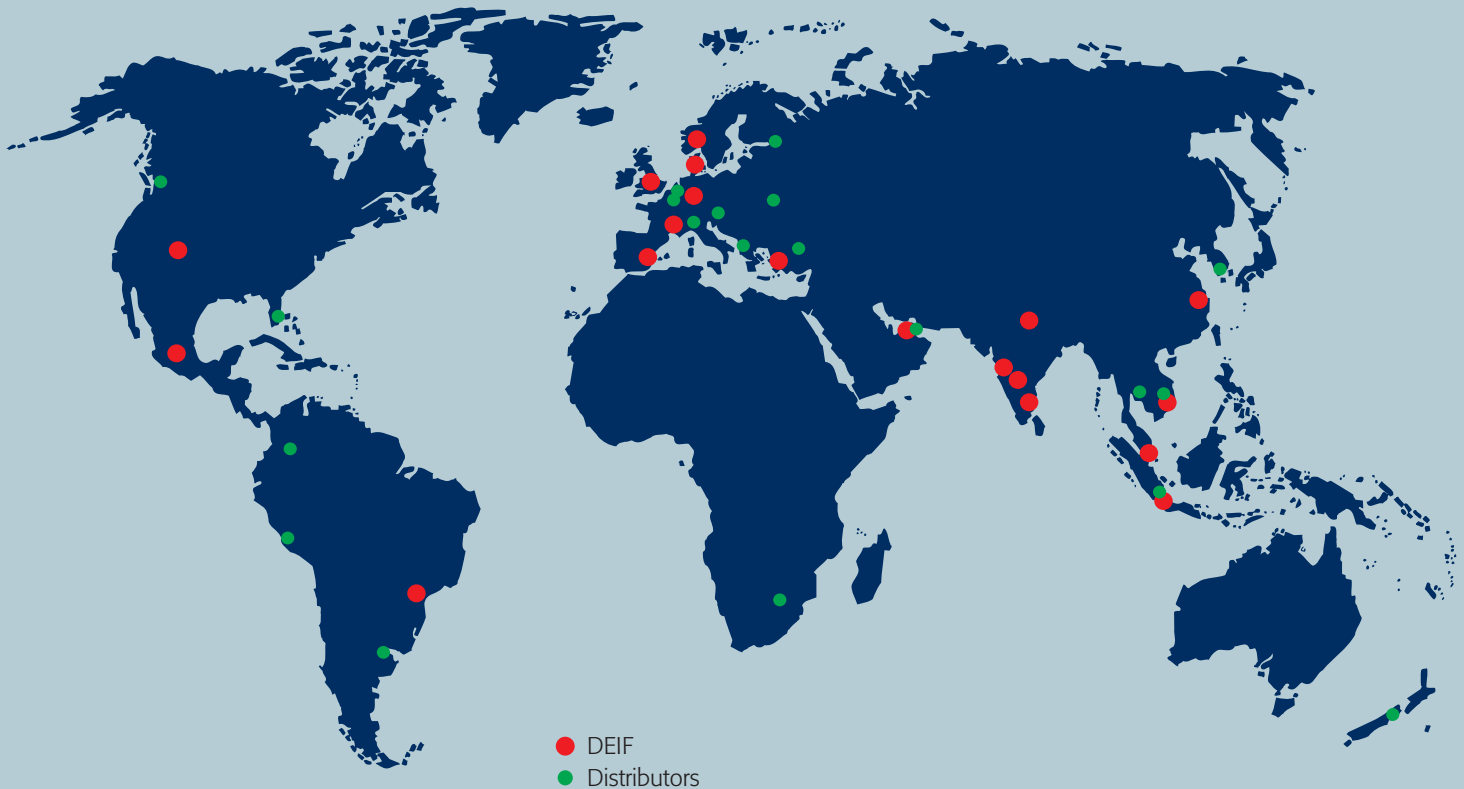
Our goal is to always bring a competitive edge to our customers' businesses by providing green, safe and reliable product lines with flexible features and first class service and support.

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



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## PROTECTION AND POWER MANAGEMENT: PPM 300



- DEIF
- Distributors