



ENGINE & GEN-SET CONTROLS



Generator Paralleling and Protection Unit, PPU-3 **Generator Protection Unit, GPU-3**

- Generator/busbar protection
- M-logic
- Governor and AVR control
- Engine protection with back-up on shut-down channels
- Engine control and communication
- Marine approved by all major classification societies

Generator Paralleling and Protection Unit, PPU-3

Generator Protection Unit, GPU-3



The GPU-3 is mainly for generator protection but can also be used for synchronisation. The PPU-3 includes all of the GPU-3's functions but in addition features regulation modes such as load sharing, fixed power, fixed frequency, etc. Both gen-set protection and control units feature a wide range of advanced and future-proof functionalities. Flexibility is part of the design.

The ideal controller

The GPU-3/PPU-3 can be used for any control and protection purpose ranging from very simple applications to extremely complex ones. Its simplicity and logic makes it the ideal controller for PLC-based power management systems. Serial communication makes it easy to interface to PLC's, SCADA-systems, etc.

Controls and protects your engine

The optional engine interface card will turn the GPU-3/PPU-3 into an engine control unit featuring start/stop and protection functionalities. The interface card has separate power supply and its own microprocessor.

Therefore, if the GPU-3/PPU-3 processor breaks down, the engine interface card will enter into back-up mode and ensure uninterrupted engine supervision. If a shutdown alarm is then activated, the engine will shut down automatically. This feature allows it to operate as a safety system, which makes it the ideal solution for control and supervision of marine gen-sets.

Multiple display units

If you require remote control, supervision and status indication, additional display units and Additional Operator Panels (AOP) are easily installed. Displays and panels feature a dimmer function for use on the ship's bridge.

Multiple display units and operator panels can be connected to each controller making access to the system possible from any location on the ship.



Generator Paralleling and Protection Unit, PPU-3 Generator Protection Unit, GPU-3

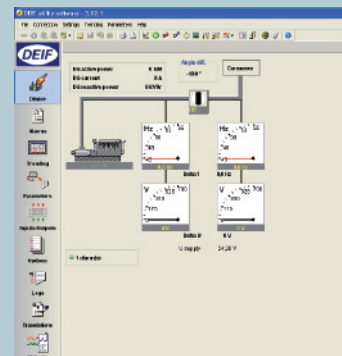
Designed to address your needs

If the standard functionalities of the GPU-3/PPU-3 are not sufficient for your specific application, a wide range of additional hard and software options are available to you. These will enable you to customise your unit according to your specific needs. You are not charged for functionalities and hardware you do not need.

User-programmable logic (M-logic) makes it possible to customise the application according to your needs. It enables you to dedicate specific functions or logic conditions to different inputs and outputs. Moreover, all sequences (start/stop, synchronisation, load sharing, load shedding, etc.) are designed to be tuned by you according to your requirements.

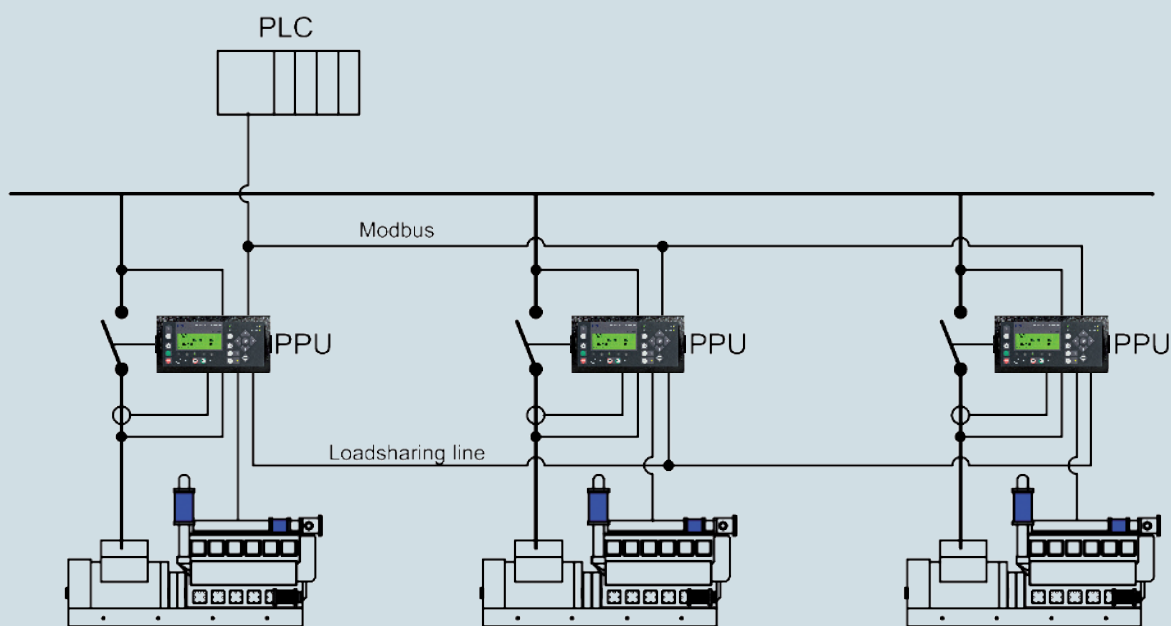
Quality throughout

The applied technology is based on components that have passed the strictest marine approval procedures. In order to simulate years of operation, the products are subjected to extreme temperatures, shocks and vibrations. This is part of the reason why the GPU-3/PPU-3 represents an unequalled level of robustness, reliability and durability.



During commissioning and daily use, the free PC software is a valuable tool.

The illustration below shows an example of a power management system with a PPU-3 for generator protection, synchronisation and load sharing. A PLC takes care of plant logic such as load dependent start/stop, blackout start, priority handling, etc.



Founded in 1933, DEIF has more than 75 years of experience. Today, we are active on the international markets for engine & gen-set controls, marine bridge instrumentation, switchboard instrumentation and renewable energy controls.

It is our ambition to maintain and expand our position as one of the most trusted suppliers within our fields of operation. This goal will be reached by ensuring that DEIF continues to offer real competitive advantages to our customers by supplying superior product quality, the best and most flexible features and competitive pricing.



-power in control