

Paralleling & Protection Unit, PPU 300

Control & protection for PLC-based power management systems



The PPU 300 Paralleling and Protection Unit is a highly configurable controller designed for marine use. The controller contains the functions required to protect and control a generator and its breaker (specifically, a diesel generator, a shaft generator, a shore connection, or a bus tie breaker). You can connect up to 12 controllers to create one system, with load sharing sections.

Typically, a PLC or operator will send commands to the PPU 300 to close or open the breaker. For a diesel generator, the PLC or operator can also send commands to start or stop the generator, change the regulation mode, and change the regulation set points.

The controller display unit can have push-buttons for the operator to change the controller mode, close and open the breaker, and start and stop a diesel generator. The colour graphic screen shows status and info messages.

The screen also allows fast access to live data, and alarm management. With the right authorisation, the operator can also check and/or change the IO and parameter configuration. The light indicators of the display unit show the system status.

Each controller includes processors and high-speed internal communication. This provides fast protection functions. The controller design is modular, and hardware modules may be replaced or added in the field.

PICUS is a proprietary, free PC software interface to the controllers. The designer can use PICUS to configure the inputs, outputs and parameters for a controller. PICUS also offers system supervision, and management of permissions, backups and firmware.

PPU 300 features

- ▶ All-in-one controller: genset control, monitoring and protection, breaker operation
- ▶ Load sharing with ring communication
- ▶ Automatic synchronise and deload breaker
- ▶ Application supervision
- ▶ High resolution 5" colour graphic display with push-buttons
- ▶ Flexible and modular input/output in a metal rack
- ▶ Plug & play, auto-configure I/O modules and network
- ▶ Integrated 5 × RJ45 ports with auto-detected multi-function
- ▶ One Ethernet connection to access all the controllers in the network
- ▶ Context-sensitive help in the controller display unit
- ▶ Event and alarm log, with real-time clock
- ▶ Pre-defined control settings
- ▶ User-friendly logic configuration tool, based on ladder logic and function blocks with operation monitoring
- ▶ Password-protected, with customisable permission levels
- ▶ 3-phase AC measurement up to 690 V AC directly, class 0.5
- ▶ Easy-to-use PC tool (PICUS)
- ▶ Advanced alarm handling with latch and shelve possible

