



NORISYS 4 PMC - **Power Management Controller**

NORISYS 4 PMC - for Parallel Operation, Power Supply and System Protection

The NORISYS 4 PMC - Power Management Controller - was developed as part of the NORISYS 4 control components in the automation platform.

The power management unit is used as an independent control system with an optional colour touch panel and can be expanded to form a high-level system with further components of the NORISYS 4 series.

At the heart of the PMC there is an ARM 32-bit Cortex™-M4 processor with DSP functionality. In its basic version, the PMC is used to switch generators to the power grid and is also suitable for use in stand-by power supply facilities. The system is designed to be used for isolated and parallel operation.

An automatic start and synchronisation function is additionally implemented to accelerate the generator, set to nominal speed as well as to synchronise and close the power circuit breaker. The power requirements are defined by a higher-level system.

An automatic facility that controls load balancing, opening of the power circuit breaker and stopping of the propulsion system is also integrated for the purpose of shutting down the generator.

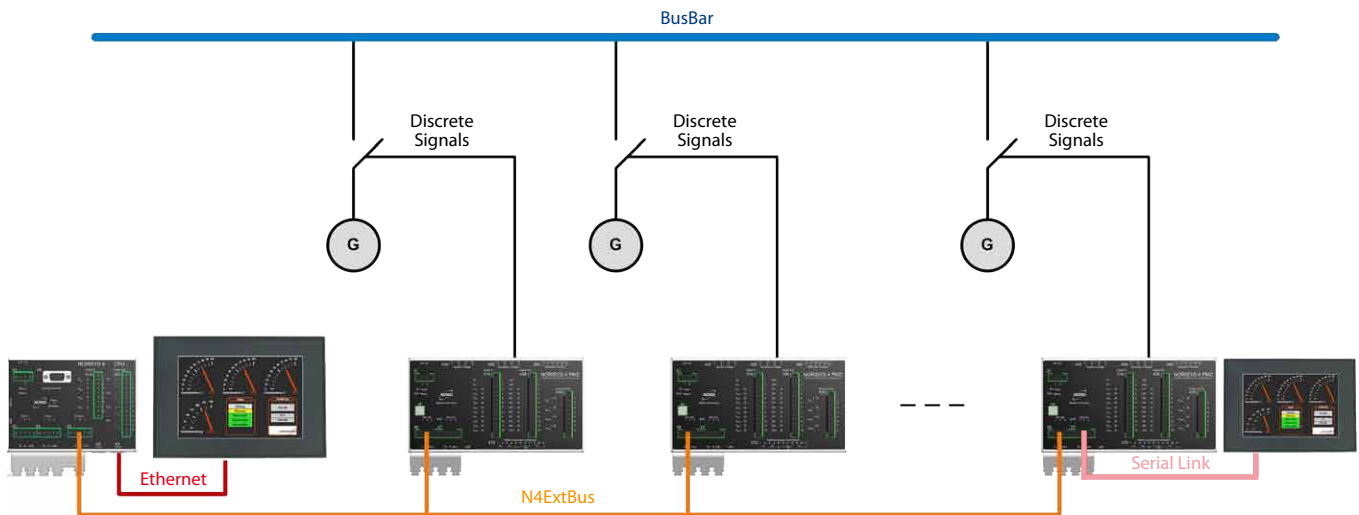
The Power Management Controller is equipped with an integrated power supply and system protection function.

Features

- NORISYS 4 expansion unit, also used as an autarkic system
- Optional expansion with NORISYS 4 modules
- Optional connection of colour touch panel for observation and control purposes
- USB port for servicing purposes
- RS-485 for NORISYS 4 ExtBus communication
- Generator set control with automatic start/stop function
- Parallel and isolated operation
- Automatic synchronisation
- Generator protection functions, 3-phase
- Power supply protection function, 3-phase
- Approvals in preparation: BV, DNV, GL, LR



System Concept



NORISYS 4 PMC - Inputs

- 3 x system voltage (up to 385 V AC)
- 3 x generator voltage (up to 385 V AC)
- 3 x generator current transformer up to 5A AC
- 1 x speed pick-up
- 2 x analogue input (0 ... 20 mA, 4 ... 20 mA, 0 ... 10 V, +10 V ... -10 V)
- 1 x battery voltage (32 V)
- 1 x oxygen sensor voltage for system with mixture control
- 1 x potentiometer
- 10 x digital input, 1-pole

NORISYS 4 PMC - Outputs

- 2 x analogue output (0 ... 20 mA, 4 ... 20 mA, 0 ... 5 V, +/-5 V, 0 ... 10 V, +/-10 V)
- 10 x digital output, 1-pole

NORISYS 4 PMC - Communication Interfaces

- RS-485
- RS-232
- USB port for servicing purposes

NORISYS 4 PMC - Communication Protocols

- MODBUS-RTU
- NORISYS 4 ExtBus



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