AGC-4 Mk II

Automatic Genset Controller

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The automatic gens et controller AGC-4 Mk II is the world's most comprehensive genset controller offering all necessary functions for protection and control

The automatic genset controller AGC-4 MK II can be used as a single genset controller. Also, several AGCs can be connected in a complete power management system for synchronising projects, islanded or paralleled to the mains. The generator controller is ideal for mission-critical applications such as hospitals and data centres, and it is capable of delivering backup power in only six seconds.

Island mode

Power plant with synchronising generators or a stand-alone generator. Also applicable in critical power plants.

Automatic Mains Failure

Critical power/emergency standby plants, black start generator.

Fixed power

Power plant with fixed kW set point (including building load).

Peak shaving

Power plant where generator supplies peak load demand paralleled to the mains.

Mains power export

Power plant with fixed kW set point (excluding building load).

Load takeover

Plant mode where the load is moved from mains to a generator, for example, peak demand periods or periods with the risk of power outages.

Remote maintenance

Used when the generator has to supply the load while a distribution transformer is disconnected for service. All modes are configurable, and it is possible to change the plant mode on the fly both in single and in power management applications.

AGC-4 Mk II Hardware features

- Automatic Mains Failure sequence
- Multi-master Power Management
- Power Management Core (32dg)
- Power Management Extended (>32dg)
- RMB Transformer maintenance with up to 32 gensets
- PLC logic
- Engine CANbus
- Din rail mount
- Flexible Hardware
- Additional CANbus based I/O (9 x CIO modules)
- Redundant controller
- Redundant CANbus for Power mamangement
- N+X configuration
- Close Before Excitation / Run-up synchronization from 6 seconds
- DEIF digital AVR DVC550 support
- Multi purpose PID´s
- Gridcode compliant with: VDE AR-N 4110/4105 (Medium voltage, Germany, VDE AR-N 4105 (low voltage, Germany, EN 50549-1:2019 (Europe), ENA EREC G99 (United Kingdom)
- TÜV and UL approved
- Touch Screen Support (TDU107)
- Tier4 final/stage5
- Emulation for easy training and FAT
- Hybrid EMS support (via ASC-4)
- Heavy consumer (via ALC-4)
- Fuel optimisation
- Fully compatible with AGC 150 and ASC-4

System testing in a safe environment

DEIF's emulation solution is a standard in the automatic genset controller AGC-4 Mk II that enables you to interact with the controller in a controlled and safe environment without risking to damage any equipment. All you need to do to perform a complete test of your power management system is to turn on your controller and connect communications.

Intuitive touchscreen puts control at your fingertips

The intuitive, pre-programmed touch display keeps integration time short and makes the automatic genset controller AGC-4 Mk II very user-friendly and will provide you with a smooth and accurate user-experience. The display can be adapted to your needs using an array of control elements, and the tablet-like functionality allows you to operate and configure your genset by swiping, tapping and scrolling.

Emission standards and grid code requirements

The automatic genset controller AGC-4 Mk II meets the Tier 4 Final standards. The controller complies with most requirements for parallel to grid operation, including German VDE 4110/4105, European EN50549-1/2 and United Kingdom ENA G99 standards. Both protections and grid support functions are included, giving you a "single controller fits all" solution.

Remote communication and control

The automatic genset controller AGC-4 Mk II supports serial communication protocols, including Modbus (RS-485, USB, and TCP/IP) and Profibus. This feature allows you to supervise and control your genset/plant from a remote location.

Backup power in six seconds and ideal for mission-critical applications

With its integrated close before excitation (run-up synchronisation) feature, the automatic genset controller AGC-4 Mk II secures backup power in impressive six seconds. Combined with the option of having hot standby controllers/dual redundancy on all positions, the AGC-4 MK II is ideal for all types of mission-critical power applications, e.g. data centres, hospitals, airports, and fish farms.

Introducing the **N+X feature**, the AGC-4 Mk II now provides even higher security to critical power applications. You decide how many extra gensets should be running in a given load situation. Something that also benefits the environment as you don't have to run all gensets – you can define how many extra gensets should be running even though the load are dynamic.

Unique rental genset applications

The controller has been designed with ease of operation in view. The automatic genset controller AGC-4 Mk II features up to four parameter settings that are switchable with just a tap on the touchscreen. You can easily set and lock parameters to ensure full protection of your rental equipment. AGC-4 Mk II comprises the unique feature **EasyConnect** meaning that the controller automatically detects and align all gensets.

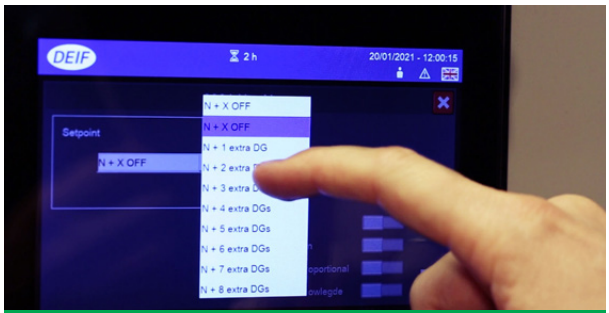
AGC-4 Mk II makes transformer maintenance easier and more flexible with the Remote Maintenance Box and multiple gensets without jeopardising the power supply. When performing transformer maintenance, the AGC-4 Mk II enables you to run up 32 gensets of different type and sizes parallel via Power Management, allowing you to use smaller gensets. For example, a Tier4/Stage V genset can handle larger transformers as up to 32 gensets can be applied.

Power management with up to 992 gensets

Implementing an AGC-4 Mk II controller provides you with various options. With Core Power Management you can run up to 32 gensets and if more than 32 gensets are needed the Extended Power Management enables you to group the generators and reach up to 32 mains or 32 groups and 992 gensets.

Hybrid applications

AGC-4 Mk II is plug'n'play compatible with DEIF's ASC-4 hybrid controller for easy integration of diesel genset applications into various hybrid installations. The market-leading solution maximises sustainable power penetration while always securing a sufficient amount of spinning reserve if the photovoltaic (PV) production drops.

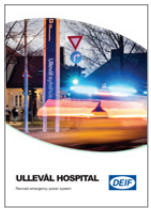


The new N+X feature. You decide how many extra gensets should be running in a given load situation

AGC-4 Mk II - Data sheet

AGC-4 Mk II - Designer's handbook

Case study: Global Connect



Case study: Ullevål Hospital

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