

Automatic Load Controller, ALC-4

Integrate load handling & eliminate expensive PLCs



Ideally suited for critical power applications, the ALC-4 integrates load handling into your power management system, eliminating the need for traditional PLC solutions. The ALC-4 improves system reliability and installs quickly while also reducing your investment and fuel costs compared to PLCs.

Secured power supply

Intended for use in critical power management applications, the ALC-4 can control up to 8 consumer feeders per unit and helps control power plants in combination with other DEIF controllers.

By prioritising each consumer, the ALC-4 calculates which load groups can be supplied, depending on the available power in the system. This also means that your system is running fully optimised at all times, thus reducing fuel consumption along with wear and tear.

Quick installation

Contrary to traditional PLC solutions that have to be programmed manually from scratch, the ALC-4 units just require manual setting of a few parameters and you'll be up and running. Combined with DEIF's unique Emulation SW, you'll be able to create and fully test your application solution virtually on a PC before installation and commissioning. This reduces installation time and risk of human error.

Power management

The ALC units receive information from the power management system regarding produced power, available power and stand-by power (non-running but ready generators).

This is based on the plant layout system in AGC power management (ALC-4 cannot be used as stand-alone controller). That means that the ALC not only knows about the power situation, but also where (on which busbar) it is placed in the system. This enables the ALC to react on BTBs being opened and subsequent change of the power scheme. The positions of the feeder breakers are a part of the USW plant setup.

ALC-4 features

- ▶ Anticipated load-dependent start
- ▶ Integrated in power management system
- ▶ Automatic startup of extra gensets
- ▶ Avoid overload of system
- ▶ Manual or automatic control of feeders
- ▶ Easy setup via USW and intuitive to use
- ▶ Easy commissioning, prepare SW setup before commissioning, live status of feeders shown in USW
- ▶ Flexible setup of different application types
- ▶ CANbus communication, long distance communication (up to 300 m)
- ▶ Security of supply – safety based on feeder priority

Disconnecting and reconnecting feeders

In case of power shortages, the system disconnects feeders according to their priority. The least important feeder is disconnected first. The system also calculates how many feeders have to be disconnected to maintain power supply without overloading the generators. This calculation is carried out at all times, also taking BTB positions into consideration. Once enough power is present, the system will re-connect feeders, again according to their priority.

Anticipated load-dependent start

In case feeders are disconnected, and a generator is standby, the generator is to be started and put online. Once online, the system will calculate and connect the number of feeders possible without overloading the system.

Operating modes

Using the ALC, you can control the feeders automatically (auto mode) or manually by means of the display or Modbus commands.

