



Reliable Electrical Components

High-Speed Busbar Transfer System Type AUE

The Solution

Scope of Supply

Siemens offers its **High-Speed Busbar Transfer System Type AUE** to ensure high-availability, continuous power supply for important electrical consumers, since this is key for power utilities and industrial users.

Permanent availability of electricity is essential for reliable operation of a great number of processes in power plants and industrial plants like chemical and petrochemical plants.

In order to meet this requirement, a busbar is equipped with two or three independent incoming feeders to change the source of the power supply on demand.

In the event of a feeding source disturbance, the High-Speed Busbar Transfer System Type AUE immediately starts to operate.

After a few milliseconds, the busbar is disconnected from the faulty feeder and connected to the healthy power source. In most cases this happens without any influence on connected consumers and processes.

The aim of the high-speed busbar transfer system is to switch over from one incoming feeder to the stand-by incoming feeder in the fastest possible way, always considering the actual values of the measured voltages and the position of the related circuit breakers.

The main field of application of high-speed busbar transfer systems are medium-voltage busbars. Our system can also be part of the control scheme in high- and low-voltage switchgears.

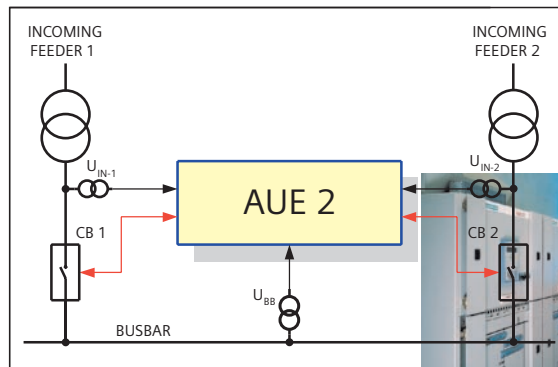


Fig. 2: Siemens High-Speed Busbar Transfer System Type AUE ensures high availability of power for important electrical consumers.

The Bottom Line

Customer Benefits

Siemens AUE offers a highly economic solution through flexible adaption to customer specific requirements. Our advanced High-Speed Busbar Transfer System Type AUE has been proven in several hundred applications worldwide. Based on this experience and the modular design we are able to offer the best solution for each customer-specific requirement – from power plants, refineries and desalination plants to upgrades of existing plants.

- Low investment costs
- Fast return of investment
- Low operating and maintenance costs
- Short erection and start-up time
- High availability
- Operational reliability

Just one avoided production outage and successful operation of our High-Speed Busbar Transfer System can bring the full return of investment.

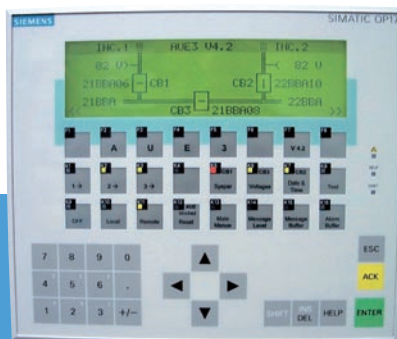


Fig. 1: Operator panel



The Means

Features

The standard solutions AUE 2, AUE 3, AUE 3-S and AUE 4 are available (see figures 3, 4, 5 and 6). Of course we also offer combinations of these for perfectly customized solutions.

Four different possibilities to start a transfer:

- Manual start from remote via DCS
- Manual start from local via an integrated operator panel
- Start from an external protection trip command
- Start from the integrated under voltage detection

Five different transfer modes:

Normal plant conditions

- Parallel transfer (simultaneous or sequential switching of the relevant CB – selectable)

Transient plant conditions after a fault

- Fast transfer
- In-phase transfer
- Residual-voltage transfer
- Long-time transfer

Additional functions:

- Breaker failure function
- Enforced decoupling
- Memory for operational and fault signals
- Integrated test mode (optional)

The Applications

References

The modular construction of our High-speed Busbar Transfer System gives us the possibility to satisfy nearly all individual demands on the configuration of switchgear.

Three examples from several hundred references show the wide range of applications:



Fig. 7: Steam power plant



Fig. 8: Combined cycle power plant



Fig. 9: Refinery

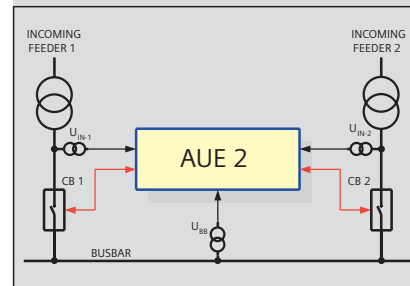


Fig. 3

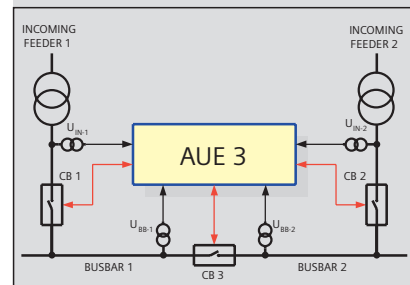


Fig. 4

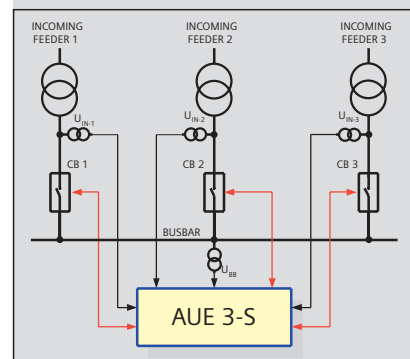


Fig. 5

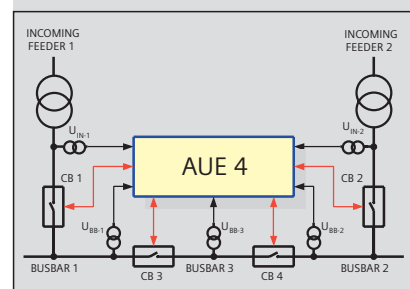


Fig. 6

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The information in this document contains general descriptions of the technical options available which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.