PCS-9651

Auto-Transfer Switch

The PCS-9651 continuously monitors the power supply lines of load and provides automatic transfer logic from a main source to backup source. If a fault occurred in any of the power supply lines, the PCS-9651 can discriminate the abnormal state and switch over the load from the faulty line to the normal line, to guarantee the continuous power supply to the load. Up to four typical switching modes are provided for selection. Besides, the remote/local control function is integrated in the unit.

This device can fully support the IEC61850 communication protocol and GOOSE function, and can completely meet the demands of a modern digitalized substation.

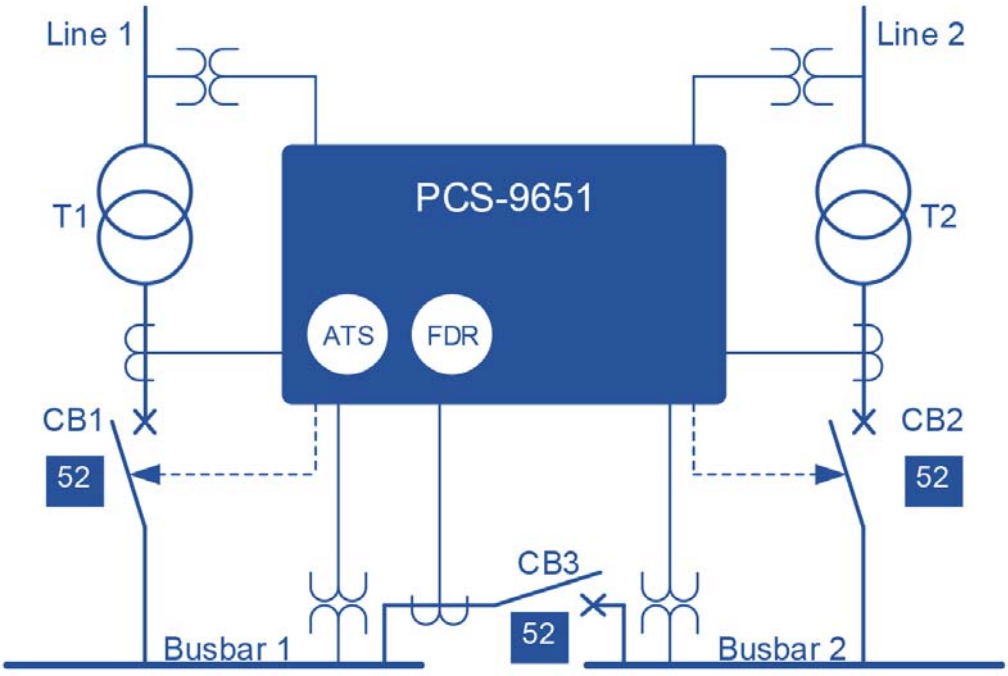

Figure 1 PCS-9651 Functional Block Diagram

Functions

Protection and Control

- Automatic transfer switch (ATS)
- Remote/local control function
- Circuit breaker status monitoring
- Tripping circuit supervision (TCS)
- VT circuit supervision (VTS)
- Current transformer supervision (CTS)
- Self diagnostic
- Voltage and current drift auto adjustment
- 64 operation reports
- 1024 supervision alarm records
- 1024 control operation records
- 1024 user operating logs
- 64 fault and disturbance records (FDR)
- 1024 latest SOE records
- Up to four 10Base-T/100Base-TX (RJ45) ports or two 100Base-FX ports with IEC 61850-8-1 MMS and GOOSE for non-time-critical message, IEC 60870-5-103 over TCP/IP or DNP 3.0
- Two RS-485 rear ports with IEC 60870-5-103
- Up to Six 100Base-FX ports with IEC 61850-9-2 Sampling Value and GOOSE for time-critical message
- One RS-485 rear port for clock synchronization
- One RS-232 rear port for printer
- 1 faceplate RJ45 port for testing and setting
- Clock synchronization via pulse per second(PPS), IRIG-B and SNTP

Features

- The voltages inputs and external binary inputs connecting to breaker auxiliary contacts are used to detect the abnormal state.
- The connector type can be selected as plug in/out terminal connector or screw terminal connector. The unique plug in/ out terminal connectors from the relay rear panel to the terminal blocks on the rack or cabinet makes the onsite commissioning and replacement much easier than the traditional screw terminals when you do the commissioning.
- Various methods of GPS time synchronization are supported in this relay, including SNTP, pulse per second (PPS) and IRIG-B synchronization.
- The PCS-9651 fully complied with IEC 61850 and provides the independent interfaces for station bus and process bus respectively, supporting IEC 61850-8-1 MMS, GOOSE.