ABB

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COM600F
Distribution automation controller

ABB's distribution automation controller, the COM600F, is a versatile component in utility and industrial distribution station automation solutions comprising of protection relays and other communicable devices. It performs the combined roles of a user interface, communication gateway and automation platform in a single physical unit.

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COM600F Distribution automation controller

Distribution automation controller solution
The COM600F is an affordable, flexible substation automation device that provides localized automation tasks. Providing a reliable system to manage the distribution and consumption of power more efficiently, the COM600F gathers data from protection and control devices, such as relays and meters, combining different communication protocols into one common contact point. It provides access to these devices through an easy-to-use web browser. Technologies exist to transfer information to a network enterprise system and are also capable of issuing commands.

Add value to any application
The COM600F is a great choice for customers who have or desire a data acquisition structure or want localized and remote data acquisition. That's what makes ABB's distribution automation controller a great tool even for small, rural, or remote substations. The web based HMI uses a single line diagram to allow visibility and control of all relays in the substation network for customers looking to increase operational efficiency. Powerful optional features like Fault Detection Isolation and Restoration (FDIR) decrease outage size, frequency, and restoration time.

Process visualization with WebHMI
The web based HMI provides a simple user interface for device control and management with multiple user access.
- Single line diagram (SLD) with dynamic busbar control
- Object control – open or close breakers, disconnectors, etc.
- Manage events and alarms
- Visualize measurements – current, voltage, power, etc.
- Upload and view disturbance records from relays in
- Direct access to web pages, manuals, and drawings
- No complex HMI software that needs to be installed and maintained

Additional features and benefits

- Inherently designed for IEC 61850 based communication and device data handling
- Can stand alone or complement network enterprise systems as a platform to execute industrial and utility substation applications
- Communciation gateway – support for 3rd party and legacy relays using open protocols, integrating them with IEC 61850
- Integrates bay level relays and other station devices based on IEC 61850 MMS and GOOSE
- Additional Ethernet and serial communication ports enable the COM600F to connect to a wide array of devices
- Easily upgrade functionality – buy only what you need now, upgrade license as needed for features like:
  - FDIR
  - GOOSE analyzer
  - IEC 61850 proxy server
- Fault Detection Isolation and Restoration (FDIR) allows multipath restoration, limits size of impacted zone, and speeds restoration of power
- Superior user access control and substation security allows benefit of relay integration within NERC-compliant framework
- Pre-configured firewall
- Remotely issued commands increase operator safety

- Web server functionality provides access to substation processes, operations, and relays via WebHMI
- Parameter Setting Tool (PST) for viewing and setting all ABB Relion® relays over IEC 61850
- System supervision of relays, communication buses, and links
- Logic processor provides a standard IEC61131-3 environment to allow anything from simple control schemes to advanced feeder restoration or load shed functions
- Data historian provides a common point for data recording, alarms, performance monitoring, etc.
- Compact, robust design with no moving parts and well suited for harsh environments
- Substation design templates provide straightforward and expedient engineering, installation, and commissioning
- Low cost localized SCADA system provides access for substation technicians
- Capable of automated busbar transfer, interlocking schemes, special alarms generation, and sequence control
- Simplified commissioning and troubleshooting using comprehensive diagnostic features