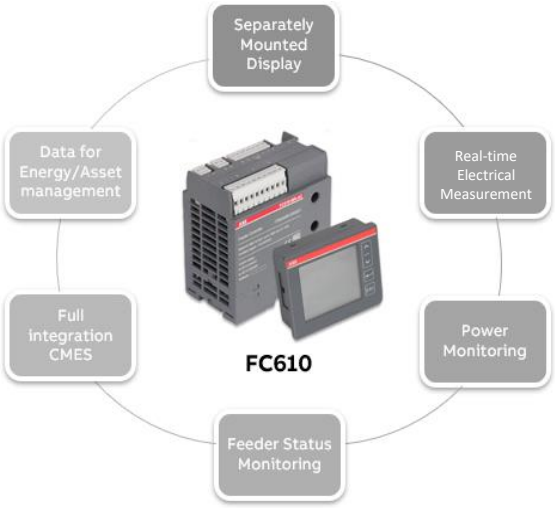
LOW VOLTAGE SYSTEMS

MNS® Digital Energy Distribution
FC610 feeder monitoring and control

ABB MNS low-voltage switchgear load feeder applications are extended with universal monitoring and control unit FC610.
Beside enabling remote control of feeder application it enables 24/7 power quality and condition monitoring and further analysis of the electrical assembly and connected loads.

ABB MNS Digital switchgear offers a powerful digital energy distribution solution from monitoring, analysis and control of the feeder loads, devices, equipment and electrical system, across various industrial segments including infrastructure, light industries, data centers, power plants, utilities and more.

FC610 is the smart feeder unit designed for ABB MNS switchgear to assist the operator in areas from improving power reliability and energy efficiency and increasing maintenance efficiency. The separately mounted display fits perfectly in the low-voltage switchgear modules, enabling safe operation of feeders in front of closed doors and compartments of the switchboard.



Offering

- Accurate real time electrical measuring, class 0.5 energy measurement according to IEC61557-12
- Power quality monitoring
- Energy efficiency
- Network analysis including harmonics monitoring, sag/swell alerts
- Main switching device status monitoring
- Feeder module switching cycles
- Integrated into ABB Ability™ CMES Condition Monitoring

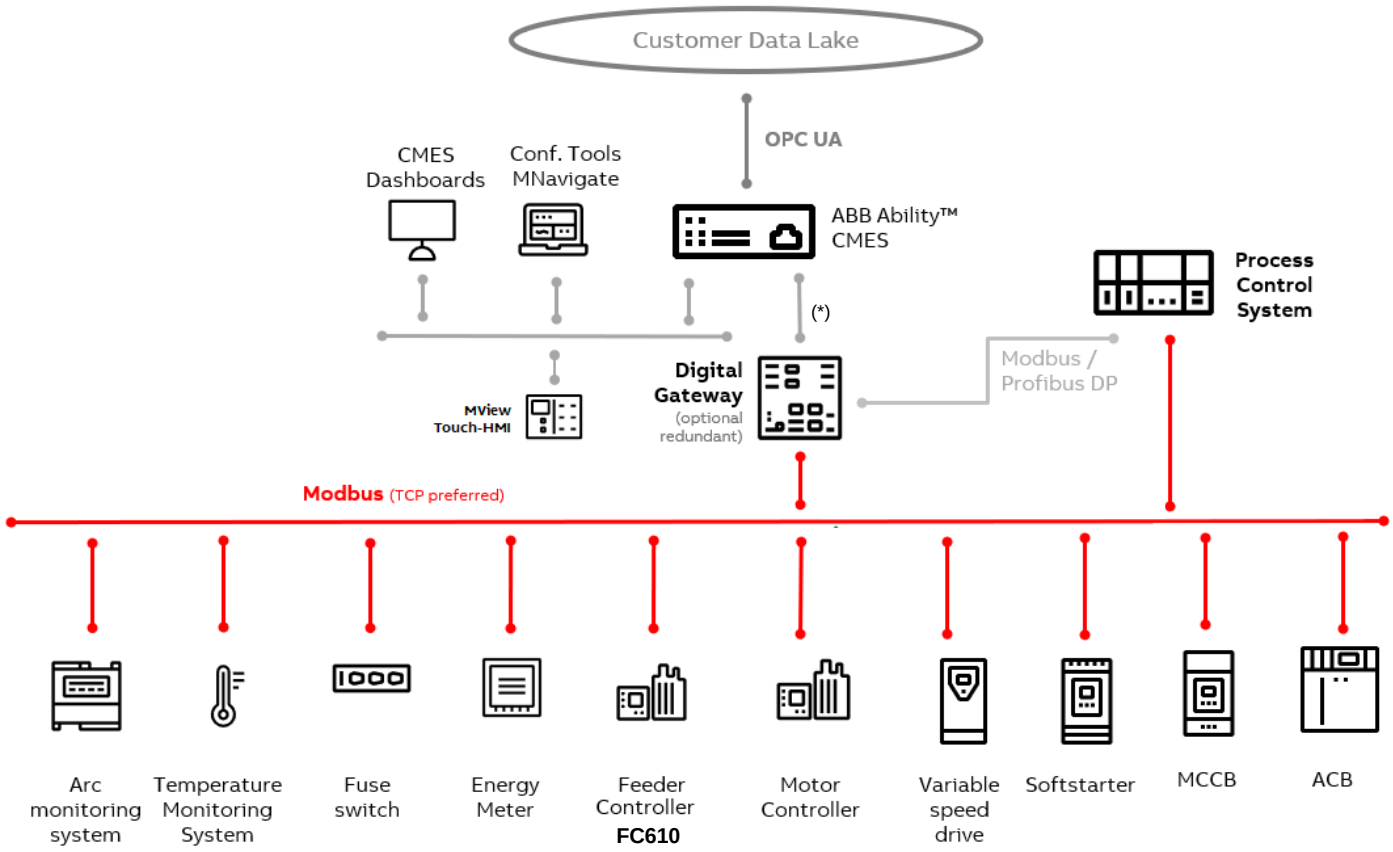
FC610 provides a complete set of measurement and monitoring data for the operator to set up energy management and asset management strategies Using CMES and other plant management systems.

Product features

- Applicable in IT/TN/TT networks
- 110-240 V AC power supply
- Modbus RTU for system integration
- Two type of display, dimensions (H*W*D):
  - MP53 68x84x29.3 mm
  - MP56 91x91x29.3 mm

Ordering code

FC610 with MP53 kit	1TNA928612R3001
FC610 with MP56 kit	1TNA928612R6001



—
Digital Communication

—
Note: the graphic above shows logical connection only, actual network configuration based on selected protocol may differ

(*) Option to connect field devices directly to CMES Edge without using Digital Gateway

Customize

Scalable, modular and flexible MNS platform

- Modular: Use of fixed, plug-in or withdrawable technology depending on your needs
- Easily exchange and upgrade of the components and devices
- Add new features to an existing installation with minimal effort

Easy to connect

- Connection to DCS, SCADA and ABB Ability™ platform, non-intrusive to each other

Analyze

FC610 collects all power monitoring data needed by electrical system and turns it into information

- Real-time current, voltage, power and energy, import/export energy
- Power quality include voltage sags/swells, THD, individual harmonics etc.

Data provided by FC610 can be made available in ABB Ability™ CMES

- Data monitoring from commissioning through-out entire lifetime
- Analysis improves over time with more details collected
- Access via web browser anywhere on site or through OPC UA to other systems

Optimize

Efficient maintenance

- Shift from planned to condition-based maintenance
- Reduce reactive maintenance costs
- Plan ahead with condition reports
- Optimize operating costs and achieve savings of up to 30%

Energy management

- Better energy management by understanding of energy needs of every feeder
- Full transparency to prioritize investment and optimization steps

Continuous operation

- Avoid unplanned outages, conduct maintenance where and when necessary

Economize

Lifecycle and performance management

- Easy replacement, less spare parts

Reduced infrastructure investment

- Ethernet infrastructure
- PLC free design, reducing infrastructure in-vestment by up to 20%

—
ABB Ltd.
Low Voltage Systems
Smart Power
Electrification business
P.O. Box 8131
CH-8050 Zurich
Switzerland

abb.com/mns

—

1TNC928252 REV C EN 2023