The Smart Air Circuit Breaker

MasterPact™ MTZ Digital Modules
Introduction

Innovation for today to help build smart, secure, and sustainable power distribution systems of tomorrow.

- MasterPact™ MTZ air circuit breakers, with EcoStruxure built-in:
  - Provides scalability, durability, and connectivity for flexible, and future-ready circuit breakers
  - Helps you save time, increase efficiency, and improve energy consumption

MasterPact MTZ air circuit breaker
MasterPact MTZ is designed to grow with you.

- Customize your MicroLogic X control unit with digital modules upgrades to increase:

  - **Protection** - Both of people and property
  - **Measurement** - Improved energy and power quality monitoring
  - **Maintenance & diagnostics** - Ensure uptime and plan maintenance

**Video:** MasterPact MTZ - Digital Modules on GoDigital
Introduction

Bringing IoT innovation to power distribution that helps you:

• Unlock advanced functions for protection, measurement, diagnostics, and maintenance

• Update your system at anytime; order digital modules during initial purchase with Product Selector or anytime after via GoDigital Store

• Upload instantly via USB connection with the MicroLogic X control unit without interrupting power or protection functions

With MasterPact MTZ smart circuit breakers, you can upgrade and tailor your system at any stage of the lifecycle.
Introduction

Building investors want:

- Short but reliable project lead times
- Flexible and scalable investments
- Valuable energy labels and ratings
- Building code and regulation compliance

Building tenants want:

- Full power availability
- Energy expense optimization
- Tight control of maintenance costs
- Occupant comfort and productivity

Facility managers want to:

- Provide high-quality service
- Keep electrical systems efficient
- Stay connected and act remotely
- Restore power quickly in case of an outage
Introduction

Click below to explore how our digital modules can help you

**Protection**
- ANSI 27/59 - Under/over voltage
- ANSI 81 - Under/over frequency
- ANSI 32P - Reverse active power
- ANSI 51 - IDMTL overcurrent protection
- ANSI 67 - Directional overcurrent
- ANSI 51N/51G - Ground fault alarm
- ERMS - Energy reduction maintenance settings

**Measurement**
- Energy per phase
- Individual harmonics analysis

**Maintenance & diagnostics**
- Power restoration assistant
- MasterPact operation assistant
- Waveform capture on trip event
- IEC 61850 for MasterPact MTZ
- Modbus legacy dataset

For more detailed information, download our catalog
Protection

ANSI 27/59 - under/over over-voltage protection
LV850012-ANSI 27/59
- Help reduce risks of damage to electrical installation by maintaining voltage within accepted operating levels
- Continuous monitoring enables quick response to safeguard operations during abnormal or critical situations

ANSI 81 - under/over frequency protection
LV850013-ANSI 81
- Help reduce risks of damage to electrical installation by maintaining frequency within accepted operating levels
- Continuous monitoring enables quick response to safeguard operations during abnormal or critical situations

ANSI 32P - reverse active power protection
LV850011-ANSI 32P
- Help protect generator in event of loss of prime mover by monitoring active power exchanged between other power sources
- Alarm triggers when active power is negative, reaches upper limits and when timer elapses

For more detailed information, download our catalog
Protection

ANSI 51 - IDMTL overcurrent protection

LV850037-ANSI 51

- Enhanced selectivity with an upstream protection device
- Provides overcurrent protection based on the following IDMTL (Inverse Definite Minimum Time Lag) tripping curves: Definite Time (DT), Standard Inverse Time (SIT), Very Inverse Time (VIT), Extremely Inverse

- Alarm triggers to offer protection on both reverse direction overcurrent and forward direction overcurrent

ANSI 51N/51G - Ground-fault alarm

LV850007-ANSI 51N/51G

- Early detection of critical resistive earth-faults enables quick corrective action before an electrical accident or fire occurs

ANSI 67 - Directional overcurrent protection

LV850015-ANSI 67

- Help avoid back-out in case of short-circuit on either:
  - Source side of LV installation with power sources running in parallel
  - Bus bar side of LV installation with power sources running in parallel with a bus tie

Energy reduction maintenance settings (ERMS)

LV850009-ERMS

- Enhanced maintenance safety
- Limit internal arc fault energy risk for personnel near energized equipment

For more detailed information, download our catalog
Measurement
Measurement

Energy per phase

- Analyze energy consumption per phase, especially for LV installations with large unbalanced loads
- Easily calculate and display energy on each phase
  - Active, reactive and apparent energy
  - Total active, reactive and apparent energy

Individual harmonics analysis

- Quickly evaluate impact of harmonics pollution on electrical installation’s reliability and efficiency
- Reduce costs by not requiring a dedicated PQ analyzer, on-site expertise and operation disruptions

For more detailed information, download our catalog
Power Restoration Assistant

- Help reduce troubleshooting time and costs by quickly identifying power outage cause
- Operators receive fault analysis assistance and help reduce downtime impact

MasterPact Operation Assistant

- Power disruptions can be both costly and unsafe.
- Help reduce troubleshooting time to more quickly restore power.
- Receive operator assistance for fault analysis to reclose and open circuit breakers

The true cost of a power disruption: Can you afford it?

Hospital

100,000 euros per hour
+ endangered lives

Data centers

750,000 euros per minute

Semi conductor manufacturing plant

35 million euros per hour
Maintenance & Diagnostics

**Waveform capture on trip event**

- **LV850003**
  - Help reduce troubleshooting time and costs during outage with displayed interrupted phase and neutral currents waveform
  - Automatic waveform recordings help operators more effectively analyze:
    - Nature of trip
    - Gravity of the trip
    - Potential damage on installation of the trip

**IEC 61850 for MasterPact MTZ**

- **Link TBD**
  - MasterPact MTZ circuit breaker easily communicates data over Ethernet network in conformance with IEC 61850 MMS communication protocol
  - Helps integrate LV circuit breakers in MV installations without the need of additional gateway

**Modbus legacy dataset**

- **LV850045**
  - For on-site evolutions, easy integration for the existing supervisor software for installations with both MasterPact NT/NW and MasterPact MTZ

For more detailed information, download our catalog
5 steps to get started with digital modules

Ensure productivity of your manufacturing process

1. Connect to Schneider Electric
2. Check compatibility through serial number
3. Select your digital modules
4. Add to cart and confirm payment
5. Click or scan the QR code below to download instructions to get started:
To download any of these digital modules, visit GoDigital Store now!

GoDigital is an access-based platform, you need to be recognized as a Partner in order to buy Digital Modules. If you would like to become an authorized user, please contact Schneider Electric customer center or your sales representative. You can also start the self-registration process directly on GoDigital Portal.

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