The Smart Air Circuit Breaker

MasterPact™ MTZ Digital Modules

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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

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Introduction

MasterPact MTZ is designed to grow with you.

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

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

Protection - Both of people and property

Protection

Measurement - Improved energy and power quality monitoring

Measurement

Maintenance & diagnostics - Ensure uptime and plan maintenance

Maintenance & diagnostics

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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.

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Introduction
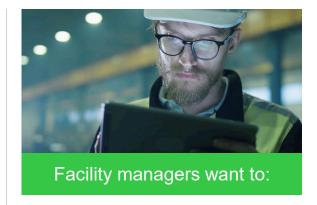

Building investors want:

- 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

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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

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Protection

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Protection

ANSI 27/59 - under/over over-voltage protection

➡ LV850012-ANSI 27/59   ▶ Play video

- 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   ▶ Play video

- 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**

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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

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

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

ANSI 51N/51G - Ground-fault alarm

➡ LV850007-ANSI 51N/51G ▶ Play video

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

Energy reduction maintenance settings (ERMS)

➡ LV850009-ERMS ▶ Play video

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

➡ For more detailed information, download our catalog

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Measurement

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Measurement

Energy per phase

➡ LV850002

- 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

➡ LV850006   ▶ Play video

- 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**

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Maintenance & Diagnostics

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Maintenance & Diagnostics

Power Restoration Assistant

→ LV850004   ▶ Play video

- 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

→ LV850005

- 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

→ **For more detailed information, download our catalog**

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

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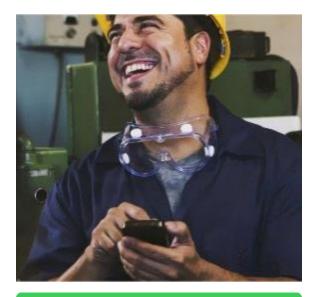# Maintenance & Diagnostics

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**

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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:

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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.

▶ **Play video to learn more**

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