

MICROLOGIC 6.0 A

Electronic Trip Unit with Ammeter and Ground-Fault Protection

Schneider Electric MICROLOGIC 6.0 A is an electronic circuit-breaker trip unit with ammeter and ground-fault protection. It measures circuit current and commands the compatible breaker to trip according to the approved LSIG protection settings.

PRODUCT SNAPSHOT

BRAND

Schneider Electric

FAMILY

MicroLogic A Electronic Trip Units

PART

MICROLOGIC 6.0 A

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PRODUCT OVERVIEW

Schneider Electric MICROLOGIC 6.0 A is an electronic circuit-breaker trip unit with ammeter and ground-fault protection. It measures circuit current and commands the compatible breaker to trip according to the approved LSIG protection settings.

- 1

Combines selective overcurrent protection with equipment ground-fault protection
- 2

Measures phase, neutral and ground-fault currents for local ammeter display
- 3

Coordinates upstream and downstream trip units through zone selective interlocking
- 4

Supports controlled replacement, rating-plug checks and secondary-injection testing

SYSTEM COMPONENTS

- compatible MasterPacT or PowerPacT circuit breaker
- matching adjustable long-time rating plug
- optional external source-ground-return sensor
- approved trip-unit test equipment

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
MICROLOGIC 6.0 A	Electronic trip unit with ammeter and ground-fau	Open product page
MICROLOGIC 6.0 E	Electronic trip unit with LSIG protection and en	Open product page

TECHNICAL DATA

PARAMETER	VALUE
Trip-unit designation	MicroLogic 6.0 A
Protection functions	Long-time; short-time; instantaneous; ground fault
Current measurement	RMS
Measured currents	I1; I2; I3; IN; Ig
Stored current maxima	I1max; I2max; I3max; INmax; Igmax
Long-time pickup Ir	0.4; 0.5; 0.6; 0.7; 0.8; 0.9; 0.95; 0.98; 1 x In
Long-time delay tr at 6 x Ir	0.5; 1; 2; 4; 8; 12; 16; 20; 24 s
Short-time pickup Isd	1.5; 2; 2.5; 3; 4; 5; 6; 8; 10 x Ir
Short-time pickup accuracy	+/-10%

PARAMETER	VALUE
Ground-fault modes	Residual; Source Ground Return
Ground-fault pickup selector	Positions A through I
Ground-fault delay tg; I2t OFF	0; 0.1; 0.2; 0.3; 0.4 s
Ground-fault delay tg; I2t ON	0.1; 0.2; 0.3; 0.4 s
Source-ground-return sensor distance	10 m maximum
ZSI logic signal	0 or 5 V
ZSI cable impedance	2.7 Ohm maximum per 300 m
ZSI terminal conductor	0.4 to 2.5 mm ²
ZSI conductor maximum section	3.5 mm ² including insulation

TECHNICAL NOTE

Before installing MICROLOGIC 6.0 A, isolate the breaker, match the breaker frame and rating plug, record every LSIG and neutral setting, then verify the restored settings and trip functions with approved test equipment.

Instantaneous pickup accuracy	+/-10%
Instantaneous fixed delay	20 ms

Display current threshold	0.2 x In
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APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Selective protection in low-voltage distribution switchboards

Combines selective overcurrent protection with equipment ground-fault protection

Ground-fault protection for feeder and main circuit breakers

Measures phase, neutral and ground-fault currents for local ammeter display

Zone-selective-interlocking coordination between breaker levels

Coordinates upstream and downstream trip units through zone selective interlocking

Current monitoring and protection verification during commissioning

Supports controlled replacement, rating-plug checks and secondary-injection testing

PRODUCT PRECAUTIONS

- 1 Verify the complete MICROLOGIC 6.0 A designation, breaker frame and rating-plug execution before work.
- 2 Open, isolate and discharge all breaker power sources before removing the trip unit or rating plug.
- 3 Record I_r , t_r , I_{sd} , t_{sd} , I_i , I_g , t_g , neutral and I_{2t} selections before replacement.
- 4 Preserve ZSI terminal identity and install the required Z3-Z4-Z5 jumper when ZSI is not used.
- 5 For source-ground-return protection, keep the external sensor circuit within the documented distance and wiring rules.
- 6 Use ESD controls and protect the trip-unit connector and circuit-breaker mating interface.
- 7 Restore only coordination-study-approved settings; do not copy settings from another feeder.
- 8 Perform the ground-fault and trip-unit tests and confirm indication, breaker opening and reset before energization.

ENGINEER FAQ

Q1 Does MICROLOGIC 6.0 A match compatible MasterPacT or PowerPacT circuit breaker in a Selective protection in low-voltage distribution switchboards installation?

Verify the complete MICROLOGIC 6.0 A marking, the documented MicroLogic A Electronic Trip Units position and the installed compatible MasterPacT or PowerPacT circuit breaker before fitting the assembly.

Q3 Which MicroLogic A Electronic Trip Units records should be captured before removing MICROLOGIC 6.0 A?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with MICROLOGIC 6.0 A before disconnection.

Q5 Which matching adjustable long-time rating plug condition should be checked when MICROLOGIC 6.0 A reports an abnormal state?

Check the matching adjustable long-time rating plug supply, seating and connection first, then compare channel diagnostics with the recorded MICROLOGIC 6.0 A baseline.

Q7 What maintenance evidence is required after MICROLOGIC 6.0 A is used for Zone-selective-interlocking coordination between breaker levels?

Retain the nameplate record, corrective action, final diagnostics and a controlled zone-selective-interlocking coordination between breaker levels functional-test result for MICROLOGIC 6.0 A.

Q2 How should MICROLOGIC 6.0 A be wired when it must combines selective overcurrent protection with equipment ground-fault protection?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for MICROLOGIC 6.0 A; then continuity-test the affected path.

Q4 What controlled test confirms that MICROLOGIC 6.0 A can measures phase, neutral and ground-fault currents for local ammeter display?

Apply the approved field or simulated stimulus, observe the MicroLogic A Electronic Trip Units indication and confirm the intended response without bypassing the normal interlocks.

Q6 Can MICROLOGIC 6.0 A be moved directly into Ground-fault protection for feeder and main circuit breakers without validating approved trip-unit test equipment?

No. Confirm the approved trip-unit test equipment, revision, connection scheme and MicroLogic A Electronic Trip Units configuration before transferring MICROLOGIC 6.0 A to that duty.

Q8 How should MICROLOGIC 6.0 A be returned to service in Current monitoring and protection verification during commissioning?

Restore power under control, verify coordinates upstream and downstream trip units through zone selective interlocking, exercise the intended signal path and release MICROLOGIC 6.0 A only after the MicroLogic A Electronic Trip Units remains in its approved operating state.