

# Product datasheet

Specifications



## Micrologic 5.0 X control unit, for Masterpact MTZ2/MTZ3 circuit breakers, drawout, LSI protections

LV848499

EAN Code: 3606480811326

### Main

Range	MasterPacT
Device short name	MicroLogic 5.0 X
Product or component type	Control unit
Device application	Equipment protection, monitoring and control
Circuit breaker application	Distribution IEC standard
Range compatibility	MasterPact MTZ2 circuit breaker MasterPact MTZ3 circuit breaker
Poles	3P 4P
Protected poles description	3P 3d 4P 3d 4P 3d + N/2 4P 4d 4P 3d + OSN
[Ue] rated operational voltage	690 V AC, +/- 10 %
Network type	AC
Network frequency	50/60 Hz
Trip unit technology	Electronic
Trip unit protection functions	LSI
Protection type	Overload protection (long time) conforming to ANSI 49 Instantaneous short-circuit protection conforming to ANSI 50 Short time short-circuit protection conforming to ANSI 51
Trip unit rating	400 A 630 A 800 A 1000 A 1250 A 1600 A 2000 A 2500 A 3200 A 4000 A 5000 A 6300 A

### Complementary

Mounting mode	Drawout
Neutral protection setting	1 x Ir (4P 4d) 0.5 x Ir (4P 3d + N/2) 1.6 x Ir (4P 3d + OSN) No protection (4P 3d)
[Ir] long time pick-up adjustment range	0.4...1 x In adjustable in step of 1 A

<b>Long time delay adjustment type</b>	Adjustable in step of 0.5 s
<b>[tr] long-time delay adjustment range</b>	12.5...600 s at 1.5 x Ir 0.5...24 s at 6 x Ir 0.7...16.6 s at 7.2 x Ir
<b>Thermal memory</b>	Yes
<b>[Isd] short-time pick-up adjustment range</b>	1.5...10 x Ir adjustable in step of 0.5 x Ir with embedded HMI 1.5...10 x Ir adjustable in step of 0.1 x Ir with Ecoeach software or MasterPact MTZ mobile app
<b>Short-time delay adjustment type</b>	Adjustable
<b>[tsd] short-time delay adjustment range</b>	0.1...0.4 s I <sup>2</sup> t=on 0...0.4 s I <sup>2</sup> t=off
<b>Instantaneous pick-up adjustment type li</b>	Adjustable
<b>[li] instantaneous pick-up adjustment range</b>	2...15 x In adjustable in step of 0.5 x In with embedded HMI 2...15 x In adjustable in step of 0.1 x In with Ecoeach software or MasterPact MTZ mobile app li enable on/off
<b>[li mode] instantaneous delay adjustment range</b>	0 ms in fast 20 ms in standard
<b>Zone selective interlocking ZSI</b>	With
<b>Network and machine diagnosis type</b>	System (HMI) health state overview: circuit breaker health state Contacts state: circuit breaker health state MicroLogic service life: circuit breaker health state Tripping cause indication: circuit breaker tripping cause Identification card: diagnostic data Configured alarms synthesis: diagnostic data Monitored function: diagnostic data Operation: diagnostic data MicroLogic test: test Protection test: test Selectivity test: test Trip context information: crisis management Operation: advanced diagnostic Breaker service life: circuit breaker health state
<b>Type of measurement</b>	Power meter
<b>Energy management</b>	Measurement ,active, reactive and apparent energy Measurement ,electrical network Measurement ,energy
<b>Metering type</b>	Current I1, I2, I3, Iavg RMS Neutral current IN RMS Ground fault current Ig RMS Voltage V12, V23, V31, VLLavg RMS Voltage V1N, V2N, V3N, VLNavg RMS Active power P, P1, P2, P3 total Reactive power Q, Q1, Q2, Q3 total Apparent power S, S1, S2, S3 total Power factor Active energy Ep IN/OUT/tot Reactive energy Eq IN/OUT/tot Apparent energy Es IN/OUT/tot Demand current I1, I2, I3, In, Iavg Demand power P, Q, S Frequency Phase sequence Earth leakage current Total current harmonic distortion THD (I) Total voltage harmonic distortion THD (V) Unbalance current Unbalance voltage
<b>Measurement voltage</b>	208...828 V AC 50/60 Hz phase to phase 120...480 V AC 50/60 Hz phase to neutral
<b>Frequency measurement range</b>	40...70 Hz

<b>Measurement accuracy</b>	<p>Current I1, I2, I3, Iavg, Idemand for MTZ1: +/- 0.5 % 40...1600 x 1.2 A</p> <p>Current I1, I2, I3, Iavg, Idemand for MTZ2: +/- 0.5 % 40...4000 x 1.2 A</p> <p>Current I1, I2, I3, Iavg, Idemand for MTZ3: +/- 0.5 % 80...6300 x 1.2 A</p> <p>Neutral current IN: +/- 1 %</p> <p>Ground fault current Ig: +/- 5 %</p> <p>Voltage V12, V23, V31, VLLavg: +/- 0.5 % 208...690 x 1.2 V</p> <p>Voltage V1N, V2N, V3N, VLNavg: +/- 0.5 % 120...400 x 1.2 V</p> <p>Active power P, P1, P2, P3, Pdemand: +/- 1 %</p> <p>Reactive power Q, Q1, Q2, Q3, Qdemand: +/- 2 %</p> <p>Apparent power S, S1, S2, S3, Sdemand: +/- 1 %</p> <p>Power factor: +/- 2 %</p> <p>Active energy Ep IN/OUT/tot: +/- 1 %</p> <p>Reactive energy Ep IN/OUT/tot: +/- 2 %</p> <p>Apparent energy Es IN/OUT/tot: +/- 1 %</p> <p>Frequency: +/- 0.005 Hz</p> <p>Earth leakage current: +/- 10 %</p> <p>Unbalance current: +/- 0.5 %</p>
<b>Accuracy class</b>	<p>Class 5: total current harmonic distortion THD (I)</p> <p>Class 0.5: unbalance voltage</p> <p>Class 1: active and reactive energy by pulse counting (+/- W.h, +/- VAR.h)</p> <p>Class 2: total voltage harmonic distortion THD (V)</p>
<b>Display type</b>	LCD display - 128 x 96 pixels
<b>Communication port protocol</b>	<p>Bluetooth 4.0 LE peer to peer 30 kbit/s</p> <p>NFC peer to peer conforming to ISO 15963</p> <p>USB peer to peer 115 kbauds</p>
<b>Data recording</b>	<p>Event logs</p> <p>Data logs</p> <p>Time stamping</p> <p>Alarm logs</p> <p>Min/max of instantaneous values</p> <p>Maintenance logs</p>

## Environment

<b>Standards</b>	<p>EN/IEC 60947-2</p> <p>EN/IEC 60947-1</p> <p>EN/IEC 60255-1</p> <p>EN/IEC 60092-202</p> <p>EN/IEC 61010-1</p>
<b>Mounting location</b>	Indoor use only
<b>Environmental characteristic</b>	Wet location not approved for use conforming to IEC 61010-1
<b>Electromagnetic compatibility</b>	<p>Electrostatic discharge immunity test conforming to IEC 61000-4-2</p> <p>Susceptibility to electromagnetic fields conforming to IEC 61000-4-3</p> <p>Electrical fast transient/burst immunity test conforming to IEC 61000-4-4</p> <p>1.2/50 µs shock waves immunity test conforming to IEC 61000-4-5</p> <p>Conducted RF disturbances conforming to IEC 61000-4-6</p> <p>Conducted and radiated emissions A conforming to CISPR 22</p>
<b>Overvoltage category</b>	IV conforming to IEC 61010-1
<b>Measurement category</b>	Category IV conforming to IEC 61010-2-30
<b>Pollution degree</b>	3 conforming to IEC 60947-1
<b>Ambient air temperature for operation</b>	<p>-25...70 °C (operating)</p> <p>-35 °C (for start-up of product)</p>
<b>Relative humidity</b>	95 % at 55 °C conforming to IEC 60068-2-30
<b>Operating altitude</b>	<p>&lt;= 2000 m without derating</p> <p>&lt;= 4000 m with operational voltage derating 600 V AC</p> <p>&lt;= 5000 m with operational voltage derating 560 V AC</p>

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	6.7 cm

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Package 1 Width	7.9 cm
Package 1 Length	21.6 cm
Package 1 Weight	369.0 g

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## Logistical informations

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Country of origin	FR
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## Contractual warranty

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Warranty (in months)	18
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

Total lifecycle Carbon footprint	51
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

## Use Better

### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
<a href="#">EU RoHS Directive</a>	Compliant with Exemptions
SCIP Number	Fe0e6f4e-df3c-4360-9977-32248ec09b55
REACH Regulation	<a href="#">REACH Declaration</a>
Halogen-free status	Product contains halogen above thresholds
PVC free	Yes
Silicone-free	No

## Use Again

### Repack and remanufacture

End of life manual availability	<a href="#">End of Life Information</a>
Removable battery	User replaceable
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins