

Product datasheet

Specifications



Micrologic 5.0 X control unit, for Masterpact MTZ circuit breakers, fixed, LSI protections

LV847283

EAN Code: 3606480811241

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 MTZ1 circuit breaker 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	Fixed
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)

[I_r] long time pick-up adjustment range	0.4...1 x I _n adjustable in step of 1 A
Long time delay adjustment type	Adjustable in step of 0.5 s
[t_r] long-time delay adjustment range	12.5...600 s at 1.5 x I _r 0.5...24 s at 6 x I _r 0.7...16.6 s at 7.2 x I _r
Thermal memory	Yes
[I_{sd}] short-time pick-up adjustment range	1.5...10 x I _r adjustable in step of 0.5 x I _r with embedded HMI 1.5...10 x I _r adjustable in step of 0.1 x I _r with Ecoeach software or MasterPact MTZ mobile app
Short-time delay adjustment type	Adjustable
[t_{sd}] short-time delay adjustment range	0.1...0.4 s I ² t=on 0...0.4 s I ² t=off
Instantaneous pick-up adjustment type I_i	Adjustable
[I_i] instantaneous pick-up adjustment range	2...15 x I _n adjustable in step of 0.5 x I _n with embedded HMI 2...15 x I _n adjustable in step of 0.1 x I _n with Ecoeach software or MasterPact MTZ mobile app I _i enable on/off
[I_i mode] instantaneous delay adjustment range	0 ms in fast 20 ms in standard
Zone selective interlocking ZSI	With
Network and machine diagnosis type	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
Type of measurement	Power meter
Energy management	Measurement ,active, reactive and apparent energy Measurement ,electrical network Measurement ,energy
Metering type	Current I1, I2, I3, I _{avg} RMS Neutral current I _N RMS Ground fault current I _g RMS Voltage V12, V23, V31, V _{LL} avg RMS Voltage V1N, V2N, V3N, V _{LN} avg 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 E _p IN/OUT/tot Reactive energy E _q IN/OUT/tot Apparent energy E _s IN/OUT/tot Demand current I1, I2, I3, I _n , I _{avg} 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
Measurement voltage	208...828 V AC 50/60 Hz phase to phase 120...480 V AC 50/60 Hz phase to neutral
Frequency measurement range	40...70 Hz

Measurement accuracy	<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>
Accuracy class	<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>
Display type	LCD display - 128 x 96 pixels
Communication port protocol	<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>
Data recording	<p>Data logs</p> <p>Time stamping</p> <p>Alarm logs</p> <p>Min/max of instantaneous values</p> <p>Event logs</p> <p>Maintenance logs</p>

Environment

Standards	<p>EN/IEC 60947-1</p> <p>EN/IEC 60092-202</p> <p>EN/IEC 60947-2</p> <p>EN/IEC 60255-1</p> <p>EN/IEC 61010-1</p>
Mounting location	Indoor use only
Environmental characteristic	Wet location not approved for use conforming to IEC 61010-1
Electromagnetic compatibility	<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>
Overvoltage category	IV conforming to IEC 61010-1
Measurement category	Category IV conforming to IEC 61010-2-30
Pollution degree	3 conforming to IEC 60947-1
Ambient air temperature for operation	<p>-25...70 °C (operating)</p> <p>-35 °C (for start-up of product)</p>
Relative humidity	95 % at 55 °C conforming to IEC 60068-2-30
Operating altitude	<p><= 2000 m without derating</p> <p><= 4000 m with operational voltage derating 600 V AC</p> <p><= 5000 m with operational voltage derating 560 V AC</p>

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.7 cm

Package 1 Width	7.9 cm
Package 1 Length	21.6 cm
Package 1 Weight	347.0 g

Logistical informations

Country of origin	FR
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Contractual warranty

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	Product Environmental Profile

Use Better

Materials and Substances

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

Use Again

Repack and remanufacture

End of life manual availability	End of Life Information
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