

# Product data sheet

Specifications



Control unit, Masterpact MTZ1/  
MTZ2/MTZ3 circuit breaker,  
Micrologic 3.0 X, LI adjustable trip  
func., 4P 3d + OSN

LV848815

## Main

Range	MasterPact
Device Short Name	MicroLogic 3.0 X
Product Or Component Type	Control unit
Device Application	Equipment protection, monitoring and control
Circuit Breaker Application	Distribution UL/ANSI standard
Range Compatibility	Masterpact MasterPact MTZ1 circuit breaker Masterpact MasterPact MTZ2 circuit breaker Masterpact MasterPact MTZ3 circuit breaker
Commercial Reference	LV839207 LV839219 LV839203 LV839213
Poles	4P 3P
Protected Poles Description	4P 3d + OSN 3P 3d 4P 4d 4P 3d 4P 3d + N/2
[Ue] Rated Operational Voltage	690 V AC, +/- 10 %
Network Type	AC
Network Frequency	50/60 Hz
Trip Unit Technology	Electronic
Trip Unit Protection Functions	LI
Protection Type	Instantaneous short-circuit protection conforming to ANSI 50 Overload (long time) conforming to ANSI 49
Trip Unit Rating	3600 A 400 A 4000 A 1000 A 1200 A 800 A 600 A 2500 A 1600 A 5000 A 3200 A 3000 A 2000 A 6000 A

## Complementary

[Ir] Long Time Pick-Up Adjustment Range	0.4...1 x In adjustable in step of 1 A
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Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Long Time Delay Adjustment Type	Adjustable in step of 0.5 s
[Tr] Long-Time Delay Adjustment Range	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
Thermal Memory	Yes
Instantaneous Pick-Up Adjustment Type II	Adjustable
[II] Instantaneous Pick-Up Adjustment Range	1.5...12 x In adjustable in step of 0.5 x In with embedded HMI 1.5...12 x In adjustable in step of 0.1 x In with Ecoreach software or MasterPact MTZ mobile app
[Li Mode] Instantaneous Delay Adjustment Range	20 ms in standard
Zone Selective Interlocking Zsi	Without
Network And Machine Diagnosis Type	System (HMI) health state overview: circuit breaker health state standard) Contacts state: circuit breaker health state standard) MicroLogic service life: circuit breaker health state standard) Tripping cause indication: circuit breaker tripping cause standard) Identification card: diagnostic data standard) Configured alarms synthesis: diagnostic data standard) Monitored function: diagnostic data standard) Operation: diagnostic data standard) MicroLogic test: test standard) Protection test: test standard) Selectivity test: test standard) Trip context information: crisis management standard) Operation: advanced diagnostic standard) Breaker service life: circuit breaker health state standard)
Type Of Measurement	Power meter
Energy Management	Measurement ,active, reactive and apparent energy (standard) Measurement ,electrical network (standard) Measurement ,energy (standard)
Metering Type	Average voltage Vavg standard) Power factor standard) Frequency standard) Total current harmonic distortion THD (I): inst, avg, avg min, avg max fundamental voltage standard) Total current harmonic distortion THD (I): inst, avg, avg min, avg max RMS voltage standard) Total voltage harmonic distortion THD (V): inst, avg, avg min, avg max fundamental voltage standard) Total voltage harmonic distortion THD (V): inst, avg, avg min, avg max RMS voltage standard) Demand power P, Q, S standard) Current Ia, Ib, Ic, In, Ig: maximum standard) Active power P, Pa, Pb, Pc standard) Reactive power Q, Qa, Qb, Qc standard) Apparent power S, Sa, Sb, Sc standard) Voltage Vba, Vcb, Vac, Va, Vb, Vc: instantaneous standard) Voltage Vba, Vcb, Vac, Va, Vb, Vc: minimum standard) Voltage Vba, Vcb, Vac, Va, Vb, Vc: maximum standard) Demand current Ia, Ib, Ic, In, Iavg standard)
Measurement Voltage	145.6 V AC 50/60 Hz per phase
Frequency Measurement Range	40...70 Hz
Measurement Accuracy	Power factor: +/- 1 % Active energy Ep IN/OUT/tot: +/- 1 % - 10...10 GWh Reactive energy Ep IN/OUT/tot: +/- 2 % - 10...10 GVARh Apparent energy Es IN/OUT/tot: +/- 1 % - 10...10 GVAh Unbalance current: +/- 0.5 % Frequency: +/- 0.005 Hz Voltage Vba, Vcb, Vac, Vllavg: +/- 0.5 % 208...690 x 1.2 V Voltage Vba, Vcb, Vac, Vlnavg: +/- 0.5 % 120...400 x 1.2 V Apparent power S, Sa, Sb, Sc, Sdemand: +/- 1 % Active power P, Pa, Pb, Pc, Pdemand: +/- 1 % Reactive power Q, Qa, Qb, Qc, Qdemand: +/- 2 % Current Ia, Ib, Ic, Iavg, Idemand for MTZ1: +/- 0.5 % 40...1600 x 1.2 A Current Ia, Ib, Ic, Iavg, Idemand for MTZ2: +/- 0.5 % 40...4000 x 1.2 A Current Ia, Ib, Ic, Iavg, Idemand for MTZ3: +/- 0.5 % 80...6300 x 1.2 A

Accuracy Class	Class 5: total current harmonic distortion THD (I) Class 0.5: unbalance voltage Class 1: active and reactive energy by pulse counting (+/- W.h, +/- VAR.h) Class 2: total voltage harmonic distortion THD (V)
Display Type	LCD display - 128 x 96 pixels
Communication Port Protocol	Bluetooth 4.0 LE peer to peer 30 kbit/s NFC peer to peer 28800 bauds conforming to ISO 15963 USB peer to peer 115 kbauds
Data Recording	Maintenance logs Min/max of instantaneous values Data logs Time stamping Event logs Alarm logs

## Environment

Standards	EN/IEC 60947-2 EN/IEC 60255-1 EN/IEC 60092-202 EN/IEC 60947-1
Electromagnetic Compatibility	Electrostatic discharge immunity test conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test conforming to IEC 61000-4-4 1.2/50 µs shock waves immunity test conforming to IEC 61000-4-5 Conducted RF disturbances conforming to IEC 61000-4-6 Conducted and radiated emissions A conforming to CISPR 22
Pollution Degree	3 conforming to IEC 60947-1
Ambient Air Temperature For Operation	-25...70 °C (operating) -35 °C (for start-up of product)
Relative Humidity	95 % at 55 °C conforming to IEC 60068-2-30
Operating Altitude	<= 2000 m without derating <= 4000 m with operational voltage derating 600 V AC <= 5000 m with operational voltage derating 560 V AC

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.2 cm
Package 1 Width	9.5 cm
Package 1 Length	21.5 cm
Package 1 Weight	336.0 g
Unit Type Of Package 2	S03
Number Of Units In Package 2	15
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	5.476 kg

## Contractual warranty

Warranty	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product’s sustainability >](#)

## Well-being performance

✓	Mercury Free	
✓	Rohs Exemption Information	Yes
✓	Pvc Free	
✓	Halogen Free Plastic Parts Product	
Reach Regulation	<a href="#">REACH Declaration</a>	
Eu Rohs Directive	Compliant with Exemptions	
China Rohs Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information	
California Proposition 65	WARNING: This product can expose you to chemicals including: DINP, which is known to the State of California to cause cancer, and DIDP, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>	