Product data sheet
Characteristics

LV839216
Micrologic 5.0 X control unit - w/o AAF-w/o com - drawout Masterpact MTZ IEC

Main

Range	Masterpact
Device short name	Micrologic 5.0 X
Product or component type	Control unit
Device application	Equipment protection, monitoring and control
Range compatibility	Masterpact MTZ1 circuit breaker Masterpact MTZ2 circuit breaker Masterpact MTZ3 circuit breaker
Poles description	3P 4P
Protected poles description	3P 3d 4P 4d 4P 3d 4P 3d + N/2 4P 3d + OSN
Circuit breaker application	Distribution IEC standard
Network type	AC
Trip unit name	Micrologic 5.0 X
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	1000 A 1250 A 1600 A 2000 A 2500 A 3200 A 400 A 630 A 800 A 4000 A 5000 A 6300 A

Complementary

Network frequency	50/60 Hz
Mounting mode	Fixed
Long time pick-up adjustment range	0.4...1 x In adjustable in step of 1 A
[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
Long time delay adjustment type	Adjustable in step of 0.5 s
[Isd] short-time pick-up adjustment range	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 Ecoreach software or Masterpact MTZ-mobile app
[tsd] short-time delay adjustment range	0.1...0.4 s I²t=on 0...0.4 s I²t=off
Short-time delay adjustment type	Adjustable
Instantaneous pick-up adjustment range	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 Ecoreach software or Masterpact MTZ-mobile app Ii enable on/off
Operating time	0 ms in fast 20 ms in standard

Instantaneous pick-up adjustment type Ii	Adjustable
Zone selective interlocking ZSI	With
Type of measurement	Power meter
Thermal memory	Yes
Energy management	Measurement active, reactive and apparent energy (as standard) Measurement electrical network (as standard) Measurement energy (as standard)
Metering type	Current I1, I2, I3, In, Ig: maximum (as standard) Average voltage Vavg (as standard) Active power P, P1, P2, P3 (as standard) Reactive power Q, Q1, Q2, Q3 (as standard) Apparent power S, S1, S2, S3 (as standard) Power factor (as standard) Frequency (as standard) Total current harmonic distortion THD (I): inst, avg, avg min, avg max fundamental-voltage (as standard) Total current harmonic distortion THD (I): inst, avg, avg min, avg max RMS voltage (as standard) Voltage V21, V32, V13, V1, V2, V3: instantaneous (as standard) Voltage V21, V32, V13, V1, V2, V3: minimum (as standard) Voltage V21, V32, V13, V1, V2, V3: maximum (as standard) Total voltage harmonic distortion THD (V): inst, avg, avg min, avg max fundamental-voltage (as standard) Total voltage harmonic distortion THD (V): inst, avg, avg min, avg max RMS voltage (as standard) Demand current I1, I2, I3, In, Iavg (as standard) Demand power P, Q, S (as standard)
Network and machine diagnosis type	System (HMI) health state overview: circuit breaker health state application (in standard) Contacts state: circuit breaker health state application (in standard) Micrologic service life: circuit breaker health state application (in standard) Tripping cause indication: circuit breaker tripping cause application (in standard) Identification card: diagnostic data application (in standard) Configured alarms synthesis: diagnostic data application (in standard) Monitored function: diagnostic data application (in standard) Operation: diagnostic data application (in standard) Micrologic test: test application (in standard) Protection test: test application (in standard) Selectivity test: test application (in standard) Trip context information: crisis management application (in standard) Operation: advanced diagnostic application (in standard) Breaker service life: circuit breaker health state application (in standard)
Measurement voltage	145.6...828 V AC 50/60 Hz per phase
Frequency measurement range	45...250 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 Unbalance current: +/- 0.5 % Apparent energy Es IN/OUT/tot: +/- 1 % - 10...10 GVAh Frequency: +/- 0.005 Hz Voltage V21, V32, V13, VLLavg: +/- 0.5 % 208...690 x 1.2 V Voltage V21, V32, V13, VLNavg: +/- 0.5 % 120...400 x 1.2 V Apparent power S, S1, S2, S3, Sdemand: +/- 1 % Active power P, P1, P2, P3, Pdemand: +/- 1 % Reactive power Q, Q1, Q2, Q3, Qdemand: +/- 2 % Current I1, I2, I3, Iavg, Idemand for MTZ1: +/- 0.5 % 40...1600 x 1.2 A Current I1, I2, I3, Iavg, Idemand for MTZ2: +/- 0.5 % 40...4000 x 1.2 A Current I1, I2, I3, Iavg, Idemand for MTZ3: +/- 0.5 % 80...6300 x 1.2 A
Accuracy class	Class 0.5: unbalance voltage Class 5: total current harmonic distortion THD (I) 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 in 128 x 96 pixels
Communication port protocol	Bluetooth 4.0 LE peer to peer 30 kbit/s NFC peer to peer conforming to ISO 15963 USB peer to peer 115 kbauds

Data recording	Data logs Event logs Min/Max of instantaneous values Time stamping Alarm logs Maintenance logs
Electromagnetic compatibility	Conducted RF disturbances conforming to IEC 61000-4-6 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 and radiated emissions A conforming to CISPR 22

Environment

Standards	EN/IEC 60947-1 EN/IEC 60947-2 EN/IEC 60255-1 IEC 60092-202

Contractual warranty

Warranty period	18 months

Product Life Status : Commercialised