# Product data sheet
## Characteristics

# LUCM12BL
multifunction control unit LUCM - class 5...30 - 3...12 A - 24 V DC


## Main

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|---|---|
| Range | TeSys |
| Product name | TeSys U |
| Device short name | LUCM |
| Product or component type | Multifunction control unit |
| Product specific application | Most sophisticated control and protection requirements, with display |
| Product compatibility | LULC08<br>LUFC00<br>LUFV2<br>LULC031<br>ASILUFC5<br>LULC07<br>LULC09<br>LULC15<br>LULC033<br>LUFN..<br>ASILUFC51 |
| Utilisation category | AC-44<br>AC-41<br>AC-43 |
| Motor power kW | 9 kW at 690 V AC 50/60 Hz<br>5.5 kW at 400...440 V AC 50/60 Hz<br>5.5 kW at 500 V AC 50/60 Hz |
| Thermal protection adjustment range | 3...12 A |
| [Uc] control circuit voltage | 24 V DC |
| Thermal overload class | Class 5…30 - frequency limit: 50...60 Hz - temperature compensation: -25...55 °C - conforming to IEC 60947-6-2<br>Class 5…30 - frequency limit: 50...60 Hz - temperature compensation: -25...55 °C - conforming to UL 508 |
| User language | English - setting factory setting<br>English, French, German, Italian, Spanish - setting settable |

## Complementary

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| Main function available | Differentiation of thermal overload and magnetic fault |

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| | Overload, no-load running<br>Earth fault protection<br>Protection against overload and short-circuit<br>Protection against phase failure and phase imbalance<br>Manual or automatic reset<br>Monitoring function, indication of main motor parameters<br>Protection function alarm<br>Log function |
| Mounting mode | Plug-in |
| Mounting location | Front side |
| Control circuit voltage limits | 20...28 V for DC circuit 24 V in operation |
| Typical current consumption | 150 mA at 24 V DC I maximum while closing with LUB12<br>200 mA at 24 V DC I maximum while closing with LUB32<br>70 mA at 24 V DC I rms sealed with LUB12<br>75 mA at 24 V DC I rms sealed |
| Operating time | 35 ms opening with LUB12 for control circuit<br>35 ms opening with LUB32 for control circuit<br>65 ms closing with LUB32 for control circuit<br>75 ms closing with LUB12 for control circuit |
| Load type | Single-phase motor - cooling: self-cooled, force cooled - setting settable<br>3-phase motor - cooling: self-cooled, force cooled - setting settable |
| Tripping threshold | 14.2 x Ir +/- 20 % |
| Physical interface | RS485 multidrop - connector(s): RJ45 - location: front panel - communication protocol: Modbus RTU 19200 bit/s |
| Return time | <= 200 ms |
| Messages display capacity | 2 lines of 12 characters - display LCD - English - accuracy +/- 5 % - resolution 1 % of Ir<br>2 lines of 12 characters - display LCD - French - accuracy +/- 5 % - resolution 1 % of Ir<br>2 lines of 12 characters - display LCD - German - accuracy +/- 5 % - resolution 1 % of Ir<br>2 lines of 12 characters - display LCD - Italian - accuracy +/- 5 % - resolution 1 % of Ir<br>2 lines of 12 characters - display LCD - Spanish - accuracy +/- 5 % - resolution 1 % of Ir |
| Reset | Automatic reset - setting: setting range<br>Manual - setting: factory setting<br>Manual - setting: setting range<br>Remote reset - setting: setting range |
| Time before reset | 120 s - reset manual - setting factory setting<br>1...1000 s - reset manual or automatic reset - setting settable |
| Information displayed | Average current - setting factory setting<br>Average current - setting settable<br>Cause of last 5 faults - setting settable<br>Current in phase - setting settable<br>Earth leakage current - setting settable<br>Phase imbalance - setting settable<br>Thermal state of motor - setting settable |
| [Ui] rated insulation voltage | 600 V conforming to CSA C22.2 No 14<br>600 V conforming to UL 508<br>690 V conforming to IEC 60947-1 |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947-6-2 |
| Safe separation of circuit | 400 V SELV between the control and auxiliary circuits conforming to IEC 60947-1<br>400 V SELV between the control or auxiliary circuit and the main circuit conforming to IEC 60947-1 |
| Product weight | 0.175 kg |

## Environment

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| Heat dissipation | 0.8 W for external auxiliary circuit<br>1.7 W for control circuit with LUB12<br>1.8 W for control circuit with LUB32 |
| Immunity to microbreaks | 3 ms |
| Immunity to voltage dips | 70 % 500 ms conforming to IEC 61000-4-11 |
| Standards | CSA C22.2 No 14 type E<br>EN 60947-6-2<br>IEC 60947-6-2<br>UL 508 type E with phase barrier |
| Product certifications | ABS<br>ATEX<br>GL<br>CCC |

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| | ASEFA<br>GOST<br>DNV<br>UL<br>LROS (Lloyds register of shipping)<br>BV<br>CSA |
| IP degree of protection | IP20 front panel and wired terminals conforming to IEC 60947-1<br>IP20 other faces conforming to IEC 60947-1<br>IP40 front panel outside connection zone conforming to IEC 60947-1 |
| Protective treatment | TH conforming to IEC 60068 |
| Ambient air temperature for operation | -25...60 °C |
| Ambient air temperature for storage | -40...85 °C |
| Operating altitude | 2000 m |
| Fire resistance | 650 °C conforming to IEC 60695-2-12<br>960 °C parts supporting live components conforming to IEC 60695-2-12 |
| Shock resistance | 10 gn power poles open conforming to IEC 60068-2-27<br>15 gn power poles closed conforming to IEC 60068-2-27 |
| Vibration resistance | 2 gn 5...300 Hz power poles open conforming to IEC 60068-2-6<br>4 gn 5...300 Hz power poles closed conforming to IEC 60068-2-6 |
| Resistance to electrostatic discharge | 8 kV level 3 in open air conforming to IEC 61000-4-2<br>8 kV level 4 on contact conforming to IEC 61000-4-2 |
| Resistance to radiated fields | 10 V/m 3 conforming to IEC 61000-4-3 |
| Resistance to fast transients | 2 kV class 3 serial link conforming to IEC 61000-4-4<br>4 kV class 4 all circuits except for serial link conforming to IEC 61000-4-4 |
| Immunity to radioelectric fields | 10 V conforming to IEC 61000-4-6 |

## Offer Sustainability

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| Sustainable offer status | Green Premium product |
| RoHS (date code: YYWW) | Compliant - since 1015 - Schneider Electric declaration of conformity<br>Schneider Electric declaration of conformity |
| REACh | Reference not containing SVHC above the threshold<br>Reference not containing SVHC above the threshold |
| Product environmental profile | Available<br>Product Environmental Profile |
| Product end of life instructions | Available<br>End of Life Information |

## Contractual warranty

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| Warranty period | 18 months |