# Product datasheet

Specifications




Discontinued

## Multifunction control unit, TeSys U, 4.5-18A, 1P/3P motors, protection & diagnostic, class 5-30, coil 24V DC

Local distributor code:

387989721 LUCM18BL

Discontinued on: 13 Dec 2023

End-of-service on: 12 Mar 2024

**EAN Code: 3389110365146**

## Main

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|---|---|
| **Range** | TeSys |
| **Range of product** | TeSys Ultra |
| **Product name** | TeSys Ultra |
| **Device short name** | LUCM |
| **Product or component type** | Multifunction control unit |
| **Device application** | Motor control<br>Motor protection |
| **Product specific application** | Most sophisticated control and protection requirements, with display |
| **main function available** | Manual or automatic reset<br>Protection function alarm<br>Protection against phase failure and phase imbalance<br>Protection against overload and short-circuit<br>Monitoring function, indication of main motor parameters<br>Log function<br>Earth fault protection<br>Differentiation of thermal overload and magnetic fault<br>Overload, no-load running |
| **Product compatibility** | Power base LUB32<br>Power base LUB38<br>Power base LUB320<br>Power base LUB380<br>Reversing contactor breaker LU2B32FU<br>Reversing contactor breaker LU2B38FU |
| **[Ue] rated operational voltage** | 690 V AC |
| **Network frequency** | 40...60 Hz |
| **Load type** | 3-phase motor - cooling: self-cooled - setting factory setting<br>3-phase motor - cooling: self-cooled, force cooled - setting settable<br>Single-phase motor - cooling: self-cooled, force cooled - setting settable |
| **Utilisation category** | AC-41<br>AC-43<br>AC-44 |
| **Motor power kW** | 7.5 kW at 400...440 V AC 50/60 Hz for 3 phases motors<br>9 kW at 500 V AC 50/60 Hz for 3 phases motors<br>15 kW at 690 V AC 50/60 Hz for 3 phases motors<br>4 kW at 400...440 V AC 50/60 Hz for 1 phase motors |
| **rated motor current adjustment range** | 4.5…18 A |
| **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 |
| **Tripping threshold** | 14.2 x Ir +/- 20 % |

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

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| **[Uc] control circuit voltage** | 24 V DC |

## Complementary

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| **Control circuit voltage limits** | 20...28 V for DC circuit 24 V in operation<br>14.5 V for DC circuit 24 V drop-out |
| **Typical current consumption** | 220 mA at 24 V DC I maximum while closing with LUB32<br>220 mA at 24 V DC I maximum while closing with LUB38<br>80 mA at 24 V DC I rms sealed with LUB32<br>80 mA at 24 V DC I rms sealed with LUB38 |
| **Heat dissipation** | 1.8 W for control circuit with LUB32<br>1.8 W for control circuit with LUB38<br>0.8 W for external auxiliary circuit |
| **Operating time** | 35 ms opening with LUB32 for control circuit<br>35 ms opening with LUB38 for control circuit<br>65 ms closing with LUB32 for control circuit<br>65 ms closing with LUB38 for control circuit |
| **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** | 1…1000 s - reset manual or automatic reset - setting settable<br>120 s - reset manual - setting factory setting |
| **User language** | English - setting factory setting<br>English, French, German, Italian, Spanish - setting settable |
| **Information displayed** | Average current (factory setting)<br>Average current (settable)<br>Cause of last 5 faults (settable)<br>Current in phase (settable)<br>Earth leakage current (settable)<br>Phase imbalance (settable)<br>Thermal state of motor (settable) |
| **Standards** | EN 60947-6-2<br>IEC 60947-6-2<br>UL 60947-4-1, with phase barrier<br>CSA C22.2 No 60947-4-1, with phase barrier |
| **Product certifications** | CE<br>UL<br>CSA<br>CCC<br>EAC<br>ASEFA<br>ATEX<br>Marine |
| **[Ui] rated insulation voltage** | 690 V conforming to IEC 60947-6-2<br>600 V conforming to UL 60947-4-1<br>600 V conforming to CSA C22.2 No 60947-4-1 |
| **[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 |

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| **Fixing mode** | Plug-in (front face) |
| **Width** | 45 mm |
| **Height** | 66 mm |
| **Depth** | 60 mm |
| **Net weight** | 0.175 kg |
| **Compatibility code** | LUCM |

## Environment

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|---|---|
| **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** | 960 °C parts supporting live components conforming to IEC 60695-2-12<br>650 °C 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 |
| **Non-dissipating shock wave** | 1 kV serial mode conforming to IEC 60947-6-2<br>2 kV common mode conforming to IEC 60947-6-2 |
| **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 |
| **Immunity to microbreaks** | 3 ms |
| **Immunity to voltage dips** | 70 % / 500 ms conforming to IEC 61000-4-11 |

## Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 8.500 cm |
| **Package 1 Width** | 10.200 cm |
| **Package 1 Length** | 5.300 cm |
| **Package 1 Weight** | 175.000 g |
| **Unit Type of Package 2** | S01 |
| **Number of Units in Package 2** | 9 |
| **Package 2 Height** | 15.000 cm |
| **Package 2 Width** | 15.000 cm |
| **Package 2 Length** | 40.000 cm |
| **Package 2 Weight** | 1.757 kg |

## Logistical informations

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|---|---|
| **Country of origin** | FR |

## Contractual warranty

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|---|---|
| **Warranty (in months)** | 18 |

## 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 >

### Use Better

#### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| EU RoHS Directive | **Compliant By Exemption** |
| Halogen-free status | **Halogen free plastic parts product** |
| PVC free | **Yes** |

### Use Again

#### Repack and remanufacture

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|---|---|
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins** |