# Product data sheet

Specifications


## Standard control unit, TeSys Ultra, 3P, 0.35 to 1.4A, 690VAC, thermal magnetic protection, class 10, 24VAC coil

LUCA1XB

## Main

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|---|---|
| **Range** | TeSys |
| **Range of product** | TeSys Ultra |
| **Product name** | TeSys Ultra |
| **Device short name** | LUCA |
| **Product or component type** | Standard control unit |
| **Device application** | Motor control<br>Motor protection |
| **Product specific application** | Basic protection requirements for motor starters: overload and short-circuit |
| **main function available** | Protection against phase failure and phase imbalance<br>Earth fault protection<br>Protection against overload and short-circuit<br>Manual reset |
| **Product compatibility** | Power base LUB12<br>Power base LUB32<br>Power base LUB38<br>Power base LUB120<br>Power base LUB320<br>Power base LUB380<br>Reversing contactor breaker LU2B12B<br>Reversing contactor breaker LU2B32B |
| **[Ue] rated operational voltage** | 690 V AC |
| **Network frequency** | 40...60 Hz |
| **Load type** | 3-phase motor - cooling: self-cooled |
| **Utilisation category** | AC-43<br>AC-44<br>AC-41 |
| **Motor power kW** | 0.25 kW at 400...440 V AC 50/60 Hz |
| **rated motor current adjustment range** | 0.35…1.4 A |
| **Thermal overload class** | Class 10 - frequency limit: 40…60 Hz - temperature compensation: -25…70 °C conforming to IEC 60947-6-2<br>Class 10 - frequency limit: 40…60 Hz - temperature compensation: -25…70 °C conforming to UL 508 |
| **Tripping threshold** | 14.2 x Ir +/- 20 % |
| **Phase failure sensitivity** | Yes |
| **[Uc] control circuit voltage** | 24 V AC |

## Complementary

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| **Control circuit voltage limits** | 20...26.5 V for AC circuit 24 V in operation<br>14.5 V for AC circuit 24 V drop-out |

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| **Typical current consumption** | 140 mA at 24 V AC I maximum while closing with LUB12<br>220 mA at 24 V AC I maximum while closing with LUB32<br>220 mA at 24 V AC I maximum while closing with LUB38<br>70 mA at 24 V AC I rms sealed with LUB12<br>90 mA at 24 V AC I rms sealed with LUB32<br>90 mA at 24 V AC I rms sealed with LUB38 |
| **Heat dissipation** | 2 W for control circuit with LUB12<br>3 W for control circuit with LUB32<br>3 W for control circuit with LUB38 |
| **Operating time** | 35 ms opening with LUB12 for control circuit<br>35 ms opening with LUB32 for control circuit<br>35 ms opening with LUB38 for control circuit<br>70 ms closing with LUB12 for control circuit<br>70 ms closing with LUB32 for control circuit<br>70 ms closing with LUB38 for control circuit |
| **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 |
| **Fixing mode** | Plug-in (front face) |
| **Width** | 45 mm |
| **Height** | 66 mm |
| **Depth** | 60 mm |
| **Product weight** | 0.135 kg |
| **Compatibility code** | LUCA |

# 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…70 °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 |

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| **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** | 10.3 cm |
| **Package 1 Width** | 5.5 cm |
| **Package 1 Length** | 8.5 cm |
| **Package 1 Weight** | 118.0 g |
| **Unit Type of Package 2** | S02 |
| **Number of Units in Package 2** | 23 |
| **Package 2 Height** | 15.0 cm |
| **Package 2 Width** | 30.0 cm |
| **Package 2 Length** | 40.0 cm |
| **Package 2 Weight** | 3.026 kg |

## Contractual warranty

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|---|---|
| **Warranty** | 18 months |

## 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

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|---|---|
| Total lifecycle Carbon footprint | **19** |
| 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 | **801f74dc-0e56-49a3-aaeb-b34d99dcea36** |
| REACh Regulation | **REACh Declaration** |
| Halogen-free status | **Halogen free plastic parts product** |
| PVC free | **Yes** |

## Use Again

### Repack and remanufacture

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|---|---|
| End of life manual availability | **End of Life Information** |
| 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** |