

# Product datasheet

Specifications



Standard control unit, TeSys U, 4.5-18A, 3P motors, thermal magnetic protection, class 10, coil 24V DC

Local distributor code: 387986876 LUCA18BL

## Main

|                                      |                                                                                                                                                                                                                   |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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              | Manual reset<br>Protection against phase failure and phase imbalance<br>Protection against overload and short-circuit<br>Earth fault protection                                                                   |
| Product compatibility                | Power base LUB32<br>Power base LUB38<br>Power base LUB320<br>Power base LUB380<br>Reversing contactor breaker LU2B32BL<br>Reversing contactor breaker LU2B38BL                                                    |
| [Ue] rated operational voltage       | 690 V AC                                                                                                                                                                                                          |
| Network frequency                    | 40...60 Hz                                                                                                                                                                                                        |
| Load type                            | 3-phase motor - cooling: self-cooled                                                                                                                                                                              |
| Utilisation category                 | AC-41<br>AC-44<br>AC-43                                                                                                                                                                                           |
| Motor power kW                       | 7.5 kW at 400...440 V AC 50/60 Hz<br>9 kW at 500 V AC 50/60 Hz<br>15 kW at 690 V AC 50/60 Hz                                                                                                                      |
| Rated motor current adjustment range | 4.5...18 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 DC                                                                                                                                                                                                           |

## Complementary

|                                |                                            |
|--------------------------------|--------------------------------------------|
| Control circuit voltage limits | 20...27 V for DC circuit 24 V in operation |
|--------------------------------|--------------------------------------------|

|                                        |                                                                                                                                                                                                      |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | 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                       | 3 W for control circuit with LUB32<br>3 W for control circuit with LUB38                                                                                                                             |
| Operating time                         | 35 ms opening with LUB32 for control circuit<br>35 ms opening with LUB38 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                                                                                                                                                                                                |
| Net weight                             | 0.135 kg                                                                                                                                                                                             |
| Compatibility code                     | LUCA                                                                                                                                                                                                 |

## Environment

|                                       |                                                                                                                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                 |
| 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                                                                                                                                                   |
| Immunity to microbreaks               | 3 ms                                                                                                                                                                               |

|                          |                                            |
|--------------------------|--------------------------------------------|
| Immunity to voltage dips | 70 % / 500 ms conforming to IEC 61000-4-11 |
|--------------------------|--------------------------------------------|

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 120.0 g  |
| Package 1 Height             | 5.6 cm   |
| Package 1 width              | 8.5 cm   |
| Package 1 Length             | 10.2 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 23       |
| Package 2 Weight             | 3.075 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

|                             |                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status    | Green Premium product                                                                                                       |
| REACH Regulation            | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive           | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                            |
| Mercury free                | Yes                                                                                                                         |
| RoHS exemption information  | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation       | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| Environmental Disclosure    | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile         | <a href="#">End of Life Information</a>                                                                                     |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free                    | Yes                                                                                                                         |
| Halogen content performance | Halogen free plastic parts product                                                                                          |

## Contractual warranty

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