

# LUCA18ES

Standard control unit, TeSys U, 4.5-18A, 3P  
motors, thermal magnetic protection, class 10,  
coil 48-72V AC/DC



## Main

|                                      |                                                                                                                                                                                                                   |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                | TeSys                                                                                                                                                                                                             |
| Range of product                     | TeSys U                                                                                                                                                                                                           |
| Product name                         | TeSys U                                                                                                                                                                                                           |
| 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:<br>overload and short-circuit                                                                                                                                   |
| Main function available              | Earth fault protection<br>Protection against overload and short-circuit<br>Manual reset<br>Protection against phase failure and phase imbalance                                                                   |
| Product compatibility                | Power base LUB32<br>Power base LUB38<br>Power base LUB320<br>Power base LUB380<br>Reversing contactor breaker LU2B32ES                                                                                            |
| [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 I <sub>r</sub> +/- 20 %                                                                                                                                                                                    |
| Phase failure sensitivity            | Yes                                                                                                                                                                                                               |
| [Uc] control circuit voltage         | 48 V AC<br>48...72 V DC                                                                                                                                                                                           |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Complementary

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control circuit voltage limits         | 38.5...72 V for AC circuit 48 V in operation<br>38.5...93 V for DC circuit 48...72 V in operation<br>29 V for AC circuit 48 V drop-out<br>29 V for DC circuit 48...72 V drop-out                                                                                                                                                                                                                                                 |
| Typical current consumption            | 280 mA at 48 V AC I maximum while closing with LUB32<br>280 mA at 48 V AC I maximum while closing with LUB38<br>280 mA at 48...72 V DC I maximum while closing with LUB32<br>280 mA at 48...72 V DC I maximum while closing with LUB38<br>45 mA at 48 V AC I rms sealed with LUB32<br>45 mA at 48 V AC I rms sealed with LUB38<br>45 mA at 48...72 V DC I rms sealed with LUB32<br>45 mA at 48...72 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>60 ms closing with LUB32 for control circuit<br>60 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 | IEC 60947-6-2 6 kV                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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                                                                        |
| 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

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 128 g   |
| Package 1 Height             | 5.5 cm  |
| Package 1 width              | 8 cm    |
| Package 1 Length             | 10 cm   |
| Unit Type of Package 2       | S02     |
| Number of Units in Package 2 | 23      |
| Package 2 Weight             | 3.41 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  <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>        |
| 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 |
|----------|-----------|