

# Product datasheet

Specifications



## Advanced power base, TeSys U, 3P, 12A/690V

Local distributor code: 387990639    LUB120

### Main

|                                             |                                                                                                                        |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                  |
| Product name                                | TeSys Ultra                                                                                                            |
| Device short name                           | LUB                                                                                                                    |
| Product or component type                   | Non reversing power base                                                                                               |
| Device application                          | Motor control<br>Motor protection                                                                                      |
| Poles description                           | 3P                                                                                                                     |
| Suitability for isolation                   | Yes                                                                                                                    |
| [Ue] rated operational voltage              | 690 V AC for power circuit                                                                                             |
| Network frequency                           | 40...60 Hz                                                                                                             |
| [Ith] conventional free air thermal current | 12 A                                                                                                                   |
| [Ie] rated operational current              | 12 A at <= 440 V<br>12 A at 500 V<br>9 A at 690 V                                                                      |
| Utilisation category                        | AC-43<br>AC-44<br>AC-41                                                                                                |
| [Ics] rated service breaking capacity       | 50 kA at 230 V<br>50 kA at 440 V<br>10 kA at 500 V<br>4 kA at 690 V                                                    |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                            |
| Auxiliary contacts type                     | type linked contacts (1 NO + 1 NC) conforming to IEC 60947-4-1<br>type mirror contact (1 NC) conforming to IEC 60947-1 |
| [Uc] control circuit voltage                | 24 V AC 50/60 Hz<br>24 V DC<br>48...72 V AC 50/60 Hz<br>48...72 V DC<br>110...240 V AC 50/60 Hz<br>110...220 V DC      |

### Complementary

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Typical current consumption | 130 mA at 24 V DC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>140 mA at 24 V AC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>150 mA at 24 V DC I maximum while closing with LUCM<br>280 mA at 110...220 V DC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>280 mA at 110...240 V AC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>280 mA at 48...72 V AC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>280 mA at 48...72 V DC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>35 mA at 110...220 V DC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>35 mA at 110...240 V AC I rms sealed with LUCA, LUCB, LUCC, LUCD |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | 35 mA at 48...72 V AC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>35 mA at 48...72 V DC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>60 mA at 24 V DC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>70 mA at 24 V AC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>70 mA at 24 V DC I rms sealed with LUCM                                                                                                                                                                                                                                     |
| Heat dissipation                       | 2 W for control circuit with LUCA, LUCB, LUCC, LUCD<br>1.7 W for control circuit with LUCM                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Safety reliability level               | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                      |
| Operating time                         | 35 ms opening with LUCA, LUCB, LUCC, LUCD, LUCM for control circuit<br>50 ms at >= 72 V closing with LUCA, LUCB, LUCC, LUCD for control circuit<br>60 ms at 48 V closing with LUCA, LUCB, LUCC, LUCD for control circuit<br>70 ms at 24 V closing with LUCA, LUCB, LUCC, LUCD for control circuit<br>75 ms closing with LUCM for control circuit                                                                                                                                                                                          |
| Mechanical durability                  | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Maximum operating rate                 | 3600 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Product certifications                 | CE<br>UL<br>CSA<br>CCC<br>EAC<br>ASEFA<br>ATEX<br>Marine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                           |
| [Ui] rated insulation voltage          | 690 V conforming to IEC 60947-6-2 (pollution degree 3)<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 appendix N<br>400 V SELV between the control or auxiliary circuit and the main circuit conforming to IEC 60947-1 appendix N                                                                                                                                                                                                                                                                                                                               |
| Fixing mode                            | Clipped (DIN rail)<br>Screw-fixed (plate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Connections - terminals                | Power circuit: screw clamp terminals 1 cable(s) 1...10 mm² rigid<br>Power circuit: screw clamp terminals 1 cable(s) 1...6 mm² flexible with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 2.5...10 mm² flexible without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...6 mm² flexible with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1...6 mm² rigid<br>Power circuit: screw clamp terminals 2 cable(s) 1.5...6 mm² flexible without cable end<br>Control circuit: without connection |
| Tightening torque                      | Control circuit: 0.8...1.2 N.m flat screwdriver 5 mm<br>Control circuit: 0.8...1.2 N.m Philips no 1 screwdriver 5 mm<br>Power circuit: 1.9...2.5 N.m flat screwdriver 6 mm<br>Power circuit: 1.9...2.5 N.m Philips No 2 screwdriver 6 mm<br>Power circuit: 1.9...2.5 N.m pozidriv No 2 screwdriver 6 mm                                                                                                                                                                                                                                   |
| Width                                  | 45 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Height                                 | 154 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Depth                                  | 126 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Net weight                             | 0.865 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Compatibility code                     | LUB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Environment

|                                       |                                                                                                                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 conforming to IEC 60947-1 (front panel and wired terminals)<br>IP20 conforming to IEC 60947-1 (other faces)<br>IP40 conforming to IEC 60947-1 (front panel outside connection zone) |
| Protective treatment                  | TH conforming to IEC 60068                                                                                                                                                               |
| Ambient air temperature for operation | -25...60 °C with LUCM<br>-25...70 °C with LUCA, LUCB, LUCC, LUCD                                                                                                                         |
| Ambient air temperature for storage   | -40...85 °C                                                                                                                                                                              |

|                                       |                                                                                                                                                                                                                                                      |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire resistance                       | 960 °C parts supporting live components conforming to IEC 60695-2-12<br>650 °C conforming to IEC 60695-2-12                                                                                                                                          |
| Operating altitude                    | 2000 m                                                                                                                                                                                                                                               |
| 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 (f= 5...300 Hz) power poles open conforming to IEC 60068-2-27<br>4 gn (f= 5...300 Hz) power poles closed conforming to IEC 60068-2-27                                                                                                           |
| 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                                                                                                                 |
| Non-dissipating shock wave            | 1 kV serial mode 24...240 V AC conforming to IEC 60947-6-2<br>1 kV serial mode 48...220 V DC conforming to IEC 60947-6-2<br>2 kV common mode 24...240 V AC conforming to IEC 60947-6-2<br>2 kV common mode 48...220 V DC conforming to IEC 60947-6-2 |
| Immunity to radioelectric fields      | 10 V conforming to IEC 61000-4-6                                                                                                                                                                                                                     |
| Immunity to microbreaks               | 3 ms for control circuit                                                                                                                                                                                                                             |
| 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             | 815.9 g   |
| Package 1 Height             | 5.2 cm    |
| Package 1 width              | 14.2 cm   |
| Package 1 Length             | 17.2 cm   |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 10        |
| Package 2 Weight             | 8.666 kg  |
| Package 2 Height             | 30 cm     |
| Package 2 width              | 30 cm     |
| Package 2 Length             | 40 cm     |
| Unit Type of Package 3       | P06       |
| Number of Units in Package 3 | 80        |
| Package 3 Weight             | 79.484 kg |
| Package 3 Height             | 77 cm     |
| Package 3 width              | 60 cm     |
| Package 3 Length             | 80 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                                                                                                                         |
| <b>Contractual warranty</b> |                                                                                                                             |
| Warranty                    | 18 months                                                                                                                   |