

# Product datasheet

Specifications



Multifunction control unit. TeSys U.  
0.35-1.05A. 1P/3P motors.  
protection & diagnostic. class 5-30.  
coil 24V DC

LUCMT1BL

⚠ Discontinued

⚠ Discontinued on: 26 Mar 2024

Price: 7,136.61 ZAR

## Main

|                                      |                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                | TeSys                                                                                                                                                                                                                                                                                                                                                        |
| Range Of Product                     | 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              | Overload, no-load running<br>Protection against phase failure and phase imbalance<br>Protection against overload and short-circuit<br>Manual or automatic reset<br>Earth fault protection<br>Log function<br>Differentiation of thermal overload and magnetic fault<br>Protection function alarm<br>Monitoring function, indication of main motor parameters |
| Product Compatibility                | Power base LUTM                                                                                                                                                                                                                                                                                                                                              |
| 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-44<br>AC-43                                                                                                                                                                                                                                                                                                                                      |
| Rated Motor Current Adjustment Range | 0.35...1.05 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 I <sub>r</sub> +/- 20 %                                                                                                                                                                                                                                                                                                                               |
| Phase Failure Sensitivity            | Yes                                                                                                                                                                                                                                                                                                                                                          |
| [Uc] Control Circuit Voltage         | 24 V DC                                                                                                                                                                                                                                                                                                                                                      |

## Complementary

|                                |                                                                                   |
|--------------------------------|-----------------------------------------------------------------------------------|
| 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    | 130 mA at 24 V DC I maximum while closing<br>60 mA at 24 V DC I rms sealed        |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

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

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heat Dissipation                       | 2 W for control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating Time                         | 35 ms opening for control circuit<br>70 ms closing 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 508<br>CSA C22.2 No 14                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Product Certifications                 | UL<br>CSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [Ui] Rated Insulation Voltage          | 250 V conforming to IEC 60947-6-2<br>250 V conforming to UL 60947-4-1<br>250 V conforming to CSA C22.2 No 60947-4-1                                                                                                                                                                                                                                                                                                                                                              |
| [Uimp] Rated Impulse Withstand Voltage | 4 kV conforming to IEC 60947-6-2                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Fixing Mode                            | Plug-in (front face)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Width                                  | 45 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Height                                 | 66 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Depth                                  | 60 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Net Weight                             | 0.175 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Compatibility Code                     | LUCM                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## 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...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                          |
| 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 Height             | 8.000 cm  |
| Package 1 Width              | 10.200 cm |
| Package 1 Length             | 5.500 cm  |
| Package 1 Weight             | 171.900 g |
| Unit Type Of Package 2       | S02       |
| Number Of Units In Package 2 | 23        |
| Package 2 Height             | 15.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 4.276 kg  |

Sustainability



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Transparency   RoHS/REACH

## Well-being performance

|                                                                                                                        |                     |
|------------------------------------------------------------------------------------------------------------------------|---------------------|
|  Mercury Free                         |                     |
|  Rohs Exemption Information           | <a href="#">Yes</a> |
|  Pvc Free                             |                     |
|  Halogen Free Plastic Parts Product |                     |

## Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant with Exemptions                                                                                                   |
| 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>                                                                               |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |