

# LUCMX6BL

Multifunction control unit, TeSys Ultra, 0.15A to 0.6A, 1P/3P motors, protection & diagnostic, class 5-30, coil 24VDC



## Main

|                                      |                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                | TeSys                                                                                                                                                                                                                                                                                                                                                        |
| Range of Product                     | TeSys Ultra                                                                                                                                                                                                                                                                                                                                                  |
| Product name                         | 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              | Earth fault protection<br>Manual or automatic reset<br>Protection function alarm<br>Protection against overload and short-circuit<br>Protection against phase failure and phase imbalance<br>Log function<br>Monitoring function, indication of main motor parameters<br>Differentiation of thermal overload and magnetic fault<br>Overload, no-load running |
| 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 LU2B12BL<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 self-cooled factory setting<br>3-phase motor self-cooled, force cooled settable<br>Single-phase motor self-cooled, force cooled settable                                                                                                                                                                                                       |
| Utilisation category                 | AC-43<br>AC-44<br>AC-41                                                                                                                                                                                                                                                                                                                                      |
| Motor power kW                       | 0.09 kW 400...440 V AC 50/60 Hz 3 phase                                                                                                                                                                                                                                                                                                                      |
| Rated motor current adjustment range | 0.15...0.6 A                                                                                                                                                                                                                                                                                                                                                 |
| Thermal overload class               | Class 5...30 50...60 Hz -13...131 °F (-25...55 °C)<br>IEC 60947-6-2<br>Class 5...30 50...60 Hz -13...131 °F (-25...55 °C) UL 508                                                                                                                                                                                                                             |
| Tripping threshold                   | 14.2 x Ir +/- 20 %                                                                                                                                                                                                                                                                                                                                           |
| [Uc] control circuit voltage         | 24 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         | 20...28 V DC 24 V in operation<br>14.5 V DC 24 V drop-out                                                                                                                                                                                                                                              |
| Typical current consumption            | 150 MA 24 V DC I maximum while closing with LUB12<br>200 MA 24 V DC I maximum while closing with LUB32<br>200 MA 24 V DC I maximum while closing with LUB38<br>70 MA 24 V DC I rms sealed with LUB12<br>75 MA 24 V DC I rms sealed with LUB32<br>75 mA 24 V DC I rms sealed with LUB38                 |
| Heat dissipation                       | 1.7 W control circuit with LUB12<br>1.8 W control circuit with LUB32<br>1.8 W control circuit with LUB38<br>0.8 W external auxiliary circuit                                                                                                                                                           |
| Operating time                         | 35 ms opening with LUB12 control circuit<br>35 ms opening with LUB32 control circuit<br>35 ms opening with LUB38 control circuit<br>75 ms closing with LUB12 control circuit<br>65 ms closing with LUB32 control circuit<br>65 ms closing with LUB38 control circuit                                   |
| Physical interface                     | RS485 multidrop RJ45 front panel Modbus RTU 19200 bit/s                                                                                                                                                                                                                                                |
| Return time                            | <= 200 ms                                                                                                                                                                                                                                                                                              |
| Messages display capacity              | 2 lines of 12 characters LCD - English +/- 5 % 1 % of Ir<br>2 lines of 12 characters LCD - French +/- 5 % 1 % of Ir<br>2 lines of 12 characters LCD - German +/- 5 % 1 % of Ir<br>2 lines of 12 characters LCD - Italian +/- 5 % 1 % of Ir<br>2 lines of 12 characters LCD - Spanish +/- 5 % 1 % of Ir |
| Reset                                  | Automatic reset setting range<br>Manual factory setting<br>Manual setting range<br>Remote reset setting range                                                                                                                                                                                          |
| Time before reset                      | 1...1000 S manual or automatic reset settable<br>120 s manual factory setting                                                                                                                                                                                                                          |
| User language                          | English factory setting<br>English, French, German, Italian, Spanish 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 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 IEC 60947-6-2<br>600 V UL 60947-4-1<br>600 V CSA C22.2 No 60947-4-1                                                                                                                                                                                                                              |
| [Uimp] rated impulse withstand voltage | 6 kV IEC 60947-6-2                                                                                                                                                                                                                                                                                     |
| Safe separation of circuit             | 400 V SELV between the control and auxiliary circuits IEC 60947-1<br>400 V SELV between the control or auxiliary circuit and the main circuit IEC 60947-1                                                                                                                                              |
| Fixing mode                            | Plug-in front face)                                                                                                                                                                                                                                                                                    |
| Width                                  | 1.77 in (45 mm)                                                                                                                                                                                                                                                                                        |
| Height                                 | 2.60 in (66 mm)                                                                                                                                                                                                                                                                                        |
| Depth                                  | 2.36 in (60 mm)                                                                                                                                                                                                                                                                                        |
| Net Weight                             | 0.39 lb(US) (0.175 kg)                                                                                                                                                                                                                                                                                 |
| Compatibility code                     | LUCM                                                                                                                                                                                                                                                                                                   |

## Environment

|                                       |                                                                                                                                          |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front panel and wired terminals IEC 60947-1<br>IP20 other faces IEC 60947-1<br>IP40 front panel outside connection zone IEC 60947-1 |
| Protective treatment                  | TH IEC 60068                                                                                                                             |
| Ambient air temperature for operation | -13...140 °F (-25...60 °C)                                                                                                               |
| Ambient Air Temperature for Storage   | -40...185 °F (-40...85 °C)                                                                                                               |
| Operating altitude                    | 6561.68 ft (2000 m)                                                                                                                      |
| Fire resistance                       | 1760 °F (960 °C) parts supporting live components IEC 60695-2-12<br>1202 °F (650 °C) IEC 60695-2-12                                      |
| Shock resistance                      | 10 gn power poles open IEC 60068-2-27<br>15 gn power poles closed IEC 60068-2-27                                                         |
| Vibration resistance                  | 2 gn 5...300 Hz power poles open IEC 60068-2-6<br>4 gn 5...300 Hz power poles closed IEC 60068-2-6                                       |
| Resistance to electrostatic discharge | 8 KV 3 in open air IEC 61000-4-2<br>8 kV 4 on contact IEC 61000-4-2                                                                      |
| Non-dissipating shock wave            | 1 KV serial mode IEC 60947-6-2<br>2 kV common mode IEC 60947-6-2                                                                         |
| Resistance to radiated fields         | 9.14 V/m (10 V/m) 3 IEC 61000-4-3                                                                                                        |
| Resistance to fast transients         | 2 KV 3 serial link IEC 61000-4-4<br>4 kV 4 all circuits except for serial link IEC 61000-4-4                                             |
| Immunity to radioelectric fields      | 10 V IEC 61000-4-6                                                                                                                       |
| Immunity to microbreaks               | 3 ms                                                                                                                                     |
| Immunity to voltage dips              | 70 % / 500 ms IEC 61000-4-11                                                                                                             |

## Ordering and shipping details

|                   |                                           |
|-------------------|-------------------------------------------|
| Category          | 22398-TESYS U - MULTI-FCTN CTRL MOD(LUCM) |
| Discount Schedule | I11                                       |
| GTIN              | 3389110365085                             |
| Returnability     | No                                        |
| Country of origin | FR                                        |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 2.17 in (5.5 cm)       |
| Package 1 Width              | 3.35 in (8.5 cm)       |
| Package 1 Length             | 4.02 in (10.2 cm)      |
| Package 1 Weight             | 6.21 oz (176.0 g)      |
| Unit Type of Package 2       | S01                    |
| Number of Units in Package 2 | 9                      |
| Package 2 Height             | 5.91 in (15.0 cm)      |
| Package 2 Width              | 5.91 in (15.0 cm)      |
| Package 2 Length             | 15.75 in (40.0 cm)     |
| Package 2 Weight             | 3.99 lb(US) (1.812 kg) |

## 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                                                                                                                               |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| RoHS exemption information |  <a href="#">Yes</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                                                                                           |
| <b>Contractual warranty</b> |                                                                                                                              |
| Warranty                    | 18 months                                                                                                                    |