

# LUCL05FU

Standard control unit, TeSys U, 1.25-5A, 3P  
motors, magnetic protection, coil 110-240V AC/  
DC



## Main

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|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product                     | TeSys U                                                                                                                                                                                                                                         |
| Range                                | TeSys                                                                                                                                                                                                                                           |
| Product name                         | TeSys U                                                                                                                                                                                                                                         |
| Device short name                    | LUCL                                                                                                                                                                                                                                            |
| Product or component type            | Magnetic control unit                                                                                                                                                                                                                           |
| Device application                   | Motor control<br>Motor protection                                                                                                                                                                                                               |
| Product specific application         | Protection of variable speed drive or soft startsoft stop unit                                                                                                                                                                                  |
| Main function available              | Manual reset<br>Short-circuit protection                                                                                                                                                                                                        |
| 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 LU2B12FU<br>Reversing contactor breaker LU2B32FU<br>Reversing contactor breaker LU2B38FU |
| [Ue] rated operational voltage       | 690 V AC                                                                                                                                                                                                                                        |
| Network frequency                    | 40...60 Hz                                                                                                                                                                                                                                      |
| Load type                            | 3-phase motor - cooling: self-cooled                                                                                                                                                                                                            |
| Utilisation category                 | AC-43<br>AC-41<br>AC-44                                                                                                                                                                                                                         |
| Motor power kW                       | 1.5 kW at 400...440 V AC 50/60 Hz<br>2.2 kW at 500 V AC 50/60 Hz<br>3 kW at 690 V AC 50/60 Hz                                                                                                                                                   |
| Rated motor current adjustment range | 1.25...5 A                                                                                                                                                                                                                                      |
| Tripping threshold                   | 14.2 x Ir +/- 20 %                                                                                                                                                                                                                              |

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| [Uc] control circuit voltage | 110...240 V AC<br>110...220 V DC |
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## Complementary

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| Control circuit voltage limits         | 88...264 V for AC circuit 110...240 V in operation<br>88...242 V for DC circuit 110...220 V in operation<br>55 V for AC circuit 110...240 V drop-out<br>55 V for DC circuit 110...220 V drop-out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Typical current consumption            | 280 mA at 110...240 V AC I maximum while closing with LUB12<br>280 mA at 110...240 V AC I maximum while closing with LUB32<br>280 mA at 110...240 V AC I maximum while closing with LUB38<br>280 mA at 110...220 V DC I maximum while closing with LUB12<br>280 mA at 110...220 V DC I maximum while closing with LUB32<br>280 mA at 110...220 V DC I maximum while closing with LUB38<br>35 mA at 110...240 V AC I rms sealed with LUB12<br>25 mA at 110...240 V AC I rms sealed with LUB32<br>25 mA at 110...240 V AC I rms sealed with LUB38<br>35 mA at 110...220 V DC I rms sealed with LUB12<br>25 mA at 110...220 V DC I rms sealed with LUB32<br>25 mA at 110...220 V DC I rms sealed with LUB38 |
| Heat dissipation                       | 2 W for control circuit with LUB12<br>3 W for control circuit with LUB32<br>3 W for control circuit with LUB38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating time                         | 35 ms opening with LUB12 for control circuit<br>35 ms opening with LUB32 for control circuit<br>35 ms opening with LUB38 for control circuit<br>50 ms closing with LUB12 for control circuit<br>50 ms closing with LUB32 for control circuit<br>50 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                     | LUCL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Environment

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|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                        |

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| 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                                                                                           |

### Offer Sustainability

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|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| 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 |

### Contractual warranty

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| Warranty | 18 months |
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