

# LUCD12FU

Advanced control unit, TeSys Ultra, 3-12A, 3P motors, protection & diagnostic, class 20, coil 110-240V AC/DC



## Main

|                                      |                                                                                                                                                                                                                                                 |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                | TeSys                                                                                                                                                                                                                                           |
| Range of Product                     | TeSys Ultra                                                                                                                                                                                                                                     |
| Product name                         | TeSys Ultra                                                                                                                                                                                                                                     |
| Device short name                    | LUCD                                                                                                                                                                                                                                            |
| Product or Component Type            | Advanced control unit                                                                                                                                                                                                                           |
| Device Application                   | Motor control<br>Motor protection                                                                                                                                                                                                               |
| Product Specific Application         | Basic protection and advanced functions, communication                                                                                                                                                                                          |
| Main function available              | Protection against phase failure and phase imbalance<br>Manual reset<br>Earth fault protection<br>Protection against overload and short-circuit                                                                                                 |
| 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 self-cooled                                                                                                                                                                                                                       |
| Utilisation category                 | AC-44<br>AC-41<br>AC-43                                                                                                                                                                                                                         |
| Motor power kW                       | 5.5 KW 400...440 V AC 50/60 Hz<br>5.5 KW 500 V AC 50/60 Hz<br>9 kW 690 V AC 50/60 Hz                                                                                                                                                            |
| Rated motor current adjustment range | 3...12 A                                                                                                                                                                                                                                        |
| Thermal overload class               | Class 20 40...60 Hz -13...158 °F (-25...70 °C) IEC 60947-6-2<br>Class 20 40...60 Hz -13...158 °F (-25...70 °C) UL 508                                                                                                                           |
| Tripping threshold                   | 14.2 x Ir +/- 20 %                                                                                                                                                                                                                              |
| Phase failure sensitivity            | Yes                                                                                                                                                                                                                                             |
| [Uc] control circuit voltage         | 110...240 V AC<br>110...220 V DC                                                                                                                                                                                                                |

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## Complementary

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control circuit voltage limits         | 88...264 V AC 110...240 V in operation<br>88...242 V DC 110...220 V in operation<br>55 V AC 110...240 V drop-out<br>55 V DC 110...220 V drop-out                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Typical current consumption            | 280 mA 110...240 V AC I maximum while closing with LUB12<br>280 mA 110...240 V AC I maximum while closing with LUB32<br>280 mA 110...240 V AC I maximum while closing with LUB38<br>280 mA 110...220 V DC I maximum while closing with LUB12<br>280 mA 110...220 V DC I maximum while closing with LUB32<br>280 mA 110...220 V DC I maximum while closing with LUB38<br>35 MA 110...240 V AC I rms sealed with LUB12<br>25 MA 110...240 V AC I rms sealed with LUB32<br>25 MA 110...240 V AC I rms sealed with LUB38<br>35 MA 110...220 V DC I rms sealed with LUB12<br>25 MA 110...220 V DC I rms sealed with LUB32<br>25 mA 110...220 V DC I rms sealed with LUB38 |
| Heat dissipation                       | 2 W control circuit with LUB12<br>3 W control circuit with LUB32<br>3 W control circuit with LUB38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 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>50 ms closing with LUB12 control circuit<br>50 ms closing with LUB32 control circuit<br>50 ms closing with LUB38 control circuit                                                                                                                                                                                                                                                                                                                                                                                                 |
| Reset                                  | Manual reset                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Compatibility code                     | LUCD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 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...158 °F (-25...70 °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              | 22397 - TESYS U - CNTRL MOD(LUCA,LUCD) |
| Discount Schedule     | I11                                    |
| GTIN                  | 3389110365054                          |
| Nbr. of units in pkg. | 1                                      |
| Package weight(Lbs)   | 4.44 oz (126 g)                        |
| Returnability         | Yes                                    |
| Country of origin     | FR                                     |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Package 1 Height             | 2.17 in (5.5 cm)       |
| Package 1 width              | 3.15 in (8 cm)         |
| Package 1 Length             | 3.94 in (10 cm)        |
| Unit Type of Package 2       | S02                    |
| Number of Units in Package 2 | 23                     |
| Package 2 Weight             | 7.13 lb(US) (3.234 kg) |
| Package 2 Height             | 5.91 in (15 cm)        |
| Package 2 width              | 11.81 in (30 cm)       |
| Package 2 Length             | 15.75 in (40 cm)       |

## Offer Sustainability

|                             |                                                                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status    | Green Premium product                                                                                                             |
| REACH Regulation            |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive           | Compliant  <a href="#">EU RoHS Declaration</a> |
| Mercury free                | Yes                                                                                                                               |
| RoHS exemption information  |  <a href="#">Yes</a>                           |
| China RoHS Regulation       |  <a href="#">China RoHS Declaration</a>        |
| Environmental Disclosure    |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile         |  <a href="#">End Of Life Information</a>       |
| WEEE                        | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.      |
| PVC free                    | Yes                                                                                                                               |
| Halogen content performance | Halogen free plastic parts product                                                                                                |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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