

# LUCD12ES

advanced control unit LUCD - class 20 - 3...12 A -  
48...72 V DC/AC



## Main

|                                     |                                                                                                                                                                                                                                   |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                               | TeSys                                                                                                                                                                                                                             |
| Product name                        | TeSys U                                                                                                                                                                                                                           |
| Device short name                   | LUCD                                                                                                                                                                                                                              |
| Product or component type           | Advanced control unit                                                                                                                                                                                                             |
| Product specific application        | Basic protection and advanced functions, communication                                                                                                                                                                            |
| Product compatibility               | LUFC00<br>LUFDA01<br>LUFDA10<br>LUFDH11<br>LUFN..<br>LUFV2<br>LUFW10                                                                                                                                                              |
| Utilisation category                | AC-41<br>AC-43<br>AC-44                                                                                                                                                                                                           |
| Motor power kW                      | 9 kW at 690 V AC 50/60 Hz<br>5.5 kW at 400...440 V AC 50/60 Hz<br>5.5 kW at 500 V AC 50/60 Hz                                                                                                                                     |
| Thermal protection adjustment range | 3...12 A                                                                                                                                                                                                                          |
| [Uc] control circuit voltage        | 48 V AC<br>48...72 V DC                                                                                                                                                                                                           |
| Thermal overload class              | Class 20 - frequency limit: 40...60 Hz -<br>temperature compensation: -25...70 °C -<br>conforming to IEC 60947-6-2<br>Class 20 - frequency limit: 40...60 Hz -<br>temperature compensation: -25...70 °C -<br>conforming to UL 508 |

## Complementary

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function available             | Earth fault protection<br>Manual reset<br>Protection against overload and short-circuit<br>Protection against phase failure and phase imbalance                                                                                                                                                                                                                                                                                  |
| Mounting mode                  | Plug-in                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mounting location              | Front side                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Control circuit voltage limits | 38.5...72 V for AC circuit 48 V in operation<br>38.5...93 V for DC circuit 48...72 V in operation                                                                                                                                                                                                                                                                                                                                |
| Typical current consumption    | 280 mA at 48 V AC I maximum while closing with LUB12<br>280 mA at 48 V AC I maximum while closing with LUB32<br>280 mA at 48...72 V DC I maximum while closing with LUB12<br>280 mA at 48...72 V DC I maximum while closing with LUB32<br>35 mA at 48 V AC I rms sealed with LUB12<br>35 mA at 48...72 V DC I rms sealed with LUB12<br>45 mA at 48 V AC I rms sealed with LUB32<br>45 mA at 48...72 V DC I rms sealed with LUB32 |
| Operating time                 | 35 ms opening with LUB12 for control circuit<br>35 ms opening with LUB32 for control circuit<br>60 ms closing with LUB12 for control circuit<br>60 ms closing with LUB32 for control circuit                                                                                                                                                                                                                                     |
| Load type                      | 3-phase motor - cooling: self-cooled                                                                                                                                                                                                                                                                                                                                                                                             |
| Tripping threshold             | 14.2 x Ir +/- 20 %                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ui] rated insulation voltage  | 600 V conforming to UL 508<br>690 V conforming to IEC 60947-1<br>600 V conforming to CSA C22.2 No 14                                                                                                                                                                                                                                                                                                                             |

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|                                        |                                                                                                                                                                                       |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947-6-2                                                                                                                                                      |
| Safe separation of circuit             | 400 V SELV between the control and auxiliary circuits conforming to IEC 60947-1<br>400 V SELV between the control or auxiliary circuit and the main circuit conforming to IEC 60947-1 |

## Environment

|                                       |                                                                                                                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| heat dissipation                      | 2 W for control circuit with LUB12<br>3 W for control circuit with LUB32                                                                                                           |
| immunity to microbreaks               | 3 ms                                                                                                                                                                               |
| immunity to voltage dips              | 70 % 500 ms conforming to IEC 61000-4-11                                                                                                                                           |
| standards                             | EN 60947-6-2<br>IEC 60947-6-2<br>UL 508 type E with phase barrier<br>CSA C22.2 No 14 type E                                                                                        |
| product certifications                | ABS<br>ASEFA<br>ATEX<br>BV<br>CCC<br>CSA<br>DNV<br>GL<br>GOST<br>LROS (Lloyds register of shipping)<br>UL                                                                          |
| 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                       | 650 °C conforming to IEC 60695-2-12<br>960 °C parts supporting live components 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                                                                        |
| 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                                                                                                                                                   |

## Offer Sustainability

|                                  |                                                                       |
|----------------------------------|-----------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                 |
| RoHS (date code: YYWW)           | Compliant - since 1015 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available                                                             |
| Product end of life instructions | Available                                                             |