# Product data sheet
## Characteristics

# LUCD1XFU
Advanced control unit, TeSys Ultra, 3P, 0.35 to 1.4A, 690VAC, protection & diagnostic, class 20, 110 to 240VAC/DC coil




## Main

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|---|---|
| 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 |
| Function available | Protection against overload and short-circuit<br>Manual reset<br>Earth fault protection<br>Protection against phase failure and phase imbalance |
| 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-41<br>AC-43<br>AC-44 |
| Motor power kW | 0.25 KW at 400...440 V AC 50/60 Hz |
| Thermal protection adjustment range | 0.35…1.4 A |
| Thermal overload class | Class 20 - frequency limit: 40…60 Hz - temperature compensation: -25…70 °C conforming to IE<br>Class 20 - frequency limit: 40…60 Hz - temperature compensation: -25…70 °C conforming to U |
| Tripping threshold | 14.2 x Ir +/- 20 % |
| Phase failure sensitivity | Yes |
| [Uc] control circuit voltage | 110...240 V AC<br>110...220 V DC |

## 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 |
| 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[RETURN]UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]ASEFA[RETURN]ATEX[ |
| [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 | 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- |
| Fixing mode | Plug-in (front face) |
| Width | 45 Mm |
| Height | 66 Mm |
| Depth | 60 Mm |
| Compatibility code | LUCD |

## 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 |
| 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 |

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| 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

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|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 10.000 Cm |
| Package 1 Width | 5.500 Cm |
| Package 1 Length | 8.000 Cm |
| Package 1 Weight | 124.000 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 | 3.370 Kg |

## Offer Sustainability

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| Recyclability potential, in % | 56 |
| Total lifecycle Carbon footprint | 19 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 1.157378737143902 |
| Carbon footprint of the manufacturing phase [A1 to A3] | 1 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 0.06624657990954275 |
| Carbon footprint of the distribution phase [A4] | 0.1 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0.009404827093780984 |
| Carbon footprint of the installation phase [A5] | 0 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 17.704986872283545 |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 18 kg CO2 eq. |
| Mercury free | Yes |
| Sustainable packaging | Yes |
| Carbon footprint of the end-of-life phase [C1 to C4] | 0.3031887071296919 |
| Carbon footprint of the end-of-life phase [C1 to C4] | 0.3 kg CO2 eq. |
| Environmental Disclosure | Product Environmental Profile |
| Total lifecycle Carbon footprint | 19 |
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | Yes |
| SCIP Number | 0f22867c-27de-46b9-965c-a40bbb8a3f0a |
| REACh Regulation | Reference contains Substances of Very High Concern above the threshold |
| EU RoHS Directive | Compliant By Exemption |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, wh |
| Halogen-free status | Halogen free plastic parts product |
| PVC free | Yes |
| End of life manual availability | End Of Life Information |
| Take-back | No |
| WEEE Label | The product must be disposed on European Union markets following specific waste collection a |

## Contractual warranty

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| Warranty (in months) | 18 |

Product Life Status : Commercialised