

# LUB320

Advanced power base, TeSys Ultra, 3P,  
32A/690V



## Main

|                                             |                                                                                                                   |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                             |
| Product name                                | TeSys Ultra                                                                                                       |
| Device short name                           | LUB                                                                                                               |
| Product or Component Type                   | Non reversing power base                                                                                          |
| Device Application                          | Motor control<br>Motor protection                                                                                 |
| Poles description                           | 3P                                                                                                                |
| Suitability for isolation                   | Yes                                                                                                               |
| [Ue] rated operational voltage              | 690 V AC power circuit                                                                                            |
| Network frequency                           | 40...60 Hz                                                                                                        |
| [Ith] conventional free air thermal current | 32 A                                                                                                              |
| [Ie] rated operational current              | 28.5 A <= 440 V<br>23 A 500 V<br>21 A 690 V                                                                       |
| Utilisation category                        | AC-43<br>AC-44<br>AC-41                                                                                           |
| [Ics] rated service breaking capacity       | 50 KA 230 V<br>50 KA 440 V<br>10 KA 500 V<br>4 kA 690 V                                                           |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                       |
| Auxiliary contacts type                     | Linked contacts 1 NO + 1 NC) IEC 60947-4-1<br>Mirror contact 1 NC) IEC 60947-1                                    |
| [Uc] control circuit voltage                | 24 V AC 50/60 Hz<br>24 V DC<br>48...72 V AC 50/60 Hz<br>48...72 V DC<br>110...240 V AC 50/60 Hz<br>110...220 V DC |

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## Complementary

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Typical current consumption            | 200 MA 24 V DC I maximum while closing with LUCM<br>220 MA 24 V AC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>220 MA 24 V DC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>25 MA 110...220 V DC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>25 MA 110...240 V AC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>280 MA 110...220 V DC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>280 MA 110...240 V AC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>280 MA 48...72 V AC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>280 MA 48...72 V DC I maximum while closing with LUCA, LUCB, LUCC, LUCD<br>45 MA 48...72 V AC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>45 MA 48...72 V DC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>75 MA 24 V DC I rms sealed with LUCM<br>80 MA 24 V DC I rms sealed with LUCA, LUCB, LUCC, LUCD<br>90 mA 24 V AC I rms sealed with LUCA, LUCB, LUCC, LUCD |
| Heat dissipation                       | 3 W control circuit with LUCA, LUCB, LUCC, LUCD<br>1.8 W control circuit with LUCM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Safety reliability level               | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Operating time                         | 35 ms opening with LUCA, LUCB, LUCC, LUCD, LUCM control circuit<br>50 ms $\geq$ 72 V closing with LUCA, LUCB, LUCC, LUCD control circuit<br>60 ms 48 V closing with LUCA, LUCB, LUCC, LUCD control circuit<br>70 ms 24 V closing with LUCA, LUCB, LUCC, LUCD control circuit<br>65 ms closing with LUCM control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mechanical durability                  | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Maximum operating rate                 | 3600 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Product Certifications                 | CE<br>UL<br>CSA<br>CCC<br>EAC<br>ASEFA<br>ATEX<br>Marine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| [Ui] rated insulation voltage          | 690 V IEC 60947-6-2 3)<br>600 V UL 60947-4-1<br>600 V CSA C22.2 No 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| [Uimp] rated impulse withstand voltage | 6 kVIEC 60947-6-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Safe separation of circuit             | 400 V SELV between the control and auxiliary circuits IEC 60947-1 appendix N<br>400 V SELV between the control or auxiliary circuit and the main circuit IEC 60947-1 appendix N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Fixing mode                            | Clipped DIN rail)<br>Screw-fixed plate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Connections - terminals                | Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1...10 mm <sup>2</sup> ) rigid<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...6 mm <sup>2</sup> ) flexible with cable end<br>Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> ) flexible without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...6 mm <sup>2</sup> ) flexible with cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...6 mm <sup>2</sup> ) rigid<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...6 mm <sup>2</sup> ) flexible without cable end<br>Control circuit without connection                                                                                                                                                                                           |
| Tightening torque                      | Control circuit 7.08...10.62 lbf.in (0.8...1.2 N.m) flat 0.20 in (5 mm)<br>Control circuit 7.08...10.62 lbf.in (0.8...1.2 N.m) Philips no 1 0.20 in (5 mm)<br>Power circuit 16.82...22.13 lbf.in (1.9...2.5 N.m) flat 0.24 in (6 mm)<br>Power circuit 16.82...22.13 lbf.in (1.9...2.5 N.m) Philips No 2 0.24 in (6 mm)<br>Power circuit 16.82...22.13 lbf.in (1.9...2.5 N.m) pozidriv No 2 0.24 in (6 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Width                                  | 1.77 in (45 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Height                                 | 6.06 in (154 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Depth                                  | 4.96 in (126 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Net Weight                             | 1.91 lb(US) (0.865 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Compatibility code                     | LUB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Environment

|                                       |                                                                                                                                                                                              |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 IEC 60947-1 front panel and wired terminals)<br>IP20 IEC 60947-1 other faces)<br>IP40 IEC 60947-1 front panel outside connection zone)                                                  |
| Protective treatment                  | TH IEC 60068                                                                                                                                                                                 |
| Ambient air temperature for operation | -13...140 °F (-25...60 °C) with LUCM<br>-13...158 °F (-25...70 °C) with LUCA, LUCB, LUCC, LUCD                                                                                               |
| Ambient Air Temperature for Storage   | -40...185 °F (-40...85 °C)                                                                                                                                                                   |
| Fire resistance                       | 1760 °F (960 °C) parts supporting live components IEC 60695-2-12<br>1202 °F (650 °C) IEC 60695-2-12                                                                                          |
| Operating altitude                    | 6561.68 ft (2000 m)                                                                                                                                                                          |
| 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 60068-2-27<br>4 gn 5...300 Hz) power poles closed IEC 60068-2-27                                                                                       |
| Resistance to electrostatic discharge | 8 KV 3 in open air IEC 61000-4-2<br>8 kV 4 on contact IEC 61000-4-2                                                                                                                          |
| 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                                                                                                 |
| Non-dissipating shock wave            | 1 KV serial mode 24...240 V AC IEC 60947-6-2<br>1 KV serial mode 48...220 V DC IEC 60947-6-2<br>2 KV common mode 24...240 V AC IEC 60947-6-2<br>2 kV common mode 48...220 V DC IEC 60947-6-2 |
| Immunity to radioelectric fields      | 10 V IEC 61000-4-6                                                                                                                                                                           |
| Immunity to microbreaks               | 3 ms control circuit                                                                                                                                                                         |
| Immunity to voltage dips              | 70 % / 500 ms IEC 61000-4-11                                                                                                                                                                 |

## Ordering and shipping details

|                       |                                          |
|-----------------------|------------------------------------------|
| Category              | 22396-TESYS U - SELF PRCTD STARTER (LUB) |
| Discount Schedule     | I11                                      |
| GTIN                  | 3389110362800                            |
| Nbr. of units in pkg. | 1                                        |
| Package weight(Lbs)   | 29.21 oz (828.0 g)                       |
| Returnability         | Yes                                      |
| Country of origin     | FR                                       |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Package 1 Height             | 6.77 in (17.2 cm)       |
| Package 1 width              | 2.24 in (5.7 cm)        |
| Package 1 Length             | 5.71 in (14.5 cm)       |
| Unit Type of Package 2       | S03                     |
| Number of Units in Package 2 | 10                      |
| Package 2 Weight             | 19.22 lb(US) (8.718 kg) |
| Package 2 Height             | 11.81 in (30 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                                                                                                                          |
| <b>Contractual warranty</b> |                                                                                                                              |
| Warranty                    | 18 months                                                                                                                    |

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