LC3D12AP7
TeSys D - star delta starter - 3 x 3P (3 NO) - 12 A
- 230 V AC coil

Main
Range
Product name TeSys
Product or component type Star delta starter
Device short name LC3D
Contactor application Motor control
Utilisation category AC-3
Device presentation Pre-wired
Poles description 3 x 3P
Power pole contact composition 3 x 3 NO
[Ue] rated operational voltage Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current 12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW
11 kW at 380/400 V AC 50/60 Hz
11 kW at 415 V AC 50/60 Hz
11 kW at 440 V AC 50/60 Hz
5.5 kW at 220/230 V AC 50/60 Hz
Control circuit type AC at 50/60 Hz
[Uc] control circuit voltage 230 V AC 50/60 Hz
Auxiliary contact composition 1 NC for KM1 star contactor
[Uimp] rated impulse withstand voltage 6 kV conforming to IEC 60947
Overvoltage category III
[Ui] rated insulation voltage Power circuit: 690 V conforming to IEC 60947-4-1
Power circuit: 600 V CSA certified
Power circuit: 600 V UL certified
Signalling circuit: 690 V conforming to IEC 60947-1
Signalling circuit: 600 V CSA certified
Signalling circuit: 600 V UL certified
Electrical durability 2 Mcycles 12 A AC-3 at Ue <= 440 V
Safety cover Protective cover
Interlocking type Mechanical
Mounting support Plate
### Standards

- IEC 60947-5-1
- IEC 60947-4-1
- CSA C22.2 No 14
- UL 508
- EN 60947-5-1
- EN 60947-4-1

### Product certifications

- DNV
- CSA
- BV
- LROS (Lloyds register of shipping)
- CCC
- RINA
- GL
- GOST
- UL

### Complementary

#### Connections - terminals

<table>
<thead>
<tr>
<th>Terminal Type</th>
<th>Cable Stiffness</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power circuit: screw clamp terminals 1</td>
<td>1...4 mm² - cable stiffness: flexible without cable end</td>
<td></td>
</tr>
<tr>
<td>Power circuit: screw clamp terminals 2</td>
<td>1...4 mm² - cable stiffness: flexible without cable end</td>
<td></td>
</tr>
<tr>
<td>Power circuit: screw clamp terminals 1</td>
<td>1...4 mm² - cable stiffness: flexible with cable end</td>
<td></td>
</tr>
<tr>
<td>Power circuit: screw clamp terminals 2</td>
<td>1...4 mm² - cable stiffness: solid without cable end</td>
<td></td>
</tr>
<tr>
<td>Control circuit: screw clamp terminals 1</td>
<td>1...4 mm² - cable stiffness: flexible without cable end</td>
<td></td>
</tr>
<tr>
<td>Control circuit: screw clamp terminals 2</td>
<td>1...4 mm² - cable stiffness: flexible with cable end</td>
<td></td>
</tr>
<tr>
<td>Control circuit: screw clamp terminals 1</td>
<td>1...2.5 mm² - cable stiffness: solid without cable end</td>
<td></td>
</tr>
<tr>
<td>Control circuit: screw clamp terminals 2</td>
<td>1...2.5 mm² - cable stiffness: flexible with cable end</td>
<td></td>
</tr>
</tbody>
</table>

#### Tightening torque

<table>
<thead>
<tr>
<th>Circuit Type</th>
<th>Terminal Type</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power circuit</td>
<td>1...4 mm²</td>
<td>1.7 N.m</td>
</tr>
<tr>
<td>Control circuit</td>
<td>1...4 mm²</td>
<td>1.7 N.m</td>
</tr>
</tbody>
</table>

#### Mechanical durability

- 15 Mcycles

#### Maximum operating rate

- 30 cyc/h 60 °C

#### Starting time

- 30 s

#### Coil technology

- Without built-in suppressor module

#### Control circuit voltage limits

- Drop-out: 0.3...0.6 Uc at 50/60 Hz (at <60 °C)
- Operational: 0.8...1.1 Uc at 50 Hz (at <60 °C)
- Operational: 0.85...1.1 Uc at 60 Hz (at <60 °C)

#### Inrush power in VA

- 70 VA 60 Hz cos phi 0.75 (at 20 °C)
- 70 VA 50 Hz cos phi 0.75 (at 20 °C)

#### Heat dissipation

- 2...3 W at 50/60 Hz

#### Auxiliary contacts type

- Mechanically linked conforming to IEC 60947-5-1 3 x 1 NO + 1 NC
- Mirror contact conforming to IEC 60947-4-1 3 x 1 NC

#### Signalling circuit frequency

- 25...400 Hz

#### Minimum switching current

- 5 mA for signalling circuit

#### Minimum switching voltage

- 17 V for signalling circuit

#### Non-overlap time

- 1.5 ms on de-energisation between NC and NO contact
- 1.5 ms on energisation between NC and NO contact

#### Width

- 143 mm

#### Height

- 124 mm

#### Depth

- 143 mm

#### Net weight

- 1.53 kg

### Environment

#### Insulation resistance

- > 10 MOhm for signalling circuit

#### IP degree of protection

- IP20 front face conforming to IEC 60529

#### Protective treatment

- TH conforming to IEC 60068-2-30

#### Pollution degree

- 3
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient air temperature for storage</td>
<td>-60…80 °C</td>
</tr>
<tr>
<td>Ambient air temperature for operation</td>
<td>-40…70 °C at Uc</td>
</tr>
<tr>
<td>Operating altitude</td>
<td>3000 m without</td>
</tr>
<tr>
<td>Fire resistance</td>
<td>850 °C conforming to IEC 60695-2-1</td>
</tr>
<tr>
<td>Flame retardance</td>
<td>V1 conforming to UL 94</td>
</tr>
<tr>
<td>Mechanical robustness</td>
<td>Vibrations contactor open: 2 Gn, 5…300 Hz</td>
</tr>
<tr>
<td></td>
<td>Vibrations contactor closed: 4 Gn, 5…300 Hz</td>
</tr>
<tr>
<td></td>
<td>Shocks contactor open: 10 Gn for 11 ms</td>
</tr>
<tr>
<td></td>
<td>Shocks contactor closed: 15 Gn for 11 ms</td>
</tr>
</tbody>
</table>

**Offer Sustainability**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable offer status</td>
<td>Green Premium product</td>
</tr>
<tr>
<td>REACh Regulation</td>
<td>REACh Declaration</td>
</tr>
<tr>
<td>REACh free of SVHC</td>
<td>Yes</td>
</tr>
<tr>
<td>EU RoHS Directive</td>
<td>Compliant</td>
</tr>
<tr>
<td></td>
<td>EU RoHS Declaration</td>
</tr>
<tr>
<td>Toxic heavy metal free</td>
<td>Yes</td>
</tr>
<tr>
<td>Mercury free</td>
<td>Yes</td>
</tr>
<tr>
<td>RoHS exemption information</td>
<td>Yes</td>
</tr>
<tr>
<td>China RoHS Regulation</td>
<td>China RoHS declaration</td>
</tr>
<tr>
<td>Environmental Disclosure</td>
<td>Product Environmental Profile</td>
</tr>
<tr>
<td>Circularity Profile</td>
<td>End of Life Information</td>
</tr>
<tr>
<td>WEEE</td>
<td>The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins</td>
</tr>
</tbody>
</table>

**Contractual warranty**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warranty</td>
<td>18 months</td>
</tr>
</tbody>
</table>