LC1D09M7
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V
9 A - 220 V AC coil

### Main

<table>
<thead>
<tr>
<th>Range</th>
<th>TeSys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name</td>
<td>TeSys D</td>
</tr>
<tr>
<td>Product or component type</td>
<td>Contactor</td>
</tr>
<tr>
<td>Device short name</td>
<td>LC1D</td>
</tr>
<tr>
<td>Contactor application</td>
<td>Motor control</td>
</tr>
<tr>
<td>Utilisation category</td>
<td>AC-4, AC-3, AC-1</td>
</tr>
<tr>
<td>Poles description</td>
<td>3P</td>
</tr>
<tr>
<td>Power pole contact composition</td>
<td>3 NO</td>
</tr>
<tr>
<td>[Ue] rated operational voltage</td>
<td>Power circuit: &lt;= 690 V AC 25...400 Hz</td>
</tr>
<tr>
<td>[Ie] rated operational current</td>
<td>9 A (at &lt;60 °C) at &lt;= 440 V AC AC-3 for power circuit</td>
</tr>
<tr>
<td>Motor power kW</td>
<td>2.2 kW at 220...230 V AC 50/60 Hz (AC-3)</td>
</tr>
<tr>
<td>Motor power HP (UL / CSA)</td>
<td>1 hp at 230/240 V AC 50/60 Hz for 1 phase motors</td>
</tr>
<tr>
<td>Control circuit type</td>
<td>AC at 50/60 Hz</td>
</tr>
<tr>
<td>[Uc] control circuit voltage</td>
<td>220 V AC 50/60 Hz</td>
</tr>
<tr>
<td>Auxiliary contact composition</td>
<td>1 NO + 1 NC</td>
</tr>
<tr>
<td>[Uimp] rated impulse withstand voltage</td>
<td>6 kV conforming to IEC 60947</td>
</tr>
<tr>
<td>Overvoltage category</td>
<td>III</td>
</tr>
</tbody>
</table>

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications.
<table>
<thead>
<tr>
<th>Specification</th>
<th>Specification Details</th>
</tr>
</thead>
</table>
| [Ith] conventional free air thermal current | 25 A (at 60 °C) for power circuit  
10 A (at 60 °C) for signalling circuit |
| Irms rated making capacity | 250 A at 440 V for power circuit conforming to IEC 60947  
140 A AC for signalling circuit conforming to IEC 60947-5-1  
250 A DC for signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 250 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand current | 105 A 40 °C - 10 s for power circuit  
210 A 40 °C - 1 s for power circuit  
30 A 40 °C - 10 min for power circuit  
61 A 40 °C - 1 min for power circuit  
100 A - 1 s for signalling circuit  
120 A - 500 ms for signalling circuit  
140 A - 100 ms for signalling circuit |
| Associated fuse rating | 10 A gG for signalling circuit conforming to IEC 60947-5-1  
25 A gG at <= 690 V coordination type 1 for power circuit  
20 A gG at <= 690 V coordination type 2 for power circuit |
| Average impedance | 2.5 mOhm - Ith 25 A 50 Hz for power circuit |
| [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 | 0.6 Mcycles 25 A AC-1 at Ue <= 440 V  
2 Mcycles 9 A AC-3 at Ue <= 440 V |
| Power dissipation per pole | 1.56 W AC-1  
0.2 W AC-3 |
| Front cover | With |
| Mounting support | Plate  
Rail |
| Standards | CSA C22.2 No 14  
EN 60947-4-1  
EN 60947-5-1  
IEC 60947-4-1  
IEC 60947-5-1  
UL 508 |
| Product certifications | BV  
LROS (Lloyd's register of shipping)  
UL  
GOST  
GL  
DNV  
CSA  
RINA  
CCC |
| Connections - terminals | Power circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible without cable end  
Power circuit: screw clamp terminals 2 cable(s) 1…4 mm²flexible without cable end  
Power circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible with cable end  
Power circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end  
Power circuit: screw clamp terminals 1 cable(s) 1…4 mm²solid without cable end  
Power circuit: screw clamp terminals 2 cable(s) 1…4 mm²solid without cable end  
Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible without cable end  
Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²flexible without cable end  
Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible with cable end  
Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end  
Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²solid without cable end  
Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²solid without cable end  |
| Tightening torque | Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm  
Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2  
Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm  
Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 |
| Operating time | 12…22 ms closing  
4…19 ms opening |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1  
B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical durability | 15 Mcycles |
| Maximum operating rate | 3600 cyc/h 60 °C |
### Complementary

**Coil technology**
Without built-in suppressor module

**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)

**Hold-in power consumption in VA**
- 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)
- 7 VA 50 Hz cos phi 0.3 (at 20 °C)

**Heat dissipation**
2…3 W at 50/60 Hz

**Auxiliary contacts type**
type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1
type mirror contact 1 NC conforming to IEC 60947-4-1

**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

**Insulation resistance**
> 10 MOhm for signalling circuit

**Contact compatibility**
M2

**Compatibility code**
LC1D

**Motor power range**
- 1.1…2 kW at 200…240 V 3 phases
- 2.2…3 kW at 380…440 V 3 phases
- 4…6 kW at 380…440 V 3 phases
- 4…6 kW at 480…500 V 3 phases

**Motor starter type**
Direct on-line contactor

**Contactor coil voltage**
220 V AC standard

---

### Environment

**IP degree of protection**
IP20 front face conforming to IEC 60529

**Protective treatment**
TH conforming to IEC 60068-2-30

**Pollution degree**
3

**Ambient air temperature for storage**
-60…80 °C

**Operating altitude**
3000 m without derating

**Fire resistance**
850 °C conforming to IEC 60695-2-1

**Flame retardance**
V1 conforming to UL 94

**Mechanical robustness**
- Vibrations contactor open: 2 Gn, 5...300 Hz
- Vibrations contactor closed: 4 Gn, 5...300 Hz
- Shocks contactor open: 10 Gn for 11 ms
- Shocks contactor closed: 15 Gn for 11 ms

**Height**
77 mm

**Width**
45 mm

**Depth**
86 mm

**Net weight**
0.32 kg

---

### Offer Sustainability

**Sustainable offer status**
Green Premium product

**REACH Regulation**
REACH Declaration

**REACH free of SVHC**
Yes

**EU RoHS Directive**
Compliant

**EU RoHS Declaration**
EU RoHS Declaration

**Toxic heavy metal free**
Yes

**Mercury free**
Yes

**RoHS exemption information**
Yes

**China RoHS Regulation**
China RoHS declaration

**Environmental Disclosure**
Product Environmental Profile

**Circularity Profile**
End of Life Information
<table>
<thead>
<tr>
<th>WEEE</th>
<th>The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins</th>
</tr>
</thead>
</table>

**Contractual warranty**

<table>
<thead>
<tr>
<th>Warranty</th>
<th>18 months</th>
</tr>
</thead>
</table>