**TECHNICAL SPECIFICATION**

**LC1F185R7**

**Contactor TeSys LC1-F - 3 poles - 185 A - AC-3 - 440V - coil 440V AC**

<table>
<thead>
<tr>
<th><strong>Main</strong></th>
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</thead>
<tbody>
<tr>
<td>Range of product</td>
<td>TeSys F</td>
</tr>
<tr>
<td>Product or component type</td>
<td>Contactor</td>
</tr>
<tr>
<td>Device short name</td>
<td>LC1F</td>
</tr>
<tr>
<td>Contactor application</td>
<td>Motor control</td>
</tr>
<tr>
<td>Utilisation category</td>
<td>AC-1, AC-3</td>
</tr>
<tr>
<td>Control circuit type</td>
<td>AC</td>
</tr>
<tr>
<td>Pole contact composition</td>
<td>3 NO</td>
</tr>
<tr>
<td>[Uc] control circuit voltage</td>
<td>440 V AC 40...400 Hz</td>
</tr>
</tbody>
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<tr>
<th><strong>Complementary</strong></th>
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<tbody>
<tr>
<td>Coil technology</td>
<td>Without built-in bidirectional peak limiting diode suppressor</td>
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</tbody>
</table>
| [Ie] rated operational current | 185 A (≤ 55 °C) AC AC-3 for power circuit  
275 A (≤ 40 °C) AC AC-1 for power circuit |
| Motor power kW | 55 kW at 220...230 V AC 50/60 Hz  
90 kW at 380...400 V AC 50/60 Hz  
100 kW at 440 V AC 50/60 Hz  
100 kW at 1000 V AC 50/60 Hz  
100 kW at 415 V AC 50/60 Hz  
110 kW at 500 V AC 50/60 Hz  
110 kW at 660...690 V AC 50/60 Hz |
| Motor power hp | 50 hp at 200/208 V AC 60 Hz conforming to UL  
60 hp at 230/240 V AC 60 Hz conforming to CSA  
60 hp at 230/240 V AC 60 Hz conforming to UL  
60 hp at 230/240 V AC 60 Hz conforming to CSA  
125 hp at 460/480 V AC 60 Hz conforming to UL  
125 hp at 460/480 V AC 60 Hz conforming to CSA  
150 hp at 575/600 V AC 60 Hz conforming to UL  
150 hp at 575/600 V AC 60 Hz conforming to CSA |
| Auxiliary contacts type | Type integrated in coil |
| Auxiliary contact composition | 1 NO |
| Control circuit voltage limits | 0.35...0.55 Uc at ≤ 55 °C drop-out 60 Hz  
0.35...0.55 Uc at ≤ 55 °C drop-out 50 Hz  
0.85...1.1 Uc at ≤ 55 °C operational 60 Hz  
0.85...1.1 Uc at ≤ 55 °C operational 50 Hz |
| [Ui] rated insulation voltage | 1000 V for power circuit conforming to IEC 60947-1  
1500 V for power circuit conforming to VDE 0110 group C |
| [Uimp] rated impulse withstand voltage | 8 kV coil not connected to the power circuit |
| Mounting support | Plate, Rail |
| Connections - terminals | Control circuit: connector 1 cable 1...4 mm² - cable stiffness: flexible - without cable end  
Control circuit: connector 2 cable 1...4 mm² - cable stiffness: flexible - without cable end  
Control circuit: connector 1 cable 1...4 mm² - cable stiffness: flexible - with cable end  
Control circuit: connector 2 cable 1...2.5 mm² - cable stiffness: flexible - with cable end  
Control circuit: connector 1 cable 1...4 mm² - cable stiffness: solid - without cable end  
Control circuit: connector 2 cable 1...4 mm² - cable stiffness: solid - without cable end  
Power circuit: bars 2 - busbar cross section: 25 x 3 mm  
Power circuit: ring lugs 1 cable 150 mm²  
Power circuit: connector 1 cable 150 mm² |
|-------------------------------------------------|-------------------------------------------------|
| Tightening torque | Control circuit: 1.2 N.m - on connector - cable 1...4 mm²  
Control circuit: 1.2 N.m - on connector - cable 1...2.5 mm²  
Power circuit: 18 N.m - on bars  
Power circuit: 18 N.m - on connector - cable 150 mm²  
Power circuit: 18 N.m - on ring lugs - cable 150 mm² |
| [Ue] rated operational voltage | <= 1000 V AC 16 Hz 2/3...200 Hz for power circuit |
| [Ith] conventional free air thermal current | 275 A at ≤ 40 °C for power circuit |
| Irms rated making capacity | 1850 A at <= 1000 V AC for power circuit conforming to IEC 60497-4-1 |
| Rated breaking capacity | 1480 A at <= 1000 V for power circuit conforming to IEC 60497-4-1 |
| Associated fuse rating | 200 A aM at <= 440 V for power circuit  
315 A gG at <= 440 V for power circuit |
| Average impedance | 0.33 mOhm at 50 Hz - Ith 275 A for power circuit |
| Power dissipation per pole | 12 W AC-3  
25 W AC-1 |
| Inrush power in VA | 805 VA at 20 °C (cos ? 0.3)  
970 VA at 20 °C (cos ? 0.3) |
| Hold-in power consumption in VA | 55 VA at 20 °C (cos ? 0.3) 50 Hz  
66 VA at 20 °C (cos ? 0.3) 60 Hz |
| Operating time | 7...15 ms on opening  
20...35 ms on closing |
| Mechanical durability | 10000000 cycles |
| Operating rate | 2400 cyc/h at ≤ 55 °C |
| Height | 168.5 mm |
| Width | 174 mm |
| Depth | 181 mm |
| Product weight | 4.65 kg |

**Environment**

**Standards**

- EN 60947-1  
- EN 60947-4-1  
- IEC 60947-1  
- IEC 60947-4-1  
- JEM 1038

**Product certifications**

- BV  
- CCC  
- CSA  
- DNV (Det Norske Veritas)  
- GL  
- GOST  
- LROS (Lloyds register of shipping)  
- RINA  
- RMR0S  
- UL

**IP degree of protection**

- IP20 front face with cover conforming to VDE 0106  
- IP20 front face with cover conforming to IEC 60529

**Protective treatment**

- TH

**Ambient air temperature for operation**

- -60...80 °C

**Ambient air temperature for storage**

- -5...55 °C

**Permissible ambient air temperature around the device**

- -40...70 °C at Uc

**Operating altitude**

- 3000 m without derating in temperature

**Fire resistance**

- 850 °C conforming to IEC 60695-2-1
| **Shock resistance** | 7 gn contactor opened  
16 gn contactor closed |
|----------------------|--------------------------|
| **Vibration resistance** | 2 gn 5...300 Hz contactor opened  
5 gn 5...300 Hz contactor closed |
| **Heat dissipation** | 18...24 W at 40...400 Hz for control circuit |
| **RoHS EUR conformity date** | 0843 |
| **RoHS EUR status** | Compliant |