LC3F185M7A64
TeSys F - star delta starter - 3 x 3P (3 NO) - 185 A - 220/230 V AC coil

Main

Range
TeSys

Product name
TeSys F

Product or component type
Star delta starter

Device short name
LC3F

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: <= 1000 V AC 16 Hz 2/3...200 Hz

[Je] rated operational current
185 A (at <55 °C) at <= 440 V AC AC-3 for power circuit

Motor power kW
160 kW at 380/400 V AC 50/60 Hz
160 kW at 415 V AC 50/60 Hz
185 kW at 440 V AC 50/60 Hz
90 kW at 220/230 V AC 50/60 Hz

Control circuit type
AC at 50/60 Hz

[UC] control circuit voltage
220/230 V AC 50/60 Hz

Auxiliary contact composition
1 NC for KM1 star contactor
1 NO for KM1 star contactor
2 NC for KM2 line contactor
1 NO for KM2 line contactor
1 NC for KM3 delta contactor
2 NO for KM3 delta contactor

[Uimp] rated impulse withstand voltage
8 kV

[UI] rated insulation voltage
1000 V conforming to IEC 60947-4-1
1500 V conforming to VDE 0110 group C

Interlocking type
Mechanical

Mounting support
Plate

Standards
EN 60947-4-1
EN 60947-1
IEC 60947-1
**IEC 60947-4-1**
**JIS C8201-4-1**

**Product certifications**
- DNV
- LROS (Lloyds register of shipping)
- CSA
- CCC
- CB
- RMRoS
- RINA
- UL
- ABS

**Complementary**

| [ith] conventional free air thermal current | 275 A 40 °C |
| Irms rated making capacity | 1850 A conforming to IEC 60947-4-1 |
| Rated breaking capacity | 1480 A conforming to IEC 60947-4-1 |
| [Icw] rated short-time withstand current | 1500 A 40 °C - 10 s |
| | 920 A 40 °C - 30 s |
| | 740 A 40 °C - 1 min |
| | 500 A 40 °C - 3 min |
| | 400 A 40 °C - 10 min |
| Associated fuse rating | 315 A gG at <= 440 V |
| | 200 A aM at <= 440 V |

**Connections - terminals**
- Power circuit: lugs-ring terminals 1 150 mm²
- Power circuit: connector 1 150 mm²
- Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible with cable end
- Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end
- Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end
- Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end
- Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid without cable end
- Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid without cable end

**Connections bolt diameter**
- M8

**Tightening torque**
- Control circuit: 1.2 N.m
- Power circuit: 18 N.m

**Operating time**
- 20...35 ms closing
- 7...15 ms opening

**Mechanical durability**
- 10 Mcycles

**Maximum operating rate**
- 2400 cyc/h 55 °C

**Starting time**
- 30 s

**Control circuit voltage limits**
- Operational: 0.85...1.1 Uc at 50/60 Hz (at <55 °C)
- Drop-out: 0.35...0.55 Uc at 50/60 Hz (at <55 °C)

**Inrush power in VA**
- 805 VA 50 Hz cos phi 0.3 (at 20 °C)
- 970 VA 60 Hz cos phi 0.3 (at 20 °C)

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

**Heat dissipation**
- 18...24 W

**Width**
- 525 mm

**Height**
- 110 mm

**Depth**
- 235 mm

**Net weight**
- 16.625 kg

**Environment**

**IP degree of protection**
- IP20 front face with shrouds conforming to IEC 60529
- IP20 front face with shrouds conforming to VDE 0106

**Protective treatment**
- TH

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

**Ambient air temperature for operation**
- -5...55 °C
- -40...70 °C at Uc

**Operating altitude**
- 3000 m without
### Mechanical robustness
- Vibrations contactor open: 2 Gn, 5...300 Hz
- Shocks contactor closed: 15 Gn for 11 ms
- Vibrations contactor closed: 5 Gn, 5...300 Hz
- Shocks contactor open: 7 Gn for 11 ms

### Offer Sustainability

<table>
<thead>
<tr>
<th>Sustainable offer status</th>
<th>Green Premium product</th>
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<tbody>
<tr>
<td>REACH Regulation</td>
<td>REACH Declaration</td>
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<td>EU RoHS Directive</td>
<td>Compliant</td>
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<td></td>
<td>EU RoHS Declaration</td>
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<td>Mercury free</td>
<td>Yes</td>
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<tr>
<td>RoHS exemption information</td>
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<td>China RoHS Regulation</td>
<td>China RoHS declaration</td>
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<tr>
<td></td>
<td>Product out of China RoHS scope. Substance declaration for your information</td>
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<tr>
<td>Environmental Disclosure</td>
<td>Product Environmental Profile</td>
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<tr>
<td>Circularity Profile</td>
<td>End of Life Information</td>
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<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>
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</tbody>
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### Contractual warranty

| Warranty | 18 months |
Chassis mounted starters

Pre-assembled: LC3 F185 to LC3 F400
For customer assembly: 2 x LC1 F●●● and 1 x LC1 D150 or 3 x LC1 F●●●

<table>
<thead>
<tr>
<th>Configuration</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>G</th>
<th>H</th>
<th>K</th>
<th>K1</th>
<th>K2</th>
<th>K3</th>
<th>K4</th>
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<tbody>
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<td>565</td>
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LC3 F400 or 3 x LC1 F... with components F400