

# Product data sheet

Specifications



## TeSys F contactor - 3P (3 NO) - AC-3 - <= 440 V 275 A - coil 115 V AC

LC1F185FE5

⚠ Discontinued on: 27 Sept 2020

⚠ Discontinued

### Main

|                                |                                                                          |
|--------------------------------|--------------------------------------------------------------------------|
| Range                          | TeSys                                                                    |
| Range of product               | TeSys F                                                                  |
| Product or component type      | Contactor                                                                |
| Device short name              | LC1F                                                                     |
| Contactor application          | Resistive load<br>Motor control                                          |
| Utilisation category           | AC-3<br>AC-1                                                             |
| Poles description              | 3P                                                                       |
| [Ue] rated operational voltage | <= 460 V DC<br><= 690 V AC 50/60 Hz                                      |
| [Uc] control circuit voltage   | 115 V AC 50 Hz                                                           |
| [Ie] rated operational current | 275 A (at <40 °C) at <= 440 V AC-1<br>185 A (at <55 °C) at <= 440 V AC-3 |

### Complementary

|                                             |                                                                                                                 |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| [Uimp] rated impulse withstand voltage      | 8 kV                                                                                                            |
| [Ith] conventional free air thermal current | 275 A (at 40 °C)                                                                                                |
| Rated breaking capacity                     | 1480 A conforming to IEC 60947-4-1                                                                              |
| [Icw] rated short-time withstand current    | 1500 A 40 °C - 10 s<br>920 A 40 °C - 30 s<br>740 A 40 °C - 1 min<br>500 A 40 °C - 3 min<br>400 A 40 °C - 10 min |
| Associated fuse rating                      | 200 A aM at <= 440 V<br>315 A gG at <= 440 V                                                                    |
| Average impedance                           | 0.33 mOhm - Ith 275 A 50 Hz                                                                                     |
| [Ui] rated insulation voltage               | 1000 V conforming to IEC 60947-4-1<br>1500 V conforming to VDE 0110 group C                                     |
| Power dissipation per pole                  | 12 W AC-3<br>25 W AC-1                                                                                          |
| Overvoltage category                        | III                                                                                                             |
| power pole contact composition              | 3 NO                                                                                                            |

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

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                  | 90 kW at 380...400 V AC 50/60 Hz (AC-3)<br>100 kW at 415 V AC 50/60 Hz (AC-3)<br>100 kW at 440 V AC 50/60 Hz (AC-3)<br>110 kW at 500 V AC 50/60 Hz (AC-3)<br>110 kW at 660...690 V AC 50/60 Hz (AC-3)<br>55 kW at 220...230 V AC 50/60 Hz (AC-3)<br>33 kW at 400 V AC 50/60 Hz (AC-4)                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Control circuit voltage limits  | Operational: 0.85...1.1 Uc 50/60 Hz (at 55 °C)<br>Drop-out: 0.35...0.55 Uc 50/60 Hz (at 55 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical durability           | 10 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Inrush power in VA              | 805 VA, 50 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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Maximum operating rate          | 2400 cyc/h 55 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Operating time                  | 20...35 ms closing<br>7...15 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Connections - terminals         | Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid without cable end<br>Power circuit: bar 2 cable(s) - busbar cross section: 25 x 3 mm<br>Power circuit: lugs-ring terminals 1 cable(s) 150 mm²<br>Power circuit: connector 1 cable(s) 150 mm² |
| Tightening torque               | Control circuit: 1.2 N.m<br>Power circuit: 18 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Mounting support                | Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Heat dissipation                | 18...24 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Standards                       | IEC 60947-4-1<br>JIS C8201-4-1<br>EN 60947-4-1<br>IEC 60947-1<br>EN 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product certifications          | LROS (Lloyds register of shipping)<br>RINA<br>BV<br>RMRoS<br>DNV<br>UL<br>ABS<br>CB<br>CCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Compatibility code              | LC1F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Control circuit type            | AC at 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Environment

|                                                       |                                                                                                             |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| IP degree of protection                               | IP2X front face with shrouds conforming to IEC 60529<br>IP2X front face with shrouds conforming to VDE 0106 |
| Protective treatment                                  | TH                                                                                                          |
| Ambient air temperature for operation                 | -5...55 °C                                                                                                  |
| Ambient air temperature for storage                   | -60...80 °C                                                                                                 |
| Permissible ambient air temperature around the device | -40...70 °C                                                                                                 |
| Height                                                | 174 mm                                                                                                      |
| Width                                                 | 168.5 mm                                                                                                    |
| Depth                                                 | 181 mm                                                                                                      |

|                    |                         |
|--------------------|-------------------------|
| Operating altitude | 3000 m without derating |
| Product weight     | 4.65 kg                 |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 21 cm    |
| Package 1 Width              | 22 cm    |
| Package 1 Length             | 24.5 cm  |
| Package 1 Weight             | 5.088 kg |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Use Better

| Materials and Substances |                           |
|--------------------------|---------------------------|
| EU RoHS Directive        | <a href="#">Compliant</a> |
| PVC free                 | Yes                       |

### Use Longer

| Lifetime extension |    |
|--------------------|----|
| Repair             | No |

### Use Again

| Repack and remanufacture |                                                                                                                                                                                                                 |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WEEE Label               |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |