



## Main

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| Range                          | TeSys                                                                                                                                                                                                                                                                                                                           |
| Product name                   | TeSys F                                                                                                                                                                                                                                                                                                                         |
| Product or component type      | Contactor                                                                                                                                                                                                                                                                                                                       |
| Device short name              | LC1F                                                                                                                                                                                                                                                                                                                            |
| Contactor application          | Motor control<br>Resistive load                                                                                                                                                                                                                                                                                                 |
| Utilisation category           | AC-1<br>AC-3<br>AC-4                                                                                                                                                                                                                                                                                                            |
| Poles description              | 3P                                                                                                                                                                                                                                                                                                                              |
| Power pole contact composition | 3 NO                                                                                                                                                                                                                                                                                                                            |
| [Ue] rated operational voltage | $\leq 1000$ V AC 50/60 Hz<br>$\leq 460$ V DC                                                                                                                                                                                                                                                                                    |
| [Ie] rated operational current | 1000 A (at $\leq 40$ °C) at $\leq 440$ V AC AC-1<br>630 A (at $\leq 55$ °C) at $\leq 440$ V AC AC-3                                                                                                                                                                                                                             |
| Motor power kW                 | 335 kW at 380...400 V AC 50/60 Hz (AC-3)<br>375 kW at 415 V AC 50/60 Hz (AC-3)<br>400 kW at 440 V AC 50/60 Hz (AC-3)<br>400 kW at 500 V AC 50/60 Hz (AC-3)<br>450 kW at 660...690 V AC 50/60 Hz (AC-3)<br>450 kW at 1000 V AC 50/60 Hz (AC-3)<br>200 kW at 220...230 V AC 50/60 Hz (AC-3)<br>100 kW at 400 V AC 50/60 Hz (AC-4) |
| [Uc] control circuit voltage   | 440 V AC 40...400 Hz                                                                                                                                                                                                                                                                                                            |

## Complementary

|                                             |                                    |
|---------------------------------------------|------------------------------------|
| [Uimp] rated impulse withstand voltage      | 8 kV                               |
| Overvoltage category                        | III                                |
| [Ith] conventional free air thermal current | 1000 A (at 40 °C)<br>1250 A        |
| Rated breaking capacity                     | 5040 A conforming to IEC 60947-4-1 |

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| [I <sub>cw</sub> ] rated short-time withstand current | 5050 A 40 °C - 10 s<br>4400 A 40 °C - 30 s<br>3400 A 40 °C - 1 min<br>2200 A 40 °C - 3 min<br>1600 A 40 °C - 10 min                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Associated fuse rating                                | 1000 A gG at ≤ 440 V<br>630 A aM at ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Average impedance                                     | 0.12 mΩ - I <sub>th</sub> 1000 A 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [U <sub>i</sub> ] rated insulation voltage            | 1000 V conforming to IEC 60947-4-1<br>1500 V conforming to VDE 0110 group C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Power dissipation per pole                            | 120 W AC-1<br>48 W AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mounting support                                      | Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Standards                                             | EN 60947-4-1<br>IEC 60947-4-1<br>IEC 60947-1<br>JIS C8201-4-1<br>EN 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Product certifications                                | ABS<br>BV<br>LROS (Lloyds register of shipping)<br>RMRoS<br>CCC<br>DNV<br>UL<br>RINA<br>CB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Connections - terminals                               | Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Power circuit: bar 2 cable(s) - busbar cross section: 60 x 5 mm<br>Power circuit: bolted connection |
| Tightening torque                                     | Control circuit: 1.2 N.m<br>Power circuit: 58 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Control circuit voltage limits                        | Operational: 0.85...1.1 U <sub>c</sub> 40...400 Hz (at 55 °C)<br>Drop-out: 0.25...0.5 U <sub>c</sub> 40...400 Hz (at 55 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Inrush power in VA                                    | 1650 VA 40...400 Hz cos phi 0.9 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Hold-in power consumption in VA                       | 22 VA 40...400 Hz cos phi 0.9 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Heat dissipation                                      | 20 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating time                                        | 40...80 ms closing<br>100...200 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Mechanical durability                                 | 5 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Maximum operating rate                                | 1200 cyc/h 55 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Compatibility code                                    | LC1F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## Environment

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|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| IP degree of protection                               | IP20 front face with shrouds conforming to IEC 60529<br>IP20 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                                                                                                 |
| Operating altitude                                    | 3000 m without                                                                                              |
| Height                                                | 304 mm                                                                                                      |
| Width                                                 | 309 mm                                                                                                      |
| Depth                                                 | 255 mm                                                                                                      |
| Net weight                                            | 18.6 kg                                                                                                     |

## Offer Sustainability

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|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                            |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
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