# Product data sheet Characteristics

### LC1D65008F7

# TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 80 A - 110 V AC coil



#### Main Commercial Status Commercialised TeSys D Range of product Product or component Contactor type LC1D Device short name Contactor application Resistive load Utilisation category AC-1 Poles description Power pole contact 2 NO + 2 NC composition <= 300 V DC for power circuit [Ue] rated operational voltage <= 690 V AC 25...400 Hz for power circuit 80 A (<= 60 °C) at <= 440 V AC AC-1 for power cir-[le] rated operational current Control circuit type AC 50/60 Hz 110 V AC 50/60 Hz Control circuit voltage 6 kV conforming to IEC 60947 [Uimp] rated impulse withstand voltage Overvoltage category [Ith] conventional free 80 A at <= 60 °C for power circuit air thermal current 1000 A at 440 V for power circuit conforming to IEC Irms rated making capacity Rated breaking capac-1000 A at 440 V for power circuit conforming to IEC ity [lcw] rated short-time 260 A <= 40 °C 1 min power circuit withstand current 110 A <= 40 °C 10 min power circuit 900 A <= 40 °C 1 s power circuit 520 A <= 40 °C 10 s power circuit 125 A gG at <= 690 V coordination type 2 for power Associated fuse rating circuit 125 A gG at <= 690 V coordination type 1 for power Average impedance 1.50 mOhm at 50 Hz - Ith 80 A for power circuit [Ui] rated insulation 600 V for power circuit certifications UL voltage 600 V for power circuit certifications CSA 690 V for power circuit conforming to IEC 60947-4-1 1.4 Mcycles 80 A AC-1 at Ue <= 440 V Electrical durability Power dissipation per 9.6 W AC-1 pole Safety cover Without Mounting support Plate Rail

EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1

IEC 60947-5-1 UL 508

CSA C22.2 No 14

Standards

| Product certifications   | BV CCC CSA DNV GL GOST RINA UL LROS  |
|--------------------------|--|
| Connections - terminals  | Power circuit: screw clamp terminals 2 cable(s)  125 mm² - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 1 cable(s)  135 mm² - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s)  125 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s)  135 mm² - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 2 cable(s)  125 mm² - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 1 cable(s)  135 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s)  14 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s)  14 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s)  12.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s)  14 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s)  14 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s)  14 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s)  14 mm² - cable stiffness: flexible - without cable end |
| Tightening torque        | Power circuit: 8 N.m - on screw clamp terminals - cable 2535 mm² hexagonal 4 mm Power circuit: 5 N.m - on screw clamp terminals - cable <= 25 mm² hexagonal 4 mm Control 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  |
| Operating time           | 1226 ms closing<br>419 ms opening  |
| Safety reliability level | B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1  |
| Mechanical durability    | 6 Mcycles  |
| Operating rate           | 3600 cyc/h at <= 60 °C   |
|                          |  |

## Complementary

| Coil technology                 | Without built-in suppressor module  |  |
|---------------------------------|---|--|
| Control circuit voltage limits  | 0.851.1 Uc at 60 °C operational 60 Hz<br>0.81.1 Uc at 60 °C operational 50 Hz<br>0.30.6 Uc at 60 °C drop-out 50/60 Hz |  |
| Inrush power in VA              | 160 VA at 20 °C (cos φ 0.75) 50 Hz<br>140 VA at 20 °C (cos φ 0.75) 60 Hz  |  |
| Hold-in power consumption in VA | 15 VA at 20 °C (cos φ 0.3) 50 Hz<br>13 VA at 20 °C (cos φ 0.3) 60 Hz  |  |
| Heat dissipation                | 45 W at 50/60 Hz  |  |

#### Environment

| IP degree of protection               | IP2x front face conforming to IEC 60529 |
|---------------------------------------|---|
| Protective treatment                  | TH conforming to IEC 60068-2-30         |
| Pollution degree                      | 3                                       |
| Ambient air temperature for operation | -560 °C                                 |
| Ambient air temperature for storage   | -6080 °C                                |



| Permissible ambient air temperature around the device | -4070 °C at Uc  |  |
|---|---|--|
| Operating altitude                                    | 3000 m without derating in temperature  |  |
| Fire resistance                                       | 850 °C conforming to IEC 60695-2-1  |  |
| Flame retardance                                      | V1 conforming to UL 94  |  |
| Mechanical robustness                                 | Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5300 Hz Vibrations contactor open 2 Gn, 5300 Hz |  |
| Height  | 127 mm  |  |
| Width   | 85 mm   |  |
| Depth   | 125 mm  |  |
| Product weight  | 1.45 kg   |  |

### RoHS compliance

| RoHS EUR status                | Compliant |
|--------------------------------|-----------|
| RoHS EUR conformity date(YYWW) | 0707      |

#### Contractual warranty

| Period | 18 months |
|--------|-----------|
|        |           |

