# **Product datasheet**





## TeSys D reversing contactor -3P(3 NO) - AC-3 - <= 440 V 40 A -220 V AC coil

Local distributor code: 393512988

LC2D40AM7

! Discontinued on: 9 Feb 2023

! Discontinued

EAN Code: 3389119409520

#### Main

| Mani                                   |   |
|--|---|
| Range                                  | TeSys   |
|  | TeSys Deca  |
| Product Name                           | TeSys D   |
|  | TeSys Deca  |
| Product Or Component Type              | Reversing contactor                                     |
| Device Short Name                      | LC2D  |
| Contactor Application                  | Motor control   |
|  | Resistive load  |
| Utilisation Category                   | AC-1  |
|  | AC-3  |
|  | AC-3e   |
| Device Presentation                    | Preassembled with reversing power busbar                |
| Poles Description                      | 3P  |
| Power Pole Contact Composition         | 3 NO  |
| [Ue] Rated Operational Voltage         | Power circuit: <= 690 V AC 25400 Hz                     |
| [co] Hatou operational voltage         | Power circuit: <= 300 V DC                              |
| [le] Rated Operational Current         | 40 A (at <60 °C) at <= 440 V AC AC-3 for power circuit  |
|  | 60 A (at <60 °C) at <= 440 V AC AC-1 for power circuit  |
|  | 40 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |
| Motor Power Kw                         | 11 kW at 220230 V AC 5060 Hz                            |
|  | 18.5 kW at 380400 V AC 5060 Hz                          |
|  | 22 kW at 415 V AC 5060 Hz                               |
|  | 22 kW at 440 V AC 5060 Hz                               |
|  | 22 kW at 500 V AC 5060 Hz                               |
|  | 30 kW at 660690 V AC 5060 Hz                            |
| Motor Power Hp (UI / Csa)              | 5 hp at 230/240 V AC 60 Hz for 1 phase motors           |
|  | 10 hp at 230/240 V AC 60 Hz for 3 phases motors         |
|  | 30 hp at 575/600 V AC 60 Hz for 3 phases motors         |
|  | 10 hp at 200/208 V AC 60 Hz for 3 phases motors         |
|  | 3 hp at 115 V AC 60 Hz for 1 phase motors               |
|  | 30 hp at 460/480 V AC 60 Hz for 3 phases motors         |
| Control Circuit Type                   | AC at 50/60 Hz  |
| [Uc] Control Circuit Voltage           | 220 V AC 50/60 Hz                                       |
| Auxiliary Contact Composition          | 1 NO + 1 NC   |
| [Uimp] Rated Impulse Withstand Voltage | 6 kV conforming to IEC 60947                            |
| Overvoltage Category                   | III   |
| [Ith] Conventional Free Air            | 10 A (at 60 °C) for signalling circuit                  |
| Thermal Current                        | 60 A (at 60 °C) for power circuit                       |
|  | · · · · · · · · · · · · · · · · · · ·                   |



| Irms Rated Making Capacity                  | 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1  |
|---|--|
|   | 800 A at 440 V for power circuit conforming to IEC 60947   |
| Rated Breaking Capacity                     | 800 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] Rated Short-Time Withstand<br>Current | 72 A 40 °C - 10 min for power circuit 165 A 40 °C - 1 min for power circuit 320 A 40 °C - 10 s for power circuit 720 A 40 °C - 1 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit  |
| Associated Fuse Rating                      | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>80 A gG at <= 690 V coordination type 1 for power circuit<br>80 A gG at <= 690 V coordination type 2 for power circuit   |
| Average Impedance                           | 1.5 mOhm - Ith 60 A 50 Hz for power circuit  |
| [Ui] Rated Insulation Voltage               | Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified   |
| Electrical Durability                       | 1.5 Mcycles 40 A AC-3 at Ue <= 440 V<br>1.4 Mcycles 60 A AC-1 at Ue <= 440 V<br>1.5 Mcycles 40 A AC-3e at Ue <= 440 V  |
| Power Dissipation Per Pole                  | 2.4 W AC-3<br>5.4 W AC-1<br>2.4 W AC-3e  |
| Front Cover                                 | With   |
| Interlocking Type                           | Mechanical   |
| Mounting Support                            | Rail<br>Plate  |
| Standards                                   | CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1   |
| Product Certifications                      | UL CSA RINA GOST CCC DNV LROS (Lloyds register of shipping) GL BV UKCA   |
| Connections - Terminals                     | Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 125 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm²solid Control circuit: screw clamp terminals 2 cable(s) 14 mm²solid Control circuit: screw clamp terminals 2 cable(s) 14 mm²solid Power circuit: EverLink BTR screw connectors 1 cable(s) 135 mm²flexible without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 125 mm²flexible without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 135 mm²flexible with cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 125 mm²flexible with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 135 mm²flexible with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 125 mm²flexible with cable end |

| Tightening Torque        | Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 2535 mm² hexagonal screw head 4 mm Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 125 mm² hexagonal screw head 4 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 |
|--------------------------|---|
| Operating Time           | 419 ms opening 1226 ms closing  |
| Safety Reliability Level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1  |
| Mechanical Durability    | 6 Mcycles   |
| Maximum Operating Rate   | 3600 cyc/h 60 °C  |

# Complementary

| Coil Technology                 | Without built-in suppressor module  |
|---------------------------------|---|
| Control Circuit Voltage Limits  | 0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz<br>0.81.1 Uc (-4060 °C):operational AC 50 Hz<br>0.851.1 Uc (-4060 °C):operational AC 60 Hz<br>11.1 Uc (6070 °C):operational AC 50/60 Hz |
| Inrush Power In Va              | 140 VA 60 Hz cos phi 0.75 (at 20 °C)<br>160 VA 50 Hz cos phi 0.75 (at 20 °C)  |
| Hold-In Power Consumption In Va | 13 VA 60 Hz cos phi 0.3 (at 20 °C)<br>15 VA 50 Hz cos phi 0.3 (at 20 °C)  |
| Heat Dissipation                | 45 W at 50/60 Hz  |
| Auxiliary Contacts Type         | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1   |
| Signalling Circuit Frequency    | 25400 Hz  |
| Minimum Switching Current       | 5 mA for signalling circuit   |
| Minimum Switching Voltage       | 17 V for signalling circuit   |
| Non-Overlap Time                | 1.5 ms on de-energisation between NC and NO contact     1.5 ms on energisation between NC and NO contact  |
| Insulation Resistance           | > 10 MOhm for signalling circuit  |

## **Environment**

| Ip Degree Of Protection               | IP20 front face conforming to IEC 60529   |
|---------------------------------------|---|
| Climatic Withstand                    | conforming to IACS E10<br>conforming to IEC 60947-1 Annex Q category D  |
| Protective Treatment                  | TH conforming to IEC 60068-2-30   |
| Pollution Degree                      | 3   |
| Ambient Air Temperature For Operation | -4060 °C<br>6070 °C with derating   |
| Ambient Air Temperature For Storage   | -6080 °C  |
| Operating Altitude                    | 03000 m   |
| Fire Resistance                       | 850 °C conforming to IEC 60695-2-1  |
| Flame Retardance                      | V1 conforming to UL 94  |
| Mechanical Robustness                 | Vibrations contactor open: 2 Gn, 5300 Hz Vibrations contactor closed: 4 Gn, 5300 Hz Shocks contactor open: 10 Gn for 11 ms Shocks contactor closed: 15 Gn for 11 ms |

| Height     | 122 mm  |  |
|------------|---------|--|
| Width      | 119 mm  |  |
| Depth      | 120 mm  |  |
| Net Weight | 1.87 kg |  |

## **Packing Units**

| Unit Type Of Package 1       | PCE       |
|------------------------------|-----------|
| Number Of Units In Package 1 | 1         |
| Package 1 Height             | 14.000 cm |
| Package 1 Width              | 16.200 cm |
| Package 1 Length             | 19.500 cm |
| Package 1 Weight             | 2.070 kg  |
| Unit Type Of Package 2       | S03       |
| Number Of Units In Package 2 | 4         |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 8.739 kg  |

## **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

### Well-being performance

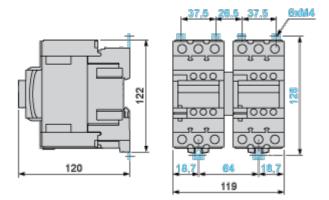
| <b>⊘</b> | Reach Free Of Svhc             |
|----------|--------------------------------|
| <b>⊘</b> | Toxic Heavy Metal Free         |
| <b>⊘</b> | Mercury Free                   |
| <b>⊘</b> | Rohs Exemption Information Yes |
| <b>⊘</b> | Pvc Free                       |

#### **Certifications & Standards**

| Reach Regulation         | REACh Declaration   |
|--------------------------|---|
| Eu Rohs Directive        | Compliant EU RoHS Declaration   |
| China Rohs Regulation    | China RoHS declaration  |
| Environmental Disclosure | Pro-active China RoHS declaration (out of China RoHS legal scope)  Product Environmental Profile                            |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | End of Life Information   |

**Dimensions Drawings** 

### **Dimensions**



Connections and Schema

Wiring

