# Product data sheet Characteristics

# LC1D95N7

TeSys, Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 95A, 415V AC 50/60Hz coil





### Main

| Range                          | TeSys   |
|--------------------------------|---|
| Range of product               | TeSys Deca  |
| Product or component type      | Contactor   |
| Device short name              | LC1D  |
| Contactor application          | Resistive load<br>Motor control   |
| Utilisation category           | AC-3<br>AC-3e<br>AC-4<br>AC-1   |
| Poles description              | 3P  |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25400 Hz   |
| [le] rated operational current | 95 A (at <60 °C) at <= 440 V AC-3 for power circuit<br>125 A (at <60 °C) at <= 690 V AC-1 for power circuit<br>95 A (at <60 °C) at <= 440 V AC-3e for power circuit |
| [Uc] control circuit voltage   | 415 V AC 50/60 Hz   |

#### Complementary

| Complementary                               |  |
|---|--|
| Motor power kW                              | 25 KW at 220230 V AC 50 Hz (AC-3)<br>45 KW at 380400 V AC 50 Hz (AC-3) |
|   | 45 KW at 415440 V AC 50 Hz (AC-3)                                      |
|   | 55 KW at 500 V AC 50 Hz (AC-3)   |
|   | 45 KW at 660690 V AC 50 Hz (AC-3)                                      |
|   | 15 KW at 400 V AC 50 Hz (AC-4)   |
|   | 25 KW at 220230 V AC 50 Hz (AC-3e)                                     |
|   | 45 KW at 380400 V AC 50 Hz (AC-3e)                                     |
|   | 45 KW at 415440 V AC 50 Hz (AC-3e)                                     |
|   | 55 KW at 500 V AC 50 Hz (AC-3e)  |
|   | 45 kW at 660690 V AC 50 Hz (AC-3e)                                     |
|   | ` '  |
| Motor power hp                              | 7.5 Hp at 120 V AC 60 Hz for 1 phase motors                            |
|   | 15 Hp at 230/240 V AC 60 Hz for 1 phase motors                         |
|   | 30 Hp at 200/208 V AC 60 Hz for 3 phases motors                        |
|   | 30 Hp at 230/240 V AC 60 Hz for 3 phases motors                        |
|   | 60 Hp at 460/480 V AC 60 Hz for 3 phases motors                        |
|   | 60 hp at 575/600 V AC 60 Hz for 3 phases motors                        |
| Compatibility code                          | LC1D   |
| Pole contact composition                    | 3 NO   |
| Protective cover                            | With   |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit                                 |
|   | 125 A (at 60 °C) for power circuit                                     |
| Irms rated making capacity                  | 1100 A at 440 V AC for power circuit conforming to IEC 60947           |
|   | 140 A AC for signalling circuit conforming to IEC 60947-5-1            |
|   | 250 A DC for signalling circuit conforming to IEC 60947-5-1            |
| Rated breaking capacity                     | 1100 A at 440 V for power circuit conforming to IEC 60947              |
|   |  |

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| [lcw] rated short-time withstand current | 1100 A 40 °C - 1 s for power circuit 800 A 40 °C - 10 s for power circuit 400 A 40 °C - 1 min for power circuit 135 A 40 °C - 10 min for power circuit 140 A - 100 ms for signalling circuit 120 A - 500 ms for signalling circuit 100 A - 1 s for signalling circuit  |
|--|--|
| Associated fuse rating                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1 200 A gG at <= 690 V coordination type 1 for power circuit 160 A gG at <= 690 V coordination type 2 for power circuit   |
| Average impedance                        | 0.8 mOhm - Ith 125 A 50 Hz for power circuit   |
| Power dissipation per pole               | 12.5 W AC-1<br>7.2 W AC-3<br>7.2 W AC-3e   |
| [Ui] rated insulation voltage            | Power circuit: 1000 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  |
| Overvoltage category                     | III  |
| Pollution degree                         | 3  |
| [Uimp] rated impulse withstand voltage   | 8 kV conforming to IEC 60947   |
| Safety reliability level                 | B10d = 1.3 Mcycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20 Mcycles contactor with mechanical load conforming to EN/ISO 13849-1   |
| Mechanical durability                    | 4 Mcycles  |
| Electrical durability                    | 1.2 Mcycles 95 A AC-3<br>1.3 Mcycles 125 A AC-1<br>1.2 Mcycles 95 A AC-3e  |
| Control circuit type                     | AC at 50/60 Hz   |
| Coil technology                          | Without built-in suppressor module   |
| Control circuit voltage limits           | 0.81.1 Uc (-4055 °C):operational AC 50 Hz<br>0.851.1 Uc (-4055 °C):operational AC 60 Hz<br>0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz<br>11.1 Uc (5570 °C):operational AC 50/60 Hz  |
| Inrush power in VA                       | 245 VA 60 Hz cos phi 0.75 (at 20 °C)<br>245 VA 50 Hz cos phi 0.75 (at 20 °C)   |
| Hold-in power consumption in VA          | 26 VA 60 Hz cos phi 0.3 (at 20 °C)<br>26 VA 50 Hz cos phi 0.3 (at 20 °C)   |
| Heat dissipation                         | 610 W at 50/60 Hz  |
| Operating time                           | 2035 ms closing<br>620 ms opening  |
| Maximum operating rate                   | 3600 cyc/h 60 °C   |
| Connections - terminals                  | Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 450 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 450 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 416 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 450 mm² - cable stiffness: solid without cable end Power circuit: connector 2 425 mm² - cable stiffness: solid without cable end |
| Tightening torque                        | Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2  |
| Auxiliary contact composition            | 1 NO + 1 NC  |
| 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  |
|  |  |

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| Signalling circuit frequency | 25400 Hz   |
|------------------------------|--|
| Minimum switching voltage    | 17 V for signalling circuit  |
| Minimum switching current    | 5 mA for signalling circuit  |
| Insulation resistance        | > 10 MOhm 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 |
| Mounting support             | Rail<br>Plate  |

## Environment

| Standards   | EN/IEC 60947-1<br>EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>UL 60947-5-1<br>CSA C22.2 No 60947-4-1<br>CSA C22.2 No 60947-5-1<br>GB/T 14048.4             |
|---|--|
| Product certifications                                | IECEE CB Scheme[RETURN]UL[RETURN]CSA[RETURN]CCC[RETURN]EAC[RETURN]LRO: (Lloyds register of shipping)[RETURN]RINA[RETURN]BV[RETURN]DNV-GL                               |
| IP degree of protection                               | IP20 front face conforming to IEC 60529  |
| Protective treatment                                  | TH conforming to IEC 60068-2-30  |
| Climatic withstand                                    | Conforming to IACS E10 exposure to damp heat   |
| Permissible ambient air temperature around the device | -40…60 °C<br>60…70 °C with derating  |
| 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) Shocks contactor open (8 Gn for 11 ms) Vibrations contactor closed (3 Gn, 5300 Hz) Shocks contactor closed (10 Gn for 11 ms) |
| Height  | 127 mm   |
| Width   | 85 mm  |
| Depth   | 130 mm   |
| Net weight  | 1.61 kg  |
|   |  |

# Packing Units

| Unit Type of Package 1       | PCE       |  |
|------------------------------|-----------|--|
| Number of Units in Package 1 | 1         |  |
| Package 1 Height             | 14.224 cm |  |
| Package 1 Width              | 9.652 cm  |  |
| Package 1 Length             | 13.208 cm |  |
| Package 1 Weight             | 1.565 kg  |  |

## Offer Sustainability

| Sustainable offer status   | Green Premium product                    |  |
|----------------------------|--|--|
| REACh Regulation           | REACh Declaration                        |  |
| REACh free of SVHC         | Yes                                      |  |
| EU RoHS Directive          | Compliant EEU RoHS Declaration           |  |
| Toxic heavy metal free     | Yes                                      |  |
| Mercury free               | Yes                                      |  |
| China RoHS Regulation      | China RoHS Declaration                   |  |
| RoHS exemption information | €Yes                                     |  |
| Environmental Disclosure   | Product Environmental Profile            |  |
| Circularity Profile        | No need of specific recycling operations |  |

| WEEE                 | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
|----------------------|---|
| PVC free             | Yes   |
| Contractual warranty |   |
| Contractual warranty |   |
| Warranty             | 18 months   |