

Product datasheet

Specifications



TeSys D contactor - 3P - ≤ 440 V - 40 A AC-3 - 48...130 V AC/DC coil

Local distributor code:

407811782

LC1D40AEHE

EAN Code: 3606480988219

Main

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|--------------------------------|--|
| Range of product | TeSys Deca Advanced |
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Motor control Resistive load |
| Utilisation category | AC-3 AC-3e AC-1 AC-4 |
| Poles description | 3P |
| [Ue] rated operational voltage | Power circuit: ≤ 690 V AC 25...400 Hz |
| [Ie] rated operational current | 60 A (at ≤ 60 °C) at ≤ 440 V AC-1 for power circuit 40 A (at ≤ 60 °C) at ≤ 440 V AC-3 for power circuit 40 A (at ≤ 60 °C) at ≤ 440 V AC-3e for power circuit |
| [Uc] control circuit voltage | 48...130 V AC 50/60 Hz 48...130 V DC |

Complementary

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| Motor power kW | 11 kW at 220/230 V AC 50/60 Hz (AC-3) 18.5 kW at 380/400 V AC 50/60 Hz (AC-3) 22 kW at 415 V AC 50/60 Hz (AC-3) 22 kW at 440 V AC 50/60 Hz (AC-3) 22 kW at 500 V AC 50/60 Hz (AC-3) 30 kW at 660/690 V AC 50/60 Hz (AC-3) 11 kW at 220/230 V AC 50/60 Hz (AC-3e) 18.5 kW at 380/400 V AC 50/60 Hz (AC-3e) 22 kW at 415 V AC 50/60 Hz (AC-3e) 22 kW at 440 V AC 50/60 Hz (AC-3e) 22 kW at 500 V AC 50/60 Hz (AC-3e) 30 kW at 660/690 V AC 50/60 Hz (AC-3e) 9 kW at 400 V AC 50/60 Hz (AC-4) |
| Motor power hp | 3 hp at 115 V AC 60 Hz for 1 phase motors 5 hp at 230/240 V AC 60 Hz for 1 phase motors 10 hp at 200/208 V AC 60 Hz for 3 phases motors 10 hp at 230/240 V AC 60 Hz for 3 phases motors 30 hp at 460/480 V AC 60 Hz for 3 phases motors 30 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 | 60 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit |
| Irms rated making capacity | 800 A at 440 V 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 |

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| Rated breaking capacity | 800 A at 440 V for power circuit conforming to IEC 60947 |
| [Icw] rated short-time withstand 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 | 80 A gG at <= 690 V coordination type 1 for power circuit 80 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 1.5 mOhm - lth 60 A 50 Hz for power circuit |
| Power dissipation per pole | 5.4 W AC-1 2.4 W AC-3 2.4 W AC-3e |
| [Ui] rated insulation voltage | Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 |
| Overvoltage category | III |
| Pollution degree | 3 |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical durability | 10 Mcycles |
| Electrical durability | 2 Mcycles 35 A AC-3 at Ue <= 440 V 0.7 Mcycles 60 A AC-1 at Ue <= 440 V 2 Mcycles 35 A AC-3e at Ue <= 440 V |
| Control circuit type | AC/DC at 50/60 Hz AC/DC electronic |
| Coil technology | Built-in bidirectional peak limiting |
| Control circuit voltage limits | <= 0.1 Uc (-40...70 °C):drop-out AC/DC 0.85...1.1 Uc (-40...60 °C):operational AC/DC 1...1.1 Uc (60...70 °C):operational AC/DC |
| Inrush power in VA | 25 VA 50/60 Hz (at 20 °C) |
| Inrush power in W | 20 W (at 20 °C) |
| Hold-in power consumption in VA | 1.8 VA 50/60 Hz (at 20 °C) |
| Hold-in power consumption in W | 0.9 W at 20 °C |
| Heat dissipation | 0.9 W at 50/60 Hz |
| Operating time | 55...65 ms closing 20...80 ms opening |
| Maximum operating rate | 3600 cyc/h at 60 °C |

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|--------------------------------------|---|
| Connections - terminals | <p>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid</p> <p>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid</p> <p>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible without cable end</p> <p>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible with cable end</p> <p>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: solid</p> <p>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible without cable end</p> <p>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible with cable end</p> <p>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: solid</p> |
| Tightening torque | <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2</p> <p>Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm² hexagonal screw head 4 mm</p> <p>Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm² hexagonal screw head 4 mm</p> <p>Power circuit: 5 N.m - with screwdriver pozidriv No 2</p> <p>Control circuit: 1.7 N.m - with screwdriver pozidriv No 2</p> |
| Auxiliary contact composition | 1 NO + 1 NC |
| Auxiliary contacts type | <p>type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1</p> <p>type mirror contact 1 NC conforming to IEC 60947-4-1</p> |
| Signalling circuit frequency | 25...400 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 | <p>1.5 ms on de-energisation between NC and NO contact</p> <p>1.5 ms on energisation between NC and NO contact</p> |
| Mounting support | <p>Plate</p> <p>Rail</p> |

Environment

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|--|---|
| Standards | <p>EN/IEC 60947-4-1</p> <p>EN/IEC 60947-5-1</p> <p>UL 60947-4-1</p> <p>CSA C22.2 No 60947-4-1</p> <p>IEC 60335-1</p> |
| Product certifications | <p>CCC</p> <p>CSA</p> <p>EAC</p> <p>UL</p> <p>KC</p> <p>DNV-GL</p> <p>LROS (Lloyds register of shipping)</p> <p>UKCA</p> |
| IP degree of protection | IP20 front face conforming to IEC 60529 |
| Climatic withstand | <p>conforming to IACS E10 exposure to damp heat</p> <p>conforming to IEC 60947-1 Annex Q category D exposure to damp heat</p> |
| Permissible ambient air temperature around the device | <p>-40...60 °C</p> <p>60...70 °C with derating</p> |
| Operating altitude | 0...3000 m |
| Fire resistance | 850 °C conforming to IEC 60695-2-1 |

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| Mechanical robustness | Vibrations contactor open (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) |
| Height | 122 mm |
| Width | 55 mm |
| Depth | 120 mm |
| Product weight | 0.992 kg |

Packing Units

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|-------------------------------------|-----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 6.200 cm |
| Package 1 Width | 13.800 cm |
| Package 1 Length | 15.500 cm |
| Package 1 Weight | 897.000 g |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 10 |
| Package 2 Height | 15.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 9.248 kg |

Logistical informations

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|--------------------------|----|
| Country of origin | FR |
|--------------------------|----|

Contractual warranty

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| 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 >](#)



Environmental footprint

| | |
|--|---|
| Total lifecycle Carbon footprint | 30 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 7 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 0.1 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0.1 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 21 kg CO2 eq. |
| Carbon footprint of the end-of-life phase [C1 to C4] | 1 kg CO2 eq. |
| Environmental Disclosure | Product Environmental Profile |

Use Better



Materials and Substances

| | |
|--|--|
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | Yes |
| SCIP Number | 9bb0b51e-73b5-4128-a86b-723dbbccfe86 |
| EU RoHS Directive | Compliant By Exemption |
| REACH Regulation | Reference contains Substances of Very High Concern above the threshold |
| Halogen-free status | Halogen free plastic parts & cables product |

Use Longer



Lifetime extension

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|--------|----|
| Repair | No |
|--------|----|

Use Again



Repack and remanufacture

| | |
|---------------------------------|---|
| Recyclability potential, in % | 64 |
| End of life manual availability | End of Life Information |
| Take-back | No |
| WEEE Label |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Offer Marketing Illustration

Product benefits / Features

TeSys Deca Contactors

Technical Benefits



- Deca green delivers a consistent low consumption range of contactors from 9 A to 80 A.
- Covers control voltage from 24 to 250 V, with same coils for AC and DC.
- Designed to meet the requirements of industrial and HVAC applications
- With IEC60335-1 compliance, improved fire resistance, and dust-proof auxiliaries
- Suitable for safety applications thanks to mechanically linked contacts and mirror contacts
- Outstanding breaking/making capacity up to 20 In with PLC direct connection

Offer Marketing Illustration

Product benefits / Features



Offer Marketing Illustration

Product benefits / Features

TeSys Deca Contactors



Reliable

Multi-standard solutions, high reliability, long mechanical and electrical durability for different sizes, and the most complete accessories.



Energy efficiency

These electronic-coil contactors require up to 80 % less energy than electro-mechanical contactors.



Universal

Multi standards certified (IEC, UL, CSA, CCC, EAC, Marine), Green Premium compliant (RoHS/REACH).



Technical Illustration

Assembly's dimensions

