Product datasheet

Specifications



Contactor, Tesys Deca Advanced, 3P(3NO), AC-3/AC-3e, <=440V, 150A, 200-500V AC/DC coil,connector

LC1D150ALSE

Main

Range	TeSys Deca
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 DC-1 DC-3 DC-5
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 16.67...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	150 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 150 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	200...500 V AC 50/60 Hz 200...500 V DC

Complementary

Motor power kW	40 kW at 230 V AC 50/60 Hz (AC-3) 75 kW at 400 V AC 50/60 Hz (AC-3) 80 kW at 415 V AC 50/60 Hz (AC-3) 90 kW at 440 V AC 50/60 Hz (AC-3) 90 kW at 500 V AC 50/60 Hz (AC-3) 100 kW at 690 V AC 50/60 Hz (AC-3) 75 kW at 1000 V AC 50/60 Hz (AC-3) 40 kW at 230 V AC 50/60 Hz (AC-3e) 75 kW at 400 V AC 50/60 Hz (AC-3e) 80 kW at 415 V AC 50/60 Hz (AC-3e) 90 kW at 440 V AC 50/60 Hz (AC-3e) 90 kW at 500 V AC 50/60 Hz (AC-3e) 100 kW at 690 V AC 50/60 Hz (AC-3e) 75 kW at 1000 V AC 50/60 Hz (AC-3e) 37 kW at 230 V AC 50/60 Hz (AC-4) 75 kW at 400 V AC 50/60 Hz (AC-4) 75 kW at 440 V AC 50/60 Hz (AC-4) 75 kW at 500 V AC 50/60 Hz (AC-4) 80 kW at 690 V AC 50/60 Hz (AC-4) 65 kW at 1000 V AC 50/60 Hz (AC-4)
Motor power hp	40 hp at 200/208 V 60 Hz 50 hp at 230/240 V 60 Hz 100 hp at 460/480 V 60 Hz 125 hp at 575/600 V 60 Hz
Compatibility code	LC1D

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	200 A (at 60 °C) for power circuit
Irms rated making capacity	1885 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
Rated breaking capacity	1440 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	350 A 40 °C - 10 min for power circuit 600 A 40 °C - 1 min for power circuit 1280 A 40 °C - 10 s for power circuit 1800 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	160 A aM at <= 440 V for power circuit 125 A aM at <= 690 V for power circuit 250 A gG at <= 690 V for power circuit 10 A gG for signalling circuit 0.5 A gG for control circuit
Average impedance	0.45 mOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	8 W AC-3 8 W AC-3e 22 W AC-1
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 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 = 684932 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 10000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	0.85 Mcycles 150 A AC-3 at Ue <= 440 V 0.85 Mcycles 150 A AC-3e at Ue <= 440 V 0.5 Mcycles 200 A AC-1 at Ue <= 440 V
Control circuit type	AC at 50/60 Hz DC
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.8 Uc Min...1.1 Uc Max (-40…60 °C):operational AC/DC 0.1 Uc Max (-40…60 °C):drop-out AC/DC
Inrush power in VA	170 VA (at 20 °C)
Inrush power in W	120 W (at 20 °C)
Hold-in power consumption in VA	15.5 VA (at 20 °C)
Hold-in power consumption in W	5.1 W at 20 °C
Heat dissipation	3 W at 20 °C
Operating time	10...80 ms opening 20...90 ms closing
Maximum operating rate	2400 cyc/h at 60 °C 3600 cyc/h at Uc at 20 ºC

Connections - terminals	Power circuit: connector 1 10…120 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 10…50 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 10…120 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 10…50 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 10…120 mm² - cable stiffness: solid without cable end Power circuit: connector 2 10…50 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end
Tightening torque	Power circuit: 12 N.m - on connector hexagonal screw head 4 mm 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 Control circuit: 1.7 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
Signalling circuit frequency	16.67...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	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Mounting support	Plate

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 UL 60947-5-1 CSA C22.2 No 60947-4-1 CSA C22.2 No 60947-5-1 JIS C8201-4-1 JIS C8201-5-1 GB/T 14048.4 GB/T 14048.5
Product certifications	CB Scheme CCC cULus CE UKCA EU-RO-MR by DNV-GL
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	None conforming to IEC 60068-2-30
Climatic withstand	conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40…60 °C operation 60…70 °C with derating -60…80 °C storage
Operating altitude	0...3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-11

Mechanical robustness	Vibrations contactor open (2 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Vibrations contactor closed (4 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Shocks contactor open (10 Gn for 11 ms) conforming to IEC 60068-2-27 Shocks contactor closed (15 Gn for 11 ms) conforming to IEC 60068-2-27
Height	152 mm
Width	97 mm
Depth	155 mm
Net weight	2.4 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	18.9 cm
Package 1 Width	13.2 cm
Package 1 Length	18.2 cm
Package 1 Weight	2.64 kg
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	11.0947 kg
Unit Type of Package 3	S06
Number of Units in Package 3	24
Package 3 Height	73.5 cm
Package 3 Width	60 cm
Package 3 Length	80 cm
Package 3 Weight	76.9295 kg

Contractual warranty

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	**391 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**26 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.4 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.3 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**359 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**5 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**
SCIP Number	**608af421-265e-4dfd-b0b3-1192c9364536**
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 product**

Use Again

Repack and remanufacture

Recyclability potential, in %	**78**
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**

Image of product / Alternate images

Alternative







