

Product data sheet

Specifications



Contactor, TeSys Deca Advanced,
3P(3NO), AC-3/AC-3e, $\leq 440V$,
115A, 48-130V AC/DC
coil,connector

LC1D115AEHE

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	115 A (at <140 °F (60 °C)) at ≤ 440 V AC AC-3 for power circuit 115 A (at <140 °F (60 °C)) at ≤ 440 V AC AC-3e for power circuit 200 A (at <140 °F (60 °C)) at ≤ 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC

Complementary

Motor power kW	30 kW at 230 V AC 50/60 Hz (AC-3) 55 kW at 400 V AC 50/60 Hz (AC-3) 59 kW at 415 V AC 50/60 Hz (AC-3) 59 kW at 440 V AC 50/60 Hz (AC-3) 75 kW at 500 V AC 50/60 Hz (AC-3) 80 kW at 690 V AC 50/60 Hz (AC-3) 65 kW at 1000 V AC 50/60 Hz (AC-3) 30 kW at 230 V AC 50/60 Hz (AC-3e) 55 kW at 400 V AC 50/60 Hz (AC-3e) 59 kW at 415 V AC 50/60 Hz (AC-3e) 59 kW at 440 V AC 50/60 Hz (AC-3e) 75 kW at 500 V AC 50/60 Hz (AC-3e) 80 kW at 690 V AC 50/60 Hz (AC-3e) 65 kW at 1000 V AC 50/60 Hz (AC-3e) 30 kW at 230 V AC 50/60 Hz (AC-4) 55 kW at 400 V AC 50/60 Hz (AC-4) 55 kW at 440 V AC 50/60 Hz (AC-4) 63 kW at 500 V AC 50/60 Hz (AC-4) 65 kW at 690 V AC 50/60 Hz (AC-4) 50 kW at 1000 V AC 50/60 Hz (AC-4)
Motor power hp	30 hp at 200/208 V 60 Hz 40 hp at 230/240 V 60 Hz 75 hp at 460/480 V 60 Hz 100 hp at 575/600 V 60 Hz
Compatibility code	LC1D

Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	200 A (at 140 °F (60 °C)) for power circuit
Irms rated making capacity	1560 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	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	350 A 104 °F (40 °C) - 10 min for power circuit 600 A 104 °F (40 °C) - 1 min for power circuit 1280 A 104 °F (40 °C) - 10 s for power circuit 1800 A 104 °F (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	125 A aM at <= 440 V for power circuit 100 A aM at <= 690 V for power circuit 200 A gG at <= 690 V for power circuit 10 A gG for signalling circuit 0.63 A gG for control circuit
Average impedance	0.45 mOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	6 W AC-3 6 W AC-3e 22 W AC-1
[Ui] rated insulation voltage	Power circuit 600 V CSA Power circuit 600 V UL Power circuit 1000 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Safety reliability level	B10d = 684932 cycles contactor with nominal load EN/ISO 13849-1 B10d = 10000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	1 Mcycles 115 A AC-3 <= 440 V 1 Mcycles 115 A AC-3e <= 440 V 0.5 Mcycles 200 A AC-1 <= 440 V
Control circuit type	AC 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...140 °F (-40...60 °C)):operational AC/DC 0.1 Uc Max (-40...140 °F (-40...60 °C)):drop-out AC/DC
Inrush power in VA	170 VA (at 68 °F (20 °C))
Inrush power in W	120 W 68 °F (20 °C))
Hold-in power consumption in VA	7.5 VA (at 68 °F (20 °C))
Hold-in power consumption in W	5.1 W 68 °F (20 °C)
Heat dissipation	1.5 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 °C

Connections - terminals	<p>Power circuit: connector 1 0.02...0.2 in² (10...120 mm²) - cable stiffness: flexible without cable end</p> <p>Power circuit: connector 2 0.02...0.08 in² (10...50 mm²) - cable stiffness: flexible without cable end</p> <p>Power circuit: connector 1 0.02...0.2 in² (10...120 mm²) - cable stiffness: flexible with cable end</p> <p>Power circuit: connector 2 0.02...0.08 in² (10...50 mm²) - cable stiffness: flexible with cable end</p> <p>Power circuit: connector 1 0.02...0.2 in² (10...120 mm²) - cable stiffness: solid without cable end</p> <p>Power circuit: connector 2 0.02...0.08 in² (10...50 mm²) - cable stiffness: solid without cable end</p> <p>Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.004 in² (1...2.5 mm²) - cable stiffness: flexible with cable end</p> <p>Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 1 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end</p> <p>Control circuit: screw clamp terminals 2 0.002...0.006 in² (1...4 mm²) - cable stiffness: solid without cable end</p>
Tightening torque	<p>Power circuit 106.2 lbf.in (12 N.m) connector hexagonal 0.2 in (4 mm)</p> <p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm</p> <p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2</p> <p>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2</p>
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC 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	<p>EN/IEC 60947-4-1</p> <p>EN/IEC 60947-5-1</p> <p>UL 60947-4-1</p> <p>UL 60947-5-1</p> <p>CSA C22.2 No 60947-4-1</p> <p>CSA C22.2 No 60947-5-1</p> <p>JIS C8201-4-1</p> <p>JIS C8201-5-1</p> <p>GB/T 14048.4</p> <p>GB/T 14048.5</p>
Product certifications	<p>CB Scheme</p> <p>CCC</p> <p>cULus</p> <p>CE</p> <p>UKCA</p> <p>EU-RO-MR by DNV-GL</p>
IP degree of protection	IP20 front face IEC 60529
Protective treatment	NoneIEC 60068-2-30
Climatic withstand	<p>IACS E10 exposure to damp heat</p> <p>IEC 60947-1 Annex Q category D exposure to damp heat</p>
Permissible ambient air temperature around the device	<p>-40...140 °F (-40...60 °C) operation</p> <p>140...158 °F (60...70 °C) with derating</p> <p>-76...176 °F (-60...80 °C) storage</p>

Operating altitude	0...3000 m without derating
Fire resistance	1562 °F (850 °C) IEC 60695-2-11
Mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz) IEC 60068-2-6 Vibrations contactor closed 4 Gn, 5...300 Hz) IEC 60068-2-6 Shocks contactor open 10 Gn for 11 ms) IEC 60068-2-27 Shocks contactor closed 15 Gn for 11 ms) IEC 60068-2-27
Height	6.0 in (152 mm)
Width	3.8 in (97 mm)
Depth	6.1 in (155 mm)
Net weight	5.3 lb(US) (2.4 kg)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.4 in (18.9 cm)
Package 1 Width	5.2 in (13.2 cm)
Package 1 Length	7.2 in (18.2 cm)
Package 1 Weight	5.75 lb(US) (2.61 kg)
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	11.8 in (30 cm)
Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	24.1951 lb(US) (10.9747 kg)
Unit Type of Package 3	S06
Number of Units in Package 3	48
Package 3 Height	28.9 in (73.5 cm)
Package 3 Width	23.6 in (60 cm)
Package 3 Length	31.5 in (80 cm)
Package 3 Weight	306.1110 lb(US) (138.8495 kg)

Contractual warranty

Warranty (in months)	18
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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	312 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]	280 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.

Use Better



Materials and Substances

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

Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	78
Circularity Profile	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

Technical Illustration

Assembly's dimensions

mm
[in]

