

Product data sheet

Specifications



TeSys Deca contactor , 4P(4 NO) , AC-1 , <= 440V, 80 A , 24V AC 50/60 Hz coil

LC1DT80A3B7

⚠ Discontinued on: Jan 26, 2021

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Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contactors
Device short name	LC1D
Contactors application	Resistive load
Utilisation category	AC-1
Poles description	4P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	80 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	24 V AC 50/60 Hz

Complementary

Compatibility code	LC1D
Pole contact composition	4 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 80 A (at 140 °F (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 1000 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	640 A 104 °F (40 °C) - 10 s for power circuit 900 A 104 °F (40 °C) - 1 s for power circuit 110 A 104 °F (40 °C) - 10 min for power circuit 260 A 104 °F (40 °C) - 1 min 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 60947-5-1 125 A gG at <= 690 V coordination type 1 for power circuit 125 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.6 mOhm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	10.2 W AC-1

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

[Ui] rated insulation voltage	Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL Power circuit 690 V IEC 60947-4-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	6 Mcycles
Electrical durability	1.4 Mcycles 80 A AC-1 <= 440 V
Control circuit type	AC 50/60 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc (-40...158 °F (-40...70 °C)):drop-out AC 50/60 Hz 0.8...1.1 Uc (-40...140 °F (-40...60 °C)):operational AC 50 Hz 0.85...1.1 Uc (-40...140 °F (-40...60 °C)):operational AC 60 Hz 1...1.1 Uc (140...158 °F (60...70 °C)):operational AC 50/60 Hz
Inrush power in VA	140 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 160 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 15 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
Heat dissipation	4...5 W at 50/60 Hz
Operating time	4...19 ms opening 12...26 ms closing
Connections - terminals	Control circuit: spring terminals 1 0.004 in ² (2.5 mm ²) - cable stiffness: flexible without cable end Control circuit: spring terminals 2 0.004 in ² (2.5 mm ²) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 1 0.002...0.05 in ² (1...35 mm ²) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 0.002...0.04 in ² (1...25 mm ²) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 1 0.002...0.05 in ² (1...35 mm ²) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 2 0.002...0.04 in ² (1...25 mm ²) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1 0.002...0.05 in ² (1...35 mm ²) - cable stiffness: solid without cable end Power circuit: EverLink BTR screw connectors 2 0.002...0.04 in ² (1...25 mm ²) - cable stiffness: solid without cable end
Tightening torque	Power circuit 70.8 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in ² (25...35 mm ²) hexagonal 0.2 in (4 mm) Power circuit 44.3 lbf.in (5 N.m) EverLink BTR screw connectors 0.004...0.04 in ² (2.5...25 mm ²) hexagonal 0.2 in (4 mm)
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	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	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Mounting support	Rail Plate

Environment

Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	CCC GL UL RINA LROS (Lloyds register of shipping) BV GOST CSA DNV
IP degree of protection	IP20 front face IEC 60529
Protective treatment	THIEC 60068-2-30
Climatic withstand	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Operating altitude	0...3000 m
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz) Vibrations contactor closed 4 Gn, 5...300 Hz) Shocks contactor closed 15 Gn for 11 ms) Shocks contactor open 10 Gn for 11 ms)
Height	4.8 in (122 mm)
Width	2.8 in (70 mm)
Depth	4.7 in (120 mm)
Net weight	2.54 lb(US) (1.15 kg)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.0 in (7.5 cm)
Package 1 Width	5.5 in (14 cm)
Package 1 Length	5.9 in (15 cm)
Package 1 Weight	2.4 lb(US) (1.1 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 >](#)

Use Better

Materials and Substances	
EU RoHS Directive	Compliant
PVC free	Yes

Use Longer

Lifetime extension	
Repair	No

Use Again

Repack and remanufacture	
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins