Product data sheet

Specifications

Green Premium™

Contactor, TeSys Deca, 4P(4 NO), AC-1, <=440V, 20A, 125VDC standard coil, screw clamp terminal

LC1DT20GD

Main

Range	TeSys TeSys Deca
Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor 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	20 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
[Uc] Control Circuit Voltage	125 V DC

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 20 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 60947-5-1 250 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	250 A at 440 V for power circuit conforming to IEC 60947
[Icw] Rated Short-Time Withstand Current	30 A 104 °F (40 °C) - 10 min for power circuit 61 A 104 °F (40 °C) - 1 min for power circuit 105 A 104 °F (40 °C) - 10 s for power circuit 210 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	10 A gG for signalling circuit conforming to IEC 60947-5-1 25 A gG at <= 690 V coordination type 1 for power circuit 20 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	2.5 mOhm - Ith 20 A 50 Hz for power circuit
Power Dissipation Per Pole	1.56 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	30 Mcycles
Control Circuit Type	DC standard
Coil Technology	Built-in bidirectional peak limiting diode suppressor
Control Circuit Voltage Limits	0.1...0.25 Uc -40…158 °F (-40…70 °C) drop-out DC 0.7...1.25 Uc -40…140 °F (-40…60 °C) operational DC 1...1.25 Uc 140…158 °F (60…70 °C) operational DC
Inrush Power In W	5.4 W 68 °F (20 °C))
Hold-In Power Consumption In W	5.4 W 68 °F (20 °C)
Operating Time	20 ±20 % ms opening 63 ±15 % ms closing
Time Constant	28 ms
Maximum Operating Rate	3600 cyc/h 140 °F (60 °C)
Connections - Terminals	Control circuit: screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 0.00…0.01 in² (1…4 mm²) - cable stiffness: solid without cable end
Tightening Torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2
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	Plate Rail

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 IEC 60335-1
Product Certifications	DNV LROS (Lloyds register of shipping) CCC UL RINA BV CSA GL GOST
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	3.35 in (85 mm)
Width	1.77 in (45 mm)
Depth	3.90 in (99 mm)
Net Weight	0.80 lb(US) (0.365 kg)

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.17 in (5.5 cm)
Package 1 Width	3.74 in (9.5 cm)
Package 1 Length	4.72 in (12.0 cm)
Package 1 Weight	18.84 oz (534.0 g)

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

Well-being performance

Mercury Free	
Rohs Exemption Information	Yes
Pvc Free	

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant with Exemptions
China Rohs Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information