

Product availability: Stock - Normally stocked in distribution facility



Main

Commercial Status	Commercialised
Range of product	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
Pole contact composition	4 NO
[Ue] rated operational voltage	<= 300 V DC for power circuit <= 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	25 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
Control circuit type	AC 50/60 Hz
Control circuit voltage	110 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	25 A at <= 140 °F (60 °C) for power circuit 10 A at <= 140 °F (60 °C) for signalling circuit
Irms rated making capacity	250 A at 440 V for power circuit conforming to IEC 60947 250 A DC for signalling circuit conforming to IEC 60947-5-1 140 A AC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	210 A <= 104 °F (40 °C) 1 s power circuit 105 A <= 104 °F (40 °C) 10 s power circuit 61 A <= 104 °F (40 °C) 1 min power circuit 30 A <= 104 °F (40 °C) 10 min power circuit 140 A 100 ms signalling circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit
Associated fuse rating	25 A gG at <= 690 V coordination type 2 for power circuit 40 A gG at <= 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	2.5 mOhm at 50 Hz - Ith 25 A for power circuit
[Ui] rated insulation voltage	600 V for signalling circuit certifications UL 600 V for signalling circuit certifications CSA 690 V for signalling circuit conforming to IEC 60947-1 600 V for power circuit certifications UL 600 V for power circuit certifications CSA 690 V for power circuit conforming to IEC 60947-4-1
Electrical durability	0.8 Mcycles 25 A AC-1 at Ue <= 440 V
Power dissipation per pole	1.56 W AC-1
Protective cover	With

Mounting support	Plate Rail
Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 No 14
Product certifications	BV CCC CSA DNV GL GOST RINA UL LROS
Connections - terminals	<p>Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: solid - without cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: solid - without cable end</p> <p>Power circuit: screw clamp terminals 2 cable(s) 0...0 in<sup>2</sup> (1...2.5 mm<sup>2</sup>) - cable stiffness: flexible - with cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - with cable end</p> <p>Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - without cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - without cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: solid - without cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: solid - without cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - with cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - with cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - without cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in<sup>2</sup> (1...4 mm<sup>2</sup>) - cable stiffness: flexible - without cable end</p>
Tightening torque	<p>Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2</p> <p>Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm</p> <p>Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2</p> <p>Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm</p>
Operating time	12...22 ms closing 4...19 ms opening
Safety reliability level	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1
Mechanical durability	15 Mcycles
Operating rate	3600 cyc/h at <= 140 °F (60 °C)

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc at 140 °F (60 °C) operational 60 Hz 0.8...1.1 Uc at 140 °F (60 °C) operational 50 Hz 0.3...0.6 Uc at 140 °F (60 °C) drop-out 50/60 Hz
Inrush power in VA	70 VA at 20 °C (cos ? 0.75) 50 Hz 70 VA at 20 °C (cos ? 0.75) 60 Hz
Hold-in power consumption in VA	7 VA at 20 °C (cos ? 0.3) 50 Hz 7.5 VA at 20 °C (cos ? 0.3) 60 Hz
Heat dissipation	2...3 W at 50/60 Hz
Auxiliary contacts type	Type mirror contact (1 NC) conforming to IEC 60947-4-1 Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 mA for signalling circuit
Minimum switching voltage	17 V for signalling circuit
Non-overlap time	1.5 ms on energisation (between NC and NO contact) 1.5 ms on de-energisation (between NC and NO contact)
Insulation resistance	> 10 MΩ for signalling circuit

## Environment

IP degree of protection	IP2x front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	23...140 °F (-5...60 °C)
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Permissible ambient air temperature around the device	-40...158 °F (-40...70 °C) at Uc
Operating altitude	9842.52 ft (3000 m) without derating in temperature
Fire resistance	1562 °F (850 °C) conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz
Height	3.35 in (85 mm)
Width	1.77 in (45 mm)
Depth	3.62 in (92 mm)
Product weight	0.8 lb(US) (0.365 kg)

## Ordering and shipping details

Category	22345 - CTR,D-LINE,OPEN,NONREV-NEW
Discount Schedule	I12
GTIN	00785901899617
Nbr. of units in pkg.	1
Package weight(Lbs)	0.87
Product availability	Stock - Normally stocked in distribution facility
Returnability	Y
Country of origin	ID

## Contractual warranty

Period	18 months
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