



## Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-1 AC-4
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	50 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit 38 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit
Motor power kW	18.5 kW 500 V AC 50/60 Hz AC-3) 18.5 kW 660...690 V AC 50/60 Hz AC-3) 7.5 kW 400 V AC 50/60 Hz AC-4) 18.5 kW 380...400 V AC 50/60 Hz AC-3) 9 kW 220...230 V AC 50/60 Hz AC-3) 18.5 kW 415...440 V AC 50/60 Hz AC-3)
Motor power HP (UL / CSA)	10 hp 230/240 V AC 50/60 Hz 3 phase 10 hp 200/208 V AC 50/60 Hz 3 phase 5 hp 240 V AC 50/60 Hz 1 phase 20 hp 480 V AC 50/60 Hz 3 phase 25 hp 600 V AC 50/60 Hz 3 phase
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	480 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947

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

Overvoltage category	III
[I <sub>th</sub> ] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 50 A 140 °F (60 °C) power circuit
I <sub>rms</sub> rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 550 A 440 V power circuit IEC 60947
Rated breaking capacity	550 A 440 V power circuit IEC 60947
[I <sub>cw</sub> ] rated short-time withstand current	60 A 104 °F (40 °C) - 10 min power circuit 430 A 104 °F (40 °C) - 1 s power circuit 150 A 104 °F (40 °C) - 1 min power circuit 310 A 104 °F (40 °C) - 10 s power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 63 A gG ≤ 690 V type 1 power circuit 63 A gG ≤ 690 V type 2 power circuit
Average impedance	2 mOhm - I <sub>th</sub> 50 A 50 Hz power circuit
[U <sub>i</sub> ] 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
Electrical durability	1.4 Mcycles 50 A AC-1 ≤ 440 V 1.4 Mcycles 38 A AC-3 ≤ 440 V
Power dissipation per pole	5 W AC-1 3 W AC-3
Safety cover	With
Mounting support	Plate Rail
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	BV DNV GL RINA CCC CSA UL GOST LROS (Lloyds register of shipping)
Connections - terminals	Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> )flexible without cable end Power circuit screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> )flexible without cable end Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1...10 mm <sup>2</sup> )flexible with cable end Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...6 mm <sup>2</sup> )flexible with cable end Power circuit screw clamp terminals 1 0.00...0.02 in <sup>2</sup> (1.5...10 mm <sup>2</sup> )solid without cable end Power circuit screw clamp terminals 2 0.00...0.02 in <sup>2</sup> (2.5...10 mm <sup>2</sup> )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 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2
Operating time	4...19 ms opening 12...22 ms closing
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	15 Mcycles

Maximum operating rate	3600 cyc/h 140 °F (60 °C)
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## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	Drop-out 0.3...0.6 Uc AC 50/60 Hz 140 °F (60 °C) Operational 0.8...1.1 Uc AC 50 Hz 140 °F (60 °C) Operational 0.85...1.1 Uc AC 60 Hz 140 °F (60 °C)
Inrush power in VA	70 VA 60 Hz 0.75 68 °F (20 °C) 70 VA 50 Hz 0.75 68 °F (20 °C)
Hold-in power consumption in VA	7.5 VA 60 Hz 0.3 68 °F (20 °C) 7 VA 50 Hz 0.3 68 °F (20 °C)
Heat dissipation	2...3 W 50/60 Hz
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 current	5 mA signalling circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm signalling circuit

## Environment

IP degree of protection	IP20 front face IEC 60529
Protective treatment	TH 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
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor closed15 Gn for 11 ms Shocks contactor open8 Gn for 11 ms
Height	3.35 in (85 mm)
Width	1.77 in (45 mm)
Depth	3.62 in (92 mm)
Net weight	0.84 lb(US) (0.38 kg)

## Ordering and shipping details

Category	22354 - CTR, TESYS D, OPEN, 9-38A AC
Discount Schedule	I12
GTIN	03389110352214
Returnability	No
Country of origin	FR

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes

Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

### Contractual warranty

Warranty	18 months
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