

# LC1D150M7

IEC contactor, TeSys D, nonreversing, 150A,  
100HP at 480VAC, up to 100kA SCCR, 3  
phase, 3 NO, 220VAC 50/60Hz coil, open





## Main

Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	200 A 140 °F (60 °C) <= 440 V AC AC-1 power circuit 150 A 140 °F (60 °C) <= 440 V AC AC-3 power circuit
Motor power kW	40 kW 220...230 V AC 50/60 Hz AC-3) 75 kW 380...400 V AC 50/60 Hz AC-3) 80 kW 415...440 V AC 50/60 Hz AC-3) 90 kW 500 V AC 50/60 Hz AC-3) 100 kW 660...690 V AC 50/60 Hz AC-3) 75 kW 1000 V AC 50/60 Hz AC-3) 22 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	40 Hp 200/208 V at AC 50/60 Hz for 3 phase 50 Hp 230/240 V at AC 50/60 Hz for 3 phase 100 Hp 460/480 V at AC 50/60 Hz for 3 phase 125 hp 575/600 V at AC 50/60 Hz for 3 phase
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	220 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	200 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1660 A 440 V power circuit IEC 60947
Rated breaking capacity	1400 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	250 A 104 °F (40 °C) - 10 min power circuit 580 A 104 °F (40 °C) - 1 min power circuit 1200 A 104 °F (40 °C) - 10 s power circuit 1400 A 104 °F (40 °C) - 1 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 60947-5-1 315 A gG <= 690 V type 1 power circuit 250 A gG <= 690 V type 2 power circuit
Average impedance	0.6 mOhm - Ith 200 A 50 Hz power circuit
[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
Electrical durability	0.85 Mcycles 150 A AC-3 <= 440 V 1 Mcycles 200 A AC-1 <= 440 V
Power dissipation per pole	24 W AC-1 13.5 W AC-3

Front cover	With
Mounting support	Rail Plate
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 LROS (Lloyds register of shipping) GL GOST RINA CSA BV UL DNV UKCA
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... 0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.00... 0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.00... 0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.00... 0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 2 0.00... 0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )solid without cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10... 120 mm <sup>2</sup> )flexible without cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10... 50 mm <sup>2</sup> )flexible without cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10... 120 mm <sup>2</sup> )flexible with cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10... 50 mm <sup>2</sup> )flexible with cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10... 120 mm <sup>2</sup> )solid without cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10... 50 mm <sup>2</sup> )solid without cable end
Tightening torque	Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm)
Operating time	20...35 ms closing 40...75 ms opening
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	8 Mcycles
Maximum operating rate	1200 cyc/h 140 °F (60 °C)

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.15 Uc -40...131 °F (-40...55 °C) operational AC 50/60 Hz 1...1.15 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz
Inrush power in VA	280...350 VA 60 Hz 0.9 68 °F (20 °C)) 280...350 VA 50 Hz 0.9 68 °F (20 °C))
Hold-in power consumption in VA	2...18 VA 60 Hz 0.9 68 °F (20 °C)) 2...18 VA 50 Hz 0.9 68 °F (20 °C))
Heat dissipation	3...4.5 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	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Operating altitude	0...9842.52 ft (0...3000 m)
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 conforming to 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: 6 Gn for 11 ms
Height	6.22 in (158 mm)
Width	4.72 in (120 mm)
Depth	5.35 in (136 mm)
Net Weight	5.51 lb(US) (2.5 kg)

## Ordering and shipping details

Category	22359 - CTR, TESYS D, OPEN, 80-150A AC&DC
Discount Schedule	I12
GTIN	00785901899211
Nbr. of units in pkg.	1
Package weight(Lbs)	5.45 lb(US) (2.47 kg)
Returnability	Yes
Country of origin	CZ

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	6.69 in (17 cm)
Package 1 width	7.40 in (18.8 cm)
Package 1 Length	8.27 in (21 cm)
Unit Type of Package 2	CAR
Number of Units in Package 2	1
Package 2 Weight	5.51 lb(US) (2.5 kg)
Package 2 Height	8.27 in (21 cm)
Package 2 width	7.87 in (20 cm)
Package 2 Length	9.25 in (23.5 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	27
Package 3 Weight	175.97 lb(US) (79.82 kg)
Package 3 Height	31.50 in (80 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	23.62 in (60 cm)

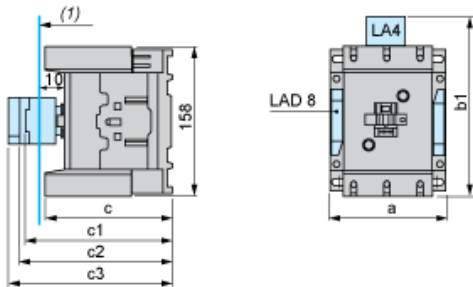
## Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
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.
PVC free	Yes

## Contractual warranty

Warranty	18 months
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Dimensions



(1) Minimum electrical clearance

LC1		D115 and D150 (3-pole)
a		120
b1	with LA4 DA2	174
with LA4 DF, DT	185	
with LA4 DM, DL	188	
with LA4 DW	188	
c	without cover or add-on blocks	132
with cover, without add-on blocks	136	
c1	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK20	155
c3	with LAD T, R, S	168
with LAD T, R, S and sealing cover	172	

## Wiring

