

## Product data sheet

### Characteristics

# LC1D150M7

TeSys D contactor - 3P(3 NO) - AC-3 -  $\leq 440$  V 150 A - 220 V AC 50/60 Hz coil



### Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-1 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: $\leq 1000$ V AC 25...400 Hz Power circuit: $\leq 300$ V DC
[Ie] rated operational current	200 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit 150 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit 150 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3e for power circuit
[Uc] control circuit voltage	220 V AC 50/60 Hz

### Complementary

Motor power kW	40 kW at 220...230 V AC 50/60 Hz (AC-3) 75 kW at 380...400 V AC 50/60 Hz (AC-3) 80 kW at 415...440 V AC 50/60 Hz (AC-3) 90 kW at 500 V AC 50/60 Hz (AC-3) 100 kW at 660...690 V AC 50/60 Hz (AC-3) 75 kW at 1000 V AC 50/60 Hz (AC-3) 22 kW at 400 V AC 50/60 Hz (AC-4) 40 kW at 220...230 V AC 50/60 Hz (AC-3e) 75 kW at 380...400 V AC 50/60 Hz (AC-3e) 80 kW at 415...440 V AC 50/60 Hz (AC-3e) 90 kW at 500 V AC 50/60 Hz (AC-3e) 100 kW at 660...690 V AC 50/60 Hz (AC-3e) 75 kW at 1000 V AC 50/60 Hz (AC-3e)
Motor power hp	40 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 50 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 100 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 125 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	200 A (at 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 1660 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1400 A at 440 V for power circuit conforming to IEC 60947

[Icw] rated short-time withstand current	250 A 40 °C - 10 min for power circuit 580 A 40 °C - 1 min for power circuit 1200 A 40 °C - 10 s for power circuit 1400 A 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 60947-5-1 315 A gG at ≤ 690 V coordination type 1 for power circuit 250 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	0.6 mOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	24 W AC-1 13.5 W AC-3 13.5 W AC-3e
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified[RETURN]Power circuit: 600 V UL certified[RETURN]Power circuit: 1000 V conforming to IEC 60947-4-1[RETURN]Signalling circuit: 690 V conforming to IEC 60947-1[RETURN]Signalling circuit: 600 V CSA certified[RETURN]Signalling circuit: 600 V UL certified
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Safety reliability level	B10d = 684932 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 10000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	0.85 Mcycles 150 A AC-3 at Ue ≤ 440 V 1 Mcycles 200 A AC-1 at Ue ≤ 440 V 0.85 Mcycles 150 A AC-3e at Ue ≤ 440 V
Control circuit type	AC at 50/60 Hz standard
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 Uc (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.15 Uc (-40...55 °C):operational AC 50/60 Hz 1...1.15 Uc (55...70 °C):operational AC 50/60 Hz
Inrush power in VA	280...350 VA 60 Hz cos phi 0.9 (at 20 °C) 280...350 VA 50 Hz cos phi 0.9 (at 20 °C)
Hold-in power consumption in VA	2...18 VA 60 Hz cos phi 0.9 (at 20 °C) 2...18 VA 50 Hz cos phi 0.9 (at 20 °C)
Heat dissipation	3...4.5 W at 50/60 Hz
Operating time	20...35 ms closing 40...75 ms opening
Maximum operating rate	1200 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: solid without cable end Power circuit: connector 1 10...120 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 10...50 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 10...120 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 10...50 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 10...120 mm² - cable stiffness: solid without cable end Power circuit: connector 2 10...50 mm² - cable stiffness: solid without cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 Type mirror contact 1 NC conforming to 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[RETURN]LROS (Lloyds register of shipping) [RETURN]GL[RETURN]GOST[RETURN]RINA[RETURN]CSA[RETURN]BV[RETURN]JUL[RET
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Climatic withstand	Conforming to IACS E10 exposure to damp heat
Permissible ambient air temperature around the device	-40...60 °C 60...70 °C with derating
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to 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	158 mm
Width	120 mm
Depth	136 mm
Net weight	2.5 kg

## Packing Units

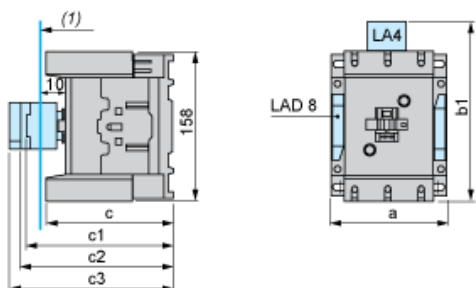
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	21.000 cm
Package 1 Width	20.000 cm
Package 1 Length	23.500 cm
Package 1 Weight	2.490 kg
Unit Type of Package 2	S06
Number of Units in Package 2	27
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	79.819 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
RoHS exemption information	 <a href="#">Yes</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
<b>Contractual warranty</b>	
Warranty	18 months

## 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

