



## Main

Range of product	TeSys Deca
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Motor control
Utilisation category	AC-4 AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V AC 50/60 Hz

## Complementary

Motor power kW	2.2 kW at 220...230 V AC 50/60 Hz (AC-3) 4 kW at 380...400 V AC 50/60 Hz (AC-3) 4 kW at 415...440 V AC 50/60 Hz (AC-3) 5.5 kW at 500 V AC 50/60 Hz (AC-3) 5.5 kW at 660...690 V AC 50/60 Hz (AC-3) 2.2 kW at 400 V AC 50/60 Hz (AC-4) 2.2 kW at 220...230 V AC 50/60 Hz (AC-3e) 4 kW at 380...400 V AC 50/60 Hz (AC-3e) 4 kW at 415...440 V AC 50/60 Hz (AC-3e) 5.5 kW at 500 V AC 50/60 Hz (AC-3e) 5.5 kW at 660...690 V AC 50/60 Hz (AC-3e)
Motor power hp	1 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 2 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 5 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 7.5 Hp at 575/600 V AC 50/60 Hz for 3 phases motors 0.33 Hp at 115 V AC 50/60 Hz for 1 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M2
Protective cover	With
[Ith] conventional free air thermal current	25 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit

Irms rated making capacity	250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC 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	105 A 40 °C - 10 s for power circuit 210 A 40 °C - 1 s for power circuit 30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min 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 $\leq 690$ V coordination type 1 for power circuit 20 A gG at $\leq 690$ V coordination type 2 for power circuit
Average impedance	2.5 MOhm - Ith 25 A 50 Hz for power circuit
Power dissipation per pole	1.56 W AC-1 0.2 W AC-3 0.2 W AC-3e
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 KV conforming to IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming- to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming- to EN/ISO 13849-1
Mechanical durability	15 Mcycles
Electrical durability	0.6 Mcycles 25 A AC-1 at $U_e \leq 440$ V 2 Mcycles 9 A AC-3 at $U_e \leq 440$ V 2 Mcycles 9 A AC-3e at $U_e \leq 440$ V
Control circuit type	AC at 50/60 Hz standard
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 $U_c$ (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 $U_c$ (-40...60 °C):operational AC 50 Hz 0.85...1.1 $U_c$ (-40...60 °C):operational AC 60 Hz 1...1.1 $U_c$ (60...70 °C):operational AC 50/60 Hz
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	2...3 W at 50/60 Hz
Operating time	12...22 ms closing 4...19 ms opening
Maximum operating rate	3600 Cyc/H 60 °C

Connections - terminals	<p>Power circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: flexible without-cable end</p> <p>Power circuit: screw clamp terminals 2 1...4 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Power circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: flexible with-cable end</p> <p>Power circuit: screw clamp terminals 2 1...2.5 mm<sup>2</sup> - cable stiffness: flexible with-cable end</p> <p>Power circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: solid without-cable end</p> <p>Power circuit: screw clamp terminals 2 1...4 mm<sup>2</sup> - cable stiffness: solid without-cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 2 1...4 mm<sup>2</sup> - cable stiffness: flexible without cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: flexible with-cable end</p> <p>Control circuit: screw clamp terminals 2 1...2.5 mm<sup>2</sup> - cable stiffness: flexible-with cable end</p> <p>Control circuit: screw clamp terminals 1 1...4 mm<sup>2</sup> - cable stiffness: solid without-cable end</p> <p>Control circuit: screw clamp terminals 2 1...4 mm<sup>2</sup> - cable stiffness: solid without-cable end</p>
Tightening torque	<p>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm</p> <p>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver-pozidriv No 2</p> <p>Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver-pozidriv No 2</p>
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	<p>CSA C22.2 No 14</p> <p>EN 60947-4-1</p> <p>EN 60947-5-1</p> <p>IEC 60947-4-1</p> <p>IEC 60947-5-1</p> <p>UL 508</p> <p>IEC 60335-1</p>
Product certifications	GL[RETURN]CSA[RETURN]GOST[RETURN]RINA[RETURN]LROS (Lloyds register of shipping)[RETURN]UL[RETURN]DNV[RETURN]BV[RETURN]CCC[RETURN]UKCA
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 conforming to IEC 60947-1 Annex Q category D 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	<p>Vibrations contactor open (2 Gn, 5...300 Hz)</p> <p>Vibrations contactor closed (4 Gn, 5...300 Hz)</p> <p>Shocks contactor open (10 Gn for 11 ms)</p> <p>Shocks contactor closed (15 Gn for 11 ms)</p>
Height	77 Mm
Width	45 Mm

Depth	86 Mm
Net weight	0.32 Kg

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.000 Cm
Package 1 Width	9.200 Cm
Package 1 Length	11.200 Cm
Package 1 Weight	353.000 G
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Height	15.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	7.346 Kg
Unit Type of Package 3	P06
Number of Units in Package 3	320
Package 3 Height	75.000 Cm
Package 3 Width	60.000 Cm
Package 3 Length	80.000 Cm
Package 3 Weight	126.688 Kg

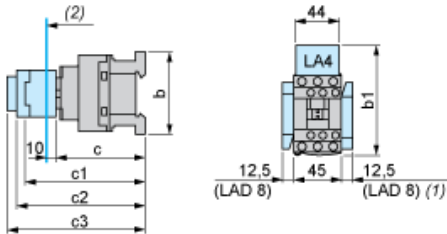
### Offer Sustainability

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
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

### Contractual warranty

Warranty	18 months
----------	-----------

Dimensions



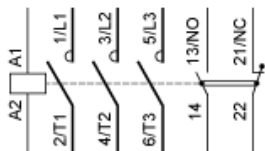
- (1) Including LAD 4BB  
(2) Minimum electrical clearance

LC1		D09...D18	D093...D123	D099...D129
b	without add-on blocks	77	99	80
b1	with LAD 4BB	94	107	95.5
with LA4 D10	140 <sup>(1)</sup>	123 <sup>(1)</sup>	111.5 <sup>(1)</sup>	
with LA4 D11	149 <sup>(1)</sup>	132 <sup>(1)</sup>	120.5 <sup>(1)</sup>	
with LA4 D12	158 <sup>(1)</sup>	139 <sup>(1)</sup>	127.5 <sup>(1)</sup>	
c	without cover or add-on blocks	84	84	84
c	with cover, without add-on blocks	86	86	
c1	with LAD N or C (2 or 4 contacts)	117	117	117
c2	with LA6 DK10, LAD 6K10	129	129	129
c3	with LAD T, R, S	137	137	137
with LAD T, R, S and sealing cover	141	141		
(1)	Including LAD 4BB.			

---

Wiring

---



Product Life Status :	Commercialised
-----------------------	----------------