





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 ≤ 300 V DC 25...400 Hz Power circuit ≤ 690 V AC
[Ie] rated operational current	125 A 140 °F (60 °C)) ≤ 440 V AC AC-1 power circuit 80 A 140 °F (60 °C)) ≤ 440 V AC AC-3 power circuit
Motor power kW	22 KW 220...230 V AC 50/60 Hz AC-3) 37 KW 380...400 V AC 50/60 Hz AC-3) 45 KW 415...440 V AC 50/60 Hz AC-3) 55 KW 500 V AC 50/60 Hz AC-3) 45 KW 660...690 V AC 50/60 Hz AC-3) 45 KW 1000 V AC 50/60 Hz AC-3) 15 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	20 Hp 200/208 V AC 50/60 Hz 3 phase 7.5 Hp 115 V AC 50/60 Hz 1 phase 15 Hp 230/240 V AC 50/60 Hz 1 phase 25 Hp 230/240 V AC 50/60 Hz 3 phase 60 Hp 460/480 V AC 50/60 Hz 3 phase 60 hp 575/600 V AC 50/60 Hz 3 phase
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	48 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 125 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 1100 A 440 V power circuit IEC 60947
Rated breaking capacity	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	640 A 104 °F (40 °C) - 10 s power circuit 990 A 104 °F (40 °C) - 1 s power circuit 135 A 104 °F (40 °C) - 10 min power circuit 320 A 104 °F (40 °C) - 1 min 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 60947-5-1 200 A gG ≤ 690 V type 1 power circuit 160 A gG ≤ 690 V type 2 power circuit
Average impedance	0.8 mOhm - Ith 125 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit 600 V CSA Power circuit 600 V UL Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
Electrical durability	0.8 Mcycles 125 A AC-1 ≤ 440 V 1.5 Mcycles 80 A AC-3 ≤ 440 V

Power dissipation per pole	5.1 W AC-3 12.5 W AC-1
Front 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	CSA BV UL GOST RINA CCC GL LROS (Lloyds register of shipping) DNV
Connections - terminals	Control circuit screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²)flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm ² flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²)flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²)flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²)solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²)solid without cable end Power circuit connector 1 0.01...0.08 in ² (4...50 mm ²)flexible without cable end Power circuit connector 2 0.01...0.04 in ² (4...25 mm ²)flexible without cable end Power circuit connector 1 0.01...0.08 in ² (4...50 mm ²)flexible with cable end Power circuit connector 2 0.01...0.02 in ² (4...16 mm ²)flexible with cable end Power circuit connector 1 0.01...0.08 in ² (4...50 mm ²)solid without cable end Power circuit connector 2 0.01...0.04 in ² (4...25 mm ²)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 106.21 lbf.in (12 N.m) connector flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm
Operating time	20...35 ms closing 6...20 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	4 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc -40...131 °F (-40...55 °C) operational AC 60 Hz 0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40...131 °F (-40...55 °C) operational AC 50 Hz 1...1.1 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz
Inrush power in VA	245 VA 60 Hz 0.75 68 °F (20 °C)) 245 VA 50 Hz 0.75 68 °F (20 °C))
Hold-in power consumption in VA	26 VA 60 Hz 0.3 68 °F (20 °C)) 26 VA 50 Hz 0.3 68 °F (20 °C))
Heat dissipation	6...10 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
Contact compatibility	M11
Compatibility code	LC1D
Motor power range	55...100 KW 480...500 V 3 phase 15...25 KW 200...240 V 3 phase 30...50 KW 380...440 V 3 phase 30...50 kW 480...500 V 3 phase
Motor starter type	Direct on-line contactor
Contactor coil voltage	48 V AC standard

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 UL 94
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Shocks contactor open 8 Gn for 11 ms Vibrations contactor closed: 3 Gn, 5...300 Hz Shocks contactor closed 10 Gn for 11 ms
Height	5.00 in (127 mm)
Maximum Width	3.35 in (85 mm)
Depth	5.12 in (130 mm)
Net Weight	3.51 lb(US) (1.59 kg)

Ordering and shipping details

Category	22359 - CTR, TESYS D, OPEN, 80-150A AC&DC
Discount Schedule	I12
GTIN	00785901930518
Nbr. of units in pkg.	1
Package weight(Lbs)	3.46 lb(US) (1.57 kg)
Returnability	No
Country of origin	CZ

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	3.74 in (9.5 cm)
Package 1 width	5.31 in (13.5 cm)
Package 1 Length	6.30 in (16 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Weight	17.82 lb(US) (8.085 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	80

Package 3 Weight	293.61 lb(US) (133.18 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)

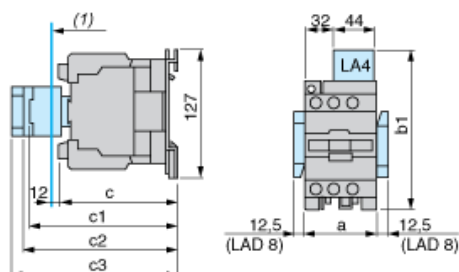
Offer Sustainability

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 www.P65Warnings.ca.gov
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
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		D80	D95
a		85	85
b1	with LA4 D•2	135	135
with LA4 DB3 or LAD 4BB3	135	—	
with LA4 DF, DT	142	142	
with LA4 DM, DW, DL	150	150	
c	without cover or add-on blocks	125	125
with cover, without add-on blocks	130	130	
c1	with LAD N (1 contact)	150	150
with LAD N or C (2 or 4 contacts)	158	158	
c2	with LA6 DK10, LAD 6DK	170	170
c3	with LAD T, R, S	178	178
with LAD T, R, S and sealing cover	182	182	

Wiring

