

# LC1D50ARD

IEC contactor, TeSys D, nonreversing, 50A,  
40HP at 480VAC, up to 100kA SCCR, 3 phase,  
3 NO, 440VDC coil, open style



## Main

Range	TeSys
Product name	TeSys D TeSys Deca
Product or Component Type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-4 AC-1 AC-3 AC-3e
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-3 power circuit 80 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit 50 A 140 °F (60 °C)) <= 440 V AC AC-3e power circuit
Motor power kW	15 KW 220...230 V AC 50/60 Hz AC-3) 22 KW 380...400 V AC 50/60 Hz AC-3) 30 KW 500 V AC 50/60 Hz AC-3) 33 KW 660...690 V AC 50/60 Hz AC-3) 25 KW 415 V AC 50/60 Hz AC-3) 30 KW 440 V AC 50/60 Hz AC-3) 11 KW 400 V AC 50/60 Hz AC-4) 15 KW 220...230 V AC 50/60 Hz AC-3e) 22 KW 380...400 V AC 50/60 Hz AC-3e) 30 KW 500 V AC 50/60 Hz AC-3e) 33 KW 660...690 V AC 50/60 Hz AC-3e) 25 KW 415 V AC 50/60 Hz AC-3e) 30 kW 440 V AC 50/60 Hz AC-3e)
Motor power HP (UL / CSA)	3 Hp 115 V at AC 50/60 Hz for 1 phase 7.5 Hp 230/240 V at AC 50/60 Hz for 1 phase 15 Hp 200/208 V at AC 50/60 Hz for 3 phase 15 Hp 230/240 V at AC 50/60 Hz for 3 phase 40 Hp 460/480 V at AC 50/60 Hz for 3 phase 40 hp 575/600 V at AC 50/60 Hz for 3 phase
Control circuit type	DC standard
[Uc] control circuit voltage	440 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 80 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 60947-5-1 900 A 440 V power circuit IEC 60947
Rated breaking capacity	900 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	400 A 104 °F (40 °C) - 10 s power circuit 810 A 104 °F (40 °C) - 1 s power circuit 84 A 104 °F (40 °C) - 10 min power circuit 208 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 60947-5-1 100 A gG <= 690 V type 1 power circuit 100 A gG <= 690 V type 2 power circuit

Average impedance	1.5 mOhm - lth 80 A 50 Hz power circuit
[Ui] 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	1.45 Mcycles 50 A AC-3 <= 440 V 0.5 Mcycles 80 A AC-1 <= 440 V 1.45 Mcycles 50 A AC-3e <= 440 V
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e
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	UL RINA CSA BV CCC DNV GOST LROS (Lloyds register of shipping) GL
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 EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible without cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible without cable end Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible with cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible with cable end Power circuit EverLink BTR screw connectors 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )solid without cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )solid without cable end
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors Phillips No 2 Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm) Control circuit 15.05 lbf.in (1.7 N.m) EverLink BTR screw connectors pozidriv No 2 EverLink BTR screw connectors
Operating time	42.5...57.5 ms closing 16...24 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	10 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.3 Uc -40...158 °F (-40...70 °C) drop-out DC 0.75...1.25 Uc -40...140 °F (-40...60 °C) operational DC 1...1.25 Uc 140...158 °F (60...70 °C) operational DC
Time constant	34 ms
Inrush power in W	19 W 68 °F (20 °C))
Hold-in power consumption in W	7.4 W 68 °F (20 °C)
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
Climatic withstand	IACS E10 IEC 60947-1 Annex Q category D
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
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 open10 Gn for 11 ms
Height	4.80 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Net Weight	2.05 lb(US) (0.93 kg)

## Ordering and shipping details

Category	22358-CTR, TESYS D, OPEN, 40-65A DC
Discount Schedule	I12
GTIN	3389118357754
Nbr. of units in pkg.	1
Package weight(Lbs)	2.23 lb(US) (1.013 kg)
Returnability	No
Country of origin	FR

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.44 in (6.2 cm)
Package 1 width	5.39 in (13.7 cm)
Package 1 Length	5.98 in (15.2 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Weight	23.34 lb(US) (10.585 kg)

Package 2 Height	5.91 in (15.0 cm)
Package 2 width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	160
Package 3 Weight	392.11 lb(US) (177.86 kg)
Package 3 Height	30.31 in (77.0 cm)
Package 3 width	31.50 in (80.0 cm)
Package 3 Length	23.62 in (60.0 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>
REACH Regulation	<a href="#">REACH Declaration</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>
PVC free	Yes

### Contractual warranty

Warranty	18 months
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