

# LC1D40AM7

IEC contactor, TeSys D, nonreversing, 40A,  
30HP 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	Contactors
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-4 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: $\leq 690$ V AC 25...400 Hz Power circuit: $\leq 300$ V DC
[Ie] rated operational current	60 A 140 °F (60 °C) $\leq 440$ V AC AC-1 power circuit 40 A 140 °F (60 °C) $\leq 440$ V AC AC-3 power circuit
Motor power kW	18.5 KW 380...400 V AC 50/60 Hz AC-3) 11 KW 220...230 V AC 50/60 Hz AC-3) 22 KW 415...440 V AC 50/60 Hz AC-3) 22 KW 500 V AC 50/60 Hz AC-3) 30 KW 660...690 V AC 50/60 Hz AC-3) 9 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	5 Hp 230/240 V at AC 50/60 Hz for 1 phase 10 Hp 230/240 V at AC 50/60 Hz for 3 phase 30 Hp 575/600 V at AC 50/60 Hz for 3 phase 10 Hp 200/208 V at AC 50/60 Hz for 3 phase 3 Hp 115 V at AC 50/60 Hz for 1 phase 30 hp 460/480 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	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 60 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 60947-5-1 800 A 440 V power circuit IEC 60947
Rated breaking capacity	800 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	320 A 104 °F (40 °C) - 10 s power circuit 720 A 104 °F (40 °C) - 1 s power circuit 72 A 104 °F (40 °C) - 10 min power circuit 165 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 80 A gG $\leq 690$ V type 1 power circuit 80 A gG $\leq 690$ V type 2 power circuit
Average impedance	1.5 mOhm - Ith 60 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	1.4 Mcycles 60 A AC-1 $\leq 440$ V 1.5 Mcycles 40 A AC-3 $\leq 440$ V
Power dissipation per pole	2.4 W AC-3 5.4 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	CCC GOST UL CSA
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) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips 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)
Operating time	4...19 ms opening 12...26 ms closing
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	6 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40...140 °F (-40...60 °C) operational AC 50 Hz 0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC 60 Hz 1...1.1 Uc 140...158 °F (60...70 °C) operational AC 50/60 Hz
Inrush power in VA	140 VA 60 Hz 0.75 68 °F (20 °C)) 160 VA 50 Hz 0.75 68 °F (20 °C))
Hold-in power consumption in VA	13 VA 60 Hz 0.3 68 °F (20 °C)) 15 VA 50 Hz 0.3 68 °F (20 °C))
Heat dissipation	4...5 W 50/60 Hz
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 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 for signalling circuit

## Environment

IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to 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...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: 10 Gn for 11 ms
Height	4.80 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Net Weight	1.87 lb(US) (0.85 kg)

## Ordering and shipping details

Category	22357 - CTR, TESYS D, OPEN, 40-65A AC
Discount Schedule	I12
GTIN	00785901734901
Nbr. of units in pkg.	1
Package weight(Lbs)	2.06 lb(US) (0.93 kg)
Returnability	Yes
Country of origin	ID

## Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.36 in (6 cm)
Package 1 width	5.31 in (13.5 cm)
Package 1 Length	5.91 in (15 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Weight	21.55 lb(US) (9.776 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	160
Package 3 Weight	363.54 lb(US) (164.9 kg)
Package 3 Height	30.31 in (77 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	23.62 in (60 cm)

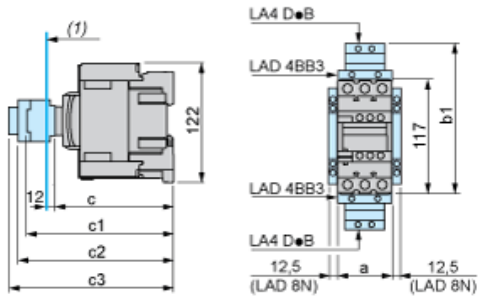
## Offer Sustainability

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>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
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		D40A...D65A
a		55
b1	with LA4 D•2	–
	with LA4 DB3 or LAD 4BB3	136
	with LA4 DF, DT	157
	with LA4 DM, DW, DL	166
c	without cover or add-on blocks	118
	with cover, without add-on blocks	120
c1	with LAD N (1 contact)	–
	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK10, LAD 6DK	163
c3	with LAD T, R, S	171
	with LAD T, R, S and sealing cover	175

Wiring

