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Product data sheet
Characteristics

LC1D12E7
TeSys D IEC contactor, 12 A, 3 P, 7.5 HP at 480 VAC, nonreversing, 48 VAC 50/60 Hz coil

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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-4 AC-1 AC-3
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	25 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit 12 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit
Motor power kW	3 KW 220...230 V AC 50/60 Hz AC-3) 5.5 KW 380...400 V AC 50/60 Hz AC-3) 5.5 KW 415...440 V AC 50/60 Hz AC-3) 7.5 KW 500 V AC 50/60 Hz AC-3) 7.5 KW 660...690 V AC 50/60 Hz AC-3) 3.7 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	0.5 Hp 115 V AC 50/60 Hz 1 phase 2 Hp 230/240 V AC 50/60 Hz 1 phase 3 Hp 200/208 V AC 50/60 Hz 3 phase 3 Hp 230/240 V AC 50/60 Hz 3 phase 7.5 Hp 460/480 V AC 50/60 Hz 3 phase 10 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	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	25 A 140 °F (60 °C) power circuit 10 A 140 °F (60 °C) signalling circuit
Irms rated making capacity	250 A 440 V power circuit IEC 60947 140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1
Rated breaking capacity	250 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	105 A 104 °F (40 °C) - 10 s power circuit 210 A 104 °F (40 °C) - 1 s power circuit 30 A 104 °F (40 °C) - 10 min power circuit 61 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 40 A gG <= 690 V type 1 power circuit 25 A gG <= 690 V type 2 power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 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
Electrical durability	2 Mcycles 12 A AC-3 <= 440 V 0.8 Mcycles 25 A AC-1 <= 440 V
Power dissipation per pole	0.36 W AC-3 1.56 W AC-1

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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	LROS (Lloyds register of shipping) DNV BV RINA GOST GL CSA CCC UL
Connections - terminals	Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid without cable end Power circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid without cable end
Tightening torque	Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 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
Operating time	12...22 ms closing 4...19 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	15 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (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…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	70 VA 60 Hz 0.75 68 °F (20 °C)) 70 VA 50 Hz 0.75 68 °F (20 °C))
Hold-in power consumption in VA	7.5 VA 60 Hz 0.3 68 °F (20 °C)) 7 VA 50 Hz 0.3 68 °F (20 °C))
Heat dissipation	2…3 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

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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	M2
Compatibility code	LC1D
Motor power range	4…6 KW 380…440 V 3 phase 4…6 KW 480…500 V 3 phase 2.2…3 kW 200…240 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 open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor open10 Gn for 11 ms Shocks contactor closed15 Gn for 11 ms
Height	3.03 in (77 mm)
Maximum Width	1.77 in (45 mm)
Depth	3.39 in (86 mm)
Net Weight	0.72 lb(US) (0.325 kg)

Ordering and shipping details

Category	22354 - CTR,TESYS D,OPEN,9-38A AC
Discount Schedule	I12
GTIN	00785901213260
Nbr. of units in pkg.	1
Package weight(Lbs)	0.77 lb(US) (0.35 kg)
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	1.97 in (5 cm)
Package 1 width	3.62 in (9.2 cm)
Package 1 Length	4.41 in (11.2 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Weight	16.47 lb(US) (7.47 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	320
Package 3 Weight	288.76 lb(US) (130.98 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
Circularity Profile	End Of Life Information
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

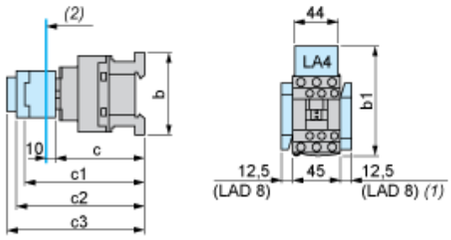
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Product data sheet
Dimensions Drawings

LC1D12E7

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 D•2	110 (1)	123 (1)	111.5 (1)	
with LA4 DF, DT	119 (1)	132 (1)	120.5 (1)	
with LA4 DW, DL	126 (1)	139 (1)	127.5 (1)	
c	without cover or add-on blocks	84	84	84
with cover, without add-on blocks	86	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	141	
(1)	Including LAD 4BB.			

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Product data sheet
Connections and Schema

LC1D12E7

Wiring

