Product data sheet
Characteristics

LC1D12ED
IEC contactor, TeSys Deca, nonreversing, 12A, 7.5HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 48VDC coil, open style

Main

Range	TeSys TeSys Deca
Product name	TeSys D TeSys Deca
Product or Component Type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-4 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	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 12 A 140 °F (60 °C)) <= 440 V AC AC-3e 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) 3 KW 220...230 V AC 50/60 Hz AC-3e) 5.5 KW 380...400 V AC 50/60 Hz AC-3e) 5.5 KW 415...440 V AC 50/60 Hz AC-3e) 7.5 KW 500 V AC 50/60 Hz AC-3e) 7.5 kW 660...690 V AC 50/60 Hz AC-3e)
Motor power HP (UL / CSA)	0.5 Hp 115 V at AC 50/60 Hz for 1 phase 2 Hp 230/240 V at AC 50/60 Hz for 1 phase 3 Hp 200/208 V at AC 50/60 Hz for 3 phase 3 Hp 230/240 V at AC 50/60 Hz for 3 phase 7.5 Hp 460/480 V at AC 50/60 Hz for 3 phase 10 hp 575/600 V at AC 50/60 Hz for 3 phase
Control circuit type	DC standard
[Uc] control circuit voltage	48 V DC
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 2 Mcycles 12 A AC-3e <= 440 V
Power dissipation per pole	0.36 W AC-3 1.56 W AC-1 0.36 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 IEC 60335-1
Product Certifications	GL CCC LROS (Lloyds register of shipping) DNV CSA RINA UL BV GOST UKCA
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 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2
Operating time	53.55...72.45 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	30 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	With integral suppression device
Control circuit voltage limits	0.1...0.25 Uc -40…158 °F (-40…70 °C) drop-out DC 0.7...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	28 ms
Inrush power in W	5.4 W 68 °F (20 °C))
Hold-in power consumption in W	5.4 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 open10 Gn for 11 ms Shocks contactor closed15 Gn for 11 ms
Height	3.03 in (77 mm)
Width	1.77 in (45 mm)
Depth	3.74 in (95 mm)
Net Weight	1.07 lb(US) (0.485 kg)

Ordering and shipping details

Category	22355-CTR,TESYS D,OPEN,9-38A DC
Discount Schedule	I12
GTIN	3389110353891
Nbr. of units in pkg.	1
Package weight(Lbs)	18.55 oz (526.0 g)
Returnability	No
Country of origin	FR

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	P06
Number of Units in Package 2	120
Package 2 Weight	165.92 lb(US) (75.26 kg)
Package 2 Height	17.72 in (45 cm)
Package 2 width	31.50 in (80 cm)

Package 2 Length	23.62 in (60 cm)
Unit Type of Package 3	S02
Number of Units in Package 3	15
Package 3 Weight	17.88 lb(US) (8.109 kg)
Package 3 Height	5.91 in (15 cm)
Package 3 width	11.81 in (30 cm)
Package 3 Length	15.75 in (40 cm)

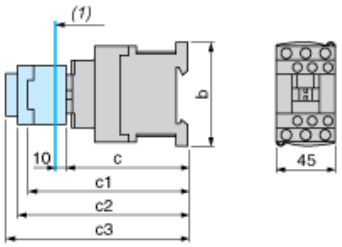
Offer Sustainability

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
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
PVC free	Yes

Contractual warranty

Warranty	18 months

Dimensions



(1) Minimum electrical clearance

LC1		D09…D18	D093…D123	D099…D129
b		77	99	80
c	without cover or add-on blocks	93	93	93
with cover, without add-on blocks	95	95	95	
c1	with LAD N or C (2 or 4 contacts)	126	126	126
c2	with LA6 DK10	138	138	138
c3	with LAD T, R, S	146	146	146
with LAD T, R, S and sealing cover	150	150	150	

Wiring