Product data sheet

Specifications

TeSys Deca contactor - 3P(3 NO) - AC-3/AC-3e - <= 440 V 18 A - 110 V DC coil

LC1D18FD

Discontinued

Main

Range of Product	TeSys Deca
Product or Component Type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-4 AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	18 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 32 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 18 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	110 V DC

Complementary

Motor power kW	4 kW at 220...230 V AC 50/60 Hz (AC-3) 7.5 kW at 380...400 V AC 50/60 Hz (AC-3) 9 kW at 415...440 V AC 50/60 Hz (AC-3) 10 kW at 500 V AC 50/60 Hz (AC-3) 10 kW at 660...690 V AC 50/60 Hz (AC-3) 4 kW at 400 V AC 50/60 Hz (AC-4) 4 kW at 220...230 V AC 50/60 Hz (AC-3e) 7.5 kW at 380...400 V AC 50/60 Hz (AC-3e) 9 kW at 415...440 V AC 50/60 Hz (AC-3e) 10 kW at 500 V AC 50/60 Hz (AC-3e) 10 kW at 660...690 V AC 50/60 Hz (AC-3e)
Maximum Horse Power Rating	1 hp at 115 V AC 50/60 Hz for 1 phase motors 3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 5 hp at 200/208 V AC 50/60 Hz for 3 phase motors 5 hp at 230/240 V AC 50/60 Hz for 3 phase motors 10 hp at 460/480 V AC 50/60 Hz for 3 phase motors 15 hp at 575/600 V AC 50/60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 32 A (at 140 °F (60 °C)) for power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 300 A at 440 V for power circuit conforming to IEC 60947

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Rated breaking capacity	300 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	145 A 104 °F (40 °C) - 10 s for power circuit 240 A 104 °F (40 °C) - 1 s for power circuit 40 A 104 °F (40 °C) - 10 min for power circuit 84 A 104 °F (40 °C) - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 50 A gG at <= 690 V coordination type 1 for power circuit 35 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2.5 mOhm - Ith 32 A 50 Hz for power circuit
Power dissipation per pole	2.5 W AC-1 0.8 W AC-3 0.8 W AC-3e
[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
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
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
Electrical durability	1.65 Mcycles 18 A AC-3 <= 440 V 1 Mcycles 32 A AC-1 <= 440 V 1.65 Mcycles 18 A AC-3e <= 440 V
Control circuit type	DC standard
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
Inrush power in W	5.4 W 68 °F (20 °C))
Hold-in power consumption in W	5.4 W 68 °F (20 °C)
Operating time	63 ±15 % ms closing 20 ±20 % ms opening
Time constant	28 ms
Maximum operating rate	3600 cyc/h at 60 °C

Connections - terminals	Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 0.002…0.009 in² (1.5…6 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 0.002…0.009 in² (1.5…6 mm²) - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 0.002…0.009 in² (1…6 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 0.002…0.009 in² (1.5…6 mm²) - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 0.002…0.009 in² (1.5…6 mm²) - cable stiffness: 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
Auxiliary contact composition	1 NO + 1 NC
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 voltage	17 V for signalling circuit
Minimum switching current	5 mA for signalling circuit
Insulation resistance	> 10 MOhm for 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
Mounting Support	Rail Plate

Environment

Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60947-4-1 IEC 60335-1:Clause 30.2 IEC 60335-2-40:Annex JJ UL 60335-2-40:Annex JJ CSA C22.2 No 60947-4-1
Product Certifications	UL CCC CSA Marine UKCA EAC CB Scheme
IP degree of protection	IP20 front face IEC 60529
Protective treatment	THIEC 60068-2-30
Climatic withstand	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat

Permissible ambient air temperature around the device	-40…140 °F (-40…60 °C) 140…158 °F (60…70 °C) with derating
Operating altitude	0...9842.52 ft (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 open 10 Gn for 11 ms) Shocks contactor closed 15 Gn for 11 ms)
Height	3.03 in (77 mm)
Width	1.8 in (45 mm)
Depth	3.7 in (95 mm)
Net Weight	1.08 lb(US) (0.49 kg)

Ordering and shipping details

Category	22355-CTR,TESYS D,OPEN,9-38A DC
Discount Schedule	I12
GTIN	3389110354829
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	1.969 in (5.000 cm)
Package 1 Width	3.622 in (9.200 cm)
Package 1 Length	4.409 in (11.200 cm)
Package weight(Lbs)	18.554 oz (526.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	17.831 lb(US) (8.088 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Carbon footprint (kg CO2 eq, Total Life cycle)	39
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant with Exemptions
SCIP Number	50ae7612-fd2e-41e4-a369-50d0dea6e592
REACh Regulation	REACh Declaration
PVC free	Yes

Use Longer

Lifetime extension

Repair	No

Use Again

Repack and remanufacture

Circularity Profile	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Offer Marketing Illustration

Product benefits / Features

Offer Marketing Illustration

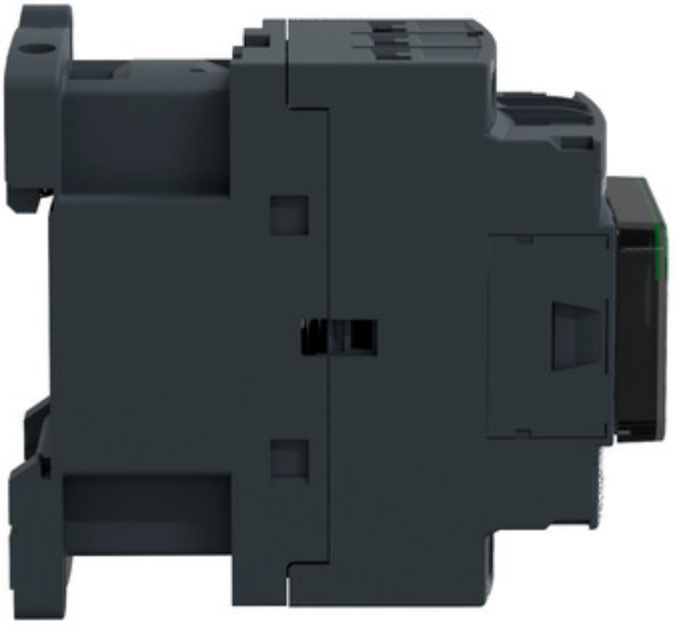
Product benefits / Features

Offer Marketing Illustration

Product benefits / Features

Image of product / Alternate images

Alternative



Technical Illustration

Assembly's dimensions