Product datasheet

Specifications





TeSys D contactor - 3P(3 NO) -AC-3 - <= 440 V 25 A - 110 V AC coil

LC1D25F7

Main

Range Of Produc	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Resistive load Motor control
Utilisation Category	AC-3 AC-4 AC-1 AC-3e
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC
[le] Rated Operational Current	25 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] Control Circuit Voltage	110 V AC 50/60 Hz

Complementary

Motor Power Kw	5.5 kW at 220230 V AC 50/60 Hz (AC-3) 11 kW at 380400 V AC 50/60 Hz (AC-3) 11 kW at 415440 V AC 50/60 Hz (AC-3) 15 kW at 500 V AC 50/60 Hz (AC-3) 15 kW at 660690 V AC 50/60 Hz (AC-3) 5.5 kW at 400 V AC 50/60 Hz (AC-4) 5.5 kW at 220230 V AC 50/60 Hz (AC-3e) 11 kW at 380400 V AC 50/60 Hz (AC-3e) 11 kW at 415440 V AC 50/60 Hz (AC-3e) 15 kW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 660690 V AC 50/60 Hz (AC-3e)	
Motor Power Hp	3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 3 phases motors 15 hp at 460/480 V AC 50/60 Hz for 3 phases motors 20 hp at 575/600 V AC 50/60 Hz for 3 phases motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors	
Compatibility Code	LC1D	
Pole Contact Composition	3 NO	
Contact Compatibility	M2	
Protective Cover	With	
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 40 A (at 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 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947	

450 A at 440 V for power circuit conforming to IEC 60947

Rated Breaking Capacity	450 A at 440 V for power circuit conforming to IEC 60947
[Icw] Rated Short-Time Withstand Current	240 A 40 °C - 10 s for power circuit 380 A 40 °C - 1 s for power circuit 50 A 40 °C - 10 min for power circuit 120 A 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 63 A gG at <= 690 V coordination type 1 for power circuit 40 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	2 mOhm - Ith 40 A 50 Hz for power circuit
Power Dissipation Per Pole	3.2 W AC-1 1.25 W AC-3 1.25 W AC-3e
[Ui] Rated Insulation Voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Overvoltage Category	Ш
Pollution Degree	3
[Uimp] Rated Impulse Withstand Voltage	6 kV conforming to IEC 60947
Safety Reliability Level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical Durability	15 Mcycles
Electrical Durability	1.65 Mcycles 25 A AC-3 at Ue <= 440 V 1.4 Mcycles 40 A AC-1 at Ue <= 440 V 1.65 Mcycles 25 A AC-3e at Ue <= 440 V
Control Circuit Type	AC at 50/60 Hz standard
Coil Technology	Without built-in suppressor module
Control Circuit Voltage Limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4060 °C):operational AC 50 Hz 0.851.1 Uc (-4060 °C):operational AC 60 Hz 11.1 Uc (6070 °C):operational AC 50/60 Hz
Inrush Power In Va	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-In Power Consumption In Va	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat Dissipation	23 W at 50/60 Hz
Operating Time	1222 ms closing 419 ms opening
Maximum Operating Rate	3600 cyc/h 60 °C

Connections - Terminals	Control circuit: screw clamp terminals 1 14 mm ² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 2 14 mm ² - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 1 14 mm ² - cable stiffness: flexible with cable end
	Control circuit: screw clamp terminals 2 12.5 mm ² - cable stiffness: flexible with
	cable end Control circuit: screw clamp terminals 1 14 mm ² - cable stiffness: solid without
	cable end Control circuit: screw clamp terminals 2 14 mm ² cable stiffness: solid without
	cable end Power circuit: screw clamp terminals 1 2.510 mm ² - cable stiffness: flexible without
	cable end Power circuit: screw clamp terminals 2 2.510 mm ² - cable stiffness: flexible without
	cable end Power circuit: screw clamp terminals 1 110 mm ² - cable stiffness: flexible with
	cable end
	Power circuit: screw clamp terminals 2 1.56 mm ² - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 1 1.510 mm ² - cable stiffness: solid without cable end
	Power circuit: screw clamp terminals 2 2.510 mm ² - cable stiffness: solid without cable end
Tightening Torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm
	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm
	Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
	Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Auxiliary Contact Composition	1 NO + 1 NC
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	25400 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	Plate Rail
Environment	
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	UL
	BV RINA
	CCC
	GL GOST
	DNV
	LROS (Lloyds register of shipping) CSA
	UKCA
Ip Degree Of Protection	IP20 front face conforming to IEC 60529
Protective Treatment	TH conforming to IEC 60068-2-30
Climatic Withstand	conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat

Permissible Ambient Air Temperature Around The Device	-4060 °C 6070 °C with derating	
Operating Altitude	03000 m	
Fire Resistance	850 °C conforming to IEC 60695-2-1	
Flame Retardance	V1 conforming to UL 94	
Mechanical Robustness	Vibrations contactor open (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (15 Gn for 11 ms) Shocks contactor open (8 Gn for 11 ms)	
Height	85 mm	
Width	45 mm	
Depth	92 mm	
Net Weight	0.37 kg	

Packing Units

J	
Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.200 cm
Package 1 Width	9.000 cm
Package 1 Length	11.000 cm
Package 1 Weight	415.000 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	20
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.484 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	320
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	146.500 kg

Contractual warranty

Warranty

18 months

Sustainability Seren

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

Well-being performance

Reach Free Of Svhc

Toxic Heavy Metal Free

Mercury Free

Rohs Exemption Information

Yes

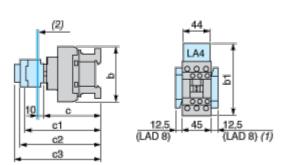
Pvc Free

Certifications & Standards		
Reach Regulation	REACh Declaration	
Eu Rohs Directive	Compliant EU RoHS Declaration	
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
Circularity Profile	End of Life Information	

Product datasheet

Dimensions Drawings

Dimensions



(1) Including LAD 4BB

(2) Minimum electrical clearance

LC1		D25D38 (3-pole)	
b	without add-on blocks	85	
	with LAD 4BB	98	
	with LA4 D•2	114 ⁽¹⁾	
b1	with LA4 DF, DT	123 ⁽¹⁾	
	with LA4 DW, DL	₁₃₀ (1)	
	without cover or add-on blocks	90	
C	with cover, without add-on blocks	92	
c1	with LAD N or C (2 or 4 contacts)	123	
c2	with LA6 DK10, LAD 6K10	135	
~ 2	with LAD T, R, S	143	
c3	with LAD T, R, S and sealing cover	147	
(1)	Including LAD 4BB.		

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Connections and Schema

Wiring

