Product datasheet

Specification





TeSys; TeSys Deca, Contactor, 3P(3 NO), AC-3/AC-3e, 0 to 440V, 38A, 24 to 60VAC/DC coil

LC1D38BNE

Main

Range	TeSys TeSys Deca
Range of product	TeSys Deca
product or component type	Contactor
Device short name	LC1D
contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-1 AC-3e
poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz
[le] rated operational current	50 A (at <60 °C) at <= 440 V AC-1 for power circuit 38 A (at <60 °C) at <= 440 V AC-3 for power circuit 38 A (at <60 °C) at <= 440 V AC-3e for power circuit
[Uc] control circuit voltage	2460 V AC 50/60 Hz 2460 V DC

Complementary

Motor power kW	9 kW at 220230 V AC 50 Hz (AC-3)
	18.5 kW at 380400 V AC 50 Hz (AC-3)
	18.5 kW at 415 V AC 50 Hz (AC-3)
	18.5 kW at 440 V AC 50 Hz (AC-3)
	18.5 kW at 500 V AC 50 Hz (AC-3)
	18.5 kW at 660690 V AC 50 Hz (AC-3)
	9 kW at 220230 V AC 50 Hz (AC-3e)
	18.5 kW at 380400 V AC 50 Hz (AC-3e)
	18.5 kW at 415 V AC 50 Hz (AC-3e)
	18.5 kW at 440 V AC 50 Hz (AC-3e)
	18.5 kW at 500 V AC 50 Hz (AC-3e)
	18.5 kW at 660690 V AC 50 Hz (AC-3e)
Motor power hp	2 hp at 115 V AC 60 Hz for 1 phase motors
	5 hp at 230/240 V AC 60 Hz for 1 phase motors
	10 hp at 200/208 V AC 60 Hz for 3 phases motors
	10 hp at 230/240 V AC 60 Hz for 3 phases motors
	20 hp at 460/480 V AC 60 Hz for 3 phases motors
	25 hp at 575/600 V AC 60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal	10 A (at 60 °C) for signalling 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
	550 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	550 A at 440 V for power circuit conforming to IEC 60947
[lcw] rated short-time withstand	100 A - 1 s for signalling circuit
current	120 A - 500 ms for signalling circuit
	140 A - 100 ms for signalling circuit
	60 A 40 °C - 10 min for power circuit
	150 A 40 °C - 1 min for power circuit
	310 A 40 °C - 10 s for power circuit
	430 A 40 °C - 1 s for power 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
	63 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - Ith 50 A 50 Hz for power circuit
Power dissipation per pole	EWAC 1
. Once dissipation per pole	5 W AC-1
	3 W AC-3 3 W AC-3e
	0 W / 10 00
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1
	Signalling circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
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Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1
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Mechanical durability	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO
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Mechanical durability Electrical durability	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V
Mechanical durability Electrical durability Control circuit type Coil technology	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting
Mechanical durability Electrical durability Control circuit type	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting <= 0.1 Uc (-4070 °C):drop-out AC/DC
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Mechanical durability Electrical durability Control circuit type Coil technology Control circuit voltage limits	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting <= 0.1 Uc (-4070 °C):drop-out AC/DC 0.851.1 Uc (-4060 °C):operational AC 0.81.1 Uc (-4060 °C):operational DC 11.1 Uc (6070 °C):operational AC/DC
Mechanical durability Electrical durability Control circuit type Coil technology Control circuit voltage limits Inrush power in VA	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting <= 0.1 Uc (-4070 °C):drop-out AC/DC 0.851.1 Uc (-4060 °C):operational AC 0.81.1 Uc (-4060 °C):operational DC 11.1 Uc (6070 °C):operational AC/DC
Mechanical durability Electrical durability Control circuit type Coil technology Control circuit voltage limits Inrush power in VA Inrush power in W	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting <= 0.1 Uc (-4070 °C):drop-out AC/DC 0.851.1 Uc (-4060 °C):operational AC 0.81.1 Uc (-4060 °C):operational DC 11.1 Uc (6070 °C):operational AC/DC
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Mechanical durability Electrical durability Control circuit type Coil technology Control circuit voltage limits Inrush power in VA Inrush power in W Hold-in power consumption in VA	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting <= 0.1 Uc (-4070 °C):drop-out AC/DC 0.851.1 Uc (-4060 °C):operational AC 0.81.1 Uc (-4060 °C):operational DC 11.1 Uc (6070 °C):operational AC/DC 15 VA 50/60 Hz (at 20 °C) 14 W (at 20 °C) 0.9 VA 50/60 Hz (at 20 °C)
Mechanical durability Electrical durability Control circuit type Coil technology Control circuit voltage limits Inrush power in VA Inrush power in W Hold-in power consumption in VA Hold-in power consumption in W	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting <= 0.1 Uc (-4070 °C):drop-out AC/DC 0.851.1 Uc (-4060 °C):operational AC 0.81.1 Uc (4060 °C):operational DC 11.1 Uc (6070 °C):operational AC/DC 15 VA 50/60 Hz (at 20 °C) 14 W (at 20 °C) 0.9 VA 50/60 Hz (at 20 °C) 0.6 W at 20 °C
Mechanical durability Electrical durability Control circuit type Coil technology Control circuit voltage limits Inrush power in VA Inrush power in W Hold-in power consumption in VA Hold-in power consumption in W Heat dissipation	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 15 Mcycles 1.8 Mcycles 35 A AC-3 at Ue <= 440 V 0.9 Mcycles 50 A AC-1 at Ue <= 440 V 1.8 Mcycles 35 A AC-3e at Ue <= 440 V AC/DC at 50/60 Hz AC/DC electronic Built-in bidirectional peak limiting <= 0.1 Uc (-4070 °C):drop-out AC/DC 0.851.1 Uc (-4060 °C):operational AC 0.81.1 Uc (-4060 °C):operational DC 11.1 Uc (6070 °C):operational AC/DC 15 VA 50/60 Hz (at 20 °C) 14 W (at 20 °C) 0.9 VA 50/60 Hz (at 20 °C) 0.6 W at 50/60 Hz
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Connections - terminals	Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid Power circuit: screw clamp terminals 1 2.510 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 110 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1.56 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1.510 mm² - cable stiffness: solid Power circuit: screw clamp terminals 1 1.510 mm² - cable stiffness: solid
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 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 M4 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 M3.5
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	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping) UKCA
IP degree of protection	IP20 front face conforming to IEC 60529
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

850 °C conforming to IEC 60695-2-1

0...3000 m

Operating altitude

Fire resistance

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	0.442 kg	

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.200 cm
Package 1 Width	9.200 cm
Package 1 Length	11.200 cm
Package 1 Weight	458.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	7.168 kg

Contractual warranty

Warranty 18 months



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



Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant with Exemptions
China Rohs Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
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