Product datasheet
Characteristics

LC1D09BNE



Main

Range	TeSys
Product name	TeSys D Green
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Pole contact composition	3 NO
System Voltage	<= 690 V AC 25...400 Hz power circuit
[Ie] rated operational current	25 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit 9 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit
Motor power kW	4 kW at 380...400 V AC 50/60 Hz 2.2 kW at 220...230 V AC 50/60 Hz 5.5 kW at 500 V AC 50/60 Hz 5.5 kW at 660...690 V AC 50/60 Hz 4 kW at 415...440 V AC 50/60 Hz
[Uc] control circuit voltage	24...60 V DC 24...60 V AC 50/60 Hz
Coil type	AC/DC electronic
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	25 A at <= 140 °F (60 °C) power circuit 10 A at <= 140 °F (60 °C) signalling circuit
Irms rated making capacity	250 A at 440 V power circuit conforming to IEC 60947 140 A AC signalling circuit conforming to IEC 60947-5-1 250 A DC signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	250 A at 440 V power circuit conforming to 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	20 A gG at <= 690 V coordination type 2 power circuit 25 A gG at <= 690 V coordination type 1 power circuit 10 A gG signalling circuit conforming to IEC 60947-5-1
Average impedance	2.5 mOhm at 50 Hz - Ith 25 A power circuit
[Ui] rated insulation voltage	690 V power circuit conforming to IEC 60947-4-1 690 V signalling circuit conforming to IEC 60947-1
Electrical durability	2.4 Mcycles 9 A AC-3 at Ue <= 440 V (date code >= 17221) 650000 cycles 25 A AC-1 at Ue <= 440 V (date code >= 17221)

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	83000 cycles AC-4 at Ue <= 440 V (date code >= 17221)
Power dissipation per pole	0.2 W AC-3 1.56 W AC-1
Protective cover	With
Mounting support	Plate Rail
Standards	EN/IEC 60947-5-1 EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product certifications	UL CSA CCC EAC KC
Connections - terminals	Control circuit: screw clamp terminals 2 cable(s) 0...0 in² (1...2.5 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0 in² (1...2.5 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end
Tightening torque	Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2
Operating time	45...55 ms closing 20...90 ms opening (date code >= 17221)
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 (date code >= 17221)
Operating rate	3600 cyc/h at <= 140 °F (60 °C)

Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc drop-out at 60 °C 0.85...1.1 Uc operational at 60 °C, AC

	0.8...1.2 Uc operational at 60 °C, DC
Inrush power in VA	15 VA at 20 °C 50/60 Hz
Inrush power in W	14 W at 20 °C
Hold-in power consumption in VA	0.9 VA at 20 °C 50/60 Hz
Hold-in power consumption in W	0.6 W at 20 °C
Heat dissipation	0.6 W at 50/60 Hz
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	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 conforming to IEC 60529
protective treatment	TH conforming to IEC 60068-2-30
pollution degree	3
ambient air temperature for operation	-13...140 °F (-25...60 °C)
ambient air temperature for storage	-76...176 °F (-60...80 °C)
permissible ambient air temperature around the device	-40...158 °F (-40...70 °C) at Uc
operating altitude	9842.52 ft (3000 m) without derating in temperature
fire resistance	1562 °F (850 °C) conforming to 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	1.77 in (45 mm)
depth	3.39 in (86 mm)
product weight	0.81 lb(US) (0.368 kg)
colour	Grey SE GREY 6 Green SE GREEN 2

Offer Sustainability

Green Premium product	Green Premium product
Compliant - since 1640 - Schneider Electric declaration of conformity	Compliant - since 1640 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available