

LC1D38EHE

TeSys D contactor - 3P - ≤ 440 V - 38 A AC-3 -
48...130 V AC/DC coil



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
[Ue] rated operational voltage	≤ 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	38 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 50 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Motor power kW	18.5 kW at 380...400 V AC 50/60 Hz 18.5 kW at 500 V AC 50/60 Hz 18.5 kW at 660...690 V AC 50/60 Hz 18.5 kW at 415...440 V AC 50/60 Hz 9 kW at 220...230 V AC 50/60 Hz
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC
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	50 A at ≤ 60 °C for power circuit 10 A at ≤ 60 °C for signalling circuit
Irms rated making capacity	550 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	550 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	150 A ≤ 40 °C 1 min power circuit 310 A ≤ 40 °C 10 s power circuit 430 A ≤ 40 °C 1 s power circuit 60 A ≤ 40 °C 10 min power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit
Associated fuse rating	63 A gG at ≤ 690 V coordination type 1 for power circuit 63 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	2 mOhm at 50 Hz - Ith 50 A for power circuit
[Ui] rated insulation voltage	690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1
Electrical durability	23000 cycles AC-4 at Ue ≤ 440 V (date code ≥=

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	17221) 2 Mcycles 38 A AC-3 at Ue <= 440 V (date code >= 17221) 650000 cycles 50 A AC-1 at Ue <= 440 V (date code >= 17221)
Power dissipation per pole	3 W AC-3 5 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) 1...2.5 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 1.5...10 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 2.5...10 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 1 cable(s) 1...10 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 1.5...6 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 2 cable(s) 2.5...10 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
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 <= 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
Inrush power in VA	25 VA at 20 °C 50/60 Hz
Inrush power in W	24 W at 20 °C
Hold-in power consumption in VA	1.3 VA at 20 °C 50/60 Hz
Hold-in power consumption in W	0.8 W at 20 °C
Heat dissipation	0.8 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 for signalling circuit
Minimum switching voltage	17 V 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)
Insulation resistance	> 10 MOhm for 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	-25...60 °C
ambient air temperature for storage	-60...80 °C
permissible ambient air temperature around the device	-40...70 °C at Uc
operating altitude	3000 m without derating in temperature
fire resistance	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 closed 15 Gn for 11 ms Shocks contactor open 8 Gn for 11 ms
height	85 mm
width	45 mm
depth	92 mm
product weight	0.442 kg
colour	Grey SE GREY 6 Green SE GREEN 2

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1640 - Schneider Electric declaration of conformity
REACH	Reference contains SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available