

Product datasheet

Characteristics

LC1D38KUE

TeSys D contactor - 3P - ≤ 440 V - 38 A AC-3 -
100...250 V AC/DC coil



Main

Range	TeSys
Product name	TeSys D Green
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-1
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	100...250 V DC 100...250 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	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 $\leq 40\text{ }^{\circ}\text{C}$ 10 s power circuit 430 A $\leq 40\text{ }^{\circ}\text{C}$ 1 s power circuit 60 A $\leq 40\text{ }^{\circ}\text{C}$ 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 $\leq 690\text{ V}$ coordination type 1 for power circuit 63 A gG at $\leq 690\text{ V}$ 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 - lth 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 $U_e \leq 440\text{ V}$ 2 Mcycles 38 A AC-3 at $U_e \leq 440\text{ V}$ 650000 cycles 50 A AC-1 at $U_e \leq 440\text{ V}$
Power dissipation per pole	3 W AC-3 5 W AC-1
Protective cover	With
Mounting support	Rail Plate
Standards	EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 EN/IEC 60947-5-1
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
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	15000000 cycles
Operating rate	3600 cyc/h at $\leq 60\text{ }^{\circ}\text{C}$

Complementary




Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	$\leq 0.1\text{ }U_c$ drop-out at $60\text{ }^{\circ}\text{C}$ 0.85...1.1 U_c operational at $60\text{ }^{\circ}\text{C}$
Inrush power in VA	25 VA at $20\text{ }^{\circ}\text{C}$ 50/60 Hz
Inrush power in W	18 W at $20\text{ }^{\circ}\text{C}$
Hold-in power consumption in VA	1.6 VA at $20\text{ }^{\circ}\text{C}$ 50/60 Hz

Hold-in power consumption in W	1.1 W at 20 °C
Heat dissipation	1.1 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 U _c
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  Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available  Product environmental
Product end of life instructions	Available  End of life manual