



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
Power pole contact composition	3 NO
[Ue] rated operational voltage	<= 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	25 A (<= 60 °C) at <= 440 V AC-3 for power circuit 40 A (<= 60 °C) at <= 440 V AC-1 for power circuit
Motor power kW	11 kW at 380...400 V AC 50 Hz AC-3 15 kW at 500 V AC 50 Hz AC-3 15 kW at 660...690 V AC 50 Hz AC-3 5.5 kW at 220...230 V AC 50 Hz AC-3 11 kW at 415 V AC 50 Hz AC-3 11 kW at 440 V AC 50 Hz AC-3
Motor power HP (UL / CSA)	3 hp at 230/240 V AC 60 Hz for 1 phase motors 2 hp at 115 V AC 60 Hz for 1 phase motors 7.5 hp at 200/208 V AC 60 Hz for 3 phases motors 7.5 hp at 230/240 V AC 60 Hz for 3 phases motors 15 hp at 460/480 V AC 60 Hz for 3 phases motors 20 hp at 575/600 V AC 60 Hz for 3 phases motors
[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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

[I _{th}] conventional free air thermal current	40 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit
I _{rms} rated making capacity	450 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	450 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	120 A <= 40 °C 1 min power circuit 240 A <= 40 °C 10 s power circuit 380 A <= 40 °C 1 s power circuit 50 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	40 A gG at <= 690 V coordination type 2 for power circuit 63 A gG at <= 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	2 mOhm at 50 Hz - I _{th} 40 A for power circuit
[U _i] 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	2 Mcycles 21 A AC-3 at U _e <= 440 V 0.9 Mcycles 40 A AC-1 at U _e <= 440 V
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3
Safety cover	With
Mounting support	Plate Rail
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 LROS (Lloyds register of shipping) DNV-GL
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with 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 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 Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm ² - cable stiffness: solid Power circuit : screw clamp terminals 1 cable(s) 1.5...10 mm ² - 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
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	15 Mcycles
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	18 W at 20 °C
Hold-in power consumption in VA	1.6 VA at 20 °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 MΩ 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
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	0.433 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 contains SVHC above the threshold - Go to CaP for more details Go to CaP for more details
Product environmental profile	Available Product Environmental Profile
Product end of life instructions	Available End of Life Information