



Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	2 NO + 2 NC
[Ue] rated operational voltage	≤ 1000 V AC 25...400 Hz for power circuit
[Ie] rated operational current	80 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	220 V AC 50/60 Hz
Auxiliary contact composition	Without
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	80 A at ≤ 60 °C for power circuit
Irms rated making capacity	1000 A at 440 V AC for power circuit conforming to IEC 60947
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	520 A ≤ 40 °C 10 s power circuit 900 A ≤ 40 °C 1 s power circuit 110 A ≤ 40 °C 10 min power circuit 260 A ≤ 40 °C 1 min power circuit
Associated fuse rating	125 A gG at ≤ 690 V coordination type 1 for power circuit 125 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm at 50 Hz - Ith 80 A for power circuit
[Ui] rated insulation voltage	1000 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit certifications CSA 600 V for power circuit certifications UL
Electrical durability	1.4 Mcycles 80 A AC-1 at Ue ≤ 440 V
Power dissipation per pole	9.6 W AC-1
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 60335-1
 EN/IEC 60947-5-1

Product certifications	UL CSA CCC IEC
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 2 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: solid Power circuit : screw connectors 1 cable(s) 2.5...25 mm ² - cable stiffness: solid Power circuit : screw connectors 2 cable(s) 2.5...16 mm ² - cable stiffness: solid Power circuit : screw connectors 1 cable(s) 2.5...25 mm ² - cable stiffness: flexible - with cable end Power circuit : screw connectors 2 cable(s) 2.5...10 mm ² - cable stiffness: flexible - with cable end Power circuit : screw connectors 1 cable(s) 2.5...25 mm ² - cable stiffness: flexible - without cable end Power circuit : screw connectors 2 cable(s) 2.5...16 mm ² - cable stiffness: flexible - without cable end
Tightening torque	Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit : 5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 to Ø 8 mm
Operating time	12...26 ms closing 4...19 ms opening
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	6 Mcycles
Operating rate	<= 3600 cyc/h at <= 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc operational at 55 °C, AC 60 Hz 0.3...0.6 Uc drop-out at 55 °C, AC 50/60 Hz 0.8...1.1 Uc operational at 55 °C, AC 50 Hz
Inrush power in VA	245 VA at 20 °C (cos φ 0.75) 50/60 Hz
Hold-in power consumption in VA	26 VA at 20 °C (cos φ 0.3) 50/60 Hz
Heat dissipation	6...10 W at 50/60 Hz

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	-5...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	V0 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 8 Gn for 11 ms Shocks contactor closed 10 Gn for 11 ms
Height	127 mm
Width	85 mm
Depth	130 mm
Product weight	1.45 kg