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Main

Range of product	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	<= 690 V DC for power circuit <= 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	60 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Control circuit type	AC 50/60 Hz
Control circuit voltage	230 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	60 A at <= 60 °C for power circuit
Irms rated making capacity	800 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	800 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	165 A <= 40 °C 1 min power circuit 72 A <= 40 °C 10 min power circuit 720 A <= 40 °C 1 s power circuit 320 A <= 40 °C 10 s power circuit
Associated fuse rating	80 A gG at <= 690 V coordination type 2 for power circuit 80 A gG at <= 690 V coordination type 1 for power circuit
Average impedance	1.5 mOhm at 50 Hz - Ith 60 A for power circuit
[Ui] rated insulation voltage	600 V for power circuit certifications UL 600 V for power circuit certifications CSA 690 V for power circuit conforming to IEC 60947-4-1
Electrical durability	1.4 Mcycles 60 A AC-1 at Ue <= 440 V
Power dissipation per pole	5.4 W AC-1
Safety cover	Without
Mounting support	Plate Rail
Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 n°14
Product certifications	BV CCC CSA DNV GL GOST RINA UL LROS

Connections - terminals	<p>Power circuit: screw clamp terminals 2 cable(s) 1...25 mm² - cable stiffness: solid - without cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s) 1...35 mm² - cable stiffness: solid - without cable end</p> <p>Power circuit: screw clamp terminals 2 cable(s) 1...25 mm² - cable stiffness: flexible - with cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s) 1...35 mm² - cable stiffness: flexible - with cable end</p> <p>Power circuit: screw clamp terminals 2 cable(s) 1...25 mm² - cable stiffness: flexible - without cable end</p> <p>Power circuit: screw clamp terminals 1 cable(s) 1...35 mm² - cable stiffness: flexible - without cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: solid - without cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: solid - without cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm² - cable stiffness: flexible - with cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - with cable end</p> <p>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end</p> <p>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end</p>
Tightening torque	<p>Power circuit: 8 N.m - on screw clamp terminals - cable 25...35 mm² hexagonal 4 mm</p> <p>Power circuit: 5 N.m - on screw clamp terminals - cable ≤ 25 mm² hexagonal 4 mm</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2</p> <p>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm</p>
Operating time	<p>12...26 ms closing</p> <p>4...19 ms opening</p>
Safety reliability level	<p>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1</p> <p>B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1</p>
Mechanical durability	6 Mcycles
Operating rate	3600 cyc/h at ≤ 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	<p>0.85...1.1 Uc at 60 °C operational 60 Hz</p> <p>0.8...1.1 Uc at 60 °C operational 50 Hz</p> <p>0.3...0.6 Uc at 60 °C drop-out 50/60 Hz</p>
Inrush power in VA	<p>160 VA at 20 °C (cos φ 0.75) 50 Hz</p> <p>140 VA at 20 °C (cos φ 0.75) 60 Hz</p>
Hold-in power consumption in VA	<p>15 VA at 20 °C (cos φ 0.3) 50 Hz</p> <p>13 VA at 20 °C (cos φ 0.3) 60 Hz</p>
Heat dissipation	4...5 W at 50/60 Hz

Environment

IP degree of protection	IP2x 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 in temperature
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94

Mechanical robustness	Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz
Height	127 mm
Width	85 mm
Depth	125 mm
Product weight	1.44 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS	Compliant - since 0707 - download declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instruction	Need no specific recycling operations