



Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactors
Device short name	LC1D
Contactors application	Resistive load Motor control
Utilisation category	AC-3 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	300 V DC for power circuit 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	80 A (<= 60 °C) at <= 440 V AC-1 for power circuit 80 A (<= 60 °C) at <= 440 V AC-3 for power circuit
Motor power kW	37 kW at 500 V AC 50 Hz AC-3 37 kW at 660...690 V AC 50 Hz AC-3 37 kW at 380...400 V AC 50 Hz AC-3 37 kW at 415 V AC 50 Hz AC-3 37 kW at 440 V AC 50 Hz AC-3 22 kW at 220...230 V AC 50 Hz AC-3
Motor power HP (UL / CSA)	40 hp at 460/480 V AC 60 Hz for 3 phases motors 5 hp at 115 V AC 60 Hz for 1 phase motors 10 hp at 230/240 V AC 60 Hz for 1 phase motors 20 hp at 200/208 V AC 60 Hz for 3 phases motors 20 hp at 230/240 V AC 60 Hz for 3 phases motors 50 hp at 575/600 V AC 60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	415 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overtoltage 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	80 A at ≤ 60 °C for power circuit 10 A at ≤ 60 °C for signalling circuit
I _{rms} rated making capacity	1000 A at 440 V AC 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	1000 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 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 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 mΩ at 50 Hz - I _{th} 80 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	0.7 Mcycles 80 A AC-1 at U _e ≤ 440 V 1 Mcycles 66 A AC-3 at U _e ≤ 440 V
Power dissipation per pole	9.6 W AC-3 9.6 W AC-1
Safety 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	EAC DNV-GL CCC CSA KC LROS (Lloyds register of shipping)
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: flexible - with 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 Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: solid Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: solid Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: flexible Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: flexible
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 : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal 4 mm Power circuit : 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal 4 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 = 20000000 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	0.3...0.6 U _c drop-out at 60 °C, AC 50/60 Hz 0.8...1.1 U _c operational at 60 °C, AC 50 Hz

	0.85...1.1 Uc operational at 60 °C, AC 60 Hz
Inrush power in VA	140 VA at 20 °C (cos ϕ 0.75) 60 Hz 160 VA at 20 °C (cos ϕ 0.75) 50 Hz
Hold-in power consumption in VA	13 VA at 20 °C (cos ϕ 0.3) 60 Hz 15 VA at 20 °C (cos ϕ 0.3) 50 Hz
Heat dissipation	4...5 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	0...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 open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
Height	122 mm
Width	55 mm
Depth	120 mm
Product weight	0.86 kg
Colour	Grey SE GREY 6

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1739 - 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 end of life instructions	Available

Contractual warranty

Warranty period	18 months
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