



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-4 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	≤ 690 V AC for power circuit ≤ 300 V DC 25...400 Hz for power circuit
[Ie] rated operational current	125 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit 80 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit
Motor power kW	22 kW at 220...230 V AC 50/60 Hz AC-3 37 kW at 380...400 V AC 50/60 Hz AC-3 45 kW at 660...690 V AC 50/60 Hz AC-3 45 kW at 415...440 V AC 50/60 Hz AC-3 55 kW at 500 V AC 50/60 Hz AC-3 45 kW at 1000 V AC 50/60 Hz AC-3 15 kW at 400 V AC 50/60 Hz AC-4
Motor power HP (UL / CSA)	20 hp at 200/208 V AC 50/60 Hz for 3 phases motors 7.5 hp at 115 V AC 50/60 Hz for 1 phase motors 15 hp at 230/240 V AC 50/60 Hz for 1 phase motors 25 hp at 230/240 V AC 50/60 Hz for 3 phases motors 60 hp at 460/480 V AC 50/60 Hz for 3 phases motors 60 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	230 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947

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

Overvoltage category	III
[I _{th}] conventional free air thermal current	125 A at ≤ 60 °C for power circuit 10 A at ≤ 60 °C for signalling circuit
I _{rms} rated making capacity	1100 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	1100 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	135 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 640 A ≤ 40 °C 10 s power circuit 990 A ≤ 40 °C 1 s power circuit 320 A ≤ 40 °C 1 min power circuit
Associated fuse rating	160 A gG at ≤ 690 V coordination type 2 for power circuit 200 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	0.8 mOhm at 50 Hz - I _{th} 125 A for power circuit
[U _i] 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 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL
Electrical durability	0.8 Mcycles 125 A AC-1 at U _e ≤ 440 V 1.5 Mcycles 80 A AC-3 at U _e ≤ 440 V
Power dissipation per pole	5.1 W AC-3 12.5 W AC-1
Safety cover	With
Mounting support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	LROS (Lloyds register of shipping) BV RINA CSA UL GOST GL DNV CCC
Connections - terminals	Power circuit : bars 13 x 16 mm Control circuit : lugs-ring terminals - external diameter: 8 mm Power circuit : lugs-ring terminals - external diameter: 17 mm
Tightening torque	Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm screw : M3.5 Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 screw : M3.5 Power circuit : 9 N.m - on lugs-ring terminals hexagonal 10 mm screw : M6 Power circuit : 9 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm screw : M6 Power circuit : 9 N.m - on bars - with screwdriver flat Ø 8 mm screw : M6 Power circuit : 9 N.m - on bars hexagonal 10 mm screw : M6
Operating time	20...35 ms closing 6...20 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	4 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 U _c 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) 60 Hz 245 VA at 20 °C (cos ϕ 0.75) 50 Hz
Hold-in power consumption in VA	26 VA at 20 °C (cos ϕ 0.3) 60 Hz 26 VA at 20 °C (cos ϕ 0.3) 50 Hz
Heat dissipation	6...10 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	-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	V1 conforming to UL 94
Mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz Shocks contactor open 8 Gn for 11 ms Vibrations contactor closed 3 Gn, 5...300 Hz Shocks contactor closed 10 Gn for 11 ms
Height	127 mm
Width	85 mm
Depth	130 mm
Product weight	1.59 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0716 - 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 Profile
Product end of life instructions	Need no specific recycling operations

Contractual warranty

Warranty period	18 months
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