



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	4 NO
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz Power circuit: ≤ 300 V DC
[Ie] rated operational current	80 A (at ≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	380 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 80 A (at 60 °C) for power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1000 A at 440 V 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 for power circuit 900 A 40 °C - 1 s for power circuit 110 A 40 °C - 10 min for power circuit 260 A 40 °C - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 125 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	1.6 mOhm - Ith 80 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1

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

Signalling circuit: 600 V CSA certified
 Signalling circuit: 600 V UL certified
 Power circuit: 690 V conforming to IEC 60947-4-1

Electrical durability	1.4 Mcycles 80 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	10.2 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	RINA GL CSA BV CCC UL LROS (Lloyds register of shipping) GOST DNV
Connections - terminals	Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm ² flexible without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm ² flexible without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm ² flexible with cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm ² flexible with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm ² solid without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm ² solid without cable end Control circuit: spring terminals 1 cable(s) 2.5 mm ² flexible without cable end Control circuit: spring terminals 2 cable(s) 2.5 mm ² flexible without cable end
Tightening torque	Power circuit: 8 N.m - on screw clamp terminals - cable 25...35 mm ² hexagonal screw head 4 mm Power circuit: 5 N.m - on screw clamp terminals - cable 1...25 mm ² hexagonal screw head 4 mm
Operating time	4...19 ms opening 12...26 ms closing
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
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	Drop-out: 0.3...0.6 U_c AC 50/60 Hz (at 60 °C) Operational: 0.8...1.1 U_c AC 50 Hz (at 60 °C) Operational: 0.85...1.1 U_c AC 60 Hz (at 60 °C)
Inrush power in VA	140 VA 60 Hz cos phi 0.75 (at 20 °C) 160 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
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	-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
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: 10 Gn for 11 ms
Height	122 mm
Width	70 mm
Depth	120 mm
Net weight	1.15 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RECh Regulation	RECh Declaration
EU RoHS Directive	Under investigation
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations

Contractual warranty

Warranty	18 months
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