





Main

Range of product	TeSys D
Range	TeSys
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-1
Control circuit type	AC at 50/60 Hz
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	18.5 KW at 500 V AC 50/60 Hz (AC-3) 18.5 KW at 660...690 V AC 50/60 Hz (AC-3) 7.5 KW at 400 V AC 50/60 Hz (AC-4) 18.5 KW at 380...400 V AC 50/60 Hz (AC-3) 18.5 KW at 415...440 V AC 50/60 Hz (AC-3) 9 kW at 220...230 V AC 50/60 Hz (AC-3)
Motor power hp	12 Hp at 220...240 V AC 50/60 Hz for 3P motors conforming to CSA 12 Hp at 220...240 V AC 50/60 Hz for 3P motors conforming to UL 25 Hp at 380...400 V AC 50/60 Hz for 3P motors conforming to CSA 25 Hp at 380...400 V AC 50/60 Hz for 3P motors conforming to UL 25 Hp at 415...440 V AC 50/60 Hz for 3P motors conforming to CSA 25 Hp at 415...440 V AC 50/60 Hz for 3P motors conforming to UL 25 Hp at 660...690 V AC 50/60 Hz for 3P motors conforming to CSA 25 hp at 660...690 V AC 50/60 Hz for 3P motors conforming to UL
[Uc] control circuit voltage	48 V AC 50/60 Hz
Connections - terminals	Control circuit: screw clamp terminal 1 x 1... 4 mm ² solid without cable end Control circuit: screw clamp terminal 2 x 1... 4 mm ² flexible without cable end Control circuit: screw clamp terminal 2 x 1... 4 mm ² solid without cable end Control circuit: screw clamp terminal 1 x 1... 4 mm ² flexible without cable end Control circuit: screw clamp terminal 1 x 1... 4 mm ² flexible with cable end Control circuit: screw clamp terminal 2 x 1... 2.5 mm ² flexible with cable end Control circuit: ring lugs (external diameter: 8 mm) Power circuit: screw clamp terminal 2 x 2.5... 10 mm ² flexible without cable end Power circuit: screw clamp terminal 1 x 2.5... 10 mm ² flexible without cable end Power circuit: screw clamp terminal 1 x 1... 10 mm ² flexible with cable end Power circuit: screw clamp terminal 1 x 1.5... 10 mm ² solid without cable end Power circuit: screw clamp terminal 2 x 2.5... 10 mm ² solid without cable end Power circuit: screw clamp terminal 2 x 1.5... 6 mm ² flexible with cable end Power circuit: ring lugs (external diameter: 10 mm)

Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Protective cover	With
Auxiliary contacts type	Type mirror contact 1 NC conforming to IEC 60947-4-1 Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1
Auxiliary contact composition	1 NO + 1 NC
Control circuit voltage limits	Drop-out: 0.3...0.6 U _c at 50/60 Hz (at <60 °C) Operational: 0.8...1.1 U _c at 50 Hz (at <60 °C) Operational: 0.85...1.1 U _c at 60 Hz (at <60 °C)
[Ui] rated insulation voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
Mounting support	Rail Plate
Flame retardance	V1 conforming to UL 94
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz
[Ith] conventional free air thermal current	10 A (at 60 °C) for control circuit 50 A (at 60 °C) for power circuit
I _{rms} rated making capacity	140 A AC for control circuit conforming to IEC 60947-5-1 250 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 63 A gG at ≤ 690 V coordination type 1 for power circuit 63 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - I _{th} 50 A 50 Hz for power circuit
Power dissipation per pole	3 W AC-3 5 W AC-1
Inrush power in VA	70 VA cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7 VA 50 Hz cos phi 0.3 (at 20 °C) 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)
Operating time	4...19 ms opening 12...22 ms closing
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	15000000 cycles
Maximum operating rate	3600 cyc/h 60 °C
Minimum switching current	5 mA for control circuit
Minimum switching voltage	17 V for control circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Insulation resistance	> 10 MOhm for control circuit
Height	85 mm
Width	45 mm
Depth	92 mm
Net weight	0.38 kg

Environment

Standards	EN 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 No 14 EN 60947-5-1 IEC 60947-4-1
Product certifications	DNV RINA BV GOST CCC GL LROS (Lloyds register of shipping) CSA UL
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
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 U _c
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	15 gn contactor closed 8 gn contactor opened
Vibration resistance	2 gn 5...300 Hz contactor opened 4 gn 5...300 Hz contactor closed
Heat dissipation	2...3 W at 50/60 Hz for control circuit

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	439 g
Package 1 Height	11 cm
Package 1 width	10.5 cm
Package 1 Length	5.4 cm

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Compliant  EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	 Yes
China RoHS Regulation	 China RoHS Declaration
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

Contractual warranty

Warranty	18 months
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