

Main

Range of product	TeSys D
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Motor control
Utilisation category	AC-2 AC-3 AC-4
Control circuit type	AC
Coil type	Standard
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	40 A (<= 60 °C) AC network AC-3 for power circuit
Motor power kW	18.5 kW at 380...400 V AC 50/60 Hz 30 kW at 660...690 V AC 50/60 Hz 22 kW at 500 V AC 50/60 Hz 22 kW at 440 V AC 50/60 Hz 22 kW at 415 V AC 50/60 Hz 11 kW at 220...240 V AC 50/60 Hz
[Uc] control circuit voltage	120 V AC 50/60 Hz
Connections - terminals	Power circuit : screwclamp terminal 2 cable 1...35 mm ² - cable stiffness: solid - without cable end Power circuit : screwclamp terminal 2 cable 1...35 mm ² - cable stiffness: flexible - without cable end Power circuit : screwclamp terminal 2 cable 1...35 mm ² - cable stiffness: flexible - with cable end Power circuit : screwclamp terminal 2 cable 1...25 mm ² - cable stiffness: solid - without cable end Power circuit : screwclamp terminal 2 cable 1...25 mm ² - cable stiffness: flexible - without cable end Power circuit : screwclamp terminal 2 cable 1...25 mm ² - cable stiffness: flexible - with cable end Power circuit : screwclamp terminal 1 cable 1...35 mm ² - cable stiffness: solid - without cable end Power circuit : screwclamp terminal 1 cable 1...35 mm ² - cable stiffness: flexible - without cable end Power circuit : screwclamp terminal 1 cable 1...35 mm ² - cable stiffness: flexible - with cable end Control circuit : screwclamp terminal 2 cable 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screwclamp terminal 2 cable 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screwclamp terminal 2 cable 1...2.5 mm ² - cable stiffness: flexible - with cable end Control circuit : screwclamp terminal 1 cable 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screwclamp terminal 1 cable 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screwclamp terminal 1 cable 1...4 mm ² - cable stiffness: flexible - with cable end

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Complementary

Assembly style	Ready assembled
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
Interlocking type	Mechanical
Control circuit voltage limits	0.85...1.1 U _c at 60 °C operational 60 Hz 0.8...1.1 U _c at 60 °C operational 50 Hz 0.3...0.6 U _c at 60 °C drop-out 50/60 Hz
[U _i] rated insulation voltage	690 V for power circuit conforming to IEC 60947-1 690 V for control circuit conforming to IEC 60947-1 600 V for power circuit certifications UL 600 V for power circuit certifications CSA 600 V for control circuit certifications UL 600 V for control circuit certifications CSA
[U _{imp}] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
Mounting support	Plate Rail
Flame retardance	V1 conforming to UL 94
Tightening torque	Power circuit : 8 N.m - on screwclamp terminal - cable 1...35 mm ² hexagonal Power circuit : 5 N.m - on screwclamp terminal - cable 1...25 mm ² hexagonal Control circuit : 1.7 N.m - on screwclamp terminal - cable 1...4 mm ² - with screwdriver Philips No 2 Control circuit : 1.7 N.m - on screwclamp terminal - cable 1...4 mm ² - with screwdriver flat Ø 6 mm Control circuit : 1.7 N.m - on screwclamp terminal - cable 1...2.5 mm ² - with screwdriver Philips No 2 Control circuit : 1.7 N.m - on screwclamp terminal - cable 1...2.5 mm ² - with screwdriver flat Ø 6 mm
[U _e] rated operational voltage	<= 1000 V AC 25...400 Hz for power circuit
[I _{th}] conventional free air thermal current	60 A at <= 60 °C for power circuit 10 A at <= 60 °C for control circuit
I _{rms} rated making capacity	800 A at 440 V for power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	800 A at 440 V for power circuit conforming to IEC 60947
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 10 A gG for control circuit conforming to IEC 60947-5-1
Average impedance	At 50 Hz - I _{th} 60 A for power circuit
Power dissipation per pole	2.4 W AC-3 - I _{th} 60 A
Inrush power in VA	220 VA at 20 °C (cos φ: 0.75) 200 VA at 20 °C (cos φ: 0.75)
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 22 VA at 20 °C (cos φ 0.3) 60 Hz 20 VA at 20 °C (cos φ 0.3) 50 Hz
Operating time	4...19 ms opening 12...26 ms closing
Safety reliability level	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1
Mechanical durability	6000000 cycles
Operating rate	3600 cyc/h at <= 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 energisation between NC and NO contacts 1.5 ms on de-energisation between NC and NO contacts
Insulation resistance	> 10 MOhm for control circuit
Height	132 mm
Width	165 mm

Depth	142 mm
Product weight	2.4 kg

Environment

Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 No 14
Product certifications	BV CCC CSA DNV GL GOST LROS (Lloyds register of shipping) RINA UL
IP degree of protection	IP2x conforming to VDE 0106 IP2x conforming to IEC 60529
Protective treatment	TH (pollution degree: 3) conforming to IEC 60068
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 in temperature
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	8 gn contactor opened 10 gn contactor closed
Vibration resistance	4 gn 5...300 Hz contactor closed 2 gn 5...300 Hz contactor opened
Heat dissipation	6...10 W at 50/60 Hz for control circuit

Contractual warranty

Period	18 months
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