Product datasheet
Characteristics

LC2D18E7



Main

Range	TeSys
Product name	TeSys D
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Device presentation	Preassembled with reversing power busbar
Poles description	3P
Pole contact composition	3 NO
System Voltage	<= 690 V AC 25...400 Hz power circuit <= 300 V DC power circuit
[Ie] rated operational current	18 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit 32 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit
Motor power kW	10 kW at 500 V AC 50/60 Hz 10 kW at 660...690 V AC 50/60 Hz 4 kW at 220...230 V AC 50/60 Hz 7.5 kW at 380...400 V AC 50/60 Hz 9 kW at 415...440 V AC 50/60 Hz
Motor power hp	1 hp at 115 V AC 50/60 Hz 1 phase motors 3 hp at 230/240 V AC 50/60 Hz 1 phase motors 5 hp at 200/208 V AC 50/60 Hz 3 phases motors 5 hp at 230/240 V AC 50/60 Hz 3 phases motors 10 hp at 460/480 V AC 50/60 Hz 3 phases motors 15 hp at 575/600 V AC 50/60 Hz 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	48 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	32 A at <= 140 °F (60 °C) power circuit 10 A at <= 140 °F (60 °C) signalling circuit
Irms rated making capacity	300 A at 440 V power circuit conforming to IEC 60947 140 A AC signalling circuit conforming to IEC 60947-5-1 250 A DC signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	300 A at 440 V power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	145 A <= 104 °F (40 °C) 10 s power circuit 240 A <= 104 °F (40 °C) 1 s power circuit 40 A <= 104 °F (40 °C) 10 min power circuit 84 A <= 104 °F (40 °C) 1 min power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit
Associated fuse rating	35 A gG at <= 690 V coordination type 2 power circuit 50 A gG at <= 690 V coordination type 1 power circuit 10 A gG signalling circuit conforming to IEC 60947-5-1

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Average impedance	2.5 mOhm at 50 Hz - Ith 32 A power circuit
[Ui] rated insulation voltage	600 V power circuit certifications CSA 600 V power circuit certifications UL 690 V power circuit conforming to IEC 60947-4-1 690 V signalling circuit conforming to IEC 60947-1 600 V signalling circuit certifications CSA 600 V signalling circuit certifications UL
Electrical durability	1.65 Mcycles 18 A AC-3 at Ue <= 440 V 1 Mcycles 32 A AC-1 at Ue <= 440 V
Power dissipation per pole	0.8 W AC-3 2.5 W AC-1
Protective cover	With
Interlocking type	Mechanical
Mounting support	Plate Rail
Standards	UL 508 CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1
Product certifications	BV CCC CSA DNV GL GOST LROS (Lloyds register of shipping) RINA UL
Connections - terminals	Control circuit: screw clamp terminals 2 cable(s) 0...0 in² (1...2.5 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...6 mm²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: solid - without cable end
Tightening torque	Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2
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	15 Mcycles
Operating rate	3600 cyc/h at <= 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc drop-out at 140 °F (60 °C), AC 50/60 Hz 0.8...1.1 Uc operational at 140 °F (60 °C), AC 50 Hz 0.85...1.1 Uc operational at 140 °F (60 °C), AC 60 Hz
Inrush power in VA	70 VA at 68 °F (20 °C) (cos ϕ 0.75) 60 Hz 70 VA at 68 °F (20 °C) (cos ϕ 0.75) 50 Hz
Hold-in power consumption in VA	7.5 VA at 68 °F (20 °C) (cos ϕ 0.3) 60 Hz 7 VA at 68 °F (20 °C) (cos ϕ 0.3) 50 Hz
Heat dissipation	2...3 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 signalling circuit
Minimum switching voltage	
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 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	-4...140 °F (-20...60 °C)
ambient air temperature for storage	-76...176 °F (-60...80 °C)
permissible ambient air temperature around the device	-40...158 °F (-40...70 °C) at Uc
operating altitude	9842.52 ft (3000 m) without derating in temperature
fire resistance	1562 °F (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	3.03 in (77 mm)
width	3.54 in (90 mm)
depth	3.39 in (86 mm)
product weight	1.56 lb(US) (0.707 kg)

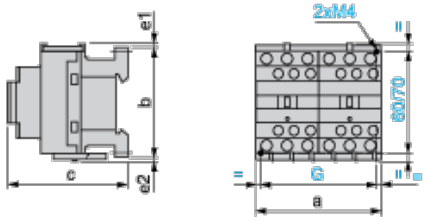
Offer Sustainability

Green Premium product	Green Premium product
Compliant - since 0627 - Schneider Electric declaration of conformity	Compliant - since 0627 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available

Contractual warranty

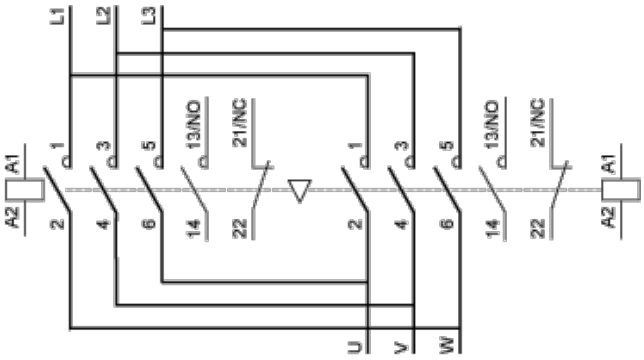
Warranty period	18 months

Dimensions



LC2 or 2 x LC1	a	b	c(1)	e1	e2	G
D09 to D18 (AC)	90	77	86	4	1.5	80
D093 to D123 (AC)	90	99	86	–	–	80
D09 to D18 (DC)	90	77	95	4	1.5	80
D093 to D123 (DC)	90	99	95	–	–	80
D25 to D38 (AC)	90	85	92	9	5	80
D183 to D383 (AC)	90	99	92	–	–	80
D25 to D32 (DC)	90	85	101	9	5	80
D183 to D383 (DC)	90	99	101	–	–	80
e1 and e2: including cabling.						
(1) With safety cover, without add-on block.						

Wiring



Our Proposal - Type 1 : Circuit Breaker + Contactor for Motor Power 7,5 kW and 415 VAC

Motor Power (kW)	Icu (kA)	Breaker	Contactor
7.5	15	 GV2ME20	 LC2D18E7

Non contractual pictures. Type 1 coordination requires that in a short-circuit condition, the contactor or starter must not present any danger to personnel or installations and must not be able to resume operation without repair or the replacement of parts.