

LC2D80G7

TeSys D reversing contactor - 3P(3 NO) - AC-3
- <= 440 V 80 A - 120 V AC coil

Product availability: Stock - Normally stocked in distribution facility



Main

Commercial Status	Commercialised
Range of product	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	Preamsembled with reversing power busbar
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	<= 300 V DC for power circuit <= 1000 V AC 25...400 Hz for power circuit
[Ie] rated operational current	80 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 125 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
Motor power kW	45 kW at 1000 V AC 50/60 Hz 45 kW at 660...690 V AC 50/60 Hz 55 kW at 500 V AC 50/60 Hz 45 kW at 415...440 V AC 50/60 Hz 37 kW at 380...400 V AC 50/60 Hz 22 kW at 220...230 V AC 50/60 Hz
Motor power hp	60 hp at 575/600 V AC 50/60 Hz for 3 phases motors 60 hp at 460/480 V AC 50/60 Hz for 3 phases motors 25 hp at 230/240 V AC 50/60 Hz for 3 phases motors 15 hp at 230/240 V AC 50/60 Hz for 1 phase motors 7.5 hp at 115 V AC 50/60 Hz for 1 phase motors 20 hp at 200/208 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
Control circuit voltage	120 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	125 A at <= 140 °F (60 °C) for power circuit 10 A at <= 140 °F (60 °C) for signalling circuit
Irms rated making capacity	1100 A at 440 V for power circuit conforming to IEC 60947 250 A DC for signalling circuit conforming to IEC 60947-5-1 140 A AC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	990 A <= 104 °F (40 °C) 1 s power circuit 640 A <= 104 °F (40 °C) 10 s power circuit 320 A <= 104 °F (40 °C) 1 min power circuit 135 A <= 104 °F (40 °C) 10 min power circuit 140 A 100 ms signalling circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit

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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	0.80 mOhm at 50 Hz - Ith 125 A for power circuit
[Ui] rated insulation voltage	1000 V for power circuit conforming to IEC 60947-4-1 600 V for signalling circuit certifications UL 600 V for signalling circuit certifications CSA 690 V for signalling circuit conforming to IEC 60947-1 600 V for power circuit certifications UL 600 V for power circuit certifications CSA
Electrical durability	1.5 Mcycles 80 A AC-3 at Ue ≤ 440 V 0.8 Mcycles 125 A AC-1 at Ue ≤ 440 V
Power dissipation per pole	AC-3 12.5 W AC-1
Protective cover	With
Interlocking type	Mechanical
Mounting support	Plate Rail
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 RINA UL LROS
Connections - terminals	Power circuit: connector 2 cable(s) 0.01...0.04 in ² (4...25 mm ²) - cable stiffness: solid - without cable end Power circuit: connector 1 cable(s) 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: solid - without cable end Power circuit: connector 2 cable(s) 0.01...0.02 in ² (4...16 mm ²) - cable stiffness: flexible - with cable end Power circuit: connector 1 cable(s) 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: flexible - with cable end Power circuit: connector 2 cable(s) 0.01...0.04 in ² (4...25 mm ²) - cable stiffness: flexible - without cable end Power circuit: connector 1 cable(s) 0.01...0.08 in ² (4...50 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0 in ² (1...2.5 mm ²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0 in ² (1...2.5 mm ²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end

Tightening torque	Power circuit: 79.65 lbf.in (9 N.m) - on connector hexagonal 0.16 in (4 mm) Power circuit: 79.65 lbf.in (9 N.m) - on connector - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 10.62 lbf.in (1.2 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm
Operating time	6...20 ms opening 20...35 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	4 Mcycles
Operating rate	3600 cyc/h at ≤ 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc at 131 °F (55 °C) operational 60 Hz 0.8...1.1 Uc at 131 °F (55 °C) operational 50 Hz 0.3...0.6 Uc at 131 °F (55 °C) drop-out 50/60 Hz
Inrush power in VA	245 VA at 68 °F (20 °C) (cos φ 0.75) 50 Hz 245 VA at 68 °F (20 °C) (cos φ 0.75) 60 Hz
Hold-in power consumption in VA	26 VA at 68 °F (20 °C) (cos φ 0.3) 50 Hz 26 VA at 68 °F (20 °C) (cos φ 0.3) 60 Hz
Heat dissipation	6...10 W at 50/60 Hz
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
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 energisation (between NC and NO contact) 1.5 ms on de-energisation (between NC and NO contact)
Insulation resistance	> 10 MOhm for signalling circuit

Environment

IP degree of protection	IP2x front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	23...140 °F (-5...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	Shocks contactor closed 10 Gn for 11 ms Vibrations contactor closed 3 Gn, 5...300 Hz Shocks contactor open 8 Gn for 11 ms Vibrations contactor open 2 Gn, 5...300 Hz
Height	5 in (127 mm)
Width	7.17 in (182 mm)
Depth	6.22 in (158 mm)
Product weight	7.05 lb(US) (3.2 kg)

Ordering and shipping details

Category	22346 - CTR,D-LINE,OPEN,REVERSING-NEW
Discount Schedule	I12
GTIN	00785901457190
Nbr. of units in pkg.	1
Package weight(Lbs)	8.50
Product availability	Stock - Normally stocked in distribution facility
Returnability	Y
Country of origin	CZ

Contractual warranty

Period	18 months
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