

# LC1D80004E7

## TeSys D contactor - 4P(4 NO) - AC-1 - <= 440 V 125 A - 48 V AC coil



### Main

Commercial Status	Commercialised
Range of product	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	4 NO
[Ue] rated operational voltage	<= 300 V DC 25...400 Hz for power circuit <= 690 V AC for power circuit
[Ie] rated operational current	125 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Control circuit type	AC 50/60 Hz
Control circuit voltage	48 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	125 A at <= 60 °C for power circuit
Irms rated making capacity	1100 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	320 A <= 40 °C 1 min power circuit 135 A <= 40 °C 10 min power circuit 990 A <= 40 °C 1 s power circuit 640 A <= 40 °C 10 s power circuit
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
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 power circuit certifications UL 600 V for power circuit certifications CSA
Electrical durability	0.8 Mcycles 125 A AC-1 at Ue <= 440 V
Power dissipation per pole	12.5 W AC-1
Safety cover	Without
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

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Product certifications	BV CCC CSA DNV GL GOST RINA UL LROS
Connections - terminals	Power circuit: connector 2 cable(s) 4...25 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit: connector 1 cable(s) 4...50 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit: connector 2 cable(s) 4...16 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit: connector 1 cable(s) 4...50 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit: connector 2 cable(s) 4...25 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit: connector 1 cable(s) 4...50 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end
Tightening torque	Power circuit: 9 N.m - on connector hexagonal 4 mm Power circuit: 9 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 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 ≤ 60 °C

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc at 55 °C operational 60 Hz 0.8...1.1 Uc at 55 °C operational 50 Hz 0.3...0.6 Uc at 55 °C drop-out 50/60 Hz
Inrush power in VA	245 VA at 20 °C (cos φ 0.75) 50 Hz 245 VA at 20 °C (cos φ 0.75) 60 Hz
Hold-in power consumption in VA	26 VA at 20 °C (cos φ 0.3) 50 Hz 26 VA at 20 °C (cos φ 0.3) 60 Hz
Heat dissipation	6...10 W at 50/60 Hz

## 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	-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 derating in temperature
Fire resistance	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 Shocks contactor open 8 Gn for 11 ms Vibrations contactor closed 3 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz
Height	127 mm
Width	96 mm
Depth	125 mm
Product weight	1.76 kg

### RoHS compliance

RoHS EUR status	Compliant
RoHS EUR conformity date(Y Y W W)	0701

### Contractual warranty

Period	18 months
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