## Product datasheet Characteristics

# LC1D128B7

TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 25 A - 24 V AC coil





Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
Pole contact composition	2 NO + 2 NC
[Ue] rated operational voltage	<= 690 V AC 25400 Hz for power circuit <= 300 V DC for power circuit
[le] rated operational current	25 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	24 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	25 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit
Irms rated making capacity	<ul> <li>250 A at 440 V for power circuit conforming to IEC</li> <li>60947</li> <li>140 A AC for signalling circuit conforming to IEC</li> <li>60947-5-1</li> <li>250 A DC for signalling circuit conforming to IEC</li> <li>60947-5-1</li> </ul>
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	105 A <= 40 °C 10 s power circuit 210 A <= 40 °C 1 s power circuit 30 A <= 40 °C 1 o min power circuit 61 A <= 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	25 A gG at <= 690 V coordination type 2 for power circuit 40 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	2.5 mOhm at 50 Hz - Ith 25 A for power circuit
[Ui] rated insulation voltage	600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4 1 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL
Electrical durability	0.8 Mcycles 25 A AC-1 at Ue <= 440 V
Power dissipation per pole	1.56 W AC-1
Protective cover	With
Mounting support	Plate Rail

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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) 12.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm <sup>2</sup> - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm <sup>2</sup> - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 2 cable(s) 1.
Tightening torque	Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	419 ms opening 1222 ms closing
	B10d = 1369863 cycles contactor with nominal
Safety reliability level	load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Safety reliability level Mechanical durability	B10d = 20000000 cycles contactor with

#### Complementary

Coil technology	Without built-in suppressor module	
Control circuit voltage limits	0.30.6 Uc drop-out at 60 °C, AC 50/60 Hz 0.81.1 Uc operational at 60 °C, AC 50 Hz 0.851.1 Uc operational at 60 °C, AC 60 Hz	
Inrush power in VA	70 VA at 20 °C (cos φ 0.75) 60 Hz 70 VA at 20 °C (cos φ 0.75) 50 Hz	



Hold-in power consumption in VA	7.5 VA at 20 °C (cos φ 0.3) 60 Hz 7 VA at 20 °C (cos φ 0.3) 50 Hz
Heat dissipation	23 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	25400 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	IP20 front face conforming to IEC 60529
protective treatment	TH conforming to IEC 60068-2-30
pollution degree	3
ambient air temperature for operation	-560 °C
ambient air temperature for storage	-6080 °C
permissible ambient air temperature around the device	-4070 °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	Vibrations contactor open 2 Gn, 5300 Hz Vibrations contactor closed 4 Gn, 5300 Hz Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
height	85 mm
width	45 mm
depth	92 mm
product weight	0.365 kg

### **Offer Sustainability**

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0702 - Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

