Product datasheet Characteristics

LC1D128BL

TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 25 A - 24 V DC 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	DC low consumption
[Uc] control circuit voltage	24 V DC
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	250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
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 10 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
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



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	UL	
Connections - terminals	UL Control circuit : screw clamp terminals 2 cable(s) 12.5 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminals 1 cable(s) 14 mm ² - cable stiffness: solid - without cable end	
	Power circuit : screw clamp terminals 2 cable(s) 14 mm ² - cable stiffness: solid - without cable end	
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	65.4588.55 ms closing 2030 ms opening	
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	30 Mcycles	
Operating rate	3600 cyc/h at <= 60 °C	

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor	
Control circuit voltage limits	0.10.3 Uc drop-out at 60 °C, DC 0.81.25 Uc operational at 60 °C, DC	
Time constant	40 ms	
Inrush power in W	2.4 W at 20 °C	
Hold-in power consumption in W	2.4 W at 20 °C	
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	e -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	99 mm	
product weight	0.525 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

