Fisa tehnica produs
Caracteristici

LC1DT80ABD
TeSys D contactor - 4P(4 NO) - AC-1 - <= 440 V 80 A - 24 V DC coil



Main

Commercial Status	Commercialised
Range of product	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	4 NO
[Ue] rated operational voltage	<= 300 V DC for power circuit <= 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	80 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Control circuit type	DC standard
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	80 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit
Irms rated making capacity	1000 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	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	260 A <= 40 °C 1 min power circuit 110 A <= 40 °C 10 min power circuit 900 A <= 40 °C 1 s power circuit 520 A <= 40 °C 10 s power circuit 140 A 100 ms signalling circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit
Associated fuse rating	125 A gG at <= 690 V coordination type 2 for power circuit 125 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	1.6 mOhm at 50 Hz - Ith 80 A for power circuit
[Ui] rated insulation voltage	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 690 V for power circuit conforming to IEC 60947-4-1
Electrical durability	1.4 Mcycles 80 A AC-1 at Ue <= 440 V
Power dissipation per pole	10.2 W AC-1
Safety cover	With

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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	Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: solid - without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: solid - without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: flexible - with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: flexible - with cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: flexible - without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: flexible - without cable end
Tightening torque	Power circuit: 8 N.m - on screw clamp terminals - cable 25...35 mm² hexagonal 4 mm Power circuit: 5 N.m - on screw clamp terminals - cable <= 25 mm² hexagonal 4 mm Control 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
Operating time	16...24 ms opening 42.5...57.5 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	10 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.75...1.25 Uc at 60 °C operational 0.1...0.3 Uc at 60 °C drop-out
Time constant	34 ms
Inrush power in W	19 W at 20 °C
Hold-in power consumption in W	7.4 W at 20 °C

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	-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 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz
Height	122 mm
Width	70 mm
Depth	120 mm
Product weight	1.225 kg

Contractual warranty

Period	18 months