

LC1D80B5

TeSys D contactor 3P 80A AC-3 \leq 440V - aux
1NO+1NC - coil 24V 50Hz



Main

Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3 AC-4
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	\leq 1000 V AC 25...400 Hz for power circuit \leq 300 V DC for power circuit
[Ie] rated operational current	80 A (\leq 60 °C) at \leq 440 V AC-3 for power circuit 125 A (\leq 60 °C) at \leq 440 V AC-1 for power circuit
Motor power kW	37 kW at 380...400 V AC 50 Hz AC-3 45 kW at 415...440 V AC 50 Hz AC-3 55 kW at 500 V AC 50 Hz AC-3 45 kW at 660...690 V AC 50 Hz AC-3 22 kW at 220...230 V AC 50 Hz AC-3 45 kW at 1000 V AC 50 Hz AC-3 15 kW at 400 V AC 50 Hz AC-4
Motor power hp	20 hp at 200/208 V AC 60 Hz for 3 phases motors 7.5 hp at 115 V AC 60 Hz for 1 phase motors 15 hp at 230/240 V AC 60 Hz for 1 phase motors 25 hp at 230/240 V AC 60 Hz for 3 phases motors 60 hp at 460/480 V AC 60 Hz for 3 phases motors 60 hp at 575/600 V AC 60 Hz for 3 phases motors
Control circuit type	AC 50 Hz
[Uc] control circuit voltage	24 V AC 50 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	Conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	125 A at \leq 60 °C for power circuit 10 A at \leq 60 °C for signalling circuit
Irms rated making capacity	1100 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	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	135 A \leq 40 °C 10 min power circuit 100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 640 A \leq 40 °C 10 s power circuit 990 A \leq 40 °C 1 s power circuit 320 A \leq 40 °C 1 min power circuit
Associated fuse rating	160 A gG at \leq 690 V coordination type 2 for power circuit 200 A gG at \leq 690 V coordination type 1 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1

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Average impedance	0.8 mOhm at 50 Hz - Ith 125 A for power circuit
[U _i] rated insulation voltage	1000 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit certifications CSA 600 V for power circuit certifications UL 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 125 A AC-1 at U _e ≤ 440 V 1.5 Mcycles 80 A AC-3 at U _e ≤ 440 V
Power dissipation per pole	5.1 W AC-3 12.5 W AC-1
Protective cover	With
Mounting support	Plate Rail
Standards	EN/IEC 60947-5-1 EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product certifications	BV CCC CSA UL EAC DNV-GL
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm ² - cable stiffness: solid - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Power circuit : connector 1 cable(s) 4...50 mm ² - cable stiffness: flexible - without cable end Power circuit : connector 2 cable(s) 4...25 mm ² - cable stiffness: flexible - without cable end Power circuit : connector 1 cable(s) 4...50 mm ² - cable stiffness: flexible - with cable end Power circuit : connector 2 cable(s) 4...16 mm ² - cable stiffness: flexible - with cable end Power circuit : connector 1 cable(s) 4...50 mm ² - cable stiffness: solid - without cable end Power circuit : connector 2 cable(s) 4...25 mm ² - cable stiffness: solid - without cable end
Tightening torque	Power circuit : 9 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit : 9 N.m - on connector hexagonal 4 mm Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit : 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2
Operating time	20...35 ms closing 6...20 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	10 Mcycles
Operating rate	≤ 3600 cyc/h at ≤ 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U _c drop-out at 55 °C, AC 50 Hz 0.85...1.1 U _c operational at 55 °C, AC 50 Hz
Inrush power in VA	200 VA at 20 °C (cos φ 0.75) 50 Hz
Hold-in power consumption in VA	20 VA at 20 °C (cos φ 0.3) 50 Hz
Heat dissipation	6...10 W at 50 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	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 de-energisation (between NC and NO contact) 1.5 ms on 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	-5...60 °C
ambient air temperature for storage	-60...80 °C
permissible ambient air temperature around the device	-40...70 °C at U _c
operating altitude	3000 m without derating
fire resistance	850 °C conforming to IEC 60695-2-1
flame retardance	V1 conforming to UL 94
mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz Shocks contactor open 8 Gn for 11 ms Vibrations contactor closed 3 Gn, 5...300 Hz Shocks contactor closed 10 Gn for 11 ms
height	127 mm
width	85 mm
depth	130 mm
product weight	1.59 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0701 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Need no specific recycling operations