

Product datasheet

Characteristics

LC2D50ABNE

TeSys D reversing contactor - 3P - ≤ 440 V - 50 A AC-3 - 24...60 V AC/DC coil



Main

Range of product	TeSys D
Range	TeSys
Product name	TeSys D Green
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Device presentation	Preamsembled with reversing power busbar
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	≤ 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	50 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 80 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Motor power kW	15 kW at 220...230 V AC 50/60 Hz 22 kW at 380...400 V AC 50/60 Hz 25 kW at 415 V AC 50/60 Hz 30 kW at 440 V AC 50/60 Hz 30 kW at 500 V AC 50/60 Hz 33 kW at 660...690 V AC 50/60 Hz
Control circuit type	AC 50/60 Hz AC/DC electronic DC AC/DC electronic
[Uc] control circuit voltage	24...60 V AC 50/60 Hz 24...60 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	900 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	900 A at 440 V for power circuit conforming to IEC 60947
[I _{cw}] rated short-time withstand current	100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 400 A ≤ 40 °C 10 s power circuit 810 A ≤ 40 °C 1 s power circuit 84 A ≤ 40 °C 10 min power circuit 208 A ≤ 40 °C 1 min power circuit
Associated fuse rating	100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 mΩ at 50 Hz - I _{th} 80 A for power circuit
[U _i] rated insulation voltage	690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1
Electrical durability	1.4 Mcycles 50 A AC-3 ≤ 440 V ≥ 17221 700000 cycles 80 A AC-1 ≤ 440 V ≥ 17221 38000 cycles AC-4 ≤ 440 V ≥ 17221
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1
Protective cover	With
Interlocking type	Mechanical
Mounting support	Plate Rail
Standards	EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 EN/IEC 60947-5-1
Product certifications	UL CSA CCC EAC KC
Connections - terminals	Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm ² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: flexible - without cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm ² - cable stiffness: solid - without cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: flexible - without cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm ² - cable stiffness: solid - without 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: flexible - with 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
Tightening torque	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 Power circuit : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal 4 mm Power circuit : 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal 4 mm
Operating time	55...65 ms closing 20...120 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	6000000 cycles
Operating rate	3600 cyc/h at ≤ 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	$\leq 0.1 U_c$ drop-out at 60 °C 0.85...1.1 U_c operational at 60 °C
Inrush power in VA	15 VA at 20 °C 50/60 Hz
Inrush power in W	16 W at 20 °C
Hold-in power consumption in VA	1 VA at 20 °C 50/60 Hz
Hold-in power consumption in W	0.7 W at 20 °C
Heat dissipation	0.7 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	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	-25...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 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, 5...300 Hz Vibrations contactor closed 4 Gn, 5...300 Hz Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
Height	122 mm
Width	119 mm
Depth	120 mm
Product weight	2.164 kg
Colour	Grey SE GREY 6 Green SE GREEN 2

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1625 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available Product environmental
Product end of life instructions	Available End of life manual