Product data sheet Characteristics

LC2D50ABNE

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



Main

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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	<u> </u>
Device presentation	Preassembled with reversing power busbar	
Poles description	3P	
Pole contact composition	3 NO	
[Ue] rated operational voltage	<= 690 V AC 25400 Hz for power circuit	
[le] 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 220230 V AC 50/60 Hz 22 kW at 380400 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 660690 V AC 50/60 Hz	
Control circuit type	AC 50/60 Hz AC/DC electronic DC AC/DC electronic	-
[Uc] control circuit voltage	2460 V AC 50/60 Hz 2460 V DC	
Auxiliary contact composition	1 NO + 1 NC	
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947	
Overvoltage category	III	
[lth] 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	
[lcw] 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 mOhm at 50 Hz - Ith 80 A for power circuit	
[Ui] 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	Rail Plate	
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) 12.5 mm² - cable stiffness: flexible - with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 135 mm² - cable stiffness: flexible - without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 135 mm² - cable stiffness: flexible - with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 135 mm² - cable stiffness: solid - without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 125 mm² - cable stiffness: flexible - without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 125 mm² - cable stiffness: flexible - with cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 125 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - without cable end	
Tightening torque	Control circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 14 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 14 mm² - cable stiffness: solid - without cable end 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	Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 2535 mm² hexagonal 4 mm Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 125 mm² hexagonal 4 mm	
Operating time	5565 ms closing 20120 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	<= 0.1 Uc drop-out at 60 °C 0.851.1 Uc 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	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 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	-2560 °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	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	Not Green Premium product
RoHS (date code: YYWW)	Compliant - since 1625 - Schneider Electric declaration of conformity
	Schneider Electric declaration of conformity
Product environmental profile	Available
	Product environmental
Product end of life instructions	Available
	End of life manual