

# Product datasheet

Specifications



## TeSys D reversing contactor - 3P(3 NO) - AC-3 - $\leq$ 440 V 38 A - 110 V DC coil

LC2D385FD

⚠ Discontinued on: 10 Jun 2022

⚠ End-of-service on: 26 Nov 2024

⚠ Discontinued

## Main

Range	TeSys
Product name	TeSys D
Product or component type	Reversing contactor
Device short name	LC2D
Contactors application	Resistive load Motor control
Utilisation category	AC-3 AC-1
Device presentation	Preassembled with reversing power busbar
Poles description	3P
power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: $\leq$ 690 V AC 25...400 Hz Power circuit: $\leq$ 300 V DC
[Ie] rated operational current	50 A (at $\leq$ 60 °C) at $\leq$ 440 V AC AC-1 for power circuit 38 A (at $\leq$ 60 °C) at $\leq$ 440 V AC AC-3 for power circuit
Motor power kW	9 kW at 220...230 V AC 50 Hz 18.5 kW at 380...400 V AC 50 Hz 18.5 kW at 415...440 V AC 50 Hz 18.5 kW at 500 V AC 50 Hz 18.5 kW at 660...690 V AC 50 Hz
Motor power hp	10 hp at 230/240 V AC 60 Hz for 3 phases motors 5 hp at 240 V AC 60 Hz for 1 phase motors 10 hp at 200/208 V AC 60 Hz for 3 phases motors 20 hp at 480 V AC 60 Hz for 3 phases motors 25 hp at 600 V AC 60 Hz for 3 phases motors
Control circuit type	DC standard
[Uc] control circuit voltage	110 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 50 A (at 60 °C) for power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 550 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	550 A at 440 V for power circuit conforming to IEC 60947

<b>[Icw] rated short-time withstand current</b>	60 A 40 °C - 10 min for power circuit 430 A 40 °C - 1 s for power circuit 150 A 40 °C - 1 min for power circuit 310 A 40 °C - 10 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
<b>Associated fuse rating</b>	10 A gG for signalling circuit conforming to IEC 60947-5-1 63 A gG at <= 690 V coordination type 1 for power circuit 63 A gG at <= 690 V coordination type 2 for power circuit
<b>Average impedance</b>	2 mOhm - lth 50 A 50 Hz for power circuit
<b>[Ui] rated insulation voltage</b>	Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
<b>Electrical durability</b>	1.4 Mcycles 50 A AC-1 at Ue <= 440 V 1.4 Mcycles 38 A AC-3 at Ue <= 440 V
<b>Power dissipation per pole</b>	5 W AC-1 3 W AC-3
<b>Front cover</b>	Without
<b>Interlocking type</b>	Mechanical
<b>Mounting support</b>	Rail Plate
<b>Standards</b>	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
<b>Product certifications</b>	RINA DNV LROS (Lloyds register of shipping) CCC BV CSA UL GOST GL
<b>Connections - terminals</b>	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid Power circuit: screw clamp terminals 1 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1...10 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1.5...6 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1.5...10 mm <sup>2</sup> solid Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> solid
<b>Tightening torque</b>	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: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2
<b>Operating time</b>	53.55...72.45 ms closing 16...24 ms opening
<b>Safety reliability level</b>	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
<b>Mechanical durability</b>	30 Mcycles

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Maximum operating rate	3600 cyc/h 60 °C
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## Complementary

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Coil technology	Built-in bidirectional peak limiting diode suppressor
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Control circuit voltage limits	0.1...0.25 U <sub>c</sub> (-40...70 °C):drop-out DC 0.7...1.25 U <sub>c</sub> (-40...60 °C):operational DC 1...1.25 U <sub>c</sub> (60...70 °C):operational DC
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Time constant	28 ms
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Inrush power in W	5.4 W (at 20 °C)
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Hold-in power consumption in W	5.4 W at 20 °C
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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
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Signalling circuit frequency	25...400 Hz
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Minimum switching current	5 mA for signalling circuit
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Minimum switching voltage	17 V for signalling circuit
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Non-overlap time	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
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Insulation resistance	> 10 MOhm for signalling circuit
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## Environment

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IP degree of protection	IP20 front face conforming to IEC 60529
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Protective treatment	TH conforming to IEC 60068-2-30
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Pollution degree	3
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Ambient air temperature for operation	-40...60 °C 60...70 °C with derating
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Ambient air temperature for storage	-60...80 °C
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Operating altitude	0...3000 m
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Fire resistance	850 °C conforming to IEC 60695-2-1
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Flame retardance	V1 conforming to UL 94
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Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor closed: 15 Gn for 11 ms Shocks contactor open: 8 Gn for 11 ms
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Height	85 mm
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Width	90 mm
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Depth	99 mm
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Net weight	1.137 kg
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## Contractual warranty

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Warranty (in months)	18
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Use Longer



#### Lifetime extension

Repair

No