



### Main

Range	TeSys
Product name	TeSys D
Product or component type	Reversing contactor
Device short name	LC2D
Contact application	Resistive load Motor control
Utilisation category	AC-3 AC-1
Device presentation	Preamsembled with reversing power busbar
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 1000 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	200 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit 150 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit
Motor power kW	40 kW 220...230 V AC 50 Hz 75 kW 380...400 V AC 50 Hz 80 kW 415...440 V AC 50 Hz 90 kW 500 V AC 50 Hz 100 kW 660...690 V AC 50 Hz 75 kW 1000 V AC 50 Hz
Motor power HP (UL / CSA)	40 hp 200/208 V AC 60 Hz 3 phase 50 hp 230/240 V AC 60 Hz 3 phase 100 hp 460/480 V AC 60 Hz 3 phase 125 hp 575/600 V AC 60 Hz 3 phase
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	240 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV IEC 60947
Overvoltage category	III

[I <sub>th</sub> ] conventional free air thermal current	200 A 140 °F (60 °C) power circuit
I <sub>rms</sub> rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1660 A 440 V power circuit IEC 60947
Rated breaking capacity	1400 A 440 V power circuit IEC 60947
[I <sub>cw</sub> ] rated short-time withstand current	250 A 104 °F (40 °C) - 10 min power circuit 580 A 104 °F (40 °C) - 1 min power circuit 1200 A 104 °F (40 °C) - 10 s power circuit 1400 A 104 °F (40 °C) - 1 s power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 315 A gG ≤ 690 V type 1 power circuit 250 A gG ≤ 690 V type 2 power circuit
Average impedance	0.6 mOhm - I <sub>th</sub> 200 A 50 Hz power circuit
[U <sub>i</sub> ] rated insulation voltage	Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL Power circuit 1000 V IEC 60947-4-1
Electrical durability	0.85 Mcycles 150 A AC-3 ≤ 440 V 1 Mcycles 200 A AC-1 ≤ 440 V
Power dissipation per pole	24 W AC-1 13.5 W AC-3
Safety cover	With
Interlocking type	Mechanical Electrical
Mounting support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	BV CCC CSA DNV GL RINA UL EAC
Connections - terminals	Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible without cable end Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )solid without cable end Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )solid without cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> )flexible without cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> )flexible without cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> )flexible with cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> )flexible with cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> )solid without cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> )solid without cable end
Tightening torque	Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm)
Operating time	20...35 ms closing 40...75 ms opening
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	8000000 cycles
Maximum operating rate	1200 cyc/h 140 °F (60 °C)

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	Drop-out 0.3...0.5 U <sub>c</sub> AC 50/60 Hz 131 °F (55 °C)) Operational 0.8...1.15 U <sub>c</sub> AC 50/60 Hz 131 °F (55 °C))
Inrush power in VA	280...350 VA 60 Hz 0.9 68 °F (20 °C)) 280...350 VA 50 Hz 0.9 68 °F (20 °C))
Hold-in power consumption in VA	2...18 VA 68 °F (20 °C)) 0.9 60 Hz 2...18 VA 68 °F (20 °C)) 0.9 50 Hz
Heat dissipation	3...4.5 W 50/60 Hz
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 mA signalling circuit
Minimum switching voltage	17 V 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 signalling circuit

## Environment

IP degree of protection	IP20 front face IEC 60529
Protective treatment	TH IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	23...140 °F (-5...60 °C)
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Permissible ambient air temperature around the device	-40...158 °F (-40...70 °C) at U <sub>c</sub>
Operating altitude	9842.52 ft (3000 m) without
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor closed15 Gn for 11 ms Shocks contactor open6 Gn for 11 ms
Height	6.22 in (158 mm)
Width	10.47 in (266 mm)
Depth	5.83 in (148 mm)
Net weight	14.11 lb(US) (6.4 kg)

## Ordering and shipping details

Category	22359 - CTR, TESYS D, OPEN, 80-150A AC&DC
Discount Schedule	I12
GTIN	00785901954323
Returnability	No
Country of origin	CZ

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information.

Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
<b>Contractual warranty</b>	
Warranty	18 months