

# Product data sheet

Specifications



Reversing Contactor, TeSys Deca,  
3P(3NO), AC-3/AC-3e, <=440V  
80A, 48V AC 50/60Hz coil, screw  
clamp terminals

LC2D80E7

## Main

Range	TeSys
Product Name	TeSys Deca
Product Or Component Type	Reversing contactor
Device Short Name	LC2D
Contactor Application	Resistive load Motor control
Utilisation Category	AC-1 AC-3 AC-3e AC-4
Device Presentation	Preassembled with reversing power busbar
Poles Description	3P
Power Pole Contact Composition	3 NO
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] Rated Operational Current	125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 55 A (at <60 °C) at <= 400 V AC AC-4 for power circuit
Motor Power Kw	22 kW at 220...230 V AC 50 Hz 37 kW at 380...400 V AC 50 Hz 45 kW at 415...440 V AC 50 Hz 55 kW at 500 V AC 50 Hz 45 kW at 660...690 V AC 50 Hz
Motor Power Hp (UI / Csa)	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 at 50/60 Hz
[Uc] Control Circuit Voltage	48 V AC 50/60 Hz
Auxiliary Contact Composition	1 NO + 1 NC
[Uimp] Rated Impulse Withstand Voltage	8 kV conforming to IEC 60947
Overvoltage Category	III
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 125 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 1100 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	1100 A at 440 V for power circuit conforming to IEC 60947

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

<b>[Icw] Rated Short-Time Withstand Current</b>	135 A 40 °C - 10 min for power circuit 320 A 40 °C - 1 min for power circuit 640 A 40 °C - 10 s for power circuit 990 A 40 °C - 1 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 60947-5-1 200 A gG at <= 690 V coordination type 1 for power circuit 160 A gG at <= 690 V coordination type 2 for power circuit
<b>Average Impedance</b>	0.8 mOhm - lth 125 A 50 Hz for power circuit
<b>[Ui] Rated Insulation Voltage</b>	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 Power circuit: 1000 V conforming to IEC 60947-4-1
<b>Electrical Durability</b>	0.8 Mcycles 125 A AC-1 at Ue <= 440 V 1.5 Mcycles 80 A AC-3 at Ue <= 440 V 1.5 Mcycles 80 A AC-3e at Ue <= 440 V
<b>Power Dissipation Per Pole</b>	12.5 W AC-1 5.1 W AC-3 5.1 W AC-3e
<b>Front Cover</b>	With
<b>Interlocking Type</b>	Mechanical
<b>Mounting Support</b>	Plate Rail
<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>	UL CSA RINA GOST CCC DNV LROS (Lloyds register of shipping) GL BV UKCA
<b>Connections - Terminals</b>	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm²flexible with cable end Power circuit: connector 1 cable(s) 4...50 mm²flexible without cable end Power circuit: connector 2 cable(s) 4...25 mm²flexible without cable end Power circuit: connector 1 cable(s) 4...50 mm²flexible with cable end Power circuit: connector 2 cable(s) 4...16 mm²flexible with cable end Power circuit: connector 1 cable(s) 4...50 mm²solid Power circuit: connector 2 cable(s) 4...25 mm²solid
<b>Tightening Torque</b>	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 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
<b>Operating Time</b>	20...35 ms closing 6...20 ms opening
<b>Safety Reliability Level</b>	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	4 Mcycles
Maximum Operating Rate	3600 cyc/h 60 °C

## Complementary

Coil Technology	Without built-in suppressor module
Control Circuit Voltage Limits	0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 Uc (-40...55 °C):operational AC 50 Hz 0.85...1.1 Uc (-40...55 °C):operational AC 60 Hz 1...1.1 Uc (55...70 °C):operational AC 50/60 Hz
Inrush Power In Va	245 VA 60 Hz cos phi 0.75 (at 20 °C) 245 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-In Power Consumption In Va	26 VA 60 Hz cos phi 0.3 (at 20 °C) 26 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat Dissipation	6...10 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
Climatic Withstand	conforming to IACS E10
Protective Treatment	TH conforming to IEC 60068-2-30
Pollution Degree	3
Ambient Air Temperature For Operation	-40...60 °C 60...70 °C with derating
Ambient Air Temperature For Storage	-60...80 °C
Operating Altitude	0...3000 m
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	182 mm
Depth	158 mm
Net Weight	3.2 kg

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	19.5 cm

Package 1 Width	19.5 cm
Package 1 Length	26.0 cm
Package 1 Weight	3.724 kg
Unit Type Of Package 2	S03
Number Of Units In Package 2	2
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.958 kg

## Contractual warranty

Warranty	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency   RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information   Yes

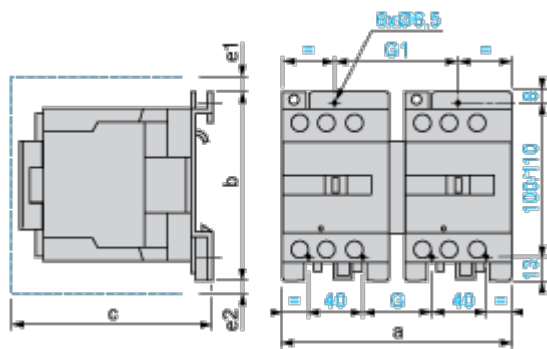
✓ Pvc Free

## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Compliant <a href="#">EU RoHS Declaration</a>
China Rohs Regulation	<a href="#">China RoHS declaration</a> Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	No need of specific recycling operations
California Proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="#">www.P65Warnings.ca.gov</a>

Dimensions Drawings

Dimensions



LC2 or 2 x LC1	a	b	c	e1	e2	G	G1
D80 and D95 (AC)	182	127	158	13	–	57	96
c, e1 and e2: including cabling.							

Connections and Schema

Wiring

