# **Product datasheet**

Specifications



# TeSys D contactor - 3P(3 NO) -AC-3 - <= 440 V 25 A - 220 V AC coil

LC1D25M7

### Main

Range of product	TeSys Deca	
Product or component type	Contactor	
Device short name	LC1D	
Contactor application	Motor control Resistive load	
Utilisation category	AC-1 AC-3 AC-4 AC-3e	
Poles description	3P	
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC	
[le] rated operational current	25 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-3e for power circuit	
[Uc] control circuit voltage	220 V AC 50/60 Hz	

### Complementary

•		
Motor power kW	5.5 kW at 220230 V AC 50/60 Hz (AC-3) 11 kW at 380400 V AC 50/60 Hz (AC-3) 11 kW at 415440 V AC 50/60 Hz (AC-3) 15 kW at 500 V AC 50/60 Hz (AC-3) 15 kW at 660690 V AC 50/60 Hz (AC-3) 5.5 kW at 400 V AC 50/60 Hz (AC-4) 5.5 kW at 220230 V AC 50/60 Hz (AC-3e) 11 kW at 380400 V AC 50/60 Hz (AC-3e) 11 kW at 415440 V AC 50/60 Hz (AC-3e) 15 kW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 660690 V AC 50/60 Hz (AC-3e)	
Motor power hp	3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 3 phases motors 15 hp at 460/480 V AC 50/60 Hz for 3 phases motors 20 hp at 575/600 V AC 50/60 Hz for 3 phases motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors	
Compatibility code	LC1D	
Pole contact composition	3 NO	
Protective cover	With	
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit         40 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 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947	
Rated breaking capacity	450 A at 440 V for power circuit conforming to IEC 60947	

[Icw] rated short-time withstand	240 A 40 °C - 10 s for power circuit
current	380 A 40 °C - 1 s for power circuit
	50 A 40 °C - 10 min for power circuit
	120 A 40 °C - 1 min for power circuit
	100 A - 1 s for signalling circuit
	120 A - 500 ms for signalling circuit
	140 A - 100 ms for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1
	63 A gG at <= 690 V coordination type 1 for power circuit
	40 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - Ith 40 A 50 Hz for power circuit
Power dissipation per pole	3.2 W AC-1
	1.25 W AC-3
	1.25 W AC-3e
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1
[ei] tatea meataren terrage	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
Overvoltage category	III
pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
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	15 Mcycles
Electrical durability	1.65 Mcycles 25 A AC-3 at Ue <= 440 V
2	1.4 Mcycles 40 A AC-1 at Ue <= 440 V
	1.65 Mcycles 25 A AC-3e at Ue <= 440 V
Control circuit type	AC at 50/60 Hz standard
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz
	0.81.1 Uc (-4060 °C):operational AC 50 Hz
	0.851.1 Uc (-4060 °C):operational AC 60 Hz
	11.1 Uc (6070 °C):operational AC 50/60 Hz
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C)
•	70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7.5.1/A 60. Hz coc pbi 0.3 (ct 20 °C)
	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	23 W at 50/60 Hz
Operating time	1222 ms closing
-	419 ms opening
Maximum operating rate	3600 cyc/h at 60 °C

Connections - terminals	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible without cable end	
	Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible without cable end	
	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible with cable end	
	Control circuit: screw clamp terminals 2 12.5 mm <sup>2</sup> - cable stiffness: flexible with cable end	
	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: solid without cable end	
	Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: solid without cable end	
	Power circuit: screw clamp terminals 1 2.510 mm <sup>2</sup> - cable stiffness: flexible without cable end	
	Power circuit: screw clamp terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible without cable end	
	Power circuit: screw clamp terminals 1 110 mm <sup>2</sup> - cable stiffness: flexible with cable end	
	Power circuit: screw clamp terminals 2 1.56 mm <sup>2</sup> - cable stiffness: flexible with cable end	
	Power circuit: screw clamp terminals 1 1.510 mm <sup>2</sup> - cable stiffness: solid without cable end	
	Power circuit: screw clamp terminals 2 2.510 mm <sup>2</sup> - 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: 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 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2	
Auxiliary contact composition	1 NO + 1 NC	
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 voltage	17 V for signalling circuit	
Minimum switching current	5 mA for signalling circuit	
Insulation resistance	> 10 MOhm 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	
Mounting support	Plate Rail	

## Environment

CSA C22.2 No 14	
EN 60947-4-1	
EN 60947-5-1	
IEC 60947-4-1	
IEC 60947-5-1	
UL 60947-4-1	
IEC 60335-1:Clause 30.2	
IEC 60335-2-40:Annex JJ	
UL 60335-2-40:Annex JJ	
CSA C22.2 No 60947-4-1	
UL	
CCC	
CSA	
Marine	
UKCA	
EAC	
CB Scheme	
IP20 front face conforming to IEC 60529	
TH conforming to IEC 60068-2-30	
conforming to IACS E10 exposure to damp heat	
conforming to IEC 60947-1 Annex Q category D exposure to damp heat	

Permissible ambient air	-4060 °C	
temperature around the device	6070 °C with derating	
Operating altitude	03000 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, 5300 Hz)	
	Vibrations contactor closed (4 Gn, 5300 Hz)	
	Shocks contactor closed (15 Gn for 11 ms)	
	Shocks contactor open (8 Gn for 11 ms)	
Height	85 mm	
Width	45 mm	
Depth	92 mm	
Net weight	0.37 kg	

# **Packing Units**

-	
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.000 cm
Package 1 Width	9.300 cm
Package 1 Length	11.400 cm
Package 1 Weight	413.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	20
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.440 kg
Unit Type of Package 3	P06
Number of Units in Package 3	320
Package 3 Height	75.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	143.000 kg

### **Contractual warranty**

Warranty

18 months

# C 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  $\geq$ 

${\mathcal Q}$ Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	127
Environmental Disclosure	Product Environmental Profile

#### **Use Better**

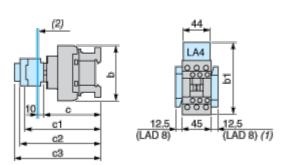
S Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Compliant
REACh Regulation	REACh Declaration
PVC free	Yes

#### Use Again

$^{ m \bigcirc}$ Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

### **Dimensions Drawings**

### Dimensions



- (1) Including LAD 4BB
- (2) Minimum electrical clearance

LC1		D25D38 (3-pole)
b	without add-on blocks	85
	with LAD 4BB	98
	with LA4 D•2	<sub>114</sub> (1)
b1	with LA4 DF, DT	<sub>123</sub> (1)
	with LA4 DW, DL	<sub>130</sub> (1)
c	without cover or add-on blocks	90
C	with cover, without add-on blocks	92
c1	with LAD N or C (2 or 4 contacts)	123
c2	with LA6 DK10, LAD 6K10	135
-2	with LAD T, R, S	143
c3	with LAD T, R, S and sealing cover	147
(1)	Including LAD 4BB.	

# **Product datasheet**

Connections and Schema

Wiring

