## **Product datasheet**

Specification





# TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 150 A - 220 V AC 50/60 Hz coil

LC1D150M7

### Main

Range	TeSys
Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Motor control Resistive load
Utilisation Category	AC-3 AC-4 AC-1 AC-3e
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit: <= 1000 V AC 25400 Hz Power circuit: <= 300 V DC
[le] Rated Operational Current	200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 150 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 150 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	40 kW at 220230 V AC 50/60 Hz (AC-3)	
	75 kW at 380400 V AC 50/60 Hz (AC-3)	
	80 kW at 415440 V AC 50/60 Hz (AC-3)	
	90 kW at 500 V AC 50/60 Hz (AC-3)	
	100 kW at 660690 V AC 50/60 Hz (AC-3)	
	75 kW at 1000 V AC 50/60 Hz (AC-3)	
	22 kW at 400 V AC 50/60 Hz (AC-4)	
	40 kW at 220230 V AC 50/60 Hz (AC-3e)	
	75 kW at 380400 V AC 50/60 Hz (AC-3e)	
	80 kW at 415440 V AC 50/60 Hz (AC-3e)	
	90 kW at 500 V AC 50/60 Hz (AC-3e)	
	100 kW at 660690 V AC 50/60 Hz (AC-3e)	
	75 kW at 1000 V AC 50/60 Hz (AC-3e)	
Motor Power Hp	40 hp at 200/208 V AC 50/60 Hz for 3 phases motors	
	50 hp at 230/240 V AC 50/60 Hz for 3 phases motors	
	100 hp at 460/480 V AC 50/60 Hz for 3 phases motors	
	125 hp at 575/600 V AC 50/60 Hz for 3 phases motors	
Compatibility Code	LC1D	
Pole Contact Composition	3 NO	
Contact Compatibility	M13	
Protective Cover	With	
[Ith] Conventional Free Air Thermal Current	200 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
	1660 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity 1400 A at 440 V for power circuit conforming to IEC 60947	
[Icw] Rated Short-Time Withstand	250 A 40 °C - 10 min for power circuit
Current	580 A 40 °C - 1 min for power circuit
	1200 A 40 °C - 10 s for power circuit
	1400 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
Associated Fuse Rating	10 A gG for signalling circuit conforming to IEC 60947-5-1
	315 A gG at <= 690 V coordination type 1 for power circuit
	250 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	0.6 mOhm - Ith 200 A 50 Hz for power circuit
Power Dissipation Per Pole	24 W AC-1
. S. S. Biooipation For Fore	13.5 W AC-3
	13.5 W AC-3e
[Ui] Rated Insulation Voltage	Power circuit: 600 V CSA certified
	Power circuit: 600 V UL certified
	Power circuit: 1000 V conforming to IEC 60947-4-1
	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	8 kV conforming to IEC 60947
Safety Reliability Level	B10d = 684932 cycles contactor with nominal load conforming to EN/ISO 13849-1
Caroty Nonability 2010.	B10d = 10000000 cycles contactor with mechanical load conforming to EN/ISO
	13849-1
	10040-1
Mechanical Durability	8 Mcycles
Electrical Durability	0.85 Mcycles 150 A AC-3 at Ue <= 440 V
	1 Mcycles 200 A AC-1 at Ue <= 440 V
	0.85 Mcycles 150 A AC-3e at Ue <= 440 V
Control Circuit Type	AC at 50/60 Hz standard
Coil Technology	Built-in bidirectional peak limiting diode suppressor
Control Circuit Voltage Limits	0.30.5 Uc (-4070 °C):drop-out AC 50/60 Hz
_	0.81.15 Uc (-4055 °C):operational AC 50/60 Hz
	11.15 Uc (5570 °C):operational AC 50/60 Hz
Inrush Power In Va	280350 VA 60 Hz cos phi 0.9 (at 20 °C)
indon'i ower in va	280350 VA 50 Hz cos phi 0.9 (at 20 °C)
Hold-In Power Consumption In Va	2 19 VA 60 Hz coc phi 0.0 (et 20 °C)
Hold-III Fower Consumption III va	218 VA 60 Hz cos phi 0.9 (at 20 °C) 218 VA 50 Hz cos phi 0.9 (at 20 °C)
Heat Discipation	. , , ,
Heat Dissipation	34.5 W at 50/60 Hz
Operating Time	2035 ms closing
	4075 ms opening
Maximum Operating Rate	1200 cyc/h 60 °C
-	•

Connections - Terminals	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end	
	cable end  Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: flexible with cable end	
	Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: flexible without cable end	
	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible without cable end	
	Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: solid without cable end	
	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: solid without cable end	
	Power circuit: connector 1 10120 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 2 1050 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 1 10120 mm <sup>2</sup> - cable stiffness: flexible with cable end	
	Power circuit: connector 2 1050 mm² - cable stiffness: flexible with cable end	
	Power circuit: connector 1 10120 mm² - cable stiffness: solid without cable end	
	Power circuit: connector 2 1050 mm² - cable stiffness: solid without cable end	
Tightening Torque	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 hexagonal screw head 4 mm	
	Control circuit: 1.2 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	Rail	
	Plate	
Environment		
Standards	00A 000 0 N - 44	
otanuai us	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	CCC	
	LROS (Lloyds register of shipping) GL	
	GC	
	RINA	
	CSA	
	BV	
	UL	
	DNV	
	UKCA CE	
	<del></del>	
In Degree Of Protection	IP20 front face conforming to IEC 60520	

	UL DNV UKCA CE	
Ip Degree Of Protection	IP20 front face conforming to IEC 60529	
Protective Treatment	TH conforming to IEC 60068-2-30	
Climatic Withstand	conforming to IACS E10 exposure to damp heat	
Permissible Ambient Air Temperature Around The Device	-4060 °C 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 (6 Gn for 11 ms)	
Height	158 mm	
Width	120 mm	
Depth	136 mm	
Net Weight	2.5 ka	

## **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	21.000 cm
Package 1 Width	20.000 cm
Package 1 Length	23.500 cm
Package 1 Weight	2.490 kg
Unit Type Of Package 2	P06
Number Of Units In Package 2	27
Package 2 Height	75.000 cm
Package 2 Width	60.000 cm
Package 2 Length	80.000 cm
Package 2 Weight	79.819 kg

## **Contractual warranty**

Warranty 12 months



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Transparency RoHS/REACh

### Well-being performance

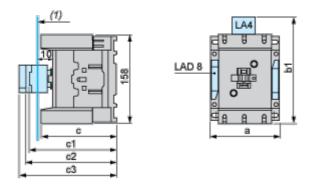
	Mercury Free	
	Rohs Exemption Information	Yes
<b>⊘</b>	Pvc Free	

#### **Certifications & Standards**

Reach Regulation	REACh Declaration	
Eu Rohs Directive	Compliant with Exemptions	
China Rohs Regulation	China RoHS declaration  Product out of China RoHS scope. Substance declaration for your information	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
Circularity Profile	End of Life Information	

## **Dimensions Drawings**

#### **Dimensions**



#### (1) Minimum electrical clearance

LC1		D115 and D150 (3-pole)
а		120
	with LA4 DA2	174
b1	with LA4 DF, DT	185
ы	with LA4 DM, DL	188
	with LA4 DW	188
	without cover or add-on blocks	132
С	with cover, without add-on blocks	136
с1	with LAD N or C (2 or 4 contacts)	150
c2	with LA6 DK20	155
с3	with LAD T, R, S	168
CS	with LAD T, R, S and sealing cover	172

Connections and Schema

Wiring

