# **Product datasheet**

Specification





Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 25A, 400V AC 50/60Hz coil, screw clamp terminals

LC1D25V7

## Main

Range Of Product	TeSys Deca	
Product Or Component Type	Contactor	
Device Short Name	LC1D	
Contactor Application	Resistive load Motor control	
Utilisation Category	AC-3 AC-4 AC-1 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	400 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 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	10 A (at 60 °C) for signalling circuit
Thermal Current	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 Current	240 A 40 °C - 10 s for power circuit 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 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 600 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 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 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 60 °C	

Ip Degree Of Protection	IF 20 HOUR Table Contourning to IEC 00329	
In Dograd Of Bushastiss	IP20 front face conforming to IEC 60529	
	UKCA CB	
	CCC CSA GOST	
	RINA UL	
	DNV LROS (Lloyds register of shipping)	
Product Certifications	GL BV	
Product Cortifications	IEC 60335-1	
	UL 508	
	IEC 60947-4-1 IEC 60947-5-1	
	EN 60947-4-1 EN 60947-5-1	
Standards	CSA C22.2 No 14	
Environment		
Mounting Support	Plate Rail	
·	1.5 ms on energisation between NC and NO contact	
Insulation Resistance  Non-Overlap Time	> 10 MOhm for signalling circuit  1.5 ms on de-energisation between NC and NO contact	
Minimum Switching Current	5 mA for signalling circuit	
Minimum Switching Voltage	17 V for signalling circuit	
Signalling Circuit Frequency	25400 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	
Auxiliary Contact Composition	1 NO + 1 NC	
	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Phillips 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 Phillips 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	
Tightening Torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm	
	cable end  Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: solid without cable end	
	cable end Power circuit: screw clamp terminals 1 1.510 mm² - cable stiffness: solid without	
	cable end  Power circuit: screw clamp terminals 2 1.56 mm² - cable stiffness: flexible with	
	Power circuit: screw clamp terminals 1 110 mm² - cable stiffness: flexible with	
	Power circuit: screw clamp terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible without cable end	
	Power circuit: screw clamp terminals 1 2.510 mm <sup>2</sup> - cable stiffness: flexible without cable end	
	Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end	
	Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end	
	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end	
	Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end	
	cable end	
	Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible without	

Climatic Withstand	conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D 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 (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	9.200 cm
Package 1 Length	11.200 cm
Package 1 Weight	416.000 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	8.642 kg

# **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

## Well-being performance

<b>Ø</b>	Reach Free Of Svhc	
<b>⊘</b>	Rohs Exemption Information	Yes
<b>⊘</b>	Pvc Free	

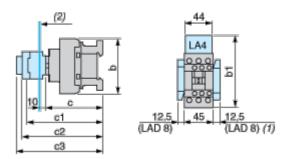
#### **Certifications & Standards**

Reach Regulation	REACh Declaration	
Eu Rohs Directive	Compliant	
	EU RoHS Declaration	
China Rohs Regulation	China RoHS declaration	
	Pro-active China RoHS declaration (out of China RoHS legal scope)	
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	

# LC1D25V7

## **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	114 <sup>(1)</sup>
b1	with LA4 DF, DT	123 <sup>(1)</sup>
	with LA4 DW, DL	130(1)
	without cover or add-on blocks	90
С	with cover, without add-on blocks	92
с1	with LAD N or C (2 or 4 contacts)	123
с2	with LA6 DK10, LAD 6K10	135
с3	with LAD T, R, S	143
	with LAD T, R, S and sealing cover	147
(1)	Including LAD 4BB.	

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#### LC1D25V7

Connections and Schema

Wiring

