# **Product datasheet**

Specification





# TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 25 A - 115 V AC coil

LC1D25FE7

#### Main

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-1 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	115 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 thermal	10 A (at 60 °C) for signalling circuit
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	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
	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
-	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	IP20 front face conforming to IEC 60529		
	GOST UKCA CB		
Froduct certifications	GL BV DNV LROS (Lloyds register of shipping) RINA UL CCC CSA		
Product certifications	EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1		
Environment Standards	CSA C22.2 No 14 EN 60947-4-1		
mounting support	Plate Rail		
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		
Minimum switching current	5 mA for signalling circuit		
Minimum switching voltage	17 V for signalling circuit		
Signalling circuit frequency	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1  25400 Hz		
Auxiliary contacts type	1 NO + 1 NC		
Auxiliary contact composition	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		
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		
	cable end Power circuit: screw clamp terminals 1 1.510 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: solid without cable end		
	Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible without cable end  Power circuit: screw clamp terminals 1 110 mm² - cable stiffness: flexible with cable end  Power circuit: screw clamp terminals 2 1.56 mm² - cable stiffness: flexible with		
	Power circuit: screw clamp terminals 1 2.510 mm² - cable stiffness: flexible without cable end		
	cable end  Control circuit: screw clamp terminals 2 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: solid without		
	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 mm² - 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	ce V1 conforming to UL 94		
Mechanical robustness	ibrations contactor open (2 Gn, 5300 Hz) ibrations contactor closed (4 Gn, 5300 Hz) hocks contactor closed (15 Gn for 11 ms) hocks 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	11.200 cm
Package 1 Width	9.200 cm
Package 1 Length	5.000 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	8.642 kg

## **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

#### Well-being performance

<b>②</b>	Reach Free Of Svhc	
<b>⊘</b>	Rohs Exemption Information	Yes
	Pvc Free	

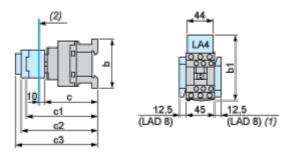
#### **Certifications & Standards**

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

## LC1D25FE7

#### **Dimensions Drawings**

#### **Dimensions**



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

LC1		D09D18	D093D123	D099D129
b	without add-on blocks	77	99	80
	with LAD 4BB	94	107	95.5
	with LA4 D●2	110 <sup>(1)</sup>	123 <sup>(1)</sup>	111.5 <sup>(1)</sup>
b1	with LA4 DF, DT	<sub>119</sub> (1)	132 <sup>(1)</sup>	120.5 <sup>(1)</sup>
	with LA4 DW, DL	<sub>126</sub> (1)	139(1)	<sub>127.5</sub> (1)
С	without cover or add-on blocks	84	84	84
	with cover, without add-on blocks	86	86	86
с1	with LAD N or C (2 or 4 contacts)	117	117	117
с2	with LA6 DK10, LAD 6K10	129	129	129
c3	with LAD T, R, S	137	137	137
	with LAD T, R, S and sealing cover	141	141	141
(1)	Including LAD 4BB.			

Connections and Schema

Wiring

