# **Product datasheet**

Specification





Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 18A, 400V AC 50/60Hz coil, screw clamp terminals

LC1D18V7

#### Main

Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Motor control Resistive load
Utilisation Category	AC-4 AC-3 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	18 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 32 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 18 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	4 kW at 220230 V AC 50/60 Hz (AC-3)
	7.5 kW at 380400 V AC 50/60 Hz (AC-3)
	9 kW at 415440 V AC 50/60 Hz (AC-3)
	10 kW at 500 V AC 50/60 Hz (AC-3)
	10 kW at 660690 V AC 50/60 Hz (AC-3)
	4 kW at 400 V AC 50/60 Hz (AC-4)
	4 kW at 220230 V AC 50/60 Hz (AC-3e)
	7.5 kW at 380400 V AC 50/60 Hz (AC-3e)
	9 kW at 415440 V AC 50/60 Hz (AC-3e)
	10 kW at 500 V AC 50/60 Hz (AC-3e)
	10 kW at 660690 V AC 50/60 Hz (AC-3e)
Motor Power Hp	1 hp at 115 V AC 50/60 Hz for 1 phase motors
	3 hp at 230/240 V AC 50/60 Hz for 1 phase motors
	5 hp at 200/208 V AC 50/60 Hz for 3 phases motors
	5 hp at 230/240 V AC 50/60 Hz for 3 phases motors
	10 hp at 460/480 V AC 50/60 Hz for 3 phases motors
	15 hp at 575/600 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	32 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
	300 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	300 A at 440 V for power circuit conforming to IEC 60947

[Icw] Rated Short-Time Withstand	145 A 40 °C - 10 s for power circuit
Current	240 A 40 °C - 1 s for power circuit
	40 A 40 °C - 10 min for power circuit
	84 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 Fues Batters	
Associated Fuse Rating	10 A gG for signalling circuit conforming to IEC 60947-5-1
	50 A gG at <= 690 V coordination type 1 for power circuit
	35 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	2.5 mOhm - Ith 32 A 50 Hz for power circuit
Power Dissipation Per Pole	2.5 W AC-1
	0.8 W AC-3
	0.8 W AC-3e
[Ui] Rated Insulation Voltage	Power circuit: 690 V conforming to IEC 60947-4-1
[e.,	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	45 Manufac
	15 Mcycles
Electrical Durability	1.65 Mcycles 18 A AC-3 at Ue <= 440 V
	1 Mcycles 32 A AC-1 at Ue <= 440 V
	1.65 Mcycles 18 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) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
	10 VA 30 112 003 PH 0.13 (at 20 O)
Hold-In Power Consumption In Va	7.5.\/\\ 60.Hz coc phi 0.3 (at 20.°C)
III Ower Consumption III Va	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
	7 V/1 00 112 000 μ111 0.0 (αι 20 · O)
Heat Dissipation	23 W at 50/60 Hz
Operating Time	1222 ms closing
Operating Time	1222 ms closing 419 ms opening
Operating Time  Maximum Operating Rate	· · · · · · · · · · · · · · · · · · ·

Connections - Terminals	Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end		
	Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without		
	cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with 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 2 14 mm² - cable stiffness: solid without		
	cable end Power circuit: screw clamp terminals 1 1.56 mm² - cable stiffness: flexible without		
	cable end Power circuit: screw clamp terminals 2 1.56 mm² - cable stiffness: flexible without		
	cable end		
	Power circuit: screw clamp terminals 1 16 mm² - cable stiffness: flexible with cable end		
	Power circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible with cable end		
	Power circuit: screw clamp terminals 1 1.56 mm <sup>2</sup> - cable stiffness: solid without cable end		
	Power circuit: screw clamp terminals 2 1.56 mm <sup>2</sup> - cable stiffness: solid without cable end		
 Tightening Torque	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm		
	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 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		
	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 1.7 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	<ul><li>1.5 ms on de-energisation between NC and NO contact</li><li>1.5 ms on energisation between NC and NO contact</li></ul>		
Mounting Support	Rail		
	Plate		
Environment			
Standards	CSA C22.2 No 14		
	EN 60947-4-1 EN 60947-5-1		
	IEC 60947-4-1		
	IEC 60947-5-1 UL 508		
	IEC 60335-1		
Product Certifications	UL RINA		
	LROS (Lloyds register of shipping)		
	GOST		
	CSA BV		
	ccc		
	GL DANY		
	DNV UKCA		
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 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 open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms)	
Height	77 mm	
Width	45 mm	
Depth	86 mm	
Net Weight	0.33 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	11.300 cm
Package 1 Weight	354.000 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	7.410 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	160
Package 3 Height	45.000 cm
Package 3 Width	60.000 cm
Package 3 Length	80.000 cm
Package 3 Weight	67.280 kg

## **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

#### Well-being performance

<b>⊘</b>	Reach Free Of Svhc
<b>⊘</b>	Toxic Heavy Metal Free
<b>⊘</b>	Mercury Free
<b>②</b>	Rohs Exemption Information Yes
<b>⊘</b>	Pvc Free

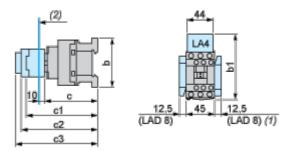
#### **Certifications & Standards**

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

### LC1D18V7

#### **Dimensions Drawings**

#### **Dimensions**



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

LC1		D09D18	D093D123	D099D129
b	without add-on blocks	77	99	80
b1	with LAD 4BB	94	107	95.5
	with LA4 D●2	110 <sup>(1)</sup>	123 <sup>(1)</sup>	<sub>111.5</sub> (1)
	with LA4 DF, DT	119 <sup>(1)</sup>	132 <sup>(1)</sup>	<sub>120.5</sub> (1)
	with LA4 DW, DL	<sub>126</sub> (1)	139 <sup>(1)</sup>	<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
c2	with LA6 DK10, LAD 6K10	129	129	129
<b>c</b> 3	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

