Product datasheet

Specification





TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 9 A - 110 V AC coil

Local distributor code:

381800327 LC1D09F7

EAN Code: 3389110348798

Main

Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Resistive load Motor control
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	9 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 9 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] Control Circuit Voltage	110 V AC 50/60 Hz

Complementary

•		
Motor Power Kw	2.2 kW at 220230 V AC 50/60 Hz (AC-3) 4 kW at 380400 V AC 50/60 Hz (AC-3) 4 kW at 415440 V AC 50/60 Hz (AC-3) 5.5 kW at 500 V AC 50/60 Hz (AC-3) 5.5 kW at 660690 V AC 50/60 Hz (AC-3) 2.2 kW at 400 V AC 50/60 Hz (AC-4) 2.2 kW at 220230 V AC 50/60 Hz (AC-3e) 4 kW at 380400 V AC 50/60 Hz (AC-3e) 4 kW at 415440 V AC 50/60 Hz (AC-3e) 5.5 kW at 500 V AC 50/60 Hz (AC-3e) 5.5 kW at 660690 V AC 50/60 Hz (AC-3e)	
Motor Power Hp	1 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 200/208 V AC 50/60 Hz for 3 phases motors 2 hp at 230/240 V AC 50/60 Hz for 3 phases motors 5 hp at 460/480 V AC 50/60 Hz for 3 phases motors 7.5 hp at 575/600 V AC 50/60 Hz for 3 phases motors 0.33 hp at 115 V AC 50/60 Hz for 1 phase motors	
Compatibility Code	LC1D	
Pole Contact Composition	3 NO	
Protective Cover	With	
[Ith] Conventional Free Air Thermal Current	25 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit	
Irms Rated Making Capacity	250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1	
Rated Breaking Capacity	250 A at 440 V for power circuit conforming to IEC 60947	

[Icw] Rated Short-Time Withstand	105 A 40 °C - 10 s for power circuit
Current	210 A 40 °C - 1 s for power circuit
	30 A 40 °C - 10 min for power circuit
	61 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
rice enaced ruce riading	25 A gG at <= 690 V coordination type 1 for power circuit
	20 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit
Power Dissipation Per Pole	A FOW AC A
Tower Dissipation Fer Fole	1.56 W AC-1
	0.2 W AC-3 0.2 W AC-3e
	0.2 W // 0 00
[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	0.6 Mcycles 25 A AC-1 at Ue <= 440 V
	2 Mcycles 9 A AC-3 at Ue <= 440 V
	2 Mcycles 9 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)
	10 VA 30 112 005 pill 0.73 (at 20 0)
Hold-In Power Consumption In Va	7.5 VA 60 Hz cos phi 0.3 (at 20 °C)
one. concumption in va	7.5 VA 50 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	12, 22 ma planing
Operating Time	1222 ms closing
	419 ms opening
Maximum Operating Rate	3600 cyc/h 60 °C

Connections - Terminals	Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end		
	Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without		
	cable end Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable		
	end Power circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with		
	cable end Power circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable		
	end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable		
	end		
	Control circuit: screw clamp terminals 1 14 mm ² - cable stiffness: flexible without cable end		
	Control circuit: screw clamp terminals 2 14 mm ² - 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		
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	1.5 ms on de-energisation between NC and NO contact1.5 ms on energisation between NC and NO contact		
Mounting Support	Plate Rail		
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		
	GOST		
	GL CCC		
	BV		
	LROS (Lloyds register of shipping)		
	CSA DNV		
	RINA		
	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	0.32 kg	

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5 cm
Package 1 Width	9.2 cm
Package 1 Length	11.3 cm
Package 1 Weight	351 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	20
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	7.535 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	320
Package 3 Height	80 cm
Package 3 Width	80 cm
Package 3 Length	60 cm
Package 3 Weight	130.555 kg

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

⊘	Reach Free Of Svhc
⊘	Toxic Heavy Metal Free
⊘	Mercury Free
②	Rohs Exemption Information Yes
⊘	Pvc Free

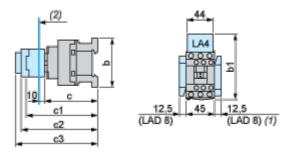
Certifications & Standards

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

LC1D09F7

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 ⁽¹⁾	123 ⁽¹⁾	_{111.5} (1)
	with LA4 DF, DT	₁₁₉ (1)	132 ⁽¹⁾	_{120.5} (1)
	with LA4 DW, DL	₁₂₆ (1)	139 ⁽¹⁾	_{127.5} (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
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

