Product datasheet

Specification





Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 32A, 48V AC 50/60Hz coil, screw clamp terminals

LC1D32E7

Main

Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Resistive load Motor control
Utilisation Category	AC-4 AC-1 AC-3 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	32 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 32 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] Control Circuit Voltage	48 V AC 50/60 Hz

Complementary

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Motor Power Kw	7.5 kW at 220230 V AC 50/60 Hz (AC-3)
	15 kW at 380400 V AC 50/60 Hz (AC-3)
	15 kW at 415440 V AC 50/60 Hz (AC-3)
	18.5 kW at 500 V AC 50/60 Hz (AC-3)
	18.5 kW at 660690 V AC 50/60 Hz (AC-3)
	7.5 kW at 400 V AC 50/60 Hz (AC-4)
	7.5 kW at 220230 V AC 50/60 Hz (AC-3e)
	15 kW at 380400 V AC 50/60 Hz (AC-3e)
	15 kW at 415440 V AC 50/60 Hz (AC-3e)
	18.5 kW at 500 V AC 50/60 Hz (AC-3e)
	18.5 kW at 660690 V AC 50/60 Hz (AC-3e)
Motor Power Hp	2 hp at 115 V AC 50/60 Hz for 1 phase motors
	5 hp at 230/240 V AC 50/60 Hz for 1 phase motors
	10 hp at 200/208 V AC 50/60 Hz for 3 phases motors
	10 hp at 230/240 V AC 50/60 Hz for 3 phases motors
	20 hp at 460/480 V AC 50/60 Hz for 3 phases motors
	25 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	50 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
	550 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	550 A at 440 V for power circuit conforming to IEC 60947

[Icw] Rated Short-Time Withstand	260 A 40 °C - 10 s for power circuit
Current	430 A 40 °C - 1 s for power circuit
	60 A 40 °C - 10 min for power circuit
	138 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
ū	63 A gG at <= 690 V coordination type 1 for power circuit
	63 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	2 mOhm - Ith 50 A 50 Hz for power circuit
Power Dissipation Per Pole	2 W AC-3
	5 W AC-1
	2 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	Ш
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 32 A AC-3 at Ue <= 440 V
· · · · · · · · · · · · · · · · · · ·	1.4 Mcycles 50 A AC-1 at Ue <= 440 V
	1.65 Mcycles 32 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)
	7.5 VA 50 Hz cos phi 0.3 (at 20 °C)
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 2.510 mm² - cable stiffness: flexible 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	
	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	
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	
	Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat \varnothing 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	
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	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	GL BV	
	DNV	
	LROS (Lloyds register of shipping)	
	RINA	
	UL CCC	
	CSA	
	GOST	
	UKCA CB	
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 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	0.375 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.0 cm
Package 1 Width	9.2 cm
Package 1 Length	11.2 cm
Package 1 Weight	420.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	20
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	8.935 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	320
Package 3 Height	77.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	150.18 kg

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance



Reach Free Of Svhc



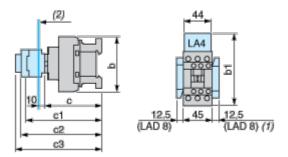
Pvc Free

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

Dimensions Drawings

Dimensions



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

LC1		D25D38 (3-pole)
b	without add-on blocks	85
b1	with LAD 4BB	98
	with LA4 D●2	114 ⁽¹⁾
	with LA4 DF, DT	123 ⁽¹⁾
	with LA4 DW, DL	130(1)
c	without cover or add-on blocks	90
	with cover, without add-on blocks	92
c1	with LAD N or C (2 or 4 contacts)	123
c2	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.	

Connections and Schema

Wiring

