Product datasheet

Specifications





Contactor, TeSys Deca, 3P(3 NO), AC-3/AC-3e, <=400V, 40A, 24V AC 50/60Hz coil, screw clamp terminals

LC1D40AB7

#### Main

mann	
Range	TeSys TeSys Deca
Range Of Produc	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Motor control Resistive load
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	60 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] Control Circuit Voltage	24 V AC 50/60 Hz

## Complementary

Motor Power Kw	18.5 kW at 380400 V AC 50/60 Hz (AC-3) 11 kW at 220230 V AC 50/60 Hz (AC-3) 22 kW at 415440 V AC 50/60 Hz (AC-3) 22 kW at 500 V AC 50/60 Hz (AC-3) 30 kW at 660690 V AC 50/60 Hz (AC-3) 9 kW at 400 V AC 50/60 Hz (AC-3) 18.5 kW at 380400 V AC 50/60 Hz (AC-3e) 11 kW at 220230 V AC 50/60 Hz (AC-3e) 22 kW at 415440 V AC 50/60 Hz (AC-3e) 22 kW at 500 V AC 50/60 Hz (AC-3e) 30 kW at 660690 V AC 50/60 Hz (AC-3e)
Motor Power Hp	5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 10 hp at 230/240 V AC 50/60 Hz for 3 phases motors 30 hp at 575/600 V AC 50/60 Hz for 3 phases motors 10 hp at 200/208 V AC 50/60 Hz for 3 phases motors 3 hp at 115 V AC 50/60 Hz for 1 phase motors 30 hp at 460/480 V AC 50/60 Hz for 3 phases motors
Compatibility Code	LC1D
Pole Contact Composition	3 NO
Contact Compatibility	M2
Protective Cover	With
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 60 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 60947-5-1 800 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	800 A at 440 V for power circuit conforming to IEC 60947
[Icw] Rated Short-Time Withstand Current	320 A 40 °C - 10 s for power circuit 720 A 40 °C - 1 s for power circuit 72 A 40 °C - 10 min for power circuit 165 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 80 A gG at <= 690 V coordination type 1 for power circuit 80 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	1.5 mOhm - Ith 60 A 50 Hz for power circuit
Power Dissipation Per Pole	2.4 W AC-3 5.4 W AC-1 2.4 W AC-3e
[Ui] Rated Insulation Voltage	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 Power circuit: 690 V conforming to IEC 60947-4-1
Overvoltage Category	
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	6 Mcycles
Electrical Durability	1.4 Mcycles 60 A AC-1 at Ue <= 440 V 1.5 Mcycles 40 A AC-3 at Ue <= 440 V 1.5 Mcycles 40 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	140 VA 60 Hz cos phi 0.75 (at 20 °C) 160 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-In Power Consumption In Va	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat Dissipation	45 W at 50/60 Hz
Operating Time	419 ms opening 1226 ms closing
Maximum Operating Rate	3600 cyc/h 60 °C

Connections - Terminals	Control circuit: screw clamp terminals 2 12.5 mm <sup>2</sup> - cable stiffness: flexible with cable end		
	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible without cable end		
	Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible without		
	cable end Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible with cable		
	end Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: solid without		
	cable end Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> cable stiffness: solid without		
	cable end Power circuit: screw connection 1 135 mm <sup>2</sup> - cable stiffness: flexible without cable		
	end		
	Power circuit: screw connection 2 125 mm <sup>2</sup> - cable stiffness: flexible without cable end		
	Power circuit: screw connection 1 135 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw connection 2 125 mm <sup>2</sup> - cable stiffness: flexible with cable end		
	Power circuit: screw connection 1 135 mm <sup>2</sup> - cable stiffness: solid without cable		
	end Power circuit: screw connection 2 125 mm <sup>2</sup> - cable stiffness: solid without cable		
	end		
Tightening Torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat $\varnothing$ 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2		
	Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 2535 mm <sup>2</sup> hexagonal screw head 4 mm		
	Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 125 mm <sup>2</sup>		
	hexagonal screw head 4 mm 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	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 CSA		
	CCC		
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 60 - 70 °C with derating		
·	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 (10 Gn for 11 ms)
Height	122 mm
Width	55 mm
Depth	120 mm
Net Weight	0.85 kg
Packing Units	
Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	6.2 cm
Package 1 Width	13.5 cm
Package 1 Length	15.5 cm
Package 1 Weight	917.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	10
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.906 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	160
Package 3 Height	77.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	166.98 kg

# **Contractual warranty**

Warranty

18 months

## Sustainability Seren

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >



Transparency RoHS/REACh

### Well-being performance

Reach Free Of Svhc

Toxic Heavy Metal Free

Mercury Free

Rohs Exemption Information

Yes

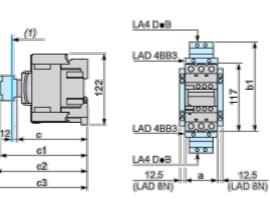
Pvc Free

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			

### **Product datasheet**

### **Dimensions Drawings**

#### Dimensions



(1) Minimum electrical clearance

LC1		D40AD65A	
а		55	
	with LA4 D●2	-	
	with LA4 DB3 or LAD 4BB3	136	
b1	with LA4 DF, DT	157	
	with LA4 DM, DW, DL	166	
c	without cover or add-on blocks	118	
	with cover, without add-on blocks	120	
	with LAD N (1 contact)	-	
c1	with LAD N or C (2 or 4 contacts)	150	
c2	with LA6 DK10, LAD 6DK	163	
c3	with LAD T, R, S	171	
	with LAD T, R, S and sealing cover	175	
			1

### **Product datasheet**

LC1D40AB7

Connections and Schema

Wiring



