Product datasheet

Specifications





TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 32 A - 48 V AC coil

LC1D188E7

Main

Range Of Product	TeSys Deca	
Product Or Component Type	Contactor	
Device Short Name	LC1D	
Contactor Application	Resistive load	
Utilisation Category	AC-1 AC-3 AC-3e AC-4	
Poles Description	4P	
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25400 Hz	
[le] Rated Operational Current	32 A (at <60 °C) at <= 440 V AC AC-1 for power circuit	
[Uc] Control Circuit Voltage	48 V AC 50/60 Hz	

Complementary

Compatibility Code	LC1D
Pole Contact Composition	2 NO + 2 NC
Contact Compatibility	M6
Protective Cover	With
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 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 Current	145 A 40 °C - 10 s for power circuit 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 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

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.



[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 7
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 Mcycles 32 A AC-1 at Ue <= 440 V
Control Circuit Type	AC at 50/60 Hz
Coil Technology	Without built-in suppressor module
Control Circuit Voltage Limits	0.30.6 Uc (-4060 °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
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
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 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 2.516 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 2.516 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.516 mm² - cable stiffness: solid without cable end
	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 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 2.516 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 2.516 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.516 mm² - cable stiffness: solid without cable end
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Connections - Terminals Tightening Torque	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 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.516 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.516 mm² - cable stiffness: solid without cable end Power 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 pozidriv No 2 Power circuit: 1.8 N.m - on screw clamps terminals - with screwdriver Philips No 2 Power circuit: 1.8 N.m - on screw clamps terminals - with screwdriver Philips No 2 Power circuit: 1.8 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 1.8 N.m - on screw clamp terminals - with screwdriver pozidriv No 2

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 CCC EAC UKCA CB EU-RO-MR by DNV-GL 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 91 mm	Standards	EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60947-4-1 UL 60947-5-1 CSA C22.2 No 60947-4-1 CSA C22.2 No 60947-5-1	
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 Operating Altitude O3000 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 91 mm	Product Certifications	CSA CCC EAC UKCA CB	
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 91 mm	Ip Degree Of Protection	IP20 front face conforming to IEC 60529	
Conforming to IEC 60947-1 Annex Q category D exposure to damp heat Permissible Ambient Air Temperature Around The Device Operating Altitude Operating Altitude Fire Resistance S50 °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 91 mm	Protective Treatment	TH conforming to IEC 60068-2-30	
Temperature Around The Device 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 91 mm	Climatic Withstand		
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 91 mm			
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 91 mm	Operating Altitude	03000 m	
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 91 mm	Fire Resistance	850 °C conforming to IEC 60695-2-1	
Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) Height 91 mm	Flame Retardance	V1 conforming to UL 94	
	Mechanical Robustness	Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor open (10 Gn for 11 ms)	
Width 45 mm	Height	91 mm	
	Width	45 mm	
Depth 99 mm	Depth	99 mm	
Net Weight 0.425 kg	Net Weight	0.425 kg	

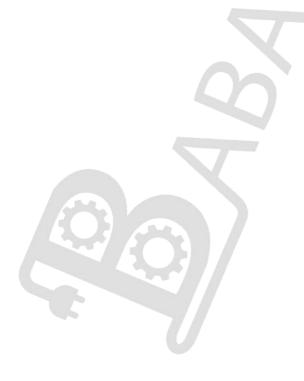
Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.500 cm
Package 1 Width	9.500 cm
Package 1 Length	12.000 cm
Package 1 Weight	466.000 g
Unit Type Of Package 2	S02

Number Of Units In Package 2	16	
Package 2 Height	15.000 cm	
Package 2 Width	30.000 cm	
Package 2 Length	40.000 cm	\ /
Package 2 Weight	8.003 kg	- (
Unit Type Of Package 3	P06	
Number Of Units In Package 3	128	
Package 3 Height	45.000 cm	
Package 3 Width	60.000 cm	
Package 3 Length	80.000 cm	
Package 3 Weight	72.000 kg	

Contractual warranty

Warranty 18 months





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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

Ø	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

