Product datasheet

Specifications





Contactor, TeSys Deca, 3P(3 NO), AC-3/AC-3e, <=400V, 50A, 12V DC standard coil, screw clamp terminals

LC1D50AJD

Main

Range	TeSys TeSys Deca	
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-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	50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit	
[Uc] control circuit voltage	12 V DC	

Complementary

Motor power kW	15 kW at 220230 V AC 50/60 Hz (AC-3)
·	22 kW at 380400 V AC 50/60 Hz (AC-3)
	30 kW at 500 V AC 50/60 Hz (AC-3)
	33 kW at 660690 V AC 50/60 Hz (AC-3)
	25 kW at 415 V AC 50/60 Hz (AC-3)
	30 kW at 440 V AC 50/60 Hz (AC-3)
	11 kW at 400 V AC 50/60 Hz (AC-4)
	15 kW at 220230 V AC 50/60 Hz (AC-3e)
	22 kW at 380400 V AC 50/60 Hz (AC-3e)
	30 kW at 500 V AC 50/60 Hz (AC-3e)
	33 kW at 660690 V AC 50/60 Hz (AC-3e)
	25 kW at 415 V AC 50/60 Hz (AC-3e)
	30 kW at 440 V AC 50/60 Hz (AC-3e)
Motor power hp	3 hp at 115 V AC 50/60 Hz for 1 phase motors
	7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors
	15 hp at 200/208 V AC 50/60 Hz for 3 phases motors
	15 hp at 230/240 V AC 50/60 Hz for 3 phases motors
	40 hp at 460/480 V AC 50/60 Hz for 3 phases motors
	40 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 thermal	10 A (at 60 °C) for signalling circuit
current	80 A (at 60 °C) for power circuit

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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
	900 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit
	· · · · · · · · · · · · · · · · · · ·
	84 A 40 °C - 10 min for power circuit
	208 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
• • • • • • • • • • • • • • • • • • •	100 A gG at <= 690 V coordination type 1 for power circuit
	• • • • • • • • • • • • • • • • • • • •
	100 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	3.7 W AC-3
· · ·	9.6 W AC-1
	3.7 W AC-3e
	5.1 W 7/0 50
[Ui] rated insulation voltage	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
	Power circuit: 690 V conforming to IEC 60947-4-1
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
	13049-1
Mechanical durability	10 Mcycles
Electrical durability	1.45 Mcycles 50 A AC-3 at Ue <= 440 V
·	0.5 Mcycles 80 A AC-1 at Ue <= 440 V
	1.45 Mcycles 50 A AC-3e at Ue <= 440 V
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Control circuit type	DC standard
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.10.3 Uc (-4070 °C):drop-out DC
	0.751.25 Uc (-4060 °C):operational DC
	11.25 Uc (6070 °C):operational DC
Inrush power in W	19 W (at 20 °C)
·	13 W (at 20 G)
Hold-in power consumption in W	7.4 W at 20 °C
Operating time	50 ±15 % ms closing
epo. ading time	1624 ms opening
Time constant	
Time constant	34 ms
Maximum operating rate	3600 cyc/h 60 °C
Maximum operating rate	3600 cyc/h at 60 °C

Connections - terminals	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: 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 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: EverLink BTR screw connectors 1 135 mm ² - cable stiffness: flexible without cable end	
	Power circuit: EverLink BTR screw connectors 2 125 mm ² - cable stiffness: flexible without cable end	
	Power circuit: EverLink BTR screw connectors 1 135 mm² - cable stiffness: flexible with cable end	
	Power circuit: EverLink BTR screw connectors 2 125 mm² - cable stiffness: flexible with cable end	
	Power circuit: EverLink BTR screw connectors 1 135 mm² - cable stiffness: solid	
	without cable end Power circuit: EverLink BTR screw connectors 2 125 mm² - cable stiffness: solid	
	without cable end	
Tightening torque	Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver flat Ø 6 mm	
	Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver Philips No 2	
	Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 2535 mm² hexagonal screw head 4 mm	
	Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 125 mm²	
	hexagonal screw head 4 mm Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver	
	pozidriv No 2 Power circuit: 2.5 N.m - on EverLink BTR screw connectors - 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 cupport	<u> </u>	
mounting support	Plate Rail	
Environment		
Standards	EN 60947-4-1	
	EN 60947-5-1 IEC 60947-4-1	
	IEC 60947-5-1	
	CSA C22.2 No 14	
	UL 60947-4-1	
	IEC 60335-2-40:Annex JJ	
	UL 60335-2-40:Annex JJ IEC 60335-1:Clause 30.2	
Product certifications	ccc	
	UL	
	CB Scheme	
	CSA CE	
	CE UKCA	
	Marine	

Marine EAC

ID downer of mustaction	ID00 (. (IEO 00500
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 (10 Gn for 11 ms)
Height	122 mm
Width	55 mm
Depth	120 mm
net weight	0.93 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.0 cm
Package 1 Width	14.0 cm
Package 1 Length	15.0 cm
Package 1 Weight	850.0 g

Contractual warranty

Warranty 18 months



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Sustainable Packaging Transparency RoHS/REACh

Resource performance



Sustainable Packaging

Well-being performance

Reach Free Of Svhc

Mercury Free

Rohs Exemption Information

Yes

Pvc Free

Certifications & Standards

Reach Regulation

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