Product datasheet

Specification





TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 20 A - 220 V DC coil

LC1D098MD

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 Power circuit: <= 250 V DC	
[le] rated operational current	20 A (at <60 °C) at <= 440 V AC AC-1 for power circuit	
[Uc] control circuit voltage	220 V DC	

Complementary

Compatibility code	LC1D
Pole contact composition	2 NO + 2 NC
Protective cover	With
[lth] conventional free air thermal current	20 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 current	105 A 40 °C - 10 s for power circuit 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 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	1.56 W AC-1

[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	6 kV conforming to IEC 60947	
voltage 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	30 Mcycles	
Electrical durability	0.3 Mcycles 20 A AC-1 at Ue <= 690 V	
Control circuit type	DC standard	
Coil technology	Built-in bidirectional peak limiting diode suppressor	
Control circuit voltage limits	0.10.25 Uc (-4060 °C):drop-out DC 0.71.25 Uc (-4060 °C):operational DC 11.25 Uc (6070 °C):operational DC	
Inrush power in W	5.4 W (at 20 °C)	
Hold-in power consumption in W	5.4 W at 20 °C	
Operating time	63 ±15 % ms closing 20 ±20 % ms opening	
Time constant	28 ms	
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 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: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 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 contact 1.5 ms on energisation between NC and NO contact
Mounting support	Rail Plate

Environment

Standards	CSA C22.2 No 60947-4-1	
	EN 60947-4-1	
	EN 60947-5-1	
	IEC 60947-4-1	
	IEC 60947-5-1	
	UL 60947-5-1	
	UL 60947-4-1	
	CSA C22.2 No 60947-5-1	
	GB/T 14048.4	
	35,1 11010.1	
Product certifications	UL	
	CCC	
	CSA	
	UKCA	
	EAC	
	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	-4060 °C	
temperature around the device	6070 °C with derating	
	0070 C with defating	
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 open (2 Gh, 5300 Hz)	
	Shocks contactor open (10 Gn for 11 ms)	
	Shocks contactor closed (15 Gn for 11 ms)	
Height	85 mm	
Width	45 mm	
Depth	99 mm	
Net weight	0.525 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	551.500 g
Unit Type of Package 2	S02
Number of Units in Package 2	15

Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	8.532 kg
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Height	75.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	144.520 kg

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

	Mercury Free	
⊘	Rohs Exemption Information	Yes
⊘	Pvc Free	

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant with Exemptions
China Rohs Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information