

# Product data sheet

Specifications



## TeSys Deca contactor - 3P(3 NO) - AC-3 - <= 440 V 12 A - 24 V DC coil

LC1D1235BL

❗ Discontinued

### Main

Range	TeSys
Range Of Product	TeSys D
Product Or Component Type	Contactors
Device Short Name	LC1D
Contactors Application	Motor control Resistive load
Utilisation Category	AC-3 AC-1
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] Rated Operational Current	16 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
[Uc] Control Circuit Voltage	24 V DC

### Complementary

Motor Power Kw	3 kW at 220...230 V AC 50/60 Hz 5.5 kW at 380...400 V AC 50/60 Hz 5.5 kW at 415...440 V AC 50/60 Hz 7.5 kW at 500 V AC 50/60 Hz 7.5 kW at 660...690 V AC 50/60 Hz
Motor Power Hp	0.5 hp at 115 V AC 50/60 Hz for 1 phase motors 2 hp at 230/240 V AC 50/60 Hz for 1 phase motors 3 hp at 200/208 V AC 50/60 Hz for 3 phases motors 3 hp at 230/240 V AC 50/60 Hz for 3 phases motors 7.5 hp at 460/480 V AC 50/60 Hz for 3 phases motors 10 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility Code	LC1D
Pole Contact Composition	3 NO
Contact Compatibility	M5
Protective Cover	Without
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 16 A (at 60 °C) for power 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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

<b>[Icw] Rated Short-Time Withstand Current</b>	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
<b>Associated Fuse Rating</b>	10 A gG for signalling circuit conforming to IEC 60947-5-1 40 A gG at <= 690 V coordination type 1 for power circuit 25 A gG at <= 690 V coordination type 2 for power circuit
<b>Average Impedance</b>	2.5 mOhm - Ith 16 A 50 Hz for power circuit
<b>Power Dissipation Per Pole</b>	0.36 W AC-3 1.56 W AC-1
<b>[Ui] Rated Insulation Voltage</b>	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
<b>Overvoltage Category</b>	III
<b>Pollution Degree</b>	3
<b>[Uimp] Rated Impulse Withstand Voltage</b>	6 kV conforming to IEC 60947
<b>Safety Reliability Level</b>	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
<b>Mechanical Durability</b>	30 Mcycles
<b>Electrical Durability</b>	2 Mcycles 12 A AC-3 at Ue <= 440 V 0.8 Mcycles 25 A AC-1 at Ue <= 440 V
<b>Control Circuit Type</b>	DC low consumption
<b>Coil Technology</b>	Built-in bidirectional peak limiting diode suppressor
<b>Control Circuit Voltage Limits</b>	0.1...0.3 Uc (-40...70 °C):drop-out DC 0.8...1.25 Uc (-40...60 °C):operational DC 1...1.25 Uc (60...70 °C):operational DC
<b>Inrush Power In W</b>	2.4 W (at 20 °C)
<b>Hold-In Power Consumption In W</b>	2.4 W at 20 °C
<b>Operating Time</b>	65.45...88.55 ms closing 20...30 ms opening
<b>Time Constant</b>	40 ms
<b>Maximum Operating Rate</b>	3600 cyc/h 60 °C
<b>Connections - Terminals</b>	Power circuit: spring terminals 1 2.5 mm² - cable stiffness: flexible without cable end Power circuit: spring terminals 2 2.5 mm² - cable stiffness: flexible without cable end Control circuit: spring terminals 1 2.5 mm² - cable stiffness: flexible without cable end Control circuit: spring terminals 2 2.5 mm² - cable stiffness: flexible without cable end
<b>Auxiliary Contact Composition</b>	1 NO + 1 NC
<b>Auxiliary Contacts Type</b>	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1
<b>Signalling Circuit Frequency</b>	25...400 Hz
<b>Minimum Switching Voltage</b>	17 V for signalling circuit
<b>Minimum Switching Current</b>	5 mA for signalling circuit
<b>Insulation Resistance</b>	> 10 MOhm for signalling circuit
<b>Non-Overlap Time</b>	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
Product Certifications	UL LROS (Lloyds register of shipping) GOST RINA DNV CSA BV GL 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	-60...80 °C storage -40...60 °C operation 60...70 °C with derating
Operating Altitude	0...3000 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, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms)
Height	99 mm
Width	45 mm
Depth	93 mm
Net Weight	0.485 kg

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1

## Contractual warranty

Warranty	18 months
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