

# Product data sheet

Specifications



Contactor, TeSys Deca,  
4P(2NO+2NC), AC-1, <= 440V 40A,  
208V AC 50/60Hz coil, screw  
terminal

LC1D258LE7

ⓘ Discontinued

## Main

Range	TeSys
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 25...400 Hz Power circuit: <= 300 V DC
[Ie] Rated Operational Current	40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit
[Uc] Control Circuit Voltage	208 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 40 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 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	450 A at 440 V for power circuit conforming to IEC 60947
[Icw] Rated Short-Time Withstand Current	240 A 40 °C - 10 s for power circuit 380 A 40 °C - 1 s for power circuit 50 A 40 °C - 10 min for power circuit 120 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 63 A gG at <= 690 V coordination type 1 for power circuit 40 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	2 mOhm - Ith 40 A 50 Hz for power circuit
Power Dissipation Per Pole	3.2 W AC-1

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>[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>	15 Mcycles
<b>Electrical Durability</b>	1.4 Mcycles 40 A AC-1 at $U_e \leq 440$ V
<b>Control Circuit Type</b>	AC at 50/60 Hz
<b>Coil Technology</b>	Without built-in suppressor module
<b>Control Circuit Voltage Limits</b>	0.3...0.6 $U_c$ (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 $U_c$ (-40...60 °C):operational AC 50 Hz 0.85...1.1 $U_c$ (-40...60 °C):operational AC 60 Hz 1...1.1 $U_c$ (60...70 °C):operational AC 50/60 Hz
<b>Inrush Power In <math>V_a</math></b>	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
<b>Hold-In Power Consumption In <math>V_a</math></b>	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
<b>Heat Dissipation</b>	2...3 W at 50/60 Hz
<b>Operating Time</b>	12...22 ms closing 4...19 ms opening
<b>Maximum Operating Rate</b>	3600 cyc/h 60 °C
<b>Connections - Terminals</b>	Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: connector 1 2.5...10 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 2 2.5...10 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: connector 1 2.5...10 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 2 2.5...10 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: connector 1 2.5...16 mm <sup>2</sup> - cable stiffness: solid without cable end Power circuit: connector 2 2.5...16 mm <sup>2</sup> - cable stiffness: solid without cable end
<b>Tightening Torque</b>	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 Power circuit: 1.8 N.m - on connector - with screwdriver flat Ø 6 mm Power circuit: 1.8 N.m - on connector - with screwdriver Philips No 2
<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

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 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product Certifications	CSA CCC UL LROS (Lloyds register of shipping) GL BV RINA GOST DNV
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 closed (15 Gn for 11 ms) Shocks contactor open (8 Gn for 11 ms)
Height	91 mm
Width	45 mm
Depth	99 mm
Net Weight	0.425 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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