

# Product datasheet

Specifications



Contactor, TeSys Deca, 3P(3NO), AC-3, <=440V, 115A, 48V AC 50Hz coil, screw clamp terminals

LC1D1155E5

⚠ End-of-service on: 04-Nov-2020

⚠ Discontinued

## Main

Range	TeSys
Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Motor control Resistive load
Utilisation Category	AC-1 AC-3
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit: <= 1000 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] Rated Operational Current	200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 115 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
[Uc] Control Circuit Voltage	48 V AC 50 Hz

## Complementary

Motor Power Kw	30 kW at 220...230 V AC 50/60 Hz 55 kW at 380...400 V AC 50/60 Hz 59 kW at 415...440 V AC 50/60 Hz 75 kW at 500 V AC 50/60 Hz 80 kW at 660...690 V AC 50/60 Hz 65 kW at 1000 V AC 50/60 Hz
Motor Power Hp	30 hp at 200/208 V AC 50/60 Hz for 3 phases motors 40 hp at 230/240 V AC 50/60 Hz for 3 phases motors 75 hp at 460/480 V AC 50/60 Hz for 3 phases motors 100 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Compatibility Code	LC1D
Pole Contact Composition	3 NO
Contact Compatibility	M13
Protective Cover	Without
[Ith] Conventional Free Air Thermal Current	200 A (at 60 °C) for power circuit
Irms Rated Making Capacity	1260 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	1100 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>	250 A 40 °C - 10 min for power circuit 550 A 40 °C - 1 min for power circuit 950 A 40 °C - 10 s for power circuit 1100 A 40 °C - 1 s 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>	250 A gG at <= 690 V coordination type 1 for power circuit 200 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit
<b>Average Impedance</b>	0.6 mOhm - Ith 200 A 50 Hz for power circuit
<b>Power Dissipation Per Pole</b>	24 W AC-1 7.9 W AC-3
<b>[Ui] Rated Insulation Voltage</b>	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 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>	8 kV conforming to IEC 60947
<b>Safety Reliability Level</b>	B10d = 684932 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 10000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
<b>Mechanical Durability</b>	8 Mcycles
<b>Electrical Durability</b>	0.8 Mcycles 200 A AC-1 at Ue <= 440 V 0.95 Mcycles 115 A AC-3 at Ue <= 440 V
<b>Control Circuit Type</b>	AC at 50 Hz
<b>Coil Technology</b>	Without built-in suppressor module
<b>Control Circuit Voltage Limits</b>	0.3...0.6 Uc (-40...70 °C):drop-out AC 50 Hz 0.85...1.1 Uc (-40...55 °C):operational AC 50 Hz 1...1.1 Uc (55...70 °C):operational AC 50 Hz
<b>Inrush Power In Va</b>	300 VA 50 Hz cos phi 0.8 (at 20 °C)
<b>Hold-In Power Consumption In Va</b>	22 VA 50 Hz cos phi 0.3 (at 20 °C)
<b>Heat Dissipation</b>	3...8 W at 50 Hz
<b>Operating Time</b>	6...20 ms opening 20...50 ms closing
<b>Maximum Operating Rate</b>	2400 cyc/h 60 °C
<b>Connections - Terminals</b>	Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...2.5 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: solid without cable end Power circuit: connector 1 10...120 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 10...50 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 10...120 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 10...50 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 10...120 mm² - cable stiffness: solid without cable end Power circuit: connector 2 10...50 mm² - cable stiffness: solid without cable end
<b>Tightening Torque</b>	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector hexagonal screw head 4 mm

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	25...400 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 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product Certifications	CCC GL RINA LROS (Lloyds register of shipping) GOST UL DNV CSA BV
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	-40...60 °C 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 (6 Gn for 11 ms)
Height	158 mm
Width	120 mm
Depth	132 mm
Net Weight	2.5 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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