

# Product data sheet

Specifications



## Contact, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 115A, 120V AC 50/60Hz coil, screw clamp terminals

LC1D115G7

### Main

Range	TeSys
Range of product	TeSys Deca
Product or component type	Contact
Device short name	LC1D
Contact application	Resistive load Motor control
Utilisation category	AC-1 AC-4 AC-3 AC-3e
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 140 °F (60 °C) <= 440 V AC AC-1 power circuit 115 A 140 °F (60 °C) <= 440 V AC AC-3 power circuit 115 A 140 °F (60 °C) <= 440 V AC AC-3e power circuit
[Uc] control circuit voltage	120 V AC 50/60 Hz

### Complementary

Motor power kW	30 kW 220...230 V AC 50/60 Hz AC-3) 55 kW 380...400 V AC 50/60 Hz AC-3) 59 kW 415...440 V AC 50/60 Hz AC-3) 75 kW 500 V AC 50/60 Hz AC-3) 80 kW 660...690 V AC 50/60 Hz AC-3) 65 kW 1000 V AC 50/60 Hz AC-3) 18.5 kW 400 V AC 50/60 Hz AC-4) 30 kW 220...230 V AC 50/60 Hz AC-3e) 55 kW 380...400 V AC 50/60 Hz AC-3e) 59 kW 415...440 V AC 50/60 Hz AC-3e) 75 kW 500 V AC 50/60 Hz AC-3e) 80 kW 660...690 V AC 50/60 Hz AC-3e) 65 kW 1000 V AC 50/60 Hz AC-3e)
Motor power hp	30 hp 200/208 V AC 50/60 Hz 3 phases 40 hp 230/240 V AC 50/60 Hz 3 phases 75 hp 460/480 V AC 50/60 Hz 3 phases 100 hp 575/600 V AC 50/60 Hz 3 phases
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M13
Protective cover	With
[Ith] conventional free air thermal current	200 A 140 °F (60 °C) power circuit

<b>Irms rated making capacity</b>	1260 A 440 V power circuit IEC 60947 140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1
<b>Rated breaking capacity</b>	1100 A 440 V power circuit IEC 60947
<b>[Icw] rated short-time withstand current</b>	250 A 104 °F (40 °C) - 10 min power circuit 550 A 104 °F (40 °C) - 1 min power circuit 950 A 104 °F (40 °C) - 10 s power circuit 1100 A 104 °F (40 °C) - 1 s power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
<b>Associated fuse rating</b>	250 A gG <= 690 V type 1 power circuit 200 A gG <= 690 V type 2 power circuit 10 A gG signalling circuit
<b>Average impedance</b>	0.6 mOhm - lth 200 A 50 Hz power circuit
<b>Power dissipation per pole</b>	24 W AC-1 7.9 W AC-3 7.9 W AC-3e
<b>[Ui] rated insulation voltage</b>	Power circuit 600 V CSA Power circuit 600 V UL Power circuit 1000 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
<b>Overvoltage category</b>	III
<b>Pollution degree</b>	3
<b>[Uimp] rated impulse withstand voltage</b>	8 kV IEC 60947
<b>Safety reliability level</b>	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
<b>Mechanical durability</b>	8 Mcycles
<b>Electrical durability</b>	0.8 Mcycles 200 A AC-1 <= 440 V 0.95 Mcycles 115 A AC-3 <= 440 V 0.95 Mcycles 115 A AC-3e <= 440 V
<b>Control circuit type</b>	AC 50/60 Hz
<b>Coil technology</b>	Built-in bidirectional peak limiting diode suppressor
<b>Control circuit voltage limits</b>	0.3...0.5 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.15 Uc -40...131 °F (-40...55 °C) operational AC 50/60 Hz 1...1.15 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz
<b>Inrush power in VA</b>	280...350 VA 60 Hz 0.8 68 °F (20 °C)) 280...350 VA 50 Hz 0.8 68 °F (20 °C))
<b>Hold-in power consumption in VA</b>	2...18 VA 60 Hz 0.3 68 °F (20 °C)) 2...18 VA 50 Hz 0.3 68 °F (20 °C))
<b>Heat dissipation</b>	3...8 W 50/60 Hz
<b>Operating time</b>	6...20 ms opening 20...50 ms closing
<b>Maximum operating rate</b>	2400 cyc/h 140 °F (60 °C)
<b>Connections - terminals</b>	Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible without cable end Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) flexible without cable end Control circuit screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) solid without cable end Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) solid without cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) flexible without cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) flexible without cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) flexible with cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) flexible with cable end Power circuit connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) solid without cable end Power circuit connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) solid without cable end
<b>Tightening torque</b>	Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm) Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals pozidriv No 2
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>Auxiliary contacts type</b>	Mechanically linked 1 NO + 1 NC IEC 60947-5-1

Mirror contact 1 NC IEC 60947-4-1

<b>Signalling circuit frequency</b>	25...400 Hz
<b>Minimum switching voltage</b>	17 V signalling circuit
<b>Minimum switching current</b>	5 mA signalling circuit
<b>Insulation resistance</b>	> 10 MOhm 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
<b>Mounting support</b>	Rail Plate

## Environment

<b>Standards</b>	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
<b>Product certifications</b>	LROS (Lloyds register of shipping) DNV CCC GOST GL CSA UL BV RINA UKCA CE
<b>IP degree of protection</b>	IP20 front face IEC 60529
<b>Protective treatment</b>	THIEC 60068-2-30
<b>Climatic withstand</b>	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
<b>Permissible ambient air temperature around the device</b>	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
<b>Operating altitude</b>	0...3000 m
<b>Fire resistance</b>	1562 °F (850 °C) IEC 60695-2-1
<b>Flame retardance</b>	V1 UL 94
<b>Mechanical robustness</b>	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)
<b>Height</b>	6.22 in (158 mm)
<b>Width</b>	4.72 in (120 mm)
<b>Depth</b>	5.35 in (136 mm)
<b>Net weight</b>	5.51 lb(US) (2.5 kg)

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	7.32 in (18.600 cm)
<b>Package 1 Width</b>	8.46 in (21.500 cm)
<b>Package 1 Length</b>	6.89 in (17.500 cm)
<b>Package 1 Weight</b>	5.51 lb(US) (2.500 kg)
<b>Unit Type of Package 2</b>	P06
<b>Number of Units in Package 2</b>	27
<b>Package 2 Height</b>	29.53 in (75.000 cm)

<b>Package 2 Width</b>	23.62 in (60.000 cm)
<b>Package 2 Length</b>	31.50 in (80.000 cm)
<b>Package 2 Weight</b>	179.14 lb(US) (81.256 kg)

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Compliant <a href="#">EU RoHS Declaration</a>
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
<b>PVC free</b>	Yes

## Contractual warranty

<b>Warranty</b>	18 months
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## Recommended replacement(s)