

# Product data sheet

Specifications



IEC contactor, TeSys Deca, nonreversing, 80A, 60HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 230VAC 50/60Hz coil, open

LC1D80P7

Product availability : Stock - Normally stocked in distribution facility

Price\* : 363.00 USD

## Main

Range	TeSys
Range of Product	TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
Contactors application	Resistive load Motor control
Utilisation category	AC-1 AC-4 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 300 V DC 25...400 Hz Power circuit <= 690 V AC
[Ie] rated operational current	125 A 140 °F (60 °C) <= 440 V AC AC-1 power circuit 80 A 140 °F (60 °C) <= 440 V AC AC-3 power circuit 80 A 140 °F (60 °C) <= 440 V AC AC-3e power circuit
[Uc] control circuit voltage	230 V AC 50/60 Hz

## Complementary

Motor power kW	22 kW 220...230 V AC 50 Hz AC-3) 37 kW 380...400 V AC 50 Hz AC-3) 45 kW 415...440 V AC 50 Hz AC-3) 55 kW 500 V AC 50 Hz AC-3) 45 kW 660...690 V AC 50 Hz AC-3) 15 kW 400 V AC 50 Hz AC-4) 22 kW 220...230 V AC 50/60 Hz AC-3e) 37 kW 380...400 V AC 50/60 Hz AC-3e) 45 kW 415...440 V AC 50/60 Hz AC-3e) 55 kW 500 V AC 50/60 Hz AC-3e) 45 kW 660...690 V AC 50/60 Hz AC-3e)
Maximum Horse Power Rating	7.5 hp 120 V at AC 50/60 Hz for 1 phase 15 hp 230/240 V at AC 50/60 Hz for 1 phase 30 hp 200/208 V at AC 50/60 Hz for 3 phase 30 hp 230/240 V at AC 50/60 Hz for 3 phase 60 hp 460/480 V at AC 50/60 Hz for 3 phase 60 hp 575/600 V at AC 50/60 Hz for 3 phase
Compatibility code	LC1D
Pole contact composition	3 NO

\* Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

<b>Contact compatibility</b>	M11
<b>Protective cover</b>	With
<b>[Ith] conventional free air thermal current</b>	10 A 140 °F (60 °C) signalling circuit 125 A 140 °F (60 °C) power circuit
<b>Irms rated making capacity</b>	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1100 A 440 V power circuit IEC 60947
<b>Rated breaking capacity</b>	1100 A 440 V power circuit IEC 60947
<b>[Icw] rated short-time withstand current</b>	640 A 104 °F (40 °C) - 10 s power circuit 990 A 104 °F (40 °C) - 1 s power circuit 135 A 104 °F (40 °C) - 10 min power circuit 320 A 104 °F (40 °C) - 1 min 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>	10 A gG signalling circuit IEC 60947-5-1 200 A gG ≤ 690 V type 1 power circuit 160 A gG ≤ 690 V type 2 power circuit
<b>Average impedance</b>	0.8 mOhm - Ith 125 A 50 Hz power circuit
<b>Power dissipation per pole</b>	5.1 W AC-3 12.5 W AC-1 5.1 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>	4 Mcycles
<b>Electrical durability</b>	0.8 Mcycles 125 A AC-1 ≤ 440 V 1.5 Mcycles 80 A AC-3 ≤ 440 V 1.5 Mcycles 80 A AC-3e ≤ 440 V
<b>Control circuit type</b>	AC 50/60 Hz standard
<b>Coil technology</b>	Without built-in suppressor module
<b>Control circuit voltage limits</b>	0.85...1.1 Uc -40...131 °F (-40...55 °C) operational AC 60 Hz 0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40...131 °F (-40...55 °C) operational AC 50 Hz 1...1.1 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz
<b>Inrush power in VA</b>	245 VA 60 Hz 0.75 68 °F (20 °C)) 245 VA 50 Hz 0.75 68 °F (20 °C))
<b>Hold-in power consumption in VA</b>	26 VA 60 Hz 0.3 68 °F (20 °C)) 26 VA 50 Hz 0.3 68 °F (20 °C))
<b>Heat dissipation</b>	6...10 W 50/60 Hz
<b>Operating time</b>	20...35 ms closing 6...20 ms opening
<b>Maximum operating rate</b>	3600 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...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) flexible without cable end Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> ) solid without cable end Power circuit connector 1 0.01...0.08 in <sup>2</sup> (4...50 mm <sup>2</sup> ) flexible without cable end Power circuit connector 2 0.01...0.04 in <sup>2</sup> (4...25 mm <sup>2</sup> ) flexible without cable end Power circuit connector 1 0.01...0.08 in <sup>2</sup> (4...50 mm <sup>2</sup> ) flexible with cable end Power circuit connector 2 0.01...0.02 in <sup>2</sup> (4...16 mm <sup>2</sup> ) flexible with cable end Power circuit connector 1 0.01...0.08 in <sup>2</sup> (4...50 mm <sup>2</sup> ) solid without cable end Power circuit connector 2 0.01...0.04 in <sup>2</sup> (4...25 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 flat Ø 6 to Ø 8 mm 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>	DNV LROS (Lloyds register of shipping) GOST CCC GL RINA BV CSA UL
<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
<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...9842.52 ft (0...3000 m)
<b>Fire resistance</b>	1562 °F (850 °C) IEC 60695-2-1
<b>Flame retardance</b>	V1 conforming to UL 94
<b>Mechanical robustness</b>	Vibrations contactor open 2 Gn, 5...300 Hz) Shocks contactor open 8 Gn for 11 ms) Vibrations contactor closed 3 Gn, 5...300 Hz) Shocks contactor closed 10 Gn for 11 ms)
<b>Height</b>	5.00 in (127 mm)
<b>Width</b>	3.35 in (85 mm)
<b>Depth</b>	5.12 in (130 mm)
<b>Net Weight</b>	3.51 lb(US) (1.59 kg)

## Ordering and shipping details

<b>Category</b>	22359-CTR, TESYS D, OPEN, 80-150A AC&DC
<b>Discount Schedule</b>	I12
<b>GTIN</b>	3389110442823
<b>Returnability</b>	No
<b>Country of origin</b>	CZ

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.74 in (9.5 cm)
Package 1 Width	5.31 in (13.5 cm)
Package 1 Length	5.51 in (14.0 cm)
Package 1 Weight	3.45 lb(US) (1.566 kg)
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	17.77 lb(US) (8.059 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	80
Package 3 Height	29.53 in (75.0 cm)
Package 3 Width	31.50 in (80.0 cm)
Package 3 Length	23.62 in (60.0 cm)
Package 3 Weight	301.91 lb(US) (136.944 kg)

## Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a> Pro-active China RoHS declaration (out of China RoHS legal scope)
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

## Contractual warranty

Warranty	18 months
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**Dimensions**



(1) Minimum electrical clearance

LC1		D80	D95
<b>a</b>		85	85
<b>b1</b>	with LA4 D•2	135	135
	with LA4 DB3 or LAD 4BB3	135	–
	with LA4 DF, DT	142	142
	with LA4 DM, DW, DL	150	150
<b>c</b>	without cover or add-on blocks	125	125
	with cover, without add-on blocks	130	130
<b>c1</b>	with LAD N (1 contact)	150	150
	with LAD N or C (2 or 4 contacts)	158	158
<b>c2</b>	with LA6 DK10, LAD 6DK	170	170
<b>c3</b>	with LAD T, R, S	178	178
	with LAD T, R, S and sealing cover	182	182

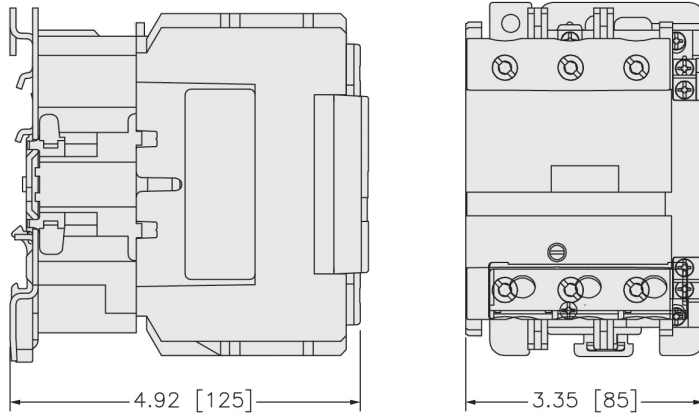
## Wiring

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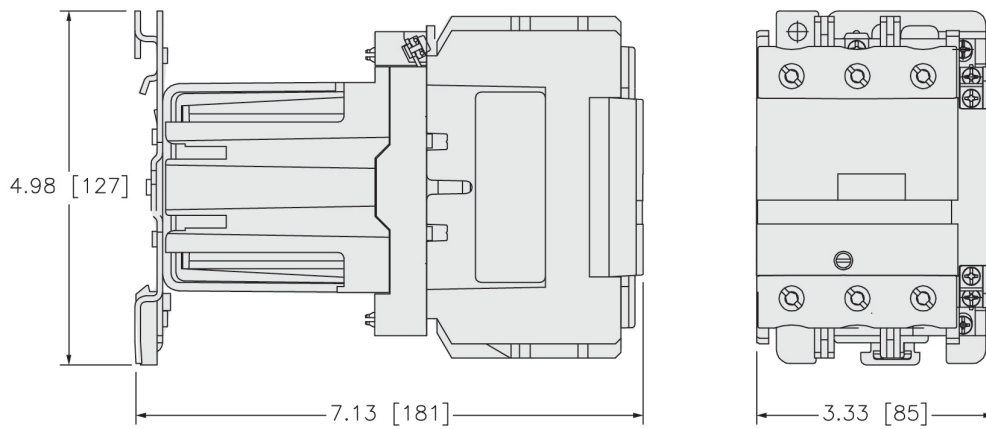
Dimensions

CONTACTOR WITH AC COIL



in.  
[mm]

CONTACTOR WITH DC COIL



ALL DIMENSIONS ARE APPROXIMATE.  
REFER TO TECHNICAL DRAWINGS AND DOCUMENTATION FOR COMPLETE INFORMATION.

Recommended replacement(s)