Product data sheet

Specification





IEC contactor, TeSys Deca, nonreversing, 80A, 60HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 24VAC 50/60Hz coil, open

LC1D80B7

Product availability: Stock - Normally stocked in distribution facility

Price*: 363.00 USD

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-3 AC-3e AC-4 AC-1
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit <= 300 V DC 25400 Hz Power circuit <= 690 V AC
[le] Rated Operational Current	125 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 80 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit 80 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] Control Circuit Voltage	24 V AC 50/60 Hz

Complementary

Motor Power Kw	22 kW at 220230 V AC 50/60 Hz (AC-3)
	37 kW at 380400 V AC 50/60 Hz (AC-3)
	45 kW at 415440 V AC 50/60 Hz (AC-3)
	55 kW at 500 V AC 50/60 Hz (AC-3)
	45 kW at 660690 V AC 50/60 Hz (AC-3)
	15 kW at 400 V AC 50/60 Hz (AC-4)
	22 kW at 220230 V AC 50/60 Hz (AC-3e)
	37 kW at 380400 V AC 50/60 Hz (AC-3e)
	45 kW at 415440 V AC 50/60 Hz (AC-3e)
	55 kW at 500 V AC 50/60 Hz (AC-3e)
	45 kW at 660690 V AC 50/60 Hz (AC-3e)
Maximum Horse Power Rating	7.5 hp at 120 V AC 50/60 Hz for 1 phase motors
	15 hp at 230/240 V AC 50/60 Hz for 1 phase motors
	30 hp at 200/208 V AC 50/60 Hz for 3 phase motors
	30 hp at 230/240 V AC 50/60 Hz for 3 phase motors
	60 hp at 460/480 V AC 50/60 Hz for 3 phase motors
	60 hp at 575/600 V AC 50/60 Hz for 3 phase motors
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.

[Ith] Conventional Free Air Thermal Current	10 A (at 140 °F (60 °C)) for signalling circuit 125 A (at 140 °F (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 1100 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] Rated Short-Time Withstand Current	640 A 104 °F (40 °C) - 10 s for power circuit 990 A 104 °F (40 °C) - 1 s for power circuit 135 A 104 °F (40 °C) - 10 min for power circuit 320 A 104 °F (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 60947-5-1 200 A gG at <= 690 V coordination type 1 for power circuit 160 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	0.8 mOhm - Ith 125 A 50 Hz for power circuit
Power Dissipation Per Pole	5.1 W AC-3 12.5 W AC-1 5.1 W AC-3e
[Ui] Rated Insulation Voltage	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
Overvoltage Category	III
Pollution Degree	3
[Uimp] Rated Impulse Withstand Voltage	8 kV IEC 60947
Safety Reliability Level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical Durability	4 Mcycles
Electrical Durability	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
Control Circuit Type	AC 50/60 Hz standard
Coil Technology	Without built-in suppressor module
Control Circuit Voltage Limits	0.851.1 Uc -40131 °F (-4055 °C) operational AC 60 Hz 0.30.6 Uc -40158 °F (-4070 °C) drop-out AC 50/60 Hz 0.81.1 Uc -40131 °F (-4055 °C) operational AC 50 Hz 11.1 Uc 131158 °F (5570 °C) operational AC 50/60 Hz
Inrush Power In Va	245 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 245 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))
Hold-In Power Consumption In Va	26 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 26 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
Heat Dissipation	610 W at 50/60 Hz
Operating Time	2035 ms closing 620 ms opening
Maximum Operating Rate	3600 cyc/h 140 °F (60 °C)

Connections - Terminals	Control circuit: screw clamp terminals 2 0.000.00 in² (12.5 mm²) - cable stiffness:
	flexible with cable end Control circuit: screw clamp terminals 1 0.000.00 in² (12.5 mm²) - cable stiffness:
	flexible with cable end
	Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness: flexible without cable end
	Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness:
	flexible without cable end Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiffness:
	solid without cable end
	Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiffness: solid without cable end
	Power circuit: connector 1 0.010.08 in² (450 mm²) - cable stiffness: flexible
	without cable end Power circuit: connector 2 0.010.04 in² (425 mm²) - cable stiffness: flexible
	without cable end
	Power circuit: connector 1 0.010.08 in² (450 mm²) - cable stiffness: flexible with cable end
	Power circuit: connector 2 0.010.02 in² (416 mm²) - cable stiffness: flexible with
	cable end
	Power circuit: connector 1 0.010.08 in² (450 mm²) - cable stiffness: solid without cable end
	Power circuit: connector 2 0.010.04 in² (425 mm²) - cable stiffness: solid without
	cable end
Tightening Torque	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
Auxiliary Contact Composition	1 NO + 1 NC
Auxiliary Contacts Type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling Circuit Frequency	25400 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	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
	GOST
	DNV
	BV CSA
	RINA
	LROS (Lloyds register of shipping)
	GL CCC
Ip Degree Of Protection	IP20 front face IEC 60529
Protective Treatment	THIEC 60068-2-30
Climatic Withstand	IACS E10 exposure to damp heat
	17.00 E to exposure to damp near

-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating

Permissible Ambient Air Temperature Around The Device

Operating Altitude	09842.52 ft (03000 m)	
Fire Resistance	1562 °F (850 °C) IEC 60695-2-1	
Flame Retardance	V1 conforming to UL 94	
Mechanical Robustness	Vibrations contactor open 2 Gn, 5300 Hz) Shocks contactor open 8 Gn for 11 ms) Vibrations contactor closed 3 Gn, 5300 Hz) Shocks contactor closed 10 Gn for 11 ms)	
Height	5.00 in (127 mm)	
Width	3.35 in (85 mm)	
Depth	5.12 in (130 mm)	
Net Weight	3.51 lb(US) (1.59 kg)	

Ordering and shipping details

Category	US10l1222359
Discount Schedule	0112
Gtin	3389110440034
Returnability	Yes
Country Of Origin	C7

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	3.43 lb(US) (1.555 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	17.86 lb(US) (8.1 kg)
Unit Type Of Package 3	P06
Number Of Units In Package 3	80
Package 3 Height	30.31 in (77.0 cm)
Package 3 Width	31.50 in (80.0 cm)
Package 3 Length	23.62 in (60.0 cm)
Package 3 Weight	304.46 lb(US) (138.1 kg)

Contractual warranty

Warranty 18 months



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Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance

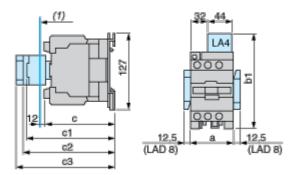
⊘	Reach Free Of Svhc
⊘	Toxic Heavy Metal Free
②	Mercury Free
②	Rohs Exemption Information Yes
⊘	Pvc Free

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	No need of specific recycling operations
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 www.P65Warnings.ca.gov

Dimensions Drawings

Dimensions



(1) Minimum electrical clearance

LC1		D80	D95
а		85	85
	with LA4 D●2	135	135
b1	with LA4 DB3 or LAD 4BB3	135	-
В	with LA4 DF, DT	142	142
	with LA4 DM, DW, DL	150	150
С	without cover or add-on blocks	125	125
	with cover, without add-on blocks	130	130
c1	with LAD N (1 contact)	150	150
CI	with LAD N or C (2 or 4 contacts)	158	158
c2	with LA6 DK10, LAD 6DK	170	170
63	with LAD T, R, S	178	178
сЗ	with LAD T, R, S and sealing cover	182	182

Product data sheet

LC1D80B7

Connections and Schema

Wiring

