Product data sheet
Characteristics

LC1D50P7
IEC contactor, TeSys D, nonreversing, 50A, 40HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 230VAC 50/60Hz coil, open



Main

Range	TeSys
Range of Product	TeSys Deca
Product or Component Type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-2 AC-4 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz
[Ie] rated operational current	50 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-1 for power circuit 50 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	230 V AC 50/60 Hz

Complementary

Motor power kW	22 KW at 380...400 V AC 50 Hz (AC-3) 25 KW at 415 V AC 50 Hz (AC-3) 30 KW at 440 V AC 50 Hz (AC-3) 30 KW at 500 V AC 50 Hz (AC-3) 33 KW at 660...690 V AC 50 Hz (AC-3) 15 KW at 220...230 V AC 50 Hz (AC-3) 11 KW at 400 V AC 50 Hz (AC-4) 30 KW at 1000 V AC 50 Hz (AC-3) 22 KW at 380...400 V AC 50 Hz (AC-3e) 25 KW at 415 V AC 50 Hz (AC-3e) 30 KW at 440 V AC 50 Hz (AC-3e) 30 KW at 500 V AC 50 Hz (AC-3e) 33 KW at 660...690 V AC 50 Hz (AC-3e) 15 KW at 220...230 V AC 50 Hz (AC-3e) 30 kW at 1000 V AC 50 Hz (AC-3e)
Maximum Horse Power Rating	3 Hp at 115 V AC 60 Hz for 1 phase motors 7.5 Hp at 230/240 V AC 60 Hz for 1 phase motors 15 Hp at 200/208 V AC 60 Hz for 3 phase motors 15 Hp at 230/240 V AC 60 Hz for 3 phase motors 40 Hp at 460/480 V AC 60 Hz for 3 phase motors 40 hp at 575/600 V AC 60 Hz for 3 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for control circuit 80 A (at 140 °F (60 °C)) for power circuit
Irms rated making capacity	900 A at 440 V for power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947

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Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e
[Ui] rated insulation voltage	Control circuit 600 V CSA Control circuit 600 V UL Power circuit 600 V CSA Power circuit 600 V UL Control circuit 690 V IEC 60947-1 Power circuit 690 V IEC 60947-1
Overvoltage category	III
[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	6000000 cycles
Control circuit type	AC 50/60 Hz
Coil technology	Without built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.6 Uc -40…158 °F (-40…70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40…140 °F (-40…60 °C) operational AC 50 Hz 0.85...1.1 Uc -40…140 °F (-40…60 °C) operational AC 60 Hz 1...1.1 Uc 140…158 °F (60…70 °C) operational AC 50/60 Hz
Inrush power in VA	140 VA cos phi 0.75 (at 68 °F (20 °C)) 160 VA cos phi 0.75 (at 68 °F (20 °C))
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 15 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))
Heat dissipation	4…5 W at 50/60 Hz for control circuit
Operating time	4...19 ms opening 12...26 ms closing
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Connections - terminals	Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: rigid Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: rigid Control circuit: screw clamp terminals 1 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.002…0.006 in² (1…4 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.002…0.004 in² (1…2.5 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²) - cable stiffness: flexible with cable end Power circuit: screw terminals 1 0.004…0.04 in² (2.5…25 mm²) - cable stiffness: rigid Power circuit: screw terminals 2 0.004…0.02 in² (2.5…16 mm²) - cable stiffness: rigid Power circuit: screw terminals 1 0.004…0.04 in² (2.5…25 mm²) - cable stiffness: flexible without cable end Power circuit: screw terminals 2 0.004…0.02 in² (2.5…16 mm²) - cable stiffness: flexible without cable end Power circuit: screw terminals 1 0.004…0.04 in² (2.5…25 mm²) - cable stiffness: flexible with cable end Power circuit: screw terminals 2 0.004…0.02 in² (2.5…10 mm²) - cable stiffness: flexible with cable end
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal Philips No 2 Power circuit 44.3 lbf.in (5 N.m) screw terminal flat Ø 6 to Ø 8 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminal 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
Minimum switching voltage	17 V for control circuit
Minimum switching current	5 mA for control circuit
Insulation resistance	> 10 MOhm for control circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Mounting Support	Plate Rail

Environment

Standards	IEC 60947-5-1 UL 508 IEC 60947-4-1 EN 60947-5-1 EN 60947-4-1 CSA C22.2 No 14
Product Certifications	LROS (Lloyds register of shipping) [RETURN]RINA[RETURN]UL[RETURN]BV[RETURN]GOST[RETURN]CCC[RETURN]DNV[RE
IP degree of protection	IP2X IEC 60529 IP2X VDE 0106
Climatic withstand	IACS E10 exposure to damp heat
Operating altitude	0...9842.52 ft (0...3000 m)
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor opened 10 Gn for 11 ms) Shocks contactor closed 15 Gn for 11 ms) Vibrations contactor opened 2 Gn, 5...300 Hz) Vibrations contactor closed 4 Gn, 5...300 Hz)
Height	5.0000000000 in (127 mm)
Width	3.0 in (75 mm)
Depth	4.7 in (119 mm)
Net Weight	3.09 lb(US) (1.4 kg)

Ordering and shipping details

Category	US10I1222357
Discount Schedule	0I12
GTIN	3389110421965
Returnability	Yes
Country of origin	US

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.740 in (9.500 cm)
Package 1 Width	5.315 in (13.500 cm)
Package 1 Length	5.512 in (14.000 cm)
Package 1 Weight	3.208 lb(US) (1.455 kg)
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	16.570 lb(US) (7.516 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 www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration

RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
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