Product data sheet
Characteristics

LC1D150B7
Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 150A, 24V AC 50/60Hz coil, screw clamp terminals

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-3 AC-4 AC-1 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 (at <60 °C) at <= 440 V AC AC-1 for power circuit 150 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 150 A (at <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	40 KW at 220...230 V AC 50/60 Hz (AC-3) 75 KW at 380...400 V AC 50/60 Hz (AC-3) 80 KW at 415...440 V AC 50/60 Hz (AC-3) 90 KW at 500 V AC 50/60 Hz (AC-3) 100 KW at 660...690 V AC 50/60 Hz (AC-3) 75 KW at 1000 V AC 50/60 Hz (AC-3) 22 KW at 400 V AC 50/60 Hz (AC-4) 40 KW at 220...230 V AC 50/60 Hz (AC-3e) 75 KW at 380...400 V AC 50/60 Hz (AC-3e) 80 KW at 415...440 V AC 50/60 Hz (AC-3e) 90 KW at 500 V AC 50/60 Hz (AC-3e) 100 KW at 660...690 V AC 50/60 Hz (AC-3e) 75 KW at 1000 V AC 50/60 Hz (AC-3e)
Motor power hp	40 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 50 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 100 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 125 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	With
[Ith] conventional free air thermal current	200 A (at 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 1660 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1400 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	250 A 40 °C - 10 min for power circuit 580 A 40 °C - 1 min for power circuit 1200 A 40 °C - 10 s for power circuit 1400 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
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 315 A gG at <= 690 V coordination type 1 for power circuit 250 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	0.6 MOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	24 W AC-1 13.5 W AC-3 13.5 W AC-3e
[Ui] rated insulation voltage	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
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 KV conforming to IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming-to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming-to EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	0.85 Mcycles 150 A AC-3 at Ue <= 440 V 1 Mcycles 200 A AC-1 at Ue <= 440 V 0.85 Mcycles 150 A AC-3e at Ue <= 440 V
Control circuit type	AC at 50/60 Hz standard
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.3...0.5 Uc (-40…70 °C):drop-out AC 50/60 Hz 0.8...1.15 Uc (-40…55 °C):operational AC 50/60 Hz 1...1.15 Uc (55…70 °C):operational AC 50/60 Hz
Inrush power in VA	280…350 VA 60 Hz cos phi 0.9 (at 20 °C) 280…350 VA 50 Hz cos phi 0.9 (at 20 °C)
Hold-in power consumption in VA	2…18 VA 60 Hz cos phi 0.9 (at 20 °C) 2…18 VA 50 Hz cos phi 0.9 (at 20 °C)
Heat dissipation	3…4.5 W at 50/60 Hz
Operating time	20...35 ms closing 40...75 ms opening
Maximum operating rate	1200 Cyc/H 60 °C
Connections - terminals	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 with-out cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: solid with-out cable end Power circuit: connector 1 10…120 mm² - cable stiffness: flexible without ca-ble end Power circuit: connector 2 10…50 mm² - cable stiffness: flexible without ca-ble 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

Tightening torque	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 Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver-pozidriv No 2
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	UL GOST CCC GL BV RINA CSA LROS (Lloyds register of shipping) DNV UKCA CE
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
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	136 Mm
Net weight	2.5 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	19.000 Cm
Package 1 Width	18.000 Cm
Package 1 Length	21.000 Cm
Package 1 Weight	2.454 Kg
Unit Type of Package 2	P06
Number of Units in Package 2	27
Package 2 Height	75.000 Cm
Package 2 Width	60.000 Cm

Package 2 Length	80.000 Cm
Package 2 Weight	79.258 Kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
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

Contractual warranty

Warranty	18 months

Product Life Status : Commercialised