Product data sheet
Characteristics

LC1D50BD
Contactor, Tesys Deca, 3P(3NO),AC-3/ AC-3e/<=440V 50A,24V DC coil, screw clamp terminals



Main

Range	TeSys
Range of product	TeSys Deca Advanced
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Resistive load
Utilisation category	AC-3 AC-3e AC-4 AC-4 AC-2
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
[Uc] control circuit voltage	24 V DC

Complementary

Motor power kW	15 KW at 220/230 V AC 50/60 Hz (AC-3) 22 KW at 380/400 V AC 50/60 Hz (AC-3) 25 KW at 415 V AC 50/60 Hz (AC-3) 30 KW at 440 V AC 50/60 Hz (AC-3) 30 KW at 500 V AC 50/60 Hz (AC-3) 33 KW at 660/690 V AC 50/60 Hz (AC-3) 30 KW at 1000 V AC 50/60 Hz (AC-3) 15 KW at 220/230 V AC 50/60 Hz (AC-3e) 22 KW at 380/400 V AC 50/60 Hz (AC-3e) 25 KW at 415 V AC 50/60 Hz (AC-3e) 30 KW at 440 V AC 50/60 Hz (AC-3e) 30 KW at 500 V AC 50/60 Hz (AC-3e) 33 KW at 660/690 V AC 50/60 Hz (AC-3e) 30 KW at 1000 V AC 50/60 Hz (AC-3e) 11 KW at 400 V AC 50/60 Hz (AC-4)
Motor power hp	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 phases motors 15 Hp at 230/240 V AC 60 Hz for 3 phases motors 40 Hp at 460/480 V AC 60 Hz for 3 phases motors 40 Hp at 575/600 V AC 60 Hz for 3 phases motors 3 Hp at 115 V AC 60 Hz for 1 phase motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With

[Ith] conventional free air thermal current	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for control circuit
Irms rated making capacity	900 A at 440 V DC for power circuit conforming to IEC 60947 900 A at 440 V for power circuit conforming to IEC 60947 250 A DC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	100 A gG at <= 690 V coordination type 1 for power circuit 100 A gG at <= 690 V coordination type 2 for power circuit conforming to IEC 60947-5-1 10 A gG for control circuit conforming to IEC 60947-5-1
Power dissipation per pole	9.6 W AC-1 3.7 W AC-3e 3.7 W AC-3
[Ui] rated insulation voltage	Control circuit: 600 V UL certified[RETURN]Power circuit: 600 V CSA certified[RETURN]Power cir
Overvoltage category	III
[Uimp] rated impulse withstand voltage	8 KV conforming to IEC 60947
Safety reliability level	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1
Mechanical durability	10 Mcycles
Control circuit type	DC wide range
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.75...1.25 Uc (-40…60 °C):operational DC 1...1.25 Uc (60…70 °C):operational DC 0.1...0.3 Uc (-40…70 °C):drop-out DC
Inrush power in W	19 W (at 20 °C)
Hold-in power consumption in W	7.4 W at 20 °C
Rated operational power in W	48 W at 24 V DC-13 - electrical durability: 3000000 cycles - for control circuit 96 W at 24 V DC-13 - electrical durability: 1000000 cycles - for control circuit 14 W at 24 V DC-13 - electrical durability: 10000000 cycles - for control circuit
Operating time	50 ±15 % ms closing 20 ±20 % ms opening
Time constant	34 Ms
Maximum operating rate	3600 Cyc/H at 60 °C
Connections - terminals	Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: rigid without cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 2.5…25 mm² - cable stiffness: rigid Power circuit: screw clamp terminals 2 2.5…16 mm² - cable stiffness: rigid without cable end Power circuit: screw clamp terminals 1 2.5…25 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.5…16 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 2.5…25 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.5…10 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: rigid Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: rigid
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver pozidriv No 2 Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Type mirror contact 1 NC conforming to IEC 60947-4-1 type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1
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 energisation between NC and NO contacts 1.5 Ms on de-energisation between NC and NO contacts
Mounting support	Plate Plate

Environment

Standards	CSA C22.2 No 14 IEC 60947-5-1 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1
Product certifications	CSA[RETURN]DNV[RETURN]RINA[RETURN]BV[RETURN]CCC[RETURN]UL[RETURN]GOS
IP degree of protection	IP2X conforming to VDE 0106 IP2X conforming to IEC 60529
Climatic withstand	Conforming to IACS E10 exposure to damp heat
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Shocks contactor closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5...300 Hz) Vibrations contactor closed (4 Gn, 5...300 Hz) Shocks contactor opened (10 Gn for 11 ms)
Height	127 Mm
Width	85 Mm
Depth	176 Mm
Net weight	2.185 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	9.0 Cm
Package 1 Width	14.0 Cm
Package 1 Length	18.5 Cm
Package 1 Weight	2.169 Kg
Unit Type of Package 2	S02
Number of Units in Package 2	2
Package 2 Height	15 Cm
Package 2 Width	30 Cm
Package 2 Length	40 Cm
Package 2 Weight	4.829 Kg

Offer Sustainability

Recyclability potential, in %	76
Total lifecycle Carbon footprint	79 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	13.816234817123652
Carbon footprint of the manufacturing phase [A1 to A3]	14 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.2725576806360515
Carbon footprint of the distribution phase [A4]	0.3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.3907958470947523
Carbon footprint of the installation phase [A5]	0.4 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	59.553242753623174
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	60 kg CO2 eq.
Toxic heavy metal free	Yes
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	5.154276898714952
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	79
Packaging made with recycled cardboard	Yes

Packaging without single use plastic	Yes
REACh Regulation	Free of Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxi
PVC free	Yes
End of life manual availability	No need of specific recycling operations
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised