Product data sheet
Characteristics

LC1D40BD
Contactor, TeSys Deca,3P(3NO),AC-3/ AC-3e/<=440V 40A,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 Motor control
Utilisation category	AC-3 AC-3e AC-1 AC-4 AC-2
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz
[Ie] rated operational current	40 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 60 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	24 V DC

Complementary

Motor power kW	11 KW at 220/230 V AC 50/60 Hz (AC-3) 18.5 KW at 380/400 V AC 50/60 Hz (AC-3) 22 KW at 415 V AC 50/60 Hz (AC-3) 22 KW at 440 V AC 50/60 Hz (AC-3) 22 KW at 500 V AC 50/60 Hz (AC-3) 30 KW at 660/690 V AC 50/60 Hz (AC-3) 22 KW at 1000 V AC 50/60 Hz (AC-3) 11 KW at 220/230 V AC 50/60 Hz (AC-3e) 18.5 KW at 380/400 V AC 50/60 Hz (AC-3e) 22 KW at 415 V AC 50/60 Hz (AC-3e) 22 KW at 440 V AC 50/60 Hz (AC-3e) 22 KW at 500 V AC 50/60 Hz (AC-3e) 30 KW at 660/690 V AC 50/60 Hz (AC-3e) 22 KW at 1000 V AC 50/60 Hz (AC-3e) 9 KW at 400 V AC 50/60 Hz (AC-4)
Motor power hp	3 Hp at 115 V AC 60 Hz for 1 phase motors 5 Hp at 230/240 V AC 60 Hz for 1 phase motors 10 Hp at 200/208 V AC 60 Hz for 3 phases motors 10 Hp at 230/240 V AC 60 Hz for 3 phases motors 30 Hp at 460/480 V AC 60 Hz for 3 phases motors 30 Hp at 575/600 V AC 60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With

[Ith] conventional free air thermal current	10 A (at 60 °C) for control circuit 60 A (at 60 °C) for power circuit
Irms rated making capacity	250 A DC for control circuit conforming to IEC 60947-5-1 800 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	800 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 80 A gG at <= 690 V coordination type 1 for power circuit 80 A gG at <= 690 V coordination type 2 for power circuit
Power dissipation per pole	5.4 W AC-1 2.4 W AC-3 2.4 W AC-3e
[Ui] rated insulation voltage	Control circuit: 600 V CSA certified[RETURN]Control circuit: 600 V UL certified[RETURN]Power ci
Overvoltage category	III
[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	10 Mcycles
Control circuit type	DC standard
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.3 Uc (-40…70 °C):drop-out DC 0.75...1.25 Uc (-40…60 °C):operational DC 1...1.25 Uc (60…70 °C):operational 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	14 W at 24 V DC-13 - electrical durability: 10000000 cycles - for control circuit 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
Operating time	20 ±20 % ms opening 50 ±15 % ms closing
Time constant	34 Ms
Maximum operating rate	3600 Cyc/H at 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: rigid Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: rigid 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 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
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm 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
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
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	Rail Plate

Environment

Standards	CSA C22.2 No 14 IEC 60947-4-1 UL 60947-4-1 EN 60947-4-1 IEC 60947-5-1 EN 60947-5-1
Product certifications	GL[RETURN]BV[RETURN]DNV[RETURN]LROS (Lloyds register of shipping)[RETURN]RINA[R
IP degree of protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106
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 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	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	11.000 Cm
Package 1 Width	16.300 Cm
Package 1 Length	22.000 Cm
Package 1 Weight	2.256 Kg
Unit Type of Package 2	S02
Number of Units in Package 2	2
Package 2 Height	15.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	4.880 Kg

Offer Sustainability

Recyclability potential, in %	76
Total lifecycle Carbon footprint	73 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]	53.84666666666664
REACh free of SVHC	Yes
Carbon footprint of the use phase [B2, B3, B4, B6]	54 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	73
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