Product data sheet

Specifications

TeSys Deca reversing contactor - 3P(3 NO) - AC-3 - <= 440 V 18 A - 24 V DC coil

LC2D18BL

Main

Range	TeSys TeSys Deca
Product name	TeSys D TeSys Deca
Product or component type	Reversing contactor
Device short name	LC2D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-3
Device presentation	Preassembled with reversing power busbar
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	18 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit 32 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit
Motor power kW	4 kW 220...230 V AC 50 Hz 7.5 kW 380...400 V AC 50 Hz 9 kW 415...440 V AC 50 Hz 10 kW 500 V AC 50 Hz 10 kW 660...690 V AC 50 Hz
Motor power HP (UL / CSA)	1 hp 115 V AC 60 Hz 1 phase 3 hp 230/240 V AC 60 Hz 1 phase 5 hp 200/208 V AC 60 Hz 3 phases 5 hp 230/240 V AC 60 Hz 3 phases 10 hp 460/480 V AC 60 Hz 3 phases 15 hp 575/600 V AC 60 Hz 3 phases
Control circuit type	DC low consumption
[Uc] control circuit voltage	24 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 32 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 300 A 440 V power circuit IEC 60947

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Rated breaking capacity	300 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	40 A 104 °F (40 °C) - 10 min power circuit 84 A 104 °F (40 °C) - 1 min power circuit 145 A 104 °F (40 °C) - 10 s power circuit 240 A 104 °F (40 °C) - 1 s power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 50 A gG <= 690 V type 1 power circuit 35 A gG <= 690 V type 2 power circuit
Average impedance	2.5 mOhm - Ith 32 A 50 Hz power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL
Electrical durability	1.65 Mcycles 18 A AC-3 <= 440 V 1 Mcycles 32 A AC-1 <= 440 V
Power dissipation per pole	0.8 W AC-3 2.5 W AC-1
Front cover	With
Interlocking type	Mechanical
Mounting support	Plate Rail
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1
Product certifications	DNV CSA CCC UL GL LROS (Lloyds register of shipping) BV RINA GOST UKCA
Connections - terminals	Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid Power circuit screw clamp terminals 1 0.00…0.01 in² (1.5…6 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.00…0.01 in² (1.5…6 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.00…0.01 in² (1…6 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.00…0.01 in² (1.5…6 mm²)solid Power circuit screw clamp terminals 2 0.00…0.01 in² (1.5…6 mm²)solid
Tightening torque	Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2
Operating time	65.45...88.55 ms closing 20...30 ms opening
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	30 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor

Control circuit voltage limits	0.1...0.3 Uc -40…158 °F (-40…70 °C) drop-out DC 0.8...1.25 Uc -40…140 °F (-40…60 °C) operational DC 1...1.25 Uc 140…158 °F (60…70 °C) operational DC
Time constant	40 ms
Inrush power in W	2.4 W 68 °F (20 °C))
Hold-in power consumption in W	2.4 W 68 °F (20 °C)
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 mA signalling circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm signalling circuit

Environment

IP degree of protection	IP20 front face IEC 60529
Climatic withstand	IACS E10 IEC 60947-1 Annex Q category D
Protective treatment	TH IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40…140 °F (-40…60 °C) 140…158 °F (60…70 °C) with derating
Ambient air temperature for storage	-76…176 °F (-60…80 °C)
Operating altitude	0...3000 m
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor open10 Gn for 11 ms Shocks contactor closed15 Gn for 11 ms
Height	3.03 in (77 mm)
Width	3.54 in (90 mm)
Depth	3.74 in (95 mm)
Net weight	2.29 lb(US) (1.037 kg)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	2.54 lb(US) (1.152 kg)
Package 1 Height	4.25 in (10.8 cm)
Package 1 width	3.74 in (9.5 cm)
Package 1 Length	4.53 in (11.5 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	6
Package 2 Weight	15.98 lb(US) (7.248 kg)
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)

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
PVC free	Yes

Contractual warranty

Warranty	18 months

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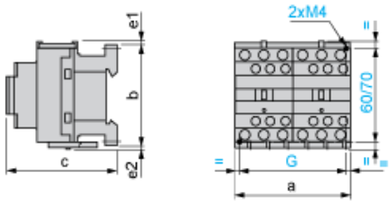
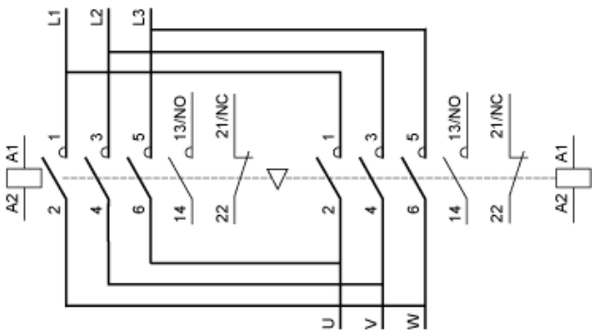
Dimensions Drawings

Dimensions



LC2 or 2 x LC1	a	b	c(1)	e1	e2	G
D09 to D18 (AC)	90	77	86	4	1.5	80
D093 to D123 (AC)	90	99	86	–	–	80
D09 to D18 (DC)	90	77	95	4	1.5	80
D093 to D123 (DC)	90	99	95	–	–	80
D25 to D38 (AC)	90	85	92	9	5	80
D183 to D383 (AC)	90	99	92	–	–	80
D25 to D32 (DC)	90	85	101	9	5	80
D183 to D383 (DC)	90	99	101	–	–	80
e1 and e2: including cabling.						
(1) With safety cover, without add-on block.						

Wiring