Product data sheet
Characteristics

LC2D50AEHE
Reversing contactor, TeSys Deca Advanced, 3P(3NO), AC-3/3e, <=440V, 50A, 48...130V AC/DC coil, EverLink BTR screws



Main

Product name	TeSys Deca Advanced
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
Pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: 690 V AC 25...400 Hz
[Ie] rated operational current	50 A (at <60 °C) at <= 440 V AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC-1 for power circuit
Motor power kW	15 KW at 220...230 V AC 50 Hz 22 KW at 380...400 V AC 50 Hz 25 KW at 415 V AC 50 Hz 30 KW at 440 V AC 50 Hz 30 KW at 500 V AC 50 Hz 33 KW at 660...690 V AC 50 Hz
Motor power hp	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 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
Control circuit type	AC at 50/60 Hz AC/DC electronic DC AC/DC electronic
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 KV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 80 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 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	900 A at 440 V for power circuit conforming to IEC 60947

[Icw] rated short-time withstand current	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit 84 A 40 °C - 10 min for power circuit 208 A 40 °C - 1 min for power circuit
Associated fuse rating	10 A gG for signalling 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
Average impedance	1.5 MOhm - Ith 80 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Power dissipation per pole	3.7 W AC-3 9.6 W AC-1
Protective cover	With
Interlocking type	Mechanical
Mounting support	Rail Plate
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²solid Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²solid Power circuit: EverLink BTR screw connectors 1 cable(s) 1…35 mm²flexible without cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1…25 mm²flexible without cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1…35 mm²flexible with cable end Power circuit: EverLink BTR screw connectors 2 cable(s) 1…25 mm²flexible with cable end Power circuit: EverLink BTR screw connectors 1 cable(s) 1…35 mm²solid Power circuit: EverLink BTR screw connectors 2 cable(s) 1…25 mm²solid
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25…35 mm² hexagonal screw h Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1…25 mm² hexagonal screw he
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
Maximum operating rate	3600 Cyc/H 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<= 0.1 Uc (-40…70 °C):drop-out AC/DC 0.85...1.1 Uc (-40…60 °C):operational AC/DC 1...1.1 Uc (60…70 °C):operational AC/DC
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 current	5 MA for signalling circuit
Minimum switching voltage	17 V 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
Insulation resistance	> 10 MOhm for signalling circuit

Environment

IP degree of protection	IP20 front face conforming to IEC 60529
Climatic withstand	Conforming to IACS E10 conforming to IEC 60947-1 Annex Q category D
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40…60 °C 60…70 °C with derating
Ambient air temperature for storage	-60…80 °C
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1

Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor open: 10 Gn for 11 ms Shocks contactor closed: 15 Gn for 11 ms
Height	122 Mm
Width	119 Mm
Depth	120 Mm
Net weight	2.164 Kg
Colour	Grey (SE GREY 6) Green (SE GREEN 2)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	14.0 Cm
Package 1 Width	16.2 Cm
Package 1 Length	19.8 Cm
Package 1 Weight	2.281 Kg
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30.0 Cm
Package 2 Width	30.0 Cm
Package 2 Length	40.0 Cm
Package 2 Weight	10.003 Kg

Offer Sustainability

Recyclability potential, in %	64
Total lifecycle Carbon footprint	76 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	14.787679731830558
Carbon footprint of the manufacturing phase [A1 to A3]	15 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.22315092549535964
Carbon footprint of the distribution phase [A4]	0.2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.14475197583712
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	57.911153885367085
Carbon footprint of the use phase [B2, B3, B4, B6]	58 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	3.228596373063081
Carbon footprint of the end-of-life phase [C1 to C4]	3 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	76
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
SCIP Number	9bb0b51e-73b5-4128-a86b-723dbbccfe86
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead, which is known to the S
Halogen-free status	Halogen free plastic parts & cables product
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status :	Commercialised