Product data sheet
Characteristics

LC1D80AKUE
Contactor, TeSys Deca Advanced, 3P(3NO), AC-3/3e, <=440V, 66A, 100...250V AC/DC coilEverLink BTR screws



Main

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
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-1 for power circuit 66 A (at <60 °C) at <= 440 V AC-3 for power circuit 66 A (at <60 °C) at <= 440 V AC-3e for power circuit
[Uc] control circuit voltage	100...250 V AC 50/60 Hz 100...250 V DC

Complementary

Motor power kW	22 KW at 220/230 V AC 50/60 Hz (AC-3) 37 KW at 380/400 V AC 50/60 Hz (AC-3) 37 KW at 415 V AC 50/60 Hz (AC-3) 37 KW at 440 V AC 50/60 Hz (AC-3) 37 KW at 500 V AC 50/60 Hz (AC-3) 37 KW at 660/690 V AC 50/60 Hz (AC-3) 22 KW at 220/230 V AC 50/60 Hz (AC-3e) 37 KW at 380/400 V AC 50/60 Hz (AC-3e) 37 KW at 415 V AC 50/60 Hz (AC-3e) 37 KW at 440 V AC 50/60 Hz (AC-3e) 37 KW at 500 V AC 50/60 Hz (AC-3e) 37 KW at 660/690 V AC 50/60 Hz (AC-3e)
Motor power hp	5 Hp at 115 V AC 60 Hz for 1 phase motors 10 Hp at 230/240 V AC 60 Hz for 1 phase motors 20 Hp at 200/208 V AC 60 Hz for 3 phases motors 20 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 50 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	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling 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 1000 A at 440 V AC for power circuit conforming to IEC 60947

Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	110 A 40 °C - 10 min for power circuit 260 A 40 °C - 1 min for power circuit 640 A 40 °C - 10 s for power circuit 900 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	125 A gG at <= 690 V coordination type 1 for power circuit 125 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 MOhm - Ith 80 A 50 Hz for power circuit
Power dissipation per pole	9.6 W AC-1 6.3 W AC-3 6.3 W AC-3e
[Ui] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 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
Electrical durability	1 Mcycles 66 A AC-3 at Ue <= 440 V 0.5 Mcycles 80 A AC-1 at Ue <= 440 V 1 Mcycles 66 A AC-3e at Ue <= 440 V
Control circuit type	AC/DC at 50/60 Hz AC/DC electronic
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
Inrush power in VA	22 VA 50/60 Hz (at 20 °C)
Inrush power in W	20 W (at 20 °C)
Hold-in power consumption in VA	2.1 VA 50/60 Hz (at 20 °C)
Hold-in power consumption in W	1.2 W at 20 °C
Heat dissipation	1.2 W at 50/60 Hz
Operating time	55...65 ms closing 20...80 ms opening
Maximum operating rate	3600 Cyc/H at 60 °C
Connections - terminals	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…4 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1…4 mm² - cable stiffness: solid Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid Power circuit: EverLink BTR screw connectors 1 1…35 mm² - cable stiffness: flexible without cabl Power circuit: EverLink BTR screw connectors 1 1…35 mm² - cable stiffness: flexible with cable e Power circuit: EverLink BTR screw connectors 1 1…35 mm² - cable stiffness: solid Power circuit: EverLink BTR screw connectors 2 1…25 mm² - cable stiffness: flexible without cabl Power circuit: EverLink BTR screw connectors 2 1…25 mm² - cable stiffness: flexible with cable e Power circuit: EverLink BTR screw connectors 2 1…25 mm² - cable stiffness: solid
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 Power circuit: 5 N.m - with screwdriver pozidriv No 2 M4 Control circuit: 1.7 N.m - with screwdriver pozidriv No 2 M3.5
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	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product certifications	CCC[RETURN]CSA[RETURN]EAC[RETURN]UL[RETURN]KC[RETURN]DNV-GL[RETURN]LR
IP degree of protection	IP20 front face conforming to IEC 60529
Climatic withstand	Conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D 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
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	55 Mm
Depth	120 Mm
Net weight	1.002 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.200 Cm
Package 1 Width	13.600 Cm
Package 1 Length	15.300 Cm
Package 1 Weight	901.000 G
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	15.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	9.299 Kg

Offer Sustainability

Recyclability potential, in %	64
Total lifecycle Carbon footprint	56 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	6.753680570165038
Carbon footprint of the manufacturing phase [A1 to A3]	7 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.10191524952277248
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.06610966861825177
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	47.47138804888933
Carbon footprint of the use phase [B2, B3, B4, B6]	47 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	1.4745321097755628
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Total lifecycle Carbon footprint	56
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 State
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 and

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised