

# LC1D80ABNE

Contacteur, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 66A, 24...60V AC/DC, EverLink BTR screws



## Main

Range	TeSys TeSys Deca
Range of product	TeSys Deca
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Motor control
Utilisation category	AC-3 AC-1 AC-3e
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	24...60 V AC 50/60 Hz 24...60 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

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Associated fuse rating	125 A gG at $\leq 690$ V coordination type 1 for power circuit 125 A gG at $\leq 690$ V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 mOhm - lth 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	6 Mcycles
Electrical durability	1 Mcycles 66 A AC-3 at $U_e \leq 440$ V 0.5 Mcycles 80 A AC-1 at $U_e \leq 440$ V 1 Mcycles 66 A AC-3e at $U_e \leq 440$ V
Control circuit type	AC/DC at 50/60 Hz AC/DC electronic
Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	$\leq 0.1 U_c$ (-40...70 °C):drop-out AC/DC 0.85...1.1 $U_c$ (-40...60 °C):operational AC 0.8...1.1 $U_c$ (-40...60 °C):operational DC 1...1.1 $U_c$ (60...70 °C):operational AC/DC
Inrush power in VA	15 VA 50/60 Hz (at 20 °C)
Inrush power in W	16 W (at 20 °C)
Hold-in power consumption in VA	1 VA 50/60 Hz (at 20 °C)
Hold-in power consumption in W	0.7 W at 20 °C
Heat dissipation	0.7 W at 50/60 Hz
Operating time	55...65 ms closing 20...80 ms opening
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: solid Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: solid Power circuit: EverLink BTR screw connectors 1 1...35 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 1 1...35 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1 1...35 mm <sup>2</sup> - cable stiffness: solid Power circuit: EverLink BTR screw connectors 2 1...25 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 1...25 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 2 1...25 mm <sup>2</sup> - cable stiffness: solid
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat $\varnothing 6$ 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 mm <sup>2</sup> hexagonal screw head 4 mm Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm <sup>2</sup> hexagonal screw head 4 mm 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]LROS (Lloyds register of shipping)[RETURN]UKCA
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
Flame retardance	V1 conforming to UL 94
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	6.2 cm
Package 1 Width	13.7 cm
Package 1 Length	15.2 cm
Package 1 Weight	1.066 kg
Unit Type of Package 2	S02
Number of Units in Package 2	9
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	9.935 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant with Exemptions
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
RoHS exemption information	 <a href="#">Yes</a>
Environmental Disclosure	 <a href="#">Product Environmental Profile</a>
Circularity Profile	 <a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Halogen content performance	Halogen free plastic parts & cables product

## Contractual warranty

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Warranty

18 months

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