

LC1D50AE7C

Contacteur, TeSys Deca, 3P(3 NO), AC-3/
AC-3e, 0 to 440V, 50A, 48VAC 50/60Hz coil,
Everlink terminal



Main

Range	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-4 AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz Power circuit: ≤ 300 V DC
[Ie] rated operational current	50 A (at ≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 80 A (at ≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit 50 A (at ≤ 60 °C) at ≤ 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	48 V AC 50/60 Hz

Complementary

Motor power kW	30 kW at 500 V AC 50/60 Hz (AC-3) 25 kW at 415 V AC 50/60 Hz (AC-3) 30 kW at 440 V AC 50/60 Hz (AC-3) 15 kW at 220/240 V AC 50/60 Hz (AC-3) 22 kW at 380/400 V AC 50/60 Hz (AC-3) 33 kW at 660/690 V AC 50/60 Hz (AC-3) 30 kW at 500 V AC 50/60 Hz (AC-3e) 25 kW at 415 V AC 50/60 Hz (AC-3e) 30 kW at 440 V AC 50/60 Hz (AC-3e) 15 kW at 220/240 V AC 50/60 Hz (AC-3e) 22 kW at 380/400 V AC 50/60 Hz (AC-3e) 33 kW at 660/690 V AC 50/60 Hz (AC-3e)
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	Without
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 80 A (at 60 °C) for power circuit
[Icw] rated short-time withstand current	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 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling 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

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	1.2 Mcycles 80 A AC-1 at $U_e \leq 440$ V 1.5 Mcycles 50 A AC-3 at $U_e \leq 440$ V 2 Mcycles 35 A AC-3 at $U_e 660/690$ V 1.5 Mcycles 50 A AC-3e at $U_e \leq 440$ V 2 Mcycles 35 A AC-3e at $U_e 660/690$ V
Control circuit type	AC at 50/60 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U_c (-40...60 °C): drop-out 50/60 Hz 0.8...1.1 U_c (-40...60 °C): operational 50 Hz 0.85...1.1 U_c (-40...60 °C): operational 60 Hz
Inrush power in VA	140 VA 60 Hz cos phi 0.75 (at 20 °C) 160 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	4...5 W at 50/60 Hz
Operating time	4...19 ms opening 12...26 ms closing
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Power circuit: EverLink BTR screw connectors 1 1...35 mm ² - external diameter: 16.5 mm - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 1...25 mm ² - external diameter: 16.5 mm - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 1...35 mm ² - external diameter: 16.5 mm - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1...25 mm ² - external diameter: 16.5 mm - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1...35 mm ² - external diameter: 16.5 mm - cable stiffness: solid without cable end Power circuit: EverLink BTR screw connectors 1...25 mm ² - external diameter: 16.5 mm - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1...4 mm ² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1...2.5 mm ² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1...4 mm ² - cable stiffness: solid without cable end
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 35 mm ² hexagonal screw head 4 mm Power circuit: 6 N.m - on screw clamp terminals hexagonal screw head 10 mm M6 Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal screw head 4 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
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
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	Plate Rail

Environment

Standards	GB 14048.4 IEC 60947-4-1
Product certifications	CCC[RETURN]CE[RETURN]UKCA
IP degree of protection	IP2X front face for main circuit conforming to IEC 60529 IP2X front face for coil circuit conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Permissible ambient air temperature around the device	-40...60 °C operation 60...70 °C with derating -60...80 °C storage
Operating altitude	3000 m without derating
Fire resistance	850 °C conforming to IEC 60695-2-11
Mechanical robustness	Vibrations contactor open (2 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Vibrations contactor closed (4 Gn, 5...300 Hz) conforming to IEC 60068-2-6 Shocks 11 ms contactor open (10 Gn) conforming to IEC 60068-2-27 Shocks 11 ms contactor closed (15 gn) conforming to IEC 60068-2-27
Height	122 mm
Width	55 mm
Depth	120 mm
Net weight	0.855 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	6.3 cm
Package 1 Width	15.5 cm
Package 1 Length	13.6 cm
Package 1 Weight	957.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.962 kg
Unit Type of Package 3	P06
Number of Units in Package 3	160
Package 3 Height	75.0 cm
Package 3 Width	60.0 cm
Package 3 Length	80.0 cm
Package 3 Weight	169.392 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Compliant  EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins