

LC1D80CC5C

Contacteur, TeSys Deca, 3P(3 NO), AC-3/
AC-3e, 0 to 440V, 80A, 36V AC 50Hz coil,
Screw terminal



Main

Range	TeSys Deca
Range of product	TeSys Deca
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-4 AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: ≤ 300 V DC 25...400 Hz Power circuit: 660 V AC
[Ie] rated operational current	80 A (at <60 °C) at ≤ 440 V AC AC-3 for power circuit 125 A (at <60 °C) at ≤ 440 V AC AC-1 for power circuit 80 A (at <60 °C) at ≤ 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	36 V AC 50 Hz

Complementary

Motor power kW	55 kW at 500 V AC 50/60 Hz (AC-3) 45 kW at 1000 V AC 50/60 Hz (AC-3) 22 kW at 220/240 V AC 50/60 Hz (AC-3) 37 kW at 380/400 V AC 50/60 Hz (AC-3) 45 kW at 415/440 V AC 50/60 Hz (AC-3) 45 kW at 660/690 V AC 50/60 Hz (AC-3) 55 kW at 500 V AC 50/60 Hz (AC-3e) 45 kW at 1000 V AC 50/60 Hz (AC-3e) 22 kW at 220/240 V AC 50/60 Hz (AC-3e) 37 kW at 380/400 V AC 50/60 Hz (AC-3e) 45 kW at 415/440 V AC 50/60 Hz (AC-3e) 45 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 125 A (at 60 °C) for power circuit
[Icw] rated short-time withstand current	640 A 40 °C - 10 s for power circuit 990 A 40 °C - 1 s for power circuit 135 A 40 °C - 10 min for power circuit 320 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 60947-5-1 200 A gG at ≤ 690 V coordination type 1 for power circuit 160 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	0.8 mOhm - Ith 125 A 50 Hz for power circuit
[Ui] rated insulation voltage	Signalling circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-4-1

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	4 Mcycles
Electrical durability	0.8 Mcycles 125 A AC-1 at $U_e \leq 440$ V 1.5 Mcycles 80 A AC-3 at $U_e \leq 440$ V 2.5 Mcycles 48 A AC-3 at $U_e 660/690$ V 1.5 Mcycles 80 A AC-3e at $U_e \leq 440$ V 2.5 Mcycles 48 A AC-3e at $U_e 660/690$ V
Control circuit type	AC at 50 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U_c (-40...55 °C):drop-out 50 Hz 0.85...1.1 U_c (-40...55 °C):operational 50 Hz
Inrush power in VA	200 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	20 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	6...10 W at 50/60 Hz
Operating time	20...35 ms closing 6...20 ms opening
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	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 Power circuit: bus terminal - cable stiffness: solid - busbar cross section: 3 x 16 mm Power circuit: connector 4...50 mm ² - external diameter: 17 mm - cable stiffness: flexible without cable end Power circuit: connector 4...25 mm ² - external diameter: 17 mm - cable stiffness: flexible without cable end Power circuit: connector 4...50 mm ² - external diameter: 17 mm - cable stiffness: flexible with cable end Power circuit: connector 4...16 mm ² - external diameter: 17 mm - cable stiffness: flexible with cable end Power circuit: connector 4...50 mm ² - external diameter: 17 mm - cable stiffness: solid without cable end Power circuit: connector 4...25 mm ² - cable stiffness: solid without cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on screw clamp terminals - with screwdriver flat Ø 6...8 mm Power circuit: 12 N.m - on screw clamp terminals hexagonal screw head 4 mm Power circuit: 12 N.m - on connector hexagonal screw head 10 mm M6 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 8 mm Power circuit: 12 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Control circuit: 1.2 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	Rail Plate

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
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 Shocks 11 ms contactor open (8 gn) conforming to IEC 60068-2-27 Shocks 11 ms contactor closed (10 Gn) conforming to IEC 60068-2-27 Vibrations contactor closed (3 Gn, 5...300 Hz) conforming to IEC 60068-2-6
Height	127 mm
Width	85 mm
Depth	130 mm
Net weight	1.59 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	15.0 cm
Package 1 Width	11.1 cm
Package 1 Length	15.7 cm
Package 1 Weight	1585.0 g
Unit Type of Package 2	CAR
Number of Units in Package 2	5
Package 2 Height	20.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	8.382 kg
Unit Type of Package 3	P06
Number of Units in Package 3	60
Package 3 Height	75.0 cm
Package 3 Width	60.0 cm
Package 3 Length	80.0 cm
Package 3 Weight	110.578 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	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins