Product datasheet

Specifications



Contactor, TeSys Deca, 3P(3 NO), AC-3/AC-3e, 0 to 440V, 38A, 380VAC 50/60Hz coil, Screw terminal

LC1D38Q7C

Discontinued

Main

Range	TeSys Deca
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor 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: <= 225 V DC
[Ie] rated operational current	50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	380 V AC 50/60 Hz

Complementary

Motor power kW	18.5 kW at 500 V AC 50/60 Hz (AC-3) 18.5 kW at 660/690 V AC 50/60 Hz (AC-3) 7.5 kW at 400 V AC 50/60 Hz (AC-4) 18.5 kW at 380/400 V AC 50/60 Hz (AC-3) 9 kW at 220/240 V AC 50/60 Hz (AC-3) 18.5 kW at 415/440 V AC 50/60 Hz (AC-3) 18.5 kW at 500 V AC 50/60 Hz (AC-3e) 18.5 kW at 660/690 V AC 50/60 Hz (AC-3e) 18.5 kW at 380/400 V AC 50/60 Hz (AC-3e) 9 kW at 220/240 V AC 50/60 Hz (AC-3e) 18.5 kW at 415/440 V AC 50/60 Hz (AC-3e)
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 50 A (at 60 °C) for power circuit
[Icw] rated short-time withstand current	430 A 40 °C - 1 s for power circuit 60 A 40 °C - 10 min for power circuit 150 A 40 °C - 1 min for power circuit 310 A 40 °C - 10 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

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 63 A gG at <= 690 V coordination type 1 for power circuit 63 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - Ith 50 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	15 Mcycles
Electrical durability	1.4 Mcycles 50 A AC-1 at Ue <= 440 V 2.6 Mcycles 22 A AC-3 at Ue 660/690 V 1.4 Mcycles 37 A AC-3 at Ue <= 440 V 1.4 Mcycles 37 A AC-3e at Ue <= 440 V 2.6 Mcycles 22 A AC-3e at Ue 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 Uc (-40…60 °C):drop-out 50/60 Hz 0.8...1.1 Uc (-40…60 °C):operational 50 Hz 0.85...1.1 Uc (-40…60 °C):operational 60 Hz
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	6 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Operating time	12...22 ms closing 4...19 ms opening
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 without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 2.5…10 mm² - external diameter: 10 mm - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.5…10 mm² - external diameter: 10 mm - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 1…10 mm² - external diameter: 10 mm - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1.5…6 mm² - external diameter: 10 mm - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 1.5…10 mm² - external diameter: 10 mm - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.5…10 mm² - external diameter: 10 mm - 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: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 2.5 N.m - on cable connector - with screwdriver flat Ø 6 mm M4 Power circuit: 2.5 N.m - on cable connector - with screwdriver Philips No 2 M4 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 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
Auxiliary contact composition	1 NO + 1 NC
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	IEC 60947-1 IEC 60947-4-1 GB/T 14048.4
Product certifications	CE UKCA CCC
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 closed (15 gn) conforming to IEC 60068-2-27 Shocks 11 ms contactor open (8 gn) conforming to IEC 60068-2-27
Height	85 mm
Width	45 mm
Depth	92 mm
Net weight	0.38 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.564 cm
Package 1 Width	8.984 cm
Package 1 Length	9.946 cm
Package 1 Weight	410.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	21
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	9.04 kg

Unit Type of Package 3	PAL
Number of Units in Package 3	336
Package 3 Height	60.0 cm
Package 3 Width	80.0 cm
Package 3 Length	75.0 cm
Package 3 Weight	147.776 kg

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**311 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**2 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.6 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**308 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.6 kg CO2 eq.**
Environmental Disclosure	**Product Environmental Profile**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**Yes**
EU RoHS Directive	**Compliant**
REACh Regulation	**Free of Substances of Very High Concern above the threshold**
PVC free	**Yes**
Silicone-free	**Yes**

Use Again

Repack and remanufacture

Recyclability potential, in %	**65**
End of life manual availability	**End of Life Information**
Take-back	**No**