Product data sheet
Characteristics

LC1D40D7C
Contactor, TeSys Deca, 3P(3 NO), AC-3/ AC-3e, 0 to 440V, 40A, 42VAC 50/60Hz coil, Screw terminal

Main

Range	TeSys Deca
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
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	40 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 60 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	42 V AC 50/60 Hz

Complementary

Motor power kW	18.5 KW at 380/400 V AC 50/60 Hz (AC-3) 22 KW at 500 V AC 50/60 Hz (AC-3) 11 KW at 220/240 V AC 50/60 Hz (AC-3) 22 KW at 415/440 V AC 50/60 Hz (AC-3) 30 KW at 660/690 V AC 50/60 Hz (AC-3) 18.5 KW at 380/400 V AC 50/60 Hz (AC-3e) 22 KW at 500 V AC 50/60 Hz (AC-3e) 11 KW at 220/240 V AC 50/60 Hz (AC-3e) 22 KW at 415/440 V AC 50/60 Hz (AC-3e) 30 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 60 A (at 60 °C) for power circuit
[Icw] rated short-time withstand current	240 A 40 °C - 10 s for power circuit 380 A 40 °C - 1 s for power circuit 50 A 40 °C - 10 min for power circuit 120 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 80 A gG at <= 690 V coordination type 1 for power circuit 80 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	1.5 mOhm - Ith 60 A 50 Hz for power circuit
[Ui] rated insulation voltage	Signalling circuit: 690 V conforming to IEC 60947-1 Power circuit: 1000 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	6 Mcycles
Electrical durability	1.4 Mcycles 60 A AC-1 at Ue <= 440 V 1.6 Mcycles 40 A AC-3 at Ue <= 440 V 1.6 Mcycles 33 A AC-3 at Ue 660/690 V 1.6 Mcycles 40 A AC-3e at Ue <= 440 V 1.6 Mcycles 33 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	245 VA 60 Hz cos phi 0.75 (at 20 °C) 245 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	26 VA 60 Hz cos phi 0.3 (at 20 °C) 26 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	6…10 W at 50/60 Hz
Operating time	20...26 ms closing 8...12 ms opening
Maximum operating rate	3600 cyc/h 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 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…25 mm² - external diameter: 13 mm - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.5…16 mm² - external diameter: 13 mm - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 1 2.5…25 mm² - external diameter: 13 mm - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 2.5…10 mm² - external diameter: 13 mm - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 2.5…25 mm² - external diameter: 13 mm - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.5…16 mm² - external diameter: 13 mm - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 1…2.5 mm² - cable stiffness: flexible with 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: 5 N.m - on screw clamp terminals - with screwdriver flat Ø 6...8 mm Power circuit: 5 N.m - on cable connector - with screwdriver flat Ø 8 mm M5 Power circuit: 5 N.m - on cable connector - with screwdriver Philips No 2 M5 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 Vibrations contactor closed (4 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
Height	127 mm
Width	75 mm
Depth	119 mm
Net weight	1.4 kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	14.2 cm
Package 1 Width	11.1 cm
Package 1 Length	14.5 cm
Package 1 Weight	1.337 kg
Unit Type of Package 2	S03
Number of Units in Package 2	12
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	16.6 kg
Unit Type of Package 3	P06
Number of Units in Package 3	96
Package 3 Height	75.0 cm
Package 3 Width	60.0 cm
Package 3 Length	80.0 cm
Package 3 Weight	142.8 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
PVC free	Yes