Product data sheet
Characteristics

LC1D50AE7C
Contactor, TeSys Deca, 3P(3 NO), AC-3/ AC-3e, 0 to 440V, 50A, 48VAC 50/60Hz coil, Everlink terminal



⚠ End of Commercialisation

Commercial status
End of Commercialisation :

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: <= 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	With
[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 Ue <= 440 V 1.5 Mcycles 50 A AC-3 at Ue <= 440 V 2 Mcycles 35 A AC-3 at Ue 660/690 V 1.5 Mcycles 50 A AC-3e at Ue <= 440 V 2 Mcycles 35 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	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)
Operating time	4...19 ms opening 12...26 ms closing
Connections - terminals	Power circuit: EverLink BTR screw connectors 1 1…35 mm² - external diameter: 16.5 mm - cable s Power circuit: EverLink BTR screw connectors 2 1…25 mm² - external diameter: 16.5 mm - cable Power circuit: EverLink BTR screw connectors 2 1…35 mm² - external diameter: 16.5 mm - cable Power circuit: EverLink BTR screw connectors 1…25 mm² - external diameter: 16.5 mm - cable st Power circuit: EverLink BTR screw connectors 1…35 mm² - external diameter: 16.5 mm - cable st Power circuit: EverLink BTR screw connectors 1…25 mm² - external diameter: 16.5 mm - cable st Control circuit: screw clamp terminals 1…4 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1…2.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1…4 mm² - 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 mm² hexagonal screw head 4 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 mm² hexagonal screw he 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[RETURN]UKCA[RETURN]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 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

Recyclability potential, in %	62
Total lifecycle Carbon footprint	67 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	4.227273078780573
Carbon footprint of the manufacturing phase [A1 to A3]	4 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.39628832143138804
Carbon footprint of the distribution phase [A4]	0.4 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.05161992301876894
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	61.259758021595786
Carbon footprint of the use phase [B2, B3, B4, B6]	61 kg CO2 eq.
Toxic heavy metal free	Yes
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	1.2010967322350512

Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	67
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant
End of life manual availability	End Of Life Information
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : End of commerc. - Block