Product data sheet
Characteristics

LC1D150AEHE
Contactor, Tesys Deca Advanced, 3P(3NO), AC-3/AC-3e, <=440V, 150A, 48-130V AC/DC coil, Everlink



Main

Range	TeSys Deca
Range of product	TeSys Deca Advanced
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-3e AC-1 AC-4 DC-1 DC-3 DC-5
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 16.67...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	150 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 150 A (at <60 °C) at <= 440 V AC AC-3e for power circuit 200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit
[Uc] control circuit voltage	48...130 V AC 50/60 Hz 48...130 V DC

Complementary

Motor power kW	40 KW at 230 V AC 50/60 Hz (AC-3) 75 KW at 400 V AC 50/60 Hz (AC-3) 80 KW at 415 V AC 50/60 Hz (AC-3) 90 KW at 440 V AC 50/60 Hz (AC-3) 90 KW at 500 V AC 50/60 Hz (AC-3) 100 KW at 690 V AC 50/60 Hz (AC-3) 75 KW at 1000 V AC 50/60 Hz (AC-3) 40 KW at 230 V AC 50/60 Hz (AC-3e) 75 KW at 400 V AC 50/60 Hz (AC-3e) 80 KW at 415 V AC 50/60 Hz (AC-3e) 90 KW at 440 V AC 50/60 Hz (AC-3e) 90 KW at 500 V AC 50/60 Hz (AC-3e) 100 KW at 690 V AC 50/60 Hz (AC-3e) 75 KW at 1000 V AC 50/60 Hz (AC-3e) 37 KW at 230 V AC 50/60 Hz (AC-4) 75 KW at 400 V AC 50/60 Hz (AC-4) 75 KW at 440 V AC 50/60 Hz (AC-4) 75 KW at 500 V AC 50/60 Hz (AC-4) 80 KW at 690 V AC 50/60 Hz (AC-4) 65 KW at 1000 V AC 50/60 Hz (AC-4)
Motor power hp	40 Hp at 200/208 V 60 Hz 50 Hp at 230/240 V 60 Hz 100 Hp at 460/480 V 60 Hz 125 Hp at 575/600 V 60 Hz
Compatibility code	LC1D
Pole contact composition	3 NO
Protective cover	With
[Ith] conventional free air thermal current	200 A (at 60 °C) for power circuit
Irms rated making capacity	1885 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	1440 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	350 A 40 °C - 10 min for power circuit 600 A 40 °C - 1 min for power circuit 1280 A 40 °C - 10 s for power circuit 1800 A 40 °C - 1 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
Associated fuse rating	160 A aM at <= 440 V for power circuit 125 A aM at <= 690 V for power circuit 250 A gG at <= 690 V for power circuit 10 A gG for signalling circuit 0.63 A gG for control circuit

Average impedance	0.45 MOhm - Ith 200 A 50 Hz for power circuit
Power dissipation per pole	8 W AC-3 8 W AC-3e 22 W AC-1
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified[RETURN]Power circuit: 600 V UL certified[RETURN]Power c
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	8 KV conforming to IEC 60947
Safety reliability level	B10d = 684932 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 10000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	8 Mcycles
Electrical durability	0.85 Mcycles 150 A AC-3 at Ue <= 440 V 0.85 Mcycles 150 A AC-3e at Ue <= 440 V 0.5 Mcycles 200 A AC-1 at Ue <= 440 V
Control circuit type	AC at 50/60 Hz DC
Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.8 Uc Min...1.1 Uc Max (-40…60 °C):operational AC/DC 0.1 Uc Max (-40…60 °C):drop-out AC/DC
Inrush power in VA	170 VA (at 20 °C)
Inrush power in W	120 W (at 20 °C)
Hold-in power consumption in VA	7.5 VA (at 20 °C)
Hold-in power consumption in W	5.1 W at 20 °C
Heat dissipation	1.5 W at 20 °C
Operating time	10...80 ms opening 20...90 ms closing
Maximum operating rate	2400 Cyc/H at 60 °C 3600 Cyc/H at Uc at 20 ºC
Connections - terminals	Power circuit: connector 1 10…120 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 10…50 mm² - cable stiffness: flexible without cable end Power circuit: connector 1 10…120 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 10…50 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 10…120 mm² - cable stiffness: solid without cable end Power circuit: connector 2 10…50 mm² - cable stiffness: solid 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: 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: solid without cable end Control circuit: screw clamp terminals 2 1…4 mm² - cable stiffness: solid without cable end
Tightening torque	Power circuit: 12 N.m - on connector hexagonal screw head 4 mm 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 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
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	16.67...400 Hz
Minimum switching voltage	17 V for signalling circuit
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

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 UL 60947-5-1 CSA C22.2 No 60947-4-1 CSA C22.2 No 60947-5-1 JIS C8201-4-1 JIS C8201-5-1 GB/T 14048.4 GB/T 14048.5
Product certifications	CB Scheme[RETURN]CCC[RETURN]cULus[RETURN]CE[RETURN]UKCA[RETURN]EU-RO-MR
IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	None conforming to IEC 60068-2-30
Climatic withstand	Conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40…60 °C operation 60…70 °C with derating -60…80 °C storage
Operating altitude	0...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 contactor open (10 Gn for 11 ms) conforming to IEC 60068-2-27 Shocks contactor closed (15 Gn for 11 ms) conforming to IEC 60068-2-27
Height	152 Mm
Width	97 Mm
Depth	155 Mm
Net weight	2.4 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	18.9 Cm
Package 1 Width	13.2 Cm
Package 1 Length	18.2 Cm
Package 1 Weight	2.61 Kg
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30 Cm
Package 2 Width	30 Cm
Package 2 Length	40 Cm
Package 2 Weight	10.9747 Kg
Unit Type of Package 3	S06
Number of Units in Package 3	48
Package 3 Height	73.5 Cm
Package 3 Width	60 Cm
Package 3 Length	80 Cm
Package 3 Weight	138.8495 Kg

Offer Sustainability

Recyclability potential, in %	78
Total lifecycle Carbon footprint	366 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	25.781130002776823
Carbon footprint of the manufacturing phase [A1 to A3]	26 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.3981303565768707
Carbon footprint of the distribution phase [A4]	0.4 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2891771531184354
Carbon footprint of the installation phase [A5]	0.3 kg CO2 eq.

Carbon footprint of the use phase [B2, B3, B4, B6]	333.9103176655554
Carbon footprint of the use phase [B2, B3, B4, B6]	334 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	5.433983650981704
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	366
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	608af421-265e-4dfd-b0b3-1192c9364536
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Styrene, which is known to the
Halogen-free status	Halogen free plastic parts product
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised