



## Main

Range	TeSys TeSys Deca
Range of product	TeSys D TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-4 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	80 A (at <60 °C) at ≤ 440 V AC-1 for power circuit 66 A (at <60 °C) at ≤ 440 V AC-3 for power circuit 66 A (at <60 °C) at ≤ 440 V AC-3e for power circuit

## Complementary

Motor power kW	18.5 kW at 220...230 V AC 50 Hz (AC-3) 37 kW at 380...400 V AC 50 Hz (AC-3) 37 kW at 415 V AC 50 Hz (AC-3) 37 kW at 440 V AC 50 Hz (AC-3) 37 kW at 500 V AC 50 Hz (AC-3) 37 kW at 660...690 V AC 50 Hz (AC-3)
Motor power hp	5 Hp at 115 V AC 60 Hz for 1 phase motors 10 Hp at 230/240 V AC 60 Hz for 1 phase motors 20 Hp at 200/208 V AC 60 Hz for 3 phases motors 20 Hp at 230/240 V AC 60 Hz for 3 phases motors 40 Hp at 460/480 V AC 60 Hz for 3 phases motors 50 Hp at 575/600 V AC 60 Hz for 3 phases motors
Pole contact composition	3 NO
Contact compatibility	M2
Protective cover	With
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
[Ui] rated insulation voltage	Signalling circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-4-1
[Uimp] rated impulse withstand voltage	6 KV conforming to IEC 60947
Overvoltage category	III

[I <sub>th</sub> ] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 80 A (at 60 °C) for power circuit
I <sub>rms</sub> rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 1000 A at 440 V AC for power circuit conforming to IEC 60947
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 125 A gG at ≤ 690 V coordination type 1 for power circuit 125 A gG at ≤ 690 V coordination type 2 for power circuit
Control circuit type	AC at 50/60 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U <sub>c</sub> (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 U <sub>c</sub> (-40...60 °C):operational AC 50 Hz 0.85...1.1 U <sub>c</sub> (-40...60 °C):operational AC 60 Hz 1...1.1 U <sub>c</sub> (60...70 °C):operational AC 50/60 Hz
Average impedance	1.5 MOhm - I <sub>th</sub> 80 A 50 Hz for power circuit
Power dissipation per pole	9.6 W AC-1 6.5 W AC-3 6.5 W AC-3e
Minimum switching current	5 MA for signalling circuit
Minimum switching voltage	17 V 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
Maximum operating rate	3600 Cyc/H 60 °C
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)
Insulation resistance	> 10 MOhm for signalling circuit
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 25...35 m- m <sup>2</sup> hexagonal screw head 4 mm Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 m- m <sup>2</sup> hexagonal screw head 4 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver- pozidriv No 2 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver- pozidriv No 2
Mounting support	Rail Plate
Electrical durability	0.7 Mcycles 80 A AC-1 at U <sub>e</sub> ≤ 440 V 1 Mcycles 66 A AC-3 at U <sub>e</sub> ≤ 440 V 1 Mcycles 66 A AC-3e at U <sub>e</sub> ≤ 440 V
Mechanical durability	6 Mcycles
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
Operating altitude	0...3000 m
Compatibility code	LC1D
Product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping)





## Environment

Climatic withstand	Conforming to IACS E10 conforming to IEC 60947-1 Annex Q category D
Ambient air temperature for storage	-60...80 °C
Fire resistance	850 °C conforming to IEC 60695-2-1
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 4 Gn, 5...300 Hz Shocks contactor closed: 15 Gn for 11 ms Shocks contactor open: 10 Gn for 11 ms
Height	122 Mm
Width	55 Mm
Depth	120 Mm
Net weight	0.86 Kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	924.0 G
Package 1 Height	6.2 Cm
Package 1 Width	13.5 Cm
Package 1 Length	15.5 Cm
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Weight	9.811 Kg
Package 2 Height	15.0 Cm
Package 2 Width	30.0 Cm
Package 2 Length	40.0 Cm

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 <a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Compliant  <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	 <a href="#">Yes</a>
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
Environmental Disclosure	 <a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

## Contractual warranty

Warranty	18 months
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Product Life Status : **Commercialised**