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## Main

Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-3 AC-4 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: $\leq 690$ V AC 25...400 Hz Power circuit: $\leq 300$ V DC
[Ie] rated operational current	32 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit 50 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit
Motor power kW	7.5 kW at 220...230 V AC 50/60 Hz (AC-3) 15 kW at 380...400 V AC 50/60 Hz (AC-3) 15 kW at 415...440 V AC 50/60 Hz (AC-3) 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)
Motor power HP (UL / CSA)	2 Hp at 115 V AC 50/60 Hz for 1 phase motors 5 Hp at 230/240 V AC 50/60 Hz for 1 phase motors 7.5 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 10 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 20 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 30 hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	DC standard
[Uc] control circuit voltage	48 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 50 A (at 60 °C) for power circuit
Irms rated making capacity	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 550 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	550 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	260 A 40 °C - 10 s for power circuit 430 A 40 °C - 1 s for power circuit 60 A 40 °C - 10 min for power circuit 138 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 63 A gG at $\leq 690$ V coordination type 1 for power circuit 63 A gG at $\leq 690$ 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 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Electrical durability	1.65 Mcycles 32 A AC-3 at $U_e \leq 440$ V 1.4 Mcycles 50 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	2 W AC-3 5 W AC-1
Front cover	With
Mounting support	Plate Rail
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	UL GOST BV DNV GL CCC LROS (Lloyds register of shipping) CSA RINA
Connections - terminals	Control circuit: spring terminals 1 cable(s) 2.5 mm <sup>2</sup> flexible without cable end Control circuit: spring terminals 2 cable(s) 2.5 mm <sup>2</sup> flexible without cable end Power circuit: spring terminals 1 cable(s) 4 mm <sup>2</sup> flexible without cable end Power circuit: spring terminals 2 cable(s) 4 mm <sup>2</sup> flexible without cable end
Operating time	53.55...72.45 ms closing 16...24 ms opening
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	30 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

## Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.1...0.25 $U_c$ (-40...70 °C):drop-out DC 0.7...1.25 $U_c$ (-40...60 °C):operational DC 1...1.25 $U_c$ (60...70 °C):operational DC
Time constant	28 ms
Inrush power in W	5.4 W (at 20 °C)
Hold-in power consumption in W	5.4 W at 20 °C
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
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
Insulation resistance	> 10 MOhm for signalling circuit

## Environment

IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40...60 °C 60...70 °C with derating
Ambient air temperature for storage	-60...80 °C
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
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: 8 Gn for 11 ms
Height	99 mm
Width	45 mm
Depth	101 mm
Net weight	0.535 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	550 g
Package 1 Height	11.4 cm
Package 1 width	10.5 cm
Package 1 Length	5.4 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>
Circularity Profile	<a href="#">End Of Life Information</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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