

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 25 A - 415 V AC coil

LC1D25N7

### Main

<b>Range</b>	TeSys TeSys Deca
<b>Product name</b>	TeSys D TeSys Deca
<b>Product or component type</b>	Contacteur
<b>Device short name</b>	LC1D
<b>Contacteur application</b>	Motor control Resistive load
<b>Utilisation category</b>	AC-3 AC-4 AC-1 AC-3e
<b>Poles description</b>	3P
<b>Power pole contact composition</b>	3 NO
<b>[Ue] rated operational voltage</b>	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
<b>[Ie] rated operational current</b>	25 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 25 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
<b>Motor power kW</b>	5.5 kW at 220...230 V AC 50/60 Hz (AC-3) 11 kW at 380...400 V AC 50/60 Hz (AC-3) 11 kW at 415...440 V AC 50/60 Hz (AC-3) 15 kW at 500 V AC 50/60 Hz (AC-3) 15 kW at 660...690 V AC 50/60 Hz (AC-3) 5.5 kW at 400 V AC 50/60 Hz (AC-4) 5.5 kW at 220...230 V AC 50/60 Hz (AC-3e) 11 kW at 380...400 V AC 50/60 Hz (AC-3e) 11 kW at 415...440 V AC 50/60 Hz (AC-3e) 15 kW at 500 V AC 50/60 Hz (AC-3e) 15 kW at 660...690 V AC 50/60 Hz (AC-3e)
<b>Motor power HP (UL / CSA)</b>	3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 2 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 3 phases motors 15 hp at 460/480 V AC 50/60 Hz for 3 phases motors 20 hp at 575/600 V AC 50/60 Hz for 3 phases motors 7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors
<b>Control circuit type</b>	AC at 50/60 Hz
<b>[Uc] control circuit voltage</b>	415 V AC 50/60 Hz
<b>Auxiliary contact composition</b>	1 NO + 1 NC
<b>[Uimp] rated impulse withstand voltage</b>	6 kV conforming to IEC 60947
<b>Overvoltage category</b>	III

<b>[Ith] conventional free air thermal current</b>	10 A (at 60 °C) for signalling circuit 40 A (at 60 °C) for power circuit
<b>Irms rated making capacity</b>	140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 450 A at 440 V for power circuit conforming to IEC 60947
<b>Rated breaking capacity</b>	450 A at 440 V for power circuit conforming to IEC 60947
<b>[Icw] rated short-time withstand current</b>	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
<b>Associated fuse rating</b>	10 A gG for signalling circuit conforming to IEC 60947-5-1 63 A gG at ≤ 690 V coordination type 1 for power circuit 40 A gG at ≤ 690 V coordination type 2 for power circuit
<b>Average impedance</b>	2 mOhm - Ith 40 A 50 Hz for power circuit
<b>[Ui] rated insulation voltage</b>	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
<b>Electrical durability</b>	1.65 Mcycles 25 A AC-3 at Ue ≤ 440 V 1.4 Mcycles 40 A AC-1 at Ue ≤ 440 V 1.65 Mcycles 25 A AC-3e at Ue ≤ 440 V
<b>Power dissipation per pole</b>	3.2 W AC-1 1.25 W AC-3 1.25 W AC-3e
<b>Front cover</b>	With
<b>Mounting support</b>	Rail Plate
<b>Standards</b>	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1
<b>Product certifications</b>	CCC LROS (Lloyds register of shipping) BV CSA GOST DNV UL RINA GL UKCA
<b>Connections - terminals</b>	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end Power circuit: screw clamp terminals 1 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1...10 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1.5...6 mm <sup>2</sup> flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1.5...10 mm <sup>2</sup> solid without cable end Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> solid without cable end
<b>Tightening torque</b>	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: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 2.5 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 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
<b>Operating time</b>	12...22 ms closing 4...19 ms opening
<b>Safety reliability level</b>	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
<b>Mechanical durability</b>	15 Mcycles

Maximum operating rate	3600 cyc/h 60 °C
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## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz 0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz 1...1.1 Uc (60...70 °C):operational AC 50/60 Hz
Inrush power in VA	70 VA 60 Hz cos phi 0.75 (at 20 °C) 70 VA 50 Hz cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	7.5 VA 60 Hz cos phi 0.3 (at 20 °C) 7 VA 50 Hz cos phi 0.3 (at 20 °C)
Heat dissipation	2...3 W at 50/60 Hz
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
Climatic withstand	conforming to IACS E10 conforming to IEC 60947-1 Annex Q category D
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
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	85 mm
Width	45 mm
Depth	92 mm
Product weight	0.37 kg

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	414.0 g
Package 1 Height	5 cm
Package 1 width	9.2 cm
Package 1 Length	11.2 cm
Unit Type of Package 2	S02

<b>Number of Units in Package 2</b>	20
<b>Package 2 Weight</b>	8.641 kg
<b>Package 2 Height</b>	15 cm
<b>Package 2 width</b>	30 cm
<b>Package 2 Length</b>	40 cm
<b>Package 3 Height</b>	77 cm

## Offer Sustainability

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

## Contractual warranty

<b>Warranty</b>	18 months
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