

Product data sheet

Specifications



TeSys Deca contactor - 4P(4 NO) - AC-1 - ≤ 440 V 25 A - 48 V AC 50/60 Hz coil

LC1DT25E7

Main

Range	TeSys TeSys Deca
Product name	TeSys D TeSys Deca
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	4 NO
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz Power circuit: ≤ 300 V DC
[Ie] rated operational current	25 A (at ≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	48 V AC 50/60 Hz
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 25 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 60947-5-1 250 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	30 A 40 °C - 10 min for power circuit 61 A 40 °C - 1 min for power circuit 105 A 40 °C - 10 s for power circuit 210 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	10 A gG for signalling circuit conforming to IEC 60947-5-1 40 A gG at ≤ 690 V coordination type 1 for power circuit 25 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Signalling circuit: 690 V conforming to IEC 60947-1
 Signalling circuit: 600 V CSA certified
 Signalling circuit: 600 V UL certified
 Power circuit: 690 V conforming to IEC 60947-4-1

Electrical durability	0.8 Mcycles 25 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	1.56 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 IEC 60335-1
Product certifications	CCC BV CSA DNV LROS (Lloyds register of shipping) UL RINA GOST GL
Connections - terminals	Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² solid without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² solid without cable end Power circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Power circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Power circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Power circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Power circuit: screw clamp terminals 1 cable(s) 1...4 mm ² solid without cable end Power circuit: screw clamp terminals 2 cable(s) 1...4 mm ² solid without cable end
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat \varnothing 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat \varnothing 6 mm Power 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 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Operating time	4...19 ms opening 12...22 ms closing
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	15 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U_c (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 U_c (-40...60 °C):operational AC 50 Hz 0.85...1.1 U_c (-40...60 °C):operational AC 60 Hz 1...1.1 U_c (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

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: 10 Gn for 11 ms

Height 85 mm

Width 45 mm

Depth 92 mm

Net weight 0.365 kg

Packing Units

Unit Type of Package 1 PCE

Number of Units in Package 1 1

Package 1 Weight 397 g

Package 1 Height 5.5 cm

Package 1 width 9.5 cm

Package 1 Length 11.7 cm

Unit Type of Package 2 S02

Number of Units in Package 2 16

Package 2 Weight 6.774 kg

Package 2 Height 15 cm

Package 2 width 30 cm

Package 2 Length 40 cm

Unit Type of Package 3 P06

Number of Units in Package 3 256

Package 3 Weight 117.632 kg

Package 3 Height 77 cm

Package 3 width 80 cm

Package 3 Length 60 cm

Offer Sustainability

Sustainable offer status Green Premium product

REACH Regulation [REACH Declaration](#)

REACH free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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