

Product data sheet

Specifications



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

LC1DT60AE7

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	60 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 60 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 60947-5-1 800 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	800 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	320 A 40 °C - 10 s for power circuit 720 A 40 °C - 1 s for power circuit 72 A 40 °C - 10 min for power circuit 165 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 80 A gG at ≤ 690 V coordination type 1 for power circuit 80 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	1.6 mOhm - Ith 60 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	1.4 Mcycles 60 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	5.8 W AC-1
Front cover	With
Mounting support	Rail Plate
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	RINA GL DNV CSA BV LROS (Lloyds register of shipping) GOST UL CCC
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 terminal 1 cable(s) 1...35 mm ² flexible without cable end Power circuit: screw clamp terminal 2 cable(s) 1...25 mm ² flexible without cable end Power circuit: screw clamp terminal 1 cable(s) 1...35 mm ² flexible with cable end Power circuit: screw clamp terminal 2 cable(s) 1...25 mm ² flexible with cable end Power circuit: screw clamp terminal 1 cable(s) 1...35 mm ² solid without cable end Power circuit: screw clamp terminal 2 cable(s) 1...25 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: 8 N.m - on screw clamp terminals - cable 25...35 mm ² hexagonal screw head 4 mm Power circuit: 5 N.m - on screw clamp terminals - cable 1...25 mm ² 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
Operating time	4...19 ms opening 12...26 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	6 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	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)
Heat dissipation	4...5 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

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 70 mm

Depth 120 mm

Net weight 1.09 kg

Packing Units

Unit Type of Package 1 PCE

Number of Units in Package 1 1

Package 1 Weight 1.088 kg

Package 1 Height 7.8 cm

Package 1 width 15.4 cm

Package 1 Length 13.6 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