

# Product data sheet

Specifications



## TeSys Deca contactor 3P 38A AC-3/AC-3e up to 440V coil 24-60V AC/DC

LC1D38BNE

### Main

<b>Range</b>	TeSys TeSys Deca
<b>Product name</b>	TeSys D Green 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-1 AC-3e
<b>Poles description</b>	3P
<b>Power pole contact composition</b>	3 NO
<b>[Ue] rated operational voltage</b>	Power circuit: $\leq 690$ V AC 25...400 Hz
<b>[Ie] rated operational current</b>	50 A (at $\leq 60$ °C) at $\leq 440$ V AC-1 for power circuit 38 A (at $\leq 60$ °C) at $\leq 440$ V AC-3 for power circuit 38 A (at $\leq 60$ °C) at $\leq 440$ V AC-3e for power circuit
<b>Motor power kW</b>	9 kW at 220...230 V AC 50 Hz (AC-3) 18.5 kW at 380...400 V AC 50 Hz (AC-3) 18.5 kW at 415 V AC 50 Hz (AC-3) 18.5 kW at 440 V AC 50 Hz (AC-3) 18.5 kW at 500 V AC 50 Hz (AC-3) 18.5 kW at 660...690 V AC 50 Hz (AC-3) 9 kW at 220...230 V AC 50 Hz (AC-3e) 18.5 kW at 380...400 V AC 50 Hz (AC-3e) 18.5 kW at 415 V AC 50 Hz (AC-3e) 18.5 kW at 440 V AC 50 Hz (AC-3e) 18.5 kW at 500 V AC 50 Hz (AC-3e) 18.5 kW at 660...690 V AC 50 Hz (AC-3e)
<b>Motor power HP (UL / CSA)</b>	2 hp at 115 V AC 60 Hz for 1 phase motors 5 hp at 230/240 V AC 60 Hz for 1 phase motors 10 hp at 200/208 V AC 60 Hz for 3 phases motors 10 hp at 230/240 V AC 60 Hz for 3 phases motors 20 hp at 460/480 V AC 60 Hz for 3 phases motors 25 hp at 575/600 V AC 60 Hz for 3 phases motors
<b>[Uc] control circuit voltage</b>	24...60 V AC 50/60 Hz 24...60 V DC
<b>Coil type</b>	AC/DC electronic
<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 50 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 60947-5-1 550 A at 440 V for power circuit conforming to IEC 60947
<b>Rated breaking capacity</b>	550 A at 440 V for power circuit conforming to IEC 60947
<b>[Icw] rated short-time withstand current</b>	100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit 60 A 40 °C - 10 min for power circuit 150 A 40 °C - 1 min for power circuit 310 A 40 °C - 10 s for power circuit 430 A 40 °C - 1 s for power 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 63 A gG at ≤ 690 V coordination type 2 for power circuit
<b>Average impedance</b>	2 mOhm - Ith 50 A 50 Hz for power circuit
<b>[Ui] rated insulation voltage</b>	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
<b>Electrical durability</b>	1.8 Mcycles 35 A AC-3 at Ue ≤ 440 V 0.9 Mcycles 50 A AC-1 at Ue ≤ 440 V 1.8 Mcycles 35 A AC-3e at Ue ≤ 440 V
<b>Power dissipation per pole</b>	5 W AC-1 3 W AC-3 3 W AC-3e
<b>Front cover</b>	With
<b>Mounting support</b>	Plate Rail
<b>Standards</b>	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
<b>Product certifications</b>	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping) 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 Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid 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 Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> solid
<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 Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 M4 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 M3.5
<b>Operating time</b>	45...55 ms closing 20...90 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
<b>Maximum operating rate</b>	3600 cyc/h 60 °C

## Complementary

<b>Coil technology</b>	Built-in bidirectional peak limiting
<b>Control circuit voltage limits</b>	≤ 0.1 U <sub>c</sub> (-40...70 °C):drop-out AC/DC

0.85...1.1 U<sub>c</sub> (-40...60 °C):operational AC  
 0.8...1.1 U<sub>c</sub> (-40...60 °C):operational DC  
 1...1.1 U<sub>c</sub> (60...70 °C):operational AC/DC

<b>Inrush power in VA</b>	15 VA 50/60 Hz (at 20 °C)
<b>Inrush power in W</b>	14 W at 20 °C
<b>Hold-in power consumption in VA</b>	0.9 VA (at 20 °C) 50/60 Hz
<b>Hold-in power consumption in W</b>	0.6 W at 20 °C
<b>Heat dissipation</b>	0.6 W at 50/60 Hz
<b>Auxiliary contacts type</b>	type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1
<b>Signalling circuit frequency</b>	25...400 Hz
<b>Minimum switching current</b>	5 mA for signalling circuit
<b>Minimum switching voltage</b>	17 V for signalling circuit
<b>Non-overlap time</b>	1.5 ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
<b>Insulation resistance</b>	> 10 MOhm for signalling circuit

## Environment

<b>IP degree of protection</b>	IP20 front face conforming to IEC 60529
<b>Climatic withstand</b>	conforming to IACS E10 conforming to IEC 60947-1 Annex Q category D
<b>Pollution degree</b>	3
<b>Ambient air temperature for storage</b>	-60...80 °C
<b>Operating altitude</b>	0...3000 m
<b>Fire resistance</b>	850 °C conforming to IEC 60695-2-1
<b>Mechanical robustness</b>	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
<b>Ambient air temperature for operation</b>	-40...60 °C 60...70 °C with derating
<b>Height</b>	85 mm
<b>Width</b>	45 mm
<b>Depth</b>	92 mm
<b>Net weight</b>	0.442 kg
<b>Colour</b>	Grey (SE GREY 6) Green (SE GREEN 2)

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	458.0 g
<b>Package 1 Height</b>	5.2 cm
<b>Package 1 width</b>	9.2 cm
<b>Package 1 Length</b>	11.2 cm
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	15

Package 2 Weight	7.174 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>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Product out of China RoHS scope. Substance declaration for your information
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
Halogen content performance	Halogen free plastic parts & cables product

## Contractual warranty

Warranty	18 months
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