

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 32 A - 220 V DC coil

Local distributor code: 381818526 LC1D32MD

### Main

Range	TeSys TeSys Deca
Product name	TeSys D TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-4 AC-3 AC-1 AC-3e
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25...400 Hz Power circuit: <= 300 V DC
[Ie] rated operational current	32 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 32 A (at <60 °C) at <= 440 V AC AC-3e 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) 7.5 kW at 220...230 V AC 50/60 Hz (AC-3e) 15 kW at 380...400 V AC 50/60 Hz (AC-3e) 15 kW at 415...440 V AC 50/60 Hz (AC-3e) 18.5 kW at 500 V AC 50/60 Hz (AC-3e) 18.5 kW at 660...690 V AC 50/60 Hz (AC-3e)
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	220 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uiimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III

<b>[I<sub>th</sub>] conventional free air thermal current</b>	10 A (at 60 °C) for signalling circuit 50 A (at 60 °C) for power circuit
<b>I<sub>rms</sub> 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>[I<sub>cw</sub>] rated short-time withstand current</b>	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
<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 - I <sub>th</sub> 50 A 50 Hz for power circuit
<b>[U<sub>i</sub>] 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 32 A AC-3 at U <sub>e</sub> <= 440 V 1.4 Mcycles 50 A AC-1 at U <sub>e</sub> <= 440 V 1.65 Mcycles 32 A AC-3e at U <sub>e</sub> <= 440 V
<b>Power dissipation per pole</b>	2 W AC-3 5 W AC-1 2 W AC-3e
<b>Front cover</b>	With
<b>Mounting support</b>	Rail Plate
<b>Standards</b>	IEC 60335-1
<b>Product certifications</b>	GL BV CCC DNV CSA UL LRROS (Lloyds register of shipping) GOST RINA 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>	53.55...72.45 ms closing 16...24 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>	30 Mcycles
<b>Maximum operating rate</b>	3600 cyc/h 60 °C

## Complementary

<b>Coil technology</b>	Built-in bidirectional peak limiting diode suppressor
<b>Control circuit voltage limits</b>	0.1...0.25 Uc (-40...70 °C):drop-out DC 0.7...1.25 Uc (-40...60 °C):operational DC 1...1.25 Uc (60...70 °C):operational DC
<b>Time constant</b>	28 ms
<b>Inrush power in W</b>	5.4 W (at 20 °C)
<b>Hold-in power consumption in W</b>	5.4 W at 20 °C
<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 MΩ 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>Protective treatment</b>	TH conforming to IEC 60068-2-30
<b>Pollution degree</b>	3
<b>Ambient air temperature for operation</b>	-40...60 °C 60...70 °C with derating
<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>Height</b>	85 mm
<b>Width</b>	45 mm
<b>Depth</b>	101 mm
<b>Net weight</b>	0.535 kg

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Weight</b>	580.0 g
<b>Package 1 Height</b>	5.4 cm
<b>Package 1 width</b>	9 cm
<b>Package 1 Length</b>	11 cm
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	15

Package 2 Weight	9.155 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 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	Yes
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>
PVC free	Yes

## Contractual warranty

Warranty	18 months
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