



Contactor, TeSys Deca, 3P(3 NO), AC-3/AC-3e, 0 to 440V, 38A, 230VAC 50/60Hz coil

LC1D38P7

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Range	TeSys TeSys Deca
Range of product	TeSys Deca
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-4 AC-1 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC
[le] rated operational current	50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 38 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] control circuit voltage	230 V AC 50/60 Hz

Complementary

Complementary	
Motor power kW	18.5 kW at 500 V AC 50/60 Hz (AC-3) 18.5 kW at 660690 V AC 50/60 Hz (AC-3) 7.5 kW at 400 V AC 50/60 Hz (AC-4) 18.5 kW at 380400 V AC 50/60 Hz (AC-3) 9 kW at 220230 V AC 50/60 Hz (AC-3) 18.5 kW at 415440 V AC 50/60 Hz (AC-3) 18.5 kW at 500 V AC 50/60 Hz (AC-3) 18.5 kW at 660690 V AC 50/60 Hz (AC-3e) 18.5 kW at 380400 V AC 50/60 Hz (AC-3e) 18.5 kW at 220230 V AC 50/60 Hz (AC-3e) 9 kW at 220230 V AC 50/60 Hz (AC-3e) 18.5 kW at 415440 V AC 50/60 Hz (AC-3e)
Motor power hp	10 hp at 230/240 V AC 50/60 Hz for 3 phases motors 10 hp at 200/208 V AC 50/60 Hz for 3 phases motors 5 hp at 240 V AC 50/60 Hz for 1 phase motors 20 hp at 480 V AC 50/60 Hz for 3 phases motors 25 hp at 600 V AC 50/60 Hz for 3 phases motors
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M2
Protective cover	With
[Ith] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 50 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 60947-5-1 550 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	550 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	60 A 40 °C - 10 min for power circuit 430 A 40 °C - 1 s for power circuit 150 A 40 °C - 1 min for power circuit 310 A 40 °C - 10 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 63 A gG at <= 690 V coordination type 1 for power circuit 63 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2 mOhm - Ith 50 A 50 Hz for power circuit
Power dissipation per pole	5 W AC-1 3 W AC-3 3 W AC-3e
[Ui] rated insulation voltage	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 Power circuit: 690 V conforming to IEC 60947-4-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
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
Electrical durability	1.4 Mcycles 50 A AC-1 at Ue <= 440 V 1.4 Mcycles 38 A AC-3 at Ue <= 440 V 1.4 Mcycles 38 A AC-3e at Ue <= 440 V
Control circuit type	AC at 50/60 Hz
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4060 °C):operational AC 50 Hz 0.851.1 Uc (-4060 °C):operational AC 60 Hz 11.1 Uc (6070 °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	23 W at 50/60 Hz
Operating time	419 ms opening 1222 ms closing
Maximum operating rate	3600 cyc/h 60 °C
Connections - terminals	Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 2.510 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1.56 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 1.510 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 1.510 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 2.510 mm² - cable stiffness: solid without cable end
Tightening torque	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

Auxiliary contact composition 1 NO + 1 NC Auxiliary contacts type per more contact. No conforming to IEC 60047-6-1 type mirror contact. Minimum switching outrent 5 m.A for signalling circuit. Minimum switching current 5 m.A for signalling circuit. Non-overlap time 1.5 ms on de-energisation between NC and NO contact. Is man on energisation between NC and NO contact. Environment Standards CSA C22 No 14 EN 60047-6-1 type to energisation between NC and NO contact. Environment Standards CSA C22 No 14 EN 60047-6-1 type type type type type type type type		
Signalling circuit frequency 25400 Hz Minimum awitching outreat 57 V for signalling oroult Minimum switching current 57 V for signalling oroult Insulation resistance 15 ms on de-energisation between NC and NC contact Non-overlap time 15 ms on de-energisation between NC and NC contact Mounting support Pale Rail Environment Standards (SA C222 No 14 EN 80047 4-1 EN 80047 4-1 EC 60047-5-1 EC 60047-5	Auxiliary contact composition	1 NO + 1 NC
Minimum switching voltage 17 V for signalling circuit Minimum switching ourrent 5 mA for signalling circuit Insulation resistance > 10 MChm for signalling circuit 1.5 ms on de energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact Mounting support Plate Rail Environment Standards CSA C22 2 No 14 EN 00047-6-1 EN	Auxiliary contacts type	
Minimum switching current Insulation resistance > 10 MOhm for signalling circuit Insulation resistance > 10 MOhm for signalling circuit 1.5 ms on de-anergisation between NC and NO contact 1.5 ms on energisation between NC and NO con	Signalling circuit frequency	25400 Hz
Insulation resistance > 10 MOhm 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 1.5 ms on energisation between NC and NO contact Plate Rail Environment Standards CSA C22.2 No 14 EN 8047-4-1 EC 60847-4-1 EC 60847-4-1 EC 60847-4-1 EC 60847-4-1 EC 60847-4-1 EC 60847-8-1 UL 508 EC 60835-1 Product certifications CSF CSS CSS CSS CSS CSS CSS CSS CSS CSS	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 energis and NO co	Minimum switching current	5 mA for signalling circuit
1.5 ms on energisation between NC and NO contact	Insulation resistance	> 10 MOhm for signalling circuit
Environment Standards CSA C22.2 No 14 EN 80947-4-1 EN 80947-4-1 EIC 60947-5-1 EIC 60947-1 EIC 60947-	Non-overlap time	
Standards CSA C22.2 No 14 EN 86947-4-1 EN 86947-4-1 ED 86947-4-1 ED 86947-5-1 UL 5698 EEC 60335-1 Product certifications GOST DNV RINA GL L ROS (Llayds register of shipping) BOSA COC UL IP degree of protection IP20 front face conforming to IEC 60529 Protective treatment TH conforming to IEC 60082-2-30 Climatic withstand conforming to IEC 60082-2-30 Climatic withstand conforming to IEC 60098-2-30 Permissible ambient air temperature around the device 0970 °C with deraing Operating altitude 03000 m Fire resistance 850 °C conforming to IEC 60095-2-1 Flame retardance V1 conforming to UL 94 Mechanical robustness Weather contactor copen (2 Gn. 5300 Hz) Vibrations contactor open (2 Gn. 5300 Hz) Vibrations contactor open (3 Gn. for 11 ms) Shocks contactor open (8 Gn for 11 ms) Shocks contactor open (8 Gn for 11 ms) Height 85 mm Depth 92 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Height 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Mounting support	
EN 80947-4-1 EN 80947-5-1 IEC 60947-5-1 UL 508 IEC 60335-1 Product certifications COST DNV RINA CL LROS (Lloyds register of shipping) BV CSA CCC UL IP degree of protection IP20 front face conforming to IEC 606529 Protective treatment TH conforming to IEC 60088-2-30 Conforming to IEC 60088-2-30 Conforming to IEC 60088-7-1 Annex Q category D exposure to damp heat conforming to IEC 60089-7-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600849-1 Annex Q category D exposure to damp heat conforming to IEC 600849-1 Annex Q category D exposure to damp heat conforming to IEC 600849-1 Annex Q category D exposure to damp heat conforming to IEC 600849-1 Annex Q category D exposure to damp heat conforming to IEC 600847-1 Annex Q category D exposure to damp heat conforming to IEC 600849-1 Annex Q catego	Environment	
DNV RINA GL LROS (Lloyds register of shipping) BV CSA CCC UL IP degree of protection	Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Protective treatment TH conforming to IEC 60068-2-30 Climatic withstand conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat endergo Coperating altitude Question and the device Operating altitude Question and the device Operating altitude Question and the device 850 °C conforming to IEC 60695-2-1 Flame retardance V1 conforming to UL 94 Mechanical robustness Vibrations contactor open (2 Gn. 5300 Hz) Shocks contactor closed (4 Gn. 5300 Hz) Shocks contactor closed (4 Gn. 5300 Hz) Shocks contactor open (8 Gn for 11 ms) Height 85 mm Width 45 mm Depth 92 mm Product weight Quits Unit Type of Package 1 PCE Number of Units in Package 1 Package 1 Height 9.2 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Product certifications	DNV RINA GL LROS (Lloyds register of shipping) BV CSA CCC
Climatic withstand conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat elementary temperature around the device 6070 °C with derating Operating altitude 03000 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 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 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 9.2 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	IP degree of protection	IP20 front face conforming to IEC 60529
conforming to IEC 60947-1 Annex Q category D exposure to damp heat Permissible ambient air temperature around the device Operating altitude 03000 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (15 Gn for 11 ms) Height 85 mm Width 45 mm Depth 92 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 Package 1 Height 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Protective treatment	TH conforming to IEC 60068-2-30
temperature around the device 6070 °C with derating Operating altitude 03000 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (15 Gn for 11 ms) Height 85 mm Width 45 mm Depth 92 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Climatic withstand	
Fire resistance 850 °C conforming to IEC 60695-2-1 Flame retardance V1 conforming to UL 94 Mechanical robustness Vibrations contactor open (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (15 Gn for 11 ms) Height 85 mm Width 45 mm Depth 92 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g		
Flame retardance V1 conforming to UL 94 Mechanical robustness Vibrations contactor open (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (14 Gn, 5300 Hz) Shocks contactor open (8 Gn for 11 ms) Height 85 mm Width 45 mm Depth 92 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Operating altitude	03000 m
Mechanical robustness Vibrations contactor open (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (15 Gn for 11 ms) Shocks contactor open (8 Gn for 11 ms) Height 85 mm Width 45 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Fire resistance	850 °C conforming to IEC 60695-2-1
Vibrations contactor closed (4 Gn, 5300 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 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Flame retardance	V1 conforming to UL 94
Width 45 mm Depth 92 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Mechanical robustness	Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor closed (15 Gn for 11 ms)
Depth 92 mm Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Height	85 mm
Product weight 0.38 kg Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Width	45 mm
Packing Units Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Depth	92 mm
Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Product weight	0.38 kg
Unit Type of Package 1 PCE Number of Units in Package 1 1 Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Packing Units	
Package 1 Height 5 cm Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g		PCE
Package 1 Width 9.2 cm Package 1 Length 11.2 cm Package 1 Weight 414 g	Number of Units in Package 1	1
Package 1 Length 11.2 cm Package 1 Weight 414 g	Package 1 Height	5 cm
Package 1 Weight 414 g	Package 1 Width	9.2 cm
	Package 1 Length	11.2 cm
Unit Type of Package 2 S02	Package 1 Weight	414 g
	Unit Type of Package 2	S02

Number of Units in Package 2	20
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	8.603 kg
Unit Type of Package 3	P06
Number of Units in Package 3	320
Package 3 Height	75 cm
Package 3 Width	60 cm
Package 3 Length	80 cm
Package 3 Weight	142.5 kg

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
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
RoHS exemption information	Yes
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

Recommended replacement(s)