Product datasheet

Specification





Contactor, TeSys Deca, 3P(3NO), AC-3/AC-3e, <=440V, 18A, 480V AC 50/60Hz coil, screw clamp terminals

LC1D18T7

Main

Range Of Product	TeSys Deca	
Product Or Component Type	Contactor	
Device Short Name	LC1D	
Contactor Application	Motor control Resistive load	
Utilisation Category	AC-1 AC-4 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	18 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 32 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 18 A (at <60 °C) at <= 440 V AC AC-3e for power circuit	
[Uc] Control Circuit Voltage	480 V AC 50/60 Hz	

Complementary

Motor Power Kw	4 kW at 220230 V AC 50/60 Hz (AC-3) 7.5 kW at 380400 V AC 50/60 Hz (AC-3) 9 kW at 415440 V AC 50/60 Hz (AC-3) 10 kW at 500 V AC 50/60 Hz (AC-3) 10 kW at 660690 V AC 50/60 Hz (AC-3) 4 kW at 400 V AC 50/60 Hz (AC-4) 4 kW at 220230 V AC 50/60 Hz (AC-3e) 7.5 kW at 380400 V AC 50/60 Hz (AC-3e) 9 kW at 415440 V AC 50/60 Hz (AC-3e) 10 kW at 500 V AC 50/60 Hz (AC-3e) 10 kW at 660690 V AC 50/60 Hz (AC-3e)	
Motor Power Hp	1 hp at 115 V AC 50/60 Hz for 1 phase motors 3 hp at 230/240 V AC 50/60 Hz for 1 phase motors 5 hp at 200/208 V AC 50/60 Hz for 3 phases motors 5 hp at 230/240 V AC 50/60 Hz for 3 phases motors 10 hp at 460/480 V AC 50/60 Hz for 3 phases motors 15 hp at 575/600 V AC 50/60 Hz for 3 phases motors	
Compatibility Code	LC1D	
Pole Contact Composition	3 NO	
Protective Cover	With	
[Ith] Conventional Free Air Thermal Current	10 A (at 60 °C) for signalling circuit 32 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 60947-5-1 300 A at 440 V for power circuit conforming to IEC 60947	
Rated Breaking Capacity	300 A at 440 V for power circuit conforming to IEC 60947	

[Icw] Rated Short-Time Withstand	145 A 40 °C - 10 s for power circuit
Current	240 A 40 °C - 1 s for power circuit
	40 A 40 °C - 10 min for power circuit
	84 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 aC for signalling significant conforming to IEC 60047 F.1
Associated I use Nating	10 A gG for signalling circuit conforming to IEC 60947-5-1
	50 A gG at <= 690 V coordination type 1 for power circuit
	35 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	2.5 mOhm - Ith 32 A 50 Hz for power circuit
Power Dissipation Per Pole	2.5 W AC-1
	0.8 W AC-3
	0.8 W AC-3e
[Ui] Rated Insulation Voltage	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
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	1.65 Mcycles 18 A AC-3 at Ue <= 440 V
	1 Mcycles 32 A AC-1 at Ue <= 440 V
	1.65 Mcycles 18 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	
musii i owei iii 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.\/\\ 60.Hz coc.nhi 0.3.(at 20.°C)
nord-in rower 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	1222 ms closing
	419 ms opening
Maximum Operating Rate	3600 cyc/h 60 °C
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Connections - Terminals	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 2 12.5 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 1.56 mm² - cable stiffness: flexible without
	cable end
	Power circuit: screw clamp terminals 2 1.56 mm² - cable stiffness: flexible without cable end
	Power circuit: screw clamp terminals 1 16 mm ² - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 2 14 mm ² - cable stiffness: flexible with cable end
	Power circuit: screw clamp terminals 1 1.56 mm ² - cable stiffness: solid without cable end
	Power circuit: screw clamp terminals 2 1.56 mm² - cable stiffness: solid without cable end
Tightoning Torque	
Tightening Torque	Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 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 flat Ø 6 mm Control 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: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2
Auxiliary Contact Composition	1 NO + 1 NC
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	25400 Hz
Minimum Switching Voltage	17 V for signalling circuit
Minimum Switching Current	5 mA for signalling circuit
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
Mounting Support	Plate Rail
Environment	
 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	UL
	GOST BV
	CCC
	GL
	DNV LROS (Lloyds register of shipping)
	RINA
	CSA UKCA
Ip Degree Of Protection	IP20 front face conforming to IEC 60529
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
	Consoming to ite observer Annex & category of exposure to damp near

Permissible Ambient Air Temperature Around The Device	-4060 °C 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 open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms)
Height	77 mm
Width	45 mm
Depth	86 mm
Net Weight	0.33 kg

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	11.2 cm
Package 1 Width	9.0 cm
Package 1 Length	4.8 cm
Package 1 Weight	355.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	20
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	7.555 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	320
Package 3 Height	77.0 cm
Package 3 Width	80.0 cm
Package 3 Length	60.0 cm
Package 3 Weight	120.1 kg

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

⊘	Reach Free Of Svhc
⊘	Toxic Heavy Metal Free
⊘	Mercury Free
②	Rohs Exemption Information Yes
⊘	Pvc Free

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant EU RoHS Declaration
China Rohs Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information