# **Product datasheet**

Specifications





CONTACTOR 600VAC 50AMP IEC +OPTIONS

Local distributor code: 402814153

LC1D50U7

Discontinued on: 5 Apr 2022

EAN Code: 3389110427592

#### Main

Range	TeSys
Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Resistive load Motor control
Utilisation Category	AC-3 AC-4 AC-2 AC-1 AC-3e
Poles Description	3P
[Ue] Rated Operational Voltage	Power circuit: <= 690 V AC 25400 Hz
[le] Rated Operational Current	50 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 50 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
[Uc] Control Circuit Voltage	240 V AC 50/60 Hz

### Complementary

Motor Power Kw	22 kW at 380400 V AC 50 Hz (AC-3)
	25 kW at 415 V AC 50 Hz (AC-3)
	30 kW at 440 V AC 50 Hz (AC-3)
	30 kW at 500 V AC 50 Hz (AC-3)
	33 kW at 660690 V AC 50 Hz (AC-3)
	15 kW at 220230 V AC 50 Hz (AC-3)
	11 kW at 400 V AC 50 Hz (AC-4)
	30 kW at 1000 V AC 50 Hz (AC-3)
	22 kW at 380400 V AC 50 Hz (AC-3e)
	25 kW at 415 V AC 50 Hz (AC-3e)
	30 kW at 440 V AC 50 Hz (AC-3e)
	30 kW at 500 V AC 50 Hz (AC-3e)
	33 kW at 660690 V AC 50 Hz (AC-3e)
	15 kW at 220230 V AC 50 Hz (AC-3e)
	30 kW at 1000 V AC 50 Hz (AC-3e)
Motor Power Hp	3 hp at 115 V AC 60 Hz for 1 phase motors
	7.5 hp at 230/240 V AC 60 Hz for 1 phase motors
	15 hp at 200/208 V AC 60 Hz for 3 phases motors
	15 hp at 230/240 V AC 60 Hz for 3 phases motors
	40 hp at 460/480 V AC 60 Hz for 3 phases motors
	40 hp at 575/600 V AC 60 Hz for 3 phases motors
Compatibility Code	LC1D
Pole Contact Composition	3 NO
Protective Cover	With

[Ith] Conventional Free Air Thermal Current Irms Rated Making Capacity Rated Breaking Capacity Associated Fuse Rating	10 A (at 60 °C) for control circuit     80 A (at 60 °C) for power circuit     900 A at 440 V for power circuit conforming to IEC 60947     140 A AC for control circuit conforming to IEC 60947-5-1     900 A at 440 V for power circuit conforming to IEC 60947     10 A gG for control circuit conforming to IEC 60947-5-1     100 A gG at <= 690 V coordination type 1 for power circuit     100 A gG at <= 690 V coordination type 2 for power circuit
Rated Breaking Capacity	140 A AC for control circuit conforming to IEC 60947-5-1     900 A at 440 V for power circuit conforming to IEC 60947     10 A gG for control circuit conforming to IEC 60947-5-1     100 A gG at <= 690 V coordination type 1 for power circuit
	10 A gG for control circuit conforming to IEC 60947-5-1 100 A gG at <= 690 V coordination type 1 for power circuit
Associated Fuse Rating	100 A gG at <= 690 V coordination type 1 for power circuit
Power Dissipation Per Pole	3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e
[Ui] Rated Insulation Voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1
Overvoltage Category	III
[Uimp] Rated Impulse Withstand Voltage	8 kV conforming to IEC 60947
Safety Reliability Level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical Durability	6000000 cycles
Control Circuit Type	AC at 50/60 Hz
Coil Technology	Without built-in bidirectional peak limiting diode suppressor
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	140 VA cos phi 0.75 (at 20 °C) 160 VA 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	45 W at 50/60 Hz for control circuit
Operating Time	419 ms opening 1226 ms closing
Maximum Operating Rate	3600 cyc/h 60 °C
Connections - Terminals	Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: rigid Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: rigid Control circuit: screw clamp terminals 1 14 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm <sup>2</sup> - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 12.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 12.5 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw terminals 1 2.525 mm <sup>2</sup> - cable stiffness: rigid Power circuit: screw terminals 2 2.516 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.516 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.516 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.516 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.516 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.516 mm <sup>2</sup> - cable stiffness: flexible without cable end Power circuit: screw terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible with cable end Power circuit: screw terminals 2 2.510 mm <sup>2</sup> - cable stiffness: flexible with cable end
Tightening Torque	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.7 N.m - on screw clamp terminal - 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
Minimum Switching Voltage	17 V for control circuit
Minimum Switching Current	5 mA for control circuit
Insulation Resistance	> 10 MOhm for control circuit
Non-Overlap Time	1.5 ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Mounting Support	Rail Plate

#### Environment

Standards	IEC 60947-5-1 EN 60947-4-1 UL 508 CSA C22.2 No 14 EN 60947-5-1 IEC 60947-4-1	
Product Certifications	BV CCC LROS (Lloyds register of shipping) DNV GOST GL RINA UL CSA UKCA	
Ip Degree Of Protection	IP2X conforming to IEC 60529 IP2X conforming to VDE 0106	
Climatic Withstand	conforming to IACS E10 exposure to damp heat	
Operating Altitude	03000 m	
Fire Resistance	850 °C conforming to IEC 60695-2-1	
Flame Retardance	V1 conforming to UL 94	
Mechanical Robustness	Shocks contactor opened (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz)	
Height	127 mm	
Width	75 mm	
Depth	119 mm	
Net Weight	1.4 kg	

# **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	12.500 cm
Package 1 Width	13.200 cm
Package 1 Length	8.200 cm
Package 1 Weight	1.431 kg
Unit Type Of Package 2	S02
Number Of Units In Package 2	5

Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	7.561 kg

### **Contractual warranty**

Warranty

18 months

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## Sustainability Screen Premium

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Guide to assess a product's sustainability >



Transparency RoHS/REACh

### Well-being performance

Reach Free Of Svhc
Toxic Heavy Metal Free
Mercury Free
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	No need of specific recycling operations