# Product data sheet

Specifications





(!) Discontinued

TeSys Deca contactor , 4P(4 NO) , AC-1 , <= 440V, 80 A , 48V DC standard coil

LC1DT80AED

- ! Discontinued on: Sep 15, 2023
- ! To be end-of-service on: Dec 31, 2024

Product availability: Non-Stock - Not normally stocked in distribution facility

#### Main

Range	TeSys TeSys Deca
Range Of Product	TeSys Deca
Product Or Component Type	Contactor
Device Short Name	LC1D
Contactor Application	Resistive load
Utilisation Category	AC-1
Poles Description	4P
[Ue] Rated Operational Voltage	Power circuit <= 690 V AC 25400 Hz Power circuit <= 300 V DC
[le] Rated Operational Current	80 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit
[Uc] Control Circuit Voltage	48 V DC

#### **Complementary**

Compatibility Code	LC1D
Pole Contact Composition	4 NO
Protective Cover	With
[Ith] Conventional Free Air Thermal Current	10 A (at 140 °F (60 °C)) for signalling circuit 80 A (at 140 °F (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 1000 A at 440 V for power circuit conforming to IEC 60947
Rated Breaking Capacity	1000 A at 440 V for power circuit conforming to IEC 60947
[Icw] Rated Short-Time Withstand Current	640 A 104 °F (40 °C) - 10 s for power circuit 900 A 104 °F (40 °C) - 1 s for power circuit 110 A 104 °F (40 °C) - 10 min for power circuit 260 A 104 °F (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 gG for signalling circuit conforming to IEC 60947-5-1 125 A gG at <= 690 V coordination type 1 for power circuit 125 A gG at <= 690 V coordination type 2 for power circuit
Average Impedance	1.6 mOhm - Ith 80 A 50 Hz for power circuit
Power Dissipation Per Pole	10.2 W AC-1

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

[Ui] Rated Insulation Voltage	Power circuit 600 V CSA Power circuit 600 V UL Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL Power circuit 690 V IEC 60947-4-1	
Overvoltage Category	III	
Pollution Degree	3	
[Uimp] Rated Impulse Withstand Voltage	6 kV IEC 60947	
Safety Reliability Level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1	
Mechanical Durability	10 Mcycles	
Electrical Durability	0.5 Mcycles 80 A AC-1 <= 440 V	
Control Circuit Type	DC standard	
Coil Technology	Built-in bidirectional peak limiting diode suppressor	
Control Circuit Voltage Limits	0.10.3 Uc -40158 °F (-4070 °C) drop-out DC 0.751.25 Uc -40140 °F (-4060 °C) operational DC 11.25 Uc 140158 °F (6070 °C) operational DC	
Inrush Power In W	19 W 68 °F (20 °C))	
Hold-In Power Consumption In W	7.4 W 68 °F (20 °C)	
Operating Time	50 ±15 % ms closing 1624 ms opening	
Time Constant 34 ms		
Maximum Operating Rate	3600 cyc/h 140 °F (60 °C)	
Connections - Terminals	Control circuit: screw clamp terminals 2 0.0020.004 in² (12.5 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.0020.006 in² (14 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.0020.006 in² (14 mm²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.0020.006 in² (14 mm²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.0020.006 in² (14 mm²) - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 0.0020.006 in² (14 mm²) - cable stiffness: solid without cable end Power circuit: screw connection 1 0.0020.05 in² (135 mm²) - cable stiffness: flexible without cable end Power circuit: screw connection 2 0.0020.04 in² (125 mm²) - cable stiffness: flexible without cable end Power circuit: screw connection 1 0.0020.05 in² (135 mm²) - cable stiffness: flexible with cable end Power circuit: screw connection 2 0.0020.04 in² (135 mm²) - cable stiffness: flexible with cable end Power circuit: screw connection 1 0.0020.05 in² (135 mm²) - cable stiffness: flexible with cable end Power circuit: screw connection 2 0.0020.04 in² (125 mm²) - cable stiffness: solid without cable end Power circuit: screw connection 2 0.0020.05 in² (135 mm²) - cable stiffness: solid without cable end Power circuit: screw connection 2 0.0020.05 in² (135 mm²) - cable stiffness: solid without cable end	
Tightening Torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 70.8 lbf.in (8 N.m) screw clamp terminals 0.040.05 in² (2535 mm²) hexagonal 0.2 in (4 mm) Power circuit 44.3 lbf.in (5 N.m) screw clamp terminals 0.0020.04 in² (125 mm²) hexagonal 0.2 in (4 mm) Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 22.1 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2	
Auxiliary Contact Composition	1 NO + 1 NC	
Auxiliary Contacts Type Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1		

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
	IEC 00333-1
Product Certifications	GOST
	BV
	GL
	UL
	RINA
	CCC
	CSA
	LROS (Lloyds register of shipping) DNV
	DNV
Ip Degree Of Protection	IP20 front face IEC 60529
Protective Treatment	THIEC 60068-2-30
Climatic Withstand	IACS E10 exposure to damp heat
	IEC 60947-1 Annex Q category D exposure to damp heat
Permissible Ambient Air	-40140 °F (-4060 °C)
Temperature Around The Device	140158 °F (6070 °C) with derating
Operating Altitude	0. 0942 52 ft (0. 2000 m)
——————————————————————————————————————	09842.52 ft (03000 m)
Fire Resistance	1562 °F (850 °C) IEC 60695-2-1
Flame Retardance	V4 conforming to LIL 04
- I ame Netardance	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 10 Gn for 11 ms)
	Shocks contactor open to Girlor 11 his)
Height	4.8 in (122 mm)
Width	2.8 in (70 mm)
Depth	4.7 in (120 mm)
Net Weight	2.701 lb(US) (1.225 kg)

# Ordering and shipping details

Category	US10l1222358
Discount Schedule	0112
Gtin	3389119409377
Returnability	No
Country Of Origin	FR

## **Packing Units**

Unit Type Of Package 1	PCE		

Number Of Units In Package 1	1
Package 1 Height	3.0 in (7.5 cm)
Package 1 Width	5.4 in (13.8 cm)
Package 1 Length	6.02 in (15.3 cm)
Package 1 Weight	2.540 lb(US) (1.152 kg)
Unit Type Of Package 2	S02
Number Of Units In Package 2	7
Package 2 Height	5.9 in (15.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	18.664 lb(US) (8.466 kg)

## **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

#### Well-being performance

<b>⊘</b>	Reach Free Of Svhc
<b>⊘</b>	Toxic Heavy Metal Free
<b>⊘</b>	Mercury Free
<b>⊘</b>	Rohs Exemption Information Yes
<b>②</b>	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
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