Product data sheet

Specifications





TeSys

IEC contactor, TeSys Deca, nonreversing, 20A resistive, 4 pole, 4 NO, 24VAC 50/60Hz coil, open style

LC1DT20B7

Product availability: Stock - Normally stocked in distribution facility

Main Range

	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	20 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit	
[Uc] Control Circuit Voltage	24 V AC 50/60 Hz	
Complementary		
Compatibility Code	LC1D	
Pole Contact Composition	4 NO	
Contact Compatibility	M6	
Protective Cover	With	
[Ith] Conventional Free Air Thermal Current	10 A (at 140 °F (60 °C)) for signalling circuit 20 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 60947-5-1 250 A at 440 V for power circuit conforming to IEC 60947	
Rated Breaking Capacity	250 A at 440 V for power circuit conforming to IEC 60947	
[Icw] Rated Short-Time Withstand Current	and 30 A 104 °F (40 °C) - 10 min for power circuit 61 A 104 °F (40 °C) - 1 min for power circuit 105 A 104 °F (40 °C) - 10 s for power circuit 210 A 104 °F (40 °C) - 1 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 25 A gG at <= 690 V coordination type 1 for power circuit	

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

2.5 mOhm - Ith 20 A 50 Hz for power circuit

20 A gG at <= 690 V coordination type 2 for power circuit

Average Impedance

Power Dissipation Per Pole	1.56 W AC-1	
[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	15 Mcycles	
Control Circuit Type	AC 50/60 Hz	
Coil Technology	Without built-in suppressor module	
Control Circuit Voltage Limits	0.30.6 Uc -40158 °F (-4070 °C) drop-out AC 50/60 Hz 0.81.1 Uc -40140 °F (-4060 °C) operational AC 50 Hz 0.851.1 Uc -40140 °F (-4060 °C) operational AC 60 Hz 11.1 Uc 140158 °F (6070 °C) operational AC 50/60 Hz	
Inrush Power In Va	70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C)) 70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))	
Hold-In Power Consumption In Va	7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C)) 7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))	
Heat Dissipation	23 W at 50/60 Hz	
Operating Time	419 ms opening 1222 ms closing	
Maximum Operating Rate	3600 cyc/h 140 °F (60 °C)	
Connections - Terminals Control circuit: screw clamp terminals 2 0.000.00 in² (12.5 mm²) - cable flexible with cable end Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiflexible without cable end Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiflexible without cable end Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiflexible with cable end Control circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stiflexible without cable end Control circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stiflexible without cable end Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stifflexible without cable end Power circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stifflexible without cable end Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stifflexible with cable end Power circuit: screw clamp terminals 2 0.000.01 in² (12.5 mm²) - cable stifflexible with cable end Power circuit: screw clamp terminals 1 0.000.01 in² (14 mm²) - cable stifflexible with cable end Power circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stifflexible with cable end Power circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stifflexible with cable end Power circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stifflexible with cable end Power circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stifflexible with cable end Power circuit: screw clamp terminals 2 0.000.01 in² (14 mm²) - cable stifflexible with 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 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2	
	Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2	
Auxiliary Contact Composition	1 NO + 1 NC	
Auxiliary Contact Composition Auxiliary Contacts Type Signalling Circuit Frequency	1 NO + 1 NC Mechanically linked 1 NO + 1 NC IEC 60947-5-1	

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	
Product Certifications	GOST UL CSA RINA CCC BV GL LROS (Lloyds register of shipping) 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 Temperature Around The Device	-40140 °F (-4060 °C) 140158 °F (6070 °C) with derating	
Operating Altitude	09842.52 ft (03000 m)	
Fire Resistance	1562 °F (850 °C) 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 10 Gn for 11 ms)	
Height	3.35 in (85 mm)	
Width	1.77 in (45 mm)	
Depth	3.62 in (92 mm)	
Net Weight	0.80 lb(US) (0.365 kg)	

Ordering and shipping details

Category	US10I1222354
Discount Schedule	0112
Gtin	3389110244496
Returnability	Yes
Country Of Origin	US

Packing Units

Unit Type Of Package 1	PCE		

Number Of Units In Package 1	1	
Package 1 Height	2.17 in (5.500 cm)	
Package 1 Width	3.66 in (9.300 cm)	
Package 1 Length	4.61 in (11.700 cm)	
Package 1 Weight	13.90 oz (394.000 g)	
Unit Type Of Package 2	S02	
Number Of Units In Package 2	16	
Package 2 Height	5.91 in (15.000 cm)	
Package 2 Width	11.81 in (30.000 cm)	
Package 2 Length	15.75 in (40.000 cm)	
Package 2 Weight	15.25 lb(US) (6.917 kg)	
Unit Type Of Package 3	P06	
Number Of Units In Package 3	192	
Package 3 Height	29.53 in (75.000 cm)	
Package 3 Width	23.62 in (60.000 cm)	
Package 3 Length	31.50 in (80.000 cm)	
Package 3 Weight	201.73 lb(US) (91.504 kg)	

Contractual warranty

Warranty 18 months



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Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance

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

Certifications & Standards

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