Product data sheet

Specifications

Discontinued

TeSys Deca reversing contactor - 3P(3 NO) - AC-3 - <= 440 V 12 A - 240 V AC coil

LC2D12U7V

Discontinued on: Jun 30, 2022

End-of-service on: Jul 20, 2022

Main

Range	TeSys
Product name	TeSys Deca
Product or component type	Reversing contactor
Device short name	LC2D
contactor application	Motor control Resistive load
Utilisation category	AC-3 AC-1
device presentation	Preassembled with reversing power busbar
poles description	3P
power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit <= 690 V AC 25...400 Hz Power circuit <= 300 V DC
[Ie] rated operational current	25 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit 12 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit
Motor power kW	3 kW at 220...230 V AC 50 Hz 5.5 kW at 380...400 V AC 50 Hz 5.5 kW at 415...440 V AC 50 Hz 7.5 kW at 500 V AC 50 Hz 7.5 kW at 660...690 V AC 50 Hz
motor power HP (UL / CSA)	1 hp at 115 V AC 60 Hz for 1 phase motors 2 hp at 230/240 V AC 60 Hz for 1 phase motors 3 hp at 200/208 V AC 60 Hz for 3 phases motors 3 hp at 230/240 V AC 60 Hz for 3 phases motors 7.5 hp at 460/480 V AC 60 Hz for 3 phases motors 10 hp at 575/600 V AC 60 Hz for 3 phases motors
Control circuit type	AC 50/60 Hz
[Uc] control circuit voltage	240 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	10 A (at 140 °F (60 °C)) for signalling circuit 25 A (at 140 °F (60 °C)) for power circuit
Irms rated making capacity	250 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	250 A at 440 V for power circuit conforming to IEC 60947

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

[Icw] rated short-time withstand current	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 40 A gG at <= 690 V coordination type 1 for power circuit 25 A gG at <= 690 V coordination type 2 for power circuit
Average impedance	2.5 mOhm - Ith 25 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit 690 V IEC 60947-4-1 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
Electrical durability	2 Mcycles 12 A AC-3 <= 440 V 0.8 Mcycles 25 A AC-1 <= 440 V
Power dissipation per pole	1.56 W AC-1 0.36 W AC-3
Front cover	With
Interlocking type	Electrical and mechanical
Mounting support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	CSA UL RINA DNV GL CCC GOST BV LROS (Lloyds register of shipping)
Connections - terminals	Power circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)solid Power circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)solid Control circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.002…0.004 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.002…0.006 in² (1…4 mm²)solid Control circuit screw clamp terminals 2 0.002…0.006 in² (1…4 mm²)solid
Tightening torque	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 flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2
Operating time	12...22 ms closing 4...19 ms opening

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
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc -40…158 °F (-40…70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40…140 °F (-40…60 °C) operational AC 50 Hz 0.85...1.1 Uc -40…140 °F (-40…60 °C) operational AC 60 Hz 1...1.1 Uc 140…158 °F (60…70 °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	2…3 W 50/60 Hz
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching current	5 mA for signalling circuit
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 energisation between NC and NO contact
Insulation resistance	> 10 MOhm for signalling circuit

Environment

IP degree of protection	IP20 front face IEC 60529
Climatic withstand	IACS E10 IEC 60947-1 Annex Q category D
Protective treatment	TH IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-40…140 °F (-40…60 °C) 140…158 °F (60…70 °C) with derating
Ambient air temperature for storage	-76…176 °F (-60…80 °C)
Operating altitude	0...3000 m
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 UL 94
Mechanical robustness	Vibrations contactor open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor open10 Gn for 11 ms Shocks contactor closed15 Gn for 11 ms
Height	3.03 in (77 mm)
Width	3.5 in (90 mm)
Depth	3.4 in (86 mm)
Net weight	1.537 lb(US) (0.697 kg)

Packing Units

Unit Type of Package 1	PCE

Number of Units in Package 1	1
Package 1 Height	3.7 in (9.4 cm)
Package 1 Width	4.5 in (11.4 cm)
Package 1 Length	4.3 in (11 cm)
Package 1 Weight	25.7 oz (730 g)

Contractual warranty

Warranty	18 months

Sustainability

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Guide to assess a product's sustainability >

RoHS/REACh

Well-being performance

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

Certifications & Standards

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