Product data sheet

Specification





Reversing Contactor, TeSys Deca, 3P(3NO),AC-3, <=440V 12A,110V DC coil, screw clamp terminals

LC2D12FD

Main

IVIAIII	
Range	TeSys TeSys Deca
Product name	TeSys Deca 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 25400 Hz Power circuit <= 300 V DC
[le] 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 220230 V AC 50 Hz 5.5 kW at 380400 V AC 50 Hz 5.5 kW at 415440 V AC 50 Hz 7.5 kW at 500 V AC 50 Hz 7.5 kW at 660690 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	DC standard
[Uc] control circuit voltage	110 V DC
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

[lcw] 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	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
	IEC 60335-1
Product certifications	DNV
	CSA
	CCC
	UL GL
	LROS (Lloyds register of shipping)
	BV
	RINA
	GOST UKCA
Connections - terminals	Power circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible without
	cable end
	Power circuit screw clamp terminals 2 0.000.01 in ² (14 mm ²)flexible without cable end
	Power circuit screw clamp terminals 1 0.000.01 in² (14 mm²)flexible with cable
	end Power circuit screw clamp terminals 2 0.000.00 in² (12.5 mm²)flexible with cable
	end
	Power circuit screw clamp terminals 1 0.000.01 in² (14 mm²)solid
	Power circuit screw clamp terminals 2 0.000.01 in² (14 mm²)solid Control circuit screw clamp terminals 1 0.0020.006 in² (14 mm²)flexible without
	cable end
	Control circuit screw clamp terminals 2 0.0020.006 in² (14 mm²)flexible without cable end
	Control circuit screw clamp terminals 1 0.0020.006 in² (14 mm²)flexible with
	cable end
	Control circuit screw clamp terminals 2 0.0020.004 in ² (12.5 mm ²)flexible with
	cable end Control circuit screw clamp terminals 1 0.000.01 in² (14 mm²)solid
	Control circuit screw clamp terminals 2 0.000.01 in² (14 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 hat 8 0 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

Operating time	53.5572.45 ms closing 1624 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	30 Mcycles
Maximum operating rate	3600 cyc/h 140 °F (60 °C)

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor
Control circuit voltage limits	0.10.25 Uc -40158 °F (-4070 °C) drop-out DC 0.71.25 Uc -40140 °F (-4060 °C) operational DC 11.25 Uc 140158 °F (6070 °C) operational DC
Time constant	28 ms
Inrush power in W	5.4 W 68 °F (20 °C))
Hold-in power consumption in W	5.4 W 68 °F (20 °C)
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25400 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	-40140 °F (-4060 °C) 140158 °F (6070 °C) with derating	
ambient air temperature for storage	-76176 °F (-6080 °C)	
Operating altitude	03000 m	
Fire resistance	1562 °F (850 °C) IEC 60695-2-1	
Flame retardance	V1 UL 94	
Mechanical robustness	Vibrations contactor open2 Gn, 5300 Hz Vibrations contactor closed4 Gn, 5300 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	3.7 in (95 mm)	
net weight	2.26 lb(US) (1.027 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	25.75 oz (730 g)	
Unit Type of Package 2	S02	
Number of Units in Package 2	8	
Package 2 Height	5.9 in (15 cm)	
Package 2 Width	11.8 in (30 cm)	
Package 2 Length	15.7 in (40 cm)	
Package 2 Weight	13.88 lb(US) (6.295 kg)	
Unit Type of Package 3	P06	
Number of Units in Package 3	128	
Package 3 Height	30.3 in (77 cm)	
Package 3 Width	31.5 in (80 cm)	
Package 3 Length	23.6 in (60 cm)	
Package 3 Weight	240.79 lb(US) (109.22 kg)	

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

	Mercury Free	
②	Rohs Exemption Information	Yes
	Pvc Free	

Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Compliant with Exemptions
China Rohs Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information