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Product data sheet
Characteristics

LC1D25FD
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 25 A - 110 V DC coil

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Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-3 AC-4 AC-1
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 140 °F (60 °C)) <= 440 V AC AC-3 power circuit 40 A 140 °F (60 °C)) <= 440 V AC AC-1 power circuit
Motor power kW	5.5 KW 220...230 V AC 50/60 Hz AC-3) 11 KW 380...400 V AC 50/60 Hz AC-3) 11 KW 415...440 V AC 50/60 Hz AC-3) 15 KW 500 V AC 50/60 Hz AC-3) 15 KW 660...690 V AC 50/60 Hz AC-3) 5.5 kW 400 V AC 50/60 Hz AC-4)
Motor power HP (UL / CSA)	3 Hp 230/240 V AC 50/60 Hz 1 phase 2 Hp 115 V AC 50/60 Hz 1 phase 7.5 Hp 230/240 V AC 50/60 Hz 3 phase 15 Hp 460/480 V AC 50/60 Hz 3 phase 20 Hp 575/600 V AC 50/60 Hz 3 phase 7.5 hp 200/208 V AC 50/60 Hz 3 phase
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 140 °F (60 °C) signalling circuit 40 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 450 A 440 V power circuit IEC 60947
Rated breaking capacity	450 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	240 A 104 °F (40 °C) - 10 s power circuit 380 A 104 °F (40 °C) - 1 s power circuit 50 A 104 °F (40 °C) - 10 min power circuit 120 A 104 °F (40 °C) - 1 min power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 63 A gG <= 690 V type 1 power circuit 40 A gG <= 690 V type 2 power circuit
Average impedance	2 mOhm - Ith 40 A 50 Hz 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	1.65 Mcycles 25 A AC-3 <= 440 V 1.4 Mcycles 40 A AC-1 <= 440 V
Power dissipation per pole	3.2 W AC-1 1.25 W AC-3

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Front cover	With
Mounting support	Plate Rail
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	RINA DNV BV UL CSA GL GOST CCC LROS (Lloyds register of shipping)
Connections - terminals	Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid without cable end Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid without cable end Power circuit screw clamp terminals 1 0.00…0.02 in² (2.5…10 mm²)flexible without cable end Power circuit screw clamp terminals 2 0.00…0.02 in² (2.5…10 mm²)flexible without cable end Power circuit screw clamp terminals 1 0.00…0.02 in² (1…10 mm²)flexible with cable end Power circuit screw clamp terminals 2 0.00…0.01 in² (1.5…6 mm²)flexible with cable end Power circuit screw clamp terminals 1 0.00…0.02 in² (1.5…10 mm²)solid without cable end Power circuit screw clamp terminals 2 0.00…0.02 in² (2.5…10 mm²)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 22.13 lbf.in (2.5 N.m) screw clamp terminals flat Ø 6 mm Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals Philips No 2
Operating time	53.55...72.45 ms closing 16...24 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	0.1...0.25 Uc -40…158 °F (-40…70 °C) drop-out DC 0.7...1.25 Uc -40…140 °F (-40…60 °C) operational DC 1...1.25 Uc 140…158 °F (60…70 °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	25...400 Hz
Minimum switching current	5 mA signalling circuit

Minimum switching voltage	17 V 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 signalling circuit
Contact compatibility	M4
Compatibility code	LC1D

Environment

IP degree of protection	IP20 front face IEC 60529
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...9842.52 ft (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 closed15 Gn for 11 ms Shocks contactor open: 8 Gn for 11 ms
Height	3.35 in (85 mm)
Maximum Width	1.77 in (45 mm)
Depth	3.98 in (101 mm)
Net Weight	1.17 lb(US) (0.53 kg)

Ordering and shipping details

Category	22355 - CTR,TESYS D,OPEN,9-38A DC
Discount Schedule	I12
GTIN	00785901549543
Nbr. of units in pkg.	1
Package weight(Lbs)	1.3 lb(US) (0.59 kg)
Returnability	No
Country of origin	FR

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	2.01 in (5.1 cm)
Package 1 width	3.62 in (9.2 cm)
Package 1 Length	4.41 in (11.2 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Weight	19.71 lb(US) (8.94 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Unit Type of Package 3	P06
Number of Units in Package 3	240
Package 3 Weight	343.26 lb(US) (155.7 kg)
Package 3 Height	31.50 in (80 cm)
Package 3 width	31.50 in (80 cm)
Package 3 Length	23.62 in (60 cm)

Offer Sustainability

Sustainable offer status	Green Premium product
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
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

Contractual warranty

Warranty	18 months