



Main

Range of product	TeSys D
Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load
Utilisation category	AC-1
Poles description	4P
Pole contact composition	4 NO
System Voltage	<= 300 V DC power circuit <= 690 V AC 25...400 Hz power circuit
[Ie] rated operational current	60 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit
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	Conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	60 A at <= 140 °F (60 °C) power circuit 10 A at <= 140 °F (60 °C) signalling circuit
Irms rated making capacity	800 A at 440 V power circuit conforming to IEC 60947 140 A AC signalling circuit conforming to IEC 60947-5-1 250 A DC signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	800 A at 440 V power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	100 A 1 s signalling circuit 120 A 500 ms signalling circuit 140 A 100 ms signalling circuit 320 A <= 104 °F (40 °C) 10 s power circuit 720 A <= 104 °F (40 °C) 1 s power circuit 72 A <= 104 °F (40 °C) 10 min power circuit 165 A <= 104 °F (40 °C) 1 min power circuit
Associated fuse rating	80 A gG at <= 690 V coordination type 1 power circuit 80 A gG at <= 690 V coordination type 2 power circuit 10 A gG signalling circuit conforming to IEC 60947-5-1
Average impedance	1.6 mOhm at 50 Hz - Ith 60 A power circuit

[Ui] rated insulation voltage	600 V power circuit certifications CSA 600 V power circuit certifications UL 690 V power circuit conforming to IEC 60947-4-1 690 V signalling circuit conforming to IEC 60947-1 600 V signalling circuit certifications CSA 600 V signalling circuit certifications UL
Electrical durability	1.4 Mcycles 60 A AC-1 at $U_e \leq 440$ V
Power dissipation per pole	5.8 W AC-1
Protective cover	With
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	GL CSA DNV LROS (Lloyds register of shipping) BV UL CCC GOST RINA
Connections - terminals	Control circuit: screw clamp terminals 2 cable(s) 0...0 in ² (1...2.5 mm ²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: solid - without cable end Power circuit : screw clamp terminal 1 cable(s) 1...35 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminal 1 cable(s) 1...35 mm ² - cable stiffness: flexible - without cable end Power circuit : screw clamp terminal 1 cable(s) 1...35 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminal 2 cable(s) 1...25 mm ² - cable stiffness: flexible - with cable end Power circuit : screw clamp terminal 2 cable(s) 1...25 mm ² - cable stiffness: solid - without cable end Power circuit : screw clamp terminal 2 cable(s) 1...25 mm ² - cable stiffness: flexible - without cable end
Tightening torque	Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 70.8 lbf.in (8 N.m) - on screw clamp terminals - cable 0.04...0.05 in ² (25...35 mm ²) hexagonal 0.16 in (4 mm) Power circuit : 5 N.m - on screw clamp terminals - cable 1...25 mm ² hexagonal 4 mm
Operating time	12...26 ms closing 4...19 ms opening
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1
Mechanical durability	6 Mcycles
Operating rate	3600 cyc/h at ≤ 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 U_c drop-out at 140 °F (60 °C), AC 50/60 Hz 0.8...1.1 U_c operational at 140 °F (60 °C), AC 50 Hz 0.85...1.1 U_c operational at 140 °F (60 °C), AC 60 Hz
Inrush power in VA	140 VA at 68 °F (20 °C) (cos ϕ 0.75) 60 Hz 160 VA at 68 °F (20 °C) (cos ϕ 0.75) 50 Hz
Hold-in power consumption in VA	13 VA at 68 °F (20 °C) (cos ϕ 0.3) 60 Hz 15 VA at 68 °F (20 °C) (cos ϕ 0.3) 50 Hz

Heat dissipation	4...5 W at 50/60 Hz
Auxiliary contacts type	Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1 Type mirror contact (1 NC) conforming to 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	M6
Compatibility code	LC1D

Environment

IP degree of protection	IP20 front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	23...140 °F (-5...60 °C)
Ambient air temperature for storage	-76...176 °F (-60...80 °C)
Permissible ambient air temperature around the device	-40...158 °F (-40...70 °C) at U _c
Operating altitude	9842.52 ft (3000 m) without derating in temperature
Fire resistance	1562 °F (850 °C) conforming to IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz Vibrations contactor closed 4 Gn, 5...300 Hz Shocks contactor open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
Height	4.8 in (122 mm)
Width	2.76 in (70 mm)
Depth	4.72 in (120 mm)
Product weight	2.4 lb(US) (1.09 kg)

Ordering and shipping details

Category	22345 - CTR,D-LINE,OPEN,NONREV-NEW
Discount Schedule	I12
GTIN	00785901154709
Nbr. of units in pkg.	1
Package weight(Lbs)	2.3999999999999999
Returnability	N
Country of origin	ID

Contractual warranty

Warranty period	18 months
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