Product data sheet
Characteristics

LC1D18E7
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 18 A - 48 V AC coil

Product availability: Stock - Normally stocked in distribution facility

Price*: 136.00 USD

Main

Commercial Status	Commercialised
Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Pole contact composition	3 NO
System Voltage	<= 300 V DC power circuit <= 690 V AC 25...400 Hz power circuit
[Ie] rated operational current	32 A (<= 140 °F (60 °C)) at <= 440 V AC AC-1 power circuit 18 A (<= 140 °F (60 °C)) at <= 440 V AC AC-3 power circuit
Motor power kW	10 kW at 660...690 V AC 50/60 Hz 10 kW at 500 V AC 50/60 Hz 9 kW at 415...440 V AC 50/60 Hz 7.5 kW at 380...400 V AC 50/60 Hz 4 kW at 220...230 V AC 50/60 Hz
Motor power hp	15 hp at 575/600 V AC 50/60 Hz 3 phases motors 10 hp at 460/480 V AC 50/60 Hz 3 phases motors 5 hp at 230/240 V AC 50/60 Hz 3 phases motors 5 hp at 200/208 V AC 50/60 Hz 3 phases motors 3 hp at 230/240 V AC 50/60 Hz 1 phase motors 1 hp at 115 V AC 50/60 Hz 1 phase motors
Control circuit type	AC 50/60 Hz
Control circuit voltage	48 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	32 A at <= 140 °F (60 °C) power circuit 10 A at <= 140 °F (60 °C) signalling circuit
Irms rated making capacity	300 A at 440 V power circuit conforming to IEC 60947 250 A DC signalling circuit conforming to IEC 60947-5-1 140 A AC signalling circuit conforming to IEC 60947-5-1
Rated breaking capacity	300 A at 440 V power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	140 A 100 ms signalling circuit 120 A 500 ms signalling circuit 100 A 1 s signalling circuit 84 A <= 104 °F (40 °C) 1 min power circuit 40 A <= 104 °F (40 °C) 10 min power circuit 240 A <= 104 °F (40 °C) 1 s power circuit 145 A <= 104 °F (40 °C) 10 s power circuit
Associated fuse rating	35 A gG at <= 690 V coordination type 2 power circuit 50 A gG at <= 690 V coordination type 1 power circuit 10 A gG signalling circuit conforming to IEC 60947-5-1
Average impedance	2.5 mOhm at 50 Hz - Ith 32 A power circuit

[Ui] rated insulation voltage	600 V signalling circuit certifications UL 600 V signalling circuit certifications CSA 690 V signalling circuit conforming to IEC 60947-1 600 V power circuit certifications UL 600 V power circuit certifications CSA 690 V power circuit conforming to IEC 60947-4-1
Electrical durability	1 Mcycles 32 A AC-1 at Ue <= 440 V 1.65 Mcycles 18 A AC-3 at Ue <= 440 V
Power dissipation per pole	0.8 W AC-3 2.5 W AC-1
Protective cover	With
Mounting support	Plate Rail
Standards	EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 CSA C22.2 No 14
Product certifications	BV CCC CSA DNV GL GOST RINA UL LROS
Connections - terminals	Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: solid - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...6 mm²) - cable stiffness: flexible - with cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1.5...6 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 0...0 in² (1...2.5 mm²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 0...0.01 in² (1...4 mm²) - cable stiffness: flexible - without cable end
Tightening torque	Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 15.04 lbf.in (1.7 N.m) - on screw clamp terminals - with screwdriver flat Ø 6 mm
Operating time	4...19 ms opening 12...22 ms closing
Safety reliability level	B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1

Mechanical durability	15 Mcycles
Operating rate	3600 cyc/h at <= 140 °F (60 °C)

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc at 140 °F (60 °C) operational 60 Hz 0.8...1.1 Uc at 140 °F (60 °C) operational 50 Hz 0.3...0.6 Uc at 140 °F (60 °C) drop-out 50/60 Hz
Inrush power in VA	70 VA at 68 °F (20 °C) (cos ϕ 0.75) 50 Hz 70 VA at 68 °F (20 °C) (cos ϕ 0.75) 60 Hz
Hold-in power consumption in VA	7 VA at 68 °F (20 °C) (cos ϕ 0.3) 50 Hz 7.5 VA at 68 °F (20 °C) (cos ϕ 0.3) 60 Hz
Heat dissipation	2...3 W at 50/60 Hz
Auxiliary contacts type	Type mirror contact (1 NC) conforming to IEC 60947-4-1 Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1
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 energisation (between NC and NO contact) 1.5 ms on de-energisation (between NC and NO contact)
Insulation resistance	> 10 MOhm signalling circuit

Environment

IP degree of protection	IP2x front face conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-4...140 °F (-20...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 Uc
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	Shocks contactor closed 15 Gn for 11 ms Shocks contactor open 10 Gn for 11 ms Vibrations contactor closed 4 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz
Height	3.03 in (77 mm)
Width	1.77 in (45 mm)
Depth	3.39 in (86 mm)
Product weight	0.73 lb(US) (0.33 kg)

Ordering and shipping details

Category	22345 - CTR,D-LINE,OPEN,NONREV-NEW
Discount Schedule	I12
GTIN	00785901431732
Nbr. of units in pkg.	1
Product availability	Stock - Normally stocked in distribution facility
Returnability	Y
Country of origin	ID

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0627 - Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental Profile
Product end of life instructions	Need no specific recycling operations

Contractual warranty

Warranty period	18 months