

Product Datasheet

Characteristic

LC1D18BNE

TeSys D contactor 3P 18A AC-3 up to 440V coil 24-60V AC/DC



Main

range	TeSys
product name	TeSys D Green
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	<= 690 V AC 25...400 Hz power circuit
[Ie] rated operational current	<= 140 °F (60 °C) 32 A <= 140 °F (60 °C)
motor power kW	7.5 kW at 380...400 V AC 50 Hz AC-3 10 kW at 500 V AC 50 Hz AC-3 10 kW at 660...690 V AC 50 Hz AC-3 4 kW at 220...230 V AC 50 Hz AC-3 9 kW at 415 V AC 50 Hz AC-3 9 kW at 440 V AC 50 Hz AC-3
motor power hp	1 hp at 115 V AC 60 Hz 1 phase motors 3 hp at 230/240 V AC 60 Hz 1 phase motors 5 hp at 200/208 V AC 60 Hz 3 phases motors 5 hp at 230/240 V AC 60 Hz 3 phases motors 10 hp at 460/480 V AC 60 Hz 3 phases motors 15 hp at 575/600 V AC 60 Hz 3 phases motors
[Uc] control circuit voltage	24...60 V AC 50/60 Hz 24...60 V DC
coil type	AC/DC electronic
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 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	300 A at 440 V power circuit conforming to IEC 60947

[Icw] rated short-time withstand current	145 A <= 104 °F (40 °C) 10 s power circuit 240 A <= 104 °F (40 °C) 1 s power circuit 40 A <= 104 °F (40 °C) 10 min power circuit 84 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	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	690 V power circuit conforming to IEC 60947-4-1 690 V signalling circuit conforming to IEC 60947-1
electrical durability	2.2 Mcycles 15 A AC-3 at Ue <= 440 V 32 A
power dissipation per pole	0.8 W AC-3 2.5 W AC-1
protective cover	With
mounting support	Plate Rail
standards	EN/IEC 60947-4-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 EN/IEC 60947-5-1
product certifications	UL CSA CCC EAC KC LROS (Lloyds register of shipping) DNV-GL
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 Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1...6 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 Power circuit: screw clamp terminals 1 cable(s) 0...0.01 in ² (1.5...6 mm ²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1.5...6 mm ²) - cable stiffness: flexible - without cable end Power circuit: screw clamp terminals 2 cable(s) 0...0.01 in ² (1...4 mm ²) - cable stiffness: flexible - with cable end 0...0.01 in ² (1...4 mm ²) 0...0.01 in ² (1...4 mm ²) 0...0.01 in ² (1.5...6 mm ²) 0...0.01 in ² (1.5...6 mm ²)
tightening torque	Power 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 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
operating time	45...55 ms closing 20...90 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	15 Mcycles
operating rate	<= 3600 cyc/h at <= 140 °F (60 °C)
coil technology	Built-in bidirectional peak limiting

Complementary

control circuit voltage limits	140 °F (60 °C) 140 °F (60 °C) 140 °F (60 °C)
inrush power in VA	15 VA 68 °F (20 °C)
inrush power in W	68 °F (20 °C)
hold-in power consumption in VA	68 °F (20 °C)
hold-in power consumption in W	68 °F (20 °C)
heat dissipation	0.6 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

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	-13...140 °F (-25...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	3.03 in (77 mm)
width	1.77 in (45 mm)
depth	3.39 in (86 mm)
product weight	0.83 lb(US) (0.378 kg)
colour	Grey SE GREY 6 Green SE GREEN 2

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1640 - Schneider Electric declaration of conformity
REACH	Reference contains SVHC above the threshold - Go to CaP for more details
Product environmental profile	Available
Product end of life instructions	Available