

## Product datasheet

### Characteristics

# LC1D25BNE

TeSys D contactor - 3P -  $\leq 440$  V - 25 A AC-3 -  
24...60 V AC/DC coil



### 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
[Ue] rated operational voltage	$\leq 690$ V AC 25...400 Hz for power circuit
[Ie] rated operational current	25 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit 40 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit
Motor power kW	11 kW at 380...400 V AC 50/60 Hz 15 kW at 500 V AC 50/60 Hz 15 kW at 660...690 V AC 50/60 Hz 5.5 kW at 220...230 V AC 50/60 Hz 11 kW at 415...440 V AC 50/60 Hz
[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	40 A at $\leq 60$ °C for power circuit 10 A at $\leq 60$ °C for signalling circuit
Irms rated making capacity	450 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	450 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	120 A $\leq 40$ °C 1 min power circuit

	<p>240 A &lt;= 40 °C 10 s power circuit  380 A &lt;= 40 °C 1 s power circuit  50 A &lt;= 40 °C 10 min power circuit  100 A 1 s signalling circuit  120 A 500 ms signalling circuit  140 A 100 ms signalling circuit</p>
Associated fuse rating	<p>40 A gG at &lt;= 690 V coordination type 2 for power circuit  63 A gG at &lt;= 690 V coordination type 1 for power circuit  10 A gG for signalling circuit conforming to IEC 60947-5-1</p>
Average impedance	2 mOhm at 50 Hz - lth 40 A for power circuit
[Ui] rated insulation voltage	<p>690 V for power circuit conforming to IEC 60947-4-1  690 V for signalling circuit conforming to IEC 60947-1</p>
Electrical durability	<p>2 Mcycles 9 A AC-3 at Ue &lt;= 440 V  650000 cycles 25 A AC-1 at Ue &lt;= 440 V  23000 cycles AC-4 at Ue &lt;= 440 V</p>
Power dissipation per pole	<p>3.2 W AC-1  1.25 W AC-3</p>
Protective cover	With
Mounting support	<p>Rail  Plate</p>
Standards	<p>EN/IEC 60947-4-1  UL 60947-4-1  CSA C22.2 No 60947-4-1  EN/IEC 60947-5-1</p>
Product certifications	<p>UL  CSA  CCC  EAC  KC</p>
Connections - terminals	<p>Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm<sup>2</sup> - cable stiffness: flexible - with cable end  Power circuit : screw clamp terminals 1 cable(s) 1.5...10 mm<sup>2</sup> - cable stiffness: solid - without cable end  Control circuit : screw clamp terminals 1 cable(s) 1...4 mm<sup>2</sup> - cable stiffness: flexible - without cable end  Control circuit : screw clamp terminals 2 cable(s) 1...4 mm<sup>2</sup> - cable stiffness: flexible - without cable end  Control circuit : screw clamp terminals 1 cable(s) 1...4 mm<sup>2</sup> - cable stiffness: flexible - with cable end  Control circuit : screw clamp terminals 1 cable(s) 1...4 mm<sup>2</sup> - cable stiffness: solid - without cable end  Control circuit : screw clamp terminals 2 cable(s) 1...4 mm<sup>2</sup> - cable stiffness: solid - without cable end  Power circuit : screw clamp terminals 1 cable(s) 2.5...10 mm<sup>2</sup> - cable stiffness: flexible - without cable end  Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm<sup>2</sup> - cable stiffness: flexible - without cable end  Power circuit : screw clamp terminals 1 cable(s) 1...10 mm<sup>2</sup> - cable stiffness: flexible - with cable end  Power circuit : screw clamp terminals 2 cable(s) 1.5...6 mm<sup>2</sup> - cable stiffness: flexible - with cable end  Power circuit : screw clamp terminals 2 cable(s) 2.5...10 mm<sup>2</sup> - cable stiffness: solid - without cable end</p>
Tightening torque	<p>Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm  Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2  Power circuit : 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm  Power circuit : 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2</p>
Operating time	<p>45...55 ms closing  20...90 ms opening</p>
Safety reliability level	<p>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</p>
Mechanical durability	15000000 cycles
Operating rate	3600 cyc/h at <= 60 °C

## Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	<p>&lt;= 0.1 Uc drop-out at 60 °C  0.85...1.1 Uc operational at 60 °C, AC  0.8...1.2 Uc operational at 60 °C, DC</p>
Inrush power in VA	15 VA at 20 °C 50/60 Hz
Inrush power in W	14 W at 20 °C

Hold-in power consumption in VA	0.9 VA at 20 °C 50/60 Hz
Hold-in power consumption in W	0.6 W at 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 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 conforming to IEC 60529
Protective treatment	TH conforming to IEC 60068-2-30
Pollution degree	3
Ambient air temperature for operation	-25...60 °C
Ambient air temperature for storage	-60...80 °C
Permissible ambient air temperature around the device	-40...70 °C at U <sub>c</sub>
Operating altitude	3000 m without derating in temperature
Fire resistance	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 closed 15 Gn for 11 ms Shocks contactor open 8 Gn for 11 ms
Height	85 mm
Width	45 mm
Depth	92 mm
Product weight	0.433 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 <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold <a href="#">Reference not containing SVHC above the threshold</a>
Product environmental profile	Available <a href="#">Product environmental</a>
Product end of life instructions	Available <a href="#">End of life manual</a>