Product data sheet
Characteristics

LC1D40ABBE
TeSys D contactor 3P 40A AC-3 up to 440V coil 24V DC EverLink



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
Power pole contact composition	3 NO
[Ue] rated operational voltage	<= 690 V AC 25...400 Hz for power circuit
[Ie] rated operational current	60 A (<= 60 °C) at <= 440 V AC-1 for power circuit 40 A (<= 60 °C) at <= 440 V AC-3 for power circuit
Motor power kW	18.5 kW at 380...400 V AC 50 Hz AC-3 22 kW at 500 V AC 50 Hz AC-3 30 kW at 660...690 V AC 50 Hz AC-3 22 kW at 415 V AC 50 Hz AC-3 22 kW at 440 V AC 50 Hz AC-3 11 kW at 220...230 V AC 50 Hz AC-3
Motor power HP (UL / CSA)	5 hp at 230/240 V AC 60 Hz for 1 phase motors 10 hp at 230/240 V AC 60 Hz for 3 phases motors 3 hp at 115 V AC 60 Hz for 1 phase motors 10 hp at 200/208 V AC 60 Hz for 3 phases motors 30 hp at 460/480 V AC 60 Hz for 3 phases motors 30 hp at 575/600 V AC 60 Hz for 3 phases motors
[Uc] control circuit voltage	24 V DC
Coil type	DC low consumption
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	60 A at <= 60 °C for power circuit 10 A at <= 60 °C for signalling circuit

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Irms rated making capacity	800 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	800 A at 440 V for 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 <= 40 °C 10 s power circuit 720 A <= 40 °C 1 s power circuit 72 A <= 40 °C 10 min power circuit 165 A <= 40 °C 1 min power circuit
Associated fuse rating	80 A gG at <= 690 V coordination type 1 for power circuit 80 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.5 mOhm at 50 Hz - Ith 60 A for power circuit
[Ui] rated insulation voltage	690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1
Electrical durability	2 Mcycles 35 A AC-3 at Ue <= 440 V 0.5 Mcycles 60 A AC-1 at Ue <= 440 V
Power dissipation per pole	5.4 W AC-1 2.4 W AC-3
Safety 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) 1...2.5 mm² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: flexible - without cable end Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: flexible - with cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: flexible - without cable end Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: flexible - without cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: flexible - with cable end Control circuit : screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: solid Control circuit : screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: solid Power circuit : EverLink BTR screw connectors 1 cable(s) 1...35 mm² - cable stiffness: solid Power circuit : EverLink BTR screw connectors 2 cable(s) 1...25 mm² - cable stiffness: solid
Tightening torque	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 : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm² hexagonal 4 mm Power circuit : 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm² hexagonal 4 mm
Operating time	55...65 ms closing 20...120 ms opening (date code >= 17221) 20...80 ms opening (date code >= 18011)
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 <= 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	0.8...1.2 Uc operational at 60 °C <= 0.1 Uc drop-out at 60 °C
Inrush power in W	11 W at 20 °C
Hold-in power consumption in W	0.5 W at 20 °C
Heat dissipation	0.5 W
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 Uc
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 open 10 Gn for 11 ms Shocks contactor closed 15 Gn for 11 ms
Height	122 mm
Width	55 mm
Depth	120 mm
Product weight	0.992 kg
Colour	Grey SE GREY 6 Green SE GREEN 2

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1625 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available Product Environmental Profile
Product end of life instructions	Available End of Life Information