Product data sheet
Characteristics

LC1D80008P7
TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 - <= 440 V 125 A - 230 V AC coil

Main

Commercial Status	Commercialised
Range of product	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load
Utilisation category	AC-1
Poles description	4P
Power pole contact composition	2 NO + 2 NC
[Ue] rated operational voltage	<= 300 V DC 25...400 Hz for power circuit <= 690 V AC for power circuit
[Ie] rated operational current	125 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
Control circuit type	AC 50/60 Hz
Control circuit voltage	230 V AC 50/60 Hz
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
[Ith] conventional free air thermal current	125 A at <= 60 °C for power circuit
Irms rated making capacity	1100 A at 440 V for power circuit conforming to IEC 60947
Rated breaking capacity	1100 A at 440 V for power circuit conforming to IEC 60947
[Icw] rated short-time withstand current	320 A <= 40 °C 1 min power circuit 135 A <= 40 °C 10 min power circuit 990 A <= 40 °C 1 s power circuit 640 A <= 40 °C 10 s power circuit
Associated fuse rating	160 A gG at <= 690 V coordination type 2 for power circuit 200 A gG at <= 690 V coordination type 1 for power circuit
Average impedance	0.80 mOhm at 50 Hz - Ith 125 A for power circuit
[Ui] rated insulation voltage	1000 V for power circuit conforming to IEC 60947-4-1 600 V for power circuit certifications UL 600 V for power circuit certifications CSA
Electrical durability	0.8 Mcycles 125 A AC-1 at Ue <= 440 V
Power dissipation per pole	12.5 W AC-1
Safety cover	Without
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: connector 2 cable(s) 4...25 mm² - cable stiffness: solid - without cable end Power circuit: connector 1 cable(s) 4...50 mm² - cable stiffness: solid - without cable end Power circuit: connector 2 cable(s) 4...16 mm² - cable stiffness: flexible - with cable end Power circuit: connector 1 cable(s) 4...50 mm² - cable stiffness: flexible - with cable end Power circuit: connector 2 cable(s) 4...25 mm² - cable stiffness: flexible - without cable end Power circuit: connector 1 cable(s) 4...50 mm² - cable stiffness: flexible - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm² - cable stiffness: flexible - with cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm² - cable stiffness: solid - without cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm² - cable stiffness: flexible - with 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 - without cable end
Tightening torque	Power circuit: 9 N.m - on connector hexagonal 4 mm Power circuit: 9 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm
Operating time	6...20 ms opening 20...35 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	4 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.85...1.1 Uc at 55 °C operational 60 Hz 0.8...1.1 Uc at 55 °C operational 50 Hz 0.3...0.6 Uc at 55 °C drop-out 50/60 Hz
Inrush power in VA	245 VA at 20 °C (cos ϕ 0.75) 50 Hz 245 VA at 20 °C (cos ϕ 0.75) 60 Hz
Hold-in power consumption in VA	26 VA at 20 °C (cos ϕ 0.3) 50 Hz 26 VA at 20 °C (cos ϕ 0.3) 60 Hz
Heat dissipation	6...10 W at 50/60 Hz

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	-5...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	Shocks contactor closed 10 Gn for 11 ms Shocks contactor open 8 Gn for 11 ms Vibrations contactor closed 3 Gn, 5...300 Hz Vibrations contactor open 2 Gn, 5...300 Hz
Height	127 mm
Width	96 mm
Depth	140 mm
Product weight	1.84 kg

RoHS compliance

RoHS EUR status	Compliant
RoHS EUR conformity date(YYWW)	0707

Contractual warranty

Period	18 months