

## LC1DT80A6Y7

TeSys D contactor - 4P(4 NO) - AC-1 -  $\leq 440$  V 80 A - 690 V AC 50/60 Hz coil



### Main

Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load
Utilisation category	AC-1
Poles description	4P
Pole contact composition	4 NO
[Ue] rated operational voltage	$\leq 690$ V AC 25...400 Hz for power circuit $\leq 300$ V DC for power circuit
[Ie] rated operational current	80 A ( $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit
Control circuit type	AC 50/60 Hz
Control circuit voltage	690 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 kV conforming to IEC 60947
Overtoltage category	III
[Ith] conventional free air thermal current	80 A at $\leq 60$ °C for power circuit 10 A at $\leq 60$ °C for signalling circuit
Irms rated making capacity	1000 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	1000 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 520 A $\leq 40$ °C 10 s power circuit 900 A $\leq 40$ °C 1 s power circuit 110 A $\leq 40$ °C 10 min power circuit 260 A $\leq 40$ °C 1 min power circuit
Associated fuse rating	125 A gG at $\leq 690$ V coordination type 1 for power circuit 125 A gG at $\leq 690$ V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1
Average impedance	1.6 mOhm at 50 Hz - Ith 80 A for power circuit
[Ui] rated insulation voltage	600 V for power circuit certifications CSA 600 V for power circuit certifications UL 690 V for power circuit conforming to IEC 60947-4-1 690 V for signalling circuit conforming to IEC 60947-1 600 V for signalling circuit certifications CSA 600 V for signalling circuit certifications UL
Electrical durability	1.4 Mcycles 80 A AC-1 at Ue $\leq 440$ V
Power dissipation per pole	10.2 W AC-1
Protective cover	With
Mounting support	Plate Rail
Standards	EN 60947-4-1 EN 60947-5-1

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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	Control circuit : lugs-ring terminals - external diameter: 8 mm Power circuit : lugs-ring terminals - external diameter: 16.5 mm
Tightening torque	Power circuit : 6 N.m - on lugs-ring terminals screw : M6 Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm screw : M3.5 Control circuit : 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 screw : M3.5
Operating time	12...26 ms closing 4...19 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	6 Mcycles
Operating rate	3600 cyc/h at <= 60 °C

## Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc at 60 °C drop-out 50/60 Hz 0.8...1.1 Uc at 60 °C operational 50 Hz 0.85...1.1 Uc at 60 °C operational 60 Hz
Inrush power in VA	140 VA at 20 °C (cos φ 0.75) 60 Hz 160 VA at 20 °C (cos φ 0.75) 50 Hz
Hold-in power consumption in VA	13 VA at 20 °C (cos φ 0.3) 60 Hz 15 VA at 20 °C (cos φ 0.3) 50 Hz
Heat dissipation	4...5 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	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	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

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Height	122 mm
Width	70 mm
Depth	120 mm
Product weight	1.15 kg

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