



Main

Range	TeSys
Product name	TeSys D
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Motor control Resistive load
Utilisation category	AC-1 AC-3
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: ≤ 1000 V AC 25...400 Hz
[Ie] rated operational current	125 A (at <60 °C) at ≤ 440 V AC AC-1 for power circuit 80 A (at <60 °C) at ≤ 440 V AC AC-3 for power circuit
Motor power kW	22 kW at 220/230 V AC 50 Hz (AC-3) 37 kW at 380/400 V AC 50 Hz (AC-3) 45 kW at 415 V AC 50 Hz (AC-3) 45 kW at 440 V AC 50 Hz (AC-3) 55 kW at 500 V AC 50 Hz (AC-3) 45 kW at 660/690 V AC 50 Hz (AC-3) 45 kW at 1000 V AC 50 Hz (AC-3)
[Uc] control circuit voltage	72 V DC
Coil type	Wide range
Auxiliary contact composition	1 NO + 1 NC
[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 10 A (at 60 °C) for signalling circuit
Irms rated making capacity	1100 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	1100 A at 440 V for power circuit conforming to IEC 60947

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

[I _{cw}] rated short-time withstand current	135 A 40 °C - 10 min for power circuit 320 A 40 °C - 1 min for power circuit 640 A 40 °C - 10 s for power circuit 990 A 40 °C - 1 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit
Associated fuse rating	200 A gG at ≤ 690 V coordination type 1 for power circuit 160 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	0.8 mOhm - I _{th} 125 A 50 Hz for power circuit
[U _i] rated insulation voltage	Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Electrical durability	1.5 Mcycles 80 A AC-3 at U _e ≤ 440 V 0.8 Mcycles 125 A AC-1 at U _e ≤ 440 V
Power dissipation per pole	12.5 W AC-1 5.1 W AC-3
Safety cover	With
Mounting support	Plate Rail
Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 EN 45545 R22 HL3 EN 45545 R26 HL3 DIN 5510-2
Product certifications	IEC CCC
Connections - terminals	Control circuit: lugs-ring terminals (external diameter: 8 mm) Power circuit: lugs-ring terminals (external diameter: 17 mm) Power circuit: bars 1 cable(s) - busbar cross section: 3 x 16 mm
Tightening torque	Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5 Control circuit: 1.7 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5 Power circuit: 9 N.m - on lugs-ring terminals hexagonal screw head 10 mm M6 Power circuit: 9 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm M6 Power circuit: 9 N.m - on bars - with screwdriver flat Ø 8 mm M6 Power circuit: 9 N.m - on bars hexagonal screw head 10 mm M6
Operating time	95...130 ms closing 20...35 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	10 Mcycles
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.1...0.3 U _c 55 °C drop-out DC U _c -40...70 °C operational DC 0.75...1.2 U _c -5...60 °C operational DC
Time constant	75 ms
Inrush power in W	22 W at 20 °C
Hold-in power consumption in W	22 W at 20 °C
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	-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
Fire resistance	850 °C conforming to IEC 60695-2-1
Flame retardance	V0 conforming to UL 94
Mechanical robustness	Vibrations contactor open: 2 Gn, 5...300 Hz Shocks contactor closed: 15 Gn for 11 ms Vibrations contactor closed: 3 Gn, 5...300 Hz Shocks contactor open: 8 Gn for 11 ms
Height	127 mm
Width	85 mm
Depth	186 mm
Net weight	2.59 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RECh Regulation	RECh Declaration
RECh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins