



⚠ To be discontinued

### Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Resistive load Motor control
Utilisation category	AC-1 AC-4 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	95 A (at $\leq 60$ °C) at $\leq 440$ V AC-3 for power circuit 125 A (at $\leq 60$ °C) at $\leq 690$ V AC-1 for power circuit
Motor power kW	25 kW at 220...230 V AC 50 Hz (AC-3) 45 kW at 380...400 V AC 50 Hz (AC-3) 45 kW at 415...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)
Motor power HP (UL / CSA)	7.5 hp at 115 V AC 60 Hz for 1 phase motors 15 hp at 230/240 V AC 60 Hz for 1 phase motors 25 hp at 200/208 V AC 60 Hz for 3 phases motors 30 hp at 230/240 V AC 60 Hz for 3 phases motors 60 hp at 460/480 V AC 60 Hz for 3 phases motors 60 hp at 575/600 V AC 60 Hz for 3 phases motors
Control circuit type	DC wide range
[Uc] control circuit voltage	220 V DC
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overtoltage category	III

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 <sub>th</sub> ] conventional free air thermal current	10 A (at 60 °C) for signalling circuit 125 A (at 60 °C) for power circuit
I <sub>rms</sub> rated making capacity	1100 A at 440 V AC 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
[I <sub>cw</sub> ] rated short-time withstand current	1100 A 40 °C - 1 s for power circuit 800 A 40 °C - 10 s for power circuit 400 A 40 °C - 1 min for power circuit 135 A 40 °C - 10 min for power circuit 140 A - 100 ms for signalling circuit 120 A - 500 ms for signalling circuit 100 A - 1 s for signalling circuit
Associated fuse rating	10 A gG for signalling circuit conforming to IEC 60947-5-1 200 A gG at ≤ 690 V coordination type 1 for power circuit 160 A gG at ≤ 690 V coordination type 2 for power circuit
Average impedance	0.8 mΩ - I <sub>th</sub> 125 A 50 Hz for power circuit
[U <sub>i</sub> ] rated insulation voltage	Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Electrical durability	1.2 Mcycles 95 A AC-3 1.3 Mcycles 125 A AC-1
Power dissipation per pole	12.5 W AC-1 7.2 W AC-3
Front cover	With
Mounting support	Rail Plate
Standards	EN/IEC 60947-1 EN/IEC 60947-4-1 EN/IEC 60947-5-1 GB/T 14048.4
Product certifications	IECEE CB Scheme CCC EAC LROS (Lloyds register of shipping) RINA BV DNV-GL
Connections - terminals	Control circuit: lugs-ring terminals (external diameter: 8 mm) Power circuit: bars 1 cable(s) - busbar cross section: 3 x 16 mm Power circuit: lugs-ring terminals (external diameter: 17 mm)
Tightening torque	Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5 Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5 Power circuit: 9 N.m - on lugs-ring terminals - with screwdriver flat Ø 8 mm M6 Power circuit: 9 N.m - on lugs-ring terminals hexagonal screw head 10 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 = 1.3 Mcycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20 Mcycles 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
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
Contact compatibility	M9
Compatibility code	LC1D

### 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 storage	-60...80 °C
Operating altitude	0...3000 m
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 Shocks contactor open: 8 Gn for 11 ms Vibrations contactor closed: 3 Gn, 5...300 Hz Shocks contactor closed: 10 Gn for 11 ms
Height	127 mm
Width	85 mm
Depth	186 mm
Net weight	2.61 kg

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	2.385 kg
Package 1 Height	19.5 cm
Package 1 width	14 cm
Package 1 Length	9.5 cm

### Offer Sustainability

Sustainable offer status	Green Premium product
REACH free of SVHC	Yes
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a> Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

### Contractual warranty

Warranty	18 months
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