



Main

Range	TeSys
Product name	TeSys D Green
Product or component type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
Utilisation category	AC-3 AC-1
Poles description	3P
Power pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz
[Ie] rated operational current	80 A (at ≤ 60 °C) at ≤ 440 V AC-1 for power circuit 65 A (at ≤ 60 °C) at ≤ 440 V AC-3 for power circuit
Motor power kW	18.5 kW at 220...230 V AC 50 Hz (AC-3) 30 kW at 380...400 V AC 50 Hz (AC-3) 37 kW at 415 V AC 50 Hz (AC-3) 37 kW at 440 V AC 50 Hz (AC-3) 37 kW at 500 V AC 50 Hz (AC-3) 37 kW at 660...690 V AC 50 Hz (AC-3)
Motor power HP (UL / CSA)	5 hp at 115 V AC 60 Hz for 1 phase motors 10 hp at 230/240 V AC 60 Hz for 1 phase motors 20 hp at 200/208 V AC 60 Hz for 3 phases motors 20 hp at 230/240 V AC 60 Hz for 3 phases motors 40 hp at 460/480 V AC 60 Hz for 3 phases motors 50 hp at 575/600 V AC 60 Hz for 3 phases motors
[Uc] control circuit voltage	24...60 V AC 50/60 Hz 24...60 V DC
Coil type	AC/DC electronic
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	6 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 _{th}] conventional free air thermal current	80 A (at 60 °C) for power circuit 10 A (at 60 °C) for signalling circuit
I _{rms} 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
[I _{cw}] rated short-time withstand current	110 A 40 °C - 10 min for power circuit 260 A 40 °C - 1 min for power circuit 520 A 40 °C - 10 s for power circuit 900 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	125 A gG at ≤ 690 V coordination type 1 for power circuit 125 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 mΩ - I _{th} 80 A 50 Hz for power circuit
[U _i] rated insulation voltage	Power circuit: 690 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1
Electrical durability	1.8 Mcycles 57 A AC-3 at U _e ≤ 440 V 0.5 Mcycles 80 A AC-1 at U _e ≤ 440 V
Power dissipation per pole	9.6 W AC-1 6.3 W AC-3
Safety cover	With
Mounting support	Rail Plate
Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1
Product certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping)
Connections - terminals	Power circuit: lugs-ring terminals (external diameter: 16.5 mm) Control circuit: lugs-ring terminals (external diameter: 8 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: 6 N.m - on lugs-ring terminals hexagonal screw head 10 mm M6
Operating time	55...65 ms closing 20...80 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
Maximum operating rate	3600 cyc/h 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting
Control circuit voltage limits	≤ 0.1 U _c 60 °C drop-out 0.85...1.1 U _c 60 °C operational AC 0.8...1.2 U _c 60 °C operational DC
Inrush power in VA	15 VA 50/60 Hz (at 20 °C)
Inrush power in W	16 W at 20 °C
Hold-in power consumption in VA	1 VA (at 20 °C) 50/60 Hz
Hold-in power consumption in W	0.7 W at 20 °C
Heat dissipation	0.7 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	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 U _c
Operating altitude	3000 m without
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
Net weight	1.002 kg
Colour	Grey (SE GREY 6) Green (SE GREEN 2)

Offer Sustainability

Sustainable offer status	Green Premium product
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Product out of China RoHS scope. Substance declaration for your information
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Halogen content performance	Halogen free plastic parts & cables product

Contractual warranty

Warranty	18 months
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