



Main

Range of product	TeSys D
Range	TeSys
Product or component type	Contacteur
Device short name	LC1D
Contacteur application	Resistive load Motor control
Utilisation category	AC-4 AC-2 AC-1 AC-3 AC-3e
Control circuit type	AC at 50/60 Hz
Poles description	3P
Pole contact composition	3 NO
[Ie] rated operational current	80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 65 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 65 A (at <60 °C) at <= 440 V AC AC-3e for power circuit
Motor power kW	30 kW at 440 V AC 50 Hz (AC-3) 11 kW at 400 V AC 50 Hz (AC-4) 30 kW at 380...400 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) 18.5 kW at 220...230 V AC 50 Hz (AC-3) 30 kW at 415 V AC 50 Hz (AC-3) 37 kW at 1000 V AC 50 Hz (AC-3) 30 kW at 440 V AC 50 Hz (AC-3e) 30 kW at 380...400 V AC 50 Hz (AC-3e) 37 kW at 500 V AC 50 Hz (AC-3e) 37 kW at 660...690 V AC 50 Hz (AC-3e) 18.5 kW at 220...230 V AC 50 Hz (AC-3e) 30 kW at 415 V AC 50 Hz (AC-3e) 37 kW at 1000 V AC 50 Hz (AC-3e)

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

Complementary

Coil technology	Without built-in bidirectional peak limiting diode suppressor
Front cover	With
Motor power hp	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
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
Auxiliary contact composition	1 NO + 1 NC
[Uc] control circuit voltage	48 V AC 50/60 Hz
Control circuit voltage limits	0.3...0.6 U _c (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 U _c (-40...60 °C):operational AC 50 Hz 0.85...1.1 U _c (-40...60 °C):operational AC 60 Hz 1...1.1 U _c (60...70 °C):operational AC 50/60 Hz
[Ui] rated insulation voltage	Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	8 kV conforming to IEC 60947
Overvoltage category	III
Mounting support	Plate Rail
Flame retardance	V1 conforming to UL 94
Connections - terminals	Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² rigid Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² rigid Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² flexible with cable end Power circuit: screw terminals 1 cable(s) 2.5...25 mm ² rigid Power circuit: screw terminals 2 cable(s) 2.5...16 mm ² rigid Power circuit: screw terminals 1 cable(s) 2.5...25 mm ² flexible without cable end Power circuit: screw terminals 2 cable(s) 2.5...16 mm ² flexible without cable end Power circuit: screw terminals 1 cable(s) 2.5...25 mm ² flexible with cable end Power circuit: screw terminals 2 cable(s) 2.5...10 mm ² flexible with cable end
Tightening torque	Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm
[Ue] rated operational voltage	Power circuit: ≤ 690 V AC 25...400 Hz
[I _{th}] conventional free air thermal current	10 A (at 60 °C) for control circuit 80 A (at 60 °C) for power circuit
I _{rms} rated making capacity	1000 A at 440 V for power circuit conforming to IEC 60947 140 A AC for control circuit conforming to IEC 60947-5-1
Rated breaking capacity	1000 A at 440 V for power circuit conforming to IEC 60947
Associated fuse rating	10 A gG for control circuit conforming to IEC 60947-5-1 125 A gG at ≤ 690 V coordination type 2 for power circuit 160 A gG at ≤ 690 V coordination type 1 for power circuit
Power dissipation per pole	4.2 W AC-3 6.4 W AC-1 4.2 W AC-3e
Inrush power in VA	140 VA cos phi 0.75 (at 20 °C) 160 VA cos phi 0.75 (at 20 °C)
Hold-in power consumption in VA	13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C)
Operating time	4...19 ms opening 12...26 ms closing
Safety reliability level	B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1

Mechanical durability	6000000 cycles
Maximum operating rate	3600 cyc/h 60 °C
Minimum switching current	5 mA for control circuit
Minimum switching voltage	17 V for control circuit
Non-overlap time	1.5 ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts
Insulation resistance	> 10 MOhm for control circuit
Height	127 mm
Width	75 mm
Depth	119 mm
Product weight	1.4 kg

Environment

Standards	EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 EN 60947-4-1 CSA C22.2 No 14 UL 508
Product certifications	CSA GOST CCC UL DNV RINA LROS (Lloyds register of shipping) BV GL UKCA
IP degree of protection	IP2x conforming to IEC 60529 IP2x conforming to VDE 0106
Ambient air temperature for operation	-40...60 °C 60...70 °C with derating
Ambient air temperature for storage	-60...80 °C
Operating altitude	0...3000 m
Fire resistance	850 °C conforming to IEC 60695-2-1
Shock resistance	10 gn contactor opened 15 gn contactor closed
Vibration resistance	2 gn 5...300 Hz contactor opened 4 gn 5...300 Hz contactor closed
Heat dissipation	4...5 W at 50/60 Hz for control circuit

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	1.442 kg
Package 1 Height	9.5 cm
Package 1 width	13.2 cm
Package 1 Length	14 cm
Unit Type of Package 2	S02
Number of Units in Package 2	5
Package 2 Weight	7.531 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm
Package 3 Height	77 cm

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH 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 Pro-active China RoHS declaration (out of China RoHS legal scope)
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
PVC free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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