Product data sheet Characteristics

LC1D115B7





Main

Range	TeSys
Product name	TeSys D
Product or component type	Contactor
Device short name	LC1D
Contactor application	Motor control Resistive load
Utilisation category	AC-1 AC-4 AC-3
Poles description	3P
Pole contact composition	3 NO
[Ue] rated operational voltage	Power circuit: <= 1000 V AC 25400 Hz Power circuit: <= 300 V DC
[le] rated operational current	200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 115 A (at <60 °C) at <= 440 V AC AC-3 for power circuit
Motor power kW	30 KW at 220230 V AC 50/60 Hz (AC-3) 55 KW at 380400 V AC 50/60 Hz (AC-3) 59 KW at 415440 V AC 50/60 Hz (AC-3) 75 KW at 500 V AC 50/60 Hz (AC-3) 80 KW at 660690 V AC 50/60 Hz (AC-3) 65 KW at 1000 V AC 50/60 Hz (AC-3) 18.5 KW at 400 V AC 50/60 Hz (AC-4)
Motor power hp	30 Hp at 200/208 V AC 50/60 Hz for 3 phases motors 40 Hp at 230/240 V AC 50/60 Hz for 3 phases motors 75 Hp at 460/480 V AC 50/60 Hz for 3 phases motors 100 Hp at 575/600 V AC 50/60 Hz for 3 phases motors
Control circuit type	AC at 50/60 Hz
[Uc] control circuit voltage	24 V AC 50/60 Hz
Auxiliary contact composition	1 NO + 1 NC
[Uimp] rated impulse withstand voltage	8 KV conforming to IEC 60947
Overvoltage category	III
[lth] conventional free air thermal current	200 A (at 60 °C) for power circuit
Irms rated making capacity	1260 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
[lcw] rated short-time withstand current	250 A 40 °C - 10 min for power circuit 550 A 40 °C - 1 min for power circuit 950 A 40 °C - 10 s for power circuit 1100 A 40 °C - 1 s for power circuit 1100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit

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Associated fuse rating	250 A gG at <= 690 V coordination type 1 for power circuit 200 A gG at <= 690 V coordination type 2 for power circuit 10 A gG for signalling circuit
Average impedance	0.6 MOhm - Ith 200 A 50 Hz for power circuit
[Ui] rated insulation voltage	Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1 Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified
Electrical durability	0.8 Mcycles 200 A AC-1 at Ue <= 440 V 0.95 Mcycles 115 A AC-3 at Ue <= 440 V
Power dissipation per pole	24 W AC-1 7.9 W AC-3
Protective cover	With
Mounting support	Rail Plate
Standards	CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508
Product certifications	DNV GOST UL CSA CCC LROS (Lloyds register of shipping) RINA GL BV
Connections - terminals	Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 12.5 mm²flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 12.5 mm²flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 12.5 mm²solid without cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²solid without cable end Control circuit: screw clamp terminals 2 cable(s) 12.5 mm²solid without cable end Power circuit: connector 1 cable(s) 10120 mm²flexible without cable end Power circuit: connector 2 cable(s) 10120 mm²flexible with cable end Power circuit: connector 1 cable(s) 10120 mm²flexible with cable end Power circuit: connector 1 cable(s) 10120 mm²flexible with cable end Power circuit: connector 1 cable(s) 10120 mm²solid without cable end Power circuit: connector 1 cable(s) 10120 mm²solid without cable end
Tightening torque	Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector hexagonal screw head 4 mm
Operating time	620 ms opening 2050 ms closing
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	8 Mcycles
Maximum operating rate	2400 Cyc/H 60 °C

Complementary

Coil technology	Built-in bidirectional peak limiting diode suppressor	
Control circuit voltage limits	Drop-out: 0.30.5 Uc AC 50/60 Hz (at 55 °C) Operational: 0.81.15 Uc AC 50/60 Hz (at 55 °C)	
Inrush power in VA	280350 VA 60 Hz cos phi 0.8 (at 20 °C) 280350 VA 50 Hz cos phi 0.8 (at 20 °C)	
Hold-in power consumption in VA	218 VA 60 Hz cos phi 0.3 (at 20 °C) 218 VA 50 Hz cos phi 0.3 (at 20 °C)	
Heat dissipation	38 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	25400 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 contact1.5 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	-560 °C
Ambient air temperature for storage	-6080 °C
Permissible ambient air temperature around the device	-4070 °C at Uc
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, 5300 Hz Vibrations contactor closed: 4 Gn, 5300 Hz Shocks contactor closed: 15 Gn for 11 ms Shocks contactor open: 6 Gn for 11 ms
Height	158 Mm
Width	120 Mm
Depth	136 Mm
Net weight	2.5 Kg

Offer Sustainability

Green Premium product
☐ REACh Declaration
Compliant EEU RoHS Declaration
Yes
₫Yes
China RoHS Declaration
Product Environmental Profile
[™] End Of Life Information
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Contractual warranty

Warranty	18 months
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Product Life Status: Commercialised