

Type of contactor			LC1-D09...D18 DT20 & DT25	LC1-D25...D38 DT32...DT60	LC1-D40	LC1-D50...D95	LC1-D115 & LC1-D150
<b>Environment</b>							
Rated insulation voltage (Ui)	Conforming to EN 60947-4-1, overvoltage category III, degree of pollution: 3	V	690			1000	
	Conforming to UL, CSA	V	600				
Rated impulse withstand voltage (Uimp)	Conforming to EN 60947	kV	6			8	
Conforming to standards			IEC 947-1, 947-4-1, NFC 63-110, VDE 0660, BS 5424, JEM 1038, EN 60947-1, EN 60947-4-1. GL, DNV, PTB, RINA pending				
Product certifications			UL, CSA Complies with SNCF, Sichere Trennung recommendations				
Separation insulation	Conforming to VDE 0106 parts 101 and A1 (project 2/89)	V	400				
Degree of protection (1) (front face only)	Conforming to VDE 0106						
	Power connection		Protection against direct finger contact IP 2X				
	Coil connection		Protection against direct finger contact IP 2X (except LC1-D40...D80)				
Protective treatment	Conforming to IEC 68		"TH"				
Ambient air temperature around the device	Storage	°C	- 60...+ 80				
	Operation	°C	- 5...+ 60				
	Permissible	°C	- 40...+ 70, for operation at Uc				
Maximum operating altitude	Without derating	m	3000				
Operating position	Without derating		± 30° possible, in relation to normal vertical mounting plane				
Flame resistance	Conforming to UL 94		V 1				
	Conforming to IEC 695-2-1	°C	960				
Shock resistance (2) 1/2 sine wave = 11ms	Contacteur open	gn	10	8	8	8	6
	Contacteur closed	gn	15	15	10	10	15
Vibration resistance (2) 5...300 Hz	Contacteur open	gn	2				
	Contacteur closed	gn	4	4	4	3	4

(1) Protection ensured for the connection cross-sections shown on the next page and for connection via cable.

(2) In the least favourable direction, without change of contact state (coil supplied at Ue).

Type of contactor	LC1-	D09 & D12 DT20 & DT25	D18 (3P)	D25	D32	D38	D18 (4P) DT32...DT60	D40	D50 & D65	D80 & D95	D115 & D150
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## Power circuit connections

### Connection via cable

Tightening			Screw clamps					2-input connector	Screw clamps	1-input connector	2-input connector
Flexible cable without cable end	1 conductor	mm <sup>2</sup>	1...4	1.5...6	1.5...10	2.5...10	2.5...16	2.5...25	2.5...25	4...50	10...120
	2 conductors	mm <sup>2</sup>	1...4	1.5...6	1.5...6	2.5...10	2.5...16	2.5...16	2.5...16	4...25	10...120 + 10...50
Flexible cable with cable end	1 conductor	mm <sup>2</sup>	1...4	1...6	1...6	1...10	2.5...10	2.5...25	2.5...25	4...50	10...120
	2 conductors	mm <sup>2</sup>	1...2.5	1...4	1...4	1.5...6	2.5...10	2.5...10	2.5...10	4...16	10...120 + 10...50
Solid cable without cable end	1 conductor	mm <sup>2</sup>	1...4	1.5...6	1.5...6	1.5...10	2.5...16	2.5...25	2.5...25	4...50	10...120
	2 conductors	mm <sup>2</sup>	1...4	1.5...6	1.5...6	2.5...10	2.5...16	2.5...16	2.5...16	4...25	10...120 + 10...50
Screwdriver	Phillips head		N° 2	N° 2	N° 2	N° 2	N° 2	–	–	–	–
	Ø flat screwdriver		Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 6...Ø 8	Ø 6...Ø 8	Ø 6...Ø 8	–
6 sided key			–	–	–	–	–	–	–	4	4
Tightening torque		N.m	1.7	1.7	2.5	2.5	2.5	5	5	9	12

### Connection via spring terminals

Flexible cable without cable end	1 conductor	mm <sup>2</sup>	2.5 (4: DT25)	4	4	4	–	–	–	–	–
	2 conductors	mm <sup>2</sup>	2.5 (4: DT25)	4	4	4	–	–	–	–	–

### Connection via bars or lugs

Bar cross-section			–	–	–	–	–	–	–	3 x 16	5 x 25
Lug external Ø	mm		8	8	10	10	12	13	16	17	25
Ø of screw	mm		M3.5	M3.5	M4	M4	M5	M5	M6	M6	M8
Screwdriver	Phillips head		N° 2	N° 2	N° 2	N° 2	N° 2	N° 2	N° 3	–	–
	Ø flat screwdriver		Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 8	Ø 8	Ø 8	–
Key for hexagonal headed screw			–	–	–	–	–	–	–	10	13
Tightening torque		N.m	1.7	1.7	2.5	2.5	2.5	6	6	8	14

## Control circuit connections

### Connection via cable (tightening via screw clamps)

Flexible cable without cable end	1 conductor	mm <sup>2</sup>	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...2.5
	2 conductors	mm <sup>2</sup>	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...2.5
Flexible cable with cable end	1 conductor	mm <sup>2</sup>	1...4	1...4	1...4	1...4	1...4	1...2.5	1...2.5	1...2.5	1...2.5
	2 conductors	mm <sup>2</sup>	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5	1...2.5
Solid cable without cable end	1 conductor	mm <sup>2</sup>	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...2.5
	2 conductors	mm <sup>2</sup>	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...4	1...2.5
Screwdriver	Phillips head		N° 2	N° 2	N° 2	N° 2	N° 2	N° 2	N° 2	N° 2	N° 2
	Ø flat screwdriver		Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 6	Ø 6
Tightening torque		N.m	1.7	1.7	1.7	1.7	1.7	1.2	1.2	1.2	1.2

### Connection via spring terminals

Flexible cable without cable end	1 conductor	mm <sup>2</sup>	2.5	2.5	2.5	2.5	–	–	–	–	–
	2 conductors	mm <sup>2</sup>	2.5	2.5	2.5	2.5	–	–	–	–	–

### Connection via bars or lugs

Lug external Ø	mm		(1)	–	–	–	–	8	8	8	8
Ø of screw	mm		(1)	–	–	–	–	M3.5	M3.5	M3.5	M3.5
Screwdriver	Phillips head		–	–	–	–	–	N° 2	N° 2	N° 2	N° 2
	Ø flat screwdriver		–	–	–	–	–	Ø 6	Ø 6	Ø 6	N°6
Tightening torque		N.m	–	–	–	–	–	1.2	1.2	1.2	1.2

(1) Spade connector or cable lug, see connection via cable above.