TeSys Control

TeSys K, Deca, Giga S207 Series
Contactors for Railway Applications
Catalog **2025**

se.com

Life Is On | Schneider Electric

TeSys K, **TeSys** Deca and **TeSys** Giga contactors:
S207 series for **railway applications**

Used in heating, lighting, door control, signaling, brake and air conditioning compressors, TeSys K, TeSys Deca and TeSys Giga* S207 series contactors are designed for railway power switching and controlling applications, while complying with the railway European standard EN 45545 R22 HL3.

*: HL2 for TeSys Giga.

Schneider Electric load control solutions in the move

TeSys Deca S207, possible association with other EN 45545 R22 HL2 compliant TeSys components

GV2P
thermal magnetic
circuit breaker

LRD thermal
overload
relay

TeSys K, **TeSys** Deca and **TeSys** Giga contactors: S207 series compliant with railway standards

Shocks, vibrations requirements, according to IEC/EN 61373 standard tests

- Category 1: body mounted
- Class B: cubicles, subassemblies, equipment and components mounted directly on or under the car body.

Fire, smoke requirements, according to EN 45545-2 Part 2, DIN 5510-2

European standard EN 45545-2

Newly published in 2020, specifies the reaction to fire performance requirements for materials and products used on railway vehicles as defined in EN 45545-1, and applies to all countries in Europe.

For each hazard level, this standard specifies the material and products test methods, test conditions and reaction to fire performance requirements.

TeSys Control
TeSys K, TeSys Deca and TeSys Giga contactors

Contents

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TeSys K - S207 series

New range of EN 45545 R22 HL3 compliant mini contactors:
- Width: 45 mm
- Height: 58 mm
- Depth: 57 mm
- Weight: 0.235 kg.

Contactor types, covered applications:

- AC-3, up to 12 Amps
- AC-1, up to 20 Amps
- Control circuits, up to 10 Amps.

Simple, robust, and compact, **TeSys** K is optimized for common applications

Range of 33 contactors for motors (AC-3), resistive loads (AC-1), control circuits:

3P, 4P contactors:

- AC-3 ratings / 3 poles: 6, 9, 12 A
- AC-1 rating / 4 poles: 20 A
- 1 NO or 1 NC embedded auxiliary contact

Contactors for control circuits:

- 4 NO or 2 NO + 2 NC or 3 NO + 1 NC
- 10 A

Common features:

- Connection by lugs
- 24, 72, 110 V DC low consumption coils,
- Coil supply range: up to 0.7 to 1.3 Uc from -40 °C to +70 °C.

> See TeSys K S207 contactor selection tables for available combinations of features.

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TeSys Deca - S207 series

Now made of new material,
EN 45545 R22 HL3 compliant,
with unchanged commercial reference.

Contactor types, covered applications:

- AC-3/AC-3e, up to 95 Amps
- AC-1, up to 125 Amps
- Control circuits, up to 10 Amps.

TeSys Deca, the right choice for demanding or wide power range applications

Range of 139 contactors for motors (AC-3), resistive loads (AC-1), control circuits:

3P, 4P contactors:

- AC-3/AC-3e ratings / 3 poles: 9, 12, 18, 25, 32, 38, 40, 50, 65, 80, 95 A
- AC-1 ratings / 4 poles: 20, 25, 32, 40, 60,125 A
- 1 NO + 1 NC embedded auxiliary contact on all ratings (except on 60, 80, 125 A 4-pole contactors).

Contactors for control circuits:

- 5 NO or 3 NO + 2 NC
- 10 A

Common features:

- Connection by lugs
- 24, 72, 96, 110 V DC coils, standard, low consumption and wide range
- Coil supply range: up to 0.7 to 1.25 Uc.

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GV2P

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LRD

EN 45545 R22 HL2 compliant motor starters

Up to 38 A AC-3/AC-3e, with TeSys Deca - S207 associated to:

> GV2P thermal magnetic circuit breakers

Please refer to catalogue '**TeSys - Innovative and connected solutions for motor starters**' for details.

Introduction

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TeSys Giga - S207 series

Now made of new material,
EN 45545 R22 HL2 compliant.

Contactor types, covered applications:

- AC-3, 115 A to 800 A
- AC-1, 250 A to 1050 A.

TeSys Giga, the right choice for a wide range of demanding applications

Range of 42 contactor references for motors (AC-3), resistive loads (AC-1):

3P, 4P contactors:

- AC-3 ratings / 3 poles: 115, 150, 185, 225, 265, 330, 400, 500, 630, 800 A
- AC-1 ratings / 4 poles: 250, 275, 305, 330, 385, 440, 550, 700, 1050 A
- Equipped with 1 NO + 1 NC auxiliary contact block
- Embedded contact wear diagnostic feature

Common features:

- Connection by lugs & bars
- 48…130 V AC/DC wide range coil control
- 200…500 V AC/DC (1) wide range coil control
- Modular design enables faster & easy maintenance.

(1) Available only on LC1G630 & LC1G800 3P ratings.

Product references


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LC1K12016FLS207

3-pole contactors for Motor control - connection by lugs

Standard power ratings of 3-phase motors 50-60 Hz in category AC-3			Rated operational current in AC-3 440 V up to	Instantaneous auxiliary contacts		Commercial reference Replace dots by coil voltage code (see chart below)	Weight
220 V 230 V	380 V 415 V	440/500 V 660/690 V					
kW	kW	kW	A				kg
1.5	2.2	3	**6**	1	–	**LC1K06106●●S207**	0.235
				–	1	**LC1K06016●●S207**	0.235
2.2	4	4	**9**	1	–	**LC1K09106●●S207**	0.235
				–	1	**LC1K09016●●S207**	0.235
3	5.5	5.5 (≤ 440 V)	**12**	1	–	**LC1K12106●●S207**	0.235
		4 (≥ 480 V)		–	1	**LC1K12016●●S207**	0.235


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LC1KT206FLS207

4-pole contactors - connection by lugs

Non inductive loads Category AC-1 Maximum current at (θ ≤ 50 °C)	Number of poles		Instantaneous auxiliary contacts		Commercial reference Replace dots by coil voltage code (see chart below)	Weight
A						
20	4	–	–	–	**LC1KT206●●S207**	0.235
	2	2	–	–	**LC1K0986●●S207**	0.235


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CAK226FLS207

4-pole contactors for Control circuit - connection by lugs

Control circuit consumption	Auxiliary contacts		Commercial reference Replace dots by coil voltage code (see chart below)	Weight
Ith = 10 A	4	–	**CAK406●●S207**	0.235
	3	1	**CAK316●●S207**	0.235
	2	2	**CAK226●●S207**	0.235

Low consumption coil voltage code			
Volts DC	**24**	**72**	**110**
U 0.7 .....1.3 Uc	BL	SL	FL


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LA1KN11

Instantaneous auxiliary contact blocks (1)

Recommended for standard applications, Clip-on front mounting, 1 block per contactor

Connection	Composition		Reference
Screw clamp terminals	2	–	**LA1KN20**
	–	2	**LA1KN02**
	1	1	**LA1KN11**
Lug terminals	2	2	**LA1KN226**
	4	–	**LA1KN406**

(1) Add on auxiliary contacts compliancy level to EN 45545 is R22 HL3.

Characteristics: pages 16 to 19
Dimensions, schemes: page 20

Product references

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LC1D096FDS207

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LC1D406FWS207

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LC1D806FWS207

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LC1DT206FDS207

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LC1D400046FWS207

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LC1D800086FWS207

3-pole contactors for Motor control - connection by lugs

Standard power ratings of 3-phase motors 50-60 Hz in category AC-3/AC-3e ($\theta \leq 60$ °C)							Rated operational current in AC-3/ AC-3e 440 V up to	Instantaneous auxiliary contacts		Commercial reference Replace dots by coil voltage code (see chart below)		Weight
220 V 230 V	380 V 415 V	415 V	440 V	500 V	660 V 690 V	1000 V				coil with surge suppressor (1)	Coil without surge suppressor	
kW	kW	kW	kW	kW	kW	kW	A					kg
2.2	4	4	4	5.5	5.5	–	9	1	1	**LC1D096●●S207**		0.320
3	5.5	5.5	5.5	7.5	7.5	–	12	1	1	**LC1D126●●S207**		0.325
4	7.5	9	9	10	10	–	18	1	1	**LC1D186●●S207**		0.330
5.5	11	11	11	15	15	–	25	1	1	**LC1D256●●S207**		0.370
7.5	15	15	15	18.5	18.5	–	32	1	1	**LC1D326●●S207**		0.375
9	18.5	18.5	18.5	18.5	18.5	–	38	1	1	**LC1D386●●S207**		0.380
11	18.5	22	22	22	30	22	40	1	1	–	**LC1D406●●S207**	2.185
15	22	25	30	30	33	30	50	1	1	–	**LC1D506●●S207**	2.185
18.5	30	37	37	37	37	37	65	1	1	–	**LC1D656●●S207**	2.185
22	37	45	45	55	45	45	80	1	1	–	**LC1D806●●S207**	2.59
25	45	45	45	55	45	45	95	1	1	–	**LC1D956●●S207**	2.61

4-pole contactors for Resistive load control - connection by lugs

Non inductive loads maximum current ($\theta \leq 60$ °C) utilisation category AC-1	Number of poles		Instantaneous auxiliary contacts		Commercial reference Replace dots by coil voltage code (see chart below)		Weight
					coil with surge suppressor (1)	Coil without surge suppressor	
A							kg
20	4	–	1	1	**LC1DT206●●S207**		0.365
	2	2	1	1	**LC1D0986●●S207**		0.365
25	4	–	1	1	**LC1DT256●●S207**		0.365
	2	2	1	1	**LC1D1286●●S207**		0.365
32	4	–	1	1	**LC1DT326●●S207**		0.425
	2	2	1	1	**LC1D1886●●S207**		0.425
40	4	–	1	1	**LC1DT406●●S207**		0.425
	2	2	1	1	**LC1D2586●●S207**		0.425
60	4	–	–	–	–	**LC1D400046●●S207**	2.210
	2	2	–	–	–	**LC1D400086●●S207**	2.210
125	4	–	–	–	–	**LC1D800046●●S207**	2.685
	2	2	–	–	–	**LC1D800086●●S207**	2.910

(1) A suppressor diode (Transil TM) in parallel with the coil helps to prevent upstream sensitive components from damage by high transient voltage during the coil switching.

Coil voltage codes

DC Volts	24	72	96	110
Standard coils for LC1D096 ... D386, LC1DT206...DT406, LC1D2586				
U 0.7…1.25 Uc	BD	SD	-	FD
Low consumption coils for LC1D096 ... D386, LC1DT206...DT406, LC1D2586				
U 0.7…1.25 Uc	BL	SL	DL	FL
Wide voltage range coils for LC1D406 ...956, LC1D400046 800086				
U 0.7…1.25 Uc	BW	SW	-	FW

Characteristics: pages 21 to 24
Dimensions, schemes: page 25

Product references

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CAD326FDS207

Contactors for control circuit - connection by lugs

Rated max operating current (Ie)	Composition		Commercial reference Replace dots by coil voltage code (see chart below)
			coil with surge suppressor
A			
5-pole contactors for control circuits			
10	3	2	**CAD326●●S207**
	5	–	**CAD506●●S207**

Coil voltage codes

DC Volts	24	72	96	110
Standard coils for CAD326, CAD506				
U 0.7…1.25 Uc	BD	SD		FD
Low consumption coils for CAD326, CAD506				
U 0.7…1.25 Uc	BL	SL	DL	FL

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LADN116

Instantaneous auxiliary contact blocks for connection by lugs (1)

Clip-on mounting (2)	Number of contacts per block	Composition		Reference
				
Front	2	1	1	**LADN116**
		2	–	**LADN206**
		–	2	**LADN026**
	4	2	2	**LADN226**
		1	3	**LADN136**
		4	–	**LADN406**
		–	4	**LADN046**
		3	1	**LADN316**

Maximum number of auxiliary contacts that can be fitted

Contactors			Instantaneous auxiliary contact blocks		
Type	Number of poles and size		Side mounted	Front mounted	
				2 contacts	4 contacts
⎓	3P	LC1 D09…D38	–	1	or 1
		LC1 D80	–	or 1	or 1
	4P	LC1 DT20…DT40	–	1	or 1
		LC1 D80	–	and 1	or 1
LC (3)	3P	LC1 D09…D38	–	1	–
	4P	LC1 DT20…DT40	–	1	–

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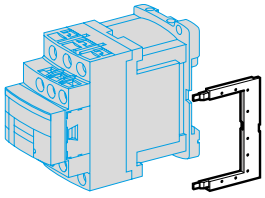

LAD4T●●

Bidirectional peak limiting diodes (1)

Protection provided by limiting the transient voltage to 2 Uc max.
Maximum reduction of transient voltage peaks.

Mounting	For use with contactor		Reference
	Rating	Type V ⎓	
Clip-on side mounting (2)	D09…D38 (3P) DT20…DT40 (4P)	24	**LAD4TBDL**
		72	**LAD4TSDL**
		125	**LAD4TGDL**

(1) Add on auxiliary contacts and bidirectional peak limiting diodes compliancy level to EN 45545 is R22 HL3.
(2) In order to install these accessories, the existing suppression device must first be removed. Clipping-on makes the electrical connection. The overrall size of the contactor remains unchanged.
(3) LC: low comsumption.

Characteristics: pages 21 to 24
Dimensions, schemes: page 25

Product references

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LC1G115EHES207N

PB123918.eps

LC1G265EHES207N

PB123919.eps

LC1G630EHES207N

PB123920.eps

LC1G1154EHES207N

PB123921.eps

LC1G2654EHES207N

3-pole contactors for Motor control - connection by lugs / bars

Standard power ratings of 3-phase motors 50-60 Hz in category AC-3 ($\theta \leq 60$ °C)							Rated operational current in AC-3 440 V up to	Instantaneous auxiliary contacts		Commercial reference	Weight
230 V	400 V	415 V	440 V	500 V	690 V	1000 V				48…130 V AC/DC coil	
kW	kW	kW	kW	kW	kW	kW	A				kg
30	55	55	75	75	75	-	115	1	1	**LC1G115EHES207●**	3.600
37	75	75	90	90	90	75	150	1	1	**LC1G150EHES207●**	3.600
55	90	90	110	110	110	75	185	1	1	**LC1G185EHES207●**	3.600
55	110	110	132	132	160	132	225	1	1	**LC1G225EHES207●**	3.600
75	132	132	160	160	200	160	265	1	1	**LC1G265EHES207●**	7.500
90	160	160	200	200	220	185	330	1	1	**LC1G330EHES207●**	7.500
110	200	200	250	250	315	220	400	1	1	**LC1G400EHES207●**	7.500
160	250	250	315	355	355	335	500	1	1	**LC1G500EHES207●**	7.500
200	335	375	400	400	500	450	630	1	1	**LC1G630EHES207●**	14.200
250	450	450	450	500	560	450	800	1	1	**LC1G800EHES207●**	14.200
										200...500 V AC/DC coil	
200	335	375	400	400	500	450	630	1	1	**LC1G630LSES207N**	14.200
250	450	450	450	500	560	450	800	1	1	**LC1G800LSES207N**	14.200

4-pole contactors for Resistive load control - connection by lugs / bars

Non inductive loads maximum current ($\theta \leq 40$ °C) utilisation category AC-1	Number of poles		Instantaneous auxiliary contacts		Commercial reference	Weight
					48…130 V AC/DC coil	
A						kg
250	4	-	1	1	**LC1G1154EHES207●**	4.400
275	4	-	1	1	**LC1G1504EHES207●**	4.400
305	4	-	1	1	**LC1G1854EHES207●**	4.400
330	4	-	1	1	**LC1G2254EHES207●**	4.400
385	4	-	1	1	**LC1G2654EHES207●**	8.200
440	4	-	1	1	**LC1G3304EHES207●**	8.200
550	4	-	1	1	**LC1G4004EHES207●**	8.200
700	4	-	1	1	**LC1G5004EHES207●**	8.200
1050	4	-	1	1	**LC1G6304EHES207●**	18.000
1050	4	-	1	1	**LC1G8004EHES207●**	18.000

Note: *Please complete the Commercial reference by replacing the "●" by the Contactor version code:*

	LC1G115EHES207•	
Contactor version	Standard	Advanced [1]
Code	**N**	**A**

(1) *Advanced contactor version has a lower coil consumption, please refer to page 30 for more details.*

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LAG8N113

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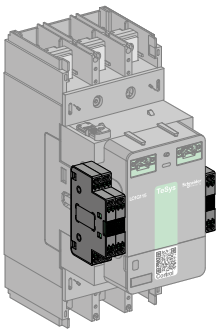

Side mounting – maximum 2 per side

Auxiliary contact modules

Description	Terminal type	Position	Type of contacts	Sold in lots of	Reference
Auxiliary contact module	Push-in	1st left or right	1 NO + 1 NC	1	**LAG8N113P** [2]
			2 NO	1	**LAG8N203P**
		2nd left or right	1 NO + 1 NC	1	**LAG8N113**
			2 NO	1	**LAG8N203**

(2) *Always supplied with* TeSys Giga *LC1G contactors, fitted to the right side lateral face.*

Characteristics: pages 27 to 31
Dimensions, schemes: pages 32 and 33

Product references

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LX1G3QLSEA

Control module

Wide band electronic control
48 V…130 V 50/60 Hz or DC control input
Advanced and standard versions
Accessible from the front for easy and quick replacement

The control module is needed for the operation of the contactor.
It performs the following functions:
- proper functioning of contactor based on the input control voltage
- monitoring and diagnostics of the pole condition
- generation of signaling commands.

The range of control modules is organized:
- per contactor size and for each rating,
- per control voltage range.

Each module has connectors for connecting:
- the coil control A1, A2 circuit & PLC output control (advanced version)
- pole status and diagnostic signaling circuits.

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Control module replacement on a 3-pole contactor

Control modules

Description		For contactors	References per voltage range (V AC/DC)
			48 - 130
Control modules for Advanced contactors	3-pole	LC1G115...LC1G225	**LX1G3QEHEA**
		LC1G265...LC1G330	**LX1G3REHEA**
		LC1G400...LC1G500	**LX1G3SEHEA**
		LC1G630...LC1G800	**LX1G3TEHEA**
	4-pole	LC1G115...LC1G225	**LX1G4QEHEA**
		LC1G265...LC1G330	**LX1G4REHEA**
		LC1G400...LC1G500	**LX1G4SEHEA**
		LC1G630...LC1G800	**LX1G4TEHEA**
			48 - 130
Control modules for Standard contactors	3-pole	LC1G115...LC1G225	**LX1G3QEHEN**
		LC1G265...LC1G330	**LX1G3REHEN**
		LC1G400...LC1G500	**LX1G3SEHEN**
		LC1G630...LC1G800	**LX1G3TEHEN**
	4-pole	LC1G115...LC1G225	**LX1G4QEHEN**
		LC1G265...LC1G330	**LX1G4REHEN**
		LC1G400...LC1G500	**LX1G4SEHEN**
		LC1G630...LC1G800	**LX1G4TEHEN**

Replaceable switching modules

- Innovative contact switching modules for TeSys Giga High power contactors
- Replace worn-out poles with a new switching module in minutes, without having to disassemble the whole product
- No special tools are needed for the replacement.

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Switching module kits

TeSys Giga - Switching modules for TeSys Giga High power contactors , Advanced and Standard versions

Description	For contactors		Quantity Set of	Reference
3 or 4 switching module kits	3-pole	LC1G115...LC1G225	3	**LA9G3QA**
		LC1G265...LC1G330	3	**LA9G3RA**
		LC1G400...LC1G500	3	**LA9G3SA**
		LC1G630...LC1G800	3	**LA9G3TA**
	4-pole	LC1G115...LC1G225	4	**LA9G4QA**
		LC1G265...LC1G330	4	**LA9G4RA**
		LC1G400...LC1G500	4	**LA9G4SA**
		LC1G630...LC1G800	4	**LA9G4TA**

Note: *In the event of replacement, replace all switching modules. After replacement, change the position of RESET button on the control module from A to B or B to A.*

TeSys Control
TeSys K, TeSys Deca and TeSys Giga contactors
Product references

CAD326BDS207	LC1D126SLS207	LC1D656FWS207	LC1G3304EHES207N
CAD326BLS207	LC1D1286BDS207	LC1D656SWS207	LC1G330EHES207A
CAD326FDS207	LC1D1286BLS207	LC1D800046BWS207	LC1G330EHES207N
CAD326FLS207	LC1D1286FDS207	LC1D800046FWS207	LC1G4004EHES207A
CAD326SDS207	LC1D1286FLS207	LC1D800046SWS207	LC1G4004EHES207N
CAD326SLS207	LC1D1286SLS207	LC1D800086BWS207	LC1G400EHES207A
CAD506BDS207	LC1D186BDS207	LC1D800086FWS207	LC1G400EHES207N
CAD506FDS207	LC1D186BLS207	LC1D800086SWS207	LC1G5004EHES207A
CAD506FLS207	LC1D186FDS207	LC1D806BWS207	LC1G5004EHES207N
CAD506SDS207	LC1D186FLS207	LC1D806FWS207	LC1G500EHES207A
CAK226BLS207	LC1D186SDS207	LC1D806SWS207	LC1G500EHES207N
CAK226FLS207	LC1D186SLS207	LC1D956BWS207	LC1G6304EHES207A
CAK226SLS207	LC1D1886BLS207	LC1D956FWS207	LC1G6304EHES207N
CAK316BLS207	LC1D1886FDS207	LC1D956SWS207	LC1G630EHES207A
CAK316FLS207	LC1D1886FLS207	LC1DT206BDS207	LC1G630EHES207N
CAK316SLS207	LC1D256BDS207	LC1DT206BLS207	LC1G630LSES207N
CAK406BLS207	LC1D256BLS207	LC1DT206FLS207	LC1G8004EHES207A
CAK406FLS207	LC1D256FDS207	LC1DT206SLS207	LC1G8004EHES207N
CAK406SLS207	LC1D256FLS207	LC1DT256BDS207	LC1G800EHES207A
LA1KN02	LC1D256SDS207	LC1DT256BLS207	LC1G800EHES207N
LA1KN11	LC1D256SLS207	LC1DT256FDS207	LC1G800LSES207N
LA1KN20	LC1D256SLXS207	LC1DT256FLS207	LC1K06016BLS207
LA1KN226	LC1D2586BDS207	LC1DT256SDS207	LC1K06016FLS207
LA1KN406	LC1D2586BLS207	LC1DT326BDS207	LC1K06016SLS207
LAD4TBDL	LC1D2586FDS207	LC1DT326FLS207	LC1K06106BLS207
LAD4TGDL	LC1D2586FLS207	LC1DT406BDS207	LC1K06106FLS207
LAD4TSDL	LC1D2586SLS207	LC1DT406BLS207	LC1K06106SLS207
LADN026	LC1D326BDS207	LC1DT406FDS207	LC1K09016BLS207
LADN046	LC1D326BLS207	LC1DT406FLS207	LC1K09016FLS207
LADN116	LC1D326FDS207	LC1DT406SDS207	LC1K09016SLS207
LADN136	LC1D326FLS207	LC1DT406SLS207	LC1K09106BLS207
LADN206	LC1D326SDS207	LC1G1154EHES207A	LC1K09106FLS207
LADN226	LC1D326SLS207	LC1G1154EHES207N	LC1K09106SLS207
LADN316	LC1D386BDS207	LC1G115EHES207A	LC1K0986BLS207
LADN406	LC1D386BLS207	LC1G115EHES207N	LC1K0986FLS207
LC1D096BDS207	LC1D386FDS207	LC1G1504EHES207A	LC1K12016BLS207
LC1D096BLS207	LC1D386FLS207	LC1G1504EHES207N	LC1K12016FLS207
LC1D096FDS207	LC1D386SDS207	LC1G150EHES207A	LC1K12016SLS207
LC1D096FLS207	LC1D386SLS207	LC1G150EHES207N	LC1K12106BLS207
LC1D096SDS207	LC1D400046BWS207	LC1G1854EHES207A	LC1K12106FLS207
LC1D096SLS207	LC1D400046FWS207	LC1G1854EHES207N	LC1K12106SLS207
LC1D0986BDS207	LC1D400046SWS207	LC1G185EHES207A	LC1KT206BLS207
LC1D0986BLS207	LC1D400086BWS207	LC1G185EHES207N	LC1KT206FLS207
LC1D0986FDS207	LC1D400086FWS207	LC1G2254EHES207A	LC1KT206SLS207
LC1D0986FLS207	LC1D400086SWS207	LC1G2254EHES207N	LC2D096SLS207
LC1D0986SLS207	LC1D406BWS207	LC1G225EHES207A	LRD08S207
LC1D126BDS207	LC1D406FWS207	LC1G225EHES207N	LRD10S207
LC1D126BLS207	LC1D406SWS207	LC1G2654EHES207A	LRD12S207
LC1D126FDS207	LC1D506BWS207	LC1G2654EHES207N	LRD16S207
LC1D126FLS207	LC1D506FWS207	LC1G265EHES207A	
LC1D126FLXS207	LC1D506SWS207	LC1G265EHES207N	
LC1D126SDS207	LC1D656BWS207	LC1G3304EHES207A	

This document is current. Click on the product reference to get the most recent availability status (hyperlink to **se.com** product datasheet). If your product variant is no longer available, please consult your distributor or regional sales office.

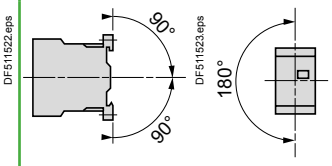
Technical Data for Designers

Contents

Characteristics

Environment characteristics

Contactor type LC1K

Conforming to standards			IEC/EN 60947-4-1, IEC/EN 60947-5-1, GB/T 14048.4, GB/T 14048.5, EN 45545 R22 HL3, EN 45545 R26 HL3, IEC/EN 61373
Authorized operating positions			Vertical axis / Horizontal axis  *Without derating* *Without derating*
Rated insulation voltage (Ui)	Conforming to IEC 60947	**V**	690
	Conforming to VDE 0110 gr C	**V**	750
	Conforming to BS 5424, NF C 20-040	**V**	690
Rated impulse withstand voltage (Uimp)		**kV**	8
Protective treatment	Conforming to IEC 60068 (DIN 50016)		"TC" (Klimafest, Climateproof)
Degree of protection	Conforming to VDE 0106		Protection against direct finger contact
Ambient air temperature around the device	Storage	**°C**	-50…+80
	Operation	**°C**	-25…+50
	Permissible	**°C**	-40…+70, for operation at Uc
Maximum operating altitude	Without derating	**m**	2000
Vibration resistance 5 ... 300 Hz	Contactor open		2 gn
	Contactor closed		4 gn
Flame resistance	Conforming to UL 94		V0
Shock resistance (1/2 sine wave, 11 ms)	Contactor open		On X axis: 6 gn On Y and Z axes: 10 gn
	Contactor closed		On X axis: 10 gn On Y and Z axes: 15 gn

Connection by lugs

Lug external Ø		**mm**	7
Ø of screw		**mm**	3.2
Screwdriver	Philips / Pozidriv		N° 2
	Flat screwdriver Ø	**mm**	Ø6
Tightening torque		**N.m**	1.1 recommended, 1.3 max

Characteristics

Pole characteristics

Type				LC1K06	LC1K09, LC1KT09, LC1KT20	LC1K12
Conventional thermal current (Ith)	For ambient temperature ≤ 50 °C		**A**	20		
Rated operational frequency			**Hz**	50/60		
Frequency limits of the operational current			**Hz**	Up to 400		
Rated operational voltage (Ue)			**V**	690		
Rated making capacity	I rms conforming to NF C 63 110 and IEC 60947		**A**	110	110	144
Rated breaking capacity	I rms conforming to NF C 63 110 and IEC 60947	220/230 V	**A**	110	110	–
		380/400 V	**A**	110	110	–
		415 V	**A**	110	110	–
		440 V	**A**	110	110	110
		500 V	**A**	80	80	80
		660/690 V	**A**	70	70	70
Permissible short time rating	In free air for a time "t" from cold state (θ ≤ 50 °C)	1 s	**A**	90	90	115
		5 s	**A**	85	85	105
		10 s	**A**	80	80	100
		30 s	**A**	60	60	75
		1 min	**A**	45	45	55
		3 min	**A**	40	40	50
		≥ 15 min	**A**	20	20	25
Short-circuit protection	gG fuse U ≤ 440 V		**A**	25		
Average impedance per pole	At Ith and 50 Hz		**mΩ**	3		
Use in category AC-1 resistive circuits, heating, lighting (Ue ≤ 440 V)	Maximum rated operational current for a temperature ≤ 50 °C		**A**	20		
	Maximum rated operational current for a temperature ≤ 70 °C		**A**	16 for Ue only		
	Rated operational current limits in relation to the on-load factor and operating frequency			On-load factor		90 %
			A	300 operating cycles/hour		13
			A	120 operating cycles/hour		15
			A	30 operating cycles/hour		19
	Increase in rated operational current by paralleling of poles			Apply the following coefficients to the above currents; these coefficients take into account an often unbalanced distribution of current between the poles		
				2 poles in parallel: K = 1.60		
				3 poles in parallel: K = 2.25		
				4 poles in parallel: K = 2.80		
Use in category AC-3 squirrel cage motors	Operational power according to the voltage. Voltage 50 or 60 Hz	115 V single-ph.	**kW**	0.37	0.55	–
		220 V single-ph.	**kW**	0.75	1.1	–
		220/230 V 3-ph.	**kW**	1.5	2.2	3
		380/415 V 3-ph.	**kW**	2.2	4	5.5
		440/480 V 3-ph.	**kW**	3	4	5.5/4 (480)
		500/600 V 3-ph.	**kW**	3	4	4
		660/690 V 3-ph.	**kW**	3	4	4
	Maximum operating rate (in operating cycles/hour in relation to % of rated power)			Op. cycles/h		600
				Power		100 %

Characteristics

Control circuit characteristics

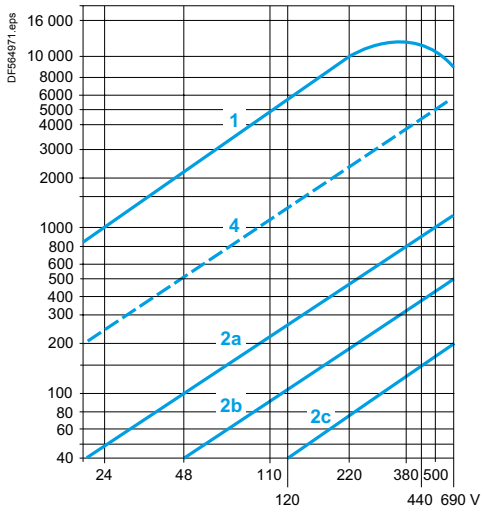
Type			LC1K, LC1KT	CAK
Rated control circuit voltage (Uc)		**V DC**	24...110	24...110
Control voltage limits (≤ 50 °C) single voltage coil	Operation		0.7…1.30 Uc	0.7...1.3 Uc
	Drop-out		≥ 0.10 Uc	≤ 0.1 Uc
Average consumption at 20 °C and at Uc	Inrush		1.8 W	1.8 W
	Sealed		1.8 W	1.8 W
Heat dissipation		**W**	1.8	1.8
Operating time at 20 °C and at Uc				
Between coil energisation and:	opening of the N/C contacts	**ms**	25…35	25...35
	closing of the N/O contacts	**ms**	30…40	30...40
Between coil de-energisation and:	opening of the N/O contacts	**ms**	10…20	10...20
	closing of the N/C contacts	**ms**	15…25	15...25
Maximum immunity to microbreaks		**ms**	2	2
Maximum operating rate	In operating cycles per hour		3600	6000
Mechanical durability at Uc In millions of operating cycles			30	30

Characteristics

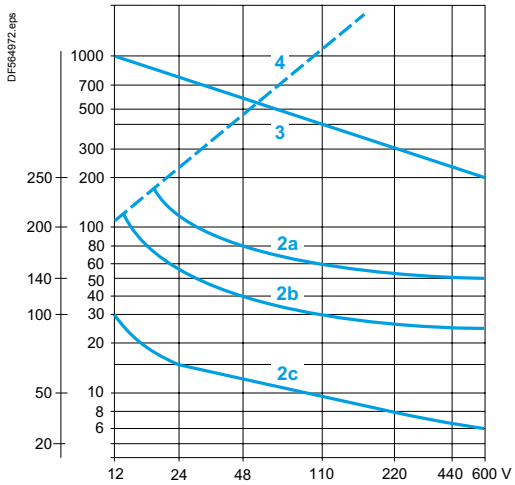
LC1K auxiliary contacts, CAK

Number of auxiliary contacts	On LP● K 3-pole			1
Rated operational voltage (Ue)	Up to		**V**	690
Rated insulation voltage (Ui)	Conforming to BS 5424		**V**	690
	Conforming to IEC 60947		**V**	690
	Conforming to VDE 0110 group C		**V**	750
	Conforming to CSA C 22-2 n° 14		**V**	600
Conventional thermal current (Ith)	For ambient temperature ≤ 50 °C		**A**	10
Frequency of the operational current			**Hz**	Up to 400
Minimum switching capacity	U min (DIN 19 240)		**V**	17
	I min		**mA**	5
Short-circuit protection	Conforming to IEC 60947 and VDE 0660, gG fuse		**A**	10
Rated making capacity	Conforming to IEC 60947	I rms	**A**	110
Short-time rating	Permissible for	1 s	**A**	80
		500 ms	**A**	90
		100 ms	**A**	110

Power broken in VA



Power broken in W



Operational power of contacts conforming to IEC 60947

a.c. supply, category AC-15

Electrical durability (valid for up to 3600 operating cycles/hour) on an inductive load such as the coil of an electromagnet: making current (cos φ 0.7) = 10 times the power broken (cos φ 0.4).

Operating cycles	**V**	**24**	**48**	**110/ 127**	**220/ 230**	**380/ 400**	**440**	**600/ 690**
1 million operating cycles	**VA**	48	96	240	440	800	880	1200
3 million operating cycles	**VA**	17	34	86	158	288	317	500
10 million operating cycles	**VA**	7	14	36	66	120	132	200
Occasional making capacity	**VA**	1000	2050	5000	10000	14000	13000	9000

d.c. supply, category DC-13

Electrical durability (valid for up to 1200 operating cycles/hour) on an inductive load such as the coil of an electromagnet, without economy resistor, the time constant increasing with the load.

Operating cycles	**V**	**24**	**48**	**110**	**220**	**440**	**600**
1 million operating cycles	**W**	120	80	60	52	51	50
3 million operating cycles	**W**	55	38	30	28	26	25
10 million operating cycles	**W**	15	11	9	8	7	6
Occasional making capacity	**W**	720	600	400	300	230	200

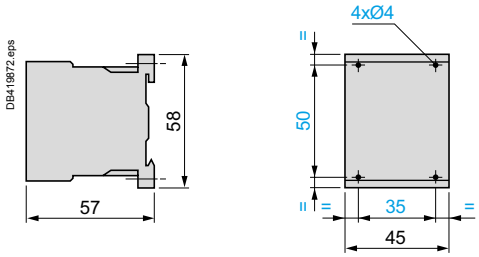
1. Breaking limit of contacts valid for:
   - maximum of 50 operating cycles at 10 s intervals (power broken = making current x cos φ 0.7).
2. Electrical durability of contacts for:
   - 1 million operating cycles (2a)
   - 3 million operating cycles (2b)
   - 10 million operating cycles (2c).
3. Breaking limit of contacts valid for:
   - maximum of 20 operating cycles at 10 s intervals with current passing for 0.5 s per operating cycle.
4. Thermal limit.

Dimensions and schemes

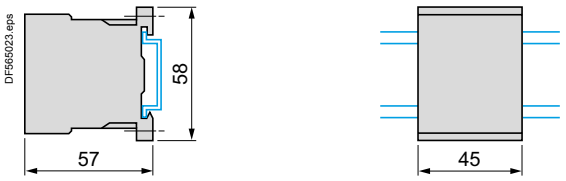
Contactors

LC1K, LC1KT, CAK

On panel

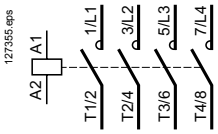


On mounting rail AM1 DP200 or AM1 DE200 (7 35 mm)

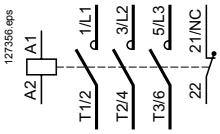


3-pole contactors

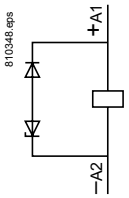
3 P + N/O



3 P + N/C

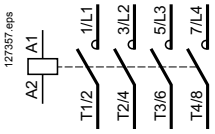


Coil diagram with integral suppression device LC1K, LC1KT

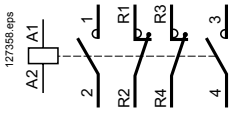


4-pole contactors

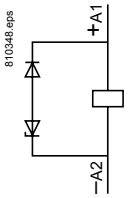
4 P



2 P N/O + 2 P N/C

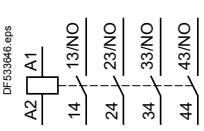


Coil diagram with integral suppression device LC1K, LC1KT

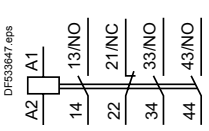


CAK - 4 poles contactors for control circuits

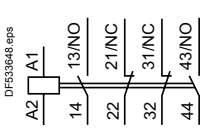
4 N/O



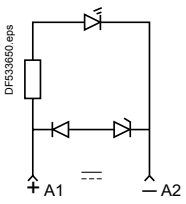
3 N/O + 1 N/C



2 N/O + 2 N/C



Coil diagram - with suppression device CAK



Characteristics

3-pole contactor characteristics

Contactor type			LC1D096	LC1D126	LC1D186	LC1D256	LC1D326	LC1D386	LC1D406	LC1D506	LC1D656	LC1D806	LC1D956
Rated operational current (Ie) (Ue ≤ 440 V)	In AC-3 / AC-3e, θ ≤ 60 °C	**A**	9	12	18	25	32	38	40	50	65	80	95
	In AC-1, θ ≤ 60 °C	**A**	25	25	32	40	50	50	60	80	80	125	125
Rated operational voltage (Ue)	Up to	**V**	690	690	690	690	690	690	1000	1000	1000	1000	1000
Frequency limits	Of the operational current	**Hz**	25…400	25…400	25…400	25…400	25…400	25…400	25…400	25…400	25…400	25…400	25…400
Conventional thermal current (Ith)	θ ≤ 60 °C	**A**	25	25	32	40	50	50	60	80	80	125	125
Rated making capacity (440 V)	Conforming to IEC 60947	**A**	250	250	300	450	550	550	800	900	1000	1100	1100
Rated breaking capacity (440 V)	Conforming to IEC 60947	**A**	250	250	300	450	550	550	800	900	1000	1100	1100
Permissible short time rating No current flowing for preceding 15 minutes with θ ≤ 40 °C	For 1 s	**A**	210	210	240	380	430	430	720	810	900	990	1100
	For 10 s	**A**	105	105	145	240	260	310	320	400	520	640	800
	For 1 min	**A**	61	61	84	120	138	150	165	208	260	320	400
	For 10 min	**A**	30	30	40	50	60	60	72	84	110	135	135
Fuse protection against short-circuits (U ≤ 690 V)	Without thermal overload relay, gG fuse type 1	**A**	25	40	50	63	63	63	80	100	160	200	200
	type 2	**A**	20	25	35	40	63	63	80	100	125	160	160
Average impedance per pole	At Ith and 50 Hz	**mΩ**	2.5	2.5	2.5	2	2	2	1.5	1.5	1	0,8	0.8
Power dissipation per pole for the above operational currents	AC-3 / AC-3e	**W**	0.20	0.36	0.8	1.25	2	3	2.4	3.7	4.2	5.1	7.2
	AC-1	**W**	1.56	1.56	2.5	3.2	5	5	5.4	9.6	6.4	12.5	12.5

Characteristics

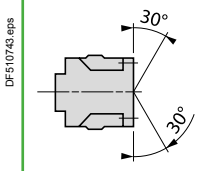
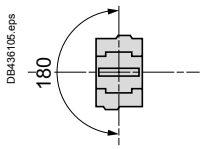
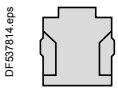
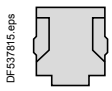
4-pole contactor characteristics

Contactor type			LC1D0986 LC1DT206	LC1D1286 LC1DT256	LC1D1886 LC1DT326	LC1D2586 LC1DT406	LC1D400046 LC1D400086	LC1D800046 LC1D800086
Rated operational current (Ie) (Ue ≤ 440 V)	In AC-3 / AC-3e, θ ≤ 60 °C	**A**	9	12	18	25	40 (1)	80 (2)
	In AC-1, θ ≤ 60 °C	**A**	20	25	32	40	60	125
Rated operational voltage (Ue)	Up to	**V**	690	690	690	690	690	1000
Frequency limits	Of the operational current	**Hz**	25…400	25…400	25…400	25…400	25…400	25…400
Conventional thermal current (Ith)	θ ≤ 60 °C	**A**	20	25	32	40	60	125
Rated making capacity (440 V)	Conforming to IEC 60947	**A**	250	250	300	450	800	1100
Rated breaking capacity (440 V)	Conforming to IEC 60947	**A**	250	250	300	450	800	1100
Permissible short time rating No current flowing for preceding 15 minutes with θ ≤ 40 °C	For 1 s	**A**	210	210	240	380	720	990
	For 10 s	**A**	105	105	145	240	320	640
	For 1 min	**A**	61	61	84	120	165	320
	For 10 min	**A**	30	30	40	50	72	135
Fuse protection against short-circuits (U ≤ 690 V)	Without thermal overload relay, gG fuse type 1	**A**	25	40	50	63	80	200
	type 2	**A**	20	25	35	40	80	160
Average impedance per pole	At Ith and 50 Hz	**mΩ**	2.5	2.5	2.5	2	1.5	0,8
Power dissipation per pole for the above operational currents	AC-3 / AC-3e	**W**	0.20	0.36	0.8	1.25	2.4	5.1
	AC-1	**W**	1.56	1.56	2.5	3.2	5.4	12.5

(1) For LC1D400046 only, no AC-3 for LC1D400086.
(2) For LC1D800046 only, no AC-3 for LC1D800086.

Characteristics

Environment

Contactor type			LC1D096…D186, LC1DT206 and LC1DT256	LC1D256…D386, LC1DT326 and LC1DT406	LC1D406..D956, LC1D400046, LC1D400086, LC1D650046, LC1D650086, LC1D800046, LC1D800086
Rated insulation voltage (Ui)	Conforming to IEC 60947-4-1, overvoltage category III, degree of pollution: 3	**V**	690		1000
Rated impulse withstand voltage (Uimp)	Conforming to IEC 60947	**kV**	6		8
Conforming to standards			IEC/EN 60947-4-1, IEC/EN 60947-5-1, GB/T 14048.4, GB/T 14048.5, EN 45545 R22 HL3, EN 45545 R26 HL3, IEC/EN 61373		
Product certifications			IEC, CCC, EAC, UA, TR		IEC, CCC
Degree of protection (front face)	Conforming to IEC 60529 Power circuit connections		Protection against direct finger contact IP20		
	Coil connection		Protection against direct finger contact IP20		
Climatic withstand			According to IACS E10		
Ambient air temperature around the device	Storage	**°C**	-60…+70		
	Operation	**°C**	-40…+70		-25...+70
Maximum operating altitude	Without derating	**m**	3000		
Operating positions (1)	Without derating in the following positions (other positions: please contact us).		⎓  		
	Positions that are not permissible		For ⎓ contactors LC1D09 to LC1D95.  		
Flame resistance	Conforming to UL 94		V0		
	Conforming to IEC 60695-2-1	**°C**	850		
Shock resistance (2) 1/2 sine wave = 11 ms	Contactor open		10 gn	8 gn	8 gn
	Contactor closed		15 gn	15 gn	10 gn
Vibration resistance (2) 5…300 Hz	Contactor open		2 gn		
	Contactor closed		4 gn	4 gn	3 gn

(1) When mounting on a vertical rail, use a stop.
(2) Without modification of power contact states, in the most unfavourable direction (coil energised at Ue).

Characteristics

Power circuit connections

Contactor type			LC1D096, LC1D126, LC1D186, LC1DT206, LC1DT256	LC1D1886 LC1DT326	LC1D256 LC1D326 LC1D386	LC1D2586 LC1DT406	LC1D406, LC1D4000	LC1D506 LC1D656 LC1D6500	LC1D806 LC1D956 LC1D800046 LC1D800086
Connection by bars or lugs									
Lug external Ø		**mm**	8	9	12	9	13	16	17
Ø of screw		**mm**	M3.5		M4	M3.5	M5	M6	M6
Screwdriver	Philips / Pozidriv		N° 2		N° 2	N° 2	N° 2	N° 3	–
	Flat screwdriver Ø		Ø6		Ø6	Ø6	Ø8	Ø8	Ø8
Key for hexagonal headed screw			–		–	–	–	–	10
Tightening torque		**N.m**	1.7		2.5	1.8	2.5	2.5	5

Control circuit connections

Connection by bars or lugs			
Lug external Ø		**mm**	8
Ø of screw		**mm**	M3.5
Screwdriver	Philips / Pozidriv		N° 2
	Flat screwdriver Ø		Ø6
Tightening torque		**N.m**	1.7

d.c. control circuit characteristics

Compatible contactor types			Standard coil LC1D096...D386 LC1DT206...DT406 LC1D2586	Low consumption coil LC1D096...D386 LC1DT206...DT406 LC1D2586	Wide range coil LC1D406...956 LC1D400046....LC1D800086
Rated insulation voltage	Conforming to IEC 60947-1	**V**	690		
Operating ranges from -40 to +70°C	Side by side mounting		0.7...1.1 Uc	0.7...1.25 Uc	Uc
	With 8 mm spacing		0.7...1.25 Uc	-	-
Operating ranges from -25 to +50°C	Side by side mounting		0.7...1.25 Uc	-	0.7 ... 1.25 Uc
Average consumption at 20 °C and at Uc	⎓	**W**	5.4	4	22
Operating time [(1)] average at Uc	Closing of NO contacts "C"	**ms**	55 to 75	55 to 75	95 to 130
	Opening of NC contacts	**ms**	45 to 65	45 to 65	-
	Opening of NO contacts "O"	**ms**	16 to 32 (12 to 22 ms without diode)	16 to 32 (12 to 22 ms without diode)	20 to 35
	Closing of NC contacts	**ms**	27 to 42 (18 to 28 ms without diode)	27 to 42 (18 to 28 ms without diode)	-
			Note: *The arcing time depends on the circuit switched by the poles. For all normal 3-phase applications, the arcing time is less than 10 ms. The load is isolated from the supply after a time equal to the sum of the opening time and the arcing time.*		
Time constant (L/R)		**ms**	28	37	75
Mechanical durability at Uc	In millions of operating cycles		30	30	10
Maximum operating rate at ambient temperature ≤ 60 °C	In operating cycles per hour		3600	3600	3600

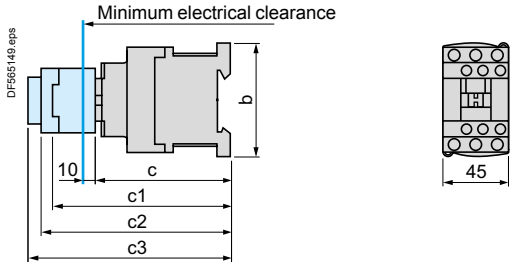
(1) The operating times depend on the type of contactor electromagnet and its control mode.
The closing time "C" is measured from the moment the coil supply is switched on to initial contact of the main poles.
The opening time "O" is measured from the moment the coil supply is switched off to the moment the main poles separate.

Characteristics of auxiliary contacts incorporated in the contactor

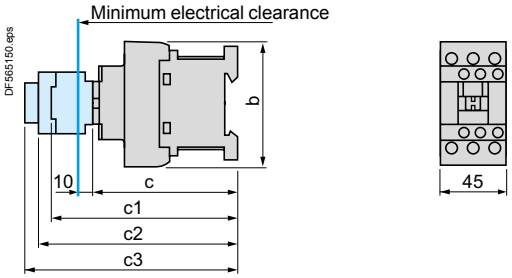
Mechanically linked contacts	Conforming to IEC 60947-5-1		Each TeSys Deca NO/NC embedded auxilliary contacts are certified 'mechanicaly linked'.
Mirror contact	Conforming to IEC 60947-4-1		All TeSys Deca NC auxilliary contacts are 'miror' certified and can be connected to a safety module.
Rated operational voltage (Ue)	Up to	**V**	690
Rated insulation voltage (Ui)	Conforming to IEC 60947-1	**V**	690
Conventional thermal current (Ith)	For ambient temperature ≤ 60 °C	**A**	10

Dimensions

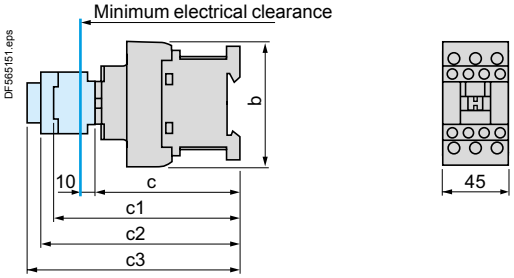
LC1D09…D18 (3-pole)



LC1D25…D38 (3-pole)

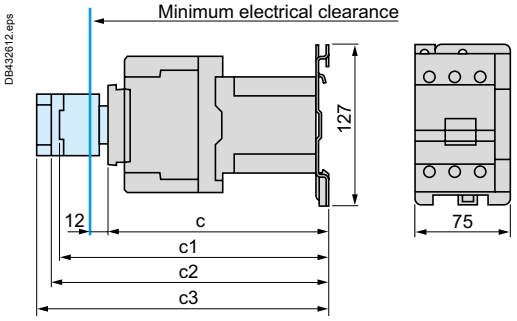


LC1DT20....DT40, LC1D098, D128, D188, D258 (4-poles)

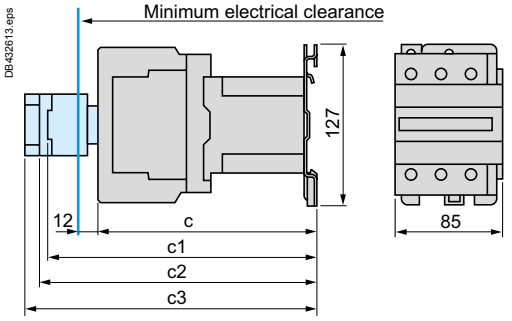


LC1		**D09…D18**	**D25…D38**	**DT20** and **DT25** **D098** and **D128**	**DT32** and **DT40** **D188** and **D258**
b	without add-on blocks	77	85	85	91
c	without cover or add-on blocks	93	99	–	–
	with cover, without add-on blocks	95	101	99	107
c1	with LAD N or C (2 or 4 contacts)	126	132	123	131
c2	with LA6 DK10, LAD 6K10	138	144	135	143
c3	with LAD T, R, S	146	152	143	151
	with LAD T, R, S and sealing cover	150	156	147	155

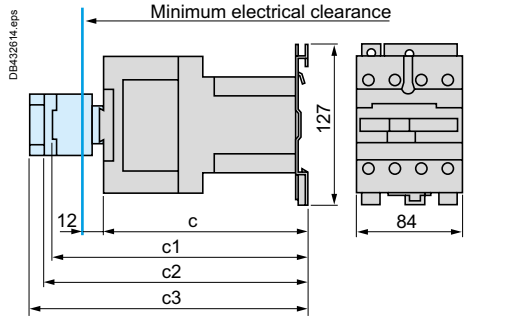
LC1D406..S207, LC1D506..S207, LC1D656..S207 (3-pole)



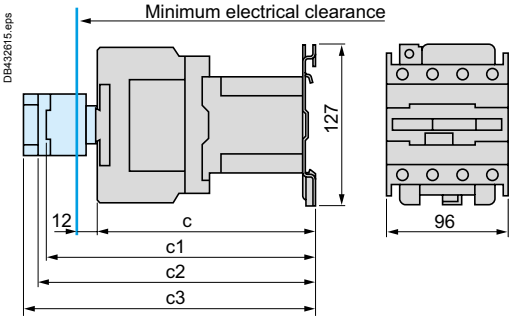
LC1D806..S207, LC1D956..S207 (3-pole)



LC1D400046..S207 (3-pole), **LC1D400086..S207** (4-pole)



LC1D8000046..S207, LC1D800086..S207 (4-pole)



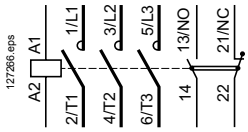
		LC1D406..S207, LC1D506..S207, LC1D656..S207	**LC1D806..S207, LC1D956..S207**	**LC1D400046..S207**	**LC1D400086..S207**	**LC1D800046**	**LC1D800086**
c	without cover or add-on blocks	171	181	171	182	181	196
	with cover, without add-on blocks	176	186	–	–	–	–
c1	with LAD N (1 contact)	196	204	196	196	204	204
	with LAD N or C (2 or 4 contacts)	202	210	202	202	210	210
c2	with LA6 DK10	213	221	213	213	221	221
c3	with LAD T, R, S	221	229	221	221	229	229
	with LAD T, R, S and sealing cover	225	233	225	225	233	233

Schemes

Contactors

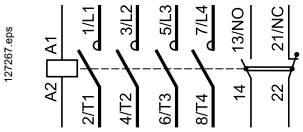
3-pole contactors

LC1D096 ... LC1D956

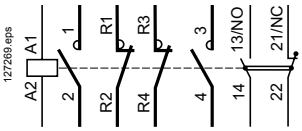


4-pole contactors

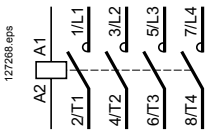
LC1DT206... DT406



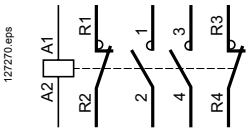
LC1D0986....D2586



LC1D400046, LC1D800046

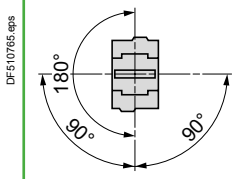
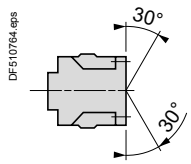
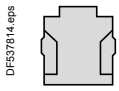
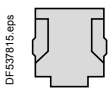


LC1D400086, LC1D800086



Characteristics

Environment

Contactor type			LC1G115… 225	LC1G265… 500	LC1G630… 800
Rated insulation voltage (Ui)	Conforming to IEC 60947-4-1, overvoltage category III, degree of pollution: 3	**V**	1000	1000	1000
Rated impulse withstand voltage (Uimp)	Coil not connected to the power circuit	**kV**	8	8	8
Conforming to standards			IEC/EN 60947-4-1, UL 60947-4-1, CSA C22.2 n° 60947-4-1, JIS C 8201-4-1, GB/T 14048.4, IEC 60721-3-3 3C3, EN 45545 R22 HL2, IEC 61373, IEC 60077, EN 50155, TB/T 3526-2018, GB 21413-1/2, GB/T 25119, GB/T 21563-2018		
Product certifications			CB scheme, CCC Mark, cULus, EAC, UKCA Marking		
Electromagnetic compatibility			IEC 60947-4-1		
Immunity			Following IEC 60947-4-1 Table 14		
Emission			Environment A according to IEC 60947-4-1		
Immunity to radiated electromagnetic interference			20 V/m according to IEC/EN 61000-4-3		
Voltage sag immunity (in complete product as well)			Conforming to SEMI-F47		
Degree of protection	Conforming to IEC 60529 / VDE 0106		IP2x with terminal shrouds LA9G37●●/ LA9G47●●		
Climatic withstand			According to IACS E10		
Ambient air temperature around the device	Storage	**°C**	-60…+80		
	Operation	**°C**	-25…+60		
	Permissible at Uc	**°C**	-40…+70		
Net weight	3P	**kg**	3.5	7	14.2
	4P	**kg**	4.2	8.3	18
Maximum operating altitude	Without derating	**m**	3000		
Operating positions	Without derating		 		
	With derating (1)		 		
Shock resistance 1/2 sine wave = 11 ms Conforming to IEC 60068-2-7	Contactor open		10 gn	10 gn	10 gn
	Contactor closed		15 gn	15 gn	15 gn
Vibration resistance 5…300 Hz Conforming to IEC 60068-2-6	Contactor open		2 gn	2 gn	2 gn
	Contactor closed		4 gn	4 gn	4 gn

(1) For derating details, please contact your Technical Support.

Characteristics

Pole characteristics

Contactor type				LC1G115	LC1G150	LC1G185	LC1G225
Number of poles				3 or 4	3 or 4	3 or 4	3 or 4
Rated operational current (Ie)	Ue ≤ 440 V	In AC-3 / AC-3e, θ ≤ 60 °C	**A**	115 / 115	150 / 145	185 / 177	225 / 209
	Ue ≤ 1000 V	In AC-1, θ ≤ 40 °C	**A**	250	275	305	330
Rated operational voltage (Ue)		Up to	**V**	1000 (1)	1000	1000	1000
Rated frequency (f) (2)			**Hz**	50 / 60	50 / 60	50 / 60	50 / 60
Frequency operating limits		With derating (3)	**Hz**	$16^{2/3}$…400	$16^{2/3}$…400	$16^{2/3}$…400	$16^{2/3}$…400
Conventional thermal current		θ ≤ 40 °C	**A**	250	275	305	330
Rated making capacity		I rms conforming to IEC 60947-4-1	**A**	Making current: 10 x I in AC-3 or 12 x I in AC-4 Making current: 13 x I in AC-3e			
Rated breaking capacity		I rms conforming to IEC 60947-4-1	**A**	Making and breaking current: 8 x I in AC-3 or 10 x I in AC-4 Making and breaking current: 8.5 x I in AC-3e			
Maximum permissible current No current flowing for previous 60 minutes, at θ ≤ 40 °C		For 10 s	**A**	1100	1200	1500	1800
		For 30 s	**A**	640	700	920	1000
		For 1 min	**A**	520	600	740	850
		For 3 min	**A**	400	450	500	560
		For 10 min	**A**	320	350	400	440
Short-circuit protection by fuses		Fuses for motor: type aM - Ue ≤ 440 V	**A**	125	160	200	250
		Fuses for motor: type aM - Ue ≤ 690 V	**A**	125	160	160	200
		Fuses for general application: type gG - Ue ≤ 690 V	**A**	315	315	315	400
Average impedance per pole		At Ith and 50 Hz	**mΩ**	0.18	0.18	0.17	0.15
Power dissipation per pole for the above operational currents		AC-3 / AC-3e	**W**	3	5	6	8
		AC-1	**W**	10	10	20	20

(1) Ue ≤ 1000 V for AC-1 / Ue ≤ 690 V for AC-3 / AC-3e / AC-4.
(2) Please consult your technical support team for application with frequencies other than 50/60 Hz.
(3) For derating details, please contact technical support.

Characteristics

Pole characteristics					
LC1G265	**LC1G330**	**LC1G400**	**LC1G500**	**LC1G630**	**LC1G800**
3 or 4	3 or 4	3 or 4	3 or 4	3 or 4	3 or 4
265 / 255	330 / 294	400 / 391	500 / 437	630 / 555	800 / 587
385	440	550	700	1050	1050
1000	1000	1000	1000	1000	1000
50 / 60	50 / 60	50 / 60	50 / 60	50 / 60	50 / 60
$16^{2/3}$…400	$16^{2/3}$…400	$16^{2/3}$…400	$16^{2/3}$…400	$16^{2/3}$…400	$16^{2/3}$…400
385	440	550	700	1050	1050
Making current: 10 x I in AC-3 or 12 x I in AC-4 Making current: 13 x I in AC-3e					
Making and breaking current: 8 x I in AC-3 or 10 x I in AC-4 Making and breaking current: 8.5 x I in AC-3e					
2200	2650	3600	4000	5050	5500
1230	1800	2400	2800	4400	4600
950	1300	1700	2200	3400	3600
620	900	1200	1500	2200	2600
480	750	1000	1200	1600	1700
315	400	500	500	630	800
250	250	315	400	500	630
400	500	630	800	1250	1250
0.144	0.144	0.1	0.08	0.065	0.065
11	16	16	20	26	42
20	30	30	40	70	70

Characteristics

Power circuit connections

Contactor type			LC1	G115	G150	G185	G225	G265	G330	G400	G500	G630	G800
Connection				Maximum c.s.a.									
	Bar	Number of bars		2	2	2	2	2	2	2	2	2	2
		Bar	mm	25 x 6	25 x 6	25 x 6	25 x 6	30 x 10	30 x 10	30 x 10	30 x 10	50 x 10	50 x 10
	Cable with lug		mm²	185	185	185	185	240	2 x 150	2 x 185	2 x 240	-	-
	Cable with connector		mm²	185	185	185	185	240	-	-	-	-	-
	Bolt diameter		mm	Ø8.5	Ø8.5	Ø8.5	Ø8.5	Ø10.6	Ø10.6	Ø10.6	Ø10.6	Ø13	Ø13
Tightening torque	Power circuit connections		N.m	18	18	18	18	35	35	35	35	58	58

Control circuit connections

Contactor type				LC1G115…225	LC1G265…330	LC1G400…500	LC1G630…800
Coil control connection (Push-in type)				Min/max c.s.a.			
	Flexible cable	1 conductor with cable end	mm²	0.25...2.5	0.25...2.5	0.25...2.5	0.25...2.5
		2 conductors with Dual Sleeve	mm²	0.5...1	0.5...1	0.5...1	0.5...1
	Solid cable	1 conductor	mm²	0.2...2.5	0.2...2.5	0.2...2.5	0.2...2.5
		Stripping length	mm	12	12	12	12
Screw driver		Flat screwdriver Ø	mm	3.5	3.5	3.5	3.5

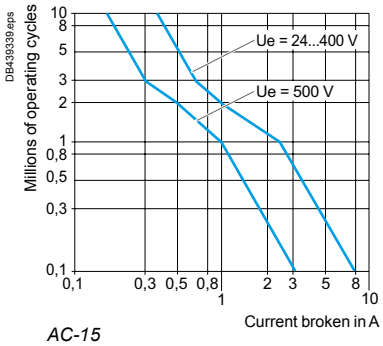
Control circuit characteristics with AC/DC coils

Contactor type					LC1G115…225	LC1G265…330	LC1G400…500	LC1G630…800
Rated control circuit voltage (Uc)				V	48…130 AC/DC 200…500 AC/DC (1)			
Control voltage limits (θ ≤ 60 °C)	AC input (50/60 Hz) /DC input	Operation			0.8 Uc Min...1.1 Uc Max			
		Drop-out			0.1 Uc Max...0.45 Uc Min			
Average consumption at 20 °C and at Uc (3 and 4-pole contactors, **Standard version – "N"**)	48...130 V AC/DC coil (EHE••••N)	Inrush	50/60 Hz coil	VA	640	780	965	990
			DC	W	445	695	760	790
		Sealed	50/60 Hz coil	VA	17.7	17.6	17.6	17.7
			DC	W	7.8	7.8	7.8	9.5
	200...500 V AC/DC coil (LSE••••N)	Inrush	50/60 Hz coil	VA	-	-	-	670
			DC	W	-	-	-	390
		Sealed	50/60 Hz coil	VA	-	-	-	17
			DC	W	-	-	-	11
Average consumption at 20 °C and at Uc (3 and 4-pole contactors, **Advanced version – "A"**)	48...130 V AC/DC coil (EHE••••A)	Inrush	50/60, 400 Hz coil	VA	260	430	450	560
			DC	W	190	360	360	440
		Sealed	50/60, 400 Hz coil	VA	8.9	11.7	11.7	12
			DC	W	5	9	8.3	8.8
Heat dissipation				W	4…5	5…6	5…6	5…6
Operating time	Closing "C"			ms	40...70	40...70	40...70	40...70
	Opening "O"			ms	15...50	15...50	15...50	15...50
Mechanical durability at Uc	In millions of operating cycles (max)				8	8	8	5
Maximum operating rate at ambient temperature ≤ 60 °C	In operating cycles per hour		AC-1		300	300	300	300
			AC-3		600	600	600	600
			AC-4		150	150	60	60

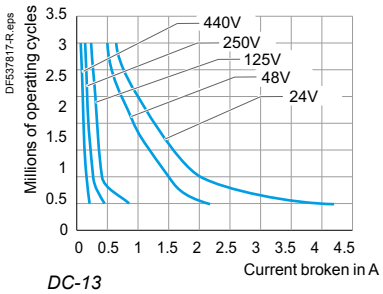
(1) 200...500 V AC/DC control voltage option is available only for LC1G630 & LC1G800 3P ratings.

Characteristics

Characteristics of auxiliary contact modules				
Mechanically linked contacts	Conforming to IEC 60947-5-1			Each contactor is equipped with 1 NO + 1 NC auxiliary contact block and they are mechanically linked mirror contacts
Mirror contact	Conforming to IEC 60947-4-1			The NC contact of the auxiliary contact block is mirror contact
Rated operational voltage (Ue)	AC-15	Up to	**V**	500
Rated operational voltage (Ue)	DC-13	Up to	**V**	440
Conventional thermal current (Ith)	For ambient temperature ≤ 60 °C		**A**	10
Number of auxiliary contact modules		Up to		4
Rated operational voltage (Ue)	AC-15	Up to	**V**	500
Rated operational voltage (Ue)	DC-13	Up to	**V**	440
Rated thermal current (Ith)	For ambient temperature ≤ 60 °C		**A**	10
Minimum load				1 mA at 17 V DC



AC-15



DC-13

Operational power of contacts conforming to IEC 60947-5-1 - Electrical durability

category AC-15

Operating cycles	V	24	48	115	230	400	500
1 million	**VA**	60	120	280	560	800	500
2 million	**VA**	24	48	115	230	400	250
3 million	**VA**	16	32	80	160	280	150

category DC-13

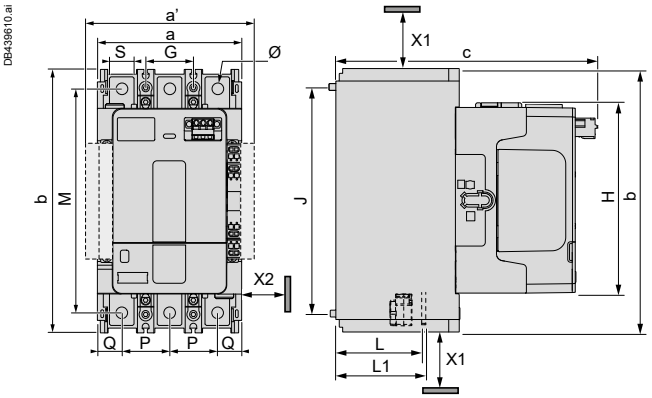
Operating cycles	V	24	48	125	250	440
0.5 million	**W**	100	100	105	110	88
1 million	**W**	48	72	54	54	55
2 million	**W**	24	36	38	38	39
3 million	**W**	16	24	25	25	33

Connector characteristics				
Push-in connection - Dual input				Min/max c.s.a.
Flexible cable per input	1 conductor with cable end	**mm²**		0.75...2.5
	2 conductors with Dual Sleeve	**mm²**		0.75...2.5
	Stripping length	**mm²**		10
Solid cable per input	1 conductor	**mm²**		0.75...2.5
	Stripping length	**mm**		12

Dimensions

LC1G115...225

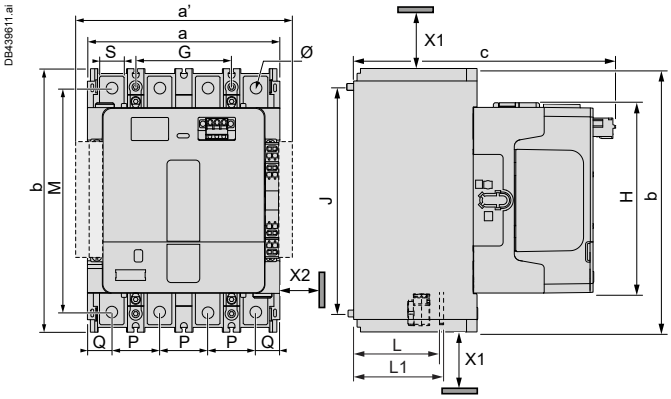
3-pole



All dimensions are in mm.

a	b	c	G	J	M	H	L	L1	P	Q	S	Ø
107.7	193	192.9	35	166	164.1	139.4	66.9	69.9	35	18.9	18	8.5

4-pole



All dimensions are in mm.

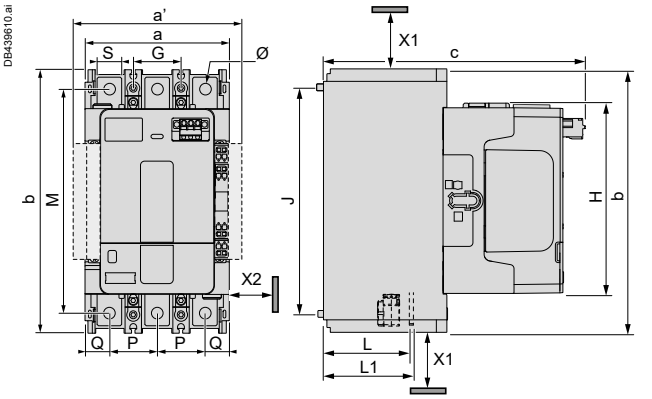
a	b	c	G	J	M	H	L	L1	P	Q	S	Ø
142.7	193	192.9	70	166	164.1	139.4	66.9	69.9	35	18.9	18	8.5

X1 (mm) = Minimum electrical clearance.
LC1G115…800, up to 1000 V: 40 mm
X2 (mm) = Minimum electrical clearance according to operating voltage inside metallic cabinets / adjacent installation of contactors.
LC1G115…800: 5 mm.

a' = a + 20 mm with additional auxiliary contact blocks on both sides (externally).

LC1G265...500

3-pole

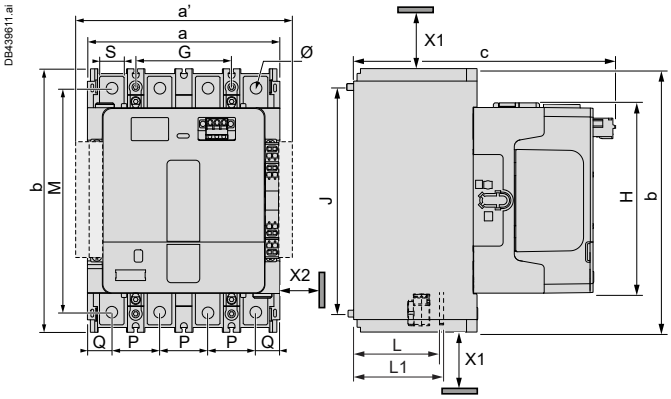


All dimensions are in mm.

a	b	c	G	J	M	H	L	L1
140	225	225.5	45	187	197	161.8	78.8	LC1G265-330: 81.8 LC1G400: 82.8 LC1G500: 83.8

P	Q	S	Ø
45	25	30	10.6

4-pole



All dimensions are in mm.

a	b	c	G	J	M	H	L	L1
185	225	225.5	90	187	197	161.8	78.8	LC1G265-330: 81.8 LC1G400: 82.8 LC1G500: 83.8

P	Q	S	Ø
45	25	30	10.6

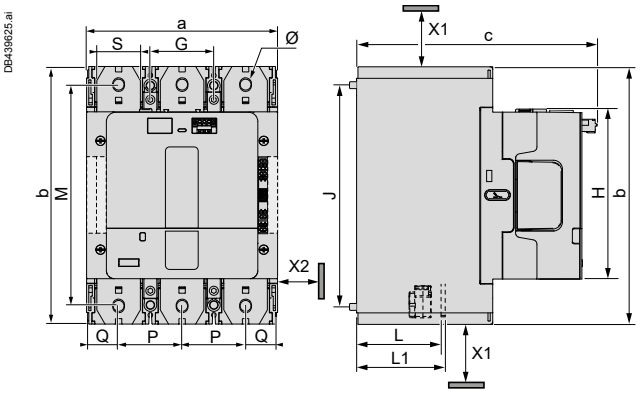
X1 (mm) = Minimum electrical clearance.
LC1G115…800, up to 1000 V: 40 mm.
X2 (mm) = Minimum electrical clearance according to operating voltage inside metallic cabinets / adjacent installation of contactors.
LC1G115…800: 5 mm.

a' = a + 20 mm with additional auxiliary contact blocks on both sides (externally).

Dimensions and schemes

LC1G630...800

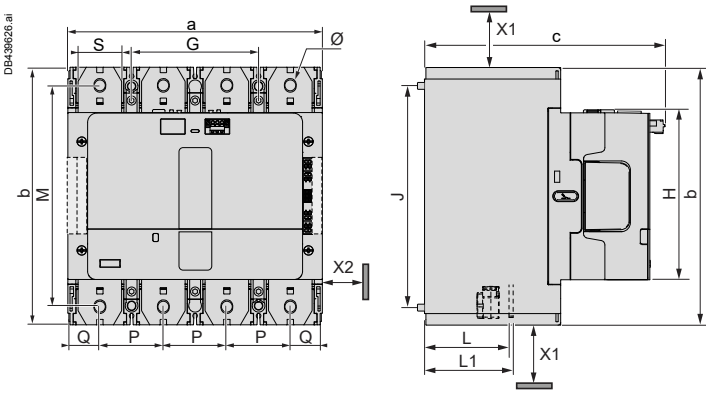
3-pole



All dimensions are in mm.

a	b	c	G	J	M	H	L	L1	P	Q	S	Ø
210.6	284	265.6	70	242	244	187.4	107	113	70	35.3	48	13

4-pole



All dimensions are in mm.

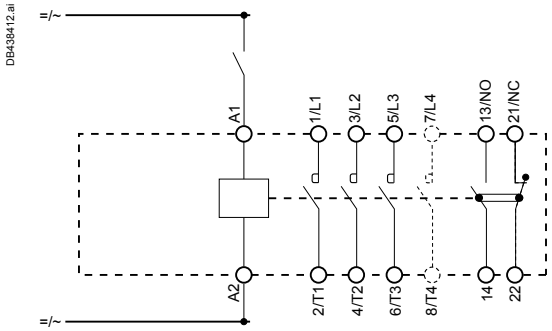
a	b	c	G	J	M	H	L	L1	P	Q	S	Ø
280.6	284	265.6	140	242	244	187.4	107	113	70	35.3	48	13

X1 (mm) = Minimum electrical clearance.
LC1G115…800, up to 1000 V: 40 mm.
X2 (mm) = Minimum electrical clearance according to operating voltage inside metallic cabinets / adjacent installation of contactors.
LC1G115…800: 5 mm.

Contactors

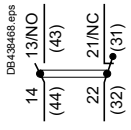
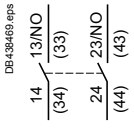
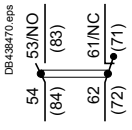
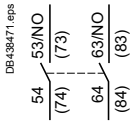
3-pole or 4-pole contactors

LC1G115...G800



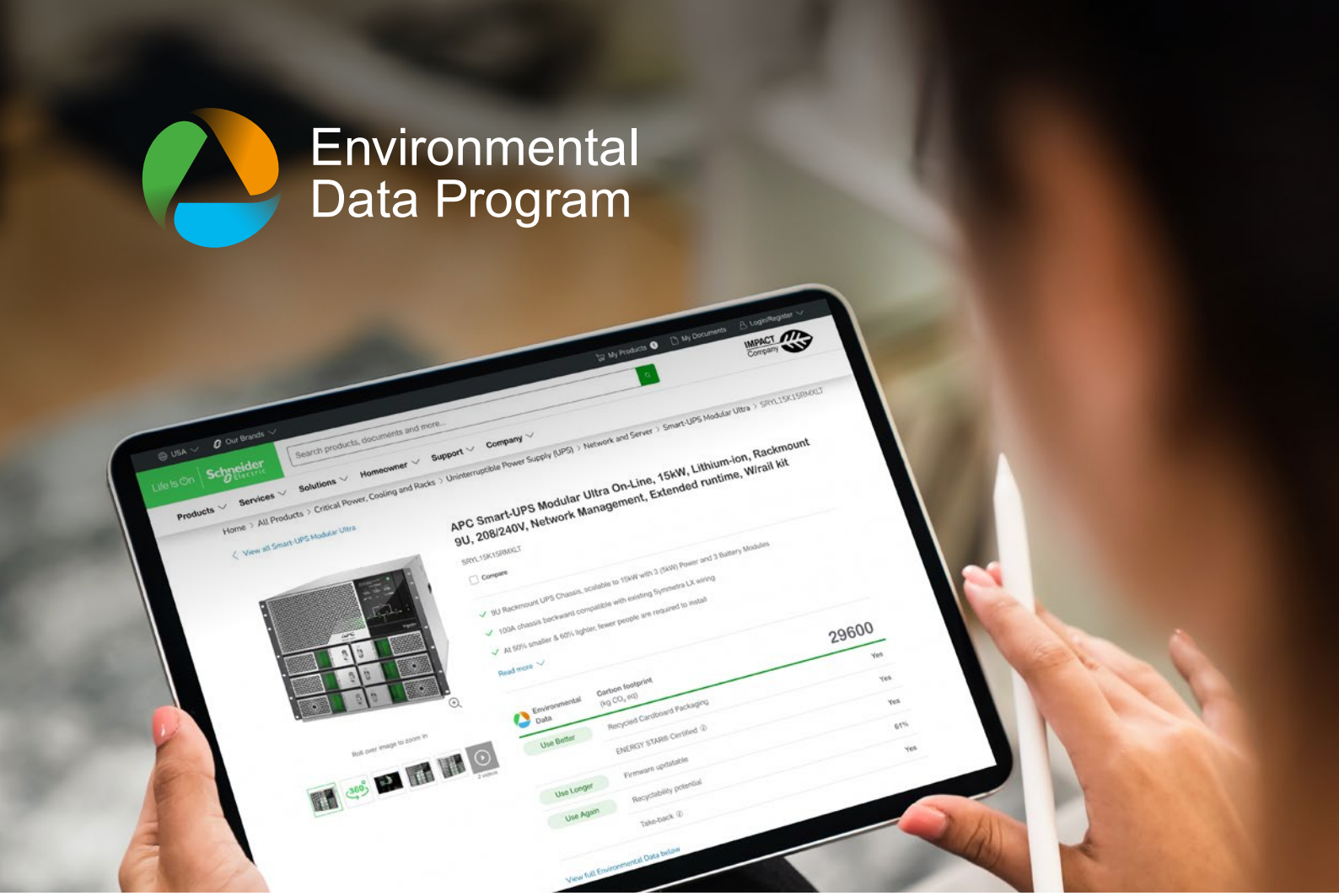
Add-on blocks

Instantaneous auxiliary contacts

1 N/O + 1 N/C	2 N/O	1 N/O + 1 N/C	2 N/O
LAG8N113P **mirror contacts**	**LAG8N203P**	**LAG8N113** **mirror contacts**	**LAG8N203**
			

Note: *Terminal numbers in brackets refer to blocks when mounted upside down, on left-hand side of contactor.*

Environmental Data Program

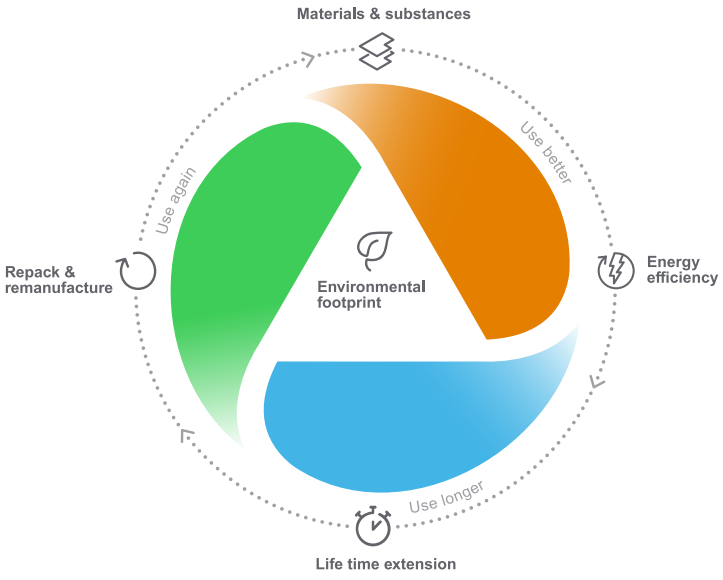


Next-level transparency for better-informed product choices

The Environmental Data Program is a framework for how we measure, categorize, and compare the environmental attributes and footprint of our products.

Using a rigorous, fact-based methodology, the program provides environmental data from across the product lifecycle.

Five data categories across the product lifecycle



Use Better: How sustainable a product is, including environmental footprint, materials and substances, packaging, and energy efficiency.

Use Longer: How a product's life time can be effectively extended in terms of repairability and updatability.

Use Again: How a product can be reused, from dismantling and remanufacturing to recyclability and manufacturer take back.

With this transparent, verified data, customers and partners are empowered to make conscious environmental choices and accurately evaluate and report on sustainability performance.

All our hardware offers have an associated environmental data available on se.com product pages.

Learn more about the Environmental Data Program

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