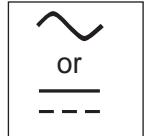


Contactors

F 3-pole contactors for motor control, 115 to 780 A
 Utilisation category AC-3
 Control circuit : a.c. or d.c.



References

3-pole contactors



LC1-F225



LC1-F630

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3							Rated operational current in AC-3	Basic reference. (2)	Weight
220 V	380 V	415 V	440 V	500 V	660 V	1000 V	up to 440 V	Screw fixing, cabling (1)	kg
kW	kW	kW	kW	kW	kW	kW	A		
30	55	59	59	75	80	65	115	LC1-F115	3.430
40	75	80	80	90	100	65	150	LC1-F150	3.430
55	90	100	100	110	110	100	185	LC1-F185	4.650
63	110	110	110	129	129	100	225	LC1-F225	4.750
75	132	140	140	160	160	147	265	LC1-F265	7.440
100	160	180	200	200	220	160	330	LC1-F330	8.600
110	200	220	250	257	280	185	400	LC1-F400	9.100
147	250	280	295	355	335	335	500	LC1-F500	11.350
200	335	375	400	400	450	450	630	LC1-F630	18.600
220	400	425	425	450	475	450	780	LC1-F780	39.500

Note : auxiliary contact blocks and modules : see pages 1/66 and 1/67.

(1) Up to rating LC1-F630, power terminals may be protected by the addition of shrouds, to be ordered separately (see page 1/69).

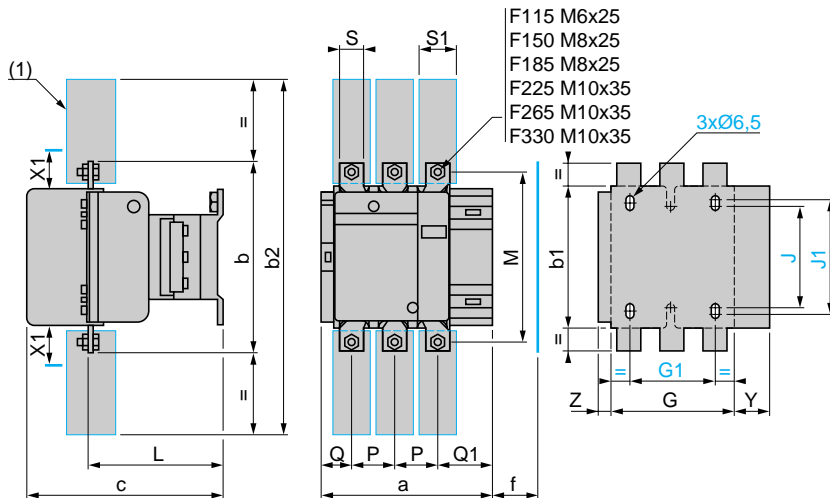
(2) Coils to be ordered separately :

- a.c. supply, see pages 1/72 and 1/73
- d.c. supply, see pages 1/74 and 1/75.

Other versions

Please consult your Regional customer centre.

LC1-F115 to F330



X1 = Minimum electrical clearance according to operating voltage and breaking capacity

LC1- 200 ... 500 V 600 ... 1000 V

F115, F150	10	15
F185	10	15
F225, F265	10	15
F330	10	15

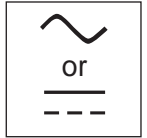
(1) Power terminal protection shroud (see page 1/69)

LC1-	a	b	b1	b2	c	f	G	G1	J	J1	L	M	P	Q	Q1	S	S1	Y	Z	
F115	3P	163.5	162	137	265	171	131	106	80	106	120	107	147	37	29.5	60	20	26	44	13.5
	4P	200.5	162	137	265	171	131	143	80	106	120	107	147	37	29.5	60	20	26	44	13.5
F150	3P	163.5	170	137	301	171	131	106	80	106	120	107	150	40	26	57.5	20	34	44	13.5
	4P	200.5	170	137	301	171	131	143	80	106	120	107	150	40	26	55.5	20	34	44	13.5
F185	3P	168.5	174	137	305	181	130	111	80	106	120	113.5	154	40	29	59.5	20	34	44	13.5
	4P	208.5	174	137	305	181	130	151	80	106	120	113.5	154	40	29	59.5	20	34	44	13.5
F225	3P	168.5	197	137	364	181	130	111	80	106	120	113.5	172	48	21	51.5	25	44.5	44	13.5
	4P	208.5	197	137	364	181	130	151	80	106	120	113.5	172	48	17	47.5	25	44.5	44	13.5
F265	3P	201.5	203	145	375	213	147	142	96	106	120	141	178	48	39	66.5	25	44.5	38	21.5
	4P	244.5	203	145	375	213	147	190	96	106	120	141	178	48	34	66.5	25	44.5	38	21.5
F330	3P	213	206	145	375	219	147	154.5	96	106	120	145	181	48	43	74	25	44.5	38	20.5
	4P	261	206	145	375	219	147	202.5	96	106	120	145	181	48	43	74	25	44.5	38	20.5

f = minimum distance required for coil removal

Contactors

F contactors for heating, lighting, etc., 200 to 1600 A
 Utilisation category AC-1
 Control circuit : a.c. or d.c.



References

2, 3 and 4-pole contactors



LC1-F115



LC1-F1854



LC1-F6304

Maximum current in AC-1 ($\theta \leq 40^\circ\text{C}$)	Number of poles 	Basic reference. (2)	Weight
			kg
200	3	LC1-F115	3.430
	4	LC1-F1154	3.830
250	3	LC1-F150	3.430
	4	LC1-F1504	3.830
275	3	LC1-F185	4.650
	4	LC1-F1854	5.450
315	3	LC1-F225	4.750
	4	LC1-F2254	5.550
350	3	LC1-F265	7.440
	4	LC1-F2654	8.540
400	3	LC1-F330	8.600
	4	LC1-F3304	9.500
500	2	LC1-F4002	8.000
	3	LC1-F400	9.100
	4	LC1-F4004	10.200
700	2	LC1-F5002	9.750
	3	LC1-F500	11.350
	4	LC1-F5004	12.950
1000	2	LC1-F6302	15.500
	3	LC1-F630	18.600
	4	LC1-F6304	21.500
1600	3	LC1-F780	39.500
	4	LC1-F7804	48.000

Note : auxiliary contact blocks and modules : see pages 1/66 and 1/67.

(1) Up to rating LC1-F630, power terminals may be protected by the addition of shrouds, to be ordered separately (see page 1/69).

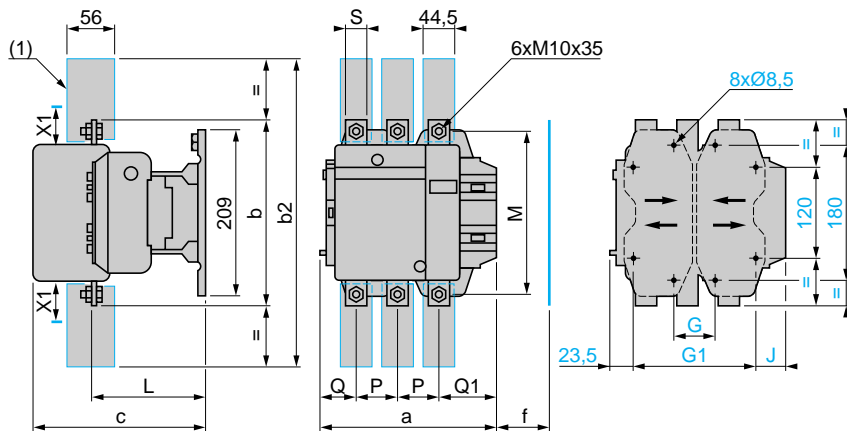
(2) Coils to be ordered separately :

- a.c. supply, see pages 1/72 and 1/73
- d.c. supply, see pages 1/74 and 1/75.

Other versions

Please consult your Regional customer centre.

LC1-F400 and F500



X1 = Minimum electrical clearance according to operating voltage and breaking capacity

LC1- 200 ... 500 V 600 ... 1000 V

F400	15	20
F500	15	20

(1) Power terminal protection shroud (see page 1/69)

LC1-	a	b	b2	c	f	G*	G min	G max	G1*	G1 min	G1 max	J	L	M	P	Q	Q1	S	
F400	2P	213	206	375	219	119	80	66	102	170	156	192	19.5	145	181	48	69	96	25
	3P	213	206	375	219	119	80	66	102	170	156	192	19.5	145	181	48	43	74	25
	4P	261	206	375	219	119	80	66	150	170	156	240	67.5	145	181	48	43	74	25
F500	2P	233	238	400	232	141	80	66	120	170	156	210	39.5	146	208	55	76	102	30
	3P	233	238	400	232	141	80	66	120	170	156	210	39.5	146	208	55	46	77	30
	4P	288	238	400	232	141	140	66	175	230	156	265	34.5	146	208	55	46	77	30

* supplied

f = minimum distance required for coil removal

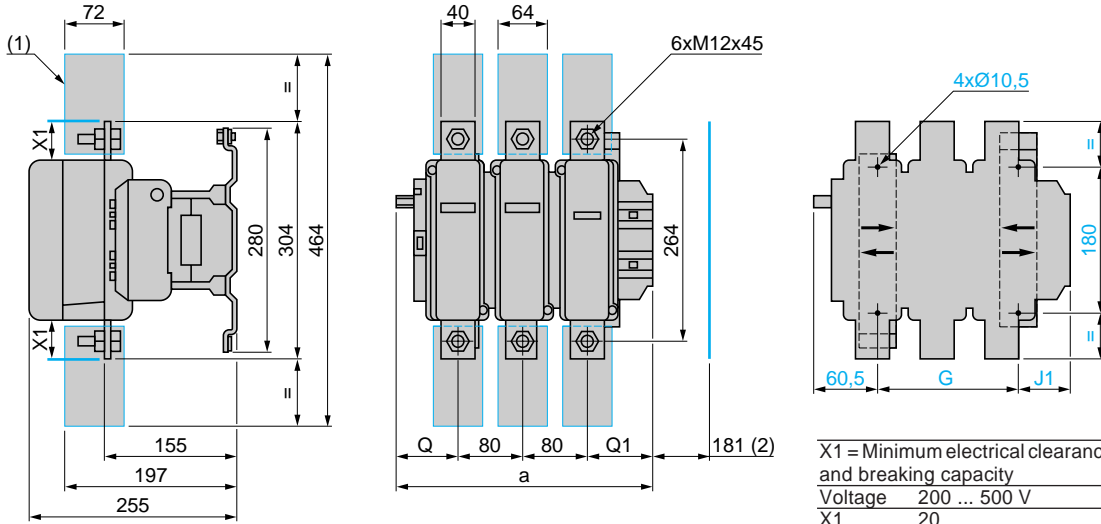
Contactors

Contactors type LC1-F

Dimensions

References :
pages 1/56 and 1/57, 1/66 to 1/69

LC1-F630



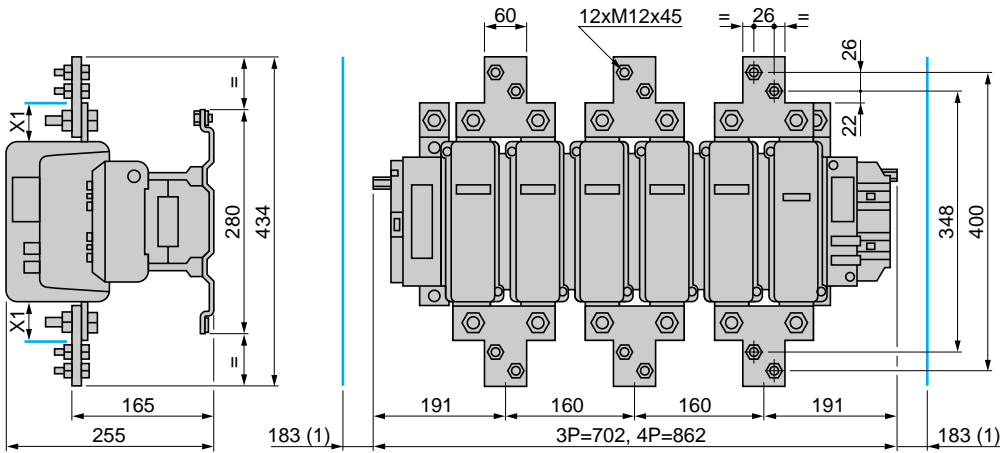
X1 = Minimum electrical clearance according to operating voltage and breaking capacity

Voltage	200 ... 500 V	690 ... 1000 V
X1	20	30

- (1) Power terminal protection shroud (see page 1/69)
(2) Minimum distance required for coil removal

LC1-F630	a	G suppl.	G min	G max	J1	Q	Q1
2P	309	180	100	195	68.5	102	127
3P	309	180	100	195	68.5	60	89
4P	389	240	150	275	68.5	60	89

LC1-F780

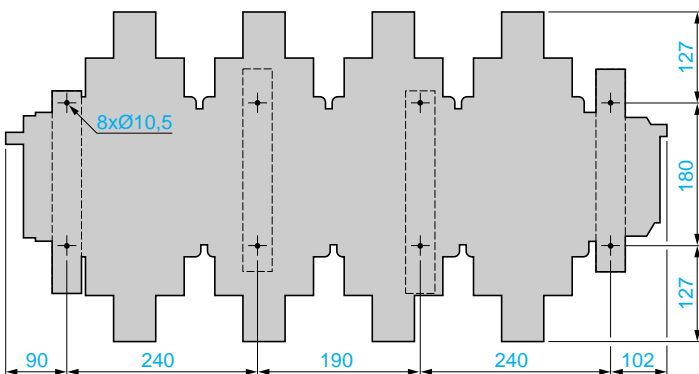


X1 = Minimum electrical clearance according to operating voltage and breaking capacity

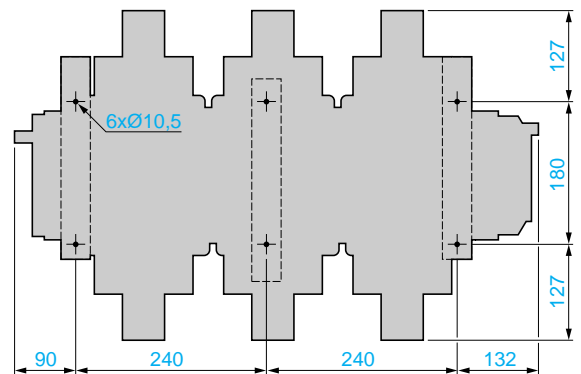
Voltage	200 ... 500 V	690 ... 1000 V
X1	30	35

- (1) Minimum distance required for removal of each coil

Fixing centres of LC1-F7804



Fixing centres of LC1-F780



Contactors

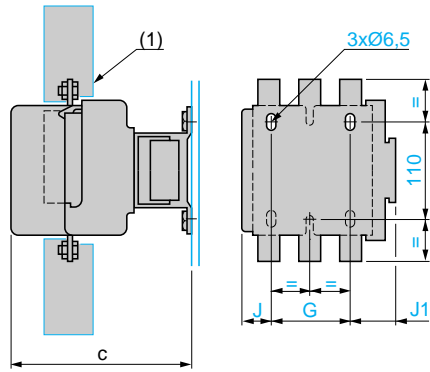
Contactors type LC1-F

Mounting

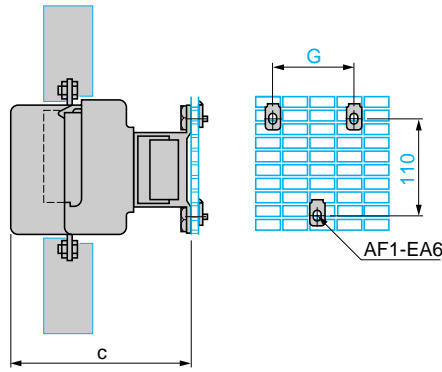
References :
pages 1/56 and 1/57, 1/66 to 1/69

LC1-F115 to F330

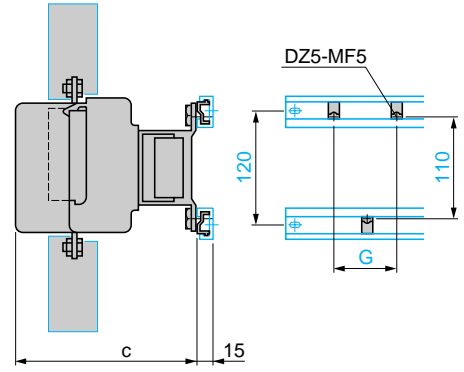
On panel



On pre-slotted mounting plate AM1-PA, PB, PC



On rails DZ5-MB on 120 mm centres



LC1-	F115, F150	F185, F225	F265, F330
c (3) 3P	171	181	213 219
4P	171	181	213 219
G	3P 80	80	96
	4P 80	80	96
J	3P 26.5	29	44.5
	4P 45	49	68.5
J1	3P 57	59.5	61.5
	4P 75.5	79.5	85.5

LC1-	F115, F150	F185, F225	F265, F330
c (3) 3P	171	181	213 219
4P	171	181	213 219
G	3P 80	80	96
	4P 80	80	96

LC1-	F115, F150	F185, F225	F265, F330
c (3) 3P	171	181	213 219
4P	171	181	213 219
G	3P 80	80	96
	4P 80	80	96

(1) Power terminal protection shroud
(see page 1/69)

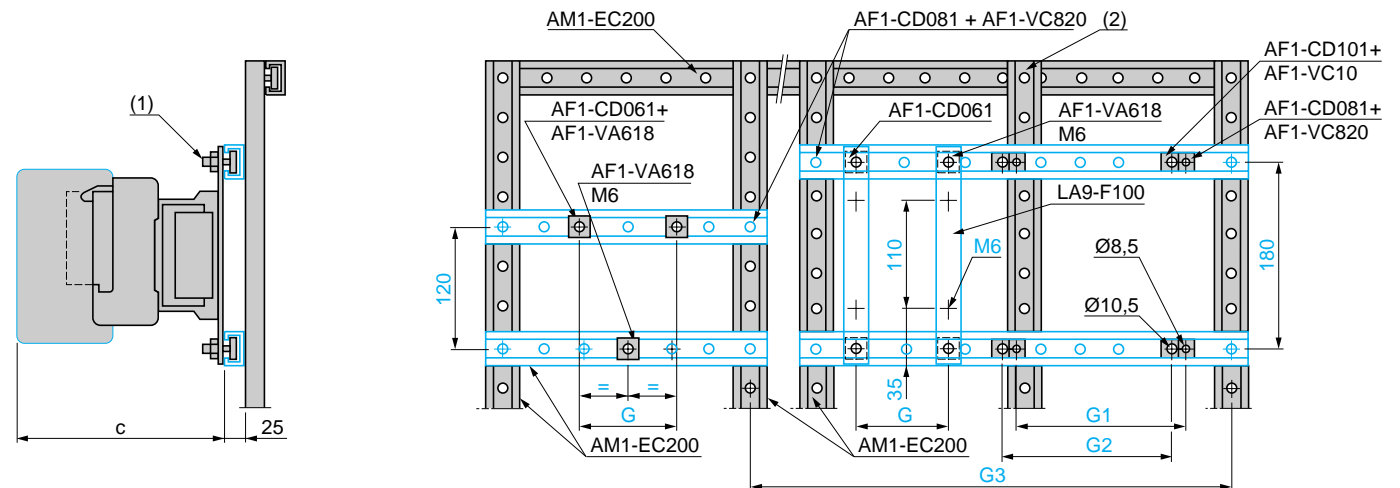
(3) See X1, minimum electrical clearance
pages 1/56 to 1/58

LC1-F

On 2 notched rails AM1-EC●●●

LC1-F115 to F330

LC1-F400 to F780



LC1-	F115, F150	F185, F225	F265	F330	F400	F500	F630	F780
c	3P 165 (3)	176	207	213	219	232	255	255
	4P 165 (3)	176	207	213	219	232	255	255
G (M6)	3P 80	80	96	96	-	-	-	-
	4P 80	80	96	96	-	-	-	-
G1 (Ø 8.5)	3P -	-	-	-	80	80	-	-
	4P -	-	-	-	80	140	-	-
G2 (Ø 10.5)	3P -	-	-	-	-	-	180	See page 1/58
	4P -	-	-	-	-	-	240	

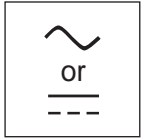
(1) AF1-CD●●● and AF1-VA●●●

(2) This AM1-EC200 upright is required when G2 or G3 is greater than 700 mm

(3) + 6 mm with timer block on LC1-F

Contactors

F 3-pole reversing contactors for motor control, 115 to 265 A
Utilisation category AC-3
Assembled by Telemecanique



References

3-pole reversing contactors (horizontally mounted) (1)

Pre-wired power connections

Standard power ratings of 3-phase motors 50/60 Hz in category AC-3								Operational current in AC-3 up to 440 V A	Maximum operational voltage V	Contactors supplied without coil (2)	Weight kg
220 V	380 V	415 V	440 V	500 V	660 V	1000 V					
30	55	59	59	75	80	65	115	1000	LC2-F115	7.560	
40	75	80	80	90	100	65	150	1000	LC2-F150	7.560	
55	90	100	100	110	110	100	185	1000	LC2-F185	10.100	
63	110	110	110	129	129	100	225	1000	LC2-F225	14.200	
75	132	140	140	160	160	147	265	1000	LC2-F265	16.480	

Accessories (to be ordered separately)

Description	For reversing contactors	Number required	Reference	Weight kg
Power terminal protection shrouds	LC2-F115	2	LA9-F701	0.250
	LC2-F150, F185	2	LA9-F702	0.250
	LC2-F225, F265	2	LA9-F703	0.250

Auxiliary contact blocks and add-on modules

See pages 1/66 to 1/68

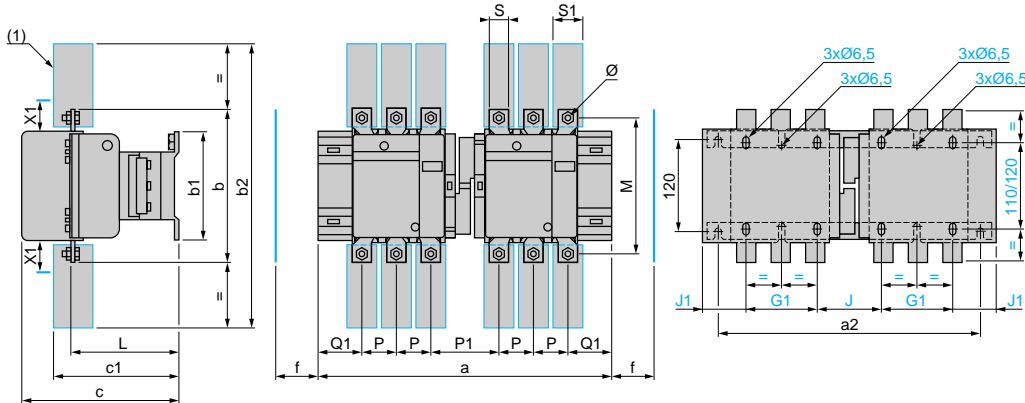
(1) Fitted with mechanical interlock without electrical interlocking. Order separately 2 auxiliary contact blocks LA1-DN1 to obtain electrical interlocking between the 2 contactors, see page 1/67. For the accessories, see pages 1/68 to 1/71.

(2) Coils to be ordered separately :

- a.c. supply, see pages 1/72 and 1/73.
- d.c. supply, see page 1/75.

Power terminals can be protected against direct finger contact by the addition of shrouds, to be ordered separately, see above.

Assembled by Telemecanique
LC2-F115 to F265 (reverser supplied on 2 bars which can be used for fixing the device)



f - Minimum distance required for coil removal.

X1 = Minimum electrical clearance according to operational voltage and breaking capacity

LC1-	200...500 V	660...1000 V
F115, F150	10	15
F185	10	15
F225, F265	10	15

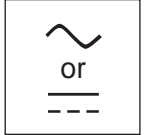
Bar fixing centres :
vertical : 120 mm.
horizontal : a2 see table

LC2-	a	a2	b	b1	b2	c	c1	G1	J	J1	L	M	P	P1	Q1	S	S1	f	Ø	
F115	3P	345	317	162	137	265	171	130	80	71	57	107	147	37	77	60	20	26	131	M6
	4P	419	378	162	137	265	171	130	80	108	75.5	107	147	37	77	60	20	26	131	M6
F150	3P	345	317	170	137	301	171	133.5	80	71	57	107	150	40	71	57	20	34	131	M8
	4P	422	381	170	137	301	171	133.5	80	111	75.5	107	150	40	71	55.5	20	34	131	M8
F185	3P	357	326	174	137	305	181	140	80	78	59.5	113.5	154	40	78	59.5	20	34	130	M8
	4P	437	390	174	137	305	181	140	80	118	79.5	113.5	154	40	78	59.5	20	34	130	M8
F225	3P	357	326	197	137	364	181	148.5	80	78	59.5	113.5	172	48	62	51.5	25	44.5	130	M10
	4P	437	390	197	137	364	181	148.5	80	118	79.5	113.5	172	48	54	47.5	25	44.5	130	M10
F265	3P	425	386	203	145	375	213	175	96	109	61.5	141	178	48	100	66.5	25	44.5	147	M10
	4P	521	464	203	145	375	213	175	96	157	85.5	141	178	48	100	66.5	25	44.5	147	M10

(1) Power terminal protection shroud.

Contactors

F 4-pole changeover contactor pairs for distribution circuits, etc.
 Utilisation category AC-1
 Assembled by Telemecanique



References

4-pole changeover contactor pairs (horizontally mounted) (1)

Pre-wired power connections			
Utilisation category AC-1 Non inductive loads Maximum operational current $\theta < 40\text{ }^\circ\text{C}$	Maximum operational voltage	Contactors supplied without coil (2)	Weight
A	V		kg
200	1000	LC2-F1154	8.860
250	1000	LC2-F1504	8.860
275	1000	LC2-F1854	12.100
315	1000	LC2-F2254	15.200
350	1000	LC2-F2654	19.480

Accessories (to be ordered separately)

Description	For changeover pairs	Number required	Reference	Weight kg
Power terminal protection shrouds	LC2-F1154	2	LA9-F706	0.250
	LC2-F1504, F1854	2	LA9-F707	0.250
	LC2-F2254, F2654	2	LA9-F708	0.250

Auxiliary contact blocks

See pages 1/66 to 1/68

(1) Fitted with mechanical interlock without electrical interlocking. Order separately 2 auxiliary contact blocks LA1-DN1 to obtain electrical interlocking between the 2 contactors, see page 1/67. For the accessories, see pages 1/68 to 1/71.

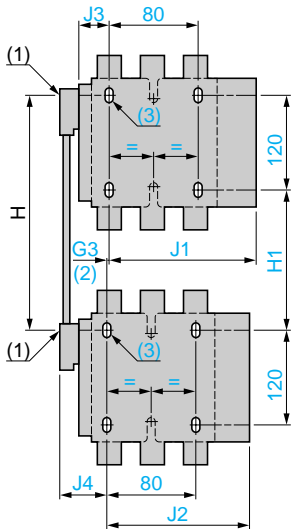
(2) Coils to be ordered separately :

- a.c. supply, see pages 1/72 and 1/73.
- d.c. supply, see page 1/75.

Power terminals can be protected against direct finger contact by the addition of shrouds, to be ordered separately, see above.

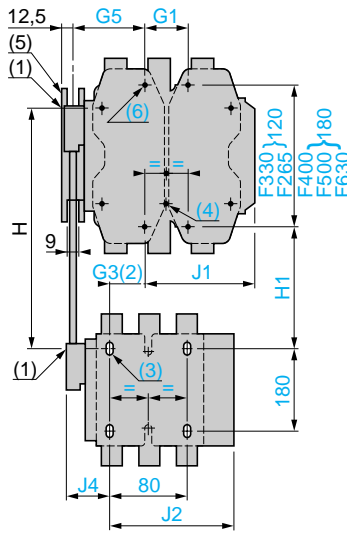
For customer assembly, with mechanical interlock (MI) LA9-F●●●, fixing recommended on AM1-EC●●● uprights.
 2 x LC1 identical or different ratings (LC1-F115 to F630). See pages 1/62 to 1/65.

Assembly A



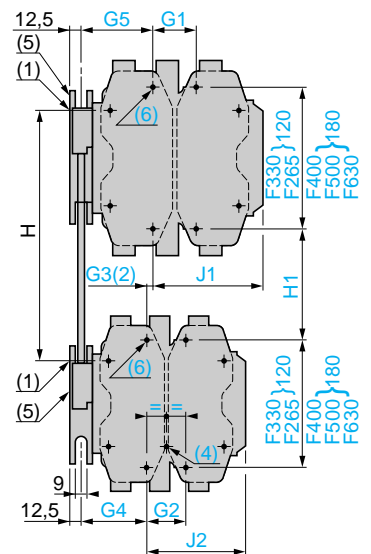
- (1) Mechanical interlock shaft.
- (2) For assembly of contactors of different ratings only.

Assembly B



- (3) 4 x Ø6.5 for LC1-F115 to F225
- (4) 4 x Ø6.5 for LC1-F265
- (5) Mechanical interlock guide bracket

Assembly C



- (6) 4 x Ø8.5 for LC1-F400, F500 or 4 x Ø10.5 for LC1-F630

Contactors

Reversing contactors and changeover contactor pairs LC2-F
 Components for assembling 3-pole reversing contactors
 and changeover contactor pairs, for customer assembly

References

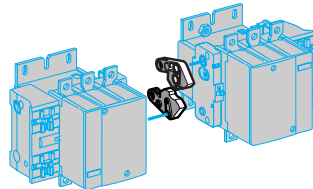
Horizontally mounted

Reversers assembled
 using 2 contactors of
 identical rating, type :

- LC1-F115
- LC1-F150
- LC1-F185
- LC1-F225
- LC1-F265
- LC1-F330
- LC1-F400
- LC1-F500
- LC1-F630

Mechanical interlocks

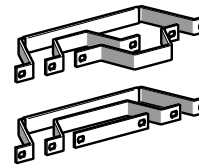
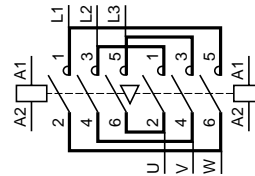
LA9-F●●970



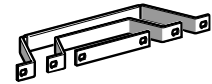
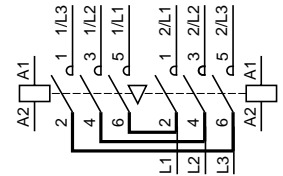
Sets of power connections

Reversing contactors

LA9-F●●●76



3-pole changeover contactor
 pairs (1)
 LA9-F●●●82



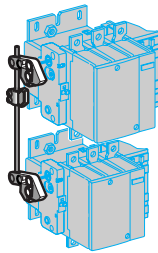
Vertically mounted

Reversers assembled
 using 2 contactors of
 identical rating, type :

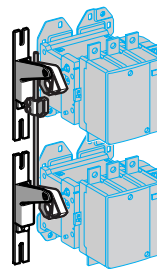
- LC1-F115
- LC1-F150
- LC1-F185
- LC1-F225
- LC1-F265
- LC1-F330
- LC1-F400
- LC1-F500
- LC1-F630

Mechanical interlocks

LA9-FF4F
 LA9-FG4G

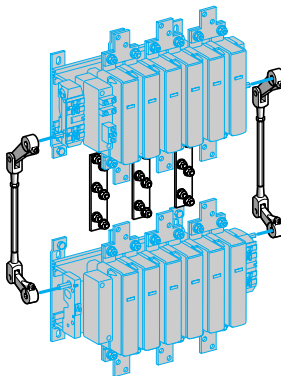


LA9-FH4H
 LA9-FJ4J
 LA9-FK4K
 LA9-FL4L



LC1-F780

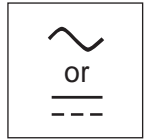
LA9-FX970



(1) For 4-pole changeover contactor pairs, see pages 1/64 and 1/65.

Contactors

Reversing contactors and changeover contactor pairs LC2-F
Components for assembling 3-pole reversing contactors
and changeover contactor pairs, for customer assembly



References

Reversers and changeover contactor pairs assembled using 2 contactors of identical rating

Contactor type (1)	Set of power connections		Mechanical interlock	
	Reference	Weight kg	Kit reference	Weight kg

For assembly of 3-pole reversing contactors for motor control

Horizontally mounted

LC1-F115	LA9-FF976	0.600	LA9-FF970	0.060
LC1-F150	LA9-F15076	0.600	LA9-FF970	0.060
LC1-F185	LA9-FG976	0.780	LA9-FG970	0.060
LC1-F225	LA9-F22576	1.500	LA9-FG970	0.060
LC1-F265	LA9-FH976	1.500	LA9-FJ970	0.140
LC1-F330	LA9-FJ976	2.100	LA9-FJ970	0.140
LC1-F400	LA9-FJ976	2.100	LA9-FJ970	0.140
LC1-F500	LA9-FK976	2.350	LA9-FJ970	0.140
LC1-F630	LA9-FL976	3.800	LA9-FL970	0.150

Vertically mounted

LC1-F115 or F150	(2)	–	LA9-FF4F	0.345
LC1-F185	(2)	–	LA9-FG4G	0.350
LC1-F225	(2)	–	LA9-FG4G	0.350
LC1-F265	(2)	–	LA9-FH4H	1.060
LC1-F330	(2)	–	LA9-FJ4J	1.200
LC1-F400	(2)	–	LA9-FJ4J	1.200
LC1-F500	(2)	–	LA9-FK4K	1.200
LC1-F630	(2)	–	LA9-FL4L	1.220
LC1-F780	(3)	–	LA9-FX970 (3)	6.100

For assembly of 3-pole changeover contactor pairs (4)

Horizontally mounted

LC1-F115	LA9-FF982	0.460	LA9-FF970	0.060
LC1-F150	LA9-F15082	0.460	LA9-FF970	0.060
LC1-F185	LA9-FG982	0.610	LA9-FG970	0.060
LC1-F225	LA9-F22582	1.200	LA9-FG970	0.060
LC1-F265	LA9-FH982	1.200	LA9-FJ970	0.140
LC1-F330	LA9-FJ982	1.800	LA9-FJ970	0.140
LC1-F400	LA9-FJ982	1.800	LA9-FJ970	0.140
LC1-F500	LA9-FK982	2.300	LA9-FJ970	0.140
LC1-F630	LA9-FL982	3.400	LA9-FL970	0.150

Vertically mounted

LC1-F115 or F150	(2)	–	LA9-FF4F	0.345
LC1-F185	(2)	–	LA9-FG4G	0.350
LC1-F225	(2)	–	LA9-FG4G	0.350
LC1-F265	(2)	–	LA9-FH4H	1.060
LC1-F330	(2)	–	LA9-FJ4J	1.200
LC1-F400	(2)	–	LA9-FJ4J	1.200
LC1-F500	(2)	–	LA9-FK4K	1.200
LC1-F630	(2)	–	LA9-FL4L	1.220
LC1-F780	(5)	–	LA9-FX971 (5)	7.800

(1) To order the 2 contactors : see pages 1/56 and 1/57. Order 2 contact blocks LA1-DN●1 to obtain electrical interlocking between the 2 contactors : see page 1/67.

(2) All power connections are to be made by the customer, except for contactors type LC1-F780.

(3) Double mechanical interlock mechanism with 2 interlock connecting rods and 3 power connecting links.

(4) For assembly of 4-pole changeover contactor pairs, see pages 1/64 and 1/65.

(5) Double mechanical interlock mechanism with 2 interlock connecting rods and 4 power connecting links.

Contactors

Reversing contactors and changeover contactor pairs LC2-F
Components for assembling 3 and 4-pole reversing contactors
and changeover contactor pairs, for customer assembly

References

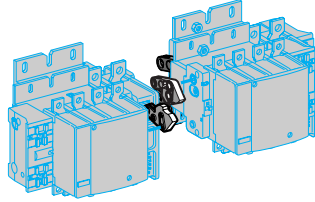
Horizontally mounted

Changeover pairs
assembled using
2 contactors of
identical rating, type :

- LC1-F1154
- LC1-F1504
- LC1-F1854
- LC1-F2254
- LC1-F2654
- LC1-F3304
- LC1-F4004
- LC1-F5304
- LC1-F6304

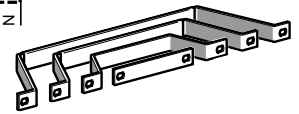
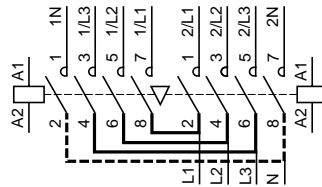
Mechanical interlocks

LA9-F●970



Sets of power connections

4-pole changeover
contactor pairs (1)
LA9-F●●77

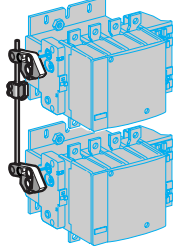


Vertically mounted

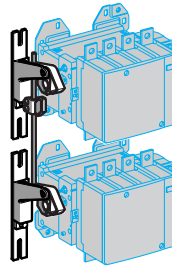
Changeover pairs
assembled using
2 contactors of
identical rating, type :

- LC1-F1154
- LC1-F1504
- LC1-F1854
- LC1-F2254
- LC1-F2654
- LC1-F3304
- LC1-F4004
- LC1-F5004
- LC1-F6304

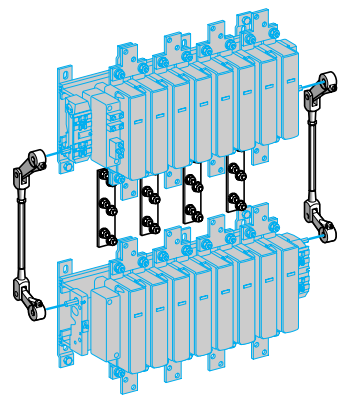
LA9-FF4F
LA9-FG4G



LA9-FH4H
LA9-FJ4J
LA9-FK4K
LA9-FL4L



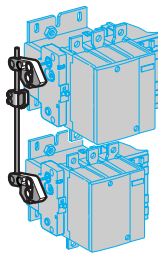
LA9-FX971



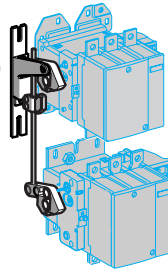
Reversers and changeover
contactor pairs assembled
using 2 contactors of
different ratings, type :

- LC1-F115 or F1154
- LC1-F150 or F1504
- LC1-F185 or F1854
- LC1-F225 or F2254
- LC1-F265 or F2654
- LC1-F330 or F3304
- LC1-F400 or F4004
- LC1-F500 or F5004
- LC1-F630 or F6304

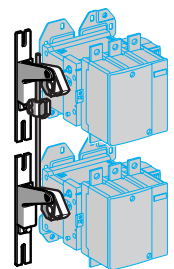
LA9-FG4F



LA9-FH4F
LA9-FJ4F
LA9-FK4F
LA9-FL4F
LA9-FH4G
LA9-FJ4G
LA9-FK4G
LA9-FL4G



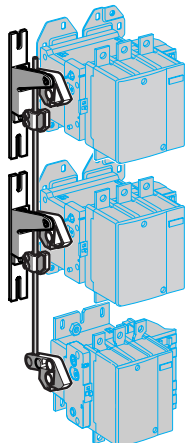
LA9-FJ4H
LA9-FK4H
LA9-FL4K
LA9-FK4J
LA9-FL4J
LA9-FL4K



Reversers and changeover
contactor pairs assembled
using 3 contactors of identical
or different ratings, type :

- LC1-F115 or F1154
- LC1-F150 or F1504
- LC1-F185 or F1854
- LC1-F225 or F2254
- LC1-F265 or F2654
- LC1-F330 or F3304
- LC1-F400 or F4004
- LC1-F500 or F5004
- LC1-F630 or F6304

LA9-F●4●4● : please consult your Regional customer centre.

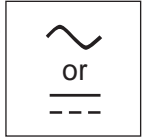


Warning : the contactor ratings must be in decreasing size from top to bottom.

(1) For 3-pole changeover contactor pairs, see pages 1/62 and 1/63.

Contactors

Reversing contactors and changeover contactor pairs LC2-F
Components for assembling 3 and 4-pole reversing contactors
and changeover contactor pairs, for customer assembly



Dimensions :
page 1/60

References

Changeover contactor pairs assembled using 2 contactors of identical rating

For assembly of 4-pole changeover contactor pairs (2)

Contactor type (1)	Set of power connections Reference	Weight kg	Mechanical interlock Kit reference	Weight kg
Horizontally mounted				
LC1-F1154	LA9-FF977	0.460	LA9-FF970	0.060
LC1-F1504	LA9-F15077	0.460	LA9-FF970	0.060
LC1-F1854	LA9-FG977	0.610	LA9-FG970	0.060
LC1-F2254	LA9-F22577	1.200	LA9-FG970	0.060
LC1-F2654	LA9-FH977	1.200	LA9-FJ970	0.140
LC1-F3304	LA9-FJ977	1.800	LA9-FJ970	0.140
LC1-F4004	LA9-FJ977	1.800	LA9-FJ970	0.140
LC1-F5004	LA9-FK977	2.300	LA9-FJ970	0.140
LC1-F6304	LA9-FL977	3.400	LA9-FL970	0.150

Vertically mounted

LC1-F1154 or F1504	(3)	–	LA9-FF4F	0.345
LC1-F1854	(3)	–	LA9-FG4G	0.350
LC1-F2254	(3)	–	LA9-FG4G	0.350
LC1-F2654	(3)	–	LA9-FH4H	1.060
LC1-F3304	(3)	–	LA9-FJ4J	1.200
LC1-F4004	(3)	–	LA9-FJ4J	1.200
LC1-F5004	(3)	–	LA9-FK4K	1.200
LC1-F6304	(3)	–	LA9-FL4L	1.220
LC1-F7804	(4)	–	LA9-FX971 (4)	7.800

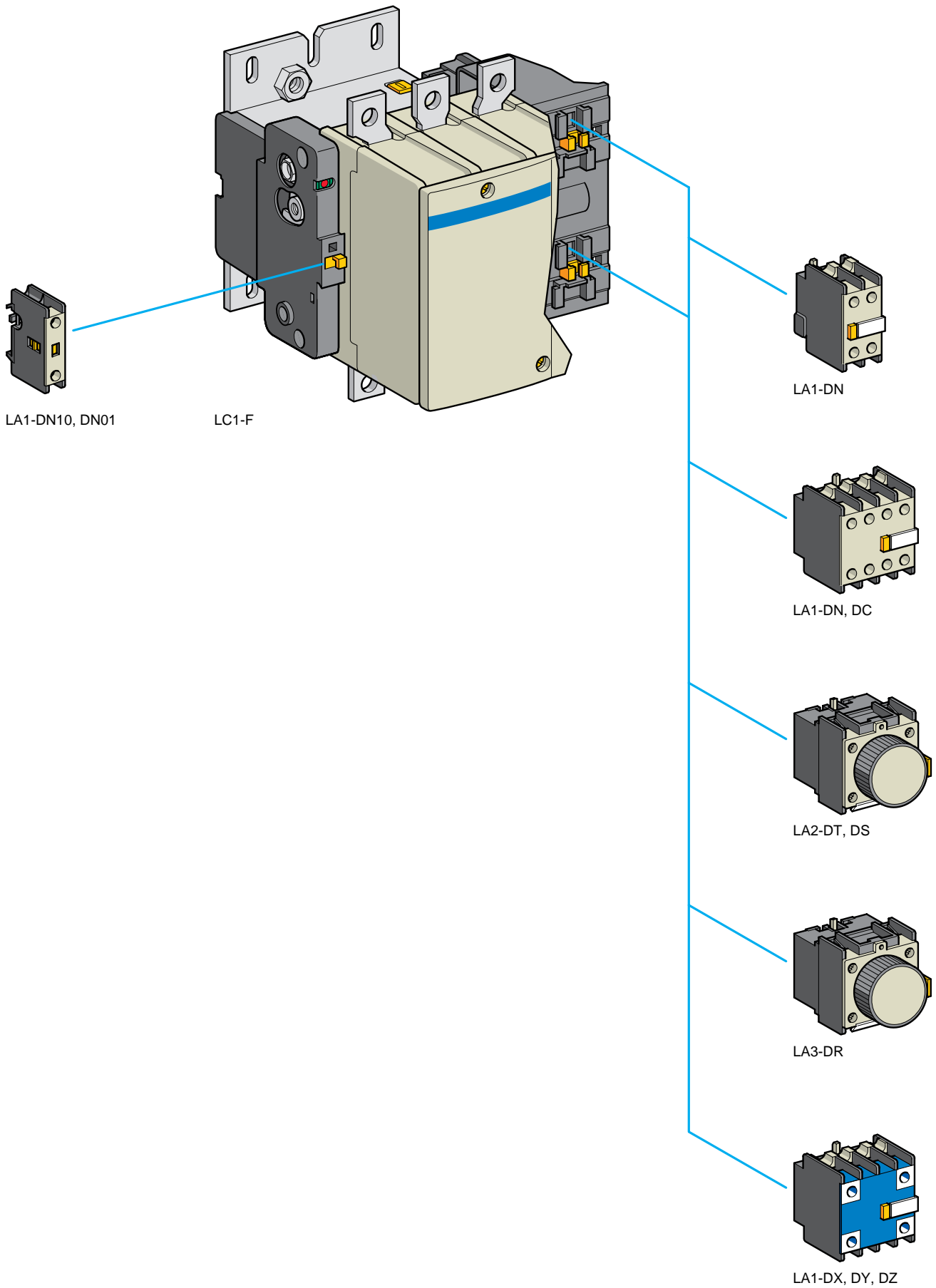
Changeover contactor pairs assembled using 2 contactors of different ratings

For assembly of 3 or 4-pole changeover contactor pairs

Contactor type (5)	Set of power connections Reference	Mechanical interlock Kit reference	Weight kg
Vertically mounted			
at bottom		at top	
LC1-F115 or F1154 or LC1-F150 or F1504	LC1-F185 or F1854	LA9-FG4F	0.350
	LC1-F225 or F2254	LA9-FG4F	0.350
	LC1-F265 or F2654	LA9-FH4F	0.870
	LC1-F330 or F3304	LA9-FJ4F	0.930
	LC1-F400 or F4004	LA9-FJ4F	0.930
	LC1-F500 or F5004	LA9-FK4F	0.940
	LC1-F630 or F6304	LA9-FL4F	0.940
LC1-F185 or F1854 or LC1-F225 or F2254	LC1-F265 or F2654	LA9-FH4G	0.860
	LC1-F330 or F3304	LA9-FJ4G	0.940
	LC1-F400 or F4004	LA9-FJ4G	0.940
	LC1-F500 or F5004	LA9-FK4G	0.940
LC1-F630 or F6304	LC1-F630 or F6304	LA9-FL4G	0.950
LC1-F265 or F2654 or LC1-F330 or F3304	LC1-F400 or F4004	LA9-FJ4H	1.130
	LC1-F500 or F5004	LA9-FK4H	1.130
	LC1-F630 or F6304	LA9-FL4H	1.140
LC1-F400 or F4004	LC1-F500 or F5004	LA9-FK4J	1.200
	LC1-F630 or F6304	LA9-FL4J	1.210
LC1-F500 or F5004	LC1-F630 or F6304	LA9-FL4K	1.210

For assembly of reversers using 3 contactors, vertically mounted (please consult our specialised catalogue)

- (1) To order the 2 contactors : see pages 1/56 and 1/57. Order 2 contact blocks LA1-DN●1 to obtain electrical interlocking between the 2 contactors, see page 1/67.
- (2) For assembly of 3-pole changeover contactor pairs, see pages 1/62 and 1/63.
- (3) All power connections are to be made by the customer.
- (4) Double mechanical interlock with 2 interlock connecting rods and 4 power connecting links.
- (5) Contactors with identical or different number of poles. To order the 2 contactors, see pages 1/56 and 1/57. Order 2 contact blocks LA1-DN●1 to obtain electrical interlocking between the 2 contactors, see page 1/67.



Contactors





Contactors and reversing contactors type LC1-F and LC2-F
Auxiliary contact blocks and time delay auxiliary contacts

References

Illustrations :
page 1/66

Instantaneous auxiliary contact blocks

For use in normal operating environments





Number of contacts	Max. number of blocks per contactor Side clip-on mounting	Composition				Reference	Weight kg
							
1	1	-	-	1	-	LA1-DN10	0.020
		-	-	-	1	LA1-DN01	0.020
2	2	-	-	1	1	LA1-DN11	0.030
		-	-	2	-	LA1-DN20	0.030
		-	-	-	2	LA1-DN02	0.030
4	2	-	-	2	2	LA1-DN22	0.050
		-	-	1	3	LA1-DN13	0.050
		-	-	4	-	LA1-DN40	0.050
		-	-	-	4	LA1-DN04	0.050
		-	-	3	1	LA1-DN31	0.050
		-	-	2	2 (1)	LA1-DC22	0.050

With selected terminal referencing conforming to standard EN 50012

2	2	-	-	1	1	LA1-DN11M	0.030
		-	-	1	1	LA1-DN11P	0.030
		-	-	1	1	LA1-DN11G	0.030
4	2	-	-	2	2	LA1-DN22M	0.050
		-	-	2	2	LA1-DN22P	0.050
		-	-	2	2	LA1-DN22G	0.050

Instantaneous auxiliary contact blocks with dust and damp protected contacts

For use in harsh industrial environments

Number of contacts	Max. number of blocks per contactor Side clip-on mounting	Composition				Reference	Weight kg
							
2	2	2	-	-	-	LA1-DX20	0.040
		2	2 (2)	-	-	LA1-DY20	0.040
4	2	2	-	2	-	LA1-DZ40	0.050
		2	-	1	1	LA1-DZ31	0.050

Time delay auxiliary contacts

Number of contacts	Max. number of blocks per contactor Side clip-on mounting	Time delay		Reference	Weight kg
		Type	Range (s)		
1 N/O + 1 N/C	2	On-delay	0.1...3 (3)	LA2-DT0	0.060
			0.1...30	LA2-DT2	0.060
			10...180	LA2-DT4	0.060
			1...30 (4)	LA2-DS2	0.060
1 N/O + 1 N/C	2	Off-delay	0.1...3 (3)	LA3-DR0	0.060
			0.1...30	LA3-DR2	0.060
			10...180	LA3-DR4	0.060

(1) Including 1 N/O + 1 N/C make before break.

(2) Device fitted with 4 terminals for earth screen continuity.

(3) With extended scale from 0.1 to 0.6 s.

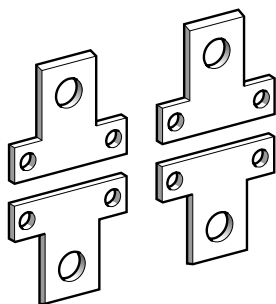
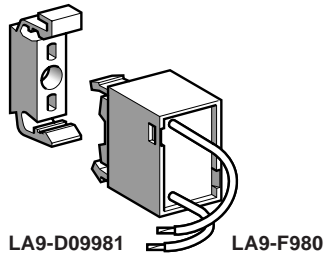
(4) With switching time of 40 ms ± 15 ms between opening of the N/C contact and closing of the N/O contact.

Contactors

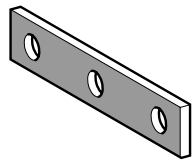
Contactors and reversing contactors type LC1-F and LC2-F
Suppressor blocks and cabling accessories

References

Suppressor blocks



LA9-F602



LA9-F601



DZ3-FA3

Operating limit : 240 V-50/60 Hz

Description	Application	Reference	Weight kg
Block only	With coils LX1-FF, FG, FH	LA9-F980	0.030
	With coils LX1-FJ, FK, FL, FX, LX9-FF, FG, FH	LA9-D09980	0.030
Suppressor block bracket	For mounting on terminal	LA9-D09981	0.010

Connection accessories

Links for parallel connection of poles (in pairs)

For use on 4-pole contactors	Set of 4 links Set reference	Weight kg
LC1-F1154	LA9-FF602	0.200
LC1-F1504, F1854	LA9-FG602	0.350
LC1-F2254, F2654, F3304, F4004	LA9-FH602	1.000
LC1-F5004	LA9-FK602	1.750
LC1-F6304	LA9-FL602	3.000

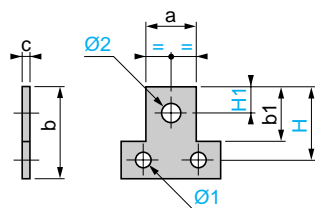
Links for "star" connection of 3 poles

LC1-F115	LA9-FF601	0.035
LC1-F150, F185	LA9-FG601	0.050
LC1-F225, F265, F330, F400	LA9-FH601	0.120
LC1-F500	LA9-FK601	0.180
LC1-F630	LA9-FL601	0.550

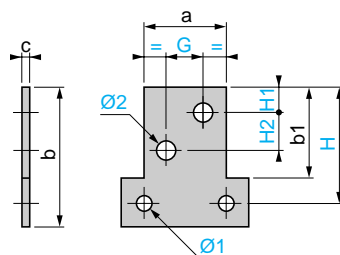
Control circuit voltage take-off from power terminals

For use on contactors	Mounted on bolt size	Sold in lots of	Unit reference	Weight kg
LC1-F115	M6	10	DZ3-FA3	0.004
LC1-F150, F185	M8	10	DZ3-GA3	0.004
LC1-F225...F500	M10	10	DZ3-HA3	0.006
LC1-F630	M12	10	DZ3-JA3	0.009

Paralleling links (set of 4) LA9-FF, FG, FH

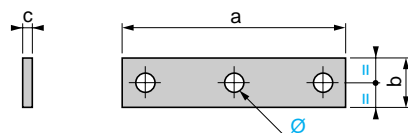


LA9-FK, FL



LA9-	FF602	FG602	FH602	FK602	FL602
a	25	30	40	50	60
b	45	55	60	85	100
b1	30	35	40	55	65
c	4	5	8	10	10
G	-	-	-	22	26
H	37.5	45	52.5	70	85
H1	12.5	15	15	14	17
H2	-	-	-	22	26
Ø1	6.5	9	11	11	13
Ø2	11	11	13	11	14

Links for 3-pole star connection

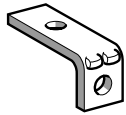


LA9-	FF601	FG601	FH601	FK601	FL601
a	89	100	121	140	200
b	15	20	20	30	40
c	3	3	5	5	8
Ø	6.5 x 8.5	8.5 x 10.5	10.5 x 13	11	13

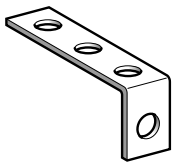
Contactors

Contactors and reversing contactors type LC1-F and LC2-F
Cabling accessories

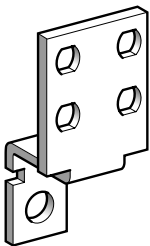
References



LA9-F981



LA9-F979



LA9-F980

Right-angled connectors

For contactors or thermal overload relays

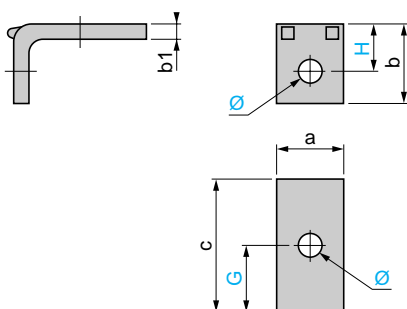
For use on Contactors	Thermal overload relays	Connector		Set of 3 connectors Set reference	Weight kg
		Width	Type		
LC1-F115	LR-F567, LR1-F105, F125	15 mm	Rear	LA9-FF981	0.060
			Side	LA9-FF979	0.240
			Large s. area	LA9-FF980	0.150
LC1-F150, F185	LR-F569, F571	20 mm	Rear	LA9-FG981	0.080
			Side	LA9-FG979	0.350
			Large s. area	LA9-FG980	0.200
LC1-F225, F265, F330, F400	LR-F673, F675, F677	25 mm	Rear	LA9-FJ981	0.430
			Side	LA9-FJ979	0.750
			Large s. area	LA9-FJ980	0.490
LC1-F500	LR-F779, F781	30 mm	Rear	LA9-FK981	0.480
			Side	LA9-FK979	0.920
			Large s. area	LA9-FK980	0.800
LC1-F630	LR-F883, F885	40 mm	Rear	LA9-FL981	1.210
			Side	LA9-FL979	2.570
			Large s. area	LA9-FL980	3.190

Connection accessories

For reversing contactors or star-delta contactors combined with a thermal overload relay

For use on Contactors	Thermal overload relays	Width of connector plates	Set of 3 busbars Set reference	Weight kg
LC1-F115	LR9-F5357, F5363 F5367, F5369	15 mm	LA7-F401	0.110
LC1-F150 and F185	LR9-F5357, F5363 F5367, F5369	20 mm	LA7-F402	0.110
LC1-F225 and F265	LR9-F5371	25 mm	LA7-F403	0.160
LC1-F330 and F400	LR9-F7375 and F7379	25 mm	LA7-F404	0.160
LC1-F400	LR9-F7381	25 mm	LA7-F404	0.160
LC1-F500	LR9-F7375, F7379 F7381	30 mm	LA7-F405	0.270
LC1-F630	LR9-F7381	40 mm	LA7-F406	0.600

Right-angled connectors LA9-F981 (set of 3) for rear connection



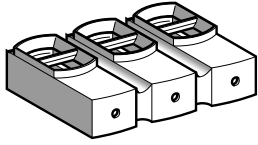
LA9-	FF981	FG981	FJ981	FK981	FL981
a	15	20	25	30	40
b	18	23	29	35	48
b1	3	3	4	5	8
c	42	45	55	52	86
G	24	26	32.5	26	45
H	10.5	13	16.5	20	28
Ø	6.5	9	11	11	13

Contactors

Contactors and reversing contactors type LC1-F and LC2-F
Cabling accessories and spare parts

References

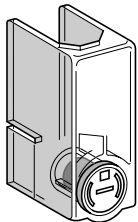
1



LA9-F103

Insulated terminal blocks

For use on	Set of 2 blocks	Weight
3-pole contactors	Set reference	kg
LC1-F115, F150, F185	LA9-F103	0.560



LA9-F701

Power terminal protection shrouds

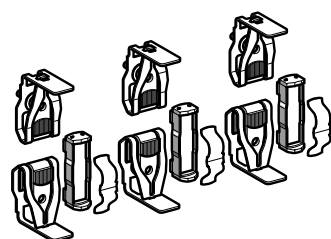
For use with	Number of shrouds per set	Set reference	Weight
2, 3 and 4-pole contactors			kg
LC1-F115	6	LA9-F701	0.250
LC1-F150, F185	6	LA9-F702	0.250
LC1-F225, F265, F330, F400 and F4002, F500 and F5002	6	LA9-F703	0.250
LC1-F630 and F6302	6	LA9-F704	0.250
LC1-F1154	8	LA9-F706	0.300
LC1-F1504 and F1854	8	LA9-F707	0.300
LC1-F2254, F2654, F3304, F4004, F5004	8	LA9-F708	0.300
LC1-F6304	8	LA9-F709	0.300

Contactors

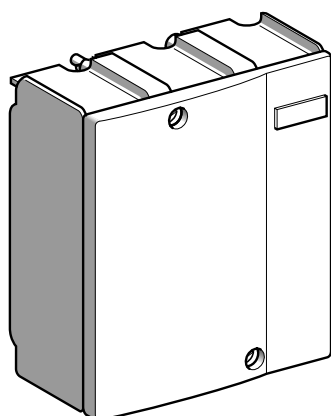
Contactors and reversing contactors type LC1-F and LC2-F

Spare parts

References



LA5-FG431



LA5-F40050

Main contact sets

Per pole : 2 fixed contacts and 1 moving contact, 2 deflectors, 1 backplate, fixing screws and washers

For contactor	Type	Replacement for	Reference	Weight kg
2-pole	LC1-F4002	2 poles	LA5-F400802	1.350
	LC1-F5002	2 poles	LA5-F500802	1.950
	LC1-F6302	2 poles	LA5-F630802	4.700
3-pole	LC1-F115, F150	3 poles	LA5-FF431	0.270
	LC1-F185, F225	3 poles	LA5-FG431	0.350
	LC1-F265	3 poles	LA5-FH431	0.660
	LC1-F330, F400	3 poles	LA5-F400803	2.000
	LC1-F500	3 poles	LA5-F500803	2.950
	LC1-F630	3 poles	LA5-F630803	6.100
	LC1-F780	1 pole	LA5-F780801 (1)	4.700
		3 poles	LA5-F780803	13.200
4-pole	LC1-F1504, F1154	4 poles	LA5-FF441	0.360
	LC1-F1854, F2254	4 poles	LA5-FG441	0.465
	LC1-F2654	4 poles	LA5-FH441	0.880
	LC1-F3304, F4004	4 poles	LA5-F400804	2.700
	LC1-F5004	4 poles	LA5-F500804	3.900
	LC1-F6304	4 poles	LA5-F630804	8.150
	LC1-F7804	1 pole	LA5-F780801 (1)	4.700
		4 poles	LA5-F780804	17.300

Arc chambers

For contactor	Type	Replacement for	Reference	Weight kg
2-pole	LC1-F4002	2 poles	LA5-F400250	0.870
	LC1-F5002	2 poles	LA5-F500250	1.250
	LC1-F6302	2 poles	LA5-F630250	2.100
3-pole	LC1-F115	3 poles	LA5-F11550	0.490
	LC1-F150	3 poles	LA5-F15050	0.490
	LC1-F185	3 poles	LA5-F18550	0.670
	LC1-F225	3 poles	LA5-F22550	0.670
	LC1-F265	3 poles	LA5-F26550	0.920
	LC1-F330	3 poles	LA5-F33050	1.300
	LC1-F400	3 poles	LA5-F40050	1.300
	LC1-F500	3 poles	LA5-F50050	1.850
	LC1-F630	3 poles	LA5-F63050	3.150
	LC1-F780	1 pole	LA5-F780150 (1)	2.100
	4-pole	LC1-F1154	4 poles	LA5-F115450
LC1-F1504		4 poles	LA5-F150450	0.660
LC1-F1854		4 poles	LA5-F185450	0.910
LC1-F2254		4 poles	LA5-F225450	1.000
LC1-F2654		4 poles	LA5-F265450	1.220
LC1-F3304		4 poles	LA5-F330450	1.740
LC1-F4004		4 poles	LA5-F400450 (2)	1.740
LC1-F5004		4 poles	LA5-F500450 (2)	2.500
LC1-F6304		4 poles	LA5-F630450 (3)	4.200
LC1-F7804		1 pole	LA5-F780150 (1)	2.100

(1) Comprising 2 identical items per pole.

(2) Comprising two 2-pole arc chambers.

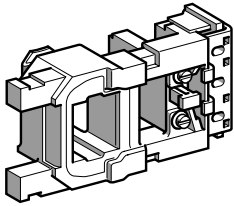
Contactors

Contactors type LC1-F
Coils for LC1-F115 to F225, a.c. supply 50/60 Hz



References

1



LX1-FF●●●

Control circuit voltage		Average resistance at 20 °C	Inductance of closed circuit	Voltage code	Reference	Weight
U _c 50 Hz	U _c 60 Hz	± 10 %				kg
V	V	Ω	H			

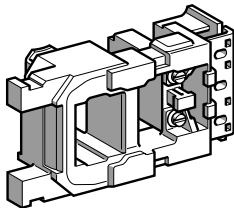
For contactors LC1-F115 and LC1-F150

24	–	0.27	0.04	B5	LX1-FF024	0.430
42	–	0.94	0.13	–	LX1-FF042	0.430
–	48	0.78	0.11	E6	LX1-FF048	0.430
48	–	1.17	0.16	E5	LX1-FF048	0.430
–	110	4.55	0.59	F6	LX1-FF092	0.430
–	115/120	4.77	0.64	G6	LX1-FF095	0.430
110	–	6.38	0.86	F5	LX1-FF110	0.430
127	–	9.14	1.15	G5	LX1-FF127	0.430
–	200/208	14.5	1.87	L6	LX1-FF162	0.430
–	220	18.4	2.38	M6	LX1-FF184	0.430
–	230/240	18.9	2.5	U6	LX1-FF187	0.430
220/230	265/277	28.1	3.44	M5	LX1-FF220	0.430
240	–	31.1	4.1	U5	LX1-FF240	0.430
–	380	57.2	7.05	Q6	LX1-FF316	0.430
–	415	67.9	8.21	N6	LX1-FF340	0.430
–	440	72.6	9.21	R6	LX1-FF360	0.430
380/400	460/480	86.9	10.3	Q5	LX1-FF380	0.430
415/440	–	95.1	12	N5	LX1-FF415	0.430
500	–	141	17	S5	LX1-FF500	0.430
–	660	172	20.3	Y6	LX1-FF550	0.430
660	–	254	28.9	Y5	LX1-FF660	0.430
–	1000	414	48.9	–	LX1-FF850	0.430
1000	–	610	68.5	–	LX1-FF1000	0.430

Specifications

Average consumption at 20 °C :
 - inrush 50 Hz : 550 VA; 60 Hz : 660 VA.
 - sealed 50 Hz : 45 VA; 60 Hz : 55 VA, cos φ = 0.32.
 Operating cycles/hour (θ ≤ 55 °C) : ≤ 2400.

For contactors LC1-F185 and LC1-F225



LX1-FG●●●

24	–	0.18	0.03	B5	LX1-FG024	0.550
42	–	0.57	0.09	–	LX1-FG042	0.550
–	48	0.47	0.08	E6	LX1-FG048	0.550
48	–	0.71	0.12	E5	LX1-FG048	0.550
–	110	2.74	0.44	F6	LX1-FG092	0.550
–	115/120	2.87	0.49	G6	LX1-FG095	0.550
110	–	4.18	0.65	F5	LX1-FG110	0.550
127	–	5.35	0.86	G5	LX1-FG127	0.550
–	200/208	8.8	1.41	L6	LX1-FG162	0.550
–	220	11.1	1.8	M6	LX1-FG184	0.550
–	230/240	11.4	1.87	U6	LX1-FG187	0.550
220/230	265/277	16.5	2.59	M5	LX1-FG220	0.550
240	–	20.1	3.09	U5	LX1-FG240	0.550
–	380	34	5.32	Q6	LX1-FG316	0.550
–	415	40.8	6.2	N6	LX1-FG340	0.550
–	440	43.5	6.94	R6	LX1-FG360	0.550
380/400	460/480	51.3	7.75	Q5	LX1-FG380	0.550
415/440	–	62.3	9.06	N5	LX1-FG415	0.550
500	–	82.7	12.8	S5	LX1-FG500	0.550
–	660	103	15.3	Y6	LX1-FG550	0.550
660	–	154	21.8	Y5	LX1-FG660	0.550
–	1000	249	36.6	–	LX1-FG850	0.550
1000	–	370	51.6	–	LX1-FG1000	0.550

Specifications

Average consumption at 20 °C :
 - inrush 50 Hz : 805 VA; 60 Hz : 970 VA.
 - sealed 50 Hz : 55 VA; 60 Hz : 66 VA, cos φ = 0.34.
 Operating cycles/hour (θ ≤ 55 °C) : ≤ 2400.

Contactors

Contactors type LC1-F

Coils for LC1-F265 to F500, a.c. supply 40 to 400 Hz



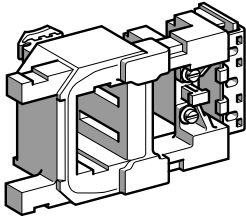
References

Low sealed consumption.

Operate on networks with harmonic numbers ≤ 7

Control circuit voltage Uc V	Average resistance at 20 °C ± 10 %		Inductance of closed circuit H	Voltage code	Reference	Weight kg
	Inrush Ω	Sealed Ω				

For contactors LC1-F265 and LC1-F330



LX1-FH●●●2

48	2.96	72	(1)	E7	LX1-FH0482	0.750
110/115	18.7	415	(1)	F7	LX1-FH1102	0.750
120/127	22.9	536	(1)	G7	LX1-FH1272	0.750
200/208	57.8	1285	(1)	L7	LX1-FH2002	0.750
220/230	71.6	1621	(1)	M7	LX1-FH2202	0.750
240	71.6	1621	(1)	U7	LX1-FH2402	0.750
277	114.3	2425	(1)	W7	LX1-FH2772	0.750
380/415	222	5075	(1)	Q7	LX1-FH3802	0.750
480/500	345	7990	(1)	S7	LX1-FH5002	0.750
600/660	521	11,988	(1)	X7	LX1-FH6002	0.750
1000	1218	30,124	(1)	–	LX1-FH10002	0.750

Specifications

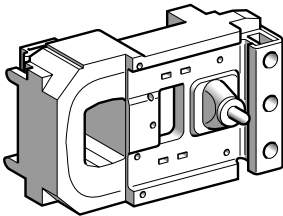
Average consumption at 20 °C for 50 or 60 Hz and $\cos \varphi = 0.9$:

- inrush : 600...700 VA.

- sealed : 8...10 VA.

Operating cycles/hour ($\theta \leq 55$ °C) ≤ 2400 .

For contactor LC1-F400



LX1-FJ●●●

48	1.6	29.5	0.18	E7	LX1-FJ048	1.000
110/120	9.8	230	1.35	F7	LX1-FJ110	1.000
127	12.8	280	1.75	G7	LX1-FJ127	1.000
200/208	30	815	4.1	L7	LX1-FJ200	1.000
220/230	37	1030	5.1	M7	LX1-FJ220	1.000
230/240	47.5	1320	6.4	U7	LX1-FJ240	1.000
265/277	61	1700	8.1	W7	LX1-FJ280	1.000
380/400	120	3310	15.8	Q7	LX1-FJ380	1.000
415/480	145	4070	19.4	N7	LX1-FJ415	1.000
500	190	4980	25.5	S7	LX1-FJ500	1.000
550/600	243	6310	27.4	X7	LX1-FJ600	1.000
1000	720	19,420	84.6	–	LX1-FJ1000	1.000

Specifications

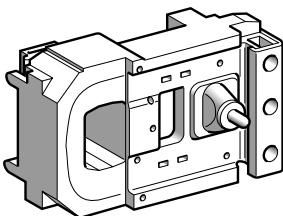
Average consumption at 20 °C for 50 or 60 Hz and $\cos \varphi = 0.9$:

- inrush : 1000...1150 VA.

- sealed : 12...18 VA.

Operating cycles/hour ($\theta \leq 55$ °C) ≤ 2400 .

For contactor LC1-F500



LX1-FK●●●

48	1.9	33.5	0.19	E7	LX1-FK048	1.150
110/120	9.55	260	1.25	F7	LX1-FK110	1.150
127	11.5	315	1.5	G7	LX1-FK127	1.150
200/208	29	735	3.75	L7	LX1-FK200	1.150
220/230	35.5	915	4.55	M7	LX1-FK220	1.150
230/240	44.5	1160	5.75	U7	LX1-FK240	1.150
265/277	56.5	1490	7.3	W7	LX1-FK280	1.150
380/400	112	2980	14.7	Q7	LX1-FK380	1.150
415/480	143	3730	18.4	N7	LX1-FK415	1.150
500	172	4590	22.8	S7	LX1-FK500	1.150
550/600	232	5660	23.9	X7	LX1-FK600	1.150
1000	679	16,960	72	–	LX1-FK1000	1.150

Specifications

Average consumption at 20 °C for 50 or 60 Hz, $\cos \varphi = 0.9$:

- inrush : 1050...1150 VA.

- sealed : 16...20 VA.

Operating cycles/hour ($\theta \leq 55$ °C) ≤ 2400 .

(1) Please consult your Regional customer centre.

Contactors

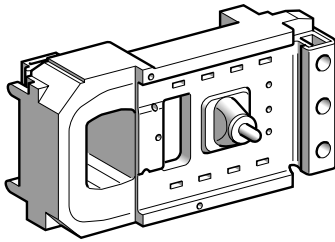
Contactors type LC1-F

Coils for LC1-F630 and F780, a.c. supply 40 to 400 Hz



References

1



LX1-FL●●●

Low sealed consumption.

Operate on networks with harmonic numbers ≤ 7

Control circuit voltage Uc V	Average resistance at 20 °C \pm 10 %		Inductance of closed circuit H	Voltage code	Reference	Weight kg
	Inrush Ω	Sealed Ω				

For contactor LC1-F630

48	1.1	17.1	0.09	E7	LX1-FL048	1.500
110/120	6.45	165	1.85	F7	LX1-FL110	1.500
127	8.1	205	1.05	G7	LX1-FL127	1.500
200/208	20.5	605	2.65	L7	LX1-FL200	1.500
220/240	25.5	730	3.35	M7	LX1-FL220	1.500
265/277	31	900	4.1	W7	LX1-FL260	1.500
380/400	78	2360	10.5	Q7	LX1-FL380	1.500
415/480	96	2960	13	N7	LX1-FL415	1.500
500	120	3660	16.5	S7	LX1-FL500	1.500
550/600	155	4560	19.5	X7	LX1-FL600	1.500
1000	474	12,880	56.2	–	LX1-FL1000	1.500

Specifications

Average consumption at 20 °C for 50 or 60 Hz, $\cos \varphi = 0.9$:

- inrush : 1500...1730 VA.

- sealed : 20...25 VA.

Operating cycles/hour ($\theta \leq 55$ °C) : 1200.

For contactor LC1-F780

110/120	4.95 (2)	230 (2)	0.21	F7	LX1-FX110 (1)	3.000
127	6.1 (2)	280 (2)	0.26	G7	LX1-FX127 (1)	3.000
200/208	15.5 (2)	750 (2)	0.66	L7	LX1-FX200 (1)	3.000
220/240	19.5 (2)	920 (2)	0.82	M7	LX1-FX220 (1)	3.000
265/277	29.8 (2)	1330 (2)	1.25	W7	LX1-FX280 (1)	3.000
380	60.9 (2)	2780 (2)	2.3	Q7	LX1-FX380 (1)	3.000
415/480	74.3 (2)	3340 (2)	2.8	N7	LX1-FX415 (1)	3.000
500	92 (2)	4180 (2)	3.5	S7	LX1-FX500 (1)	3.000

Specifications

Average consumption at 20 °C for 50 or 60 Hz, $\cos \varphi = 0.9$:

- inrush : 1900...2300 VA.

- sealed : 44...55 VA.

Operating cycles/hour ($\theta \leq 55$ °C) : 600.

(1) Reference of set of 2 identical coils, to be connected in series.

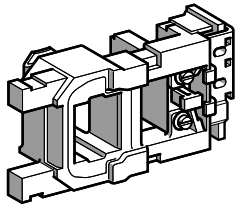
(2) Value for the 2 coils in series.

Contactors

Contactors type LC1-F
Coils for LC1-F115 to F400, d.c. supply



References



LX4-FF●●●

Low sealed consumption.

Control circuit voltage U _c V	Average resistance at 20 °C ± 10 %		Inductance of closed circuit H	Voltage code	Reference	Weight kg
	Inrush Ω	Sealed Ω				

For contactors LC1-F115 and LC1-F150

24	1.12	177	11	BD	LX4-FF024	0.430
48	4.52	715	42.7	ED	LX4-FF048	0.430
110	21.7	2940	179	FD	LX4-FF110	0.430
125	26.8	3560	223	GD	LX4-FF125	0.430
220/230	84	11,100	704	MD	LX4-FF220	0.430
250	105	13,000	868	UD	LX4-FF250	0.430
440/460	301	48,200	4000	RD	LX4-FF440	0.430

Specifications

Average consumption :
- inrush : 543...665 W.
- sealed : 3.94...4.83 W.

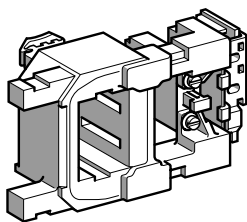
For contactors LC1-F185 and LC1-F225

24	0.79	169	14.9	BD	LX4-FG024	0.550
48	3.2	662	55.3	ED	LX4-FG048	0.550
110	14.9	2810	241	FD	LX4-FG110	0.550
125	19.	3320	289	GD	LX4-FG125	0.550
220/230	57.7	10,200	890	MD	LX4-FG220	0.550
250	76	12,400	1140	UD	LX4-FG250	0.550
440/460	223	39,700	4210	RD	LX4-FG440	0.550

Specifications

Average consumption :
- inrush : 737...902 W.
- sealed : 4.13...5.07 W.

For contactors LC1-F265 and LC1-F330



LX4-FH●●●

24	0.9	192	26.3	BD	LX4-FH024	0.740
48	3.49	707	92.9	ED	LX4-FH048	0.740
110	16.8	3180	424	FD	LX4-FH110	0.740
125	20.8	3840	530	GD	LX4-FH125	0.740
220/230	65.7	11,500	1590	MD	LX4-FH220	0.740
250	84	13,900	1910	UD	LX4-FH250	0.740
440/460	255	44,000	7570	RD	LX4-FH440	0.740

Specifications

Average consumption :
- inrush : 655...803 W.
- sealed : 3.68...4.53 W.

For contactor LC1-F400

48	2.5	558	56	ED	LX4-FJ048	0.970
110	12.7	2660	270	FD	LX4-FJ110	0.970
125	15.8	3130	330	GD	LX4-FJ125	0.970
220	47	8820	910	MD	LX4-FJ220	0.970
250	61	10,500	1200	UD	LX4-FJ250	0.970
440	236	33,750	4435	RD	LX4-FJ440	0.970

Specifications

Average consumption :
- inrush : 920...1140 W.
- sealed : 4...7.5 W.

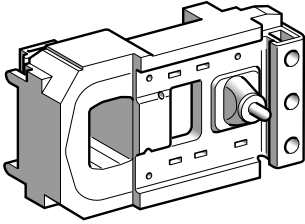
Contactors

Contactors type LC1-F
Coils for LC1-F500 to F780, d.c. supply



References

1



LX4-FK●●●

Low sealed consumption.

Control circuit voltage U _c V	Average resistance at 20 °C ± 10 %		Inductance of closed circuit H	Voltage code	Reference	Weight kg
	Inrush Ω	Sealed Ω				

For contactor LC1-F500

48	2.35	515	67	ED	LX4-FK048	1.080
110	11.5	2450	280	FD	LX4-FK110	1.080
125	15	2930	400	GD	LX4-FK125	1.080
220	44	8150	1080	MD	LX4-FK220	1.080
250	56	9650	1350	UD	LX4-FK250	1.080
440	225	31,300	5270	RD	LX4-FK440	1.080

Specifications

Average consumption :
- inrush : 990...1220 W.
- sealed : 4.5...8 W.

For contactor LC1-F630

48	1.7	353	40.5	ED	LX4-FL048	1.450
110	8.1	1680	180	FD	LX4-FL110	1.450
125	10	2110	230	GD	LX4-FL125	1.450
220	31	5160	650	MD	LX4-FL220	1.450
250	38	6080	815	UD	LX4-FL250	1.450
440	152	23,120	2910	RD	LX4-FL440	1.450

Specifications

Average consumption :
- inrush : 1420...1920 W.
- sealed : 6.5...72.5 W.

For contactor LC1-F780

110	6.1 (2)	280 (2)	0.26	FD	LX4-FX110 (1)	3.000
125	7.7 (2)	410 (2)	0.33	GD	LX4-FX125 (1)	3.000
220	24.6 (2)	1100 (2)	1	MD	LX4-FX220 (1)	3.000
250	29.8 (2)	1330 (2)	1.25	UD	LX4-FX250 (1)	3.000
440	92 (2)	4180 (2)	3.5	RD	LX4-FX440 (1)	3.000

Specifications

Average consumption :
- inrush : 1960...2420 W.
- sealed : 42...52 W.

(1) Reference of set of 2 identical coils, to be connected in series.
(2) Value of the 2 coils in series.

Contactors

Contactors type LC1-F
Coils for LC1-F115 to F330 (specific applications)
a.c. supply, 40 to 400 Hz

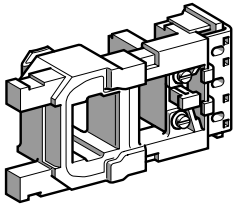


References

Low sealed consumption.
High tolerance to inrush voltage drops.
Immune to micro-breaks (mains supply or contact chain).
Operate on networks with harmonic numbers ≤ 7 .

Control circuit voltage	Average resistance at 20 °C \pm 10 %		Inductance of closed circuit	Voltage code	Reference	Weight
Uc	Inrush	Sealed	of closed circuit			
V	Ω	Ω	H			kg

For contactors LC1-F115 and LC1-F150



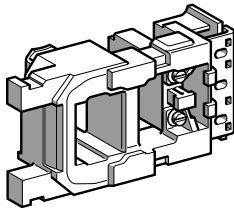
LX9-FF●●●

48	3.03	80.2	0.3	E7	LX9-FF048	0.430
110	14.8	579	2.08	F7	LX9-FF110	0.430
127	19	746	2.65	G7	LX9-FF127	0.430
220/230	59.4	2190	7.7	M7	LX9-FF220	0.430
240	73.5	2750	9.68	U7	LX9-FF240	0.430
380/400	173	6540	23	Q7	LX9-FF380	0.430
415/440	218	8460	30	N7	LX9-FF415	0.430
500	262	10,300	36	S7	LX9-FF500	0.430

Specifications

Average consumption at 20 °C :
- inrush : 690...855 VA.
- sealed : 6.6...8.1 VA.
Heat dissipation : 5.9...7.2 W.
Operating time at Uc : Closing = 35 ms; Opening = 130 ms.
Operating cycles/hour ($\theta \leq 55$ °C) : < 2400.

For contactors LC1-F185 and LC1-F225



LX9-FG●●●

48	2.2	60	0.23	E7	LX9-FG048	0.550
110	10.4	411	1.46	F7	LX9-FG110	0.550
127	13	520	1.85	G7	LX9-FG127	0.550
220/230	42.1	1680	5.84	M7	LX9-FG220	0.550
240	50.6	2060	7.22	U7	LX9-FG240	0.550
380/400	128	4730	16.4	Q7	LX9-FG380	0.550
415/440	157	5930	20.6	N7	LX9-FG415	0.550
500	194	7550	26.3	S7	LX9-FG500	0.550

Specifications

Average consumption at 20 °C :
- inrush : 950...1180 VA.
- sealed : 8.9...10.9 VA.
Heat dissipation : 8...9.8 W.
Operating time at Uc : Closing = 35 ms; Opening = 130 ms.
Operating cycles/hour ($\theta \leq 55$ °C) : < 2400.

For contactors LC1-F265 and LC1-F330

48	2.96	72	(1)	–	LX9-FH0482	0.750
110	18.7	415	(1)	–	LX9-FH1102	0.750
127	22.9	156	(1)	–	LX9-FH1272	0.750
220/230	71.6	1621	(1)	–	LX9-FH2202	0.750
380/415	222	5075	(1)	–	LX9-FH3802	0.750
500	345	7990	(1)	–	LX9-FH5002	0.750

Specifications

Average consumption at 20 °C :
- inrush : 560...660 VA.
- sealed : 8...10 VA.
Heat dissipation : 8.4...10.4 W.
Operating time at Uc : Closing = 45 ms; Opening = 25 ms.
Operating cycles/hour ($\theta \leq 55$ °C) : < 3600.
(1) Please consult your Regional customer centre.

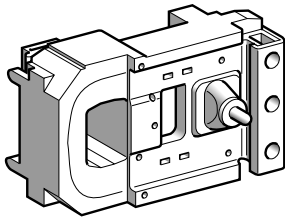
Contactors

Contactors type LC1-F
Coils for LC1-F400 to F630 (specific applications)
a.c. supply, 40 to 400 Hz



References

1



LX9-FJ●●●

Coils with short operating times (at U_c) : Closing : 60 ms
Opening : 50 ms (\sim side); 20 ms (\equiv side)
Coils for high operating rates ($\theta \leq 70^\circ\text{C}$) : 3600 operating cycles/hour
: 1800 for LC1-F630

Coils with low inrush consumption

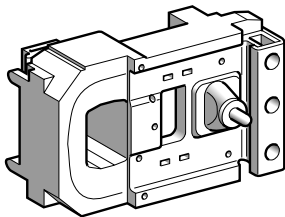
Control circuit voltage	Average resistance at $20^\circ\text{C} \pm 10\%$		Inductance of closed circuit	Rectifier Reference (1)	Coil Reference	Weight
U_c	Inrush	Sealed				
V	Ω	Ω	H			kg

For contactor LC1-F400

48	4.03	43	0.22	DR5-TF4V	LX9-FJ917	0.970
110	25.7	246	1.3	DR5-TE4U	LX9-FJ925	0.970
127	32.3	302	1.7	DR5-TE4U	LX9-FJ926	0.970
220/230	99.5	919	5	DR5-TE4U	LX9-FJ931	0.970
380/415	311	3011	15	DR5-TE4S	LX9-FJ936	0.970
440	386	3690	19	DR5-TE4S	LX9-FJ937	0.970
500	478	4380	23	DR5-TE4S	LX9-FJ938	0.970

Specifications

Average consumption :
- inrush : 500 VA.
- sealed : 23 VA.
Heat dissipation : 11.4...13.9 W.



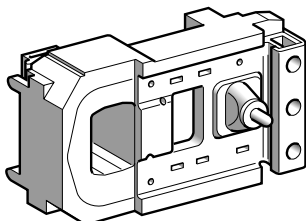
LX9-FK●●●

For contactor LC1-F500

48	3.73	30.7	0.18	DR5-TF4V	LX9-FK917	1.080
110	24	204	1.1	DR5-TE4U	LX9-FK925	1.080
127	29.8	250	1.4	DR5-TE4U	LX9-FK926	1.080
220/230	89.9	770	4	DR5-TE4U	LX9-FK931	1.080
380/415	274	2075	12	DR5-TE4S	LX9-FK936	1.080
440	361	3060	16	DR5-TE4S	LX9-FK937	1.080
500	448	3750	19	DR5-TE4S	LX9-FK938	1.080

Specifications

Average consumption :
- inrush : 550 VA.
- sealed : 31 VA.
Heat dissipation : 15...18.3 W.



LX9-FL●●●

For contactor LC1-F630

48	2.81	20.8	0.17	DR5-TF4V	LX9-FL917	1.450
110	13.5	114	0.77	DR5-TE4U	LX9-FL924	1.450
127	20.8	167	1.2	DR5-TE4U	LX9-FL926	1.450
220	52	425	2.9	DR5-TE4U	LX9-FL930	1.450
220/240	64.5	518	3.6	DR5-TE4U	LX9-FL931	1.450
380/400	163	1360	8.8	DR5-TE4S	LX9-FL935	1.450
415/440	204	1670	11	DR5-TE4S	LX9-FL936	1.450
500	312	2510	17	DR5-TE4S	LX9-FL938	1.450

Specifications

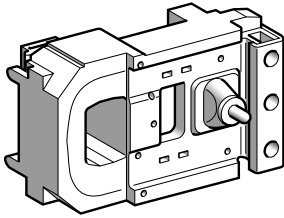
Average consumption :
- inrush : 830 VA.
- sealed : 47 VA.
Heat dissipation : 22.8...27.8 W.
(1) Weight of rectifier : 0.100 kg.

Contactors

Contactors type LC1-F
Coils for LC1-F400 to F630 (specific applications)
d.c. supply



References



LX9-FJ●●●

Coils with short operating times (at U_c) : Closing : 60 ms
Opening : 20 ms
Coils with high operating rates ($\theta \leq 70^\circ\text{C}$) : 3600 operating cycles/hour
: 1800 for LC1-F630

Coils with low inrush consumption

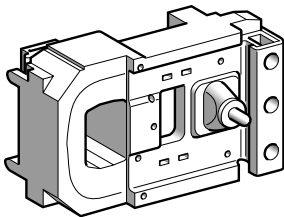
Control circuit voltage	Average resistance at $20^\circ\text{C} \pm 10\%$	Inrush	Sealed	Inductance of closed circuit	Resistor Number and reference (1)	Coil Reference	Weight
V	Ω	Ω	Ω	H			kg

For contactor LC1-F400

48	5.11	99	0.27	1 x DR2-SC0047	LX9-FJ918	0.970
110	32.3	632	1.7	1 x DR2-SC0330	LX9-FJ926	0.970
125	39.4	760	2	1 x DR2-SC0390	LX9-FJ927	0.970
220	123	2320	6.1	1 x DR2-SC1200	LX9-FJ932	0.970
440/460	478	9080	23	1 x DR2-SC4700	LX9-FJ938	0.970

Specifications

Average consumption :
- inrush : 430 W.
- sealed : 22 W.



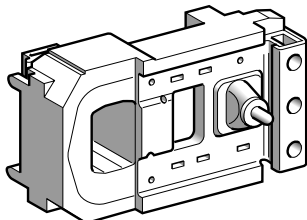
LX9-FK●●●

For contactor LC1-F500

48	4.67	76.7	0.22	1 x DR2-SC0039	LX9-FK918	1.080
110	29.8	470	1.4	1 x DR2-SC0220	LX9-FK926	1.080
125	37.4	637	1.7	1 x DR2-SC0330	LX9-FK927	1.080
220	115	1935	5.1	1 x DR2-SC1000	LX9-FK932	1.080
440/460	448	7050	19	1 x DR2-SC3300	LX9-FK938	1.080

Specifications

Average consumption :
- inrush : 470 W.
- sealed : 29 W.



LX9-FL●●●

For contactor LC1-F630

48	3.43	52.9	0.20	2 x DR2-SC0047	LX9-FL918	1.450
110	17.2	272	0.98	2 x DR2-SC0270	LX9-FL925	1.450
125	20.8	333	1.2	2 x DR2-SC0330	LX9-FL926	1.450
220	64.5	1018	3.6	2 x DR2-SC1000	LX9-FL931	1.450
440/460	260	4010	14	2 x DR2-SC3900	LX9-FL937	1.450

Specifications

Average consumption :
- inrush : 733 W.
- sealed : 48 W.
(1) Weight of resistor : 0.030 kg.

Thermal overload relays

3-pole thermal overload relays (class 10)
adjustable from 30 to 630 A, for motor protection

References

Compensated and differential overload relays (1) (2)

Thermal overload relays :

- compensated and differential,
- relay trip indicator,
- for a.c.,
- for direct mounting on contactor or independent mounting (3).

Class 10

Relay setting range A	Max fuses to be used with selected relay		For direct mounting beneath contactor LC1	Reference	Weight kg
	aM A	gG A			
30...50	50	80	F115...F185	LR9-F5357	0.885
48...80	80	125	F115...F185	LR9-F5363	0.900
60...100	100	160	F115...F185	LR9-F5367	0.900
90...150	160	250	F115...F185	LR9-F5369	0.885
132...220	250	315	F225 and F265	LR9-F5371	0.950
200...330	400	355	F225...F500	LR9-F7375	2.320
300...500	500	500	F225...F500	LR9-F7379	2.320
380...630	630	630	F400...F630	LR9-F7381	4.160



LR-F53●●



LR9-F73●●

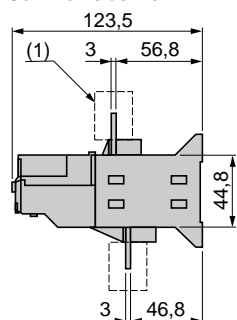
(1) Standard IEC 947-4 specifies a tripping time for 7.2 times the setting current I_r :

- Class 10 : between 4 and 10 seconds,
- Class 10 A : between 2 and 10 seconds.

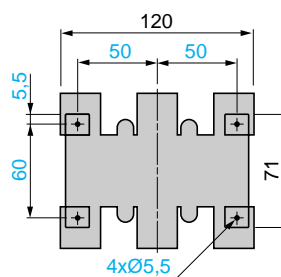
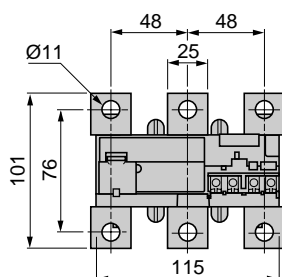
(2) When mounting overload relays LR9-F5357 to LR9-F5371 directly beneath the contactor they can be additionally supported by a mounting plate (see page 1/83). Above these sizes it is always necessary to use the mounting plate.

(3) Power terminals can be protected against direct finger contact by the addition of shrouds and/or insulated terminal blocks, to be ordered separately (see page 1/83).

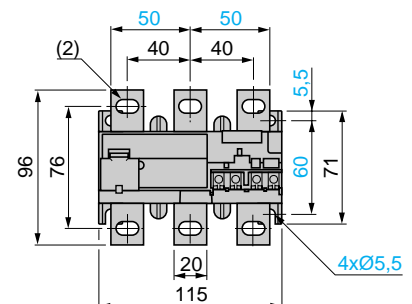
Common side view



LR9-F5●71



LR9-F5●57, F5●63, F5●67, F5●69



(1) Terminal shroud [LA9-F70●](#)

(2) 6.5 x 13.5 for [LR9-F5●57](#) and 8.5 x 13.5 for [LR9-F5●63, F5●67, F5●69](#)

Thermal overload relays

3-pole thermal overload relays (class 20)
adjustable from 30 to 630 A, for motor protection

References

Compensated and differential overload relays (1) (2)

Thermal overload relays :

- compensated and differential,
- relay trip indicator,
- for a.c.,
- for direct mounting on contactor or independent mounting (3).



LR9-F5557

Class 20

Relay setting range A	Max fuses to be used with selected relay		For direct mounting beneath contactor LC1	Reference	Weight kg
	aM A	gG A			
30...50	80	125	F115...F185	LR9-F5557	0.885
48...80	100	160	F115...F185	LR9-F5563	0.900
60...100	125	200	F115...F185	LR9-F5567	0.900
90...150	200	250	F115...F185	LR9-F5569	0.885
132...220	315	355	F225 and F265	LR9-F5571	0.950
200...330	400	500	F225...F500	LR9-F7575	2.320
300...500	630	710	F225...F500	LR9-F7579	2.320
380...630	800	800	F400...F630 and F800	LR9-F7581	4.160

(1) Standard IEC 947-4 specifies a tripping time for 7.2 times the setting current I_r :

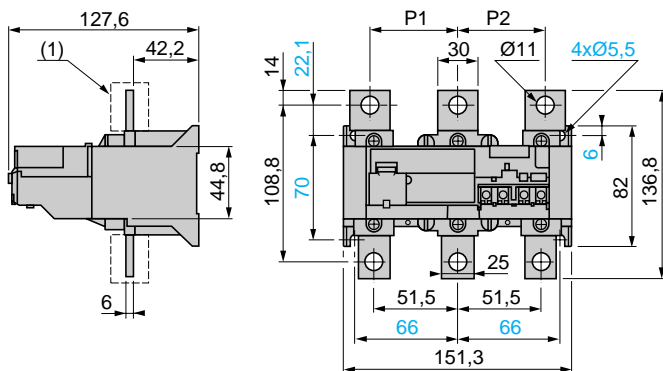
- Class 20 : between 6 and 20 seconds.

(2) When mounting overload relays LR9-F5557 to LR9-F5571 directly beneath the contactor they can be additionally supported by a mounting plate (see page 1/83). Above these sizes it is always necessary to use the mounting plate.

(3) Power terminals can be protected against direct finger contact by the addition of shrouds and/or insulated terminal blocks, to be ordered separately (see page 1/83).

Common side view

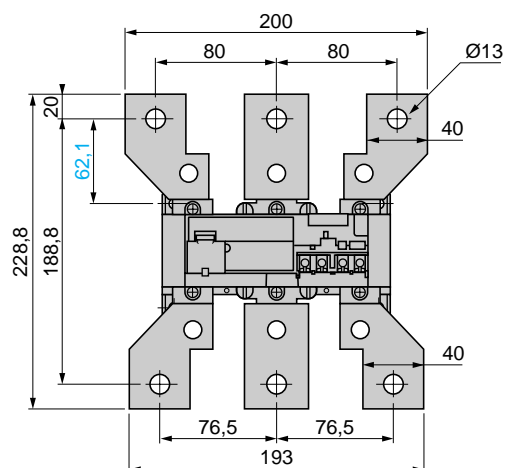
LR9-F7●75, F7●79, F7●81



	P1	P2
LR9-F7●75	48	48
LR9-F7●79, F7●81	55	55

(1) Terminal shroud LA9-F70●

LR9-F7●81 (for mounting beneath LC1-F630)



Thermal overload relays

3-pole thermal overload relays, adjustable from 30 to 630 A

Accessories (to be ordered separately)

References

Control accessories

Description	Sold in lots of	Unit reference	Weight kg
Remote electrical reset device (1)	1	LA7-D03● (2)	0.090
Remote reset function control by flexible cable (length = 0.5 m)	1	LA7-D305	0.075
Remote Stop and/or Reset function control Adaptor for door mounted operator For fitting, order the following 3 products :	1	LA7-D1020	0.005
Rod (snap-off end to obtain required length, between 17 and 120 mm)	10	ZA2-BZ13	0.100
Operating head for spring return pushbutton	1	ZA2-B●●●● (3)	0.012

(1) Reference to be completed by adding coil voltage code.

Standard control circuit voltages (for other voltages, please consult your Regional customer centre).

Volts	12	24	48	96	110	220/230	380/400	415/440
~ 50/60 Hz	–	B	E	–	F	M	Q	N
Consumption, inrush and sealed : < 100 VA								
≡	J	B	E	DD	F	M	–	–
Consumption, inrush and sealed : < 100 W								

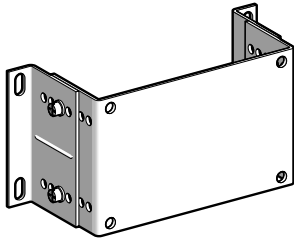
(2) The time for which the coil of remote electrical reset device LA7-D03 can remain energised depends on its rest time : 1 s pulse duration with 9 s rest time ; 5 s pulse duration with 30 s rest time ; 10 s pulse duration with 90 s rest time : maximum pulse duration of 20 s with rest time of 300 s. Minimum impulse time : 200 ms.

(3) Reference to be completed, please refer to chapter 5.

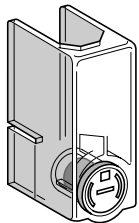
Thermal overload relays

3-pole thermal overload relays, adjustable from 30 to 630 A
Accessories (to be ordered separately)

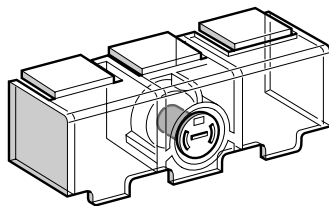
References



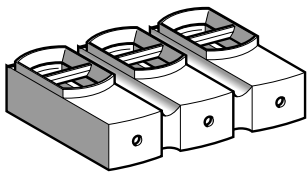
LA7-F90●



LA9-F70●



LA7-F70●



LA9-F103

Mounting plate for overload relay

For use with relays	Reference	Weight kg
LR9-F5●57, F5●63, F5●67, F5●69 and F5●71	LA7-F901	0.100
LR9-F7●75, F7●79 and F7●81	LA7-F902	0.100

Power terminal protection shrouds, single-pole

For use with relays	Reference	Weight kg
LR9-F5●57	LA9-F701	0.015
LR9-F5●63, F5●67, F5●69	LA9-F702	0.015
LR9-F5●71	LA9-F705	0.015
LR9-F7●75, F7●79, F7●81	LA9-F703	0.015

Power terminal protection shrouds, 3-poles

For use with relays	Reference	Weight kg
LR9-F5●57, F5●63, F5●67, F5●69	LA7-F701	0.030
LR9-F5●71	LA7-F702	0.030
LR9-F7●75, F7●79, F7●81	LA7-F703	0.030

Insulated terminal blocks

For use with relays	Set of 2 blocks Reference	Weight kg
LR9-F5●57, F5●63, F5●67, F5●69	LA9-F103	0.560

Connection accessories (for mounting overload relays beneath reversing and star-delta contactors)

Application For relays	For contactor	Set of 3 bars Reference	Weight kg
LR9-F5●57, F5●63, F5●67, F5●69	LC1-F115	LA7-F401	0.110
LR9-F5●57, F5●63	LC1-F150 and F185	LA7-F402	0.110
LR9-F5●71	LC1-F225 and F265	LA7-F403	0.160
LR9-F7●75, F7●79	LC1-F225 and F400	LA7-F404	0.160
LR9-F7●81	LC1-F400	LA7-F404	0.160
LR9-F7●75, F7●79, F7●81	LC1-F500	LA7-F405	0.270
LR9-F7●81	LC1-F630 and F800	LA7-F406	0.600

Marking accessories

Description	Sold in lots of	Unit reference	Weight kg
Marker holder, snap-in	100	LA7-D903	0.001
Bag of 400 blank self-adhesive labels, 7 x 16 mm	1	LA9-D91	0.001