



AF and EK 4-pole contactors

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4-pole contactors



IEC	AC-1 Rated operational current	$\theta \leq 40^\circ\text{C}$, 690 V	A	25	30	45	55	70	100	125
UL/CSA	General use rating	600 V	A	25	30	45	55	—	—	—
AC / DC Control supply			Type	AF09	AF16	AF26	AF38	AF40	AF52	AF80
AC Control supply			Type	AF09	AF16	AF26	AF38	AF40	AF52	AF80
DC Control supply			Type	AF09	AF16	AF26	AF38	AF40	AF52	AF80
IEC	AC-1 Rated operational current	$\theta \leq 40^\circ\text{C}$	A	25	30	45	55	70	100	125
		$\theta \leq 60^\circ\text{C}$ (1)	A	25	30	40	45	60	80	105
		$\theta \leq 70^\circ\text{C}$	A	22	26	32	37	50	70	90
		With conductor cross sectional area		mm ²	4	6	10	16	35	35
	Rated operational voltage Ue max.		V	690	690	690	690	690	690	690
UL/CSA	General use rating	600 V	A	25	30	45	55	—	—	—

(1) $\theta \leq 55^\circ\text{C}$ for EK550, EK1000 contactors

Main accessories

Auxiliary contact blocks	Front mounting	CA4-10 (1 x N.O.), CA4-01 (1 x N.C.)
	Side mounting	CAL4-11 (1 x N.O. + 1 x N.C.)
Timers	Electronic	TEF4-ON
		TEF4-OFF
Interlocking units	Mechanical	VM4
	Mechanical / Electrical	VM96-4
Surge suppressors	Varistor + RC (AC / DC)	VEM4
		Built-in surge protection



160	200	275	350	400	500	525	800	1000
—	—	—	—	—	—	—	540	—
AF116	AF140	AF190	AF205	AF265	AF305	AF370	—	—
AF116	AF140	AF190	AF205	AF265	AF305	AF370	EK550	EK1000
AF116	AF140	AF190	AF205	AF265	AF305	AF370	EK550	EK1000
160	200	250	275	350	375	400	800	1000
145	175	225	250	300	325	350	650	800
130	160	185	200	240	260	290	575	720
70	95	150	240	240	300	2 x 185	2 x 240	2 x 300
690	690	1000	1000	1000	1000	1000	1000	1000
—	—	—	—	—	—	—	540	—

CAL19-11 (1 x N.O. + 1 x N.C.)	CAL16-11 (1 x N.O. + 1 x N.C.)
VM19 (for same size contactors)	VH800
	RC-EH800

AF09 ... AF38 4-pole contactors

25 to 55 A AC-1

AC / DC operated



AF09-40-00

1SBC101086F0014



AF26-40-00



1SBC101097F0014

Description

AF09 ... AF38 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC and 440 V DC. These contactors are of the block type design with 4 main poles.

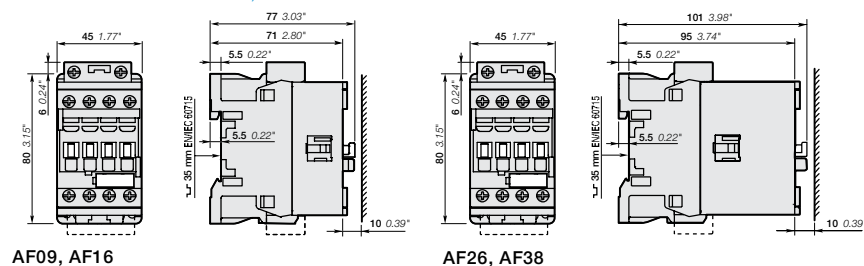
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 control voltage ranges covering 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening.
- built-in surge suppression
- add-on auxiliary contact blocks for front or side mounting and a wide range of accessories.

Ordering details

IEC	UL/CSA	Rated control circuit voltage		Auxiliary contacts fitted	Type	Order code	Weight
Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1	General use rating 600 V AC	Uc min. ... Uc max.					Pkg (1 pce)
A	A	V 50/60 Hz	V DC	 			kg
4 N.O. main poles							
25	25	24...60	-	(1) 0 0	AF09-40-00-41	1SBL137201R4100	0.270
		48...130	48...130	0 0	AF09-40-00-12	1SBL137201R1200	0.270
		100...250	100...250	0 0	AF09-40-00-13	1SBL137201R1300	0.270
		250...500	250...500	0 0	AF09-40-00-14	1SBL137201R1400	0.310
30	30	24...60	-	(1) 0 0	AF16-40-00-41	1SBL177201R4100	0.270
		48...130	48...130	0 0	AF16-40-00-12	1SBL177201R1200	0.270
		100...250	100...250	0 0	AF16-40-00-13	1SBL177201R1300	0.270
		250...500	250...500	0 0	AF16-40-00-14	1SBL177201R1400	0.310
45	45	24...60	-	(1) 0 0	AF26-40-00-41	1SBL237201R4100	0.360
		48...130	48...130	0 0	AF26-40-00-12	1SBL237201R1200	0.360
		100...250	100...250	0 0	AF26-40-00-13	1SBL237201R1300	0.360
		250...500	250...500	0 0	AF26-40-00-14	1SBL237201R1400	0.400
55	55	24...60	-	(1) 0 0	AF38-40-00-41	1SBL297201R4100	0.360
		48...130	48...130	0 0	AF38-40-00-12	1SBL297201R1200	0.360
		100...250	100...250	0 0	AF38-40-00-13	1SBL297201R1300	0.360
		250...500	250...500	0 0	AF38-40-00-14	1SBL297201R1400	0.400
2 N.O. + 2 N.C. main poles							
25	25	24...60	-	(1) 0 0	AF09-22-00-41	1SBL137501R4100	0.270
		48...130	48...130	0 0	AF09-22-00-12	1SBL137501R1200	0.270
		100...250	100...250	0 0	AF09-22-00-13	1SBL137501R1300	0.270
		250...500	250...500	0 0	AF09-22-00-14	1SBL137501R1400	0.310
30	30	24...60	-	(1) 0 0	AF16-22-00-41	1SBL177501R4100	0.270
		48...130	48...130	0 0	AF16-22-00-12	1SBL177501R1200	0.270
		100...250	100...250	0 0	AF16-22-00-13	1SBL177501R1300	0.270
		250...500	250...500	0 0	AF16-22-00-14	1SBL177501R1400	0.310
45	45	24...60	-	(1) 0 0	AF26-22-00-41	1SBL237501R4100	0.360
		48...130	48...130	0 0	AF26-22-00-12	1SBL237501R1200	0.360
		100...250	100...250	0 0	AF26-22-00-13	1SBL237501R1300	0.360
		250...500	250...500	0 0	AF26-22-00-14	1SBL237501R1400	0.400
55	55	24...60	-	(1) 0 0	AF38-22-00-41	1SBL297501R4100	0.360
		48...130	48...130	0 0	AF38-22-00-12	1SBL297501R1200	0.360
		100...250	100...250	0 0	AF38-22-00-13	1SBL297501R1300	0.360
		250...500	250...500	0 0	AF38-22-00-14	1SBL297501R1400	0.400

(1) For 24...60 V 50/60 Hz - 20...60 V DC, use AF...-...-11 (see voltage code table).
AF...-...-11 not suitable for direct control by PLC-output.

Main dimensions mm, inches



AF09, AF16

AF26, AF38

AF09Z ... AF38Z 4-pole contactors

25 to 55 A AC-1

AC / DC operated - low consumption



AF09Z-40-00





AF26Z-40-00

Description

AF09Z ... AF38Z 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC and 440 V DC. These contactors are of the block type design with 4 main poles.

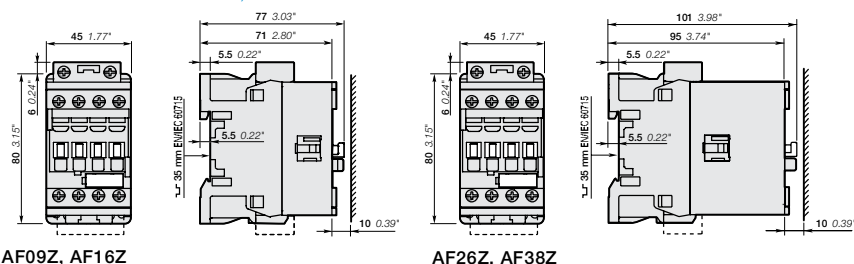
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 control voltage ranges covering 24...250 V 50/60 Hz and 12...250 V DC
- can manage large control voltage variations
- allow direct control by PLC-output ≥ 24 V DC 500 mA
- reduced panel energy consumption
- very distinct closing and opening
- can withstand short voltage dips and voltage sags (SEMI F47-0706 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for front or side mounting and a wide range of accessories.

Ordering details

IEC	UL/CSA	Rated control circuit voltage		Auxiliary contacts fitted	Type	Order code	Weight
Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1	General use rating 600 V AC	Uc min. ...	Uc max.				Pkg (1 pce) kg
A	A	V 50/60 Hz	V DC	 			
4 N.O. main poles							
25	25	-	12...20	0 0	AF09Z-40-00-20	1SBL136201R2000	0.310
		24...60	20...60	0 0	AF09Z-40-00-21	1SBL136201R2100	0.310
		48...130	48...130	0 0	AF09Z-40-00-22	1SBL136201R2200	0.310
		100...250	100...250	0 0	AF09Z-40-00-23	1SBL136201R2300	0.310
30	30	-	12...20	0 0	AF16Z-40-00-20	1SBL176201R2000	0.310
		24...60	20...60	0 0	AF16Z-40-00-21	1SBL176201R2100	0.310
		48...130	48...130	0 0	AF16Z-40-00-22	1SBL176201R2200	0.310
		100...250	100...250	0 0	AF16Z-40-00-23	1SBL176201R2300	0.310
45	45	-	12...20	0 0	AF26Z-40-00-20	1SBL236201R2000	0.400
		24...60	20...60	0 0	AF26Z-40-00-21	1SBL236201R2100	0.400
		48...130	48...130	0 0	AF26Z-40-00-22	1SBL236201R2200	0.400
		100...250	100...250	0 0	AF26Z-40-00-23	1SBL236201R2300	0.400
55	55	-	12...20	0 0	AF38Z-40-00-20	1SBL296201R2000	0.400
		24...60	20...60	0 0	AF38Z-40-00-21	1SBL296201R2100	0.400
		48...130	48...130	0 0	AF38Z-40-00-22	1SBL296201R2200	0.400
		100...250	100...250	0 0	AF38Z-40-00-23	1SBL296201R2300	0.400
2 N.O. + 2 N.C. main poles							
25	25	-	12...20	0 0	AF09Z-22-00-20	1SBL136501R2000	0.310
		24...60	20...60	0 0	AF09Z-22-00-21	1SBL136501R2100	0.310
		48...130	48...130	0 0	AF09Z-22-00-22	1SBL136501R2200	0.310
		100...250	100...250	0 0	AF09Z-22-00-23	1SBL136501R2300	0.310
30	30	-	12...20	0 0	AF16Z-22-00-20	1SBL176501R2000	0.310
		24...60	20...60	0 0	AF16Z-22-00-21	1SBL176501R2100	0.310
		48...130	48...130	0 0	AF16Z-22-00-22	1SBL176501R2200	0.310
		100...250	100...250	0 0	AF16Z-22-00-23	1SBL176501R2300	0.310
45	45	-	12...20	0 0	AF26Z-22-00-20	1SBL236501R2000	0.400
		24...60	20...60	0 0	AF26Z-22-00-21	1SBL236501R2100	0.400
		48...130	48...130	0 0	AF26Z-22-00-22	1SBL236501R2200	0.400
		100...250	100...250	0 0	AF26Z-22-00-23	1SBL236501R2300	0.400
55	55	-	12...20	0 0	AF38Z-22-00-20	1SBL296501R2000	0.400
		24...60	20...60	0 0	AF38Z-22-00-21	1SBL296501R2100	0.400
		48...130	48...130	0 0	AF38Z-22-00-22	1SBL296501R2200	0.400
		100...250	100...250	0 0	AF38Z-22-00-23	1SBL296501R2300	0.400

Note: Only AF.Z contactors with DC control voltage 12...20 V DC need to respect the connection polarities indicated close to the coil terminals: A1+ for the positive pole and A2- for the negative pole.

Main dimensions mm, inches



AF09Z, AF16Z

AF26Z, AF38Z

AF40 ... AF80 4-pole contactors

70 to 125 A AC-1

AC / DC operated



AF40-40-00



AF80-40-00

Description

AF40 ... AF80 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC and 440 V DC. These contactors are of the block type design with 4 main poles.

- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 control voltages ranges covering 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening.
- built-in surge suppression
- add-on auxiliary contact blocks for front or side mounting and a wide range of accessories.

Ordering details

IEC	UL/CSA	Rated control circuit voltage Uc min. ... Uc max.		Auxiliary contacts fitted	Type (1)	Order code	Weight Pkg (1 pce) kg
Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1	General use rating 600 V AC	V 50/60 Hz	V DC				
A	A						

4 N.O. Main Poles

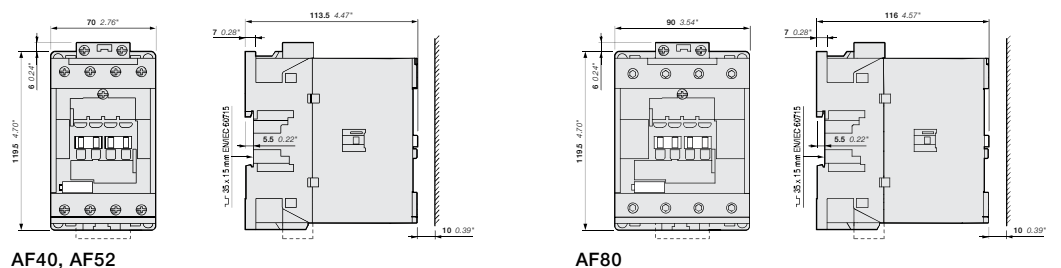
Rated current (A)	UL/CSA	Rated control circuit voltage		Auxiliary contacts	Type	Order code	Weight (kg)
		V 50/60 Hz	V DC				
70	-	24...60	-	0 0	AF40-40-00-41	1SBL347201R4100	1.210
		24...60	20...60 (1)	0 0	AF40-40-00-11	1SBL347201R1100	1.210
		48...130	48...130	0 0	AF40-40-00-12	1SBL347201R1200	1.210
		100...250	100...250	0 0	AF40-40-00-13	1SBL347201R1300	1.160
		250...500	250...500	0 0	AF40-40-00-14	1SBL347201R1400	1.160
100	-	24...60	-	0 0	AF52-40-00-41	1SBL367201R4100	1.210
		24...60	20...60 (1)	0 0	AF52-40-00-11	1SBL367201R1100	1.210
		48...130	48...130	0 0	AF52-40-00-12	1SBL367201R1200	1.210
		100...250	100...250	0 0	AF52-40-00-13	1SBL367201R1300	1.160
		250...500	250...500	0 0	AF52-40-00-14	1SBL367201R1400	1.160
125	-	24...60	-	0 0	AF80-40-00-41	1SBL397201R4100	1.490
		24...60	20...60 (1)	0 0	AF80-40-00-11	1SBL397201R1100	1.490
		48...130	48...130	0 0	AF80-40-00-12	1SBL397201R1200	1.490
		100...250	100...250	0 0	AF80-40-00-13	1SBL397201R1300	1.440
		250...500	250...500	0 0	AF80-40-00-14	1SBL397201R1400	1.440

2 N.O. + 2 N.C. Main Poles

Rated current (A)	UL/CSA	Rated control circuit voltage		Auxiliary contacts	Type	Order code	Weight (kg)
		V 50/60 Hz	V DC				
70	-	24...60	-	0 0	AF40-22-00-41	1SBL347501R4100	1.210
		24...60	20...60 (1)	0 0	AF40-22-00-11	1SBL347501R1100	1.210
		48...130	48...130	0 0	AF40-22-00-12	1SBL347501R1200	1.210
		100...250	100...250	0 0	AF40-22-00-13	1SBL347501R1300	1.160
		250...500	250...500	0 0	AF40-22-00-14	1SBL347501R1400	1.160
125	-	24...60	-	0 0	AF80-22-00-41	1SBL397501R4100	1.490
		24...60	20...60 (1)	0 0	AF80-22-00-11	1SBL397501R1100	1.490
		48...130	48...130	0 0	AF80-22-00-12	1SBL397501R1200	1.490
		100...250	100...250	0 0	AF80-22-00-13	1SBL397501R1300	1.440
		250...500	250...500	0 0	AF80-22-00-14	1SBL397501R1400	1.440

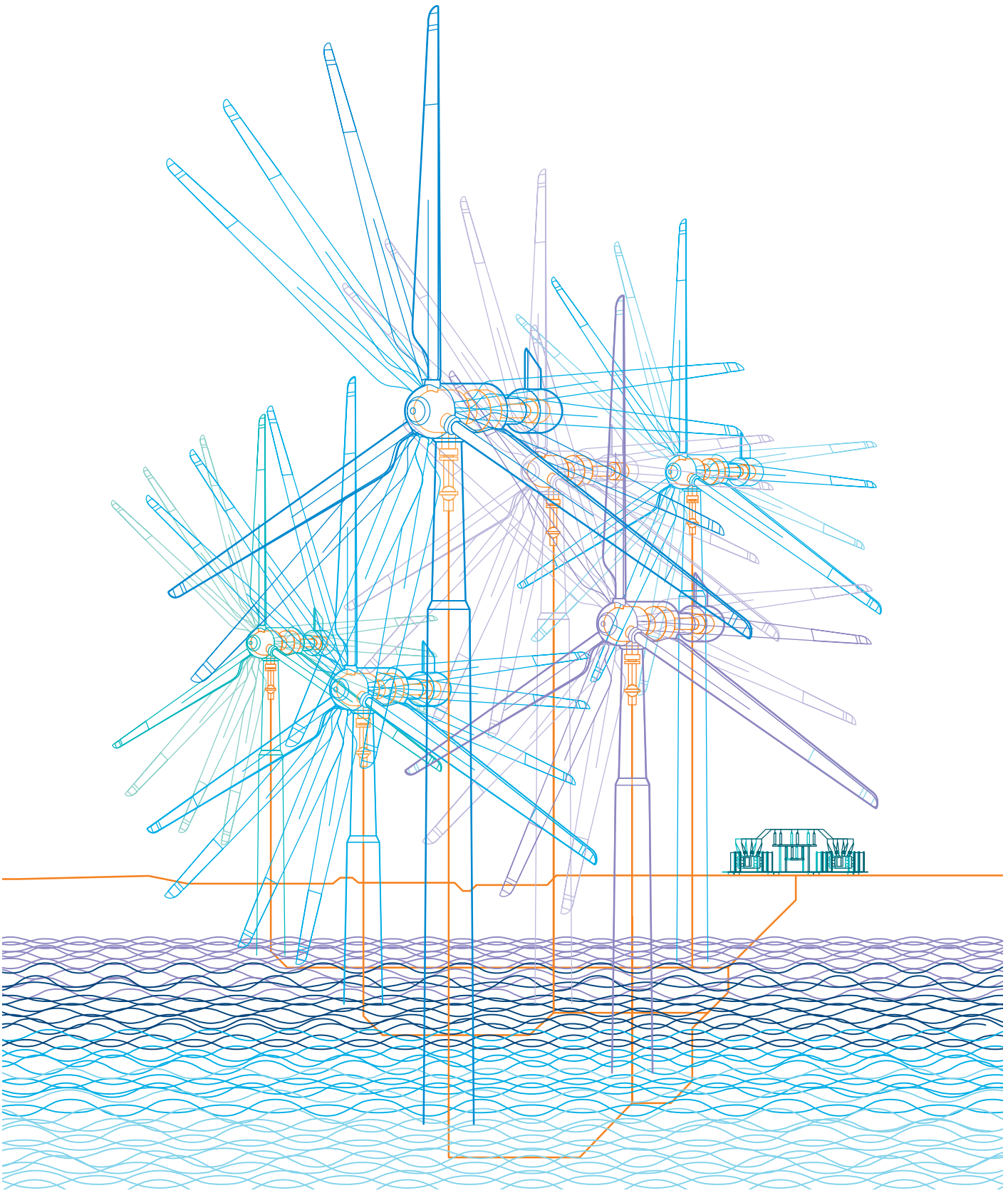
(1) AF.....-11 not suitable for direct control by PLC-output.

Main dimensions mm, inches



AF40, AF52

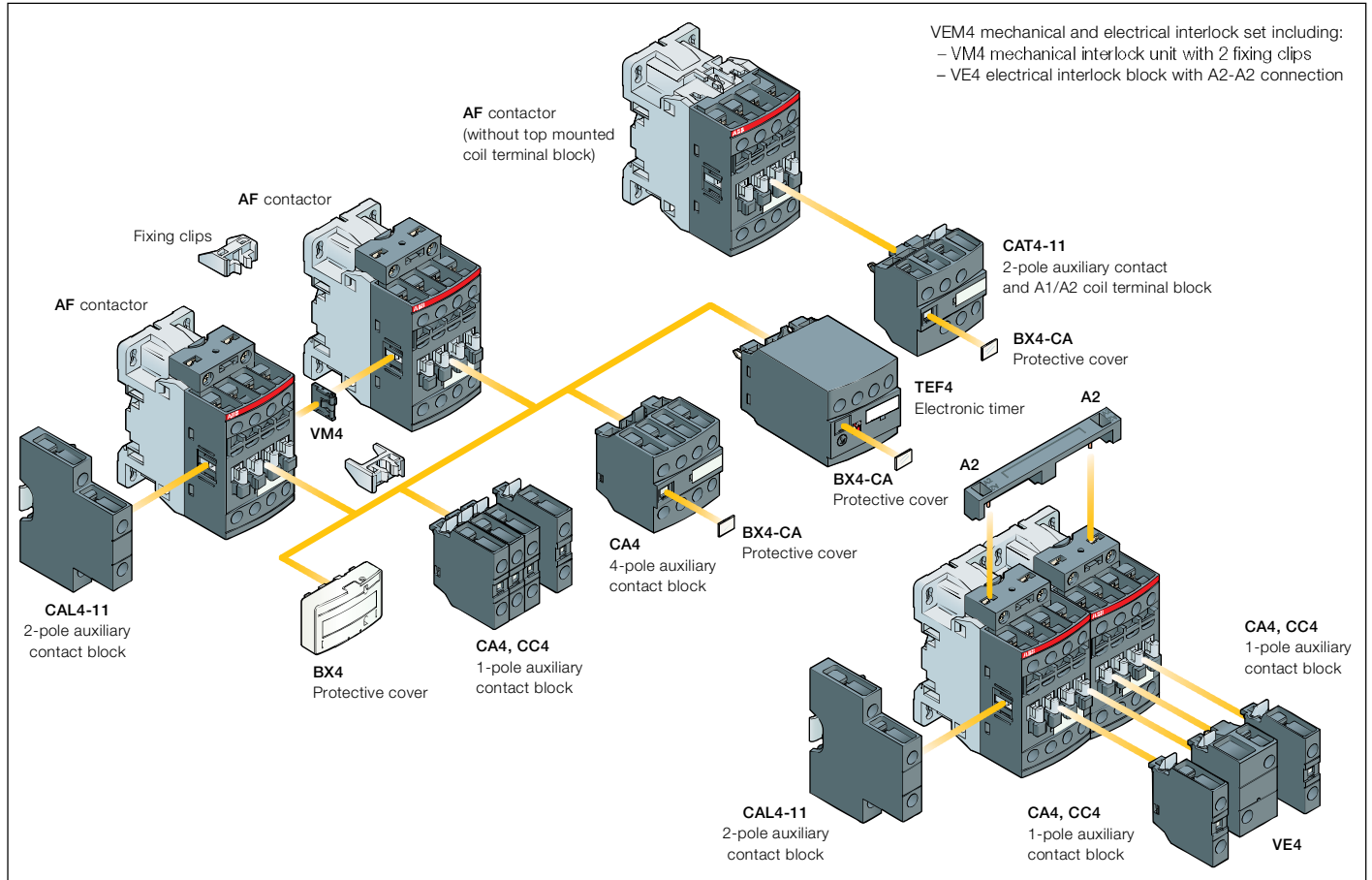
AF80



AF09 ... AF80 4-pole contactors

Main accessories

Contactor and main accessories (other accessories available)



Main accessory fitting details

Many configurations of accessories are possible depending on whether these are front-mounted or side-mounted.

Contactor types	Main poles	Built-in auxiliary contacts	Front-mounted accessories					Side-mounted accessories			
			Auxiliary contact blocks			Electronic timer	Electrical and mechanical interlock set (between 2 contactors)	Auxiliary contact blocks			
			1-pole CA4 1-pole CC4	2-pole CAT4-11	4-pole CA4	TEF4	VEM4	Left side 2-pole CAL4-11	Right side		
Max. add-on N.C. auxiliary contacts: 4 N.C. max. on positions 1, 2, 3, 4 and 3 N.C. max. on positions 1 ±30°, 5											
AF09 ... AF16	4	0	0	0	4 max.	or 1	or 1	or 1	-	+ 1	-
					2 max.	or 1	-	or 1	-	+ 1	+ 1
					3 max.	-	-	-	+ 1	+ 1	or 1
Max. add-on N.C. auxiliary contacts: 3 N.C. max. on positions 1, 2, 3, 4 and 2 N.C. max. on positions 1 ±30°, 5											
AF26 ... AF38	4	0	0	0	4 max.	or 1	or 1	or 1	-	+ 1	-
					2 max.	or 1	-	or 1	-	+ 1	+ 1
					3 max.	-	-	-	+ 1	+ 1	or 1
Max. add-on N.C. auxiliary contacts: 6 N.C. max. on positions 1, 1 ±30°, 2, 3, 4, 5											
AF40 ... AF52	4	0	0	0	4 max.	or 1	or 1	or 1	-	+ 1	+ 1
AF80	4	0	0	0	4 max.	-	or 1	or 1	-	+ 1	+ 1
Max. add-on N.C. auxiliary contacts: 3 N.C. max. on positions 1, 2, 3, 4 and 2 N.C. max. on positions 1 ±30°, 5											
AF09 ... AF16	2	2	0	0	4 max.	or 1	or 1	or 1	-	+ 1	-
AF26 ... AF38	2	2	0	0	2 max.	or 1	-	or 1	-	+ 1	+ 1
Max. add-on N.C. auxiliary contacts: 2 N.C. max. on positions 1, 1 ±30°, 2, 3, 4, 5											
AF40	2	2	0	0	4 max.	or 1	or 1	or 1	-	+ 1	-
					4 max.	-	or 1	or 1	-	+ 1	+ 1
AF80	2	2	0	0	4 max.	-	or 1	or 1	-	+ 1	+ 1

AF09 ... AF80 4-pole contactors

Main accessories



CA4-10



CAL4-11



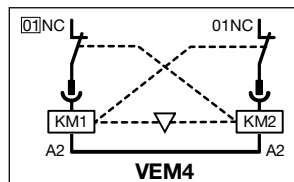
CA4-22E



CAT4-11E



VEM4



TEF4-ON

Ordering details (1)

For contactors	Auxiliary contacts	Type	Order code	Pkg qty	Weight (1 pce)
					kg

Front-mounted instantaneous auxiliary contact blocks

AF09 ... AF80-40-00	1 0	- -	CA4-10	1SBN010110R1010	1	0.014
AF09 ... AF80-22-00	1 0	- -	CA4-10-T	1SBN010110T1010	10	0.014
	0 1	- -	CA4-01	1SBN010110R1001	1	0.014
	0 1	- -	CA4-01-T	1SBN010110T1001	10	0.014
	2 2	- -	CA4-22E	1SBN010140R1022	1	0.055
	3 1	- -	CA4-31E	1SBN010140R1031	1	0.055
	4 0	- -	CA4-40E	1SBN010140R1040	1	0.055
AF09 ... AF16...-40-00	0 4	- -	CA4-04E	1SBN010140R1004	1	0.055
AF40 ... AF80-40-00						

Front-mounted auxiliary contact blocks with N.O. leading contact and N.C. lagging contact

AF09 ... AF80-40-00	- -	1 0	CC4-10	1SBN010111R1010	1	0.014
AF09 ... AF80-22-00	- -	0 1	CC4-01	1SBN010111R1001	1	0.014

Side-mounted instantaneous auxiliary contact blocks

AF09 ... AF80-40-00	1 1	- -	CAL4-11	1SBN010120R1011	1	0.040
AF09 ... AF80-22-00	1 1	- -	CAL4-11-T	1SBN010120T1011	10	0.040

Front-mounted instantaneous auxiliary contact and A1/A2 coil terminal blocks

AF09 ... AF52...-40-00	1 1	- -	CAT4-11E	1SBN010151R1011	1	0.040
AF09 ... AF40...-22-00						

Note: CAT4 not suitable for AF.Z contactors with DC control voltage 12...20 V DC.

Mechanical interlock unit

AF09 ... AF38...-40-00			VM4	1SBN030105T1000	10	0.005
AF40 ... AF80...-40-00			VM96-4	1SBN033405T1000	10	0.006

Note: VM4 includes 2 fixing clips (BB4) to maintain together both contactors.

Mechanical and electrical interlock set

AF09, AF16...-40-00	0 2	- -	VEM4	1SBN030111R1000	1	0.035
AF26, AF38...-40-00						

Note: - VEM4 includes a VM4 mechanical interlock unit with 2 fixing clips (BB4), a VE4 electrical interlock block. VE4 block must be used with A2-A2 connection to respect the electrical connection diagram.

- VEM4 not suitable for AF.Z contactors with DC control voltage 12...20 V DC.

For contactors	Time delay range selected by switch	Delay type	Auxiliary contacts	Type	Order code	Pkg qty	Weight (1 pce)
							kg

Electronic timers

AF09 ... AF80	0.1...1 s	ON-delay	1 1	TEF4-ON	1SBN020112R1000	1	0.065
	1...10 s						
	10...100 s	OFF-delay	1 1	TEF4-OFF	1SBN020114R1000	1	0.065

Note: Rated control circuit voltage U_c 24...240 V 50/60 Hz or DC.

(1) For more information, refer to main catalog "Accessories" section.

AF116 ... AF140 4-pole contactors

160 to 200 A AC-1

AC / DC operated



AF140-40-00

1SFC101197C0201



AF140-40-00B

1SFC101197C0201

Description

AF116 ... AF140 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC. These contactors are of the block type design with 4 main poles.

- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 coils to cover control voltages between 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening
- can withstand short voltage dips and voltage sags (SEMI F47 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1 A	UL / CSA General use rating 600 V AC A	Rated control circuit voltage Uc min. ... Uc max. V 50/60 Hz V DC		Auxiliary contacts fitted 	Type (1)	Order code	Weight Pkg (1 pce) kg
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4 N.O. main poles

For connection with built-in cable clamps

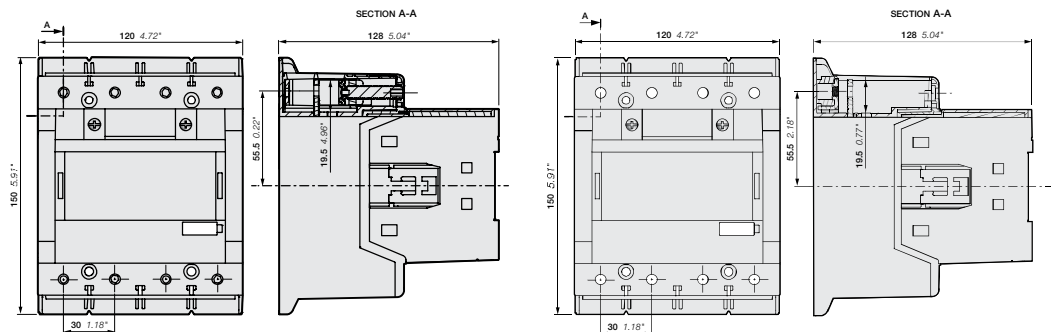
Rated current (A)	Rated voltage (V)	Rated current (A)	Rated voltage (V)	Auxiliary contacts (N.O.)	Order code	Weight (kg)
160	24...60	20...60	0 0	AF116-40-00-11	1SFL427101R1100	2.250
	48...130	48...130	0 0	AF116-40-00-12	1SFL427101R1200	2.250
	100...250	100...250	0 0	AF116-40-00-13	1SFL427101R1300	2.250
	250...500	250...500	0 0	AF116-40-00-14	1SFL427101R1400	2.250
200	24...60	20...60	0 0	AF140-40-00-11	1SFL447101R1100	2.250
	48...130	48...130	0 0	AF140-40-00-12	1SFL447101R1200	2.250
	100...250	100...250	0 0	AF140-40-00-13	1SFL447101R1300	2.250
	250...500	250...500	0 0	AF140-40-00-14	1SFL447101R1400	2.250

With bar connections

Rated current (A)	Rated voltage (V)	Rated current (A)	Rated voltage (V)	Auxiliary contacts (N.O.)	Order code	Weight (kg)
160	24...60	20...60	0 0	AF116-40-00B-11	1SFL427102R1100	2.150
	48...130	48...130	0 0	AF116-40-00B-12	1SFL427102R1200	2.150
	100...250	100...250	0 0	AF116-40-00B-13	1SFL427102R1300	2.150
	250...500	250...500	0 0	AF116-40-00B-14	1SFL427102R1400	2.150
200	24...60	20...60	0 0	AF140-40-00B-11	1SFL447102R1100	2.150
	48...130	48...130	0 0	AF140-40-00B-12	1SFL447102R1200	2.150
	100...250	100...250	0 0	AF140-40-00B-13	1SFL447102R1300	2.150
	250...500	250...500	0 0	AF140-40-00B-14	1SFL447102R1400	2.150

(1) For other auxiliary contacts arrangements, please contact your ABB local organization.

Main dimensions mm, inches



AF116, AF140-40-00

AF116, AF140-40-00B

1SFC101197C0201

AF190 ... AF370 4-pole contactors

275 to 525 A AC-1

AC / DC operated



AF205-40-00



AF370-40-00

Description

AF190 ... AF370 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 1000 V AC. These contactors are of the block type design with 4 main poles.

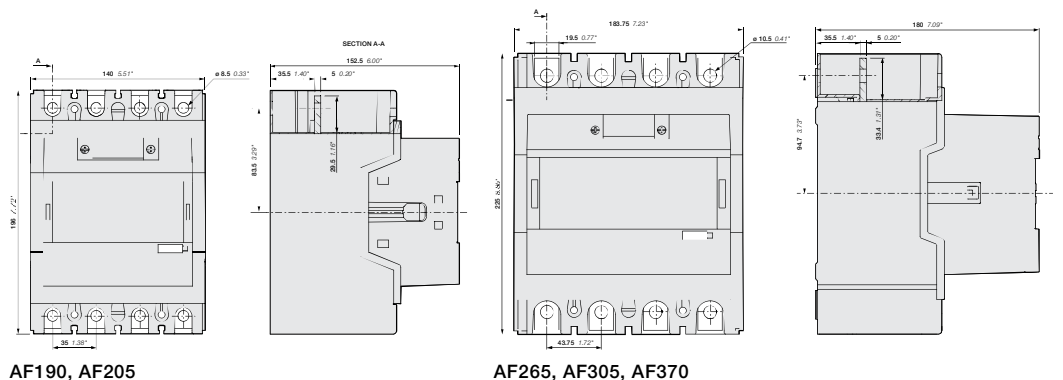
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 coils to cover control voltages between 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening
- can withstand short voltage dips and voltage sags (SEMI F47 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1 A	UL / CSA General use rating 600 V AC A	Rated control circuit voltage Uc min. ... Uc max. V 50/60 Hz V DC		Auxiliary contacts fitted 	Type (1)	Order code	Weight Pkg (1 pce) kg
4 N.O. main poles							
275	-	24...60	20...60	0 0	AF190-40-00-11	1SFL487102R1100	3.900
		48...130	48...130	0 0	AF190-40-00-12	1SFL487102R1200	3.900
		100...250	100...250	0 0	AF190-40-00-13	1SFL487102R1300	3.900
		250...500	250...500	0 0	AF190-40-00-14	1SFL487102R1400	3.900
350	-	24...60	20...60	0 0	AF205-40-00-11	1SFL527102R1100	3.900
		48...130	48...130	0 0	AF205-40-00-12	1SFL527102R1200	3.900
		100...250	100...250	0 0	AF205-40-00-13	1SFL527102R1300	3.900
		250...500	250...500	0 0	AF205-40-00-14	1SFL527102R1400	3.900
400	-	24...60	20...60	0 0	AF265-40-00-11	1SFL547102R1100	6.360
		48...130	48...130	0 0	AF265-40-00-12	1SFL547102R1200	6.360
		100...250	100...250	0 0	AF265-40-00-13	1SFL547102R1300	6.360
		250...500	250...500	0 0	AF265-40-00-14	1SFL547102R1400	6.360
500	-	24...60	20...60	0 0	AF305-40-00-11	1SFL587102R1100	6.360
		48...130	48...130	0 0	AF305-40-00-12	1SFL587102R1200	6.360
		100...250	100...250	0 0	AF305-40-00-13	1SFL587102R1300	6.360
		250...500	250...500	0 0	AF305-40-00-14	1SFL587102R1400	6.360
525	-	24...60	20...60	0 0	AF370-40-00-11	1SFL607102R1100	6.360
		48...130	48...130	0 0	AF370-40-00-12	1SFL607102R1200	6.360
		100...250	100...250	0 0	AF370-40-00-13	1SFL607102R1300	6.360
		250...500	250...500	0 0	AF370-40-00-14	1SFL607102R1400	6.360

(1) For other auxiliary contacts arrangements, please contact your ABB local organization.

Main dimensions mm, inches



AF190, AF205

AF265, AF305, AF370

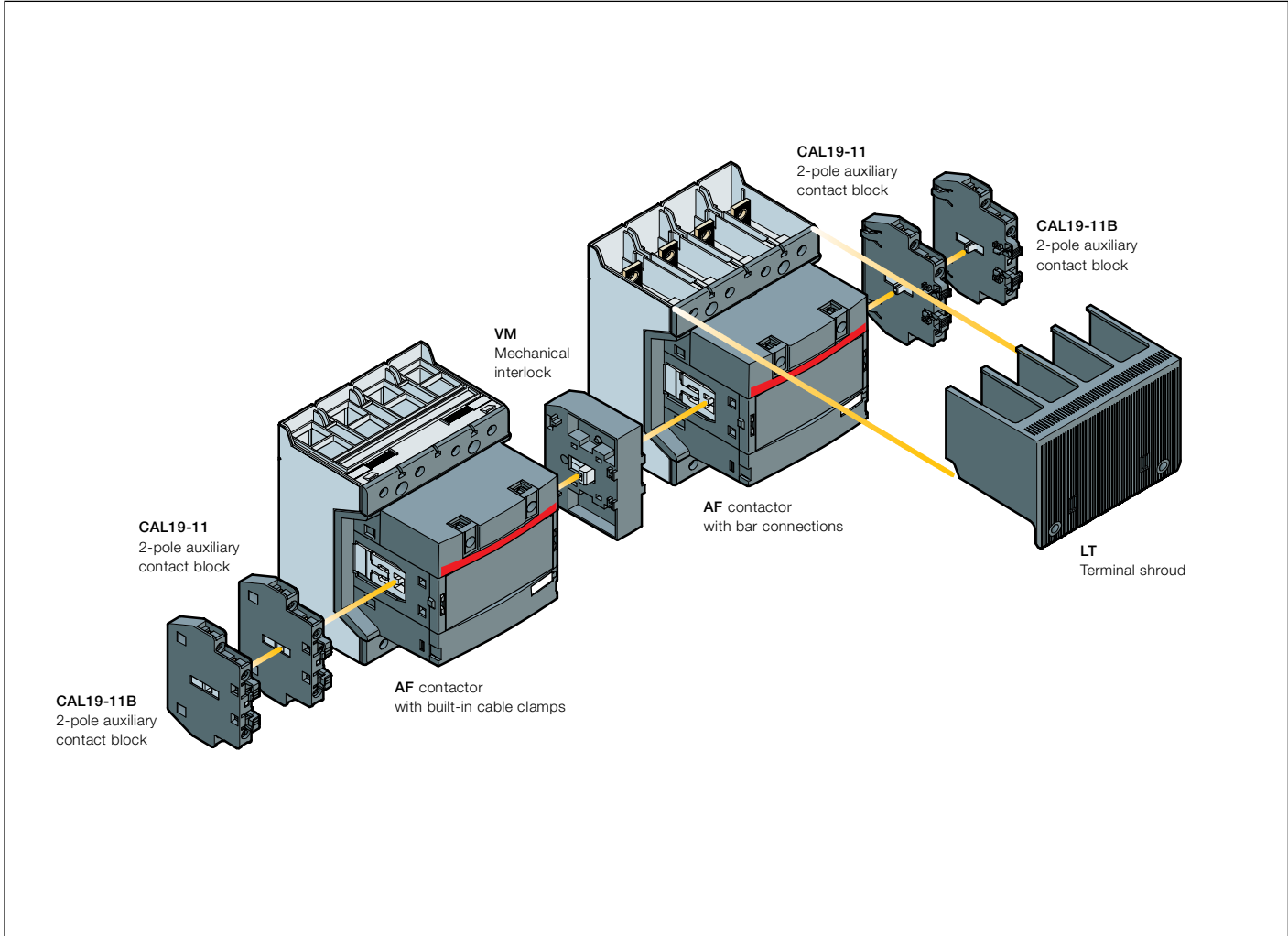
1SFC101198C0201

AF116 ... AF370 4-pole contactors

Main accessories

Main accessories (other accessories available)

5



Main accessory fitting details

Contactor types	Main poles	Available auxiliary contacts	Side-mounted accessories		
			Auxiliary contact blocks		Mechanical interlock units (between two contactors)
			CAL19-11	CAL19-11B	
AF116 ... AF370	4	0 0 0	2 x CAL19-11	+ 2 x CAL19-11B	-
AF116 ... AF370	4	0 0 0	2 x CAL19-11 (1)	+ 2 x CAL19-11B (1)	+ VM... (2)

(1) Total number of auxiliary contact blocks for the two contactors.

(2) Interlock type, according to the contactor ratings (see "Accessories").

AF116 ... AF370 4-pole contactors

Main accessories



CAL19-11

1SFC101071V0001



VM19

1SFC101035V0001

Ordering details (1)

For contactors	Auxiliary contacts	Type	Order code	Pkg qty	Weight (1 pce)
	Y L				kg

Side-mounted instantaneous auxiliary contact blocks

AF116 ... AF370	1	1	CAL19-11	1SFN010820R1011	2	0.050
	1	1	CAL19-11B	1SFN010820R3311	2	0.050

Mechanical interlock unit

AF116 ... AF370		VM19		1SFN030300R1000	1	0.054
AF116 ... AF146 and AF190, AF205		VM140/190		1SFN034403R1000	1	0.088
AF190, AF205 and AF265 ... AF370		VM205/265		1SFN035203R1000	1	0.090

Terminal shrouds

AF116 ... AF140, with compression lugs		LT140-40L		1SFN124203R2000	2	0.090
AF190 ... AF205, with cable clamps		LT205-40C		1SFN124801R2000	2	0.060
AF190 ... AF205, with compression lugs		LT205-40L		1SFN124803R2000	2	0.290
AF265 ... AF370, with cable clamps		LT370-40C		1SFN125401R2000	2	0.040
AF265 ... AF370, with compression lugs		LT370-40L		1SFN125403R2000	2	0.370

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For contactors	Dimensions		Type	Order code	Pkg qty	Weight (1 pce)
	hole Ø mm	bar mm				
						kg

Terminal enlargements

AF190 ... AF205	10.5	20 x 5	LW205-40	1SFN074807R2000	1	0.306
AF265 ... AF370	10.5	25 x 5	LW370-40	1SFN075407R2000	1	0.540

(1) For more information, refer to "Accessories" section.

AF116 ... AF140 4-pole contactors

160 to 200 A AC-1

AC / DC operated with 1 N.O. + 1 N.C. auxiliary contacts



AF140-40-11

1SFC101154V0001



AF140-40-11B

1SFC101192V0001

Description

AF116 ... AF140 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC. These contactors are of the block type design with 4 main poles.

- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 coils to cover control voltages between 24...500 V 50/60 Hz and 20...500 V DC
 - can manage large control voltage variations
 - reduced panel energy consumption
 - very distinct closing and opening
 - can withstand short voltage dips and voltage sags (SEMI F47 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1 A	UL / CSA General use rating 600 V AC A	Rated control circuit voltage Uc min. ... Uc max. V 50/60 Hz V DC		Auxiliary contacts fitted 	Type (1)	Order code	Weight Pkg (1 pce) kg
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4 N.O. main poles

For connection with built-in cable clamps

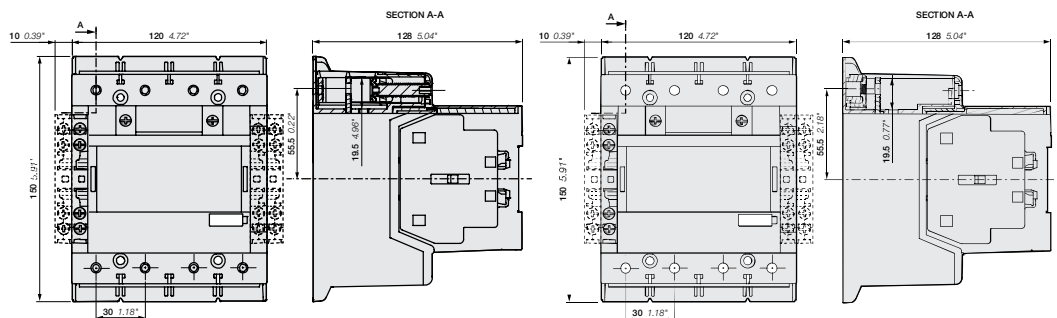
Rated current (A)	Rated voltage (V)	Rated current (A)	Rated voltage (V)	N.O. (1)	N.C. (1)	Order code	Weight (kg)	
160	-	24...60	20...60	1	1	AF116-40-11-11	1SFL427101R1111	2.270
		48...130	48...130	1	1	AF116-40-11-12	1SFL427101R1211	2.270
		100...250	100...250	1	1	AF116-40-11-13	1SFL427101R1311	2.270
		250...500	250...500	1	1	AF116-40-11-14	1SFL427101R1411	2.270
200	-	24...60	20...60	1	1	AF140-40-11-11	1SFL447101R1111	2.270
		48...130	48...130	1	1	AF140-40-11-12	1SFL447101R1211	2.270
		100...250	100...250	1	1	AF140-40-11-13	1SFL447101R1311	2.270
		250...500	250...500	1	1	AF140-40-11-14	1SFL447101R1411	2.270

With bar connections

Rated current (A)	Rated voltage (V)	Rated current (A)	Rated voltage (V)	N.O. (1)	N.C. (1)	Order code	Weight (kg)	
160	-	24...60	20...60	1	1	AF116-40-11B-11	1SFL427102R1111	2.170
		48...130	48...130	1	1	AF116-40-11B-12	1SFL427102R1211	2.170
		100...250	100...250	1	1	AF116-40-11B-13	1SFL427102R1311	2.170
		250...500	250...500	1	1	AF116-40-11B-14	1SFL427102R1411	2.170
200	-	24...60	20...60	1	1	AF140-40-11B-11	1SFL447102R1111	2.170
		48...130	48...130	1	1	AF140-40-11B-12	1SFL447102R1211	2.170
		100...250	100...250	1	1	AF140-40-11B-13	1SFL447102R1311	2.170
		250...500	250...500	1	1	AF140-40-11B-14	1SFL447102R1411	2.170

(1) For other auxiliary contacts arrangements, please contact your ABB local organization.

Main dimensions mm, inches



AF116, AF140-40-11

AF116, AF140-40-11B

1SFC101192V0001

AF190 ... AF370 4-pole contactors

275 to 525 A AC-1

AC / DC operated with 1 N.O. + 1 N.C. auxiliary contacts



AF205-40-11

1SFC1011959/0001



AF370-40-11

1SFC1011959/0001

Description

AF190 ... AF370 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 1000 V AC. These contactors are of the block type design with 4 main poles.

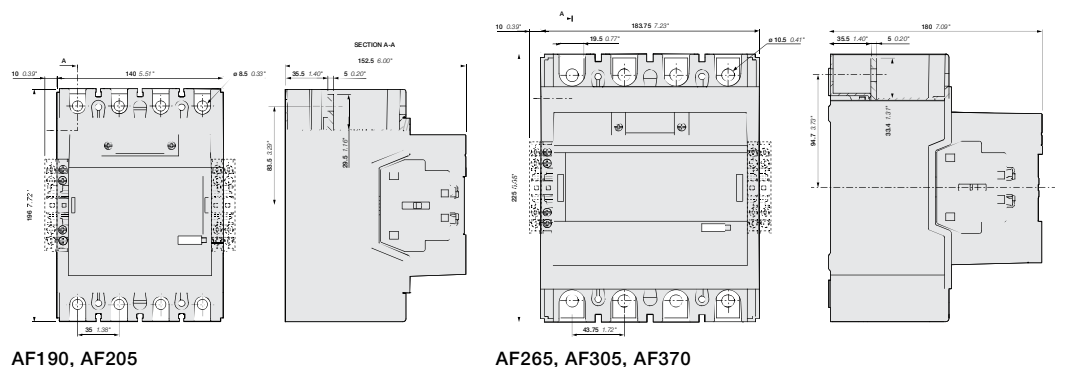
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 coils to cover control voltages between 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening
- can withstand short voltage dips and voltage sags (SEMI F47 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1 A	UL / CSA General use rating 600 V AC A	Rated control circuit voltage Uc min. ... Uc max. V 50/60 Hz V DC		Auxiliary contacts fitted 		Type (1)	Order code	Weight Pkg (1 pce) kg
4 N.O. main poles								
275	-	24...60	20...60	1	1	AF190-40-11-11	1SFL487102R1111	3.920
		48...130	48...130	1	1	AF190-40-11-12	1SFL487102R1211	3.920
		100...250	100...250	1	1	AF190-40-11-13	1SFL487102R1311	3.920
		250...500	250...500	1	1	AF190-40-11-14	1SFL487102R1411	3.920
350	-	24...60	20...60	1	1	AF205-40-11-11	1SFL527102R1111	3.920
		48...130	48...130	1	1	AF205-40-11-12	1SFL527102R1211	3.920
		100...250	100...250	1	1	AF205-40-11-13	1SFL527102R1311	3.920
		250...500	250...500	1	1	AF205-40-11-14	1SFL527102R1411	3.920
400	-	24...60	20...60	1	1	AF265-40-11-11	1SFL547102R1111	6.380
		48...130	48...130	1	1	AF265-40-11-12	1SFL547102R1211	6.380
		100...250	100...250	1	1	AF265-40-11-13	1SFL547102R1311	6.380
		250...500	250...500	1	1	AF265-40-11-14	1SFL547102R1411	6.380
500	-	24...60	20...60	1	1	AF305-40-11-11	1SFL587102R1111	6.380
		48...130	48...130	1	1	AF305-40-11-12	1SFL587102R1211	6.380
		100...250	100...250	1	1	AF305-40-11-13	1SFL587102R1311	6.380
		250...500	250...500	1	1	AF305-40-11-14	1SFL587102R1411	6.380
525	-	24...60	20...60	1	1	AF370-40-11-11	1SFL607102R1111	6.380
		48...130	48...130	1	1	AF370-40-11-12	1SFL607102R1211	6.380
		100...250	100...250	1	1	AF370-40-11-13	1SFL607102R1311	6.380
		250...500	250...500	1	1	AF370-40-11-14	1SFL607102R1411	6.380

(1) For other auxiliary contacts arrangements, please contact your ABB local organization.

Main dimensions mm, inches



AF190, AF205

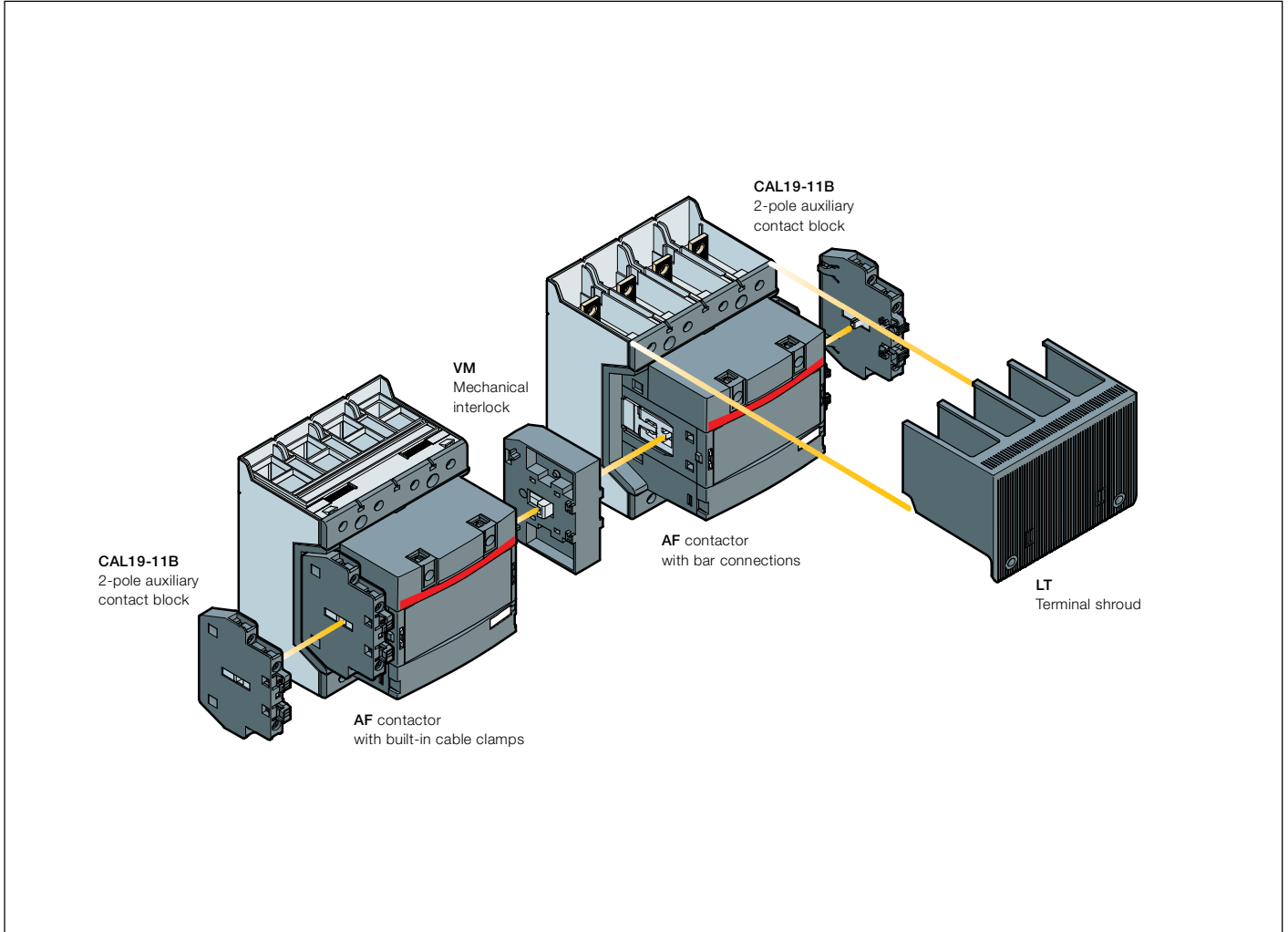
AF265, AF305, AF370

1SFC101200C0201

AF116 ... AF370 4-pole contactors with 1 N.O. + 1 N.C. auxiliary contacts Main accessories

Main accessories (other accessories available)

5



Main accessory fitting details

Contactor types	Main poles	Available auxiliary contacts	Side-mounted accessories		
			Auxiliary contact blocks		Mechanical interlock units (between two contactors)
			CAL19-11	CAL19-11B	
AF116 ... AF370	4	0 1 1	1 x CAL19-11	+ 2 x CAL19-11B	-
AF116 ... AF370	4	0 1 1	-	+ 2 x CAL19-11B (1)	+ VM... (2)

(1) Total number of auxiliary contact blocks for the two contactors.

(2) Interlock type, according to the contactor ratings (see "Accessories").

AF116 ... AF370 4-pole contactors with 1 N.O. + 1 N.C. auxiliary contacts Main accessories



CAL19-11

1SFC101071V0001



VM19

1SFC101035V0001

Ordering details (1)

For contactors	Auxiliary contacts	Type	Order code	Pkg qty	Weight (1 pce)
					kg

Side-mounted instantaneous auxiliary contact blocks

AF116 ... AF370	1	1	CAL19-11	1SFN010820R1011	2	0.050
	1	1	CAL19-11B	1SFN010820R3311	2	0.050

Mechanical interlock unit

AF116 ... AF370		VM19	1SFN030300R1000	1	0.054
AF116 ... AF146 and AF190, AF205		VM140/190	1SFN034403R1000	1	0.088
AF190, AF205 and AF265 ... AF370		VM205/265	1SFN035203R1000	1	0.090

Terminal shrouds

AF116 ... AF140, with compression lugs		LT140-40L	1SFN124203R2000	2	0.090
AF190 ... AF205, with cable clamps		LT205-40C	1SFN124801R2000	2	0.060
AF190 ... AF205, with compression lugs		LT205-40L	1SFN124803R2000	2	0.290
AF265 ... AF370, with cable clamps		LT370-40C	1SFN125401R2000	2	0.040
AF265 ... AF370, with compression lugs		LT370-40L	1SFN125403R2000	2	0.370

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For contactors	Dimensions		Type	Order code	Pkg qty	Weight (1 pce)
	hole Ø mm	bar mm				

Terminal enlargements

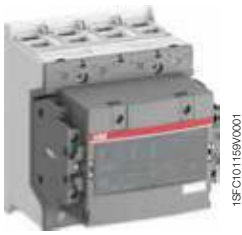
AF190 ... AF205	10.5	20 x 5	LW205-40	1SFN074807R2000	1	0.306
AF265 ... AF370	10.5	25 x 5	LW370-40	1SFN075407R2000	1	0.540

(1) For more information, refer to "Accessories" section.

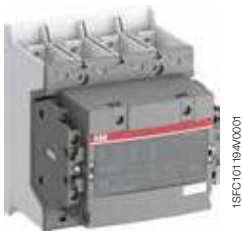
AF116 ... AF140 4-pole contactors

160 to 200 A AC-1

AC / DC operated with 2 N.O. + 2 N.C. auxiliary contacts



AF140-40-22



AF140-40-22B

Description

AF116 ... AF140 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 690 V AC. These contactors are of the block type design with 4 main poles.

- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 coils to cover control voltages between 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening
- can withstand short voltage dips and voltage sags (SEMI F47 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC	UL / CSA	Rated control circuit voltage		Auxiliary contacts fitted	Type (1)	Order code	Weight
Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1	General use rating 600 V AC	Uc min. ...	Uc max.				Pkg (1 pce)
A	A	V 50/60 Hz	V DC				kg

4 N.O. main poles

For connection with built-in cable clamps

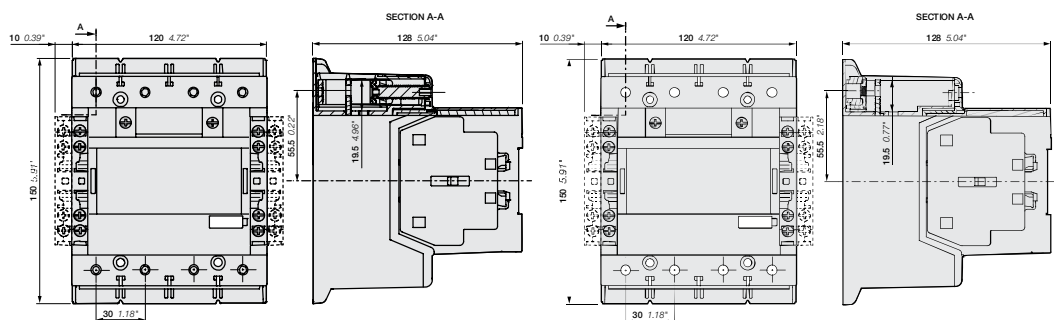
160	-	24...60	20...60	2	2	AF116-40-22-11	1SFL427101R1122	2.290
		48...130	48...130	2	2	AF116-40-22-12	1SFL427101R1222	2.290
		100...250	100...250	2	2	AF116-40-22-13	1SFL427101R1322	2.290
		250...500	250...500	2	2	AF116-40-22-14	1SFL427101R1422	2.290
200	-	24...60	20...60	2	2	AF140-40-22-11	1SFL447101R1122	2.290
		48...130	48...130	2	2	AF140-40-22-12	1SFL447101R1222	2.290
		100...250	100...250	2	2	AF140-40-22-13	1SFL447101R1322	2.290
		250...500	250...500	2	2	AF140-40-22-14	1SFL447101R1422	2.290

With bar connections

160	-	24...60	20...60	2	2	AF116-40-22B-11	1SFL427102R1122	2.190
		48...130	48...130	2	2	AF116-40-22B-12	1SFL427102R1222	2.190
		100...250	100...250	2	2	AF116-40-22B-13	1SFL427102R1322	2.190
		250...500	250...500	2	2	AF116-40-22B-14	1SFL427102R1422	2.190
200	-	24...60	20...60	2	2	AF140-40-22B-11	1SFL447102R1122	2.190
		48...130	48...130	2	2	AF140-40-22B-12	1SFL447102R1222	2.190
		100...250	100...250	2	2	AF140-40-22B-13	1SFL447102R1322	2.190
		250...500	250...500	2	2	AF140-40-22B-14	1SFL447102R1422	2.190

(1) For other auxiliary contacts arrangements, please contact your ABB local organization.

Main dimensions mm, inches



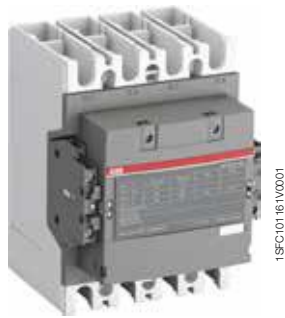
AF116, AF140-40-11

AF116, AF140-40-11B

AF190 ... AF370 4-pole contactors

275 to 525 A AC-1

AC / DC operated with 2 N.O. + 2 N.C. auxiliary contacts



AF205-40-22



AF370-40-22

Description

AF190 ... AF370 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 1000 V AC. These contactors are of the block type design with 4 main poles.

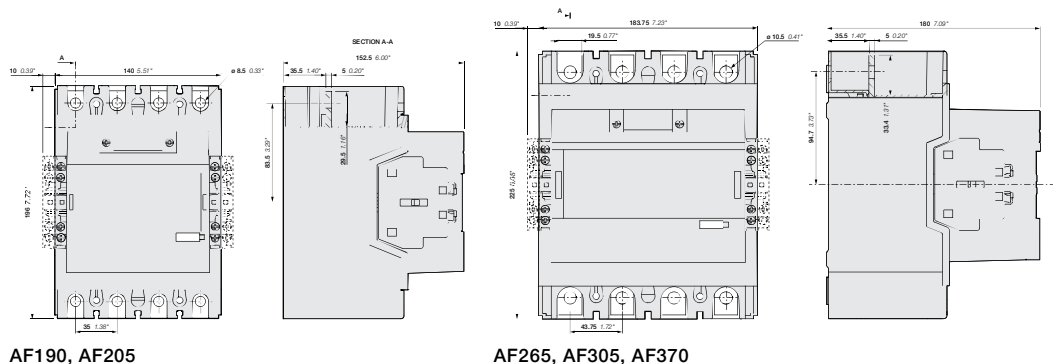
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC), only 4 coils to cover control voltages between 24...500 V 50/60 Hz and 20...500 V DC
- can manage large control voltage variations
- reduced panel energy consumption
- very distinct closing and opening
- can withstand short voltage dips and voltage sags (SEMI F47 conditions of use on request).
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1 A	UL / CSA General use rating 600 V AC A	Rated control circuit voltage Uc min. ... Uc max. V 50/60 Hz V DC		Auxiliary contacts fitted 		Type (1)	Order code	Weight Pkg (1 pce) kg
4 N.O. main poles								
275	-	24...60	20...60	2	2	AF190-40-22-11	1SFL487102R1122	3.940
		48...130	48...130	2	2	AF190-40-22-12	1SFL487102R1222	3.940
		100...250	100...250	2	2	AF190-40-22-13	1SFL487102R1322	3.940
		250...500	250...500	2	2	AF190-40-22-14	1SFL487102R1422	3.940
350	-	24...60	20...60	2	2	AF205-40-22-11	1SFL527102R1122	3.940
		48...130	48...130	2	2	AF205-40-22-12	1SFL527102R1222	3.940
		100...250	100...250	2	2	AF205-40-22-13	1SFL527102R1322	3.940
		250...500	250...500	2	2	AF205-40-22-14	1SFL527102R1422	3.940
400	-	24...60	20...60	2	2	AF265-40-22-11	1SFL547102R1122	6.400
		48...130	48...130	2	2	AF265-40-22-12	1SFL547102R1222	6.400
		100...250	100...250	2	2	AF265-40-22-13	1SFL547102R1322	6.400
		250...500	250...500	2	2	AF265-40-22-14	1SFL547102R1422	6.400
500	-	24...60	20...60	2	2	AF305-40-22-11	1SFL587102R1122	6.400
		48...130	48...130	2	2	AF305-40-22-12	1SFL587102R1222	6.400
		100...250	100...250	2	2	AF305-40-22-13	1SFL587102R1322	6.400
		250...500	250...500	2	2	AF305-40-22-14	1SFL587102R1422	6.400
525	-	24...60	20...60	2	2	AF370-40-22-11	1SFL607102R1122	6.400
		48...130	48...130	2	2	AF370-40-22-12	1SFL607102R1222	6.400
		100...250	100...250	2	2	AF370-40-22-13	1SFL607102R1322	6.400
		250...500	250...500	2	2	AF370-40-22-14	1SFL607102R1422	6.400

(1) For other auxiliary contacts arrangements, please contact your ABB local organization.

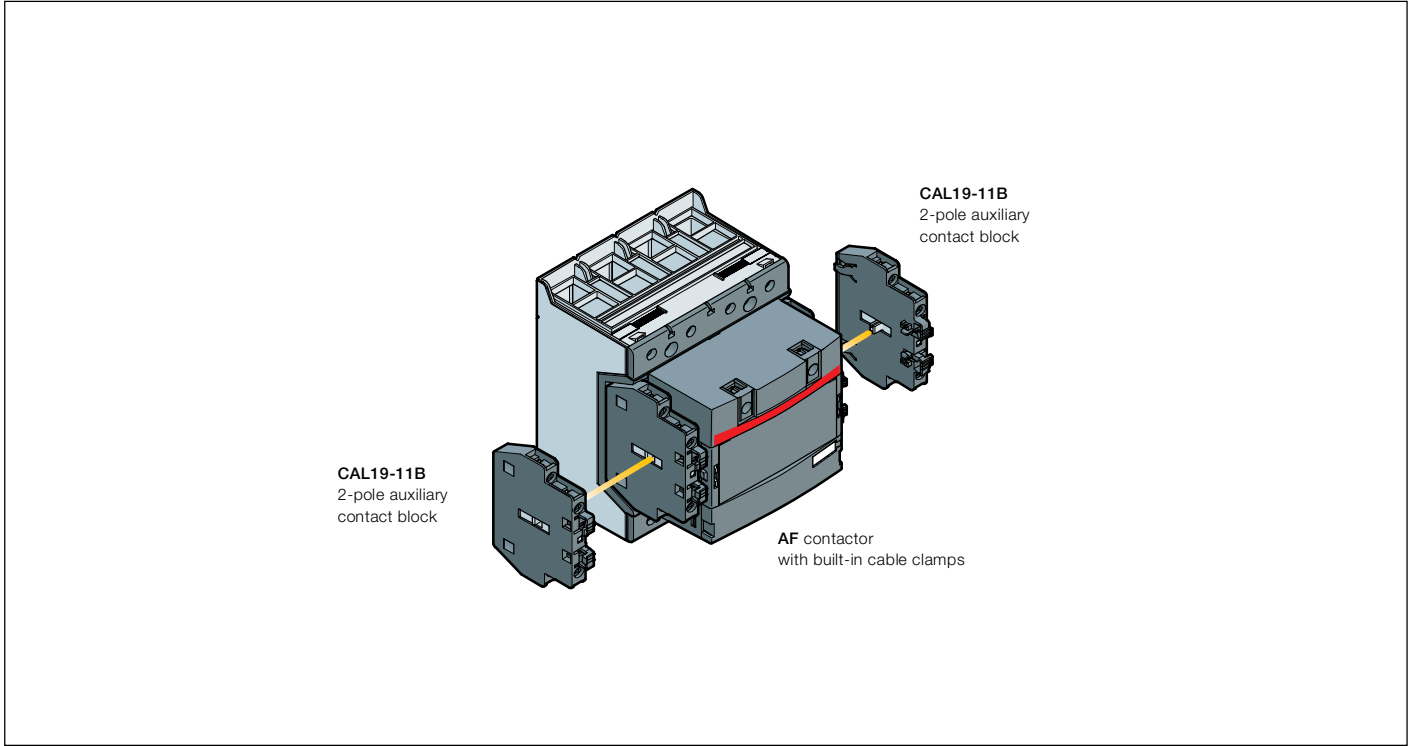
Main dimensions mm, inches



AF116 ... AF370 4-pole contactors with 2 N.O. + 2 N.C. auxiliary contacts Main accessories

Main accessories (other accessories available)

5



Main accessory fitting details

Contactor types	Main poles	Available auxiliary contacts	Side-mounted accessories		
			Auxiliary contact blocks		Mechanical interlock units (between two contactors)
			CAL19-11	CAL19-11B	
AF116 ... AF370	4	0 2 2	-	+ 2 x CAL19-11B	-

AF116 ... AF370 4-pole contactors with 2 N.O. + 2 N.C. auxiliary contacts Main accessories



CAL19-11

1SFC10107V0001

Ordering details (1)

For contactors	Auxiliary contacts	Type	Order code	Pkg qty	Weight (1 pce)
					kg

Side-mounted instantaneous auxiliary contact blocks

AF116 ... AF370	1	1	CAL19-11B	1SFN010820R3311	2	0.050
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Terminal shrouds

AF116 ... AF140, with compression lugs	LT140-40L	1SFN124203R2000	2	0.090
AF190 ... AF205, with cable clamps	LT205-40C	1SFN124801R2000	2	0.060
AF190 ... AF205, with compression lugs	LT205-40L	1SFN124803R2000	2	0.290
AF265 ... AF370, with cable clamps	LT370-40C	1SFN125401R2000	2	0.040
AF265 ... AF370, with compression lugs	LT370-40L	1SFN125403R2000	2	0.370

For contactors	Dimensions		Type	Order code	Pkg qty	Weight (1 pce)
	hole Ø mm	bar mm				
						kg

Terminal enlargements

AF190 ... AF205	10.5	20 x 5	LW205-40	1SFN074807R2000	1	0.306
AF265 ... AF370	10.5	25 x 5	LW370-40	1SFN075407R2000	1	0.540

(1) For more information, refer to "Accessories" section.

EK550, EK1000 4-pole contactors

800 to 1000 A AC-1

AC operated - with 1 N.O. + 1 N.C. auxiliary contacts



1SFC09099-008

EK1000-40-11



Description

EK550 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 1000 V AC and 600 V DC, EK1000 up to 1000 V AC.

These contactors are of the block type design with:

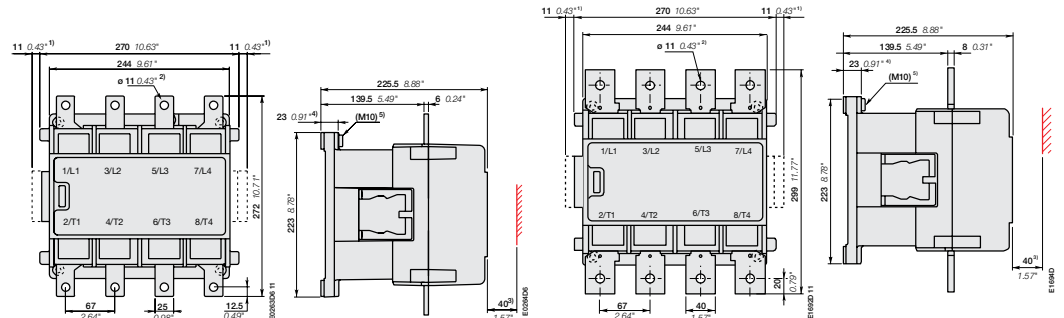
- 4 main poles
- control circuit: AC operated
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1	UL/CSA General use rating 600 V AC	Rated control circuit voltage U_c (1)		Auxiliary contacts fitted		Type	Order code	Weight Pkg (1 pce) kg
		V 50 Hz	V 60 Hz					
800	540	48	-	1	1	EK550-40-11	SK827041-AD	17.200
		110	110...120	1	1	EK550-40-11	SK827041-EF	17.200
		110...115	115...127	1	1	EK550-40-11	SK827041-EG	17.200
		220	220...240	1	1	EK550-40-11	SK827041-EL	17.200
		220...230	230...255	1	1	EK550-40-11	SK827041-EM	17.200
		380	380...415	1	1	EK550-40-11	SK827041-EP	17.200
		380...400	400...440	1	1	EK550-40-11	SK827041-ER	17.200
		400...415	-	1	1	EK550-40-11	SK827041-AR	17.200
1000	-	48	-	1	1	EK1000-40-11	SK827044-AD	17.500
		110	110...120	1	1	EK1000-40-11	SK827044-EF	17.500
		110...115	115...127	1	1	EK1000-40-11	SK827044-EG	17.500
		220	220...240	1	1	EK1000-40-11	SK827044-EL	17.500
		220...230	230...255	1	1	EK1000-40-11	SK827044-EM	17.500
		380	380...415	1	1	EK1000-40-11	SK827044-EP	17.500
		380...400	400...440	1	1	EK1000-40-11	SK827044-ER	17.500
		400...415	-	1	1	EK1000-40-11	SK827044-AR	17.500

(1) Other control voltages see voltage code table.

Main dimensions mm, inches



EK550

- 1) Dimension for extra auxiliary contact block.
- 2) Screw, nut and washer by-packed.
- 3) Min. distance to uninsulated wall.
- 4) Damping elements are included.
- 5) Earthing screw.

EK1000

EK550, EK1000 4-pole contactors

800 to 1000 A AC-1

DC operated - with 2 N.O. + 1 N.C. auxiliary contacts



1SFC9809-0069

EK1000-40-21

Description

EK550 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and generally for controlling power circuits up to 1000 V AC and 600 V DC, EK1000 up to 1000 V AC.

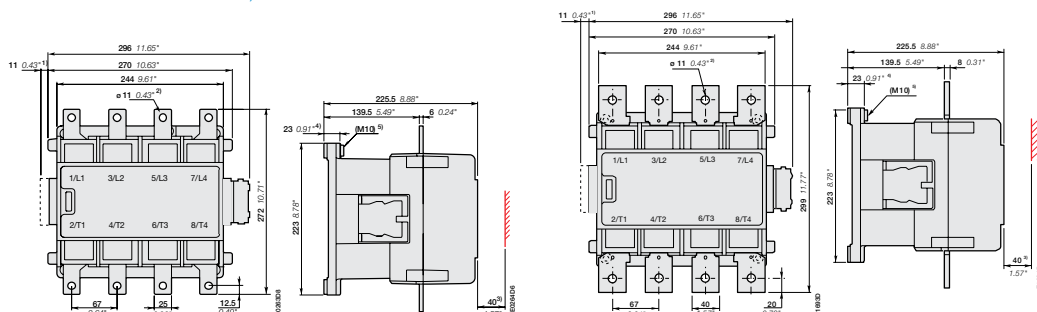
These contactors are of the block type design with:

- 4 main poles
- control circuit: DC operated
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

Ordering details

IEC	UL / CSA	Rated control circuit voltage Uc	Auxiliary contacts fitted	Type	Order code	Weight
Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1	General use rating 600 V AC	V DC				Pkg (1 pce) kg
A	A					
800	540	24	2 1	EK550-40-21	SK827041-DB	17.200
		36	2 1	EK550-40-21	SK827041-DC	17.200
		48	2 1	EK550-40-21	SK827041-DD	17.200
		60	2 1	EK550-40-21	SK827041-DT	17.200
		75	2 1	EK550-40-21	SK827041-DG	17.200
		110	2 1	EK550-40-21	SK827041-DE	17.200
		125	2 1	EK550-40-21	SK827041-DU	17.200
		220	2 1	EK550-40-21	SK827041-DF	17.200
1000	-	24	2 1	EK1000-40-21	SK827044-DB	17.500
		36	2 1	EK1000-40-21	SK827044-DC	17.500
		48	2 1	EK1000-40-21	SK827044-DD	17.500
		60	2 1	EK1000-40-21	SK827044-DT	17.500
		75	2 1	EK1000-40-21	SK827044-DG	17.500
		110	2 1	EK1000-40-21	SK827044-DE	17.500
		125	2 1	EK1000-40-21	SK827044-DU	17.500
		220	2 1	EK1000-40-21	SK827044-DF	17.500

Main dimensions mm, inches



EK550

- 1) Dimension for extra auxiliary contact block.
- 2) Screw, nut and washer by-packed.
- 3) Min. distance to uninsulated wall.
- 4) Damping elements are included.
- 5) Earthing screw.

EK1000

EK550, EK1000 4-pole Contactors

800 to 1000 A AC-1

AC Operated - with 2 N.O. + 2 N.C. auxiliary contacts



1SFC0909-008



EK1000-40-22

Description

EK550 4-pole contactors are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...) and for controlling power circuits up to 1000 V AC and 600 V DC, EK1000 up to 1000 V AC. These contactors are of the block type design with:

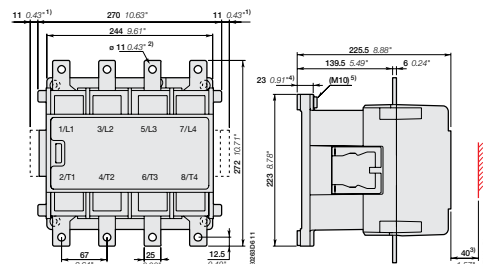
- 4 main poles
- control circuit: AC operated
- add-on auxiliary contact blocks for side mounting and a wide range of accessories

Ordering details

IEC	UL/CSA	Rated control circuit voltage Uc (1)		Auxiliary contacts fitted		Type	Order code	Weight
Rated operational current $\theta \leq 40^\circ\text{C}$ AC-1	General use rating 600 V AC	V 50 Hz	V 60 Hz					Pkg (1 pce) kg
A	A							
800	540	48	-	2	2	EK550-40-22	SK827043-AD	17.200
		110	110...120	2	2	EK550-40-22	SK827043-EF	17.200
		110...115	115...127	2	2	EK550-40-22	SK827043-EG	17.200
		220	220...240	2	2	EK550-40-22	SK827043-EL	17.200
		220...230	230...255	2	2	EK550-40-22	SK827043-EM	17.200
		380	380...415	2	2	EK550-40-22	SK827043-EP	17.200
		380...400	400...440	2	2	EK550-40-22	SK827043-ER	17.200
		400...415	-	2	2	EK550-40-22	SK827043-AR	17.200
1000	-	48	-	2	2	EK1000-40-22	SK827045-AD	17.500
		110	110...120	2	2	EK1000-40-22	SK827045-EF	17.500
		110...115	115...127	2	2	EK1000-40-22	SK827045-EG	17.500
		220	220...240	2	2	EK1000-40-22	SK827045-EL	17.500
		220...230	230...255	2	2	EK1000-40-22	SK827045-EM	17.500
		380	380...415	2	2	EK1000-40-22	SK827045-EP	17.500
		380...400	400...440	2	2	EK1000-40-22	SK827045-ER	17.500
		400...415	-	2	2	EK1000-40-22	SK827045-AR	17.500

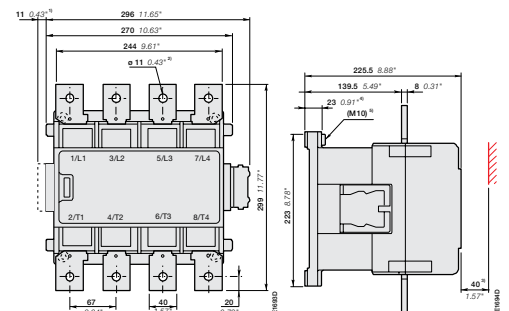
(1) Other control voltages see voltage code table.

Main dimensions mm, inches



EK550

- 1) Dimension for extra auxiliary contact block
- 2) Screw, nut and washer by-packed
- 3) Min. distance to uninsulated wall
- 4) Damping elements are included
- 5) Earthing screw



EK1000

EK550, EK1000 4-pole contactors with 1 N.O. + 1 N.C. auxiliary contacts and 2 N.O. + 1 N.C. auxiliary contacts

Main accessory fitting details

Mounting positions of the auxiliary contact

Auxiliary contact types and connecting diagrams

(1) Contact 35-36 used for some types of EK... contactors

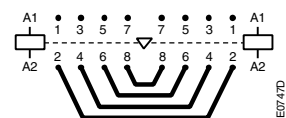
EK 4-pole contactors

Contactor types	Main poles	Available auxiliary contacts	Add-on auxiliary contact blocks	Mounting and positioning
			2-pole CAL16-11 ...	Factory mounted auxiliary contacts Add-on CAL16-11 auxiliary contacts
AC operated, 50 Hz, 60 Hz or 50/60 Hz				
EK550, EK1000	4	0 1 1	+ 1 x CAL16-11B + 1 x CAL16-11C + 1 x CAL16-11D	
DC operated				
EK550, EK1000	4	0 2 1	+ 1 x CAL16-11C	

EK 4-pole reversing contactors with VH800 mechanical and electrical interlock units

"Left hand" contactors	Interlocking	"Right hand" contactors	Add-on auxiliary contact blocks	Mounting and positioning
			2-pole CAL16-11 ...	Factory mounted auxiliary contacts Add-on CAL16-11 auxiliary contacts
AC operated, 50 Hz, 60 Hz or 50/60 Hz				
EK550, EK1000	VH800	EK550, EK1000	+ 1 x CAL16-11C + 1 x CAL16-11D	
DC operated				
EK550, EK1000	VH800	EK550, EK1000	—	

EK550, EK1000 4-pole contactors with 1 N.O. + 1 N.C. auxiliary contacts and 2 N.O. + 1 N.C. auxiliary contacts



BSS550 ... BSS1000



ED747D



RC-EH

A078

Ordering details (1)

For contactors	Auxiliary contacts	Type	Order code	Pkg qty	Weight (1 pce)
	 				kg

Side-mounted auxiliary contact blocks

EK	1	1	CAL16-11B	SK829002-B	1	0.050
	1	1	CAL16-11C	SK829002-C	1	0.050
	1	1	CAL16-11D	SK829002-D	1	0.050
	1	1	CCL16-11E (2)	SK829002-E	1	0.050

Mechanical interlock unit for two horizontal mounted contactors

EK550, EK1000	VH800	SK829070-F	1	6.000
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Connecting sets

EK550	BSS550	SK829090-E	1	3.300
EK1000	BSS1000	SK829090-H	1	5.500

Surge suppressors

For contactors	Rated control circuit voltage U _c			Type	Order code	Pkg qty	Weight (1 pce)
	V	AC	DC				
EK550, EK1000	48...110	●	-	RC-EH800/110	SK829007-C	1	0.015
EK550, EK1000	24...125	-	●	RC-EH800/110	SK829007-C	1	0.015
EK550, EK1000	220...600	●	-	RC-EH800/600	SK829007-D	1	0.015

(1) See "Main accessory fitting details" table.

(2) Mounting of CCL16-11E blocks does not allow an additional second block to be added on top of it. All DC operated EK contactors are equipped with one CCL16-11E on the right side.

AF09 ... AF80 4-pole contactors

Technical data

Main pole - Utilization characteristics according to IEC

Contactor types	AC / DC operated	AF09	AF16	AF26	AF38	AF40	AF52	AF80
Standards		IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1						
Rated operational voltage U_e max.		690 V						
Rated frequency (without derating)		50 / 60 Hz						
Conventional free-air thermal current I_{th}								
acc. to IEC 60947-4-1, open contactors, $\theta \leq 40^\circ\text{C}$		35 A	35 A	55 A	55 A	105 A	105 A	125 A
With conductor cross-sectional area		6 mm ²	6 mm ²	16 mm ²	16 mm ²	35 mm ²	35 mm ²	50 mm ²
AC-1 Utilization category								
For air temperature close to contactor								
I_e / Rated operational current AC-1	$\theta \leq 40^\circ\text{C}$	25 A	30 A	45 A	55 A	70 A	100 A	125 A
U_e max. ≤ 690 V, 50/60 Hz	$\theta \leq 60^\circ\text{C}$	25 A	30 A	40 A	45 A	60 A	80 A	105 A
	$\theta \leq 70^\circ\text{C}$	22 A	26 A	32 A	37 A	50 A	70 A	90 A
With conductor cross-sectional area		4 mm ²	6 mm ²	10 mm ²	16 mm ²	35 mm ²	35 mm ²	50 mm ²
AC-3 Utilization category								
For air temperature close to contactor $\theta \leq 60^\circ\text{C}$								
I_e / Max. rated operational current AC-3 (1)								
	220-230-240 V	9 A	18 A	23.2 A	23.2 A	40 A	53 A	80 A
	380-400 V	9 A	18 A	22 A	22 A	40 A	53 A	80 A
	415 V	9 A	18 A	21.2 A	21.2 A	40 A	53 A	80 A
	440 V	9 A	18 A	20 A	20 A	40 A	53 A	80 A
	500 V	9.5 A	15 A	17.6 A	17.6 A	35 A	45 A	65 A
	690 V	7 A	10.5 A	10.5 A	10.5 A	25 A	35 A	49 A
Rated operational power AC-3 (1)								
	220-230-240 V	2.2 kW	4 kW	5.5 kW	5.5 kW	11 kW	15 kW	22 kW
	380-400 V	4 kW	7.5 kW	-	-	18.5 kW	22 kW	37 kW
	415 V	4 kW	9 kW	11 kW	11 kW	22 kW	30 kW	45 kW
	440 V	4 kW	9 kW	11 kW	11 kW	22 kW	30 kW	45 kW
	500 V	5.5 kW	9 kW	11 kW	11 kW	22 kW	30 kW	45 kW
	690 V	5.5 kW	9 kW	9 kW	9 kW	22 kW	30 kW	45 kW
Rated making capacity AC-3		10 x I_e AC-3 acc. to IEC 60947-4-1						
Rated breaking capacity AC-3		8 x I_e AC-3 acc. to IEC 60947-4-1						
Short-circuit protection device for contactors								
Without thermal overload relay - Motor protection excluded								
$U_e \leq 500$ V AC - gG type fuse		25 A	32 A	50 A	63 A	80 A	110 A	160 A
Rated short-time withstand current I_{cw}								
At 40 °C ambient temperature, in free air from a cold state								
	1 s	300 A	300 A	450 A	450 A	1000 A	1000 A	1200 A
	10 s	150 A	150 A	300 A	300 A	600 A	600 A	780 A
	30 s	80 A	80 A	225 A	225 A	350 A	350 A	450 A
	1 min	60 A	60 A	150 A	150 A	250 A	250 A	300 A
	15 min	35 A	35 A	55 A	55 A	110 A	110 A	140 A
Maximum breaking capacity N.O. main pole								
$\cos \varphi = 0.45$								
	at 440 V	250 A	250 A	-	-	950 A	950 A	1100 A
	at 690 V	106 A	106 A	-	-	600 A	600 A	750 A
	N.C. Main pole							
	at 440 V	-	-	-	-	600 A	-	900 A
	at 690 V	-	-	-	-	300 A	-	750 A
Power dissipation per pole								
	I_e / AC-1	0.8 W	1.2 W	1.6 W	2.3 W	3 W	6.3 W	8 W
	I_e / AC-3	0.1 W	0.35 W	0.42 W	0.42 W	1 W	1.7 W	3.2 W
Max. electrical switching frequency	AC-1	600 cycles/h						



3-phase motors



1500 r.p.m. 50 Hz
1800 r.p.m. 60 Hz
3-phase motors

(1) For the corresponding kW/A values of 1500 r.p.m, 50 Hz or 1800 r.p.m, 60 Hz, 3-phase motors, see "Motor Rated Operational Powers and Currents"

(2) For the protection of motor starters against short circuits, see "Coordination with Short-circuit Protection Devices".

Main pole - Utilization characteristics according to UL / CSA

Contactor types	AC / DC operated	AF09	AF16	AF26	AF38	AF40	AF52	AF80
Standards		UL 508, CSA C22.2 N°14				UL 60947-4-1, CSA-C22.2 No. 60947-4-1		
Max. operational voltage		600 V						
UL / CSA general use rating								
600 V AC		25 A	30 A	45 A	55 A	-	-	-
With conductor cross-sectional area		AWG 10	AWG 10	AWG 8	AWG 6	AWG 6	AWG 4	AWG 2
Max. electrical switching frequency		600 cycles/h						
For general use								

Note: 4-pole contactors fitted with 2 N.O. + 2 N.C. main poles, see "General technical data".

AF116 ... AF370 4-pole contactors

Technical data

Main pole - Utilization characteristics according to IEC

Contactor types	AC / DC operated	AF116	AF140	AF190	AF205	AF265	AF305	AF370	EK550	EK1000	
Standards		IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1									
Rated operational voltage U _e max.		690 V		1000 V							
Rated frequency (without derating)		50 / 60 Hz									
Conventional free-air thermal current I _{th} acc. to IEC 60947-4-1, open contactors, $\theta \leq 40^\circ\text{C}$ With conductor cross-sectional area		160 A 70 mm ²	200 A 95 mm ²	275 A 150 mm ²	350 A 240 mm ² (3)	400 A 240 mm ²	500 A 300 mm ² (4)	525 A 2x 185 mm ² (4)	800 A 2x 240 mm ²	1000 A 2x 300 mm ²	
AC-1 Utilization category For air temperature close to contactor I_e / Rated operational current AC-1 U _e max. $\leq 690\text{ V}$, 50/60 Hz	$\theta \leq 40^\circ\text{C}$	160 A	200 A	275 A	350 A	400 A	500 A	525 A	-	-	
	$\theta \leq 60^\circ\text{C}$	145 A	175 A	250 A	300 A	350 A	400 A	425 A	-	-	
	$\theta \leq 70^\circ\text{C}$	130 A	160 A	200 A	240 A	290 A	325 A	350 A	-	-	
U _e max. $\leq 1000\text{ V}$, 50/60 Hz	$\theta \leq 40^\circ\text{C}$	-	-	250 A	275 A	350 A	375 A	400 A	800 A	1000 A	
	$\theta \leq 60^\circ\text{C}$	-	-	225 A	250 A	300 A	325 A	350 A	650 A	800 A	
	$\theta \leq 70^\circ\text{C}$	-	-	185 A	200 A	240 A	260 A	290 A	575 A	720 A	
With conductor cross-sectional area		70 mm ²	95 mm ²	150 mm ²	240 mm ² (3)	240 mm ²	300 mm ² (4)	2x 185 mm ² (4)	2x 240 mm ²	2x 300 mm ²	
AC-3 Utilization category For air temperature close to contactor $\theta \leq 60^\circ\text{C}$ I_e / Max. rated operational current AC-3 (1)											
	220-230-240 V	116 A	140 A	190 A	205 A	265 A	305 A	370 A	550 A	-	
	380-400 V	116 A	140 A	190 A	205 A	265 A	305 A	370 A	550 A	-	
	415 V	116 A	140 A	190 A	205 A	265 A	305 A	370 A	550 A	-	
	440 V	116 A	140 A	190 A	205 A	265 A	305 A	370 A	550 A	-	
	500 V	-	-	-	-	-	-	-	550 A	-	
	690 V	-	-	-	-	-	-	-	550 A	-	
	1000 V	-	-	-	-	-	-	-	175 A	-	
Rated operational power AC-3 (1)											
	220-230-240 V	30 kW	37 kW	55 kW	55 kW	75 kW	90 kW	110 kW	160 kW	-	
	380-400 V	55 kW	75 kW	90 kW	110 kW	132 kW	160 kW	200 kW	280 kW	-	
	415 V	55 kW	75 kW	90 kW	110 kW	132 kW	160 kW	200 kW	315 kW	-	
	440 V	75 kW	90 kW	110 kW	132 kW	160 kW	160 kW	200 kW	315 kW	-	
	500 V	-	-	-	-	-	-	-	400 kW	-	
	690 V	-	-	-	-	-	-	-	500 kW	-	
	1000 V	-	-	-	-	-	-	-	250 kW	-	
Rated making capacity AC-3		10 x I _e AC-3 acc. to IEC 60947-4-1									
Rated breaking capacity AC-3		8 x I _e AC-3 acc. to IEC 60947-4-1									
Short-circuit protection device for contactors Without thermal overload relay - Motor protection excluded U _e $\leq 500\text{ V AC}$ - gG type fuse		200 A	250 A	355 A	400 A	630 A	630 A	630 A	800 A	1000 A	
Rated short-time withstand current I_w At 40 °C ambient temperature, in free air from a cold state	1 s	1300 A	1460 A	1900 A	2050 A	2650 A	3050 A	3700 A	5500 A	6800 A	
	10 s	928 A	1168 A	1520 A	1640 A	2120 A	2440 A	2960 A	5300 A	6400 A	
	30 s	536 A	674 A	878 A	947 A	1224 A	1409 A	1709 A	3700 A	4400 A	
	1 min	379 A	477 A	621 A	670 A	865 A	996 A	1208 A	3000 A	3400 A	
	15 min	160 A	200 A	275 A	350 A	400 A	500 A	525 A	1000 A	1200 A	
Maximum breaking capacity cos $\varphi = 0.45$	at 440 V	2000 A	3000 A	3300 A	3500 A	3800 A	4600 A	5000 A	5400 A	-	
	at 690 V	-	-	-	-	-	-	-	5400 A	-	
Power dissipation per pole	I _e / AC-1	12 W	18 W	15 W	25 W	32 W	50 W	72 W	60 W	80 W	
	I _e / AC-3	-	-	-	-	-	-	-	25 W	-	
Max. electrical switching frequency	AC-1	300 cycles/h									
	AC-3	300 cycles/h									
	AC-2, AC4									120 cycles/h	-



3-phase motors



1500 r.p.m. 50 Hz
1800 r.p.m. 60 Hz
3-phase motors

(1) For the corresponding kW/A or hp/A values of 1500 r.p.m, 50 Hz or 1800 r.p.m, 60 Hz, 3-phase motors, see "Motor rated operational powers and currents".

(3) For currents above 275 A use terminal enlargements or terminal extensions.

(4) For currents above 450 A use terminal enlargements or terminal extensions.

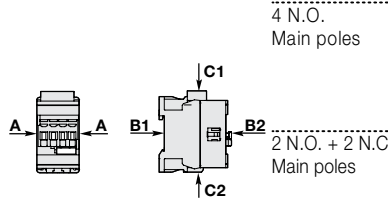
Main pole - Utilization characteristics according to UL / CSA

Contactor types	AC / DC operated	AF116	AF140	AF190	AF205	AF265	AF305	AF370	EK550	EK1000
Standards		UL 60947-4-1								UL 508, CSA C22.2 N°14
Max. operational voltage		600 V								
UL / CSA general use rating		-								
600 V AC		-								
With conductor cross-sectional area		AWG 2/0	AWG 3/0	MCM 250	MCM 250	MCM 400	MCM 500	2//MCM 300	540 A	-
Max. electrical switching frequency For general use		300 cycles/h								

AF09 ... AF80 4-pole contactors

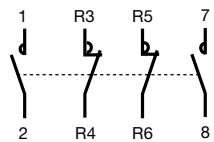
Technical data

General technical data

Contactor types	AC / DC operated	AF09	AF16	AF26	AF38	AF40	AF52	AF80	
Rated insulation voltage U_i		690 V acc. to IEC 60947-4-1 600 V acc. to UL / CSA						1000 V	
Rated impulse withstand voltage U_{imp} .		6 kV						8 kV	
Electromagnetic compatibility		Devices complying with IEC 60947-1 / EN 60947-1 - Environment A				Devices complying with IEC 60947-1 / EN 60947-1 - Environments A and B			
Ambient air temperature close to contactor									
Operation		-40...+70 °C							
Storage		-60...+80 °C							
Climatic withstand		Category B according to IEC 60947-1 Annex Q							
Maximum operating altitude (without derating)		3000 m							
Mechanical durability									
Number of operating cycles		10 millions operating cycles							
Max. switching frequency		3600 cycles/h							
Shock withstand									
acc. to IEC 60068-2-27 and EN 60068-2-27									
Mounting position 1									
	Shock direction	1/2 sinusoidal shock for 11 ms: no change in contact position, closed or open position							
	4 N.O. Main poles	A	30 g				(1)		
		B1	25 g closed position / 5 g open position				(1)		
		B2	15 g				(1)		
		C1	25 g				(1)		
		C2	25 g				(1)		
	2 N.O. + 2 N.C. Main poles	A	30 g				(1)		
		B1	25 g closed position / 5 g open position				(1)		
		B2	15 g				(1)		
		C1	25 g				(1)		
		C2	25 g				(1)		
	Vibration withstand		5...300 Hz				(1)		
	acc. to IEC 60068-2-6		4 g closed position / 2 g open position						

(1) On request

Remark for 4-pole contactors fitted with 2 N.O. + 2 N.C. main poles



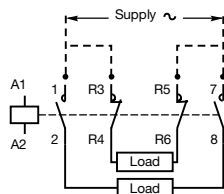
These contactors are suitable for controlling 2 separate circuits, i.e. 2 loads with 2 separate supplies, or 1 circuit comprising 2 separate loads with a single supply (see diagrams below). When the contactor operates there is no mechanical overlapping between the N.O. poles and the N.C. poles: BREAK before MAKE.



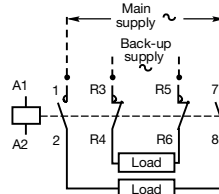
These contactors are not suitable for a reversing starter or for controlling a single load from 2 separate supplies.

Block diagrams

– Single supply and 2 separate loads



– 2 separate supplies and 2 separate loads



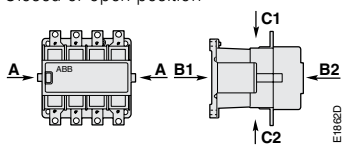
AF116 ... EK1000 4-pole contactors

Technical data

General technical data

Contactor types	AC / DC operated	AF116	AF140	AF190	AF205	AF265	AF305	AF370
Rated insulation voltage Ui								
acc. to IEC 60947-4-1		1000 V						
acc. to UL / CSA		600 V						
Rated impulse withstand voltage Uimp.		8 kV						
Electromagnetic compatibility		AF contactors comply with IEC 60947-1 / EN 60947-1 - Environment A						
Ambient air temperature close to contactor								
Operation		-40 to +70 °C						
Storage		-40 to +70 °C						
Maximum operating altitude (without derating)		3000 m						
Mechanical durability								
Number of operating cycles		5 million operating cycles						
Maximum switching frequency		300 cycles/h						

General technical data

Contactor types	AC or DC operated	EK550	EK1000
Rated insulation voltage Ui			
acc. to IEC 60947-4-1		1000 V	
acc. to UL		600 V	
Rated impulse withstand voltage Uimp.		8 kV	
Electromagnetic compatibility		EK contactors complying with IEC 60947-1 / EN 60947-1 - Environment A	
Ambient air temperature close to contactor			
Operation	Fitted with thermal overload relay	-25 to +55 °C	-
	Without thermal overload relay	-40 to +70 °C	-
Storage		-50 to +70 °C	-
Climatic withstand		Category B acc. to IEC 60068-2-30	
Maximum operating altitude (without derating)		≤ 3000 m	
Mechanical durability			
Number of operating cycles		5 millions operating cycles	3 millions operating cycles
Max. switching frequency		60 cycles/h	
Shock withstand			
acc. to IEC 60068-2-27 and EN 60068-2-27			
Mounting position 1			
Closed or open position			
			
Shock direction		1/2 sinusoidal shock for 15 ms: no change in contact position, closed or open position	
	A	10 g	
	B1	10 g	
	B2	10 g	
	C1	10 g	
	C2	10 g	

AF09 ... AF80 4-pole contactors

Technical data

Magnet system characteristics

Contactor types	AC / DC operated	AF09	AF16	AF26	AF38	AF40	AF52	AF80
Coil operating limits acc. to IEC 60947-4-1	AC supply	At $\theta \leq 60^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max.}$ At $\theta \leq 70^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots U_c \text{ max.}$				at $\theta \leq 70^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$		
	DC supply	At $\theta \leq 60^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max.}$ At $\theta \leq 70^\circ\text{C}$ (AF) $0.85 \times U_c \text{ min} \dots U_c \text{ max.}$ - (AF.Z) $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max.}$				at $\theta \leq 70^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$		
AC control voltage 50/60 Hz								
Rated control circuit voltage U_c		24...500 V AC						
Coil consumption	Average pull-in value	(AF) 50 VA - (AF.Z) 16 VA				40 VA		
	Average holding value	(AF) 2.2 VA / 2 W - (AF.Z) 1.7 VA / 1.5 W				4 VA / 2 W		
DC control voltage								
Rated control circuit voltage U_c		12...500 V DC				20...500 V DC		
Coil consumption	Average pull-in value	(AF) 50 W - (AF.Z) 12...16 W				40 W		
	Average holding value	(AF) 2 W - (AF.Z) 1.7 W				2 W		
PLC-output control		(AF.Z) $\geq 500 \text{ mA}$ 24 V DC						
Drop-out voltage		$\leq 60\%$ of $U_c \text{ min.}$				$\leq 60\%$ of $U_c \text{ min.}$		
Voltage sag immunity acc. to SEMI F47-0706		(AF.Z) conditions of use on request				conditions of use on request		
Dips withstand $-20^\circ\text{C} \leq \theta \leq +60^\circ\text{C}$		(AF.Z) 22 ms average for $U_c \geq 24 \text{ V}$ 50/60 Hz or $U_c \geq 20 \text{ V}$ DC				24 ms average		
Operating time								
Between coil energization and:	N.O. contact closing	40...95 ms				(1)		
	N.C. contact opening	38...90 ms				(1)		
Between coil de-energization and:	N.O. contact opening	11...95 ms				(1)		
	N.C. contact closing	13...98 ms				(1)		

(1) On request.

Mounting characteristics and conditions for use

Contactor types	AF09	AF16	AF26	AF38	AF40	AF52	AF80
Mounting positions							
Mounting distances	Max. add-on N.C. auxiliary contacts: see accessory fitting details for a 4-pole contactor AF09 ... AF80 The contactors can be assembled side by side						
Fixing							
On rail according to IEC 60715, EN 60715	35 x 7.5 mm or 35 x 15 mm				35 x 15 mm		
By screws (not supplied)	2 x M4 screws placed diagonally				2 x M4 or 2 x M6 screws placed diagonally		

AF116 ... AF370 4-pole contactors

Technical data

Magnet system characteristics

Contactor types	AC / DC operated	AF116	AF140	AF190	AF205	AF265	AF305	AF370
Coil operating limits acc. to IEC 60947-4-1	AC supply	At $\theta \leq 70^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$						
	DC supply	At $\theta \leq 70^\circ\text{C}$ $0.80 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$						
Rated control circuit voltage U_c		24...500 V AC, 20...500 V DC						
Coil consumption								
AC control voltage 50/60 Hz								
24...60 V AC	Average pull-in value	225 VA		165 VA		475 VA		
	Average holding value	5.5 VA		6 VA		8.5 VA		
48...130 V AC	Average pull-in value	170 VA		175 VA		340 VA		
	Average holding value	4 VA		4 VA		17 VA		
100...250 V AC	Average pull-in value	130 VA		220 VA		385 VA		
	Average holding value	6 VA		7 VA		17.5 VA		
250...500 V AC	Average pull-in value	205 VA		185 VA		420 VA		
	Average holding value	16 VA		16 VA		21 VA		
DC control voltage								
20...60 V DC	Average pull-in value	210 W		205 W		400 W		
	Average holding value	2.5 W		2.5 W		3.5 W		
48...130 V DC	Average pull-in value	130 W		130 W		360 W		
	Average holding value	2.5 W		2.5 W		2.5 W		
100...250 V DC	Average pull-in value	135 W		190 W		410 W		
	Average holding value	3 W		2.5 W		4.5 W		
250...500 V DC	Average pull-in value	205 W		190 W		600 W		
	Average holding value	4 W		4 W		4.7 W		
Drop-out voltage		55 % of $U_c \text{ min}$						
Operating time								
Coil supply between A1 - A2								
Between coil energization and:	N.O. contact closing	20...55 ms		25...60 ms		30...60 ms		
Between coil de-energization and:	N.O. contact opening	40...70 ms		45...80 ms		45...80 ms		

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Mounting characteristics and conditions for use

Contactor types	AC / DC operated	AF116	AF140	AF190	AF205	AF265	AF305	AF370
Mounting positions								
Mounting distances		Max. add-on N.O. or N.C. auxiliary contacts: see accessory fitting details for 4-pole contactor AF116 ... AF370						
Fixing		The contactors can be assembled side by side						
On rail acc. to IEC 60715, EN 60715		-						
By screws (not supplied)		4 x M5						

EK550 ... EK1000 4-pole contactors

Technical data

Magnet system characteristics

Contactor types		AC operated	EK550	EK1000
Coil operating limits		AC supply	At $\theta \leq 70^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$.	
acc. to IEC 60947-4-1			Please also refer to "Mounting characteristics and conditions for use"	
AC control voltage				
Rated control circuit voltage		50 Hz	48...500 V	
		60 Hz	110...600 V	
Coil consumption	Average pull-in value	50 Hz	3500 VA	
		60 Hz	4000 VA	
	Average holding value	50/60 Hz (1)	3800 / 3400 VA	
		50 Hz	125 VA / 50 W	
	60 Hz	140 VA / 60 W		
	50/60 Hz (1)	140 VA / 60 W		
Drop-out voltage in % of $U_c \text{ min}$.			approx. 45...65 %	
Operating time				
Between coil energization and:	N.O. contact closing		30...60 ms	
	N.C. contact opening		25...55 ms	
Between coil de-energization and:	N.O. contact opening		10...20 ms	
	N.C. contact closing		13...23 ms	

(1) "A" coil voltage: see "Coil voltage code table".

Magnet system characteristics

Contactor types		DC operated	EK550	EK1000
Coil operating limits		DC supply	At $\theta \leq 70^\circ\text{C}$ $0.85 \times U_c \text{ min} \dots 1.1 \times U_c \text{ max}$.	
acc. to IEC 60947-4-1			Please also refer to "Mounting characteristics and conditions for use"	
DC control voltage				
Rated control circuit voltage			24...220 V	
Coil consumption	Average pull-in value		1100 W	
	Average holding value		20 W	
Drop-out voltage			approx. 15...50 % of $U_c \text{ min}$.	
Coil time constant				
Open	L/R		12 ms	
Closed	L/R		60 ms	
Operating time				
Between coil energization and:	N.O. contact closing		60...80 ms	
	N.C. contact opening		55...75 ms	
Between coil de-energization and:	N.O. contact opening		10...35 ms	
	N.C. contact closing		13...38 ms	

Mounting characteristics and conditions for use


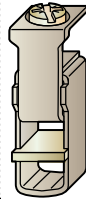
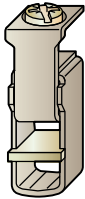
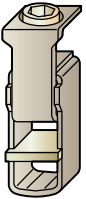














Contactor types		AC / DC operated	EK550	EK1000
Mounting positions				
Control voltage / Ambient temperature			Max. N.O. or N.C. built-in and add-on N.O. or N.C. auxiliary contacts: see accessory fitting details for 4-pole contactor EK550, EK1000	
Mounting positions	1, $1 \pm 30^\circ$, 2, 3, 4, 5	at $\theta \leq 70^\circ\text{C}$	$0.85 \dots 1.1 \times U_c$	
	6	at $\theta \leq 70^\circ\text{C}$	Unauthorized	
Mounting distances			The contactors can be assembled side by side	
Fixing				
On rail according to IEC 60715, EN 60715			-	
By screws (supplied)			4 x M6 (2)	

(2) Damping elements are supplied.

AF09 ... AF38 4-pole contactors

Technical data

Connecting characteristics

Contactor types	AF09	AF16	AF26	AF38	AF40	AF52	AF80
Main terminals							
	Screw terminals with cable clamp		Screw terminals with double connector 2 x (5.5 width x 6.8 depth)		Screw terminals with double connector 2 x (9.3 width x 7.9/10.3 depth)		Screw terminals with double connector 2 x (12.4 width x 9.3/11.1 depth)
Connection capacity (min. ... max.)							
Main conductors (poles)							
 Rigid Solid ($\leq 4 \text{ mm}^2$)	1 x	1...6 mm ²	1.5...16 mm ²	1.5...16 mm ²	6...35 mm ²	6...35 mm ²	6...70 mm ²
 Rigid Stranded ($\geq 6 \text{ mm}^2$)	2 x	1...6 mm ²	1.5...16 mm ²	1.5...16 mm ²	6...35 mm ²	6...35 mm ²	6...50 mm ²
 Flexible with non insulated ferrule	1 x	0.75...6 mm ²	1.5...16 mm ²	1.5...16 mm ²	4...35 mm ²	4...35 mm ²	6...50 mm ²
 Flexible with non insulated ferrule	2 x	0.75...6 mm ²	1.5...16 mm ²	1.5...16 mm ²	4...35 mm ²	4...35 mm ²	6...50 mm ²
 Flexible with insulated ferrule	1 x	0.75...4 mm ²	1.5...16 mm ²	1.5...16 mm ²	4...35 mm ²	4...35 mm ²	6...50 mm ²
 Flexible with insulated ferrule	2 x	0.75...2.5 mm ²	1.5...16 mm ²	1.5...16 mm ²	4...35 mm ²	4...35 mm ²	6...50 mm ²
 Bars or lugs	L <	9.6 mm	-	-	9.2 mm	9.2 mm	12.2 mm
Connection capacity acc. to UL/CSA	1 or 2 x	AWG 16...10	AWG 16...6	AWG 16...6	AWG 10...2	AWG 10...2	AWG 6...1
Stripping length		10 mm	12 mm	12 mm	16 mm	16 mm	17 mm
Tightening torque		1.5 Nm / 13 lb.in	2.5 Nm / 22 lb.in	2.5 Nm / 22 lb.in	4 Nm / 35 lb.in	4 Nm / 35 lb.in	6 Nm / 53 lb.in
Auxiliary conductors							
(coil terminals)							
 Rigid solid	1 x	1...2.5 mm ²					
 Rigid solid	2 x	1...2.5 mm ²					
 Flexible with non insulated ferrule	1 x	0.75...2.5 mm ²					
 Flexible with non insulated ferrule	2 x	0.75...2.5 mm ²					
 Flexible with insulated ferrule	1 x	0.75...2.5 mm ²					
 Flexible with insulated ferrule	2 x	0.75...1.5 mm ²					
 Lugs	L <	8 mm					
Connection capacity acc. to UL/CSA	1 or 2 x	AWG 18...14					
Stripping length		10 mm					
Tightening torque		1.2 Nm / 11 lb.in					
Degree of protection							
acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529							
Main terminals					IP20		
Coil terminals	IP20						
Screw terminals							
Delivered in open position, screws of unused terminals must be tightened							
Main terminals	M3.5		M4.5		M6		M8
Screwdriver type	Flat Ø 5.5 / Pozidriv 2		Flat Ø 5.5 / Pozidriv 2		Flat Ø 6.5 / Pozidriv 2		hexagon socket (s = 4 mm)
Coil terminals	M3.5						
Screwdriver type	Flat Ø 5.5 / Pozidriv 2						

AF116 ... AF370 4-pole contactors

Technical data

Connecting characteristics

Contactor types	AC / DC operated	AF116	AF140	AF190	AF205	AF265	AF305	AF370
Main terminals								
Flat type								
Connection capacity (min. ... max.)								
Main conductors (poles)								
	Cu cable - Stranded	1 x	10...95 mm ²	6...150 mm ²	16...300 mm ²	16...300 mm ²	16...300 mm ²	16...300 mm ²
	Clamp type		LD... included (1)	1SDA066917R1	1SDA055016R1	1SDA055016R1	1SDA055016R1	1SDA055016R1
	Tightening torque		8 Nm	14 Nm	25 Nm	25 Nm	25 Nm	25 Nm
	Cu cable - Stranded	2 x	10...95 mm ²	50...120 mm ²	70...185 mm ²	70...185 mm ²	70...185 mm ²	70...185 mm ²
	Clamp type		LD... included (1)	1SFN074709R1000, LZ185-2C/120	1SCA022194R0890, OZXB4	1SCA022194R0890, OZXB4	1SCA022194R0890, OZXB4	1SCA022194R0890, OZXB4
	Tightening torque		8 Nm	16 Nm	22 Nm	22 Nm	22 Nm	22 Nm
	Al cable - Stranded	1 x	-	95...185 mm ²	185...240 mm ²	185...240 mm ²	185...240 mm ²	185...240 mm ²
	Clamp type		-	1SDA054988R1	1SDA055020R1	1SDA055020R1	1SDA055020R1	1SDA055020R1
	Tightening torque		-	31 Nm	43 Nm	43 Nm	43 Nm	43 Nm
	Cu cable - Flexible	1 x	10...70 mm ²	6...120 mm ²	16...240 mm ²	16...240 mm ²	16...240 mm ²	16...240 mm ²
	Clamp type		LD... included (1)	1SDA066917R1	1SDA055016R1	1SDA055016R1	1SDA055016R1	1SDA055016R1
	Tightening torque		8 Nm	14 Nm	25 Nm	25 Nm	25 Nm	25 Nm
	Cu cable - Flexible	2 x	10...70 mm ²	50...95 mm ²	70...185 mm ²	70...185 mm ²	70...185 mm ²	70...185 mm ²
	Clamp type		LD... included (1)	1SFN074709R1000, LZ185-2C/120	1SCA022194R0890, OZXB4	1SCA022194R0890, OZXB4	1SCA022194R0890, OZXB4	1SCA022194R0890, OZXB4
	Tightening torque		8 Nm	16 Nm	22 Nm	22 Nm	22 Nm	22 Nm
	Lugs	W ≤	22 mm (.866 in)	24 mm (.945 in)	32 mm (1.260 in)	32 mm (1.260 in)	32 mm (1.260 in)	32 mm (1.260 in)
		Ø >	6 mm (.236 in)	8 mm (.315 in)	10 mm (.394 in)	10 mm (.394 in)	10 mm (.394 in)	10 mm (.394 in)
	Socket type		LL... included	LL... included	LL... included	LL... included	LL... included	LL... included
	Tightening torque		9 Nm / 80 lb.in	18 Nm / 160 lb.in	28 Nm / 248 lb.in	28 Nm / 248 lb.in	28 Nm / 248 lb.in	28 Nm / 248 lb.in
Connection capacity acc. to UL / CSA		1 x	AWG 6...3/0	6...300 MCM	4...400 MCM	4...400 MCM	4...400 MCM	4...400 MCM
	Clamp type		LD... included (1)	ATK185 (2)	ATK300 (2)	ATK300 (2)	ATK300 (2)	ATK300 (2)
	Tightening torque		8 Nm / 71 lb.in	34 Nm / 301 lb.in	42 Nm / 372 lb.in	42 Nm / 372 lb.in	42 Nm / 372 lb.in	42 Nm / 372 lb.in
Connection capacity acc. to UL / CSA		2 x	AWG 6...3/0	-	4...500 MCM	4...500 MCM	4...500 MCM	4...500 MCM
	Clamp type		LD... included (1)	-	ATK300/2 (2)	ATK300/2 (2)	ATK300/2 (2)	ATK300/2 (2)
	Tightening torque		8 Nm / 71 lb.in	-	42 Nm / 372 lb.in	42 Nm / 372 lb.in	42 Nm / 372 lb.in	42 Nm / 372 lb.in
Auxiliary conductors								
(coil terminals)								
	Solid / stranded	1 x	1...4 mm ²					
		2 x	1...4 mm ²					
	Flexible	1 x	0.75...2.5 mm ²					
		2 x	0.75...2.5 mm ²					
	Flexible with non insulated ferrule	1 x	0.75...2.5 mm ²					
		2 x	0.75...2.5 mm ²					
	Flexible with insulated ferrule	1 x	0.75...2.5 mm ²					
		2 x	0.75...2.5 mm ²					
	Lugs	L <	8 mm					
		L >	3.5 mm					
Connection capacity acc. to UL / CSA		1 or 2 x	AWG 18...14					
	Stripping length		9 mm					
	Tightening torque		1.00 Nm / 9 lb.in					
Degree of protection								
acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529								
	Main terminals		IP00					
	Coil terminals		IP20					
Screw terminals								
	Main terminals		M6	M8	M10			
		Screwdriver type	Screws and bolts					
	Coil terminals (delivered in open position)		M3.5					
		Screwdriver type	Flat Ø 5.5 mm / Pozidriv 2					

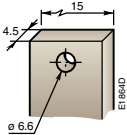
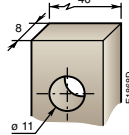





(1) LD... not included for AF116 ... AF146-30-..B.

(2) Available in North America only.

EK550 ... EK1000 4-pole contactors

Technical data

Connecting characteristics

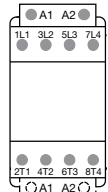
Contactor types	AC or DC operated	EK550	EK1000
Main terminals Flat type			
Connection capacity (min. ... max.)			
Main conductors (poles)			
 Rigid with connector	Cu cable	1 x 70...300 mm ²	-
	Al/Cu cable	1 x 70...300 mm ²	95...300 mm ²
	Al/Cu cable	2 x 35...185 mm ²	95...300 mm ²
 Bars or lugs		L ≤ 55 mm	
		Ø > 10 mm	
Connection capacity acc. to UL/CSA	1 or 2 x	3 x 4 - 500 MCM	-
Tightening torque	Recommended	18 Nm / 160 lb.in	
	Max.	22 Nm	
Auxiliary conductors (coil terminals)			
 Rigid solid		1 x 0.5...2.5 mm ²	
		2 x 0.5...2.5 mm ²	
 Flexible with ferrule		1 x 0.5...2.5 mm ²	
		2 x 0.5...2.5 mm ²	
 Bars or lugs		L ≤ 8 mm	
		l > 3.7 mm	
Connection capacity acc. to UL/CSA	1 or 2 x	18...14 AWG	
Tightening torque	Recommended	1.00 Nm / 9 lb.in	
	Max.	1.20 Nm	
Degree of protection acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529			
Main terminals		IP00	
Coil terminals		IP20	
Screw terminals			
Main terminals		M10	
		Screws and bolts	
Coil terminals (delivered in open positions)		M3.5	
	Screwdriver type	Flat Ø 5.5 mm / Pozidriv 2	

AF09 ... AF80 4-pole contactors

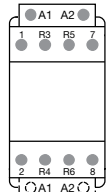
Terminal marking and positioning

AF09 ... AF38 contactors - AC / DC operated

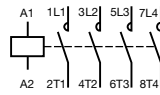
Standard devices without addition of auxiliary contacts



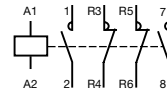
AF09 ... AF80...-40-00



AF09 ... AF40...-22-00
AF80-22-00

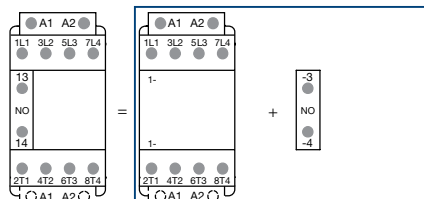


AF09 ... AF80...-40-00

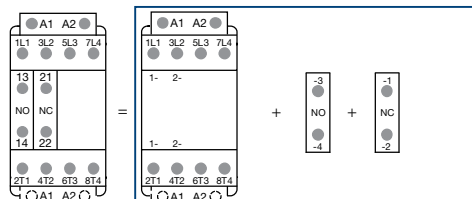


AF09 ... AF40...-22-00
AF80-22-00

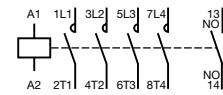
Other possible contact combinations with auxiliary contacts added by the user



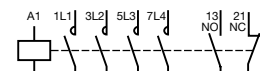
Combination 10 = AF09 ... AF80...-40-00 + CA4-10



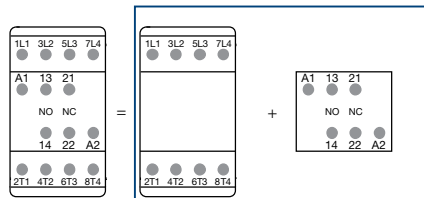
Combination 11 = AF09 ... AF80...-40-00 + CA4-10 + CA4-01



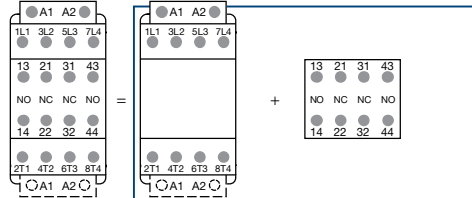
Combination 10



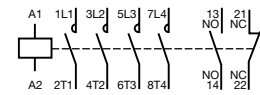
Combination 11



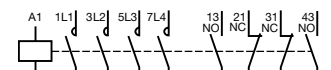
Combination 11 = AF09 ... AF80...-40-00 + CAT4-11E



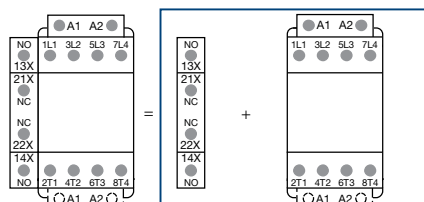
Combination 22 = AF09 ... AF80...-40-00 + CA4-22E



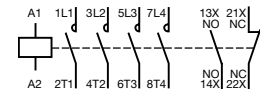
Combination 11



Combination 22



Combination 11 = CAL4-11 + AF09 ... AF80...-40-00



Combination 11

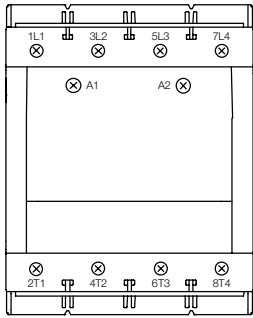
Note: Only AF09...Z ... AF38...Z contactor with DC control voltage 12...20 V DC need to respect the connection polarities indicated close to the coil terminals: A1+ for the positive pole and A2- for the negative pole

AF116 ... AF370 4-pole contactors

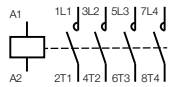
Terminal marking and positioning

AF116 ... AF370 contactors - AC / DC operated

Standard devices without addition of auxiliary contacts

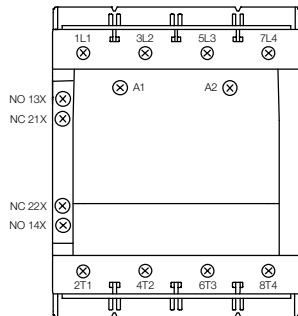


AF116 ... AF370-40-00

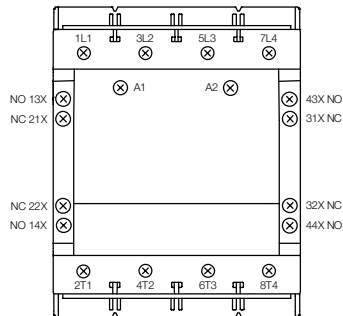


AF116 ... AF370-40-00

Standard devices with factory mounted auxiliary contacts



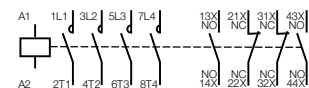
AF116 ... AF370-40-11



AF116 ... AF370-40-22



AF116 ... AF370-40-11



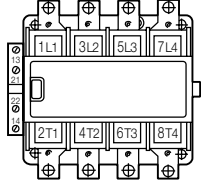
AF116 ... AF370-40-22

EK 4-pole contactors

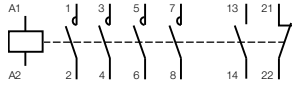
Terminal marking and positioning

EK550, EK1000 contactors - AC operated

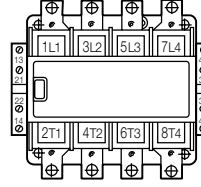
Standard devices



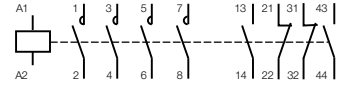
EK550, EK1000-40-11



EK550, EK1000-40-11

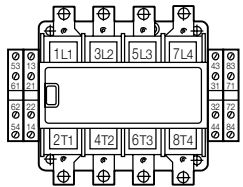


EK550, EK1000-40-22

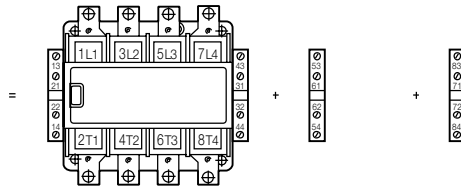


EK550, EK1000-40-22

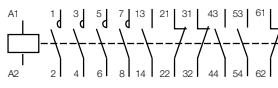
Other possible contact combinations with auxiliary contacts added by the user



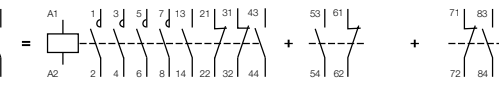
Combination 44



= EK550, EK1000-40-22 + CAL16-11C + CAL16-11D



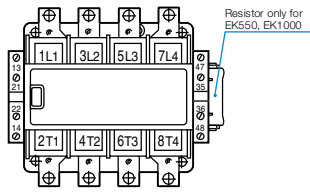
Combination 44



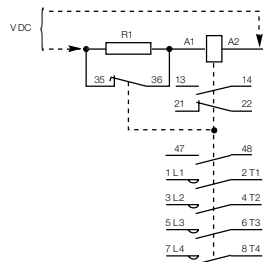
= EK550, EK1000-40-22 + CAL16-11C + CAL16-11D

EK550, EK1000 contactors - with multifrequency coil or DC operated

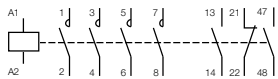
Standard devices



EK550, EK1000-40-21

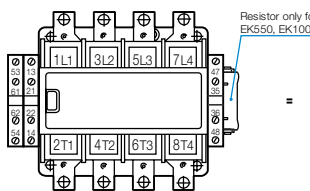


EK550, EK1000 DC operated

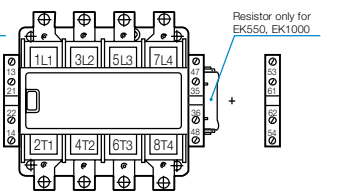


EK550, EK1000-40-21

Other possible contact combinations with auxiliary contacts added by the user



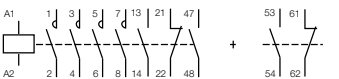
Combination 32



= EK550, EK1000-40-21 + CAL16-11C



Combination 32



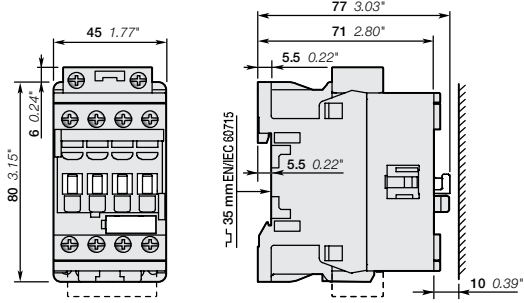
= EK550, EK1000-40-21 + CAL16-11C

Notes

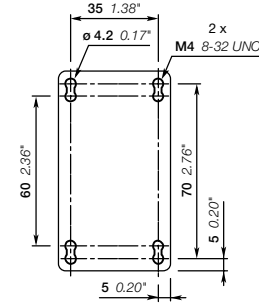
A series of horizontal dotted lines for taking notes.

AF09, AF16 4-pole contactors

Main dimensions mm, inches

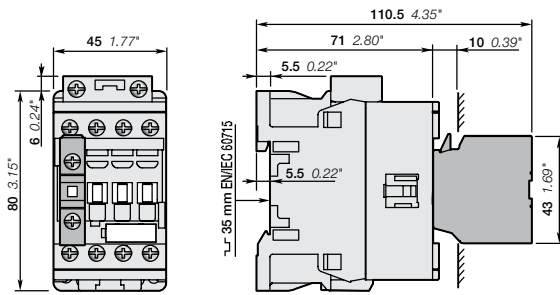


AF09, AF16

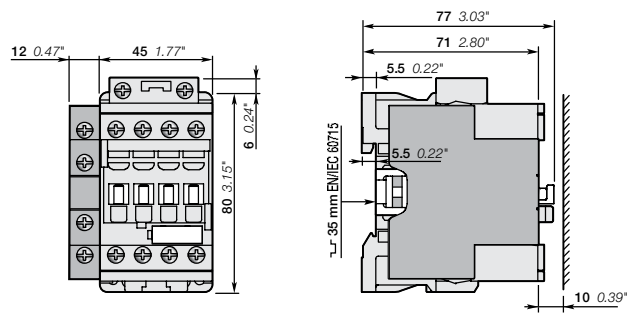


AF09, AF16

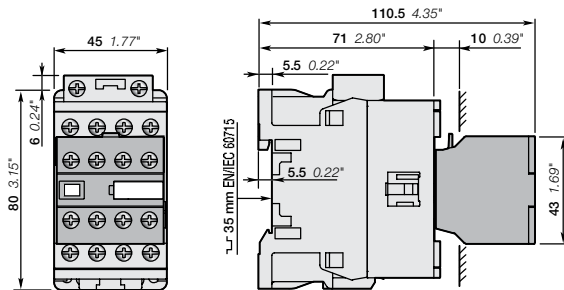
5



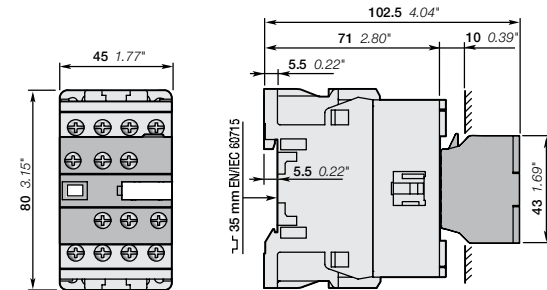
AF09, AF16
+ CA4, CC4 1-pole auxiliary contact block



AF09, AF16
+ CAL4-11 2-pole auxiliary contact block



AF09, AF16
+ CA4 4-pole auxiliary contact block

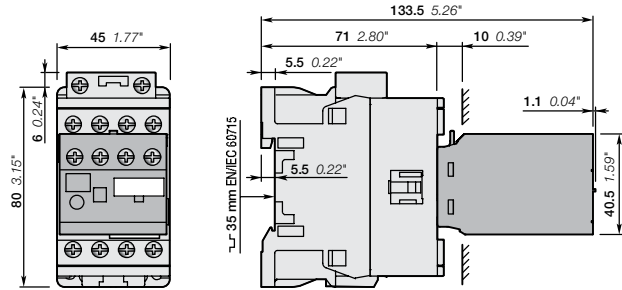


AF09, AF16
+ CAT4 2-pole auxiliary contact and coil terminal block

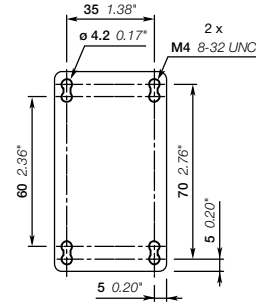
Note: contactor lateral distance to grounded component 2 mm 0.08" min.

AF09, AF16 4-pole contactors

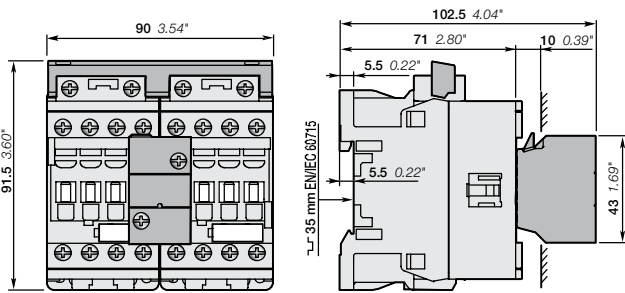
Main dimensions mm, inches



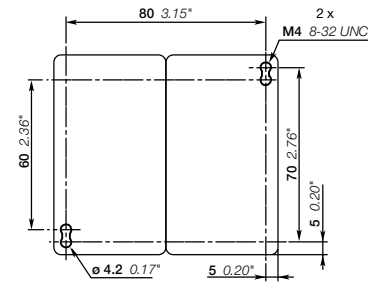
AF09, AF16
+ TEF4 electronic timer



AF09, AF16



AF09..-40-00, AF16..-40-00
+ VEM4 mechanical and electrical interlock set

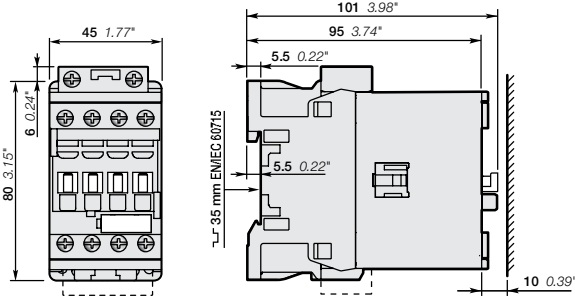


AF09..-40-00, AF16..-40-00
+ VEM4 mechanical and electrical interlock set

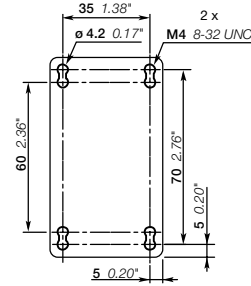
Note: contactor lateral distance to grounded component 2 mm 0.08" min.

AF26, AF38 4-pole contactors

Main dimensions mm, inches

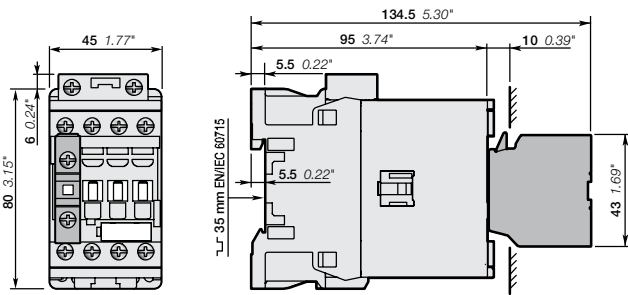


AF26, AF38

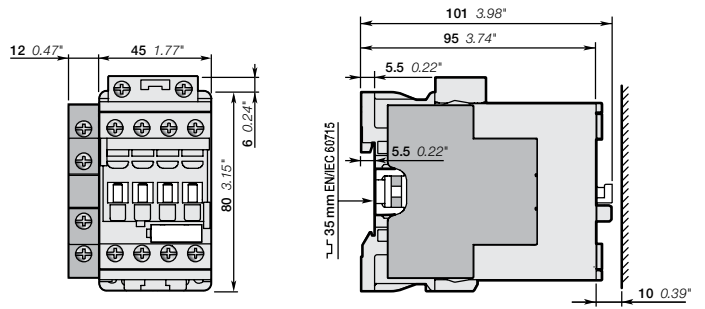


AF26, AF38

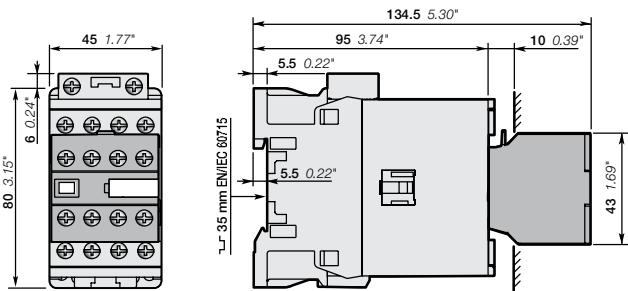
5



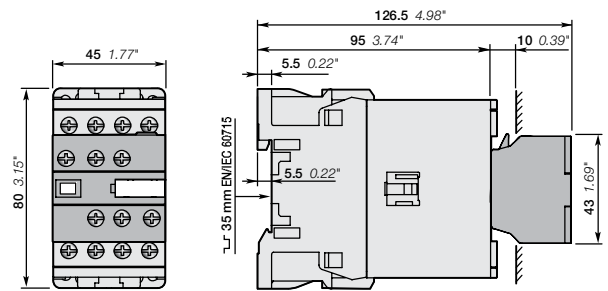
AF26, AF38
+ CA4, CC4 1-pole auxiliary contact block



AF26, AF38
+ CAL4-11 2-pole auxiliary contact block



AF26, AF38
+ CA4 4-pole auxiliary contact block

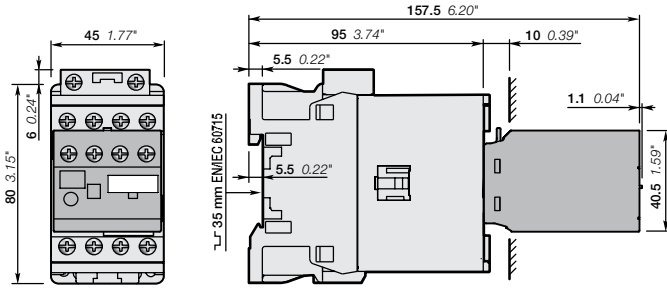


AF26, AF38
+ CAT4 2-pole auxiliary contact and coil terminal block

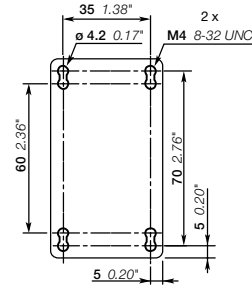
Note: contactor lateral distance to grounded component 2 mm 0.08" min.

AF26, AF38 4-pole contactors

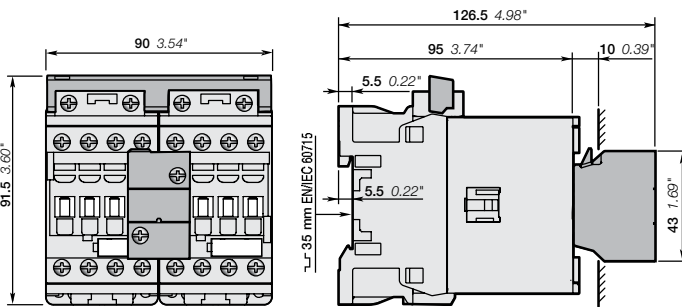
Main dimensions mm, inches



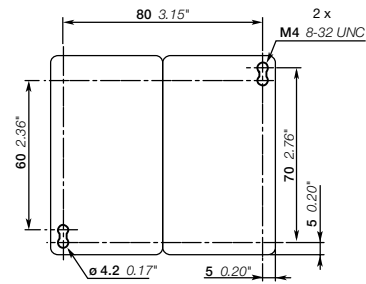
AF26, AF38
+ TEF4 electronic timer



AF26, AF38



AF26..-40-00, AF38..-40-00
+ VEM4 mechanical and electrical interlock set

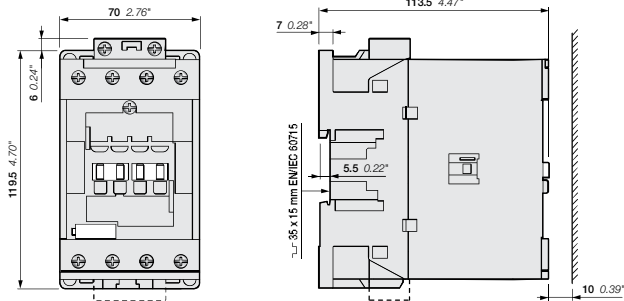


AF26..-40-00, AF38..-40-00
+ VEM4 mechanical and electrical interlock set

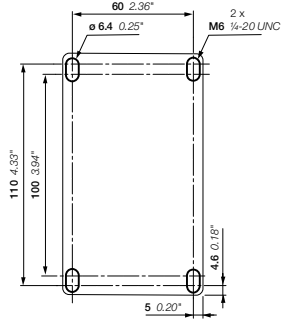
Note: contactor lateral distance to grounded component 2 mm 0.08" min.

AF40, AF52 4-pole contactors

Main dimensions mm, inches

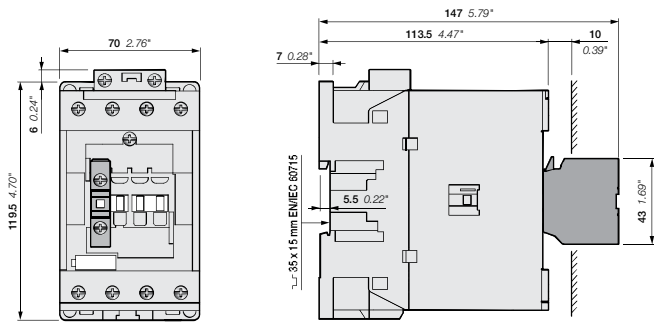


AF40, AF52

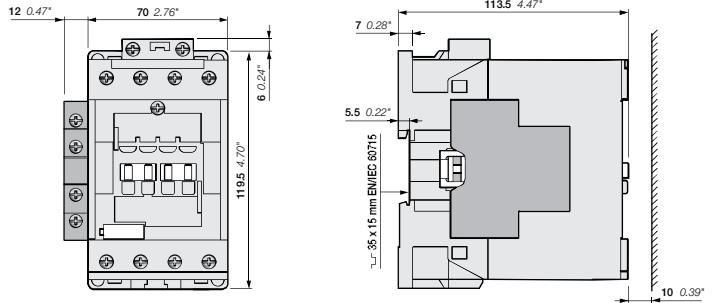


AF40, AF52

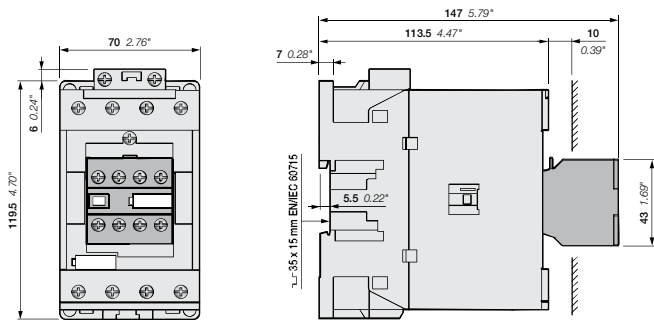
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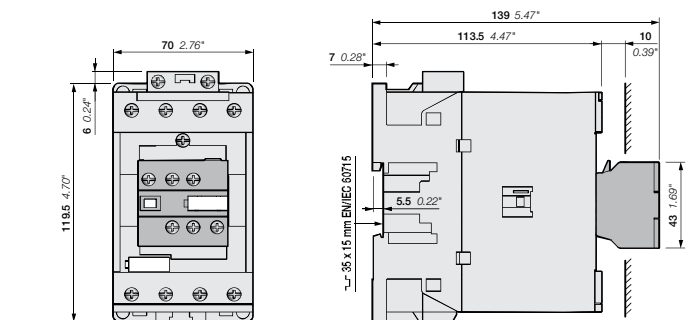
AF40, AF52
+ CA4, CC4 1-pole auxiliary contact block



AF40, AF52
+ CAL4-11 2-pole auxiliary contact block



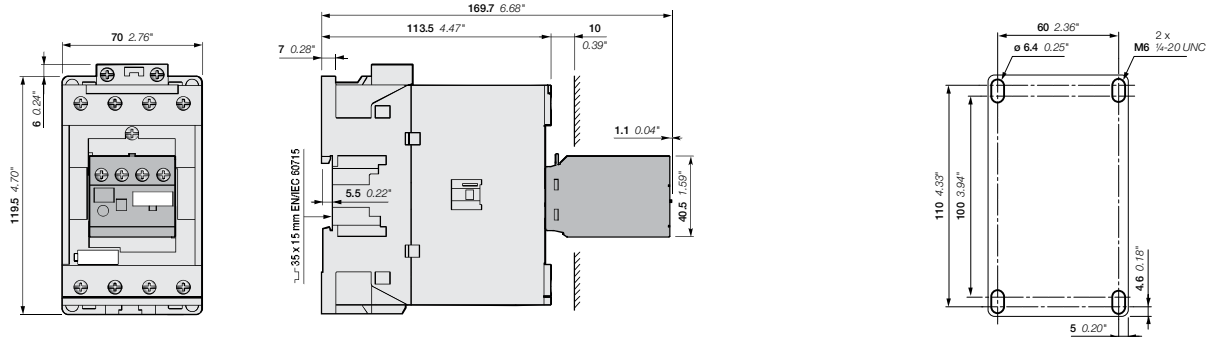
AF40, AF52
+ CA4 4-pole auxiliary contact block



AF40, AF52
+ CAT4 2-pole auxiliary contact and coil terminal block

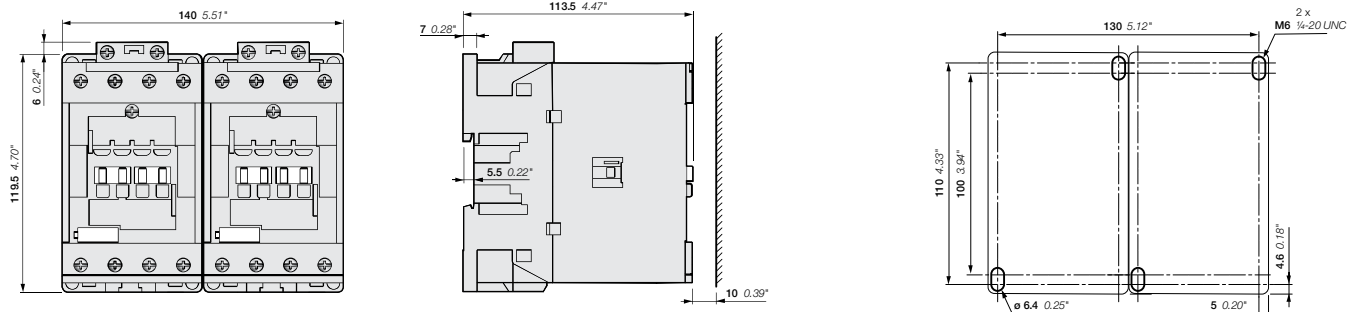
AF40, AF52 4-pole contactors

Main dimensions mm, inches



AF40, AF52
+ TE4 electronic timer

AF40, AF52

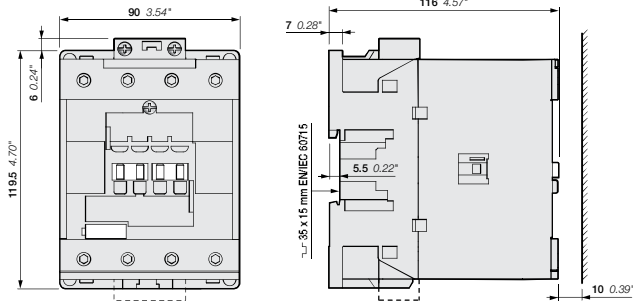


AF40, AF52
+ VM96-4 mechanical interlock unit

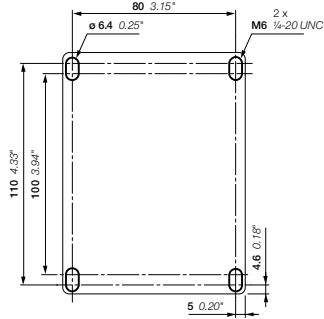
AF40, AF52
+ VM96-4 mechanical interlock unit

AF80 4-pole contactors

Main dimensions mm, inches

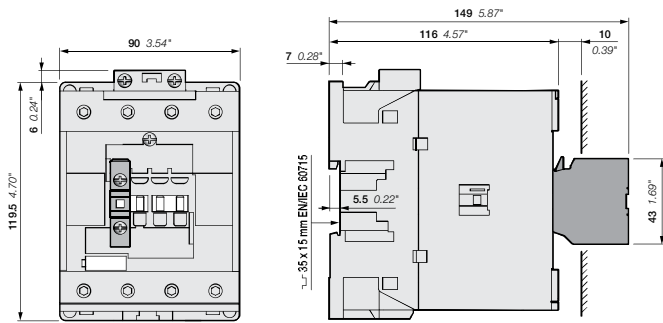


AF80

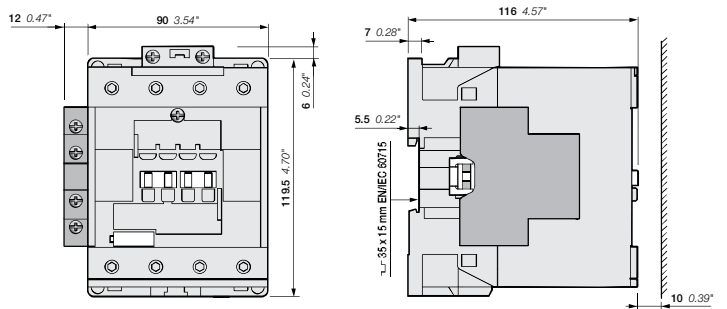


AF80

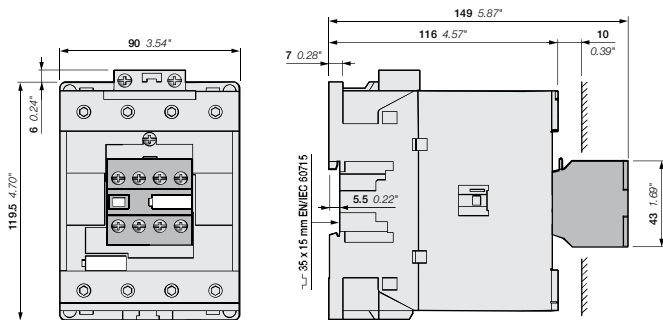
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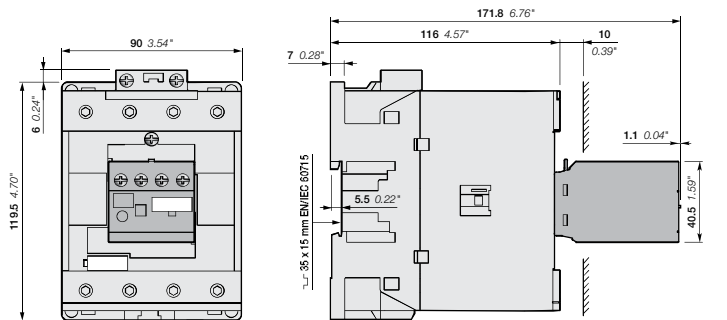
AF80
+ CA4, CC4 1-pole auxiliary contact block



AF80
+ CAL4-11 2-pole auxiliary contact block



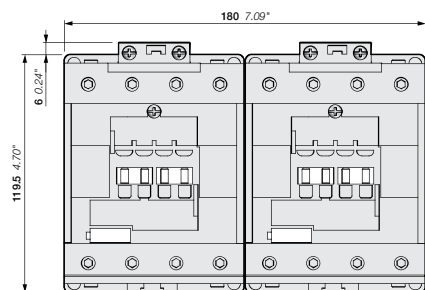
AF80
+ CA4 4-pole auxiliary contact block



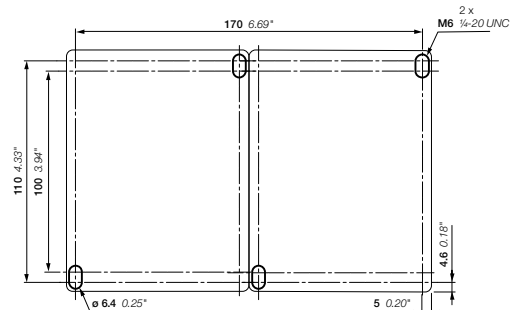
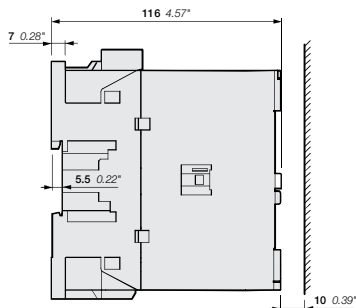
AF80
+ TEF4 Electronic timer

AF80 4-pole contactors

Main dimensions mm, inches



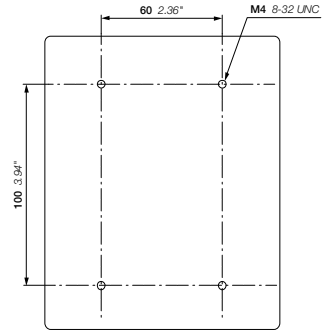
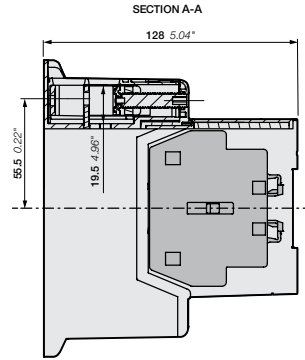
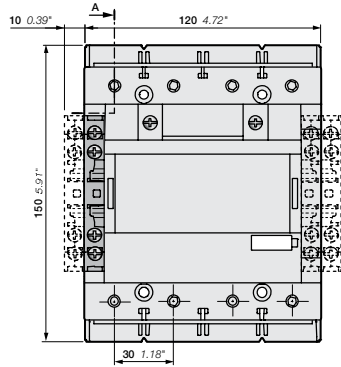
AF80
+ CA4, CC4 1-pole auxiliary contact block



AF80
+ VM96-4 mechanical interlock unit

AF116, AF140 4-pole contactors

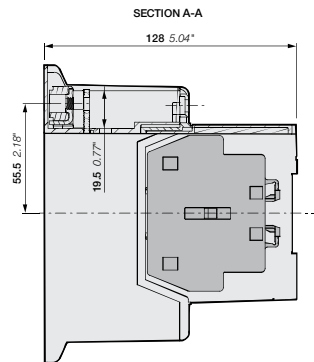
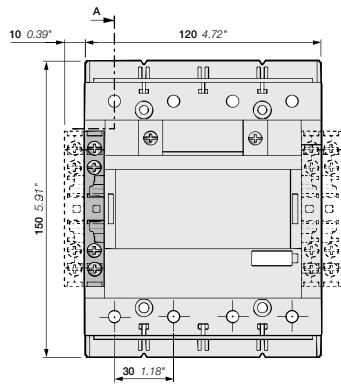
Main dimensions mm, inches



5

AF116, AF140-40-00 + CAL19 2-pole auxiliary contact block
AF116, AF140-40-11

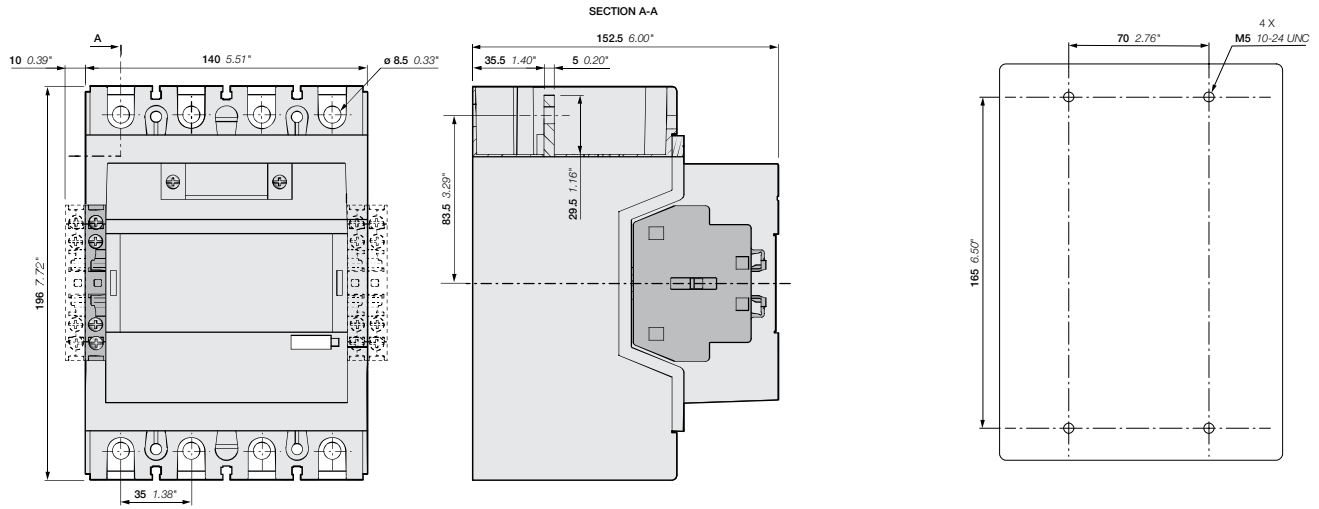
AF116, AF140-40-..(B)



AF116, AF140-40-00B + CAL19 2-pole auxiliary contact block
AF116, AF140-40-11B

AF190, AF205 4-pole contactors

Main dimensions mm, inches

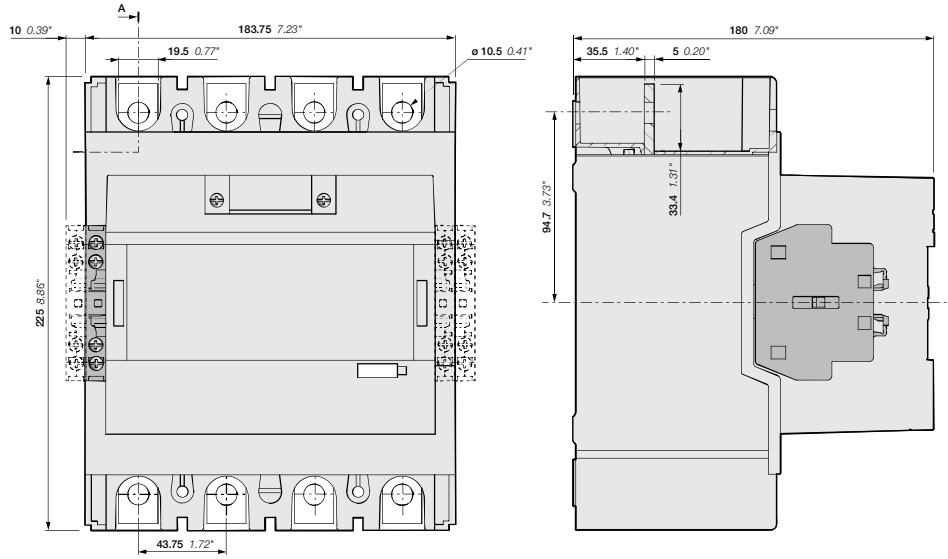


AF190, AF205-40-00 + CAL19 2-pole auxiliary contact block
AF190, AF205-40-11

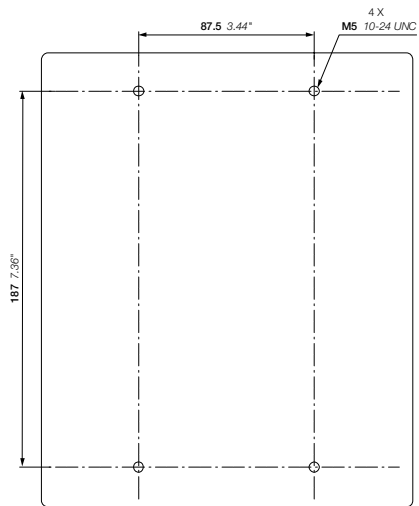
AF190, AF205-40

AF265, AF370 4-pole contactors

Main dimensions mm, inches



AF265, AF370-40-00 + CAL19 2-pole auxiliary contact block
 AF265, AF370-40-11

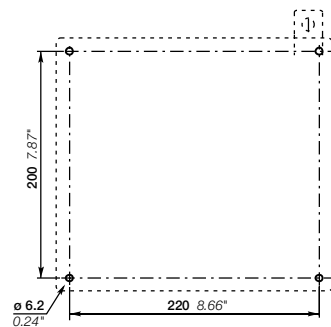
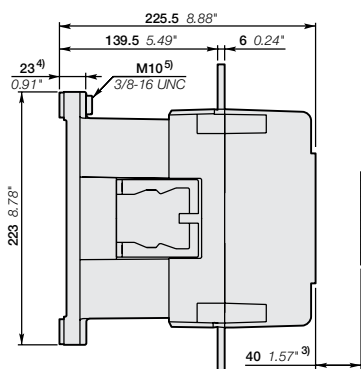
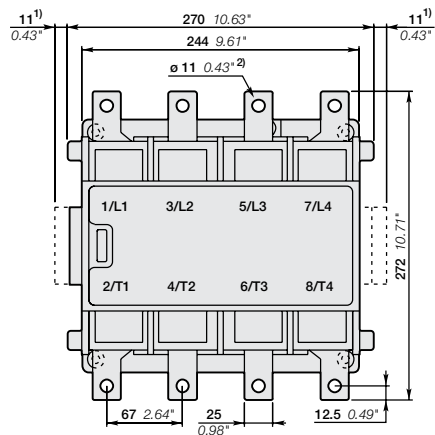


AF265, AF370-40

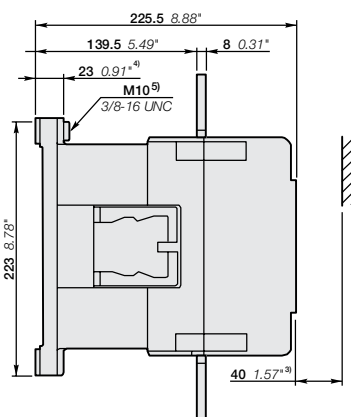
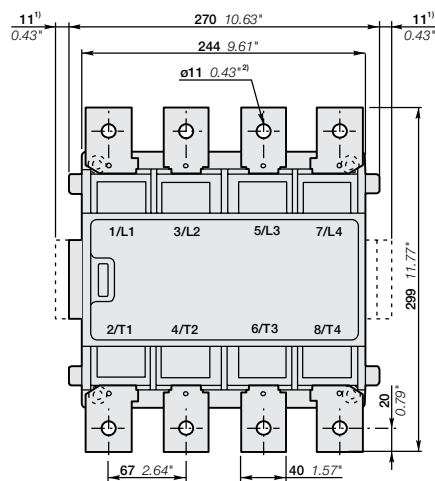
EK550, EK1000 4-pole contactors

AC operated

Main dimensions mm, inches

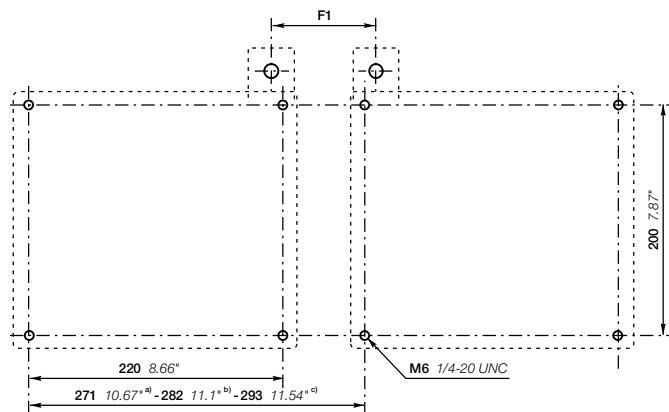


EK550



EK1000

- 1) Dimension for extra auxiliary contact block
- 2) Screw, nut and washer by-packed
- 3) Min. distance to uninsulated wall
- 4) Damping elements are included
- 5) Earthing screw



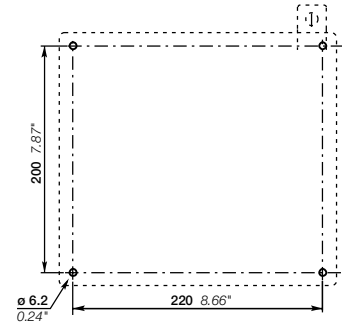
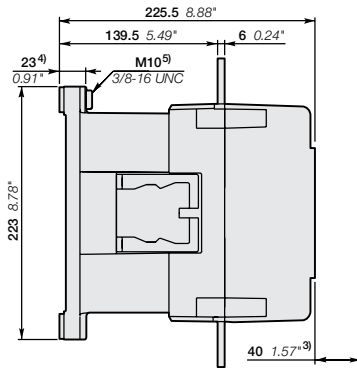
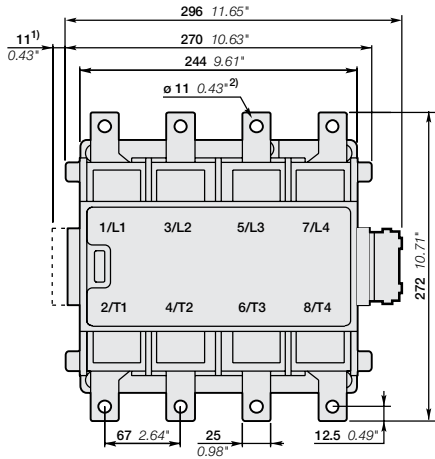
EK1000

- a) Min. dim Makes distance F1 = 70
- b) Includes space for three auxiliary contact blocks between the contactors
- c) Includes space for four auxiliary contact blocks between the contactors

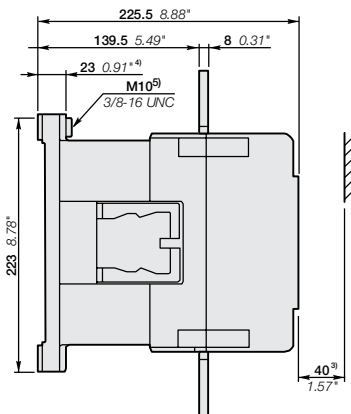
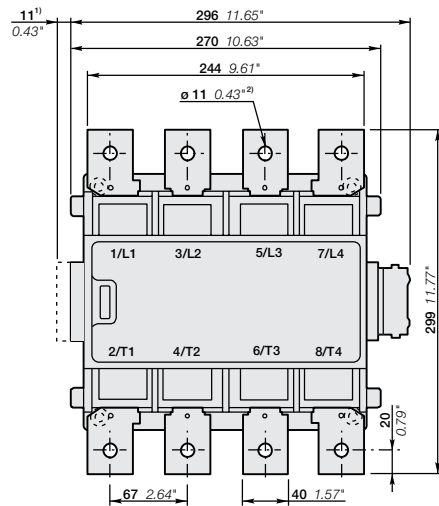
EK550, EK1000 4-pole contactors

DC operated

Main dimensions mm, inches

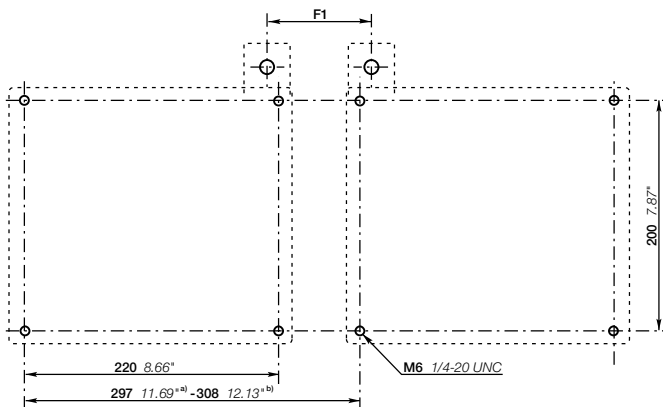


EK550



- 1) Dimension for extra auxiliary contact block
- 2) Screw, nut and washer by-packed
- 3) Min. distance to uninsulated wall
- 4) Damping elements are included
- 5) Earthing screw

EK1000



- a) Min. dim.
- b) Includes space for two auxiliary contact blocks and the dc-unit between the contactors

EK1000