



# NF 4-pole and 8-pole contactor relays

## Ordering details 4-pole contactor relays

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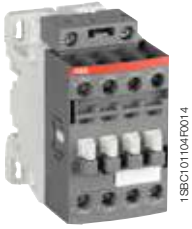
<a href="#">Terminal marking and positioning</a>	<a href="#">5/315</a>
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# NF 4-pole contactor relays

## AC / DC operated



NF22E

### Description

NF contactor relays are used for switching auxiliary and control circuits.

These contactor relays are of the block type design with:

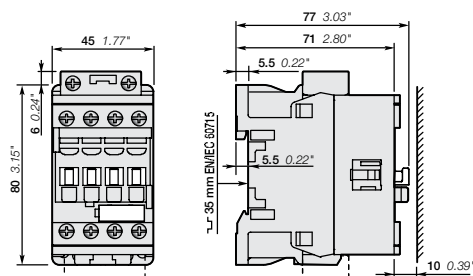
- 4 poles. Contactor relays have mechanically linked auxiliary contact elements (side-marked symbol)
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC)
  - can manage large control voltage variations
  - only 4 control voltage ranges covering 24...500 V 50/60 Hz and 20...500 V DC
  - 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

Number of contacts	Rated control circuit voltage		Type	Order code	Weight
	Uc min. ... Uc max.				
	V 50/60 Hz	V DC			kg
	24...60	-	(1) NF22E-41	1SBH137001R4122	0.270
	48...130	48...130	NF22E-12	1SBH137001R1222	0.270
	100...250	100...250	NF22E-13	1SBH137001R1322	0.270
	250...500	250...500	NF22E-14	1SBH137001R1422	0.310
	24...60	-	(1) NF31E-41	1SBH137001R4131	0.270
	48...130	48...130	NF31E-12	1SBH137001R1231	0.270
	100...250	100...250	NF31E-13	1SBH137001R1331	0.270
	250...500	250...500	NF31E-14	1SBH137001R1431	0.310
	24...60	-	(1) NF40E-41	1SBH137001R4140	0.270
	48...130	48...130	NF40E-12	1SBH137001R1240	0.270
	100...250	100...250	NF40E-13	1SBH137001R1340	0.270
	250...500	250...500	NF40E-14	1SBH137001R1440	0.310

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

### Main dimensions mm, inches



NF22E, NF31E, NF40E

# NFZ 4-pole contactor relays

## AC / DC operated - low consumption



NFZ22E

### Description

NFZ contactor relays are used for switching auxiliary and control circuits.

These contactor relays are of the block type design with:

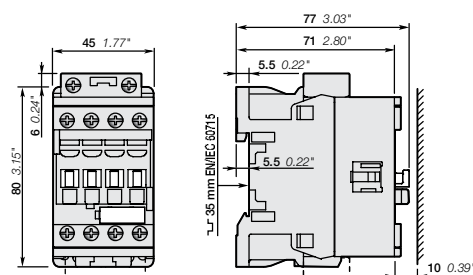
- 4 poles. Contactor relays have mechanically linked auxiliary contact elements (side-marked symbol)
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC)
  - can manage large control voltage variations
  - only 4 control voltage ranges covering 24...250 V 50/60 Hz and 12...250 V DC
  - allow direct control by PLC-output  $\geq 24$  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

Number of contacts	Rated control circuit voltage Uc min. ... Uc max.		Type	Order code	Weight Pkg (1 pce) kg
	V 50/60 Hz	V DC			
	-	12...20	NFZ22E-20	1SBH136001R2022	0.310
	24...60	20...60	NFZ22E-21	1SBH136001R2122	0.310
	48...130	48...130	NFZ22E-22	1SBH136001R2222	0.310
	100...250	100...250	NFZ22E-23	1SBH136001R2322	0.310
	-	12...20	NFZ31E-20	1SBH136001R2031	0.310
	24...60	20...60	NFZ31E-21	1SBH136001R2131	0.310
	48...130	48...130	NFZ31E-22	1SBH136001R2231	0.310
	100...250	100...250	NFZ31E-23	1SBH136001R2331	0.310
	-	12...20	NFZ40E-20	1SBH136001R2040	0.310
	24...60	20...60	NFZ40E-21	1SBH136001R2140	0.310
	48...130	48...130	NFZ40E-22	1SBH136001R2240	0.310
	100...250	100...250	NFZ40E-23	1SBH136001R2340	0.310

Note: Only NFZ contactor relays 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

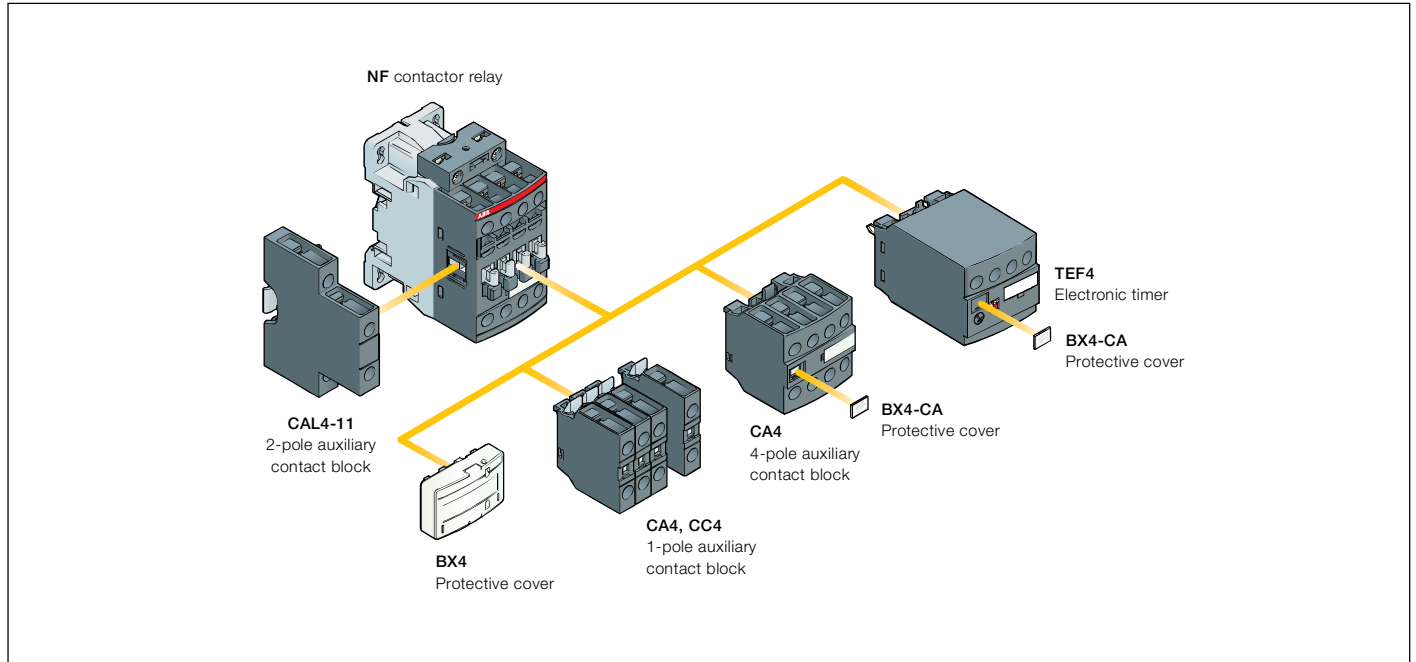


NFZ22E, NFZ31E, NFZ40E

# NF 4-pole contactor relays

## Main accessories

### Contactor relays 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 relay types	Main poles	Front-mounted accessories			Electronic timer	Side-mounted accessories	
		Auxiliary contact blocks				Auxiliary contact blocks	
		1-pole CA4	1-pole CC4	4-pole CA4	TEF4	Left side	Right side
		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					
NF	2 2 E	4 max.	or 1		or 1	+ 1	-
	3 1 E	2 max.	-		or 1	+ 1	+ 1
		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					
NF	4 0 E	4 max.	or 1		or 1	+ 1	-
		2 max.	-		or 1	+ 1	+ 1

# NF 4-pole contactor relays

## Main accessories



CA4-10



CA4-22N



CAL4-11



TEF4-ON



LDC4



BX4



BX4-CA

### Ordering details (1)

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

#### Front-mounted instantaneous auxiliary contact blocks

4-pole NF	1 0	- -	CA4-10	1SBN010110R1010	1	0.014
	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
	4 0	- -	CA4-40N	1SBN010140R1240	1	0.055
	3 1	- -	CA4-31N	1SBN010140R1231	1	0.055
	2 2	- -	CA4-22N	1SBN010140R1222	1	0.055
	1 3	- -	CA4-13N	1SBN010140R1213	1	0.055
NF..40E	0 4	- -	CA4-04N	1SBN010140R1204	1	0.055

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

4-pole NF	- -	1 0	CC4-10	1SBN010111R1010	1	0.014
	- -	0 1	CC4-01	1SBN010111R1001	1	0.014

#### Side-mounted instantaneous auxiliary contact blocks

NF	1 1	- -	CAL4-11	1SBN010120R1011	1	0.040
	1 1	- -	CAL4-11-T	1SBN010120T1011	10	0.040

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

#### Electronic timers

NF	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<sub>c</sub> 24...240 V 50/60 Hz or DC.

#### Additional coil terminal block

NF	LDC4	1SBN070156T1000	10	0.010
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#### Protective covers

All 1-stack contactor relays	BX4	1SBN110108T1000	10	0.006
4-pole CA4 auxiliary contact blocks and TEF4 electronic timer	BX4-CA	1SBN110109W1000	50	0.001

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

# NF 8-pole contactor relays

## AC / DC operated



NF44E

1SBC101029V0014



NF33/11

1SBC101042V0014



NF51/11

1SBC101043V0014

### Description

NF contactor relays are used for switching auxiliary and control circuits.

These contactor relays are of the block type design with:

- 8 poles with a permanently fixed 4-pole auxiliary contact block. Contactor relays have mechanically linked auxiliary contact elements (side-marked symbol) except for NF33/11 and NF51/11 variants
- overlapping of lagging / leading contacts for NF33/11 and NF51/11 variants
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC)
  - can manage large control voltage variations
  - only 4 coils to cover control voltages between 24...500 V 50/60 Hz and 20...500 V DC
  - reduced panel energy consumption
  - very distinct closing and opening
- built-in surge suppression
- add-on auxiliary contact blocks for side mounting and a wide range of accessories.

### Ordering details

Number of contacts	Rated control circuit voltage Uc min. ... Uc max.	Type	Order code	Weight	
					1st stack
		V 50/60 Hz	V DC		

#### 8-pole contactor relays

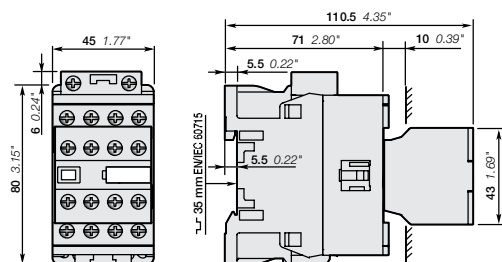
	24...60	-	(1) NF44E-41	1SBH137001R4144	0.320
	48...130	48...130	NF44E-12	1SBH137001R1244	0.320
	100...250	100...250	NF44E-13	1SBH137001R1344	0.320
	250...500	250...500	NF44E-14	1SBH137001R1444	0.360
	24...60	-	(1) NF53E-41	1SBH137001R4153	0.320
	48...130	48...130	NF53E-12	1SBH137001R1253	0.320
	100...250	100...250	NF53E-13	1SBH137001R1353	0.320
	250...500	250...500	NF53E-14	1SBH137001R1453	0.360
	24...60	-	(1) NF62E-41	1SBH137001R4162	0.320
	48...130	48...130	NF62E-12	1SBH137001R1262	0.320
	100...250	100...250	NF62E-13	1SBH137001R1362	0.320
	250...500	250...500	NF62E-14	1SBH137001R1462	0.360
	24...60	-	(1) NF71E-41	1SBH137001R4171	0.320
	48...130	48...130	NF71E-12	1SBH137001R1271	0.320
	100...250	100...250	NF71E-13	1SBH137001R1371	0.320
	250...500	250...500	NF71E-14	1SBH137001R1471	0.360
	24...60	-	(1) NF80E-41	1SBH137001R4180	0.320
	48...130	48...130	NF80E-12	1SBH137001R1280	0.320
	100...250	100...250	NF80E-13	1SBH137001R1380	0.320
	250...500	250...500	NF80E-14	1SBH137001R1480	0.360

#### 8-pole contactor relays with overlapping of lagging / leading contacts

	24...60	-	(1) NF33/11-41	1SBH137001R4139	0.320
	48...130	48...130	NF33/11-12	1SBH137001R1239	0.320
	100...250	100...250	NF33/11-13	1SBH137001R1339	0.320
	250...500	250...500	NF33/11-14	1SBH137001R1439	0.320
	24...60	-	(1) NF51/11-41	1SBH137001R4159	0.320
	48...130	48...130	NF51/11-12	1SBH137001R1259	0.320
	100...250	100...250	NF51/11-13	1SBH137001R1359	0.320
	250...500	250...500	NF51/11-14	1SBH137001R1459	0.320

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

### Main dimensions mm, inches



NF44E, NF53E, NF62E, NF71E, NF80E, NF33/11, NF51/11

# NFZ 8-pole contactor relays

## AC / DC operated



NFZ44E

1SBCE101029V0014



NFZ33/11

1SBCE101042V0014



NFZ51/11

1SBCE101043V0014

### Description

NFZ contactor relays are used for switching auxiliary and control circuits.

These contactor relays are of the block type design with:

- 8 poles with a permanently fixed 4-pole auxiliary contact block. Contactor relays have mechanically linked auxiliary contact elements (side-marked symbol) except for NFZ33/11 and NFZ51/11 variants
- overlapping of lagging / leading contacts for NFZ33/11 and NFZ51/11 variants
- control circuit: AC or DC operated with electronic coil interface accepting a wide control voltage range (e.g. 100...250 V AC and DC)
  - can manage large control voltage variations
  - only 4 coils to cover control voltages between 24 ... 250 V 50/60 Hz and 12 ... 250 V DC
  - allow direct control by PLC-output  $\geq 24$  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 side mounting and a wide range of accessories.

### Ordering details

Number of contacts		Rated control circuit voltage Uc min. ... Uc max.	Type	Order code	Weight Pkg (1 pce) kg
1st stack	2nd stack				
		V 50/60 Hz	V DC		

#### 8-pole contactor relays

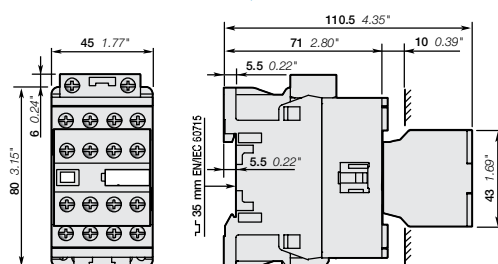
	-	12...20	NFZ44E-20	1SBH136001R2044	0.360
	24...60	20...60	NFZ44E-21	1SBH136001R2144	0.360
	48...130	48...130	NFZ44E-22	1SBH136001R2244	0.360
	100...250	100...250	NFZ44E-23	1SBH136001R2344	0.360
	-	12...20	NFZ53E-20	1SBH136001R2053	0.360
	24...60	20...60	NFZ53E-21	1SBH136001R2153	0.360
	48...130	48...130	NFZ53E-22	1SBH136001R2253	0.360
	100...250	100...250	NFZ53E-23	1SBH136001R2353	0.360
	-	12...20	NFZ62E-20	1SBH136001R2062	0.360
	24...60	20...60	NFZ62E-21	1SBH136001R2162	0.360
	48...130	48...130	NFZ62E-22	1SBH136001R2262	0.360
	100...250	100...250	NFZ62E-23	1SBH136001R2362	0.360
	-	12...20	NFZ71E-20	1SBH136001R2071	0.360
	24...60	20...60	NFZ71E-21	1SBH136001R2171	0.360
	48...130	48...130	NFZ71E-22	1SBH136001R2271	0.360
	100...250	100...250	NFZ71E-23	1SBH136001R2371	0.360
	-	12...20	NFZ80E-20	1SBH136001R2080	0.360
	24...60	20...60	NFZ80E-21	1SBH136001R2180	0.360
	48...130	48...130	NFZ80E-22	1SBH136001R2280	0.360
	100...250	100...250	NFZ80E-23	1SBH136001R2380	0.360

#### 8-pole contactor relays with overlapping of lagging / leading contacts

	-	12...20	NFZ33/11-20	1SBH136001R2039	0.360
	24...60	20...60	NFZ33/11-21	1SBH136001R2139	0.360
	48...130	48...130	NFZ33/11-22	1SBH136001R2239	0.360
	100...250	100...250	NFZ33/11-23	1SBH136001R2339	0.360
	-	12...20	NFZ51/11-20	1SBH136001R2059	0.360
	24...60	20...60	NFZ51/11-21	1SBH136001R2159	0.360
	48...130	48...130	NFZ51/11-22	1SBH136001R2259	0.360
	100...250	100...250	NFZ51/11-23	1SBH136001R2359	0.360

Note: Only NFZ contactor relays 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



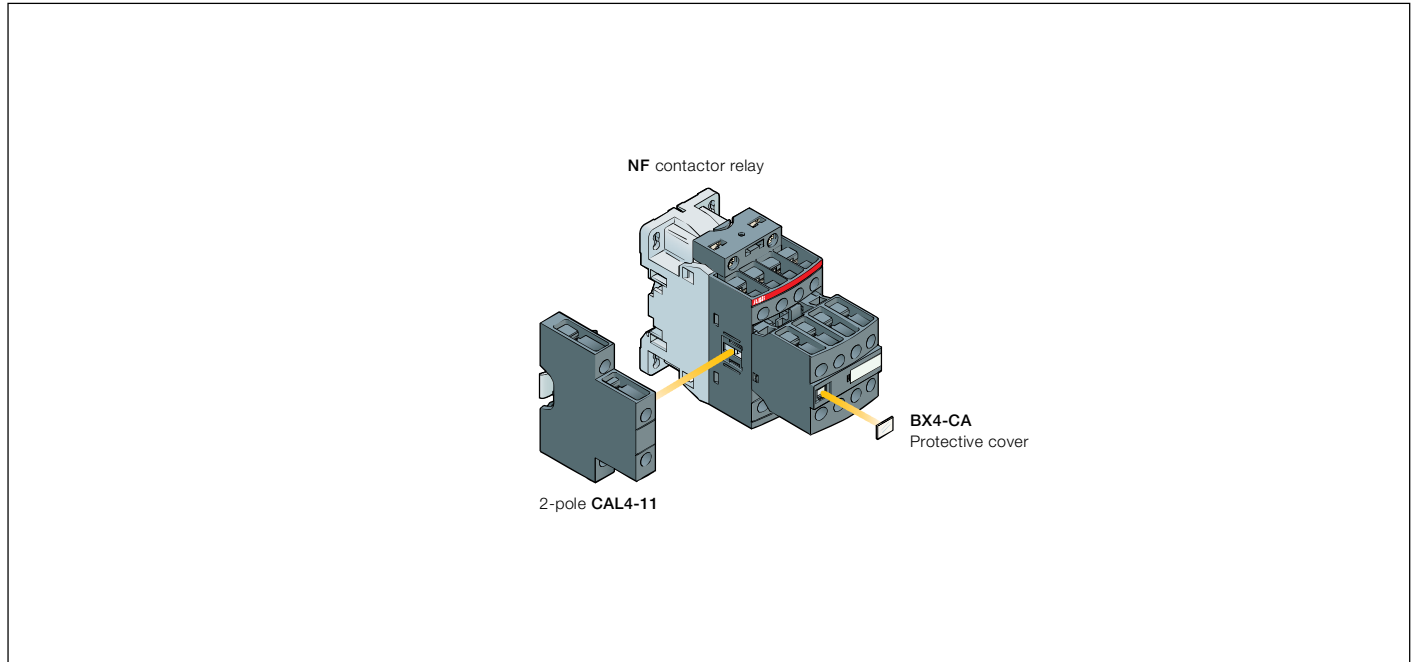
NFZ44E, NFZ53E, NFZ62E, NFZ71E, NFZ80E, NFZ33/11, NFZ51/11



# NF 8-pole contactor relays

## Main accessories

### Contactor relays and main accessories (other accessories available)



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### Main accessory fitting details

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

Contactor relay types	Main poles	Front-mounted accessories		Side-mounted accessories	
		Auxiliary contact blocks		Auxiliary contact blocks	
		1-pole CA4 1-pole CC4	4-pole CA4	Left side 2-pole CAL4-11	Right side
NF	4 4 E 5 3 E 6 2 E 7 1 E 8 0 E 3 3 / 1 1 5 1 / 1 1	-	-	+	1 -

# NF 8-pole contactor relays

## Main accessories



CAL4-11



LDC4



BX4-CA

### Ordering details (1)

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

### Side-mounted instantaneous auxiliary contact blocks

NF	1 1	- -	CAL4-11	1SBN010120R1011	1	0.040
	1 1	- -	CAL4-11-T	1SBN010120T1011	10	0.040

### Additional coil terminal block

NF	LDC4	1SBN070156T1000	10	0.010
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### Protective covers

NF	BX4-CA	1SBN110109W1000	50	0.001
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(1) For more information, refer to "Accessories" section.

# NF contactor relays

## Technical data

### Contact utilization characteristics according to IEC

Contactor relay types	AC / DC operated	NF
Standards		IEC 60947-1 / 60947-5-1 and EN 60947-1 / 60947-5-1
Rated operational voltage $U_e$ max.		690 V
Rated frequency (without derating)		50 / 60 Hz
Conventional free-air thermal current $I_{th}$ $\theta \leq 40^\circ\text{C}$		16 A
le / Rated operational current AC-15		
acc. to IEC 60947-5-1	24-127 V 50/60 Hz	6 A
	220-240 V 50/60 Hz	4 A
	400-440 V 50/60 Hz	3 A
	500 V 50/60 Hz	2 A
	690 V 50/60 Hz	2 A
Rated making capacity AC-15		10 x le AC-15 acc. to IEC 60947-5-1
Rated breaking capacity AC-15		10 x le AC-15 acc. to IEC 60947-5-1
le / Rated operational current DC-13		
acc. to IEC 60947-5-1	24 V DC	6 A / 144 W
	48 V DC	2.8 A / 134 W
	72 V DC	1 A / 72 W
	110 V DC	0.55 A / 60 W
	125 V DC	0.55 A / 69 W
	220 V DC	0.27 A / 60 W
	250 V DC	0.27 A / 68 W
	400 V DC	0.15 A / 60 W
	500 V DC	0.13 A / 65 W
	600 V DC	0.1 A / 60 W
Short-circuit protection device gG type fuse		10 A
Rated short-time withstand current $I_{cw}$	for 1.0 s	100 A
	for 0.1 s	140 A
Minimum switching capacity		12 V / 3 mA
with failure rate acc. to IEC 60947-5-4		$10^{-7}$
Non-overlapping time between N.O. and N.C. contacts		$\geq 2$ ms
Power dissipation per pole at 6 A		0.1 W
Max. electrical switching frequency	AC-15	1200 cycles/h
	DC-13	900 cycles/h
Mechanically linked contacts		Built-in N.O. or N.C. auxiliary contacts and additional N.O. or N.C. auxiliary contacts (CA4, CAL4 aux. contact blocks) are mechanically linked contacts.
acc. to annex L of IEC 60947-5-1		

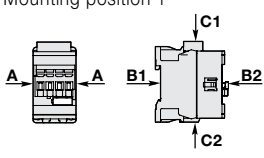
### Contact utilization characteristics according to UL / CSA

Contactor relay types	AC / DC operated	NF
Standards		UL 508, CSA C22.2 N°14
Max. operational voltage		600 V AC, 600 V DC
Pilot duty		A600, Q600
AC thermal rated current		10 A
AC maximum volt-ampere making		7200 VA
AC maximum volt-ampere breaking		720 VA
DC thermal rated current		2.5 A
DC maximum volt-ampere making-breaking		69 VA

# NF contactor relays

## Technical data

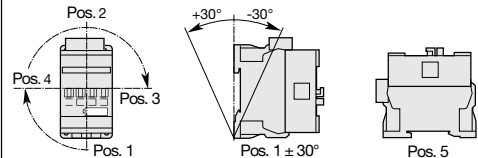
### General technical data

Contactor relay types	AC / DC operated	NF
<b>Rated insulation voltage <math>U_i</math></b>		
acc. to IEC 60947-5-1		690 V
acc. to UL / CSA		600 V
<b>Rated impulse withstand voltage <math>U_{imp}</math></b>		6 kV
<b>Electromagnetic compatibility</b>		Devices complying with IEC 60947-1 / EN 60947-1 - Environment A
<b>Ambient air temperature</b> close to contactor relay		
Operation in free air		-40...+70 °C
Storage		-60...+80 °C
<b>Climatic withstand</b>		Category B according to IEC 60947-1 Annex Q
<b>Maximum operating altitude (without derating)</b>		3000 m
<b>Mechanical durability</b>		
Number of operating cycles		20 millions operating cycles
Max. switching frequency		6000 cycles/h
<b>Shock withstand</b>		
acc. to IEC 60068-2-27 and EN 60068-2-27		
Mounting position 1		
	<b>Shock direction</b>	1/2 sinusoidal shock for 11 ms: no change in contact position, closed or open position
	<b>A</b>	30 g
	<b>B1</b>	25 g closed position / 5 g open position
	<b>B2</b>	15 g
	<b>C1</b>	25 g
	<b>C2</b>	25 g
<b>Vibration withstand</b>		
acc. to IEC 60068-2-6		5...300 Hz 4 g closed position / 2 g open position

### Magnet system characteristics

Contactor relay types	AC / DC operated	NF
<b>Coil operating limits</b>	<b>AC supply</b>	At $\theta \leq 60$ °C 0.85 x $U_c$ min...1.1 x $U_c$ max. At $\theta \leq 70$ °C 0.85 x $U_c$ min... $U_c$ max.
acc. to IEC 60947-5-1	<b>DC supply</b>	At $\theta \leq 60$ °C 0.85 x $U_c$ min...1.1 x $U_c$ max. At $\theta \leq 70$ °C (AF) 0.85 x $U_c$ min... $U_c$ max. - (NFZ) 0.85 x $U_c$ min...1.1 x $U_c$ max.
<b>AC control voltage 50/60 Hz</b>		
Rated control circuit voltage $U_c$		24...500 V AC
Coil consumption	<b>Average pull-in value</b>	(NF) 50 VA - (NFZ) 16 VA
	<b>Average holding value</b>	(NF) 2.2 VA / 2 W - (NFZ) 1.7 VA / 1.5 W
<b>DC control voltage</b>		
Rated control circuit voltage $U_c$		12...500 V DC
Coil consumption	<b>Average pull-in value</b>	(NF) 50 W - (NFZ) 12...16 W
	<b>Average holding value</b>	(NF) 2 W - (NFZ) 1.7 W
<b>PLC-output control</b>		(NFZ) $\geq 500$ mA 24 V DC
<b>Drop-out voltage</b>		$\leq 60$ % of $U_c$ min.
<b>Voltage sag immunity</b>		(NFZ) conditions of use on request
acc. to SEMI F47-0706		
<b>Dips withstand</b>		(NFZ) 22 ms average for $U_c \geq 24$ V 50/60 Hz or $U_c \geq 20$ V DC
-20 °C $\leq \theta \leq$ +60 °C		
<b>Operating time</b>		
Between coil energization and:	<b>N.O. contact closing</b>	40...95 ms
	<b>N.C. contact opening</b>	38...90 ms
Between coil de-energization and:	<b>N.O. contact opening</b>	11...95 ms
	<b>N.C. contact closing</b>	13...98 ms









### Mounting characteristics

Contactor relay types	AC / DC operated	NF
<b>Mounting positions</b>		
<b>Mounting distances</b>		Max. add-on N.C. auxiliary contacts: see accessory fitting details for a NF contactor relay
<b>Fixing</b>		The contactor relays can be assembled side by side.
On rail according to IEC 60715, EN 60715		35 x 7.5 mm or 35 x 15 mm
By screws (not supplied)		2 x M4 screws placed diagonally

# NF contactor relays

## Technical data

### Connecting characteristics

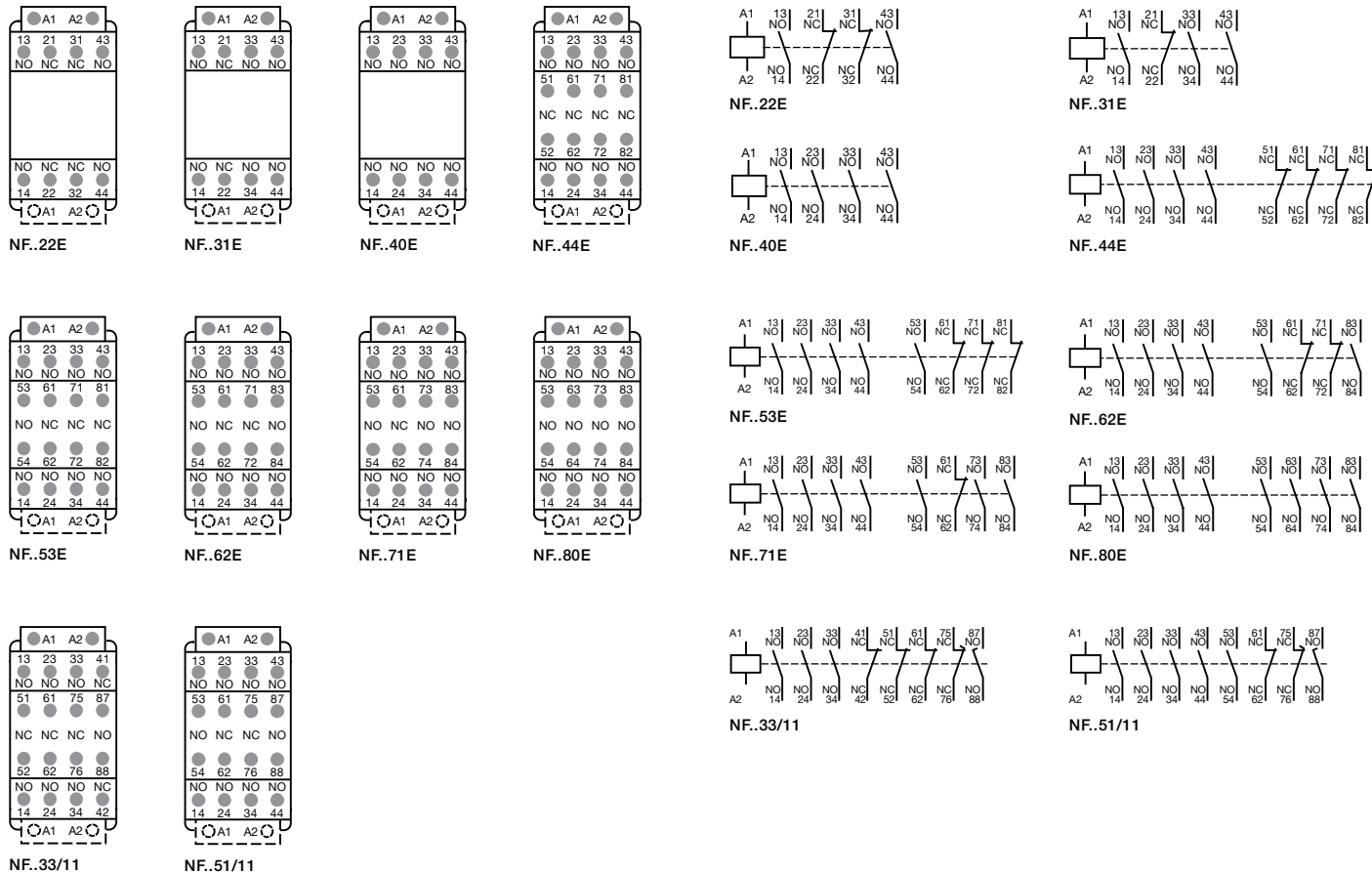
Contactor relay types	AC / DC operated	NF
Main terminals		 <p>Screw terminals with cable clamp</p>
Connection capacity (min. ... max.)		
<b>Pole and coil terminals</b>		
 Rigid	1 x	1...2.5 mm <sup>2</sup>
 Rigid	2 x	1...2.5 mm <sup>2</sup>
 Flexible with non insulated ferrule	1 x	0.75...2.5 mm <sup>2</sup>
 Flexible with non insulated ferrule	2 x	0.75...2.5 mm <sup>2</sup>
 Flexible with insulated ferrule	1 x	0.75...2.5 mm <sup>2</sup>
 Flexible with insulated ferrule	2 x	0.75...1.5 mm <sup>2</sup>
 Lugs	L <	8 mm
Connection capacity acc. to UL/CSA	1 or 2 x	AWG 18...14
Stripping length		10 mm
<b>Tightening torque</b>		
Pole terminals		1.2 Nm / 11 lb.in
Coil terminals		1.2 Nm / 11 lb.in
<b>Degree of protection</b>		
acc. to IEC 60947-1 / EN 60947-1 and IEC 60529 / EN 60529		
All terminals		IP20
<b>Screw terminals</b>		
All terminals		Delivered in open position, screws of unused terminals must be tightened
	<b>Screwdriver type</b>	M3.5 Flat Ø 5.5 / Pozidriv 2

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# NF contactor relays

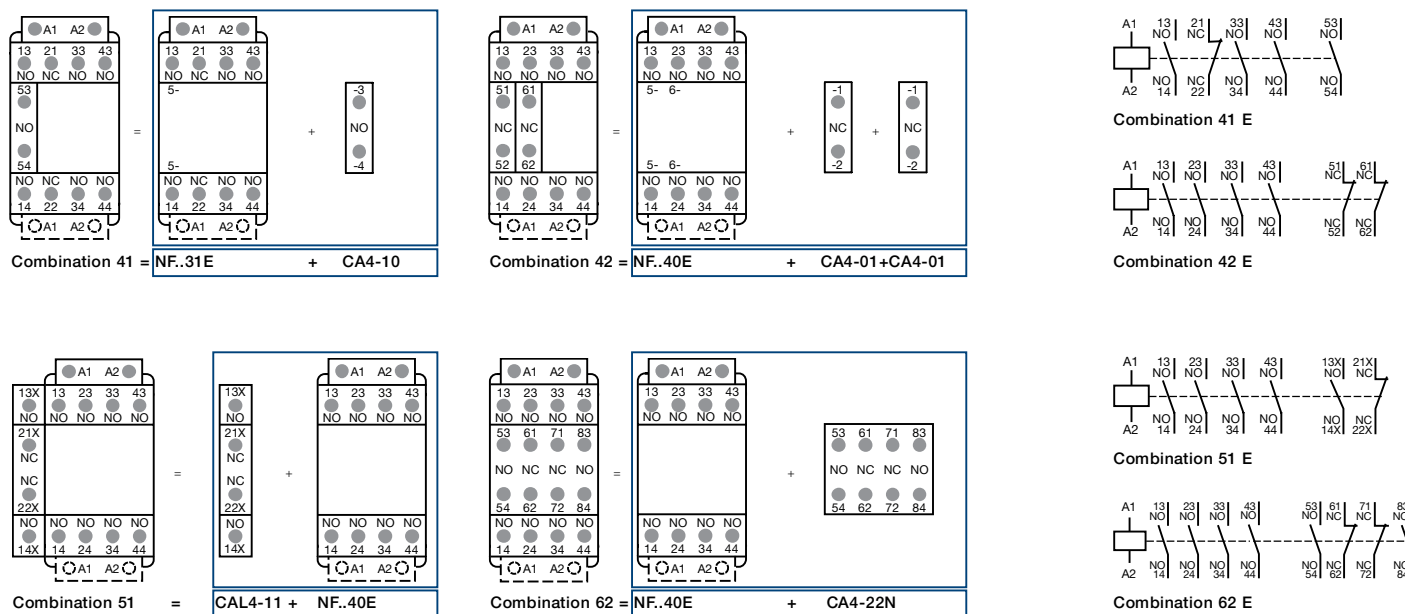
## Terminal marking and positioning

Standard devices without addition of auxiliary contacts



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Other possible contact combinations with auxiliary contacts added by the user



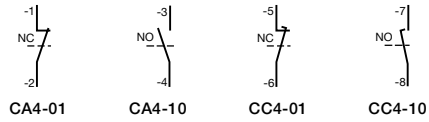
Note: Only NFZ contactor relays with DC control voltage 12...20 V DC need to respect the connection polarities indicated close to the coil terminals: A1+ for the positive pole and A2- for the negative pole

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# NF add-on auxiliary contacts

## Terminal marking and positioning

### 1-pole auxiliary contacts

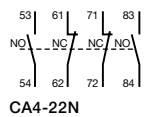
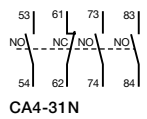
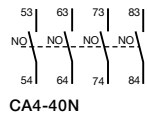
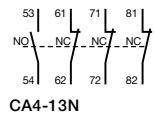


### 2-pole auxiliary contacts

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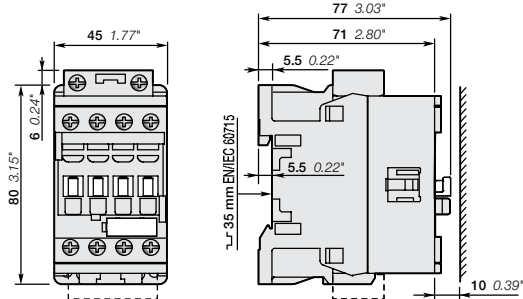


### 4-pole auxiliary contacts

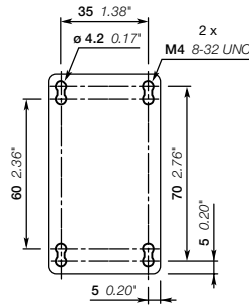


# NF contactor relays

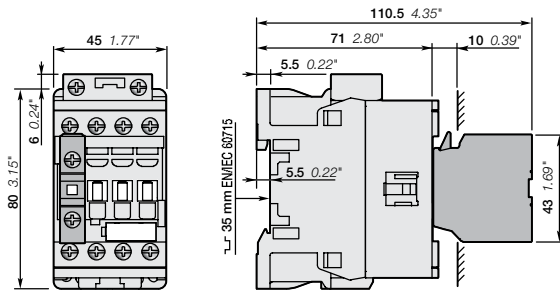
## Main dimensions mm, inches



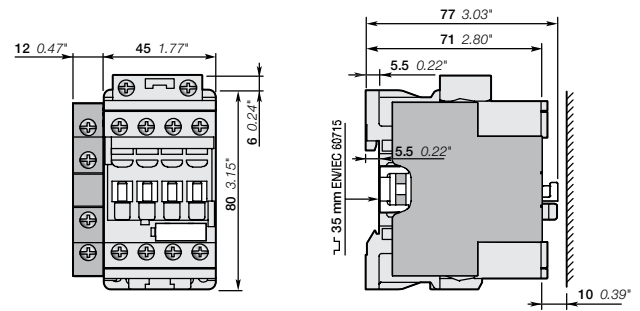
NF..22E, NF..31E, NF..40E



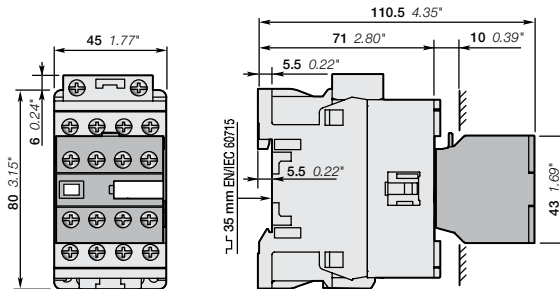
NF



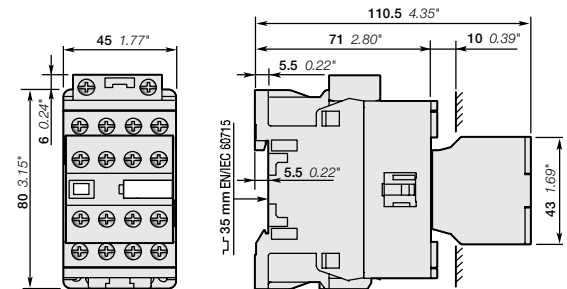
NF..22E, NF..31E, NF..40E  
+ CA4, CC4 1-pole auxiliary contact block



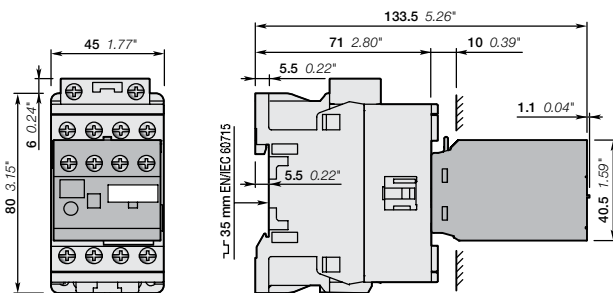
NF..22E, NF..31E, NF..40E  
+ CAL4-11 2-pole auxiliary contact block



NF..22E, NF..31E, NF..40E  
+ CA4 4-pole auxiliary contact block



NF..44E, NF..53E, NF..62E, NF..71E, NF..80E, NF..33/11, NF..51/11



NF..22E, NF..31E, NF..40E  
+ TEF4 electronic timer

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