

## NF / AF contactors

### Wide band AC / DC Operated - with Screw Terminals

#### Description

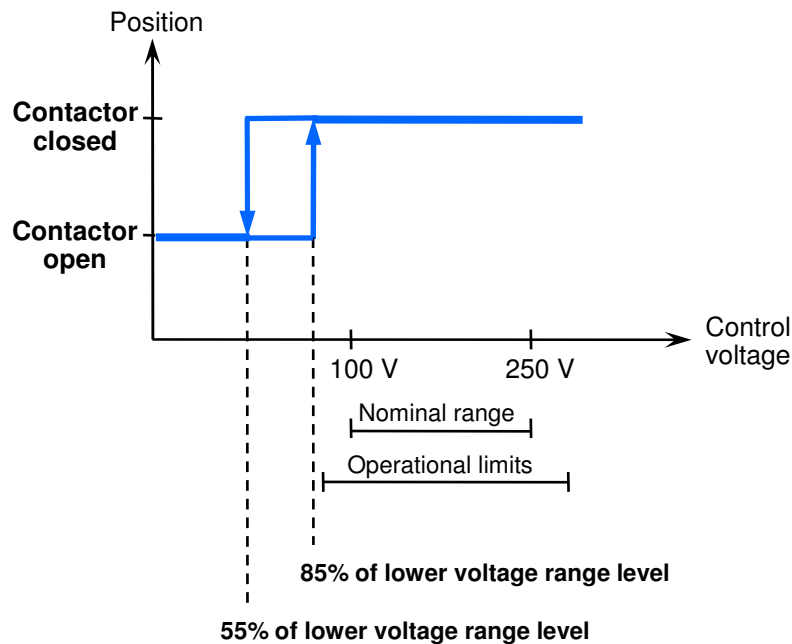
- **NF / AF contactor** include an electronic coil interface accepting a wide control voltage  $U_c \text{ min. } \dots U_c \text{ max.}$  only four coils cover control voltages between 24...500 V 50/60 Hz or 20...500 V DC
- **NF / AF contactor** can manage large control voltage variations. One coil (e.g. 100...250 V 50/60 Hz - DC) can be used for different control voltages used worldwide without any coil change.
- **NF...Z / AF...Z contactor** equipped with a Z coil type allow direct control by 24 V DC 500 mA PLC-output and obtain a reduced holding coil consumption.
- **NF / AF contactor** have built-in surge protection and do not require additional surge suppressors.

Control contactors : Wide band AC/DC operated with low power consumption & inbuilt surge suppressor for order code refer page no. 54



#### Innovative solution from ABB

- Electronically controlled coil
- Distinct drop out- and pick up value
- 20ms sags and dip immunity
- Fulfills SEMI - F47- 0200 surge suppressors.
  - Specification for processing equipment regarding voltage drop immunity.



# 3 pole contactors AF range : Wide band AC / DC operated

AF contactors are built in with

- Universal coil operable on wide band AC / DC voltages ranging from 70% U<sub>c</sub> min - 110% U<sub>c</sub> max
- Surge Suppressors
- Low power consumption coil

NEW



AC1 duty Amps	AC3 rating at 415V			Auxiliary Contacts		Type Code	Order code
	Amps	hP	kW				
25	9	5.5	4	1NO	-	AF09-30-10-□□	1SBL137001R□□10
				-	1NC	AF09-30-01-□□	1SBL137001R□□01
28	12	7.5	5.5	1NO	-	AF12-30-10-□□	1SBL157001R□□10
				-	1NC	AF12-30-01-□□	1SBL157001R□□01
30	18	12.5	7.5	1NO	-	AF16-30-10-□□	1SBL177001R□□10
				-	1NC	AF16-30-01-□□	1SBL177001R□□01
45	26	15	11	-	-	AF26-30-00-□□	1SBL237001R□□00
50	32	20	18	-	-	AF30-30-00-□□	1SBL277001R□□00
50	38	25	18.5	-	-	AF38-30-00-□□	1SBL297001R□□00
70	40	30	18.5	-	-	AF40-30-00-□□	1SBL347001R□□00
100	53	40	22	-	-	AF52-30-00-□□	1SBL367001R□□00
105	65	50	30	-	-	AF65-30-00-□□	1SBL387001R□□00
125	80	60	37	-	-	AF80-30-00-□□	1SBL397001R□□00
130	96	70	45	-	-	AF96-30-00-□□	1SBL407001R□□00
160	116	75	55	1NO	1NC	AF116-30-11-□□	1SFL427001R□□11
200	140	100	75	1NO	1NC	AF140-30-11-□□	1SFL447001R□□11
225	146	100	75	1NO	1NC	AF146-30-11-□□	1SFL467001R□□11
275	490	120	90	1NO	1NC	AF190-30-11-□□	1SFL487002R□□11
350	205	150	110	1NO	1NC	AF205-30-11-□□	1SFL527002R□□11
400	265	175	140	1NO	1NC	AF265-30-11-□□	1SFL547002R□□11
500	305	215	160	1NO	1NC	AF305-30-11-□□	1SFL587002R□□11
600	370	270	200	1NO	1NC	AF370-30-11-□□	1SFL607002R□□11
For AF400...AF750 refer Table B for coil codes							
600	400	300	220	1NO	1NC	AF400-30-11**	1SFL577001R□□11
700	460	340	250	1NO	1NC	AF460-30-11**	1SFL597001R□□11
800	580	470	355	1NO	1NC	AF580-30-11**	1SFL617001R□□11
1050	750	570	425	1NO	1NC	AF750-30-11**	1SFL637001R□□11

## Coil voltages and codes: New AF09...AF370 range (AC/DC operated)

Voltage V 50/60 Hz	Voltage V DC	Code □□
24...60	20...60	1 1
48...130	48...130	1 2
100...250	100...250	1 3
250...500	250...500	1 4

## AF400 and above range (AC/DC operated)

Voltage V 50/60 Hz	Voltage V DC	Code □□
-	24...60	6 8
48...130	48...130	6 9
100...250	100...250	7 0
250...500	250...500	7 1

## Old AF range contactor

AC1 duty Amps	AC3 rating at 415V			Auxiliary Contacts		Type Code	Order code
	Amps	hP	kW				
100	50	34	25	-	-	AF50-30-00 **	1SBL357001R□□00
115	65	50	37	-	-	AF63-30-00 **	1SBL377001R□□00
125	75	54	40	-	-	AF75-30-00 **	1SBL417001R□□00
145	96	60	55	1NO	1NC	AF95-30-11**	1SFL437001R□□11
160	110	75	59	1NO	1NC	AF110-30-11**	1SFL457001R□□11
250	145	80	75	1NO	1NC	AF145-30-11**	1SFL477001R□□11
275	185	100	90	1NO	1NC	AF185-30-11**	1SFL497001R□□11

## Coil voltages and codes: Old AF range (AC/DC operated)

Voltage V 50/60 Hz	Voltage V DC	Code □□
-	24...60	6 8
48...130	48...130	6 9
100...250	100...250	7 0

# 4 pole contactors : Wide band AC / DC operated

## New AF Contactors: 4 pole – AC / DC Operated NEW

Rating at 415V AC1 Amps	Main Contact Arrangement		Auxiliary Contacts		Type Code Reference	Order code
25	4NO	-	-	-	AF09-40-00-□□	1SBL137201R□□00
	2NO	2NC	-	-	AF09-22-00-□□	1SBL137501R□□00
30	4NO	-	-	-	AF16-40-00-□□	1SBL177201R□□00
	2NO	2NC	-	-	AF16-22-00-□□	1SBL177501R□□00
45	4NO	-	-	-	AF26-40-00-□□	1SBL237201R□□00
	2NO	2NC	-	-	AF26-22-00-□□	1SBL237501R□□00
55	4NO	-	-	-	AF38-40-00-□□	1SBL297201R□□00
	2NO	2NC	-	-	AF38-22-00-□□	1SBL297501R□□00
70	4NO	-	-	-	AF40-40-00-□□	1SBL347201R□□00
	2NO	2NC	-	-	AF40-22-00-□□	1SBL347501R□□00
100	4NO	-	-	-	AF52-40-00-□□	1SBL367201R□□00
125	4NO	-	-	-	AF80-40-00-□□	1SBL397201R□□00
	2NO	2NC	-	-	AF80-22-00-□□	1SBL397501R□□00
160	4NO	-	-	-	AF116-40-00-□□	1SFL427102R□□00
200	4NO	-	-	-	AF140-40-00-□□	1SFL447102R□□00
275	4NO	-	-	-	AF190-40-00-□□	1SFL487102R□□00
350	4NO	-	-	-	AF205-40-00-□□	1SFL527102R□□00
400	4NO	-	-	-	AF265-40-00-□□	1SFL547102R□□00
500	4NO	-	-	-	AF305-40-00-□□	1SFL587102R□□00
600	4NO	-	-	-	AF370-40-00-□□	1SFL607102R□□00

## Coil voltages and codes: New AF range (AC/DC operated)

Voltage V 50/60 Hz	Voltage V DC	Code □□
24...60	20...60	1 1
48...130	48...130	1 2
100...250	100...250	1 3
250...500	250...500	1 4

## Old AF Contactors: 4 pole – AC / DC Operated

Rating at 415V AC1 Amps	Main Contact Arrangement		Auxiliary Contacts		Type Code Reference	Order code
70	4NO	-	-	-	AF45-40-00	1SBL337201R□□00
	2NO	2NC	-	-	AF45-22-00	1SBL337501R□□00
125	4NO	-	-	-	AF75-40-00	1SBL417201R□□00
	2NO	2NC	-	-	AF75-22-00	1SBL427501R□□00

## Coil voltages and codes: AF45... AF75

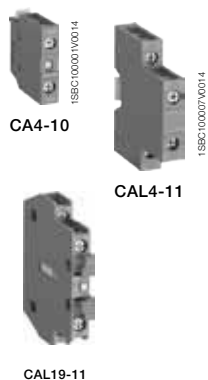
Voltage V - 50/60Hz	Voltage V d.c.	Code □□
-	20 ... 60	72 <sup>(1)</sup>
48 ... 130	48 ... 130	69
100 ... 250	100 ... 250	70

(1) The connection polarities indicated close to the coil terminals must be respected: A1 for the positive pole and A2 for the negative pole.

Note: For Non standard coil voltage, other than this please contact us for pricing



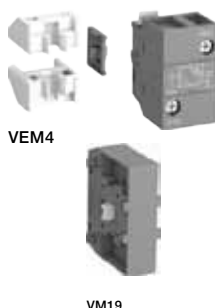
## Auxiliary contact block



Description	Mounting on Contactors	Contact Configuration		Type Code Reference	Order Code
		NO	NC		
Front mounted 1 pole add-on blocks	AF09...AF38 / NF	1NO	-	CA4-10	1SBN010110R1010
		-	1NC	CA4-01	1SBN010110R1001
4NO		-	CA4-40E	1SBN010140R1040	
3NO		1NC	CA4-31E	1SBN 010140R1031	
2NO		2NC	CA4-22E	1SBN 010140R1022	
-		4NC	CA4-04E	1SBN 010140R1004	
Side mounted 2 pole add-on blocks	AF96...AF370	1NO	1NC	CAL19-11	1SFN010820R1011
	AF09...AF38 / NF	1NO	1NC	CAL19-11B	1SFN010820R3311
		1NO	1NC	CAL4-11	1SBN010120R1011

\* Please refer technical catalogue for proper selection.

## Mechanical interlocks



For contactor types	Description	Type Code reference	Order Code
AF09...AF38	Horizontal Mechanical Interlock	VM 4	1SBN030105T1000
AF09...AF38	Horizontal Mechanical & Electrical Interlock	VEM 4	1SBN030111R1000
AF40...AF96	Horizontal Mechanical Interlock	VM96-4	1SBN033405T1000
AF116...AF146 and AF190. AF205	Horizontal Mechanical Interlock	VM140/190	1SFN034403R1000
AF190, AF205 and AF265 ... AF370		VM205/265	1SFN035203R1000
AF116...AF370	Horizontal Mechanical Interlock	VM19	1SFN030300R1000

Note: Please refer technical catalogue for proper selection.

## Electronic timers

For contactor types	Time delay range selected by switch	Delay type	Auxiliary contacts	Type	Order Code
AF09 ... AF96	0.1...1 s 1...10 s 10...100 s	ON-delay	1NO + 1NC	TEF4-ON	1SBN020112R1000
		OFF-delay	1NO + 1NC	TEF4-OFF	1SBN020114R1000

Note: Rated control circuit voltage U<sub>c</sub> 24...240 V 50/60 Hz or DC.

## Connecting links with manual motor starters

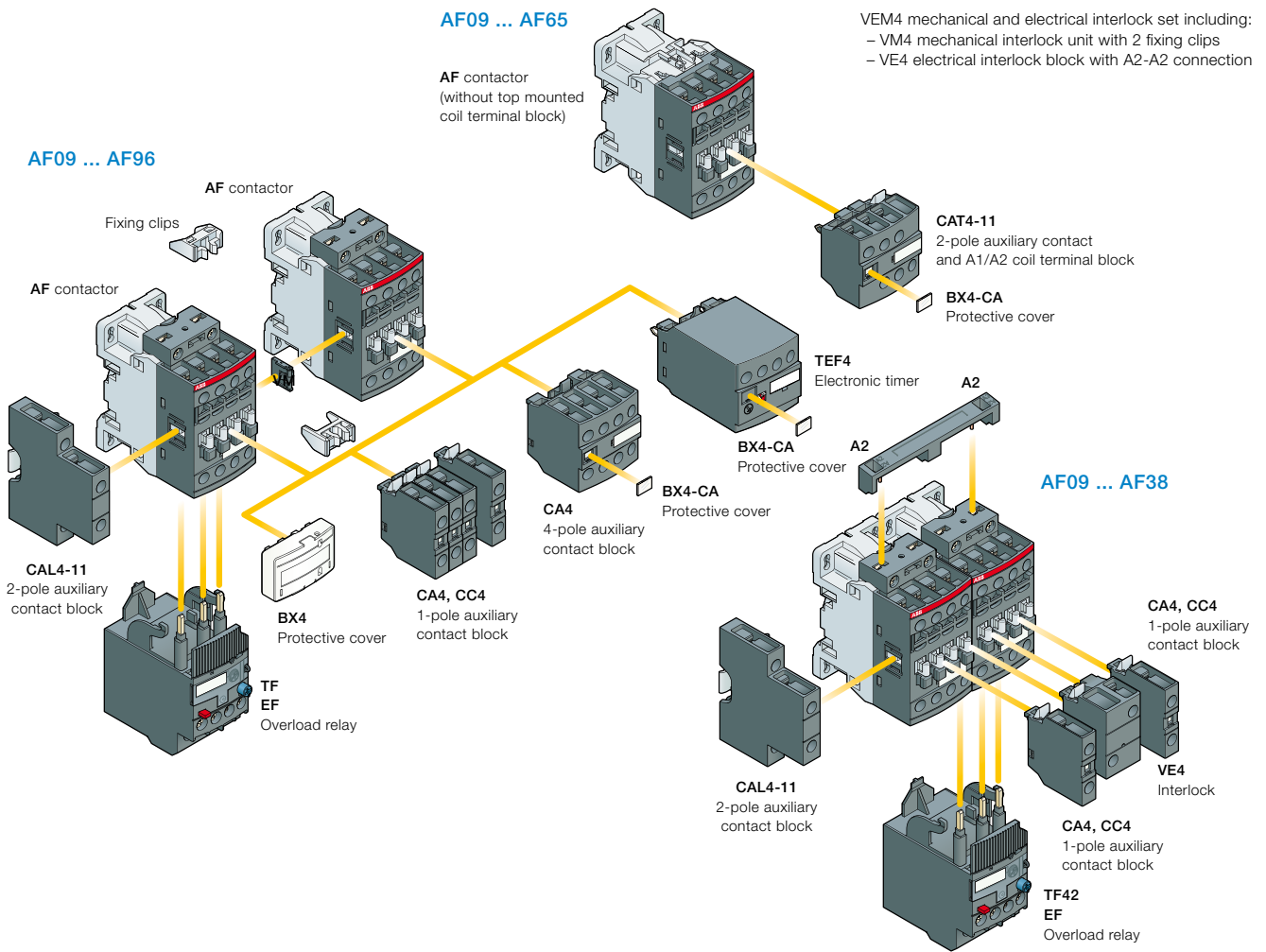
For contactor types	Used with	Type	Order Code
AF09 ... AF16	MS116-0.16 ... MS116-25, MS132-0.16 ... MS132-25	BEA16-4	1SBN081306T1000
AF26 ... AF30	MS116-0.16 ... MS116-16, MS132-0.16 ... MS132-10	BEA26-4	1SBN082306T1000
	MS116-20 ... MS116-32, MS132-12 ... MS132-32	BEA38-4	1SBN082306T2000

## Connection sets for reversing contactors

For contactor types	Type	Order Code
AF09 ... AF16	BER16-4	1SBN081311R1000
AF26 ... AF30	BER38-4	1SBN082311R1000
AF40 ... AF65	BER65-4	1SBN083411R1000
AF80 ... AF96	BER96-4	1SBN083911R1000

## Connection sets for star-delta starting

For contactor types	Type	Order Code
AF09 ... AF16	BEY16-4	1SBN81313R2000
AF26 ... AF30	BEY38-4	1SBN82713R2000
AF40 ... AF65	BEY65-4	1SBN83413R2000
AF80 ... AF96	BEY96-4	1SBN83913R2000



## AF the premium range



### The AF contactor is compact

The AF contactor is compact in size and has had its width reduced by up to 30% thanks to an 80% reduction of the coil's energy consumption.

### The AF contactor is flexible

AF09...AF370 is perfect for motor starting applications and for solutions where space is limited. Interlocked reversing pairs require no spacing between contactors meaning you can fit more functionality into cabinets or other small enclosures.