

General information

AF Series contactors

AF09 - AF110

Application

AF series contactors (9...110) are primarily used for controlling single and three phase motors and switching power circuits up to 600V AC, 240V DC

Description

AF series contactors are provided in either three or four power pole configurations with a variety of accessories including auxiliary contacts, close coupling adaptors, interlocks, and busbars.

Control circuit types

AF series contactor coils are designed to utilize both AC (50/60 Hz) and DC control circuit inputs ranging from 12...500V. Surge suppression is included.

Contactors types

3 NO pole:	AF09...AF110
4 NO pole:	AF09...AF75
2 NO / 2 NC pole:	AF09...AF75

Mounting hole pattern identical from AF09...AF38. Only three different patterns for contactors AF09...AF110

Quick DIN-rail mount & dismount (no tools required AF09...AF38)

- 35 x 7.5mm for AF09...AF38
- 35 x 15mm for AF09...AF75
- 75mm for AF45...AF110

Integral surge suppression AF09...AF110

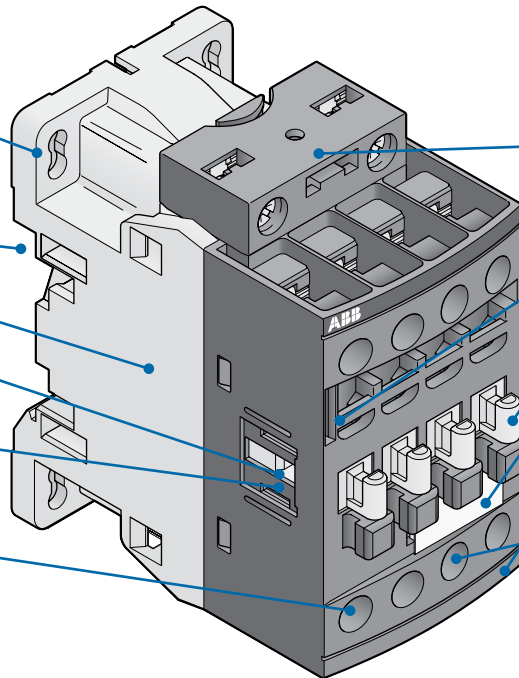
Actuator for side-mount accessories

Mechanical interlocks with no additional width for AF09...AF38

Contoured sides for easy access to panel mounting holes

Terminals on AF09...AF110 contactors are delivered in open position with captive screws (screws of unused terminals must be tightened)

IP20 degree protection according to IEC/EN 60947-1; protection from live parts according to VDE0106 Part. 100.



Detachable coil terminals (AF09...AF38)

- Can be pre-wired prior to installation
- Can easily be rotated from top (standard) to bottom

Front-mount coil termination available

Stops for attaching front-mount accessories

Function markers included as standard on AF09...AF38; available as accessory AF50...AF110

Clear indication of coil voltages and frequencies

Terminal screws:

- Posidrive (+,-) No 2 AF09...AF75
- M8 hex threaded socket screw for AF95...AF110

Catalog number explanation

For reference only – not all combinations will produce valid catalog numbers

AF09 - 30 - 10 - 13

Contactors series & frame size

Power pole configuration

- 30 = 3 NO
- 40 = 4 NO
- 22 = 2 NO / 2 NC

Coil voltage code

(see product selection pages)

Auxiliary pole configuration

- 00 - No auxiliary provided
- 10 = 1 NO
- 01 = 1 NC
- 11 = 1 NO / 1 NC
- 22 = 2 NO / 2 NC

General information

AF Series contactors

AF145 - AF2650

Application

AF series contactors (145...2650) are primarily used for controlling single and three phase motors and switching power circuits up to 1000V AC, 600V DC.

Description

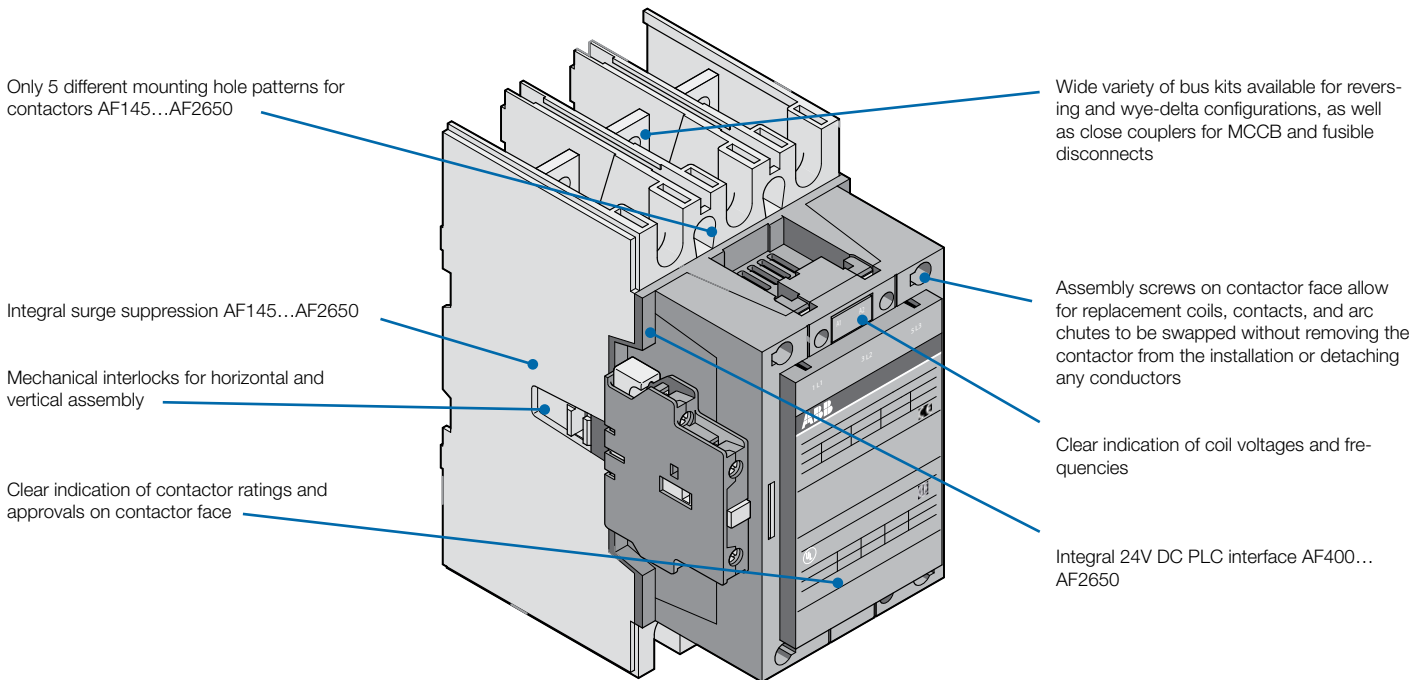
AF series contactors are provided in a three power pole configuration with a variety of accessories including auxiliary contacts, close coupling adaptors, interlocks, and busbars.

Control circuit types

AF series contactor coils are designed to utilize both AC (50/60 Hz) and DC control circuit inputs ranging from 24...500V. Surge suppression is included.

Contactors types

3 NO pole: AF145...AF2650



Catalog number explanation

For reference only – not all combinations will produce valid catalog numbers

AF2650 - 30 - 11 - 70

Contactor series & frame size

Power pole configuration

- 30 = 3 NO

Coil voltage code

(see product selection pages)

Auxiliary pole configuration

- 00 = No auxiliary provided
- 11 = 1 NO / 1 NC
- 22 = 2 NO / 2 NC

AF non-reversing, 3-pole

For applications up to 1150 hp, 900 kW
Electronic AC/DC operated coils



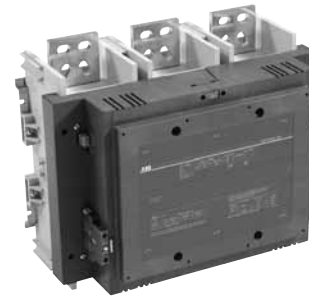
AF09...AF16



AF95...AF110



AF210...AF300



AF1350...AF2650

Electrical ratings ①

IEC/EN 60947-4-1					UL 508, 60947-4-1A CSA C22.2 No.14, 60947-4-1-07		UL SP C US		Non-reversing		Standard auxiliary contacts ③		Catalog number
Rated operational current I _e , AC-1, AC-3 (A)		Rated operational power P _e , AC-3, 55°C (kW) ②			AC general purpose ratings (A)	Maximum motor switching current (A)	AC motor ratings, breaking all lines, three phase, 50/60 Hz (hp)				NO	NC	
AC-1 40°C	AC-3 55°C ②	220... 240V	380... 400V	690V	600V		200... 208V	220... 240V	440... 480V	550... 600V			
25	9	2.2	4	5.5	25	9	2	2	5	7.5	1	-	AF09-30-10-Δ
											-	1	AF09-30-01-Δ
28	12	3	5.5	7.5	28	11	3	3	7.5	10	1	-	AF12-30-10-Δ
											-	1	AF12-30-01-Δ
30	18	4	7.5	9	30	17	5	5	10	15	1	-	AF16-30-10-Δ
											-	1	AF16-30-01-Δ
45	26	6.5	11	15	45	24.2	7.5	7.5	15	20	-	-	AF26-30-00-Δ
50	32	9	15	18.5	50	30.8	10	10	20	25	-	-	AF30-30-00-Δ
50	38	11	18.5	22	50	-	-	-	-	-	-	-	AF38-30-00-Δ
100	50	15	22	30	80	54	15	20	40	50	1	1	AF50-30-11-Δ
115	65	18.5	30	37	90	68	20	25	50	60	1	1	AF63-30-11-Δ
125	75	22	37	40	105	80	25	30	60	75	1	1	AF75-30-11-Δ
145	96	25	45	55	150	88	30	30	60	75	1	1	AF95-30-11-Δ
160	110	30	55	75	150	104	30	40	75	100	1	1	AF110-30-11-Δ
250	145	45	75	110	230	130	40	50	100	125	1	1	AF145-30-11-Δ
275	185	55	90	132	250	156	50	60	125	150	1	1	AF185-30-11-Δ
350	210	59	110	160	300	192	60	75	150	200	1	1	AF210-30-11-Δ
400	260	80	140	200	350	248	75	100	200	250	1	1	AF260-30-11-Δ
500	305	90	160	250	400	302	100	100	250	300	1	1	AF300-30-11-Δ
600	400	110	200	315	550	414	125	150	350	400	1	1	AF400-30-11-Δ
700	460	132	250	355	650	480	150	200	400	500	1	1	AF460-30-11-Δ
800	580	160	315	500	750	604	250	250	500	600	1	1	AF580-30-11-Δ
1050	750	220	400	600	900	722	250	300	600	700	1	1	AF750-30-11-Δ
1260	-	-	-	-	1210	-	-	-	-	-	1	1	AF1250-30-11-Δ
1350	860	257	475	750	1350	954	-	400	800	1000	1	1	AF1350-30-11-Δ
1650	1050	315	560	900	1650	1050	-	450	900	1150	1	1	AF1650-30-11-Δ
2050	-	-	-	-	2100	-	-	-	-	-	1	1	AF2050-30-11-Δ
2650	-	-	-	-	2700	-	-	-	-	-	1	1	AF2650-30-11-Δ

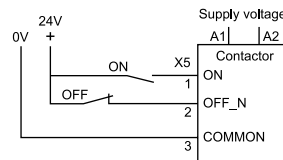
Coil voltage selection chart (Δ)

Rated control circuit voltage U _c ④	AF09... AF38	AF50... AF300	AF400... AF750	AF1250	AF1350... AF2650
20...60V DC	11	72	-	-	-
24...60V AC	11	-	-	-	-
24...60V DC	-	-	68	68	-
48...130V AC/DC	12	69	69	69	-
100...250V AC/DC	13	70	70	70	70
250...500V AC/DC	14	-	71	-	-

Example(s):
24V DC input voltage: AF16-30-10-11
120V AC input voltage: AF300-30-11-Z0

Control inputs

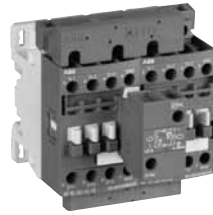
AF400...AF2650 are equipped with integral low voltage inputs, allowing for direct PLC control:



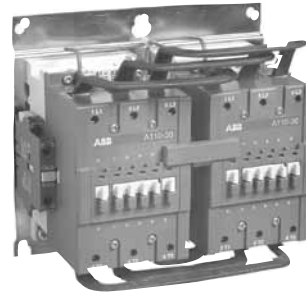
① For selection purposes; for complete electrical ratings, see Technical Data.
② AF09... AF38 at 60°C.
③ Auxiliary contacts integral for AF09...AF16; all others side-mount.
④ AC coil input voltage(s) at 50/60 Hz unless specified.

AF mechanically interlocked, reversing, 3-pole
 For applications up to 700 hp, 600 kW
 Electronic AC/DC operated coils

Across the line
 Contactors 1



AF09R...AF16R



AF95R...AF110R

Electrical ratings ①②

UL 508, 60947-4-1A
 CSA C22.2 No.14, 60947-4-1-07



AC general purpose ratings (A)	Maximum motor switching current (A)	AC motor ratings, breaking all lines, three phase, 50/60 Hz (hp)				Mechanically interlocked		Catalog number ③	Reversing		Catalog number ③
		200... 208V	220... 240V	440... 480V	550... 600V	NO	NC		NO	NC	
25	9	2	2	5	7.5	2	2	AF09M-30-22-Δ	2	2	AF09R-30-22-Δ
-	-	-	-	-	-	-	-	-	-	-	-
28	11	3	3	7.5	10	2	2	AF12M-30-22-Δ	2	2	AF12R-30-22-Δ
-	-	-	-	-	-	-	-	-	-	-	-
30	17	5	5	10	15	2	2	AF16M-30-22-Δ	2	2	AF16R-30-22-Δ
-	-	-	-	-	-	-	-	-	-	-	-
45	24.2	7.5	7.5	15	20	-	2	AF26M-30-02-Δ	-	2	AF26R-30-02-Δ
50	30.8	10	10	20	25	-	2	AF30M-30-02-Δ	-	2	AF30R-30-02-Δ
-	-	-	-	-	-	-	-	-	-	-	-
80	54	15	20	40	50	2	2	AF50M-30-11-Δ	2	2	AF50R-30-11-Δ
90	68	20	25	50	60	2	2	AF63M-30-11-Δ	2	2	AF63R-30-11-Δ
105	80	25	30	60	75	2	2	AF75M-30-11-Δ	2	2	AF75R-30-11-Δ
150	88	30	30	60	75	2	2	AF95M-30-11-Δ	2	2	AF95R-30-11-Δ
150	104	30	40	75	100	2	2	AF110M-30-11-Δ	2	2	AF110R-30-11-Δ
230	130	40	50	100	125	2	2	AF145M-30-11-Δ	2	2	AF145R-30-11-Δ
250	156	50	60	125	150	2	2	AF185M-30-11-Δ	2	2	AF185R-30-11-Δ
300	192	60	75	150	200	2	2	AF210M-30-11-Δ	2	2	AF210R-30-11-Δ
350	248	75	100	200	250	2	2	AF260M-30-11-Δ	2	2	AF260R-30-11-Δ
400	302	100	100	250	300	2	2	AF300M-30-11-Δ	2	2	AF300R-30-11-Δ
550	414	125	150	350	400	2	2	AF400M-30-11-Δ	2	2	AF400R-30-11-Δ
650	480	150	200	400	500	2	2	AF460M-30-11-Δ	2	2	AF460R-30-11-Δ
750	604	250	250	500	600	2	2	AF580M-30-11-Δ	2	2	AF580R-30-11-Δ
900	722	250	300	600	700	2	2	AF750M-30-11-Δ	2	2	AF750R-30-11-Δ
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

Coil voltage selection chart (Δ)

Rated control circuit voltage U _c ④	AF09...AF30	AF50...AF300	AF400...AF750
20...60V DC	11	72	-
24...60V AC	11	-	-
24...60V DC	-	-	68
48...130V AC/DC	12	69	69
100...250V AC/DC	13	70	70
250...500V AC/DC	14	-	71

Example(s):
 24V DC input voltage: AF16M-30-22-11
 120V AC input voltage: AF300R-30-11-70

Reversing vs. mechanically interlocked

Full voltage reversing contactors are pre-assembled using two (2) contactors, a mechanical interlock, an electrical interlock, and reversing busbars. Mechanically interlocked contactors are offered less the reversing bus.

① For selection purposes; for complete electrical ratings, see Technical Data.
 ② For ratings according to IEC/EN 60947-4-1, refer to AF non-reversing selection table or Technical Data.
 ③ AF09R(M)...AF30R(M) assembled using connection clips, AF50R(M)...AF750R(M) mounted on common baseplate.
 ④ AC coil input voltage(s) at 50/60 Hz unless specified.