

CERTIFICATE OF COMPLIANCE

Certificate Number 20140305-E312527
Report Reference E312527-20091123
Issue Date 2014-March-05

Issued to: ABB FRANCE
ACTIVITE PROTECTION ET CONTROL, 3 RUE JEAN PERRIN
CS90009, 69687 CHASSIEU CEDEX FRANCE

**This is to certify that
representative samples of**

MOTOR CONTROLLERS, MAGNETIC
See Addendum Pages

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.


Standard(s) for Safety:

UL609471-4-1A, CSA C22.2 No. 60947-4-1-07, Low-
voltage Switchgear and Controlgear – Part 4-1: Contactors
and motor-starters – Electromechanical contactors and
motor-starters,


Additional Information:

See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Listing Mark for the US and Canada should be considered as
being covered by UL's Listing and Follow-Up Service meeting the appropriate requirements for US
and Canada.

The UL Listing Mark for the US and Canada generally includes: the UL in a circle symbol with "C" and
"US" identifiers:  the word "LISTED"; a control number (may be alphanumeric) assigned by UL;
and the product category name (product identifier) as indicated in the appropriate UL Directory.

Look for the UL Listing Mark on the product.



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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Models:


USL, CNL, Magnetic motor controllers. Across-the-line reversing and non-reversing contactors for use in industrial applications, open type -

Cat. Nos. AF09, AF12, AF16, may be followed by z, may be followed by B, followed by -30, may be followed by -01, -10, or -22, followed by 2 digits.

Cat. Nos. AF09, AF12, AF16, may be followed by z, may be followed by B, followed by -30, may be followed by -01, -10, or -22, followed by S, followed by 2 digits.

Cat. Nos. AF26, AF30, AF38, may be followed by z, may be followed by B, followed by -30, may be followed by -00, -11, or -22, followed by 2 digits.

Cat. Nos. AF09R, AF12R, AF16R, AF26R, AF30R, AF38R.
Cat. Nos. AF09M, AF12M, AF16M, AF26M, AF30M, AF38M.
Cat. Nos. AF09N00, AF12N0, AF26N1.



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Environment: Pollution Degree 3

ELECTRICAL RATINGS:

Control Voltages:

- 12-20 V dc
- 20-60 V dc / 24-60 V ac
- 48-130 V ac/dc
- 100-250 V ac/dc
- 250-500 V ac/dc

Frequency: 50/60Hz

Screw terminals

3-phase motor rating Breaking-All-Lines			AF09	AF12	AF16	AF26	AF30	AF38
200/208V	Amp-rating	Ie(A)	7,8	11	17,5	25,3	32,2	32,2
	Motor power	(hp)	2	3	5	7,5	10	10
220/240V	Amp-rating	Ie(A)	6,8	9,6	15,2	22	28	28
	Motor power	(hp)	2	3	5	7,5	10	10
440/480V	Amp-rating	Ie(A)	7,6	11	14	21	27	27
	Motor power	(hp)	5	7,5	10	15	20	20
550/600V	Amp-rating	Ie(A)	9	11	17	22	27	27
	Motor power	(hp)	7,5	10	15	20	25	25

1-phase motor rating			AF09	AF12	AF16	AF26	AF30	AF38
120V	Amp-rating	Ie(A)	13,8	16	20	24	24	24
	Motor power	(hp)	3/4	1	1,5	2	2	2
240V	Amp-rating	Ie(A)	10	12	17	17	28	28
	Motor power	(hp)	1.5	2	3	3	5	5



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Elevator Ratings			AF09	AF12	AF16	AF26	AF30	AF38
24 Vdc, 500,000 cycles, NO only (Elevator control)	Amp-rating	Amps (A)	-	-	-	45	50	50
110/120V Vac, 1 phase, 500,000 cycles, NO only (Elevator control)	Amp-rating	Amps (A)	5.8	7.2	-	20	24	24
	Motor Power	HP	1/4	1/3	-	1.5	2	2
220/240V Vac, 1 phase, 500,000 cycles, NO only (Elevator control)	Amp-rating	Amps (A)	4.9	6.9	-	17	17	28
	Motor Power	HP	1/2	3/4	-	3	3	5
200/208V Vac, 3 phases, 500,000 cycles, NO only (Elevator control)	Amp-rating	Amps (A)	4.8	7.8	-	17.5	25.3	25.3
	Motor Power	HP	1	2	-	5	7.5	7.5
220/240V Vac, 3 phases, 500,000 cycles, NO only (Elevator control)	Amp-rating	Amps (A)	4.2	6.8	-	15.2	22	28
	Motor Power	HP	1	2	-	5	7.5	10

440/480V Vac, 3 phases, 500,000 cycles, NO only (Elevator control)	Amp-rating	Amps (A)	4.8	7.6	-	21	27	27
	Motor Power	HP	3	5	-	15	20	20
550/600V Vac, 3 phases, 500,000 cycles, NO only (Elevator control)	Amp-rating	Amps (A)	3.9	6.1	-	17	22	22
	Motor Power	HP	3	5	-	15	20	20

General Use rating 3-phase (see exception below)		AF09	AF12	AF16	AF26	AF30	AF38
600 V ac 240 V dc (3 poles in series)	Amps (A)	25	28	30	45	50	50

Additional ratings:
Contactors size (based on ANSI/NEMA ICS2-1993 table 2-4-1)

Contactor type	Terminal type	Contactors size
AF09	Screw terminal	size 00
AF12 / AF16	Screw terminal	Size 0
AF26 / AF30 / AF38	Screw terminal	Size 1

Auxiliary Contact - NO or NC: A600, Q600

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Spring terminals

3-phase motor rating Breaking-All-Lines			AF09	AF12	AF16
200/208V	Amp-rating	Ie(A)	7,8	11	11
	Motor power	(hp)	2	3	3
220/240V	Amp-rating	Ie(A)	6,8	9,6	15,2
	Motor power	(hp)	2	3	5
440/480V	Amp-rating	Ie(A)	7,6	11	14
	Motor power	(hp)	5	7,5	10
550/600V	Amp-rating	Ie(A)	9	11	11
	Motor power	(hp)	7,5	10	10

1-phase motor rating			AF09	AF12	AF16
120V	Amp-rating	Ie(A)	13,8	16	16
	Motor power	(hp)	3/4	1	1
240V	Amp-rating	Ie(A)	10	12	12
	Motor power	(hp)	1,5	2	2

General Use rating 3-phase (see exception below)		AF09	AF12	AF16
600 Vac 240 Vdc (3 poles in series)	Amps (A)	20	20	20

Additional ratings:

Contactors size (based on ANSI/NEMA ICS2-1993 table 2-4-1)

Contactor type	Terminal type	Contactors size
AF09	Spring force terminal	Size 00
AF12 / AF16	Spring force terminal	Size 0

Auxiliary Contact - NO or NC: A600, Q600

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Definite Purpose Controller - Air Conditioning rating

Model	FLA	LRA 480V	LRA 600V
AF09 Pressure Screw Terminals only	20	120	80
AF12 Pressure Screw Terminals only	25	150	100
AF16 Pressure Screw Terminals only	30	180	120
AF26 Pressure Screw Terminals only	35	210	140
AF30 Pressure Screw Terminals only	40	240	160
AF38 Pressure Screw Terminals only	45	270	180

Wire Size –

Power and auxiliary Terminals: Cu, Solid, Stranded 75°C.

Torque for Pressure Screw devices:			AF09	AF12	AF16	AF26	AF30	AF38
Main circuit	Torque	Nm	1,5			2,5		
Auxiliary & coil circuits	Torque	Nm	1,2					

Connecting capacity for screw Connection:			AF09	AF12	AF16	AF26	AF30	AF38
Main circuit	Connecting capacity	AWG Str/Sol	1 or 2 x 10-16			1 or 2 x 8-14		
Auxiliary & coil circuits	Connecting capacity	AWG Str/Sol	1 or 2 x 14-18					

Connecting capacity for Spring force Connections:			AF09	AF12	AF16
Main circuit	Connecting capacity	AWG Str/Sol	1 wire 12-18 AWG for each connector (2 connectors per terminal)		
Auxiliary & coil circuits	Connecting capacity	AWG Str/Sol	1 wire 14-18 AWG for each connector (2 connectors per terminal)		

Terminals were evaluated for Field Wiring with a wire strip length of 10mm.

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Short Circuit current rating –

Standard Fault:

600 V ac, 5000A RMS Symmetrical. Refer to fuse marking.

High Fault (for screw type contactors only):

Cat. No.	Voltage, V ac	Protective Devices	
		Short Circuit, RMS Symmetrical, KA	Listed Class J Having Maximum Fuse Size, A
AF09	600	100	30
AF12	600	100	30
AF16	600	100	60
AF26	600	100	60
AF30	600	100	100
AF38	600	100	200

These devices were also tested as a combination with this manufacturer's Listed overload relays for the following short circuit current ratings (for screw type contactors only):

Cat. No.	Voltage V ac	Short Circuit, RMS Symmetrical KA	Protective Devices			
			Listed Type J Fuse, having Maximum Fuse Size, A	Listed Overload Relay ABB, TF42 Maximum A	Listed Overload Relay ABB, EF19 Maximum A	Listed Overload relay ABB, EF45 Maximum A
AF09	600	100	30	7.6	-	-
			30	-	18,9	-
AF12	600	100	30	10	-	-
			30	-	-	30
AF16	600	100	60	13	-	-
			60	-	-	30
AF26	600	100	60	20	-	-
			60	-	-	45
AF30	600	100	100	29	-	-
			100	-	-	45
AF38	600	100	200	35	-	-
			100	-	-	45

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