

## General information

### AL9 - AL40, DC operated

### UL rated, 3 phase

#### Application

AL and AL...Z contactors are mainly used for controlling 3-phase motors and for controlling power circuits corresponding to their operating characteristics up to 690 and even 1000 VAC. and 440 VDC.

#### Control circuit types

AL9 - AL40: DC coil with low power consumption of 3W to 3.5W

AL9Z - AL16Z: DC coil with low power consumption of 2.4W. Designed to be directly controlled by PLC.

Quick mounting on DIN rail: EN 50022 and EN 50023 standards:

35 x 7.5mm for AL9 - AL40

35 x 15mm for AL9 - AL40

Location of side mounted accessories: on right or left hand side.

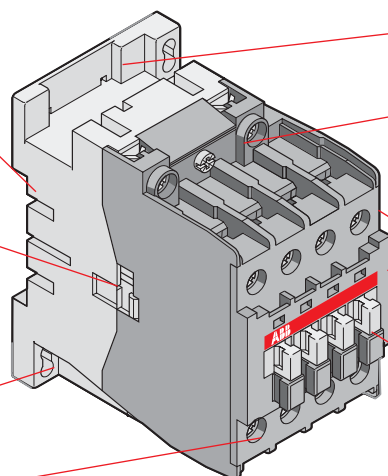
Holes for screw mounting (screws not supplied). Distance between holes according to EN 50003.

Terminals delivered in open position with captive screws (unused terminal screws must be tightened).

Screwdriver guidance for all terminals makes it possible to use motorized screwdrivers.

All terminals provide protection against accidental direct contact with live parts according to VDE0106 - Part. 100.

All AL9 - AL40 contactor terminals as well as contactor auxiliary contacts and coil terminals ensure IP20 degree of protection according to IEC 60947-1.



AL9 - AL40

Location of surge suppressors.

Clear marking of coil voltages and frequencies.

Terminal marking according to IEC 60947-4-1, EN 50005, EN 50012 and NEMA standards.

Location of function marker.

Stops for attaching front mounted accessories.

Terminal screws:

- Posidrive (+,-) No° 2 for all AL contactors

## Catalog number explanation

**AL9 - 30 - 10 - 81**

Frame size

Power pole

30 = 3 NO

Coil voltage

(see coil voltage selection chart)

Auxiliary contacts

10 = 1 NO & 0 NC

01 = 0 NO & 1 NC

#### Coil voltage selection

Hz	Contr. type	Volts						
		12	24	48	110	125	220	240
DC	AL	80	81	83	86	87	88	89
DC	AL...Z		15	28				

For other voltages, see page 1.26.

# AL9 - AL40, AL9Z - AL16Z

Non-reversing, mechanically interlocked, reversing  
DC operated, UL rated, 3 phase

Across the line  
1



AL9-30-10-81




AL26-30-10-81




AL40-30-10-81

## AL Contactors — 3W and 3.5W consumption

General purpose current	UL motor switching current	Maximum motor horsepower ratings 				Standard Aux. contacts		Non-reversing	Mechanically interlocked	Reversing
		208V	240V	480V				Catalogt number	Catalogt number	Catalogt number
		UL rated								
AC1										
21	9	2	2	5	7.5	1 0	0 1	AL9-30-10-81 AL9-30-01-81	AL9M-30-10-81 AL9M-30-01-81	AL9R-30-10-81 AL9R-30-01-81
25	11	3	3	7.5	10	1 0	0 1	AL12-30-10-81 AL12-30-01-81	AL12M-30-10-81 AL12M-30-01-81	AL12R-30-10-81 AL12R-30-01-81
30	17	5	5	10	15	1 0	0 1	AL16-30-10-81 AL16-30-01-81	AL16M-30-10-81 AL16M-30-01-81	AL16R-30-10-81 AL16R-30-01-81
40	28	7.5	10	20	25	1 0	0 1	AL26-30-10-81 AL26-30-01-81	AL26M-30-10-81 AL26M-30-01-81	AL26R-30-10-81 AL26R-30-01-81
50	34	10	10	20	30	1 0	0 1	AL30-30-10-81 AL30-30-01-81	AL30M-30-10-81 AL30M-30-01-81	AL30R-30-10-81 AL30R-30-01-81
60	42	10	15	30	40	1 0	0 1	AL40-30-10-81 AL40-30-01-81	AL40M-30-10-81 AL40M-30-01-81	AL40R-30-10-81 AL40R-30-01-81

## ALZ Contactors — 2.4W consumption

General purpose current	UL motor switching current	Maximum motor horsepower ratings 				Standard Aux. contacts		Non-reversing	Mechanically interlocked	Reversing
		208V	240V	480V	575/600V	NO	NC	Catalogt number	Catalogt number	Catalogt number
AC1		UL rated								
21		9	2	2	5	7.5	1 0	0 1	AL9Z-30-10-15 AL9Z-30-01-15	AL9ZM-30-10-15 AL9ZM-30-01-15
25	11	3	3	7.5	10	1 0	0 1	AL12Z-30-10-15 AL12Z-30-01-15	AL12ZM-30-10-15 AL12ZM-30-01-15	AL12ZR-30-10-15 AL12ZR-30-01-15
30	17	5	5	10	15	1 0	0 1	AL16Z-30-10-15 AL16Z-30-01-15	AL16ZM-30-10-15 AL16ZM-30-01-15	AL16ZR-30-10-15 AL16ZR-30-01-15

## Coil voltage selection

All DC operated catalog numbers include a 24VDC coil. To select other coil voltages, substitute the code from the Coil Voltage Selection Chart for the two digits after the last dash in the catalog number.

Ex.: A 48V coil is required for an AL30 contactor: AL30-30-10-83

## Auxiliary contact blocks

For additional auxiliary contact blocks, see catalog number explanation on page 1.6. Add \$ 20 to list price for each additional auxiliary, and see page 1.18 for available combinations.

## Coil voltage selection

Hz	Contr. type	Volts						
		12	24	48	110	125	220	240
DC	AL	80	81	83	86	87	88	89
DC	AL...Z		15	28				

For other voltages, see page 1.26.

## Mechanical interlock

Mechanically interlocked contactors are designed for reversing, 2 speed, reduced voltage, etc. type starter applications. The complete assembly consists of two mechanically and electrically interlocked contactors mounted as follows with line and load terminals:

- AL9 & AL16 — mounted on 35mm DIN rail
- AL26 & AL40 — mounted on common baseplate

Power wiring is not included.

The NC electrical interlock is provided

## Reversing

Reversing contactors are designed for reversing type starter applications. The complete assembly consists of two mechanically and electrically interlocked contactors mounted with line and load terminals.

① Only coil voltages available for AL9Z – AL16Z.