

# 590+ Armature DC Contactor Option



## Application

The 590+ DRV frames 1 and 2 are equipped with an AC (line-side) contactor that isolates the three-phase supply to the drive when the drive is stopped. The Armature DC Contactor Option may be used if physical isolation is required between the drive output and the motor armature. This contactor has two normally open power poles to break the armature connections and a normally closed power pole that can be used as a dynamic braking contact. Use the following table to specify the contactor kit. If dynamic braking is required, use the resistor kit part numbers to specify the braking resistor. This combination, in accordance with Nema ICS 3-302.62, will provide 150% instantaneous braking torque from base speed for each power range, with 2 times motor inertia and 3 stops per hour.

### 460VAC

HP	Contactor kit	Resistor kit
1	955+ADC30	CZ353134
2	955+ADC30	CZ353134
3	955+ADC30	CZ353134
5	955+ADC30	CZ353135
7.5	955+ADC30	CZ353136
10	955+ADC30	CZ353137
15	955+ADC30	CZ353138
20	955+ADC60	CZ353139
25	955+ADC60	CZ353140
30	955+ADC60	CZ353140
40	955+ADC130	CZ353142
50	955+ADC130	CZ353142
60	955+ADC130	CZ353144
75	955+ADC130	CZ353145
100	955+ADC220	CZ353146

This armature contactor kit includes

- 3-pole DC contactor (ADC30, 60 are DIN rail mounted)
- Voltage feedback resistors mounted on a tag strip
- Instruction sheet

- Mount the DIN rail in close proximity to the drive and snap on the tag strip and contactor (where applicable)
- Wiring diagram and ladder logic shown on the following page

### IMPORTANT

- It is not mandatory to use dynamic braking with the armature contactor option
- For dynamic braking to be effective, the motor field needs to stay energized for the duration of the stop, even after the drive has been disabled.  
Under **SETUP PARAMETERS \ FIELD CONTROL**, set **FLD. QUENCH DELAY** to 20 seconds

### 230VAC

HP	Contactor kit	Resistor kit
1	955+ADC30	CZ353159
2	955+ADC30	CZ353159
3	955+ADC30	CZ353159
5	955+ADC30	CZ353160
7.5	955+ADC30	CZ353161
10	955+ADC60	CZ353162
15	955+ADC60	CZ353163
20	955+ADC130	CZ353164
25	955+ADC130	CZ353164
30	955+ADC130	CZ353166
40	955+ADC130	CZ353167
50	955+ADC220	CZ353167

**NOTE**

- This option is not supported by the internally mounted control transformer option. Use an externally supplied 120VAC control supply capable of supporting the contactor coil. Refer to the VA table overleaf.
- Use this option only on 590+ drives frames 1&2, with firmware versions 5.7 or later.

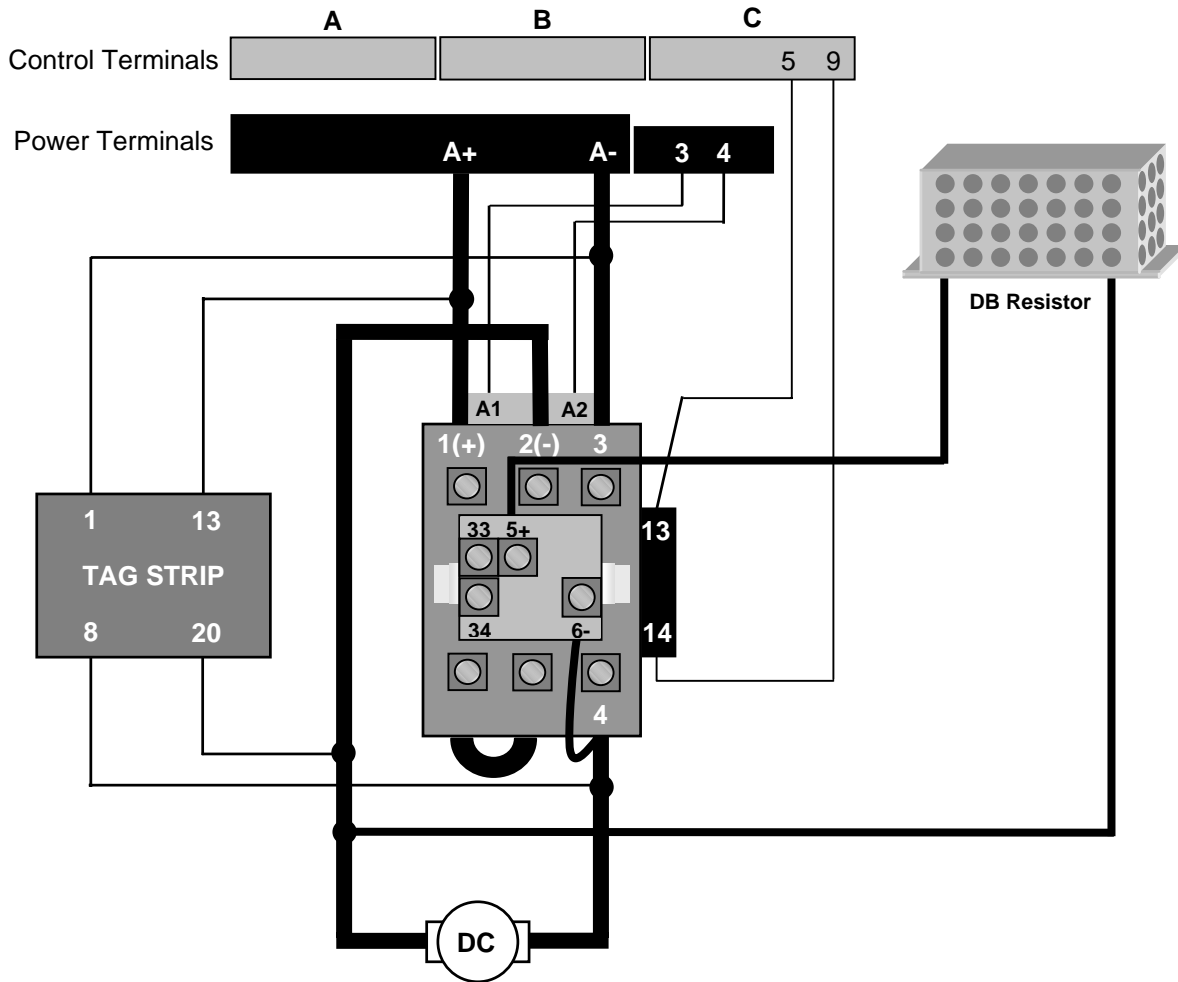
### Recommended Wire Sizes

		Armature	Braking
Power wiring (Rated > 500V)	A1 to contactor to motor to A2	8 AWG for the 955+ADC30 6 AWG for the 955+ADC60 2 AWG for the 955+ADC130 1/0 AWG for the 955+ADC220	12AWG 10AWG 4AWG 1AWG
120VAC Control	Drive L, N to contactor coil	16 AWG red	
24VDC Control	Drive to zero speed relay coil	18 AWG blue	
Signal wiring	Drive enable to contactor	18 AWG blue	

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## Connection Diagram

Contactor Terminal	Contactor kit						ADC30	ADC60	ADC130	ADC220
	VA sealed						11	20	35	70
	VA inrush						100	200	490	1200
Contactor Terminal	1	2	3	4	5	6	Coil	Coil	Aux	Aux
955+ADC 30, 60	3	4	1	2	6	5	A1	A2	33	34
955+ADC 130, 220	1	2	3	4	5	6	A1	A2	13	14



## Ladder Logic

