

# AC Magnetic Contactor Crane and Mill Duty

5110

Catalog & Price List 5110 • April 2013, Replaces Aug. 2012

## Application

The Type 5110 AC contactor is used for heavy duty AC industrial applications such as AC cranes, steel mills, magnet controllers, starters, mill auxiliary controllers, manual-magnetic disconnect switches and as line contactors or dynamic braking contactors for solid state drives.

## Description

Available in NEMA size 1-8, normally open and normally closed. Rugged Euclid™ contactors feature many unique design and engineering advancements that greatly simplify applications, installations and servicing over 75 years of experience in design as well as manufacturing has been incorporated into these highly reliable units.

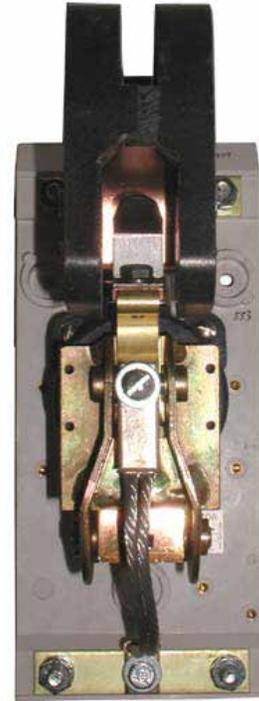
## Features

The Contactor line uses the latest technology in molded plastic materials for those parts requiring insulating qualities and strength.

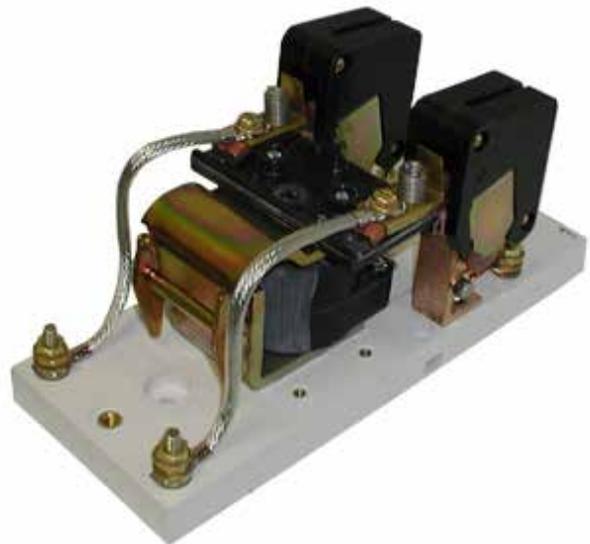
- Convenient DIRECT-WIRING for Right or Left Hand Power Connections, Rugged Terminals on both sides for all power connections.
- Completely front-connected, front removable "deadback" base design eliminates all nuts and bolts as well as live parts on the back of the base. There is easy access to every part of the contactor.
- Encapsulated Magnet Coil. Operating coils are designed in accordance with NEMA standards to withstand 110% of rated voltage continuously and to operate the contactor successfully at 80% of rated voltage. Standard coil voltages are 115 VDC and 230 VDC. For other coil voltages consult the factory.
- Corrosion resistant, durable, welded steel construction armature assembly incorporates stainless steel spring as well as stainless steel hinge pin providing long mechanical life.
- Hinged Arc-Shield for easy inspection and replacement of contactor tips. Power contact tips.
- Copper contact tips are standard. Silver-faced tips are available and are recommended for applications where the contactors remain closed for extended periods of time, such as manual magnetic disconnect switches. Silver/tungsten/carbide tips are available for hard service applications.

## Accessories

- Auxiliary Electrical Contact Blocks can be mounted on either the right or left hand side of the main contactor. Contacts are bridge-type, double-breaking, silver-cadmium oxide. Units can be "stacked" two deep, for multi-circuit arrangements. Auxiliary Electrical Contacts can be supplied in a kit form consisting of one contact block housing one (1) normally open and one (1) normally closed set of contacts in a common assembly, one knocker, plus the necessary mounting hardware.
- Multi-pole contactors. The size 1 and 2 normally open contactors are available with one, two or three poles. Two pole, normally open size 3-8 contactors can be built by ordering two single pole normally open contactors with half-voltage operating coils and one tie bar kit. The two coils must be wired in series.
- Reversing contactors. Reversing contactors (two single pole or two double pole) contactors can be built by adding a horizontal mechanical interlock between the two single pole normally open or double pole tied normally open contactors mounted side by side.



*NEMA Size 3  
Normally Open*



*NEMA Size 1 2-Pole Normally Open*

Contactor Ratings Maximum 600 VAC			Standard Control Circuit 230/250 VDC †			
NEMA Size	8 Hour Open AC Amperes	Intermittent Duty Rating AC Amperes	Operating Voltage	Number Of Main Poles	Part Number	List Price
1	25	33	230 VDC	1 N.O.	HC59311-108	\$870
				2 N.O.	HC59312-108	\$1,357
				3 N.O.	HC59313-108	\$1,984
			230 VDC Reverser	2 N.O.	HC59310-006	\$4,072
				3 N.O.	HC59310-008	\$5,394
2	50	67	230 VDC	1 N.O.	HC59321-104	\$1,079
				2 N.O.	HC59322-104	\$1,844
				3 N.O.	HC59323-102	\$2,749
			230 VDC Reverser	2 N.O.	HC59392-006	\$5,046
				3 N.O.	HC59392-008	\$6,925
3	100	133	230 VDC	1 N.O.	HC59365-001	\$1,810
				2 N.O.	HC59393-002	\$4,304
				3 N.O.	HC59393-004	\$6,252
			230 VDC Reverser	2 N.O.	HC59393-006	\$9,071
				3 N.O.	HC59393-008	\$13,038
4	150	200	230 VDC	1 N.O.	HC59347-001	\$2,192
				2 N.O.	HC59394-002	\$5,069
				3 N.O.	HC59394-004	\$7,401
			230 VDC Reverser	2 N.O.	HC59394-006	\$10,602
				3 N.O.	HC59394-008	\$15,335
5	300	400	230 VDC	1 N.O.	HC59675-402	\$2,993
				2 N.O.	HC59395-002	\$6,786
				3 N.O.	HC59395-004	\$9,976
			230 VDC Reverser	2 N.O.	HC59395-006	\$13,978
				3 N.O.	HC59395-008	\$20,381
5A*	400	530	230 VDC	1 N.O.	HC59676-402	\$4,037
				2 N.O.	HC59396-002	\$8,874
				3 N.O.	HC59396-004	\$13,108
			230 VDC Reverser	2 N.O.	HC59396-006	\$18,154
				3 N.O.	HC59396-008	\$26,645
6	600	800	230 VDC	1 N.O.	HC59600-621	\$5,603
				2 N.O.	HC59416-002	\$12,667
			230 VDC Reverser	2 N.O.	HC59416-004	\$27,098
7	900	1200	230 VDC	1 N.O.	HC59700-621	\$9,918
				2 N.O.	HC59417-002	\$21,298
			230 VDC Reverser	2 N.O.	HC59417-004	\$44,358
8	1350	1800	230 VDC	1 N.O.	HC59800-621	\$11,240
				2 N.O.	HC29418-002	\$23,492
			230 VDC Reverser	1 N.O.	HC59418-004	\$49,648

\* Hubbell rating

† For non-standard Operating Voltages, Consult factory for panel numbers and cost.

§ Reversers include both mechanical and electrical interlocks.



**Auxiliary Electrical Contact Kits**

Discount Code EW

Contactor NEMA Size (main cont.)	Optional Auxiliary Contacts	Part Number	List Price Per Kit	Max. Number of Auxiliary Contacts	
			Customer Install	Left	Right
1 & 2 N.O.	1 N.O./N.C.	HC68011-003	\$348	1	1
3 & 4 N.O.	1 N.O./N.C.	HC68011-001	\$348	1	1
	2 N.O./N.C.	HC68011-002	\$696	1	1
5 & 5A N.O.	1 N.O./N.C.	HC68011-008	\$348	1	1
	2 N.O./N.C.	HC68011-009	\$696	1	1
6, 7 & 8 N.O.	1 N.O./N.C. (LH)	HC59620-006	\$406	1	0
	2 N.O./N.C. (LH)	HC59620-066	\$812	1	0
	1 N.O./N.C. (RH)	HC59620-106	\$406	0	1
	2 N.O./N.C. (RH)	HC59620-166	\$812	0	1

Auxiliary Electrical Contacts are supplied in a kit form consisting of one normally open and one normally closed set of contacts in a common assembly, one striker, plus the necessary mounting hardware.

**Mechanical Interlock Kits**

Discount Code EW

NEMA Size (of main contactor)	Number of Poles	Part Number	List Price Per Kit
			Customer Install
1 & 2	Single	HC68041-001	\$319
1 & 2	Multiple	HC68041-002	\$319
3 & 4	Single or Multiple	HC68041-003	\$391
5 & 5A	Single or Multiple	HC68041-016	\$461
6	Single or Multiple	HC59625-006	\$568
7 & 8	Single or Multiple	HC59625-008	\$615

Only one auxiliary contact block can be mounted when using a mechanical interlock.

**Tie-Bar Kits for Multi-Pole N.O. Contactors**

Discount Code EW

NEMA Size (of main contactor)	Description	Part Number	List Price Per Kit For Customer Installation
3 & 4	Multi-pole	HC59400-004	\$106
5 & 5A	Multi-pole	HC59400-005	\$142
6	Multi-pole	HC59400-126	\$213
7 & 8	Multi-pole	HC59400-128	\$249

**How to Order:**

- A) Select proper Operating Voltage for contactor coil.
- B) Refer to NEMA Size & Number of Main Poles required for contactor listed in chart.
- C) Order by Part Number.

**For Accessories:** Select the appropriate part number above

**Auxiliary Electrical Contact Ratings**

Electrical Contacts are rated in accordance with NEMA Standard ICS-2-125 (B600 and P600) Table Ratings

AC	Max. Cont. Amps	Maximum Make and Break Current-Amperes							
		120V		240V		480V		600V	
		Make	Break	Make	Break	Make	Break	Make	Break
B-600	5	30	3	15	1.5	7.5	0.75	6	0.6
DC	Max. Cont. Amps	125V		250V		600V			
		Make	Break	Make	Break	Make	Break		
P-600	5	1.1	1.1	0.55	0.55	0.2	0.2		



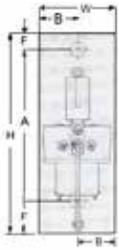


Fig. A

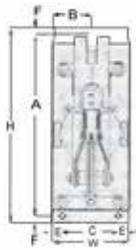


Fig. B

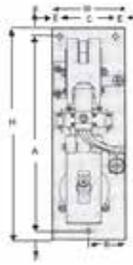


Fig. C

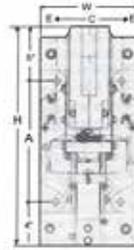


Fig. D

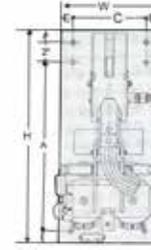
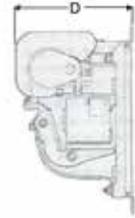


Fig. E



Typical Side View

**CONTACTOR RATINGS**

Maximum 600 VAC 40° C Ambient

NEMA Size	8 Hour Ratings		Intermittent Duty Rating AC Amperes
	Open AC Amperes	Enclosed AC Amperes	
1	25	23	33
2	50	45	67
3	100	90	133
4	150	135	200
5	300	270	400
5A*	400	360	530
6	600	540	800
7	900	810	1200
8	1200	1215	1800

**SINGLE POLE NON-REVERSING**

Approximate Dimensions (in inches)

NEMA SIZE	H HEIGHT	W WIDTH	D DEPTH	A	B	C	E	F	MTG HOLE	FIG.
1*	10.25	4.00	4.80	7.81	2.00	---	---	1.625	.265	A
2*	10.25	4.00	4.80	7.81	2.00	---	---	1.625	.265	A
3	12.00	4.50	7.00	11.00	2.25	3.25	0.63	.50	.38	B
4	12.00	4.50	7.00	11.00	2.25	3.25	0.63	.50	.38	B
5	15.50	6.13	9.50	14.50	3.06	4.00	1.05	.50	.44	B
5A*	15.50	6.13	9.50	14.50	3.06	4.00	1.05	.50	.44	B
6, 7, 8	20.25	9.00	15.00	11.25	---	5.00	1.50	4.00	.52	D

\* Two and Three Pole Dimensions are the same as single pole.

\*\* When two "F" Dim. are given, the first is for the top, the second is for the bottom mounting hole

**Renewal Contact Kits:**

Discount Code EW

Size:	Copper		Silver		Silver Tungsten Carbide	
	Part Number:	List Price	Part Number:	List Price	Part Number:	List Price
1	HC59672-001	\$107	HC59672-002	\$760	N/A	-
2	HC59672-003	\$124	HC59672-004	\$859	HC59672-023	\$1,074
3 & 4	HC59672-007	\$162	HC59672-008	\$1,355	HC59672-018	\$1,983
5 & 5A	HC59672-024	\$179	HC59672-025	\$1,520	HC59672-026	\$2,462
6, 7 & 8	HC59672-113	\$631	HC59672-114	\$2,346	HC59672-125	\$3,288
25 A. PWR AUX	HC59672-014	\$107				
50 A. PWR AUX	HC59672-015	\$				

Contact Kits include:

(1) movable contact, (1) stationary contact, spring and hardware. An arc horn is included in Size 6,7 & 8. Size 1 does not include an arc horn.

**Arc Shield Kits:**

Discount Code EW

Size:	Part Number:	List Price
1	HC42855-001	\$165
2	HC42856-001	\$232
3	HC59673-001	\$312
4.	HC59673-002	\$312
5 & 5A	HC59673-003	\$461
6, 7 & 8	HC59662-811	\$1,158

Prices Subject to Change without Notice.



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