

Hubbell Industrial Controls, Inc.

Type 700 1250 Ampere 1000 Volt DC Contactor

UL/CSA Rating: 1000A 600VDC

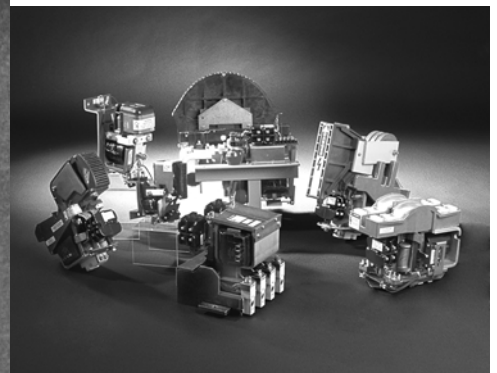
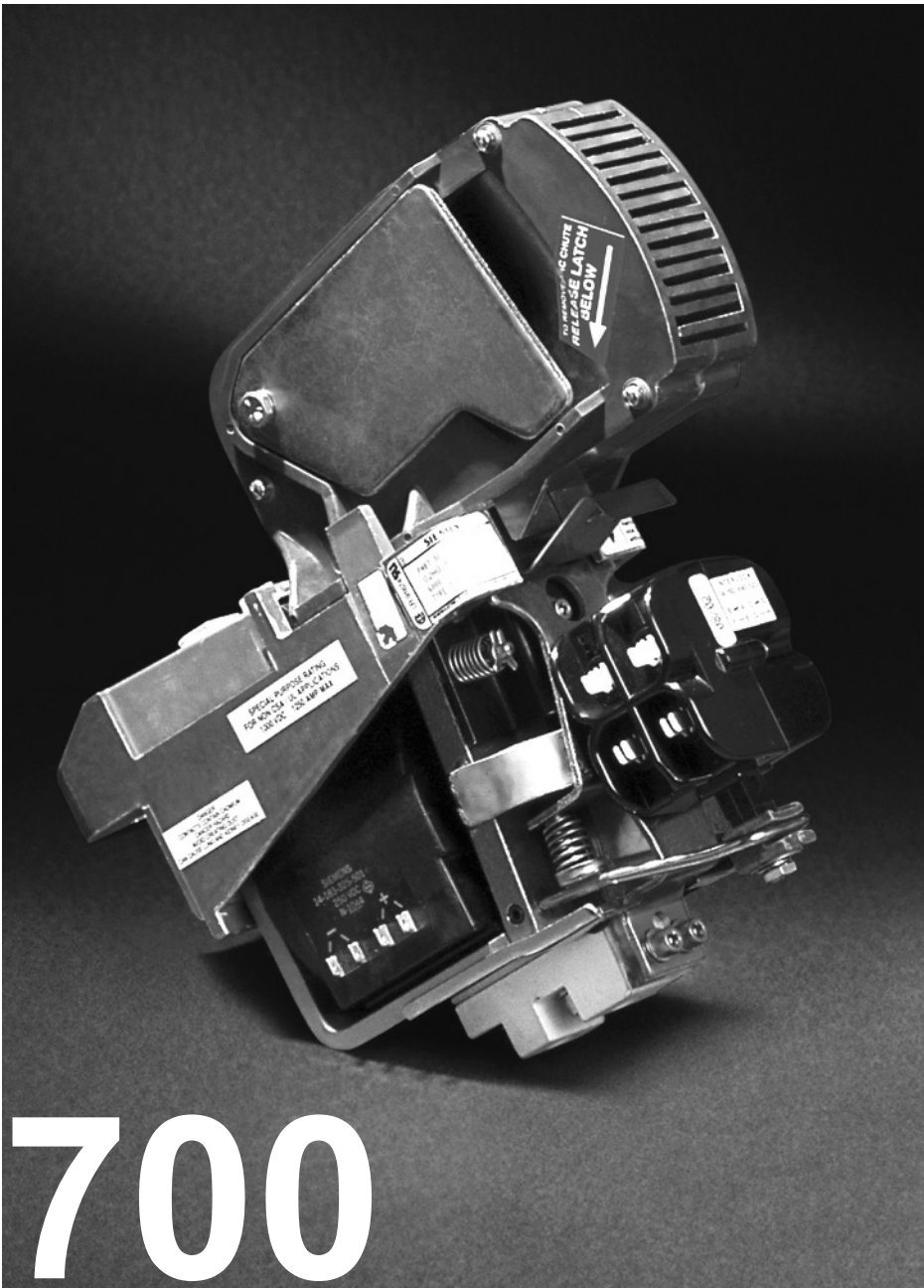
42700

Catalog 42700 • March 2013, Replaces February 2012

Highlights

- UL recognized/CSA certified
- Non-polarized arc chute design
- Optional Over Current Hold-In
- Bifurcated main contacts
- Silver-plated current carrying-parts
- High dielectric and mechanical strength
- Special ratings available – consult Hubbell Industrial Controls

Ideal for regenerative and non-regenerative systems requiring limited interrupting capacity, such as gas and oil well drilling equipment, transit and rail systems, adjustable speed drives, electric haul trucks, mining machinery, fuel cells, uninterruptible power supplies, and crane controls.



700

DC CONTACTOR

Amazingly Reliable – Hubbell Industrial Controls Devices

The Hubbell ICD family of rugged, high-performance DC devices are in great demand by industries needing reliable, solid state, adjustable controls. Products include contactors, limit switches, crane controls, fire pump controls, transfer switches, motor controllers and resistors. Hubbell ICD has a device ideal for a wide range of applications. And if it's from Hubbell, you know you're getting amazingly reliable technology.



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A single pole, single throw normally open power contactor, 1250 A continuous duty rating at 1000 VDC in still air (special voltage and current ratings available – consult factory) with a maximum interrupting rating of 1000 kW (within the limits of 2000 V maximum and 2000 A maximum) and utilizing a non-polarized arc interruption system.

Over Current Hold-In (OCHI), an optional feature, is designed to protect the contactor in the event of an overcurrent condition.

Effective only during an overcurrent (approximately 1600 A or greater), OCHI locks the contactor armature in the closed position preventing the contactor from attempting to interrupt an overcurrent, even if coil power is lost, thus preventing a catastrophic failure of the contactor. Concurrent use of overcurrent protective devices is highly recommended for overall system protection. Once an over-current condition subsides, the contactor resumes normal operation.

Bifurcated stationary main contact design, with wiping action, insures highly reliable and consistent main contact closure, while silver alloy main contacts provide long life. Silver-plated copper terminals allow for excellent electrical connections and corrosion resistance. Non-tracking molded glass

polyester parts provide high dielectric and mechanical strength, and zinc-dichromate plated non-current-carrying steel parts offer excellent corrosion resistance. Operating coils are of molded construction for protection from corrosion, foreign material and moisture contamination, and damaging physical abuse.

Front accessibility to all wear parts eases inspection, maintenance, and repair functions. The arc chute, securely held in place by a latch spring, is easily removed without the use of tools, while its safety mechanical interlock prevents contact closure if it is not properly installed.

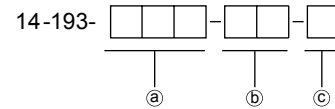
An optional four-circuit auxiliary contact block (total of eight auxiliary circuits can be added on special order – consult factory) is available in any combination of normally open and normally closed circuits. Dual bifurcated, chisel-point moveable (H-bridge design) contacts of fine silver provide exceptionally high switching reliability and are suitable for low power signals.

Product Listing

Special Purpose – Type 700 Series

Ordering Information

► Catalogue Number as follows:



- Ⓐ Select 100 for contactor without OCHI or 101 for contactor with OCHI.
- Ⓑ Next two digits specify coil voltage per coil voltage suffix table.
- Ⓒ Last digit specifies auxiliary contact arrangement.

Specifications

Type 700

Main Pole Configuration

Single pole, normally open (SPNO)

Contactors Rating

Continuous open air rating = 1250 Amps @ 40° C ambient

Maximum make current = 5000 Amps

Maximum break current = 2000 Amps

Maximum interrupting capacity = 1000 kW
(within limits of 2000 Amps and 2000 V max)

Thru Current Capability = 15,000 Amps

(Special ratings available. Consult factory.)

UL/CSA Ratings

600 VDC, 1000 Amps, open air

600 VDC, 900 Amps, enclosed

UL Recognition File: E51344

CSA Certification File: LR91674-2

Auxiliary Contact Connections

Two 1/4 in. (6.35 mm) faston tabs per terminal

Auxiliary Contact Rating

Resistance Load

125 VDC or less, 10 Amps

250 VD, 2.5 Amps

Arc Chute Clearance

3 in. min. (face to nearest conductive surface)

Mounting

Mounts on 2 in. x 3 in. Angle Support with two 3/8 in. screws

Power Connections

Top and bottom of contactor

Two 3/8 in. - 16 tapped holes per terminal

Coil Connections

Four 1/4 in. fastons

Two tabs each side of line

Weight


24 lbs. (11 kg)

COIL SUFFIX TABLE

DC Volts Coil Voltage	Suffix
12	51
28	52
36	53
48	54
74	56
96	57
125	58
250	59

AUXILIARY CONTACTS³

Configuration	Code
1 NO & 3 NC	1
2 NO & 2 NC	2
3 NO & 1 NC	3
4 NO & 0 NC	4
0 NO & 4 NC	5
None	7

Illustration	Configuration	Description	Rated Voltage/Current	Catalog Number	Approx. Weight lbs. (kg)
	Single Pole, Normally Open Contactor	Contactor without OCHI ¹ without auxiliary contact ²	1000 VDC 1250 A	HC14193100	24 (10.9)
		Contactor with OCHI ¹ without auxiliary contact ²	1000 VDC 1250 A	HC14193101	24 (10.9)

¹ OCHI means Overcurrent Hold In.

² A maximum of two 4-circuit auxiliaries may be added. Consult factory.

³ Special configurations available. Consult factory.

OPERATING COILS

Volts DC	Ohms (20°C)
12	4.6
28	20.0
36	32.0
48	45.0
74	125.0
96	177.0
110-125	294.0
250	1160.0

Coil voltage tolerance 80% to 110% of rated voltage.
Minimum pickup voltage is 60% of rated coil volts, with cold (20°C) coil and 80% of rated coil volts with hot (140°C) coil. Dropout is from 5% to 25% of rated coil volts.

DC Contactor Type 700 Replacement Parts:

Coils, DC, Cont.

Type	Coil Voltage	Catalog No.
700	12V	14-183-323-501
	24V	14-183-219-501
	36V	14-183-277-501
	48V	14-183-326-501
	74V	14-183-218-501
	96V	14-183-315-501
	125V	14-183-324-501
	250V	14-183-325-501

Auxiliary Contact Blocks

Type	Size	Arrangement		Catalog No.
		NO	NC	
700	1250A	1	3	14-192-890-524
		2	2	14-192-890-523
		3	1	14-192-890-513
		4	0	14-192-890-522
		0	4	14-192-890-525

Main Contacts

Type	Size	Contact Type	Catalog No.
700	1250A		Main: 14-192-680-801 Arcing: 14-192-681-801

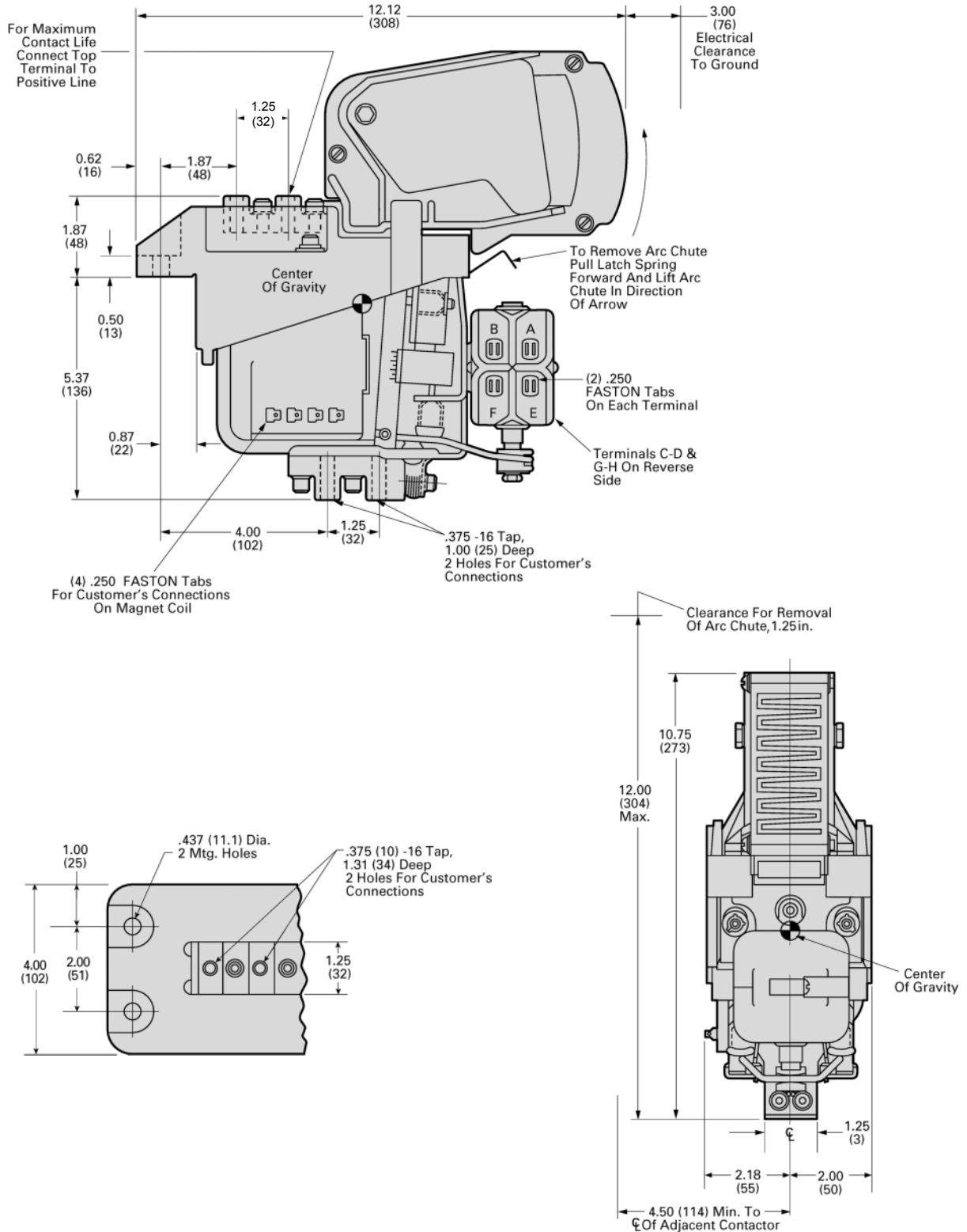
① For one set only.
For SPDT, and Reversers, order required quantities.

Arc Chutes

Type	Size	Polarity/ Capacity	Catalog No.
700	1250A		14-192-682-801 (includes arcing contact)

Outline Drawings

Special Purpose
Type 700



All dimensions shown in inches and (millimeters). For reference purposes only. Not to be used for design or construction purposes.



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