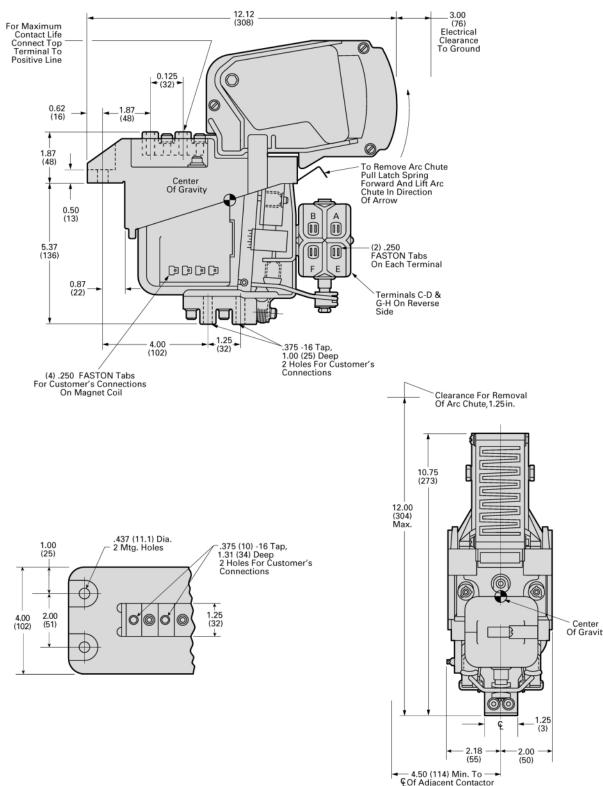
## **Outline Drawings**

### Special Purpose Type 700



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

Spec Tech Industrial 203 Vest Ave. Valley Park, MO 63088 Phone: 888 SPECTECH Email: sales@spectechind.com www.spectechind.com

Hubbell Industrial Controls, Inc.

## Type 700 1250 Ampere 1000 Volt DC Contactor

Catalog 42700 • September 2005

42700

Application/Model List



### 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.



## **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.

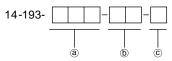
An optional four-circuit auxiliary contact block (total of eight auxiliary circuits can be added on special order – consult factory) is available in any combination of normally open and normally closed circuits. Dual bifurcated, chisel-point moveable (H-bridge design) contacts of fine silver provide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

#### **Contactor Rating**

Continuous open air rating t1250 Amps @ 40°C ambient

Maximum make current t 5000 Amps

Maximum break current t 2000 Amps

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

Thru Current Capability t 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: E79773 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 VDC, 2.5 Amps

#### **Arc Chute Clearance**

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

#### **Mounting Rail**

2 in. (50.8 mm)

3 in. (76.2 mm)

3/8 in. (M8) mounting hole

#### **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 Contacts<sup>o</sup>

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	Description	Configuration	Rated Voltage	Catalogue No.	Approx. Wt. Lbs (Kg)		
Type 700, 1250 Ampere							
	Contactor without OCHI <sup>a</sup> without auxiliary contact <sup>b</sup>	Single pole, normally open contactor	1000 V	14-193-100-††-†	24 (10.9)		
	Contactor with OCHI <sup>a</sup> without auxiliary contact <sup>b</sup>	Single pole, normally open contactor	1000 V	14-193-101-††-†	24 (10.9)		
TYPE 700							

- a OCHI means Overcurrent Hold In.
- b A maximum of two 4-circuit auxiliaries may be added. Consult factory.
- Special configurations available.
   Consult factory.

## **Operating Coils**

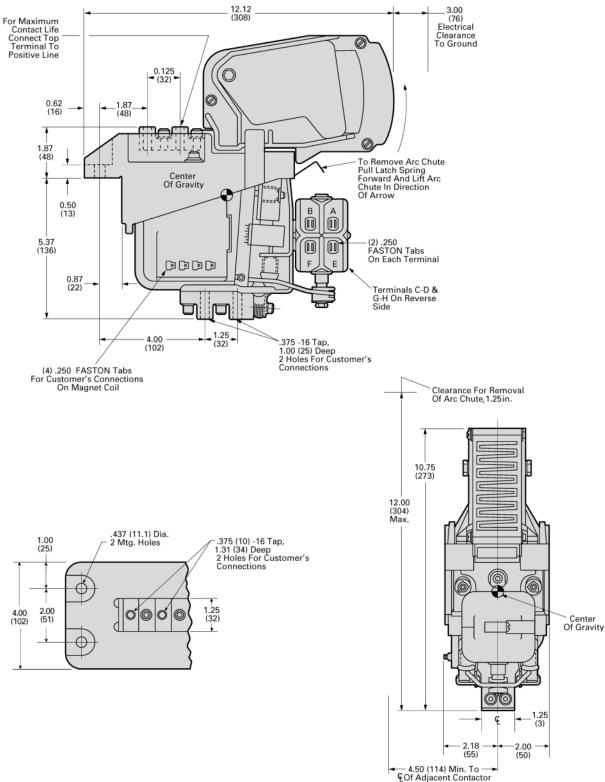
Volts DC	Ohms (20°C)
12	4.6
28	20
36	32
48	45
74	125
96	177
110–125	294
250	1160

Coil voltage tolerance 80% to 110% of rated voltage

Minimum pickup voltage is 60% of rated coil volts, with cold (20°) coil and 80% of rated coil volts with hot (140°) coil. Dropout is from 5% to 25% of rated coil volts. All temperatures in  $^{\circ}$ C.

# **Outline Drawings**

Special Purpose Type 700



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# **Hubbell Industrial Controls, Inc.**

A subsidiary of Hubbell Incorporated 4301 Cheyenne Dr., Archdale, NC 27262 Telephone (336) 434-2800 • Fax (336) 434-2803 http://www.hubbell-icd.com Sales@hubbell-icd.com