

# HUBBELL Type C-POLYMER Cutouts (Standard, Linkbreak & Loadbreak) and

**Cutout-Arrester Combinations** 

#### Warranty - Material

Hubbell Power Systems, Inc. warrants all products sold by it to be merchantable (as such term is defined in the Uniform Commercial Code) and to be free from defects in material and workmanship. Buyer must notify the Company promptly of any claim under this warranty. The Buyer's exclusive remedy for breach of this warranty shall be the repair or replacement, F.O.B. factory, at the Company's option, of any product defective under the warranty which is returned to the Company within one year from the date of shipment. NO OTHER WARRANTY, WHETHER EXPRESS OR ARISING BY OPERATION OF LAW, COURSE OF DEALING, USAGE OF TRADE OR OTHERWISE IMPLIED, SHALL EXIST IN CONNECTION WITH THE COMPANY'S PRODUCTS OR ANY SALE OR USE THEREOF. The Company shall in no event be liable for any loss of profits or any consequential or special damages incurred by Buyer. The Company's warranty shall run only to the first Buyer of a product from the Company, from the Company's distributor, or from an original equipment manufacturer reselling the Company's product, and is non-assignable and non-transferable and shall be of no force and effect if asserted by any person other than such first Buyer. This warranty applies only to the use of the product as intended by Seller and does not cover any misapplication or misuse of said product.

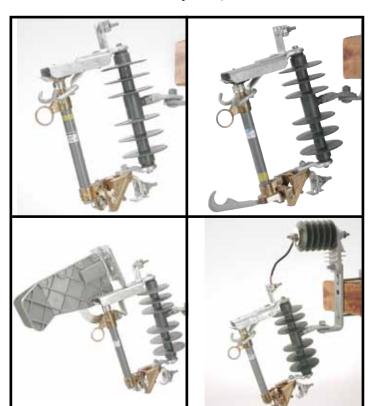
#### Warranty - Application

Hubbell Power Systems, Inc. does not warrant the accuracy of and results from product or system performance recommendations resulting from any engineering analysis or study. This applies regardless of whether a charge is made for the recommendation, or if it is provided free of charge.

Responsibility for selection of the proper product or application rests solely with the purchaser. In the event of errors or inaccuracies determined to be caused by Hubbell Power Systems, Inc., its liability will be limited to the re-performance of any such analysis or study.

**CAUTION:** The equipment covered in this catalog section should be installed, used, and serviced only by competent personnel familiar with and following good work and safety practices. This equipment is for use by such personnel and is not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.

This catalog information and any related instruction sheets do not cover all details or situations in equipment use nor do they provide for every possible contingency to be encountered in relation to installation, operation or maintenance. Should additional information and details be desired, or if specific situations arise that are not covered adequately for the user's purpose the specifics should be referred to Hubbell Power Systems, Inc.



Photos show 15 kV products.

27 kV products also are available.

NOTICE: For latest revision of our Catalog and Literature, please visit our web site: www.hubbellpowersystems.com

NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

Copyright 2010 Hubbell Incorporated • 210 North Allen Street • Centralia, MO 65240 USA www.hubbellpowersystems.com
E-mail: hpsliterature@hps.hubbell.com



10AA-2 CHANCE



# **HUBBELL Type C-POLYMER Cutouts**

#### **Application**

The primary purpose of any cutout is to provide protection to the lines of your system and the various apparatus on those lines such as transformers and capacitor banks. Hubbell Type C-Polymer cutouts provide reliable protection from low-level overloads that just melt the fuse link, intermediate faults, and very high faults, through maximum interrupt rating.

In addition, Type C-Polymer cutouts can also be used as a sectionalizing device. With the use of a portable loadbreak tool, Type C-Polymer cutouts can function much like an overhead disconnect switch. A 300 amp disconnect blade is also available for this purpose.

#### Quality Construction

#### **Efficient Current Transfer**

The Type C-Polymer cutout has an all copper current path. All contacts are silver-plated. Terminals are tin-plated bronze for use with copper or aluminum conductors.

#### **Loadbreak Hooks**

Galvanized steel hooks are standard on all Type C cutouts, except the arc chute version, for use with a portable loadbreak tool. These sturdy hooks are mounted on the top support and serve to guide the fuseholder into the latch socket.

#### **Top Contact**

The top contact is attached to the galvanized-steel hood by a stainless rivet to provide a smooth self-aligning action during closing even in severely corrosive environments. The top contact provides a sockettype cavity for latching the fuseholder and prevents any possible "over-travel" of the fuseholder. The top contact is

made of a highly conductive copper strip with silver-plated embossments for efficient current transfer. The contacts are held under constant pressure designed to maintain firm contact with the fuseholder contact surface until fault interruption is accomplished.

#### Hinge

The hinge on the Type C-Polymer cutout employs large pivot areas for the fuseholder's trunnion and is cast of a copper alloy chosen for its strength and corrosion resistance. The hinge contacts are highly conductive copper alloy stampings and are plated to assure low resistance current transfer from the trunnion casting. The parallel current paths are backed up by high strength cantilever springs and are riveted to the hinge castings. Fuseholder can be dropped into place and easily lifted up and out. No tricky maneuvering is required.

#### **Fuseholders**

The solid cap on the single vent fuseholder is a copper alloy. silver-plated to provide efficient current transfer. An integral ring is provided in the top tube casting for opening and closing the fuseholder with an appropriate disconnect tool from

#### **Polymer Insulators**

Type C-Polymer cutout insulators are manufactured with  $ESP^{\mathsf{m}}$  silicone alloy rubber, the same material used in Ohio Brass PDV arresters and Hi\*Lite insulators. ESP is a polymer compound made by alloying silicone and EPDM rubber. This alloy offers the desirable toughness and resistance to tracking of our original EPR, with the hydrophobic characteristics derived from low molecular weight silicone oils.

Hubbell Power Systems uses several tests to evaluate materials. Tracking, QUV, corona cutting, salt fog, oxidative stability and variations of differential thermal analysis tests confirm the quality of the material. For further information on our polymers, ask your Hubbell Power Systems representative for the publication "Polymer Materials for Insulator Weathersheds" EU1264-H.

#### **Upgrades to Cutout Performance**

The increased metal-to-metal leakage distance of Type C-Polymer Cutouts compares to their porcelain counterparts at 12.6" (319 mm) vs 8.7" (220 mm) for 15kV and 17.1" (434 mm) vs 12.6" (319 mm) for 27kV.

Significantly lighter, Type C-Polymer Cutouts typically weigh only approximately half their porcelain counterparts. This ergonomic advantage makes them simple to install and, of course, far less fragile than porcelain. That means reduced or eliminated losses from routine shipping, storage and handling.

the ground, from a bucket truck or from the pole.

The toggle type trunnion is a selective silver-plated bronze casting for efficient current transfer to the lower hinge contacts. A cam shaped projection on each side of the trunnion casting provides high pressure parallel current paths to the lower contacts. These projections, or pivot pins, are cast full round for smooth rotational operation in the hinge. The link ejector assists in arc interruption during low fault current or excessive overload conditions. A groove in the center of the link ejector allows the fuse link's pigtail to go directly from the fuse tube to the attachment nut. A curved ejector minimizes bending stresses in the pigtail to prevent broken strands. A stainless steel torsion spring on the link ejector helps to rapidly eject the link from the bore of the fuseholder during interruption. The 200 amp link ejector has a wider groove area and increased spring force to accommodate the larger links.

The link ejector is pinned to the trunnion casting with a stainless steel pin to provide resistance to

corrosive elements and provide smooth pivotal action. An interlocking feature between the link ejector and tube casting prevents excessive tension on the fuse link during closure, thereby preventing link breakage.

The link ejector employs a hammer effect to enhance toggle action of the trunnion during low fault and overload interruptions, hence dropout action is enhanced. The link ejector provides sufficient surface area to facilitate re-fusing by linemen wearing gloves.

#### Ratings/Specifications

STANDARD Type C-Polymer cutouts are maximum design voltage rated to eliminate application and selection confusion. There are **no restrictions** on application to grounded wye, ungrounded wye, or delta systems having maximum operating voltages (line-to-line) equal to or less than the cutout maximum design voltage rating. (See the LINKBREAK and LOADBREAK cutouts for their specifications.) Interruption tests have been performed at full system line-to-line voltage. 100-amp and 200-amp fuse tubes and 300-amp disconnect blades are available for each voltage class. They all fit into a common mounting assembly rated at 300 amps continuous.

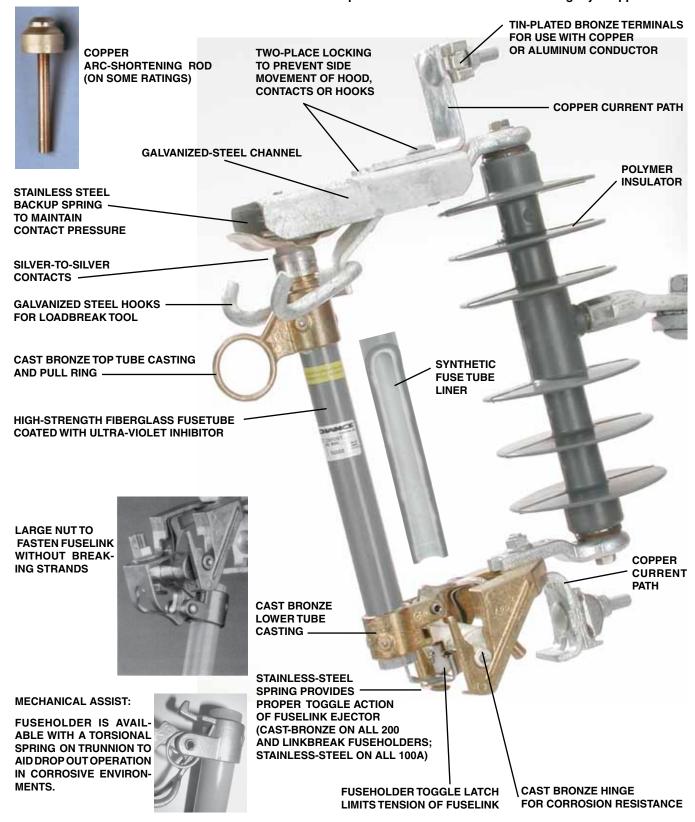




# **HUBBELL Type C-POLYMER Cutouts** Compare Hubbell quality and technical expertise

All Type C Cutouts meet or exceed ANSI/NEMA specifications.

15 kV product shown. 27 kV cutout varies slightly in appearance.



# 10AA-4 CHANCE®

# **Type C-Polymer STANDARD Cutout**



#### Interchangeability

Chance was the first to design a cutout that could interchange fuseholders and mounting assemblies with those of another manufacture. Standard Type C fuseholders and mounting assemblies are mutually interchangeable with the S&C Electric Company's Type XS cutout (within the same voltage class).

The Type C-Polymer Standard cutout is mutually interchangeable with Chance Type C Porcelain Standard cutout.

#### **Synthetic Arc-Quenching Fusetube**

The ½-inch inside diameter of the Type C-Polymer cutout's 100 ampere fusetube increases internal pressure giving superior and reliable expulsion action. During frequently encountered intermediate fault ranges this diameter also permits higher TRV (transient recovery voltage) values to be tolerated. This small bore design eliminates any concern related to high impedance phase-to-phase faults on ungrounded wye and delta systems.

The inside liner is a synthetic arc-quenching formulation in part consisting of polyester fiber, epoxy and Aluminum Tri Hydrate. The liner is chemically bonded to the tube's glassreinforced shell. This combination provides a moisture source to extinguish the arc during interrupt operations without absorption of atmospheric moisture leading to potential swelling and delamination, and provides a high bursting strength. It is protected from the weather and environment by a special ultra-violet resistant coating. For more information on the synthetic arc-quenching material, refer to Bulletin 10-0201.

The Hubbell fuse tube operates with fuselinks from all major suppliers.

100 amp or smaller fuselinks shall not be used in 200-amp fuseholders.

#### **Brackets**

Type C-Polymer cutouts come packed one per carton including a NEMA Heavy Duty "B" bracket with captive 11/2" bolt for crossarm mounting.

Type X brackets, also for crossarm mounting, provides 2<sup>5</sup>/<sub>8</sub>" additional clearance between the crossarm and the cutout.

"D" brackets are used to mount cutouts and/or arresters directly to the pole. Three brackets may be used for threephase application. Type D brackets provide a clean, quick mounting without crossarm or special pole bands.

All the above brackets are galvanized steel for long lasting service. Cutouts can be ordered without any brackets.

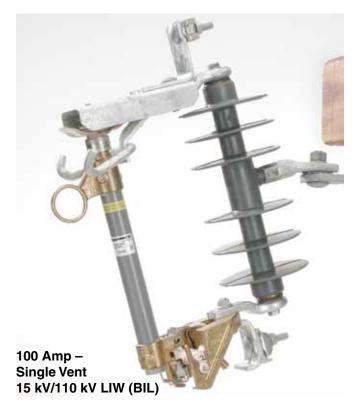
#### **Higher Interrupt Capacities**

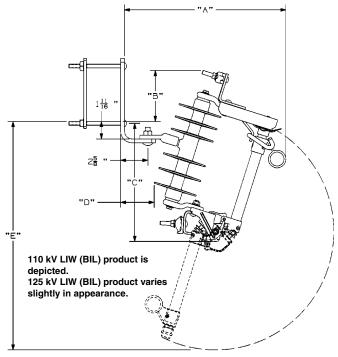
By using a copper arc shortening rod inside the top of the fusetube, higher interrupt ratings are obtainable. An arc shortening rod is attached to the cap of some fusetubes and lowers the fuse link within the fusetube. This permits a much shorter arc, resulting in less arc energy, and higher interrupting capacities. For 200 A tubes, it allows for full voltage ratings.

It is necessary to use fuse links with removable buttonheads when arc shortening rods are employed.

#### **Terminals**

Tin-plated bronze parallel groove type terminals are standard on Type C cutouts. They can accommodate aluminum or copper conductor sizes ranging from No. 6 (13.3 mm<sup>2</sup>) solid copper through 4/0 (160.6 mm<sup>2</sup>) ACSR or 250 (167.5 mm<sup>2</sup>) kcmil stranded copper. The parallel groove design is perfect for handling two different sizes of conductor as is the case when arresters are being used. Eyebolts are also available. See ordering data, page 10AA-11.





#### STANDARD Type C-Polymer Cutout with NEMA Type B Bracket

kV LIW (BIL)	A	В	C	D	E
110	15 <sup>5</sup> /8"	47/8"	11 <sup>5</sup> /8"	31/4"	221/16"
110	395 mm	125 mm	295 mm	82 mm	561 mm
105	161/16"	6 <sup>5</sup> / <sub>8</sub> "	131/16"	27/8"	27"
125	408 mm	167 mm	332 mm	72 mm	686 mm





# **Type C-Polymer STANDARD Cutout**

# **Specifications and Ordering Information**All Type C Cutouts meet or exceed ANSI/NEMA specifications.

See page 10AA-11 for Accessories.

#### 15 kV - 110 kV LIW (BIL) RUS LISTED

*Base Catalog No.	*Option suffixes below	Maximum Design Voltage	Nominal	Continuous Current (Amps)	Interrupt Capacity (Asym Amps)	Matalit	to Ground o Metal		Replacement Fusetube Cap	Arc Shortening Rod
CP710112	1 2 3	15 kV	Thru 14.4 kV	100	10,000	12.6"	319 mm	9.6/4.4	P7001535P	No
CP710114	<u>1</u> <u>2</u> <u>3</u>	15 kV	Thru 14.4 kV	100	16,000	12.6"	319 mm	9.8/4.5	E7001767P	$\mathrm{Yes}^{\ddagger}$
CP710143	<u>1</u> <u>2</u> <u>3</u>	15 kV	Thru 14.4 kV	200	12,000	12.6"	319 mm	10.4/4.7	E7002146P	$\mathrm{Yes}^{\ddagger}$
CP710133	1 2 3	15 kV	Thru 14.4 kV	300	12,000**	12.6"	319 mm	9.9/4.5	P7001535P	N/A

#### 27 kV - 125 kV LIW (BIL)

CP710211 <u>1</u> <u>2</u> <u>3</u>	$27 \; \mathrm{kV}$	Thru 24.9 kV	100	8,000	17.1"	434 mm	11.0/5.0	P7001535P	No
CP710213 <u>1</u> <u>2</u> <u>3</u>	$27 \; \mathrm{kV}$	Thru 24.9 kV	100	12,000	17.1"	434 mm	11.0/5.0	E7001768P	$\mathrm{Yes}^{\ddagger}$
CP710242 <u>1</u> <u>2</u> <u>3</u>	$27 \; \mathrm{kV}$	Thru 24.9 kV	200	10,000	17.1"	434 mm	11.6/5.3	E7002479P	$\mathrm{Yes}^{\ddagger}$
CP710233 1 2 3	27 kV	Thru 24.9 kV	300	12.000**	17.1"	434 mm	11.2/5.1	P7001535P	N/A

<sup>\*\*</sup>Momentary rating -Solid blade.

#### \*Option Suffix 1 Terminal Variations

Suffix 1	Description	*Weight (lb./kg.)		
P	Parallel-groove clamps	0.33/0.15		
E	Small eyebolts	0.16 /0.07		
L	Large eyebolts	0.31/0.14		

Must specify one selection for Option 1.

### \*Option Suffix 2 Bracket Variations

Suffix 2	Description	*Weight (lb./kg.)
В	NEMA Heavy Duty "B" bracket for crossarm (11/2" bolt)	2.84/1.29
X	Extended type bracket for crossarm (Horizontal section is 2%,8" longer than Type B bracket)	3.75/1.70
D	D-shape bracket (pole)	7.67/3.48
Z	No bracket (must be used with M in Option 3)	
Blank	No bracket (cannot use with M in Option 3)	

# \*Option Suffix 3 Mechanical Assist Fuseholder

Suffix 3	Description
Blank	No option (may <u>not</u> be used with Z in Option 2)
	used with Z in Option 2)
M	Mechanical Assist Fuse-
	holder (may <u>not</u> be used
	with Blank in Option 2)
	Fargo cutout cover
F	(available for 15 kV
	only) (may <u>not</u> be used
	with Blank in Option 2)

# Fuseholders and Mounting Assemblies 15 kV - 110 kV LIW (BIL)

Cutout Base Catalog Number	Fuseholder or Blade only Catalog No.	We	eight	Mounting Assembly only *Base Catalog No.		ight					
CP710112	T710112T	1.8 lb.	0.76 kg.								
CP710114	T710114T	2.0 lb.	0.79 kg.	TP7101MM	8.0 lb.	3.6 kg.					
CP710143	T710143T	2.6 lb.	1.18 kg.	11 / 1011/11/1							
CP710133	T710133T	2.1 lb.	0.95 kg.								

#### 27 kV - 125 kV LIW (BIL)

	•	•				
CP710211	T710211T	1.9 lb.	0.86 kg.			
CP710213	T710213T	2.0 lb.	0.91 kg.	TP7102MM	0.10 lb	411
CP710242	T710242T	2.5 lb.	1.13 kg.	1 P / 102MM	9.16 lb.	4.1 Kg.
CP710233	Т710233Т	2.1 lb.	0.97 kg.			



100A 200A Fuseholders

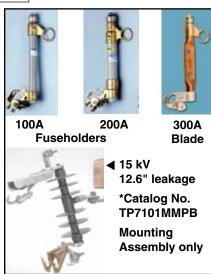


300A Blade



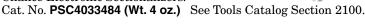
Blade 27 kV - 17.1" leakage TP7102MMPB

\*Adjust total weight when selecting Option suffixes above.



#### **Universal Cutout Tool**

Ideal for Standard and Linkbreak 100 amp fuse holders (ABB, Chance S&C) to easily lift out, place, \*open and close. Inverted, secure method also fits Chance Electronic Sectionalizers.



\*When opening a cutout, follow all work rules and OSHA regulations. Not for use with Loadbreak cutouts.



<sup>&</sup>lt;sup>‡</sup>Must use removable buttonhead fuse links.

<sup>\*</sup>Adjust total weight when selecting Options below.

## **CHANCE**®

# Type C-Polymer LINKBREAK Cutout



#### •15 kV - 110 kV LIW (BIL) •15/27 kV - 125 kV LIW (BIL)

#### **Application**

The Type C-Polymer 100 amp Linkbreak cutout provides short circuit protection to utility lines with the added feature of mechanical linkbreak capability in a loadbreaking function. Linkbreak cutouts provide reliable protection from overloads that just melt the fuselink through the maximum interrupt capacity of the fuseholder and also provide inductive and capacitive loadbreak capability. For loadbreak ratings see chart, next page.

The unit will also accept the Type C-Polymer 200 amp non-loadbreak fuseholder or a 300 amp disconnect blade. Each Linkbreak cutout includes standard loadbreak hooks to use with portable loadbreak tools. This method is particularly useful for switching of the 200 amp fuseholder and 300 amp disconnect blade.

#### **Design / Product Features**

Construction and product details shown on page 10AA-3 apply to the Linkbreak cutout except that the link-ejector on the linkbreak fuseholder is a copper-alloy casting instead of a stainless-steel stamping.

The unit utilizes a stainless-steel linkbreak lever to mechanically break fuselink elements thereby obtaining load interruption within the fuseholder. The Type C-Polymer Linkbreak fuseholder is not designed to be interchangeable with any other manufacturer's cutout.

All standard non-loadbreak fuseholders and the linkbreak fuseholders are interchangeable and fit into both the non-





A sharp downward pull on the lever with a hookstick breaks the fuselink. (15/27 kV product shown here)

loadbreak and Type C-Polymer or Porcelain Linkbreak cutout mounting assemblies. Mounting assemblies are the same as those for Type C-Polymer or Porcelain STANDARD cutouts, shown on page 10AA-5.

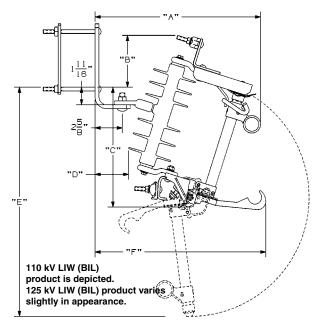
#### **Ratings / Specifications**

The 15 kV Type C-Polymer Linkbreak cutout has a maximum design voltage rating of 15 kV. There are no voltage restrictions on application to grounded wye, ungrounded wye, or delta systems having maximum operating voltages (line to line) equal to or less than the cutout maximum design voltage rating.

The 15/27kV Type C-Polymer LINKBREAK cutout has maximum design slant voltage ratings. These cutouts are to be used on systems which have phase-to-ground voltages no greater than the value listed to the left of the slant (/) and which have phase-to-phase voltages no greater than the value listed to the right of the slant.

The Type C-Polymer Linkbreak cutout is to be used with fuselinks requiring 1 inch or less elongation before breaking. Fuselinks requiring more than 1 inch elongation before breaking must not be used with the Type C-Polymer Linkbreak cutout.

# Type C-Polymer 100-Amp LINKBREAK Cutout



#### LINKBREAK Cutout with NEMA Type B Bracket **Dimensions**

LIW (BIL) kV	A	В	C	D	E	F
110	15 <sup>15</sup> /16" 405	$4^{15}/16$ " $125$	11 <sup>5</sup> / <sub>8</sub> " 295	3 <sup>1</sup> / <sub>4</sub> " 82	22 <sup>1</sup> / <sub>8</sub> " 561	16 <sup>7</sup> / <sub>16</sub> " 417
	mm	mm	mm	mm	mm	mm
	16 <sup>7</sup> /8"	69/16"	131/4"	27/8"	271/4"	15 <sup>7</sup> /8"
125	418	167	337	72	692	403
	mm	mm	mm	mm	mm	mm

#### **Loadbreak Ratings**

*Base Cutout Catalog Number	kV, Nominal System Voltage	Inductive Amperes	Capacitive Amperes
CP720112	14.4	100	100
CP720114	14.4	100	100
$\mathrm{CP720211}^\dagger$	24.9	100	100
$\mathrm{CP720213}^{\dagger}$	24.9	100	100

<sup>\*</sup>See specifications and ordering information below.

### **Specifications and Ordering Information**

All Type C Cutouts meet or exceed ANSI/NEMA specifications. 15 kV - 110 kV LIW (BIL) RUS LISTED

C..ffix

See page 10AA-11 for Accessories.

*Base Catalog No.	*Option suffixes below		Nominal System Voltage	Continuous Current (Amps)	Interrupt Capacity (Asym Amps)	88-1-11	to Ground o Metal	*Weight (lb./kg.)	Replacement Fusetube Cap	Arc Shortening Rod
CP720112	1 2 3	15 kV	Thru 14.4 kV	100	10,000	12.6"	319 mm	10.2/4.6	P7001469P	No
CP720114	1 2 3	15 kV	Thru 14.4 kV	100	16,000	12.6"	319 mm	10.3/4.7	E7001784P	$\mathrm{Yes}^{\ddagger}$

#### 15/27 kV - 125 kV LIW (BIL)

CP720211	1 2 3	15/27 kV	No Restrictions thru 14.9 kV: †20.8	100	8,000	17.1"	434 mm	11.4/5.2	P7001469P	No
CP720213	1 2 3	15/27 kV	thru 24.9 kV	100	12,000	17.1"	434 mm	11.5/5.2	E7001785P	$\mathrm{Yes}^{\ddagger}$

For application on single-phase to neutral circuits with phase-to-ground voltages not exceeding the value to the left of the slant; and for application on threephase solidly-grounded-wye systems with solidly-grounded loads with line-to-line voltages not exceeding the value to the right of the slant.

\*Must use removable buttonhead fuse links.

#### \*Option Suffix 1 Terminal Variations

		-		
Suff 1	Description	*Weight (lb./kg.)		
P	Parallel-groove clamps	0.33/0.15		
Е		0.16 /0.07		
L	Large eyebolts	0.31/0.14		

Must specify one selection for Option 1.

#### ${}^*\!\operatorname{Adjust}$ total weight when selecting Options below.

#### \*Option Suffix 2 **.** Bracket Variations

2	Description	(lb./kg.)
В	NEMA Heavy Duty "B" bracket	2.84/1.29
	for crossarm (1½" bolt)	
X	Extended type bracket for cros-	3.75/1.70
	sarm (Horizontal section	
	is 2 <sup>5</sup> / <sub>8</sub> " longer than Type B	
	bracket)	
D	D-shape bracket (pole)	7.67/3.48
Z	No bracket (must be used with	
	M in Option 3)	
Blank	No bracket (cannot use with M	
	in Option 3)	

#### \*Fuseholders (100 Amp only)

kV	Cutout Base	Fuseholder	We	ight
& LIW (BIL)	Catalog Number	Catalog No.	lb.	kg.
15 kV	CP720112	T720112T	2.5	1.13
110 kV BIL	CP720114	T720114T	2.7	1.22
15/27 kV	CP720211	T720211T	2.7	1.22
125 kV BIL	CP720213	T720213T	2.9	1.32

<sup>\*</sup>Mounting assemblies are same as STANDARD cutouts, on 10AA-5.



41A/ - ! -- l- 4

#### \*Option Suffix 3 **Mechanical Assist Fuseholder**

Suffix 3	Description
Blank	No option (may <u>not</u> be
	used with Z in Option 2)
M	Mechanical Assist Fuse-
	holder (may <u>not</u> be used
	with Blank in Option 2)
	Fargo cutout cover
F	(available for 15 kV
	only) (may <u>not</u> be used
	with Blank in Option 2)





<sup>†</sup>Limited to grounded-wye systems with grounded-wye loads.

**CHANCE**®



# Type C-Polymer LOADBREAK Cutout with Arc Chute Interrupter



#### **Application**

The Type C-Polymer Loadbreak Cutout is available for application on 15 and 27 kV distribution systems. The addition of the arc chute expands the flexibility of the Chance protective devices family by providing loadbreak capability for cutouts and disconnect solid blade units. The loadbreak cutout provides short circuit protection to utility lines with the added feature of a loadbreaking function.

The loadbreak cutout is applicable for transformer and capacitor bank switching or line sectionalizing. Loadbreak cutouts provide protection from overloads that just melt the fuselink through the maximum interrupt capacity of the fuseholder. They also provide loadbreak capability through 300 amperes.

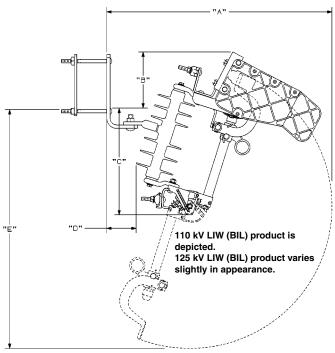
#### Design

All design features and most components of the loadbreak unit are identical to those incorporated in the Type C-Polymer standard cutout. The loadbreak portion of the Type C-Polymer Loadbreak cutout is a heavy duty, reliable load interrupter that provides a positive visible loadbreak. A common loadbreak mounting assembly will accept the Chance Type C-Polymer 100 amp and 200 amp loadbreak fuseholders or a 300 amp loadbreak disconnect blade.

#### Ratings/Specifications

The 15kV Type C-Polymer loadbreak cutout has a maximum design voltage rating of 15kV. There are no voltage restrictions on application to grounded wye, ungrounded wye, or delta systems having maximum operating voltages (line to line) equal to or less than the cutout maximum design voltage rating.

The 15/27 and 20/34.5 kV Type C loadbreak cutouts have maximum design slant voltage ratings. These cutouts are to be used on systems which have phase-to-ground voltages



#### **Dimensions**

kV LIW (BIL)	Α	АВ		C D	
110	24 <sup>13</sup> / <sub>16</sub> "	6 <sup>3</sup> / <sub>8</sub> "	11 <sup>5</sup> / <sub>8</sub> "	3 <sup>1</sup> / <sub>4</sub> "	26 <sup>5</sup> / <sub>16</sub> "
	630 mm	162 mm	295 mm	82 mm	668 mm
125	27 <sup>3</sup> / <sub>4</sub> "	7 <sup>13</sup> / <sub>16</sub> "	13 <sup>1</sup> / <sub>4</sub> "	2 <sup>7</sup> / <sub>8</sub> "	31 <sup>7</sup> / <sub>16</sub> "
	704 mm	199 mm	337 mm	72 mm	798 mm

no greater than the value listed to the left of the slant (/) and which have phase-to-phase voltages no greater than the value listed to the right of the slant.

Fuseholders and mounting assemblies from other manufacturers' loadbreak cutouts are not interchangeable with Chance loadbreak cutouts. Likewise, Chance fuseholders and mountings are not interchangeable with other manufacturers' loadbreak cutouts.

#### Operation

The self-contained loadbreak device enables the lineman to interrupt load current by means of a simple hookstick operation. To break the current, the lineman inserts a hookstick into the operating ring and rapidly opens the device. Upon opening, a spring-loaded stainless steel blade mechanism snaps out through a gray arc chute and elongates, cools and extinguishes the confined arc. The loadbreaking operation is independent of the operating speed of the lineman. The fuse remains undamaged. No special or portable tools are required to operate the unit. In the open position, the fuse-holder or blade hangs in an approximate vertical position for the visible-break.





# Type C-Polymer LOADBREAK Cutout Specifications and Ordering Information

All Type C Cutouts meet or exceed ANSI/NEMA specifications.

See page 10AA-11 for Accessories.

15 kV - 110 kV LIW (BIL) RUS LISTED

*Base Catalog No.	*Option suffixes below	Maximum Design Voltage	Nominal System Voltage	Continuous Current (Amps)	Interrupt Capacity (Asym Amps)	Leakage t			Replacement Fusetube Cap	Arc Shortening Rod
CP730112	1 2 3	15 kV	Thru 14.4 kV	100	10,000	12.6"	319 mm	15.1/6.8	P7001535P	No
CP730114	1 2 3	15 kV	Thru 14.4 kV	100	16,000	12.6"	319 mm	15.2/6.9	E7001767P	$\mathrm{Yes}^{\ddagger}$
CP730143	1 2 3	15 kV	Thru 14.4 kV	200	12,000	12.6"	319 mm	15.8/7.2	E7002146P	Yes <sup>‡</sup>
CP730133	1 2 3	15 kV	Thru 14.4 kV	300	12,000**	12.6"	319 mm	15.4/7.0	P7001535P	N/A

15/27 kV - 125 kV LIW (BIL)

			_ \ _ /							
CP730211	1 2 3	15/27 kV		100	8,000	17.1"	434 mm	15.5/7.0	P7001535P	No
CP730213	1 2 3	15/27 kV	No Restrictions	100	12,000	17.1"	434 mm	15.6/7.1	E7001768P	$\mathrm{Yes}^{\ddagger}$
CP730242	1 2 3	15/27 kV	thru 14.4 kV;	200	10,000	17.1"	434 mm	16.2/7.4	E7002479P	$\mathrm{Yes}^{\ddagger}$
CP730233	1 2 3	15/27 kV	†20.8 thru 24.9 kV	300	12.000**	17.1"	434 mm	15.8/7.2	P7001535P	N/A

Extra corrosion resistance: Not Available

#### \*Option Suffix 1 **Terminal Variations**

Suffix 1	Description	*Weight (lb./kg.)
P	Parallel-groove clamps	0.33/0.15
E	Small eyebolts	0.16/0.07
L	Large eyebolts	0.31/0.14

Must specify one selection for Option 1.

#### \*Option Suffix 2 **Bracket Variations**

Suffix 2	Description	*Weight (lb./kg.)
В	NEMA Heavy Duty "B" bracket	2.84/1.29
	for crossarm (1 <sup>1</sup> / <sub>2</sub> " bolt)	
X	Extended type bracket for cros-	3.75/1.70
	sarm (Horizontal section	
	is 2 <sup>5</sup> / <sub>8</sub> " longer than Type B	
	bracket)	
D	D-shape bracket (pole)	7.67/3.48
$\mathbf{Z}$	No bracket (must be used with	
	M in Option 3)	
Blank	No bracket (cannot use with M	
	in Option 3)	

#### \*Option Suffix 3 **Mechanical Assist** Fuseholder

i docilolaci						
Suffix 3	Description					
Blank	No option (may <u>not</u> be					
	used with Z in Option					
M	2)					
	Mechanical Assist					
	Fuseholder (may <u>not</u>					
	be used with Blank in					
	Option 2)					

## **Fuseholders and Mounting Assemblies**

15 kV - 110 kV LIW (BIL)

Base Cutout Catalog Number	Blade only Catalog No.			Mounting Assembly only *Base Catalog No.	Weight	
CP730112	T730112T	3.3 lb.	1.5 kg.			
CP730114	T730114T	3.5 lb.	1.6 kg.	TP7301MM	10.0 lb.	4.5 kg.
CP730143	T730143T	4.1 lb.	1.9 kg.	] 11,00111111		
CP730133	T730133T	3.6 lb.	1.6 kg.			

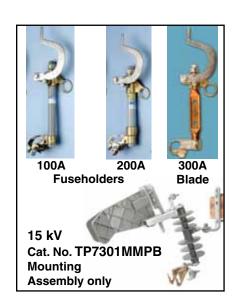
#### 15/27 kV - 125 kV LIW (BIL)

	CP730211	T730211T	3.6 lb.	1.6 kg.			
	CP730213	T730213T	3.8 lb.	1.7 kg.	TID 7200MIM	11 1 11	5 O l
	CP730242	T730242T	4.4 lb.	2.0 kg.	TP7302MM	11.1 10.	5.0 kg.
Γ	CP730233	T730233T	4.0 lb.	1.8 kg.			

<sup>\*</sup>Adjust total weight when selecting Option suffixes above.







<sup>\*</sup>Adjust total weight when selecting Options below.

<sup>\*\*</sup>Momentary rating - Solid blade

<sup>\*</sup>Must use removable buttonhead fuse links.

For application on single-phase to neutral circuits with phase-to-ground voltages not exceeding the value to the left of the slant; and for application on threephase solidly-grounded-wye systems with solidly-grounded loads with line-to-line voltages not exceeding the value to the right of the slant.





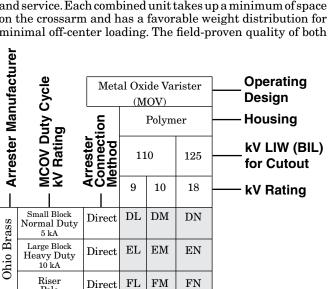
# Type C-Polymer Cutout-Arrester Combinations Over-the-Arm Type only

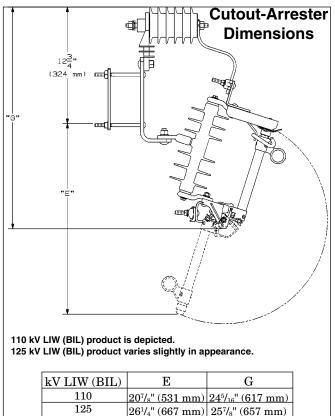


15 kV cutout with direct-connected Ohio Brass MOV, polymer 9 kV lightning arrester

#### Advantages of combination

The total installed cost of a Hubbell cutout-arrester combination is less than the total installed cost of separately purchased components. The combination units install faster, more economically and take up less space in storage, transit and service. Each combined unit takes up a minimum of space on the crossarm and has a favorable weight distribution for minimal off-center loading. The field-proven quality of both





cutout and arrester assure consistent high performance for the combinations.

For other dimensions see STANDARD Cutout, page 4.

These units include Chance cutouts fitted with **only** Ohio Brass® MOV arresters, superseding previous silicon-carbide units. For easy conversion to the new arrester designation system, refer to the Cutout Cross-Reference Guide, Bulletin 10-0203.

#### Ordering Information

To specify a Cutout-Arrester Combination:

- 1. Select a two-letter designation for the appropriate arrester from the shaded section of the Table at left.
- 2. Substitute the two letters for the "0" in the Base Catalog No. for the appropriate Cutout listed on page 5, 7 or 9.





### **Type C-Polymer Cutouts**

#### **Accessories**

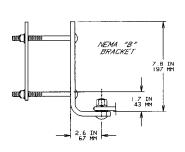
**Terminal Connectors** 

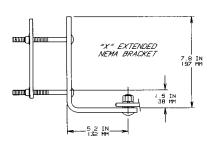
Catalog No.	Description	Wt. (lb./kg.)	Min. Order Qty.
T7001325	Parallel-Groove Clamp, tin-plated bronze for No. 6 solid thru 4/0 ACSR or 250 kcmil stranded	0.33 / 0.15	10
T7001326	Small Eyebolt for No. 8 solid thru 2/0 stranded	0.16 / 0.07	10
T7001327	Large Eyebolt for No. 6 solid thru 4/0 ACSR or 250 kcmil stranded	0.40 / 0.14	10

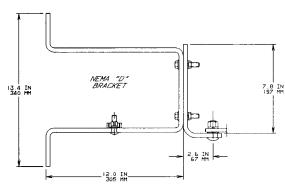
#### **Mounting Brackets**

C2060283	NEMA Heavy Duty "B" Bracket with 1½" captive bolt for crossarm mounting	2.84 / 1.29	_
C2060280	Extended Crossarm Bracket (Horizontal section is 2 <sup>5</sup> / <sub>8</sub> " longer than NEMA "B" bracket)	3.75 / 1.70	_
C2060299	"D" Pole Mounting Bracket	7.67 / 3.48	_
C2060632	Cutout/Arrester Bracket complete with carriage bolts and backstrap	4.00 / 1.81	_

#### **Mounting Bracket Dimensions**







# Fargo Cutout Cover ONE PIECE WILDLIFE PROTECTOR

Fastener installation locations (2 fasteners per assembly)

Available as an Option on Standard and Linkbreak Type C-Polymer Cutouts (see pages 10AA-5 and 10AA-7), Cover also may be ordered as a separate line item as **Catalog No. CC101**. **Material:** Proprietary low track vinyl that is UV stabilized for long-term performance. Gray color.

- Designed to provide protection for cutouts from accidental contact by squirrels, birds or other wildlife.
- ullet Universal one-piece design for easy installation or retrofit. Fits Chance 15 kV Standard and Linkbreak Cutouts, both Polymer and Porcelain types.



#### **Universal Cutout Tool**

Ideal for Standard and Linkbreak 100 amp fuse holders (ABB, Chance, S&C) to easily lift out, place, \*open and close. Inverted, secure method also fits Chance Electronic Sectionalizers.

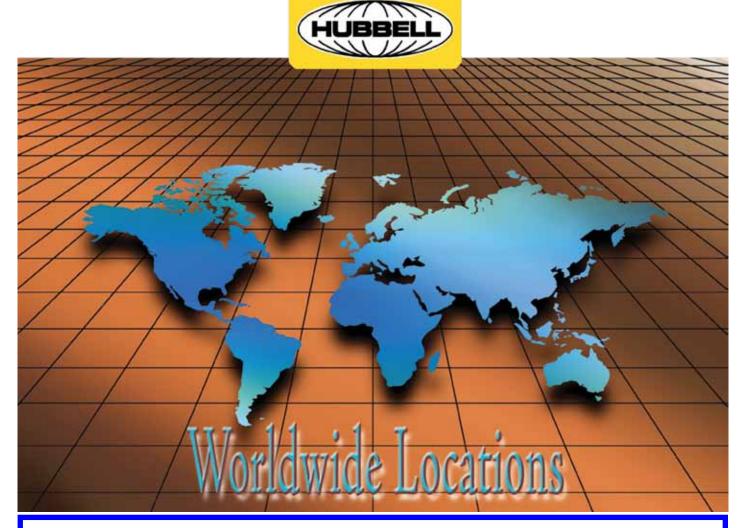
Cat. No. PSC4033484 (Wt. 4 oz.) See Tools Catalog Section 2100.

\*When opening a cutout, follow all work rules and OSHA regulations. Not for use with Loadbreak cutouts.



10AA-12 CHANCE®





Web: http://www.hubbellpowersystems.com E-mail: hpsliterature@hps.hubbell.com

# UNITED STATES CANADA, INTERNATIONAL

HUBBELL POWER SYSTEMS, INC. 210 N. Allen Street Centralia, Mo 65240-1395 Phone: 1-573-682-5521 Fax: 1-573-682-8714

e-mail: hpsliterature@hps.hubbell.com

#### **MEXICO**

HUBBELL DE MEXICO, S.A. DE C.V. Av. Insurgentes Sur #1228, Piso 8 Col. Tlacoquemacatl Del Valle Mexico, D.F. 03200 Phone: 52-55-9151-9999 Fax: 52-55-9151-9988 Website: hubbell.com.mx

Bushings  $\cdot$  construction  $\cdot$  insulation  $\cdot$  protection  $\cdot$  switching  $\cdot$  tools