10AA



Type C-POLYMER Cutouts (Standard, Linkbreak, Loadbreak) and Cutout-Arrester Combinations

Catalog 10AA March 2015





HUBBELL[®] Power Systems, Inc. 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 socket-type cavity for latching the fuseholder and prevents any possible "overtravel" 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.

Polymer Insulators

Type C Polymer Cutout Insulators are manufactured with Enhanced Silicone Polymer (ESP), the same material used in Ohio Brass PDV arresters and Hi*Lite Insulators. ESP is a polymer compound made by combining Silicone and EPDM Rubber. This special formulation 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, 17.1" (434 mm) vs 12.6" (319 mm) for 27kV - 125kV BIL, and 23.6" (600 mm) vs 17.3" (440 mm) for 27kV - 150kV BIL .

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. 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

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

to facilitate re-fusing by linemen wearing gloves.

Ratings/Specifications

at 300 amps continuous.

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 silver-plated copper alloy, 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 the ground, from a bucket truck or from the pole.

The toggle type trunnion is a selective silver-plated





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. 27kV-125kV BIL and 27kV-150kV BIL cutouts vary slightly in appearance.



Phone: 573-682-5521 Email: hpsliterature@hubbell.com Web: hubbellpowersystems.com March 2015 HUBBELL



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 S&C Type XS and ABB Type ICX cutouts. (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 ¹/₂-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 glass-reinforced shell. This combination provides a moisture source to extinquish 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 $1^{1}/_{2}$ " bolt for crossarm mounting.

Type X brackets, also for crossarm mounting, provides $2^{5}/8$ " 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 three-phase 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 mm²) solid copper through 4/0 (160.6 mm²) ACSR or 250 (167.5 mm²) 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.

Extra Corrosion Protection

Type C cutouts are available with components of stainless steel brackets, hood and hardware, and copper alloy loadbreak hooks to offer greater corrosion resistance for environmental areas where corrosion can become a major factor. To order a stainless steel/copper alloy cutout add the suffix "S" to the end of the catalog number with the rating specifications desired. In additon, an optional spring assist may be provided to further enhance the toggle and drop out action in highly corrosive applications.



Type C-Polymer STANDARD Cutout



STANDARD Type C-Polymer Cutout with NEMA Type B Bracket

kV LIW (BIL)	A	В	C	D	E
110	15 ⁵ /8″	4 ⁷ / ₈ "	11 ⁵ /8″	3 ¹ /4″	22 ¹ / ₁₆ "
110	395 mm	125 mm	295 mm	82 mm	561 mm
175	16 ¹ / ₁₆ "	6 ⁵ / ₈ "	13 ¹ / ₁₆ "	2 ⁷ / ₈ "	27″
125	408 mm	167 mm	332 mm	72 mm	686 mm
150	16 ¹ / ₁₆ "	6 ⁵ /8″	13 ¹ / ₁₆ "	2 ⁷ /8"	27″
150	408 mm	167 mm	332 mm	72 mm	686 mm

Type C-Polymer STANDARD Cutouts

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

See page 10AA-14 for Arrester Cutout Combinations See page 10AA-15 for Accessories. See page 10AA-16 for Complete Catalog Numbering

HUBBELL Power Systems, Inc.

15kV - 110kV LIW (BIL) RUS LISTED

	*Option	Maximum	Nominal	Continuous	Interrupt				Replacement	Arc
*Base	suffixes	Design	System	Curent	Capacity	Leakage to G	iround Metal	*Weight	Fusetube Cap/	Shortening
Catalog No.	below	Voltage	Voltage	(Amps)	(Asym Amps)	to M	etal	(lb./kg.)	Cap Assembly	Rod
CP710112	<u>123</u>	15 kV	Thru 14.4 kV	100	10,000	12.6″	319 mm	9.6/4.4	P7001535P	No
CP710114	<u>123</u>	15 kV	Thru 14.4 kV	100	16,000	12.6″	319 mm	9.8/4.5	E7001767P	Yes‡
CP710143	<u>123</u>	15 kV	Thru 14.4 kV	200	12,000	12.6″	319 mm	10.4/4.7	E7002146P	Yes‡
CP710133	<u>123</u>	15 kV	Thru 14.4 kV	300	12,000**	12.6″	319 mm	9.9/4.5	P7001535P	N/A

27kV - 125kV LIW (BIL)

CP710211	<u>123</u>	27 kV	Thru 24.9 kV	100	8,000	17.1″	434 mm	11.0/5.0	P7001535P	No
CP710213	<u>123</u>	27 kV	Thru 24.9 kV	100	12,000	17.1″	434 mm	11.0/5.0	E7001768P	Yes‡
CP710242	<u>123</u>	27 kV	Thru 24.9 kV	200	10,000	17.1″	434 mm	11.6/5.3	E7002479P	Yes‡
CP710243	<u>123</u>	27 kV	Thru 24.9 kV	200	12,000	17.1″	434 mm	11.6/5.3	PSE7002706	Yes‡
CP710233	<u>123</u>	27 kV	Thru 24.9 kV	300	12,000**	17.1″	434 mm	11.2/5.1	P7001535P	N/A

27kV - 150kV LIW (BIL)

CP710311	<u>123</u>	27 kV		100	8,000	23.6″	600 mm	10.7/4.8	P7001535P	No
CP710313	<u>123</u>	27 kV	No Restrictions	100	12,000	23.6″	600 mm	10.7/4.8	E7001768P	Yes‡
CP710342	<u>123</u>	27 kV	thru 24.9 kV; †26.4	200	10,000	23.6″	600 mm	11.3/5.1	E7002479P	Yes‡
CP710343	<u>123</u>	27 kV	thru 34.5kV	200	12,000	23.6″	600 mm	11.3/5.1	PSE7002706	Yes‡
CP710333	<u>123</u>	27 kV		300	12,000**	23.6″	600 mm	10.9/4.9	P7001535P	N/A

*Adjust total weight when selecting Options **Momentary rating - Solid blade. [‡]Must use removable buttonhead fuse links.

[†]For application on single-phase to neutral or three-phase solidly grounded wye-connected circuits where recovery voltage does not exceed the maximum design voltage of the device.

*Option Suffix 1 **Terminal Variations**

Suffix 1	Description	*Weight (lb./kg.)
Р	Parallel-groove clamps	0.33/0.15
E	Small eyebolts	0.16/0.07
L	Large eyebolts	0.31/0.14
R	Lower PG Clamp Rotated 90°	0.33/.015

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 (1 ¹ / ₂ " bolt)	2.84/1.29
X	Extended type bracket for crossarm (Horizontal section is 2 ⁵ /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)	
V	Easy-On Bracket for crossarm (Height: 4½" to 5½" Width: 2¾" to 4")	2.9/1.32

*Option Suffix 3 **Mechanical Assist Fuseholder**

Suffix 3	Description
Blank	No option (may <u>not </u> be used with Z in Option 2)
М	Mechanical Assist Fuseholder (may <u>not</u> be used with Blank in Option 2)
F	Fargo cutout cover (available for 15 kV only) (may <u>not</u> be used with Blank in Option 2)
S	Anti-corrosion stainless steel/copper alloy cutout



HUBBEL wer Systems, Inc.

STANDARD Fuseholders and Mounting Assemblies

15kV - 110kV LIW (BIL)

Cutout Base Catalog Number	Fuseholder/ Blade Catalog Number	Fuseholder/ Blade Weight	Mounting Assembly *Base Catalog Number	*Mounting Assembly Weight
CP710112	T710112T	1.8 lb./0.76 kg.		
CP710114	T710114T	2.0 lb./0.79 kg.	TD7101MM	8.0 lb./3.6 kg.
CP710143	T710143T	2.6 lb./1.18 kg.	IF7 IU IIVIIVI	
CP710133	T710133T	2.1 lb./0.95 kg.		

*Mounting assembly Catalog Number must include suffix for terminal variation. Adjust total weight when selecting Option suffixes above.

27kV - 125kV LIW (BIL)

CP710211	T710211T	1.9 lb./0.86 kg.		
CP710213	T710213T	2.0 lb./0.91 kg.		
CP710242	T71024T	2.5 lb./1.13 kg.	TP7102MM	9.16 lb./4.1 kg.
CP710243	T710243T	2.5 lb./1.13 kg.		
CP710233	T710233T	2.1 lb./0.97 kg.		

*Mounting assembly Catalog Number must include suffix for terminal variation. Adjust total weight when selecting Option suffixes above.

27kV - 150kV LIW (BIL)

CP710311	T710311T	1.9 lb./0.86 kg.		
CP710313	T710313T	2.0 lb./0.91 kg.		
CP710242	T710242T	2.5 lb/1.13 kg.	TP7103MM	9.51 lb./4.31 kg.
CP710343	T710343T	2.5 lb./1.13 kg.		
CP710333	T710333T	2.1 lb./0.97 kg.		

*Mounting assembly Catalog Number must include suffix for terminal variation. 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.



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.





HUBBELL

Type C-Polymer LINKBREAK Cutouts



15kV - 110kV LIW (BIL) 15/27kV - 125kV LIW (BIL) 22/36.4kV - 150kV 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 nonloadbreak 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.





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

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

15/27kV and 22/36.4kV Type C-Polymer Linkbreak cutouts have 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

kV LIW (BIL	A	В	C	D	E	F
110	15 ¹⁵ / ₁₆ "	4 ¹⁵ / ₁₆ "	11 ⁵ / ₈ ″	3 ¹ / ₄ "	22 ¹ / ₈ ″	16 ⁷ / ₁₆ "
110	405 mm	125 mm	295 mm	82 mm	561 mm	417 mm
125	16 ⁷ /8″	6 ⁹ / ₁₆ "	13 ¹ /4"	2 ⁷ /8″	27 ¹ /4″	15 ⁷ /8″
125	418 mm	167 mm	337 mm	72 mm	692 mm	403 mm
150	16 ⁷ / ₈ "	6 ⁹ / ₁₆ "	13 ¹ / ₄ "	2 ⁷ / ₈ "	27 ¹ / ₄ "	15 ⁷ / ₈ "
	418 mm	167 mm	337 mm	72 mm	692 mm	403 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
CP720211 ⁺	24.9	100	100
CP720213 ⁺	24.9	100	100
CP720311 ⁺	34.5	100	50
CP720313 ⁺	34.5	100	50

See page 10AA-14 for Arrester Cutout Combinations See page 10AA-15 for Accessories. See page 10AA-16 for Complete Catalog Numbering *See specifications and ordering information below. [†]Limited to grounded-wye systems with grounded-wye loads.

Specifications and Ordering Information

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

15kV - 110kV LIW (BIL) RUS LISTED

*Base Catalog No.	*Option suffixes below	Maximum Design Voltage	Nominal System Voltage	Continuous Curent (Amps)	Interrupt Capacity (Asym Amps)	Leakage to Ground s) Metal to Metal		Leakage to Rej Ground *Weight Fus Metal to Metal (Ib./kg.) Cap		Arc Shortening Rod
CP720112	<u>123</u>	15 kV	Thru 14.4 kV	100	10,000	12.6″	319 mm	10.2/4.6	P7001469P	No
CP720114	<u>123</u>	15 kV	Thru 14.4 kV	100	16,000	12.6″	319 mm	10.3/4.7	E7001784P	Yes‡

15/27kV - 125kV LIW (BIL) RUS LISTED

CP720211	<u>123</u>	15/27 kV	No Restrictions thru 14.9kV;	100	8,000	17.1″	434 mm	11.4/5.2	P7001469P	No
CP720213	<u>123</u>	15/27 kV	⁺ 20.8 thru 24.9kV	100	12,000	17.1″	434 mm	11.4/5.2	E7001785P	Yes‡

22/36.4kV - 150kV LIW (BIL)

CP720311	<u>123</u>	22/36.4 kV	No Restrictions thru 14.9kV;	100	8,000	23.6″	600 mm	11.2/5.1	P7001469P	No
CP720313	<u>123</u>	22/36.4 kV	⁺ 22.8 thru 34.5kV	100	12,000	23.6″	600 mm	11.2/5.1	E7001785P	Yes

*Adjust total weight when selecting Options *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 three-phase 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 100-Amp LINKBREAK Cutout

*Option Suffix 1 Terminal Variations

Suffix		*Weight
1	Description	(lb./kg.)
Р	Parallel-groove clamps	0.33/0.15
E	Small eyebolts	0.16/0.07
L	Large eyebolts	0.31/0.14
R	Lower PG Clamp Rotated 90°	0.33/.015

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 (1 ¹ / ₂ " bolt)	2.84/1.29							
Х	Extended type bracket for crossarm (Horizontal section is 2 ⁵ / ₈ " longer than Type B bracket)	3.75/1.70							
D	D-shape bracket (pole)	7.67/3.48							
Ζ	No bracket (must be used with M in Option 3)								
Blank	No bracket (cannot use with M in Option 3)								
V	Easy-On Bracket for crossarm (Height: 4½" to 5½2" Width: 2¾" to 4")	2.9/1.32							

*Option Suffix 3 Mechanical Assist Fuseholder								
Suffix 3	Description							
Blank	No option (may <u>not</u> be used with Z in Option 2)							
Μ	Mechanical Assist Fuseholder (may <u>not</u> be used with Blank in Option 2)							
F	Fargo cutout cover (available for 15 kV only) (may <u>not</u> be used with Blank in Option 2)							
S	Anti-corrosion stainless steel/copper alloy cutout							

Fuseholders

*Fuseholders (100 Amp only)

kV	Cutout Base	Fusebolder	Wei	ight
& LIW (BIL)	Catalog Number	Catalog No.	lb.	kg.
15kV	CP720112	T720112T	2.5	1.13
110kV BIL	CP720114	T720114T	2.7	1.22
15/27kV	CP720211	T720211T	2.7	1.22
125kV BIL	CP720213	T720213T	2.9	1.32
22/36.4kV	CP720311	T720311T	2.7	1.22
150kV BIL	CP720313	T720312T	2.9	1.32

*Mounting assemblies are same as STANDARD cutouts, on 10AA-5.







Type C-Polymer LOADBREAK Cutouts with Arc Chute Interrupter

15kV - 110kV LIW (BIL) 15/27kV - 125/150kV LIW (BIL) 20/34.5kV - 150kV LIW (BIL)





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. The Type C-Polymer LOADBREAK fuseholder is not designed to be interchangeable with any other manufacturer's cutout.

Ratings/Specifications

15kV Type C-Polymer loadbreak cutout has a maximum design voltage rating of 15kV. There are no voltage restrictions on applicaton 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.

15/27 kV and 20/34.5 kV Type C-Polymer loadbreak cutouts have maximum design slant voltage ratings. These cutouts



Dimensions

kV LIW (BIL)	A	В	C	D	E
110	24 ¹³ / ₁₆ "	6 ³ / ₈ "	11 ⁵ / ₈ "	3 ¹ /4"	26 ⁵ / ₁₆ "
	630 mm	162 mm	295 mm	82 mm	668 mm
125	27 ³ / ₄ "	7 ¹³ / ₁₆ "	13 ¹ / ₄ "	2 ⁷ / ₈ "	31 ⁷ / ₁₆ "
	704 mm	199 mm	337 mm	72 mm	798 mm
150	27 ³ / ₄ "	7 ¹³ / ₁₆ "	13 ¹ / ₄ "	2 ⁷ / ₈ "	31 ⁷ / ₁₆ "
	704 mm	199 mm	337 mm	72 mm	798 mm

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.

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 fuseholder or blade hangs in an approximate vertical position for the visible-break.



See page 10AA-14 for Arrester Cutout Combinations

Type C-Polymer LOADBREAK Cutouts

Specifications and Ordering Information

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

15kV - 110kV LIW (BIL) RUS LISTED

	*Option	Maximum		Continuous		Interrupt	Leaka	ige to		Replacement	Arc
*Base	suffixes	Design	Nominal System	Current	Number of	Capacity	Gro	und	*Weight	Fusetube Cap/	Shortening
Catalog No.	below	Voltage	Voltage	(Amps)	Operations	(Asym Amps)	Metal t	o Metal	(lb./kg.)	Cap Assembly	Rod
CP730112	<u>123</u>	15 kV	Thru 14.4 kV	100	200	10,000	12.6″	319 mm	15.1/6.8	P7001535P	No
CP730114	<u>123</u>	15 kV	Thru 14.4 kV	100	200	16,000	12.6″	319 mm	15.2/6.9	E7001767P	Yes‡
CP730143	<u>123</u>	15 kV	Thru 14.4 kV	200	200	12,000	12.6″	319 mm	15.8/7.2	E7002146P	Yes‡
CP730133	<u>123</u>	15 kV	Thru 14.4 kV	300	50	12,000**	12.6″	319 mm	15.4/7.0	P7001535P	N/A

				_			See page 10	AA-15 10	Complet	o Cotolog	Numboring	
15/27kV			LIW (BIL)				See page 1044-10 101 Complete Catalog Humbering					
CP730211	<u>123</u>	15/27 kV	125 kV		100	200	8,000	17.1″	434 mm	15.5/7.0	P7001535P	No
CP730213	<u>123</u>	15/27 kV	125 kV		100	200	12,000	17.1″	434 mm	15.6/7.1	E7001768P	Yes‡
CP730242	<u>123</u>	15/27 kV	125 kV	No Restrictions	200	200	10,000	17.1″	434 mm	16.2/7.4	E7002479P	Yes‡
CP730243	<u>123</u>	15/27 kV	125 kV	thru 14.4kV;	200	200	12,000	17.1″	434 mm	16.2/7.4	PSE7002706	Yes‡
CP730342	<u>123</u>	15/27 kV	150 kV	[†] 20.8 thru	200	200	10,000	23.6″	600 mm	15.9/7.2	E7002479P	Yes‡
CP730343	<u>123</u>	15/27 kV	150 kV	24.9kV	200	200	12,000	23.6″	600 mm	15.9/7.2	PSE7002706	Yes
CP730233	<u>123</u>	15/27 kV	125 kV		300	50	12,000**	17.1″	434 mm	15.8/7.2	P7001535P	N/A
CP730333	<u>123</u>	15/27 kV	150 kV.		300	50	12,000**	23.6″	600 mm	15.5/7.0	P7001535P	N/A

20/34.5kV - 150kV LIW (BIL)

CP730311	<u>123</u>	20/34.5 kV	No Restrictions thru 14.4kV;	100	100	8,000	23.6″	600 mm	15.2/6.9	P7001535P	No
CP730313	<u>123</u>	20/34.5 kV	[†] 20.8 thru 34.5kV	100	100	12,000	23.6″	600 mm	15.3/6.9	E7001768P	Yes

*Adjust total weight when selecting Options **Momentary rating — Solid blade [‡]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 three-phase solidly-grounded-wye systems with solidly-grounded loads with line-to-line voltages not exceeding the value to the right of the slant.

*Option Suffix 1 Terminal Variations

Suffix 1	Description	*Weight (lb./kg.)									
Р	Parallel-groove clamps	0.33/0.15									
E	Small eyebolts	0.16/0.07									
L	Large eyebolts	0.31/0.14									
R	Lower PG Clamp Rotated 90°	0.33/.015									

Must specify one selection for Option 1.

*Option Suffix 2 **Bracket Variations** Suffix *Weight 2 Description (lb./kg.) NEMA Heavy Duty"B" bracket for В 2.84/1.29 crossarm $(1^1/_2"$ bolt) Extended type bracket for Х crossarm (Horizontal section 3.75/1.70 is $2^{5}/8''$ longer than Type B bracket) D D-shape bracket (pole) 7.67/3.48 No bracket (must be used with Ζ M in Option 3) No bracket (cannot use with Blank M in Option 3) Easy-On Bracket for crossarm V (Height: 4¹/₈" to 5⁵/₃₂" 2.9/1.32 Width: 2³/₄" to 4")

*Option Suffix 3 Mechanical Assist Fuseholder

Suffix 3	Description
Blank	No option (may <u>not </u> be used with Z in Option 2)
М	Mechanical Assist Fuseholder (may <u>not</u> be used with Blank in Option 2)
F	Fargo cutout cover (available for 15 kV only) (may <u>not</u> be used with Blank in Option 2)
S	Anti-corrosion stainless steel/copper alloy cutout





LOADBREAK Fuseholders and Mounting Assemblies

15kV - 110kV LIW (BIL)

Cutout Base Catalog Number	Fuseholder/ Blade Catalog Number	Fuseholder/ Blade Weight	Mounting Assembly *Base Catalog Number	*Mounting Assembly Weight
CP730112	T730112T	3.3 lb./1.5 kg.		
CP730114	T730114T	3.5 lb./1.6 kg.		10.0 lb /4.5 kg
CP730143	T730143T	4.1 lb./1.9 kg.	1773U TIVIIVI	10.010./4.5 Kg.
CP730133	T730133T	3.6 lb./1.6 kg.		

*Mounting assembly Catalog Number must include suffix for terminal variation. Adjust total weight when selecting Option suffixes above.

15/22	7kV			LIW (BIL)		
CP73	0211	T730211T	3.6 lb./1.6 kg.	125 kV	TP7302MM	11.1 lb./5.0 kg.
CP73	0213	T730213T	3.8 lb./1.7 kg.	125 kV	TP7302MM	11.1 lb./5.0 kg.
CP73	0242	T730242T	4.4 lb./2.0 kg.	125 kV	TP7302MM	11.1 lb./5.0 kg.
CP73	0243	T730243T	4.4 lb./2.0 kg.	125 kV	TP7302MM	11.1 lb./5.0 kg.
CP73	0342	T730342T	4.4 lb/ 2.0 kg.	150 kV	TP7303MM	11.5 lb./5.2 kg.
CP73	0343	T730343T	4.4 lb./2.0 kg	150 kV	TP7303MM	11.5 lb./5.2 kg.
CP73	0233	T730233T	4.0 lb./1.8 kg.	125 kV	TP7302MM	11.1 lb./5.0 kg.
CP73	0333	T730333T	4.0 lb./1.8 kg.	150 kV	TP7303MM	11.5 lb./5.2 kg.

*Mounting assembly Catalog Number must include suffix for terminal variation. Adjust total weight when selecting Option suffixes above.

20/34.5kV - 150kV LIW (BIL)

CP730311	T730211T	3.6 lb./1.6 kg.	TDZOOMM	11 5 lb /5 2 kg
CP730313	T730213T	3.8 lb./1.7 kg.		11.310./3.2 Kg.

*Mounting assembly Catalog Number must include suffix for terminal variation. Adjust total weight when selecting Option suffixes above.











Phone: 573-682-5521 Email: hpsliterature@hubbell.com Web: hubbellpowersystems.com

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.

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.



IBBELL

110 kV LIW (BIL) product is depicted. 125 and 150 kV LIW (BIL) products vary slightly in appearance.

Dimensions

kV LIW (BIL)	E	G
110	20 ⁷ /8″ 531 mm	24 ⁵ / ₁₆ " 617 mm
125	26 ¹ / ₄ " 667 mm	25 ⁷ / ₈ ″ 657 mm
150	26 ¹ / ₄ " 667 mm	25 ⁷ / ₈ ″ 657 mm

For other dimensions see STANDARD Cutout, page 4.





Type C-Polymer Cutouts Catalog Numbering System







Type C-Polymer Cutouts Accessories

TERMINAL CONNECTORS

			Minimum Order
Catalog No.	Description	Weight (lb./kg.)	Quantity
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 1 ¹ / ₂ " captive bolt for crossarm mounting	2.84/1.29	—
C2060280	Extended Crossarm Bracket (Horizontal section is 2 ⁵ / ₈ " 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	_
PSC2060887	"V" Easy-On Bracket for Crossarm Height range: $4\frac{1}{8}$ " to $5\frac{5}{32}$ ", Crossarm Width range: $2\frac{3}{4}$ " to 4 "	2.9/ 1.32	_

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.
- 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.













NOTES

HUBBELL

Phone: 573-682-5521 Email: hpsliterature@hubbell.com Web: hubbellpowersystems.com



NOTES

HUBBELL





• 8100 Churchill Avenue • Leeds, Alabama 35094 • (205) 699-0840

NOTICE: For the latest revision of our Catalog and Literature, click here or visit our web site: www.hubbellpowersystems.com

NOTE: Hubbell has a policy of continuous product improvement. Please visit hubbellpowersystems.com to confirm current design specifications. ©Copyright 2015 Hubbell Incorporated

NEVER COMPROMISE[™]





MARCH 2015

Catalog 10AA