COOPER Power Systems

Specifiers Guide

Components Master Catalog

5 kV – 35 kV ELECTRICAL DISTRIBUTION SYSTEMS

Smart Solutions. Reliable Power. Everywhere.

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"There's a way to do it better – find it."
— Thomas A Edison

Smart Solutions that Deliver Reliable Power Everyday --- Everywhere

Through our commitment to research and development, we continue to develop smart solutions for safe, reliable, environmentally friendly electrical power delivery. This Specifier's Guide contains all the information necessary to order what you need to complete your projects for 5 kV – 35 kV electrical distribution systems.

Let our Legacy Speak For Itself

From the Electric Century to the Information Age

Even a visionary like Thomas A. Edison could not have imagined the sophistication required of electrical transmission and distribution equipment a little more than a century after the invention of the incandescent electric light bulb and the beginning of the "Electric Century." Nor could he have anticipated all of the complex issues facing the electrical industry today.

Since it's beginning, Cooper Power Systems has continued the commitment of its forebears to innovation. Our research and development lab, The Thomas A. Edison Technical Center, embodies Edison's philosophy of "finding a better way" – with innovative products that promote better power quality, reliability, safety, performance, and environmental stewardship. We're proud to trace our heritage back to the industry's pioneer.

Thomas A. Edison, Incorporated, one of Thomas Edison's original companies founded in 1910 and with corporate roots that go back to 1889, combined with McGraw Electric Company in 1957 to form McGraw-Edison. In 1985, McGraw-Edison became part of Cooper Power Systems. When RTE was acquired by Cooper Industries in 1988 and merged with McGraw-Edison Power Systems, Cooper Power Systems was formed. Cooper's product offerings expanded again through the acquisition of Kearney in 1997. When RTE received a patent on the 15 kV loadbreak elbow design in 1966, its potential growth was probably unrealized at the time. It is estimated that there are well over 10,000,000 such elbows in service today. As a leading innovator in the industry, Cooper Power Systems continues to introduce new products for underground distribution systems.Other innovative companies have played key roles in the development of modern distribution systems, and they have elped Cooper Power Systems become a leading manufacturer of electrical distribution equipment.

But Wait, There's More

In addition to rubber goods, we also supply surge arresters, tools, hotsticks, connectors, bushings, fusing, faulted circuit indicators, sectionalizing equipment and more. Now, you can get all of your products in one place – from one manufacturer – Cooper Power Systems! If you need more detail than what is contained in this easy to use Specifier's Guide, we have additional information available on the internet at www.cooperpower.com. You can also register to have access to Cooper Power Systems complete online catalog, product and service literature that is updated daily! You can view documents in real time as they are updated. To register, go to www.cooperpowercentral.com.

Technical Support When You Need It

If you cannot find what you're looking for, or need more detailed information, please contact our factory application engineers at 800-847-4584 (within domestic USA), or email your questions to info@cooperpowercentral.com. Technical support and application information are readily available. Cooper Power Systems can also provide practical, hands-on training using actual products so you can learn the easiest way to fit our products into your application.

Quality Policy

Cooper Power Systems is committed to providing innovative products and services that always meet agreed-upon customer requirements. ISO 9001-2000 supports our ongoing commitment to quality by strengthening internal processes and procedures. Commitment to quality assists us in ensuring that our customers are delighted.

Following is additional information available to you from a variety of resources.

Cooper Power Systems Website

www.cooperpower.com

Additional Industry Websites

IEEE® industry standards
http://www.ieee.org/web/standards/home/index.html

IEEE®
http://www.ieee.org

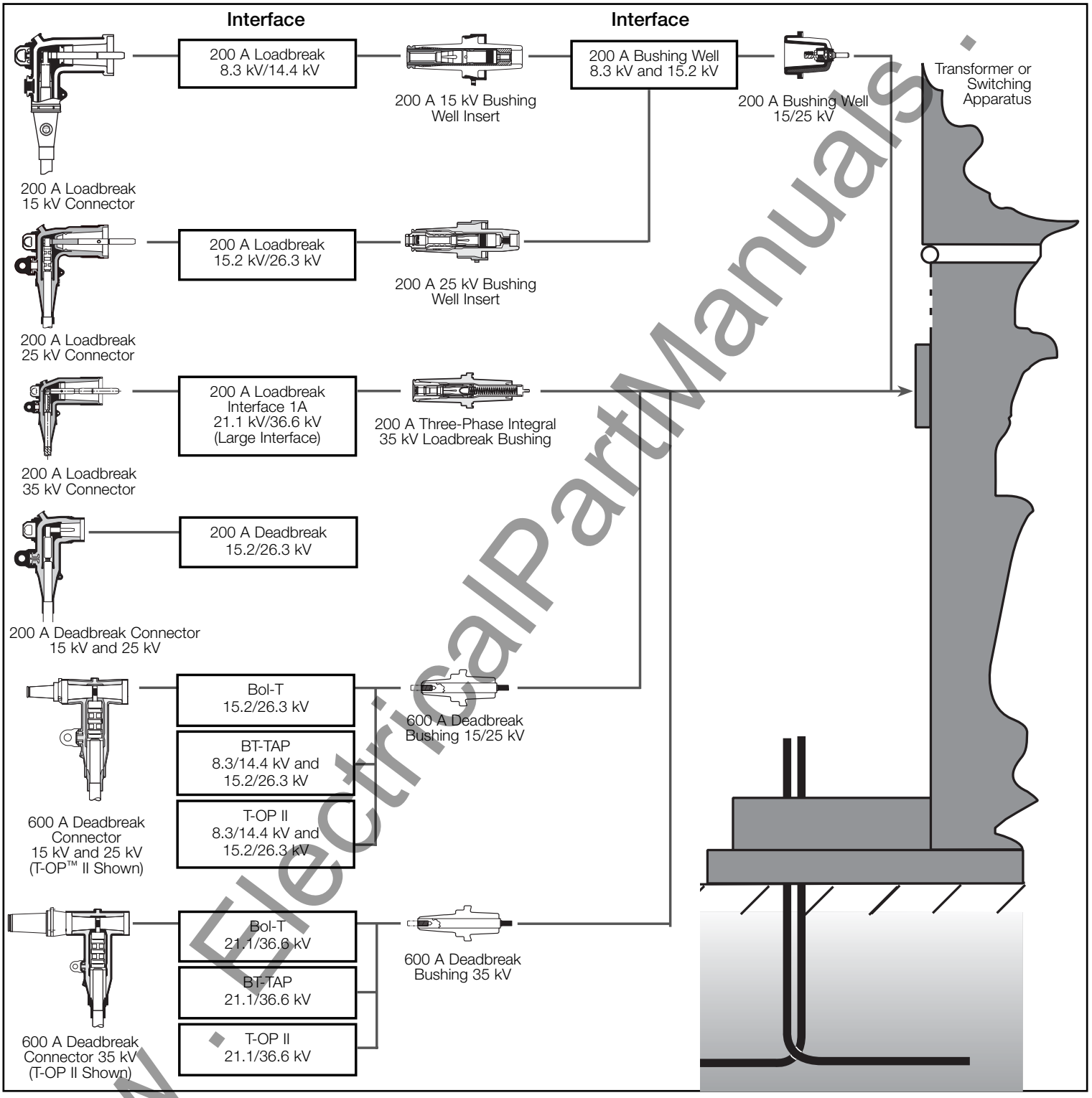
Specific energy statistics from the U.S. government
http://www.eia.doe.gov/

U.S. Department of Energy
http://www.energy.gov/

Standard Interfaces for Separable Connectors and Components

The following diagram specifies the **IEEE Standard 386™** interfaces supplied by Cooper Power Systems for various applications to ensure interchangeability of any mating components.

Interface Description Per IEEE Standard 386 – 1995™



Cooper Power Systems Connectors, Splices, Underground Surge Arresters, Tools, Bushings, Fusing, Faulted Circuit Indicators and Sectionalizing Equipment have been designed and tested per applicable portions of Institute of Electrical and Electronics Engineers, Inc. (**IEEE**®), American National Standards Institute (ANSI®), National Electrical Manufacturers Association (NEMA) and other industry standards including:

- **IEEE Standard 386**™ for Separable Connectors
- **IEEE Standard 404**™ for Cable Joints and Splices
- **IEEE Standard C62.11**™ for Metal Oxide Surge Arresters
- **IEEE Standard C37.41**™ for Current-Limiting Fuses
- **IEEE Standard 592**™ for Exposed Semi-conducting Shields
- **ANSI C119.4 Standard** for Copper and Aluminum Conductor Connectors
- **AEIC CS5**, **CS6 and CS8 Standards** for XLP and EPR Insulated Cables
- **ICEA S-94-649 Standard** for XLP and EPR Insulated Cables

Cooper Power Systems Separable Connectors are rated for 15 kV, 25 kV and 35 kV systems in accordance with the following ratings.

Splice Voltage Ratings in Accordance with IEEE Standard 404™

Voltage Ratings and Characteristics			
Description	**Voltage**		
Standard Voltage Class (kV)	15	25	35
Maximum Rating Phase-to-Ground (kV rms)	8.7	14.4	20.2
AC 60 Hz 1 Minute Withstand (kV rms)	35	52	69
DC 15 Minute Withstand (kV)	70	100	125
BIL and Full Wave Crest (kV peak)	110	150	200
Minimum Corona Voltage Level (kV)	13	22	31

Splice Current Ratings in Accordance with IEEE Standard 404™

Current Ratings and Characteristics	
Description	**Amperes**
Continuous	Equal to the current rating of the cable per **IEEE Standard 404**™
Short Time	Equal to the current rating of the cable per **IEEE Standard 404**™

200 A Loadbreak Connector Ratings in Accordance with IEEE Std. 386™

Voltage Ratings	**15 kV**	**25 kV**	**35 kV**
Standard Voltage Class	15	25	35
Maximum Rating Phase-to-Phase	14.4	26.3	36.6
Maximum Rating Phase-to-Ground	8.3	15.2	21.1
AC 60 Hz 1 Minute Withstand	34	40	50
DC 15 Minute Withstand	53	78	103
BIL and Full Wave Crest	95	125	150
Minimum Corona Voltage Level	11	19	26
Current Ratings	**15 kV**	**25 kV**	**35 kV**
Continuous	200 A rms	200 A rms	200 A rms
Switching	10 make/break operations at 200 A rms at 14.4 kV	10 make/break operations at 200 A rms at 26.3 kV	10 make/break operations at 200 A rms at 36.6 kV
Fault Closure	10,000 A rms sym. at 14.4 kV for 0.17s after 10 switching operations	10,000 A rms sym. at 26.3 kV for 0.17s after 10 switching operations	10,000 A rms sym. at 36.6 kV for 0.17s after 10 switching operations
Short Time	10,000 A rms sym. for 0.17s 3,500 A rms sym. for 3.0s	10,000 A rms sym. for 0.17s 3,500 A rms sym. for 3.0s	10,000 A rms sym. for 0.17s 3,500 A rms sym. for 3.0s

600 A Deadbreak Connector Ratings in Accordance with IEEE Std. 386™

Current Ratings	**15 kV**	**25 kV**	**35 kV**
600 A Interface**			
Continuous	600 A rms	600 A rms	600 A rms
24 Hour Overload	1,000 A rms	1,000 A rm	1,000 A rms
Short Time	25,000 A rms sym. for 0.17 s 10,000 A rms sym. for 3.0 s	25,000 A rms sym. for 0.17 s 10,000 A rms sym. for 3.0 s	25,000 A rms sym. for 0.17 s 10,000 A rms sym. for 3.0 s
200 A Interface On Loadbreak Reducing Tap Plug (LRTP)*			
Continuous	200 A rms	200 A rms	200 A rms
Switching	10 make/break operations at 200 A rms at 14.4 kV	10 make/break operations at 200 A rms at 26.3 kV	10 make/break operations at 200 A rms at 36.6 kV
Fault Closure	10,000 A rms sym. at 14.4 kV for 0.17s after 10 switching operations	10,000 A rms sym. at 26.3 kV for 0.17s after 10 switching operations	10,000 A rms sym. at 36.6 kV for 0.17s after 10 switching operations
Short Time	10,000 A rms sym. for 0.17 s 3,500 A rms sym. for 3.0s	10,000 A rms sym. for 0.17 s 3,500 A rms sym. for 3.0s	10,000 A rms sym. for 0.17 s 3,500 A rms sym. for 3.0s

Notes:
* System design and protection must recognize the ratings of 200 A interface.
** Optional 900 A rating is available. Refer to 600/900 A Deadbreak Connector section for more detail.

Part Number Selection Process for Cable Sensitive Products

The Cooper Power Systems 200 A and 600 A connector products are designed for applications on XLPE, EPR or other solid dielectric insulated underground electrical cables. In order to maintain a reliable termination, the cable accessories must be sized correctly with the cable conductor size and cable insulation diameter.

The cable conductor size is used to determine the compression connector used. Proper sizing is important to ensure reliable current transfer from the underground cable conductor to the elbow connector. Conductor diameters are dependent on the conductor size in AWG or kcmil, and conductor type (stranded, compressed, compact or solid).

The cable insulation diameter (the diameter over the insulation) is critical because it is important to maintain a tightly sealed fit between the cable insulation and the elbow housing at the cable entrance. As the insulation thickness changes, so must the range of the cable accessory. Cable insulation diameter can be determined from the cable manufacturer's specification, or by referring to pages 8 (for cable made to the AEIC Standard including the ± 0.030 inch tolerance) or 9 (for cable made to the ICEA Standard) for minimum and maximum diameters.

EXAMPLE:
PROPER ELBOW PART NUMBER SELECTION

Select a Cooper Power Systems 15 kV 200 A Loadbreak Elbow with test point for an AEIC standard tape-shielded 15 kV cable with 133% insulation and 1/0 compact stranded conductor with an outer jacket diameter of 1.07".

Step 1 – Base Part Number Selection

Select base part number of **LE215** from page 11 for 15 kV voltage class. Note that on page 11 reference is also made to tables CR1 and CC1.

Step 2 – Determine Insulation Outside Diameter Range

Since cable is made to AEIC Standards, refer to page 8. 133% 15 kV cable corresponds to 220 mil insulation wall thickness. The AEIC table gives a range of 0.805" to 0.865" for 1/0 compact 220 mil cable.

Step 3 – Elbow Cable Range Selection

Refer to CR1 Table on page 12 and select a cable range code of "**B**" with a range of 0.700" to 0.910" to cover 0.805" to 0.865".

LE215	CABLE RANGE CODE (CR1)

Step 4 – Elbow Connector Selection

Refer to CC1 Table on page 12 and select a conductor code of "**05**" which applies to the specified 1/0 compact conductor.

LE215	B	CONDUCTOR CODE (CC1)

Step 5 – Optional Test Point Selection

In accordance with note 1 on page 11, for an elbow with test point, add a "**T**" after the cable range and conductor code.

LE215	B	05	T

Step 6 – Optional Shield Adapter Kit

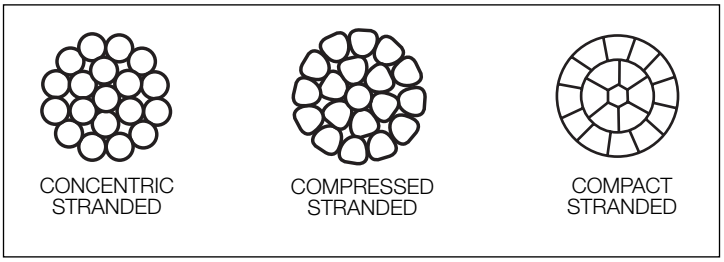
Tape-shielded cable requires a SA Series Shield Adapter Kit. Refer to Table CJ1 on page 12 to select appropriate range for outer jacket of cable. 1.07" falls within the 0.830" to 1.640" range of jacket code “2”. Select “SA2” from the chart.

LE215	B	05	TSA2

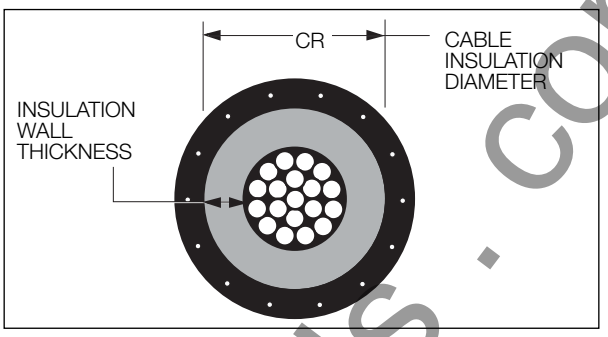
Step 7 – Ordering

Therefore, order Cooper Power Systems part number

LE215B05TSA2



Types of Stranded Conductor



Cable insulation

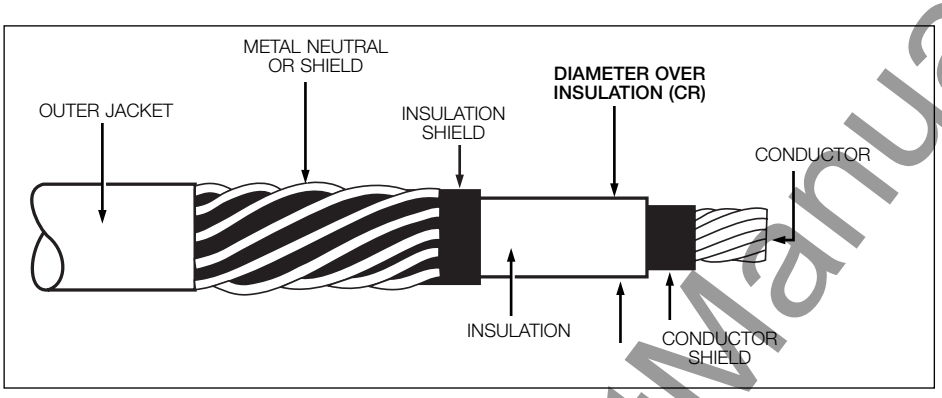


Illustration showing typical construction of medium voltage underground cable.

Cable Conductor Reference

Conductor Size AWG or kcmil	No. of Strands and their Nom. Strand Dia. (in.)	Cross-sectional Area		Stranded Conductors (inches)	Compressed Conductors (inches)	Compact Conductors (inches)	Solid Conductors (inches)
		Square Inches	mm^2 Conversion				
14	7 x 0.0242	0.0032	2.08	0.073	-	-	0.064
12	7 x 0.0305	0.0051	3.31	0.092	-	-	0.081
10	7 x 0.0385	0.0082	5.26	0.116	-	-	0.102
8	7 x 0.0486	0.0130	8.37	0.146	-	-	0.129
6	7 x 0.0612	0.0206	13.30	0.184	-	-	0.162
4	7 x 0.0772	0.0328	21.15	0.232	-	-	0.204
2	7 x 0.0974	0.0521	33.62	0.292	0.283	0.268	0.258
1	19 x 0.0664	0.0657	42.41	0.332	0.322	0.299	0.289
1/0	19 x 0.0745	0.0829	53.49	0.373	0.362	0.336	0.325
2/0	19 x 0.0837	0.1054	67.43	0.418	0.405	0.376	-
3/0	19 x 0.0940	0.1318	85.01	0.470	0.456	0.423	-
4/0	19 x 0.1055	0.1662	107.2	0.528	0.512	0.475	-
250	37 x 0.0822	0.1964	127	0.575	0.558	0.520	-
350	37 x 0.0973	0.2749	177	0.681	0.661	0.616	-
500	37 x 0.1162	0.3924	253	0.813	0.789	0.736	-
600	61 x 0.0992	0.4712	304	0.893	0.866	0.813	-
700	61 x 0.1071	0.5498	355	0.964	0.935	0.877	-
750	61 x 0.1109	0.5890	380	0.998	0.968	0.908	-
800	61 x 0.1145	0.6283	405	1.031	1.000	0.938	-
900	61 x 0.1215	0.7069	456	1.094	1.061	0.999	-
1000	61 x 0.1280	0.7854	507	1.152	1.117	1.060	-

AEIC Insulation Diameter Chart

Cable Insulation Diameters for Standard AEIC Cables with 175, 220, 260, and 345 mil Insulation Wall Thickness

Insulation AWG or kcmil	Wall Thickness* (Inches)	Voltage Class kV	Concentric Stranded		Compressed Stranded		Compact Stranded		Solid	
			Min. Dia. (inches)	Max. Dia. (inches)	Min. Dia. (inches)	Max. Dia. (inches)	Min. Dia. (inches)	Max. Dia. (inches)	Min. Dia. (inches)	Max. Dia. (inches)
#2	.175	15	0.670	0.730	0.665	0.725	0.650	0.710	0.640	0.700
	.220	15	0.760	0.820	0.775	0.815	0.740	0.800	0.730	0.790
	.260	25	–	–	–	–	–	–	–	–
	.345	35	–	–	–	–	–	–	–	–
#1	.175	15	0.710	0.770	0.700	0.760	0.680	0.740	0.670	0.730
	.220	15	0.800	0.860	0.790	0.850	0.770	0.830	0.760	0.820
	.260	25	0.880	0.940	0.870	0.930	0.850	0.910	0.840	0.900
	.345	35	–	–	–	–	–	–	–	–
1/0	.175	15	0.755	0.815	0.740	0.800	0.715	0.775	0.705	0.765
	.220	15	0.845	0.905	0.830	0.890	0.805	0.865	0.795	0.855
	.260	25	0.925	0.985	0.910	0.970	0.885	0.945	0.875	0.935
	.345	35	1.095	1.155	1.080	1.140	1.055	1.115	1.045	1.105
2/0	.175	15	0.800	0.860	0.785	0.845	0.755	0.815	0.805	0.905
	.220	15	0.890	0.950	0.875	0.935	0.845	0.905	0.835	0.895
	.260	25	0.970	1.030	0.955	1.015	0.925	0.985	0.915	0.975
	.345	35	1.140	1.200	1.125	1.185	1.095	1.155	1.085	1.145
3/0	.175	15	0.850	0.910	0.835	0.895	0.805	0.865	0.850	0.940
	.220	15	0.940	1.000	0.925	0.985	0.895	0.955	0.880	0.940
	.260	25	1.020	1.080	1.005	1.065	0.975	1.035	0.960	1.020
	.345	35	1.190	1.250	1.175	1.235	1.145	1.205	1.130	1.190
4/0	.175	15	0.910	0.970	0.890	0.950	0.855	0.915	0.900	0.990
	.220	15	1.000	1.060	0.980	1.040	0.945	1.005	0.930	0.990
	.260	25	1.080	1.140	1.060	1.120	1.025	1.085	1.010	1.070
	.345	35	1.250	1.310	1.230	1.290	1.195	1.255	1.180	1.240
250	.175	15	0.965	1.025	0.950	1.010	0.910	0.970		
	.220	15	1.055	1.115	1.040	1.100	1.000	1.060	–	–
	.260	25	1.145	1.205	1.130	1.190	1.095	1.150		
	.345	35	1.320	1.380	1.305	1.365	1.265	1.325		
350	.175	15	1.070	1.130	1.050	1.110	1.005	1.065		
	.220	15	1.160	1.220	1.140	1.200	1.095	1.155	–	–
	.260	25	1.250	1.310	1.230	1.290	1.185	1.245		
	.345	35	1.425	1.485	1.405	1.465	1.360	1.420		
500	.175	15	1.205	1.265	1.180	1.240	1.125	1.185		
	.220	15	1.295	1.355	1.270	1.330	1.215	1.275	–	–
	.260	25	1.385	1.445	1.360	1.420	1.305	1.365		
	.345	35	1.560	1.620	1.535	1.595	1.480	1.540		
600	.175	15	1.295	1.355	1.265	1.325	1.215	1.275		
	.220	15	1.385	1.445	1.355	1.415	1.305	1.365	–	–
	.260	25	1.475	1.535	1.445	1.505	1.395	1.455		
	.345	35	1.650	1.710	1.625	1.680	1.570	1.630		
700	.175	15	1.365	1.425	1.335	1.395	1.275	1.335		
	.220	15	1.455	1.515	1.425	1.485	1.365	1.425	–	–
	.260	25	1.545	1.605	1.515	1.575	1.455	1.515		
	.345	35	1.720	1.780	1.690	1.750	1.630	1.690		
750	.175	15	1.400	1.460	1.370	1.430	1.310	1.370		
	.220	15	1.490	1.550	1.460	1.520	1.400	1.460	–	–
	.260	25	1.580	1.640	1.550	1.610	1.490	1.550		
	.345	35	1.755	1.815	1.725	1.785	1.665	1.725		
800	.175	15	1.430	1.490	1.400	1.460	1.340	1.400		
	.220	15	1.520	1.580	1.490	1.550	1.430	1.490	–	–
	.260	25	1.610	1.670	1.580	1.640	1.520	1.580		
	.345	35	1.785	1.845	1.755	1.815	1.695	1.755		
900	.175	15	1.495	1.555	1.460	1.520	1.400	1.460		
	.220	15	1.585	1.645	1.550	1.610	1.490	1.550	–	–
	.260	25	1.675	1.735	1.640	1.700	1.580	1.640		
	.345	35	1.850	1.910	1.815	1.875	1.755	1.815		
1000	.175	15	1.550	1.610	1.515	1.575	1.460	1.520		
	.220	15	1.640	1.700	1.605	1.665	1.550	1.610	–	–
	.260	25	1.730	1.790	1.695	1.755	1.640	1.700		
	.345	35	1.850	1.955	1.815	1.920	1.760	1.865		

* See table below for standard insulation thickness.

175 mil is 100% insulated cable at 15 kV.
220 mil is 133% insulated cable at 15 kV.
260 mil is 100% insulated cable at 25 kV.
345 mil is 133% insulated cable at 25 kV.
345 mil is 100% insulated cable at 35 kV.

ICEA Insulation Diameter Chart

Cable Insulation Diameters for Standard ICEA Cables with 175, 220, 260, and 345 mil Insulation Wall Thickness

AWG or kcmil	Insulation Wall Thickness* (Inches)	Voltage Class kV	Concentric Stranded		Compressed Stranded		Compact Stranded		Solid	
			Min. Dia. (inches)	Max. Dia. (inches)	Min. Dia. (inches)	Max. Dia. (inches)	Min. Dia. (inches)	Max. Dia. (inches)	Min. Dia. (inches)	Max. Dia. (inches)
#2	.175 .220 .260 .345	15 15 25 35	0.645 0.735 – –	0.730 0.825 – –	0.635 0.725 – –	0.720 0.815 – –	0.620 0.710 – –	0.705 0.800 – –	0.610 0.700 – –	0.695 0.790 – –
#1	.175 .220 .260 .345	15 15 25 35	0.685 0.775 0.845 –	0.770 0.865 0.935 –	0.675 0.765 0.835 –	0.760 0.855 0.925 –	0.655 0.745 0.815 –	0.735 0.830 0.905 –	0.645 0.735 0.805 –	0.725 0.820 0.895 –
1/0	.175 .220 .260 .345	15 15 25 35	0.725 0.815 0.885 1.055	0.810 0.905 0.980 1.155	0.715 0.805 0.875 1.045	0.800 0.895 0.965 1.145	0.690 0.780 0.850 1.020	0.775 0.865 0.940 1.120	0.680 0.770 0.835 1.010	0.760 0.855 0.925 1.110
2/0	.175 .220 .260 .345	15 15 25 35	0.775 0.865 0.935 1.105	0.855 0.950 1.025 1.200	0.760 0.850 0.920 1.090	0.845 0.935 1.010 1.190	0.730 0.820 0.890 1.060	0.815 0.905 0.980 1.160	0.715 0.805 0.875 1.045	0.800 0.895 0.965 1.145
3/0	.175 .220 .260 .345	15 15 25 35	0.825 0.915 0.985 1.155	0.905 1.000 1.075 1.255	0.810 0.900 0.970 1.140	0.895 0.985 1.060 1.240	0.775 0.865 0.935 1.105	0.860 0.955 1.030 1.205	0.765 0.855 0.925 1.095	0.845 0.940 1.015 1.195
4/0	.175 .220 .260 .345	15 15 25 35	0.880 0.970 1.040 1.210	0.965 1.060 1.135 1.310	0.865 0.955 1.025 1.195	0.950 1.045 1.115 1.295	0.830 0.920 0.990 1.160	0.910 1.005 1.080 1.260	0.815 0.905 0.975 1.145	0.895 0.990 1.065 1.245
250	.175 .220 .260 .345	15 15 25 35	0.935 1.025 1.095 1.265	1.020 1.115 1.190 1.370	0.920 1.010 1.080 1.250	1.005 1.100 1.175 1.350	0.880 0.970 1.040 1.210	0.965 1.060 1.135 1.315	–	–
350	.175 .220 .260 .345	15 15 25 35	1.045 1.135 1.205 1.375	1.130 1.220 1.295 1.475	1.025 1.115 1.185 1.355	1.110 1.200 1.275 1.455	0.980 1.070 1.140 1.310	1.065 1.155 1.230 1.410	–	–
500	.175 .220 .260 .345	15 15 25 35	1.175 1.265 1.335 1.505	1.260 1.355 1.430 1.605	1.150 1.240 1.310 1.480	1.235 1.330 1.405 1.580	1.100 1.190 1.260 1.430	1.185 1.275 1.350 1.530	–	–
600	.175 .220 .260 .345	15 15 25 35	1.265 1.355 1.425 1.595	1.350 1.445 1.520 1.695	1.235 1.325 1.395 1.565	1.325 1.415 1.490 1.670	1.185 1.275 1.345 1.515	1.270 1.365 1.440 1.615	–	–
700	.175 .220 .260 .345	15 15 25 35	1.335 1.425 1.495 1.665	1.420 1.515 1.590 1.765	1.305 1.395 1.465 1.635	1.390 1.485 1.560 1.740	1.245 1.335 1.405 1.575	1.335 1.430 1.500 1.680	–	–
750	.175 .220 .260 .345	15 15 25 35	1.370 1.460 1.530 1.700	1.455 1.550 1.625 1.800	1.340 1.430 1.500 1.670	1.425 1.520 1.595 1.770	1.280 1.370 1.440 1.610	1.365 1.460 1.535 1.710	–	–
800	.175 .220 .260 .345	15 15 25 35	1.400 1.490 1.560 1.730	1.490 1.580 1.655 1.835	1.370 1.460 1.530 1.700	1.455 1.550 1.625 1.805	1.310 1.400 1.470 1.640	1.395 1.490 1.565 1.740	–	–
900	.175 .220 .260 .345	15 15 25 35	1.465 1.555 1.625 1.795	1.550 1.645 1.720 1.895	1.430 1.520 1.590 1.760	1.520 1.610 1.685 1.865	1.370 1.460 1.530 1.700	1.455 1.550 1.625 1.800	–	–
1000	.175 .220 .260 .345	15 15 25 35	1.520 1.610 1.680 1.850	1.610 1.705 1.775 1.955	1.485 1.575 1.645 1.815	1.575 1.670 1.740 1.920	1.430 1.520 1.590 1.760	1.515 1.610 1.685 1.865	–	–

* See table below for standard insulation thickness.

175 mil is 100% insulated cable at 15 kV.
220 mil is 133% insulated cable at 15 kV.
260 mil is 100% insulated cable at 25 kV.
345 mil is 133% insulated cable at 25 kV.
345 mil is 100% insulated cable at 35 kV.

Our 200 A 15, 25, and 35 kV Loadbreak Elbow Connectors and Accessories are submersible, fully-shielded and insulated plug-in terminations, ideal for connecting underground cable to transformers, switchgear, sectionalizing cabinets and junctions. These connectors are molded using high-quality, peroxide-cured EPDM insulation for reliable field performance.

The entire connector system can be applied to concentric neutral cable with our JS200 Series Sealing Kit or to almost any other type of cable with our SA Series Shield Adapter Kit.

All 200 A loadbreak connectors meet the electrical, mechanical, and dimensional requirements of **IEEE Standards 386**™ and are designed to be fully interchangeable with other major manufacturers currently complying with **IEEE Standard 386**™.

25 kV POSI-BREAK™ Elbow and Cap

Our POSI-BREAK Elbow and Cap is an engineered solution that increases strike distance and improves reliability. The added features solve problems, such as:

- **Partial Vacuum Flashovers** – Under certain conditions during 25 kV switching, a partial vacuum can decrease the dielectric strength of the air inside the elbow/bushing or cap/bushing. This increases the possibility of a flashover from the elbow or cap's probe along the bushing interface to the grounded collar on the mating bushing product. The POSI-BREAK design eliminates the possibility of partial vacuum flashovers during switching because of the increased strike distance.
- **Contamination** – The field-proven interface seal prevents the ingress of moisture or contaminants. However, contamination introduced during installation or switching operations can reduce the strike distance along the interface. The increased insulation of the POSI-BREAK design counteracts the effect of contamination, increasing system reliability.

25 kV POSI-BREAK™ Elbow and Cap Specification Information

To capitalize on the benefits of the POSI-BREAK Elbow and Cap, include the following information for both the 25 kV 200 A Loadbreak Elbow and Insulated Protective Cap in your specification:

- Both elbow and cap must fully comply with **IEEE Standard 386**™.
- Strike distance from energized component to ground shall be at least 5.6" at 1/2" interface separation.
- Both elbow and cap shall have an insulated probe and conductive Faraday Cage for relief of electrical stress and prevention of partial discharge.
- Semi-conductive insert shall be completely surrounded with EPDM insulating rubber.

35 kV Large Interface Elbow Bushing System*

Our 35 kV 200 A Large Interface Elbow Bushing System is a reliable, field proven design. This system has over 25 years of field experience while being used on large 35 kV distribution systems. Features of the Large Interface System include:

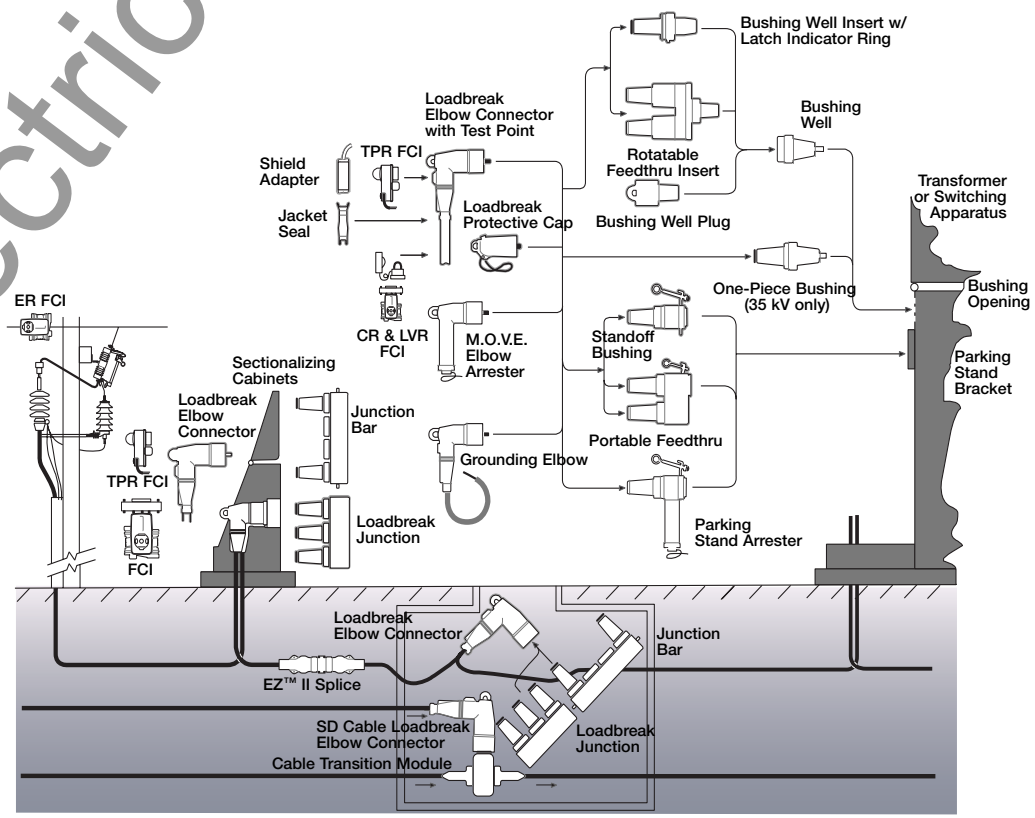
- Increased strike distance to provide greater reliability and overall performance.
- Reliable loadbreak switching and fault closure capability.
- Full line of large interface accessory products.

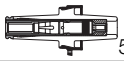
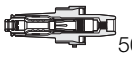
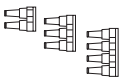
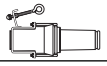
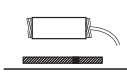
* Refer to bushing section on page 32 for more information on the bushing.

35 kV Elbow and Accessories Specification Information

To capitalize on the benefits of our 35 kV Large Interface Elbow include the following information in your specification:

- The 200 A Elbows and Accessories shall be 21.1 kV/36.6 kV three-phase rated, meeting the requirements of **IEEE Standard 386**™ interface No. 1A (large 35 kV class interface).



Catalog Section	Description	kV Class	Base Part Number	Notes
 500-10	Loadbreak Elbow	15 kV	**LE215 CR1 CC1** (see CR1 & CC1 Tables Pg. 12)	1, 2, 3, 4, 5
 500-28	Loadbreak Elbow	25 kV	**LE225M CR1 CC1** (see CR1 & CC1 Tables Pg. 12)	1, 2, 3, 4, 5
 500-29	POSI-BREAK Loadbreak Elbow	25 kV	**PLE225M CR1 CC1** (see CR1 & CC1 Tables Pg. 12)	1, 2, 3, 4, 5
 500-41	Loadbreak Elbow	35 kV	**LE235 CR2 CC1** (see CR2 & CC1 Tables Pg. 12)	1, 3, 4, 5
 500-12	Loadbreak Bushing Insert	15 kV	**LBI215**	5
 500-26	Loadbreak Bushing Insert	25 kV	**LBI225**	5, 6
 500-13 500-30	Loadbreak Feedthru Insert	15 kV	**LFI215**	
		25 kV	**LFI225**	
 500-14	Loadbreak Portable Feedthru	15 kV		
		horizontal	**LPF215H**	
		vertical	**LPF215V**	
		universal	**LPF215U**	
 500-31	Loadbreak Portable Feedthru	25 kV		
		horizontal	**LPF225H**	
		vertical	**LPF225V**	
		universal	**LPF225U**	
 500-49	Loadbreak Portable Feedthru	35 kV		
		horizontal	**LPF235H**	
		vertical	**LPF235V**	
 500-15 500-32 500-51	Loadbreak Junction	15 kV	**LJ215C__**	7, 8
		25 kV	**LJ225C__**	7, 8
		35 kV	**LJ235C__**	7, 8
 500-20 500-38	Insulated Bushing Well Plug	15/25 kV	**IBWP225**	
 500-21	Loadbreak Protective Cap	15 kV	**LPC215**	5
 500-39	Loadbreak Protective Cap	25 kV	**LPC225**	5
 500-37	POSI-BREAK Loadbreak Protective Cap	25 kV	**PLPC225**	5
 500-65	Loadbreak Protective Cap	35 kV	**LPC235**	5
 500-22	Insulated Standoff Bushing	15 kV	**ISB215**	9, 10
 500-40	Insulated Standoff Bushing	25 kV	**ISB225**	9, 10
 500-66	Insulated Standoff Bushing	35 kV	**ISB235**	9
 500-90	200 A Premolded Cable Jacket Seal	15/25/35 kV	**JS200 CJ1** (see CJ1 Table Pg. 12)	3
 500-95	SA Series Cold Shrinkable Metallic Shield Adapter Kit	15/25/35 kV	**SA CJ2** (see CJ2 Table Pg. 12)	4, 11, 12
 500-10 500-28 500-29 500-41	Coppertop Connector 200 A, 2.88" Long Bi-Metal	15/25/35 kV	**CC2C CC1 T** (see CC1 Table Pg. 12)	
500-10 500-28 500-29 500-41	200 A Loadbreak Probe Kit	15 kV	**PK215**	13
		25 kV	**PK225**	13
			PKPB225 (POSI-BREAK)	13
		35 kV	**PK235**	13
500-10 500-28 500-29 500-41	Silicone Lubricant Cooper 117 (for Elbows and Splices)	15/25/35 kV	**2603393A03** (0.175 oz., 5 g packet) **2605670A02M** (5.25 oz., 150 g tube)	

200 A Loadbreak & Deadbreak Connectors

1. For an elbow **with test point**, add a "**T**" after the conductor code (CC1).
2. For an elbow kit with a **hold down bail assembly** included, insert a "**B**" after the test point option code.
3. To add a premolded **concentric neutral cable jacket seal** to the elbow kit, add the code "**GC_**" (third digit is "jacket code" from the cable jacket outside diameter range chart Table CJ1 on page 12) to the part number after the test point or non-test point designation.
4. To include the **SA Series Cold Shrinkable Metallic Shield Adapters** with any Cooper Power Systems termination kit, (Elbow, T-body or Splice): Add appropriate suffix -**SA1**, -**SA2**, -**SA3** or -**SA4** to the end of the loadbreak elbow part number. Refer to Table CJ2 on Page 12.
5. For **individually packaged** product in a corrugated cardboard box, insert an "**X**" as the last character in the part number.
6. To order the **long version** (extended) **of the bushing insert**, insert an "**L**" as the seventh character in the part number.
7. Specify the number of **interfaces** by inserting a "**2**", "**3**", or "**4**" directly after the base part number.
8. To add a **stainless steel bracket**, insert a "**B**" as the last character in the part number, or to add **U-straps**, insert a "**U**" as the last character in the part number.
9. To substitute a **stainless steel bracket,** insert a "**S**" as the last character in the part number.
10. To specify a **grounded bushing with bracket and ground lead** replace the "I" with a "**G**" as the first character of the part number.
11. For use with tape shield, drain wire, linear corrugated and Unishield® cable.
12. Each **SA Series Kit** includes:
    (1) Cold Shrinkable Sleeve
    (1) Tinned Copper Ground Strap with attached elbow drain wire
    (1) Constant Force Spring
    (1) Semi-Conductive Tape
    (3) Mastic Sealing Strips
    (1) Installation Instructions
13. Probe kit includes probe, installation tool, silicone lubricant and installation instructions.

1. For 200 A loadbreak inserts only.
2. 5 kV cable for use in 15 kV and 25 kV "C" size elbow only.

Catalog Section	Description	kV Class	Base Part Number	Notes
 500-12	Installation and Torque Tool	15/25 kV	**LBITOOL**	1
500-10 500-25	Cable Adapter, 5 kV 0.495" - 0.585" 0.575" - 0.685"	15/25 kV	 **CA225A** **CA225B**	 2 2
 500-15 500-32 500-51	U-Strap Kit with Hardware (1 strap) for Loadbreak Junction	15 kV	**2625439A16B**	
		25 kV	**2625439A17B**	
		35 kV	**2637570A01B**	
 500-15 500-32 500-51	2-way Stainless Steel Bracket Assembly for Loadbreak Junction	15 kV	**2637172B01BS**	
		25 kV	**2637160B01BS**	
		35 kV	**2604688B01B**	
 500-15 500-32 500-51	3-way Stainless Steel Bracket Assembly for Loadbreak Junction	15 kV	**2637172B02BS**	
		25 kV	**2637160B02BS**	
		35 kV	**2604688B02B**	
 500-15 500-32 500-51	4-way Stainless Steel Bracket Assembly for Loadbreak Junction	15 kV	**2637172B03BS**	
		25 kV	**2637160B03BS**	
		35 kV	**2604688B03B**	
	Test Rod	15/25 kV	**TR225**	
		35 kV	**TR235**	

Use for Base Number

LE215
LE225M
PLE225M

TABLE CR1
Cable Diameter (Insulation) Range

Cable Diameter Range		CABLE RANGE CODE
Inches	Millimeters	
0.495-0.585*	12.6-14.9	**CA**
0.575-0.685*	14.6-17.4	**CB**
0.630-0.820	16.0-20.8	**A**
0.700-0.910	17.8-23.1	**B**
0.830-1.100	21.6-27.9	**C**
1.040-1.310	26.4-33.3	**D**

*Uses 5 kV cable adapter.

Use for Base Number

LE235

TABLE CR2
Cable Diameter (Insulation) Range

Cable Diameter Range		CABLE RANGE CODE
Inches	Millimeters	
0.825-1.000	21.00-25.40	**B**
0.995-1.180	25.20-30.00	**D**
1.180-1.340	30.00-34.00	**F**

Use for Base Number

LE215
LE225M
PLE225M
LE235
CC2C

TABLE CC1
Conductor Size and Type

Concentric or Compressed		Compact or Solid		CONDUCTOR CODE
AWG	mm²	AWG	mm²	
No Connector				**00**
#6	16	#4	-	**01**
#4	-	#3	25	**02**
#3	25	#2	35	**03**
#2	35	1	-	**04**
#1	-	1/0	50	**05**
1/0	50	2/0	70	**06**
2/0	50	3/0	-	**07**
3/0	-	4/0	95	**08**
4/0	95	250	20	**09**
250*	120	300	-	**10**

*Compressed stranding only.

Use for Base Number

JS200

TABLE CJ1
Cable Jacket (Outside Diameter) Range

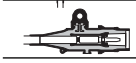
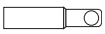
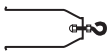
Cable Jacket OD		JACKET CODE
Inches	Millimeters	
0.866-1.140	22.0-29.0	**B**
1.020-1.420	25.9-36.1	**D**
1.220-1.730	31.0-43.9	**F**

Use for Base Number

SA

TABLE CJ2
Cable Jacket (Outside Diameter) Range

Cable Jacket OD (Inches)	JACKET CODE
0.590-1.050	**1**
0.830-1.640	**2**
1.270-2.170	**3**
1.700-2.600	**4**

Catalog Section	Description	kV Class	Base Part Number	Notes
 550-10	Deadbreak Elbow	15/25 kV	**DE225 CR3_ CC1_T** (see CR3 & CC1 Tables Below)	1, 2
 550-12	Deadbreak Straight	15/25 kV	**DS225 CR3_ CC1_T** (see CR3 & CC1 Tables Below)	1, 2
 I550-12	Deadbreak Junction	15/25 kV	**DJ250-4** (4-way)	3, 4
		15/25 kV	**DJ250-T1** (3-way, Type 1)	3, 4
		15/25 kV	**DJ250-T2** (3-way, Type 2)	3, 4
		15/25 kV	**DJ250-2**	3, 4
 I550-13	Insulated Deadend Plug	15/25 kV	**DPD250**	3
 I550-13	Insulated Standoff Bushing	15/25 kV	**DPS250**	3
 I550-13	Grounded Standoff Bushing	15/25 kV	**DPE250**	3
 I550-13	Deadbreak Protective Cap	15/25 kV	**DRC250**	2
 I550-15	Apparatus Bushing	15/25 kV	**DB250** **DB250S** (Short Shank) **DB250L** (Long Shank)	
 I550-13	Coppertop Connectors for Deadbreak Elbows	15/25 kV	**CC2C CC1 T** (see CC1 Table Below)	
 I550-13	Crimp Connectors for Deadbreak Straight	15/25 kV	**CC2C CC1 S** (see CC1 Table Below)	
 I550-13	Probe and Probe Wrench for Deadbreak Elbow	15/25 kV	**2638370C01EX** (Probe) **2639205B01** (Probe Wrench)	
 550-10	Bail Assembly for DE225	15/25 kV	**2638409C06B**	

1. To add a premolded **concentric neutral jacket seal** to the elbow kit, add the code "**GC_**" (third digit is "jacket code" from the cable jacket range outside diameter range chart Table CJ1 on page 12) as the last characters in the part number.
2. Bail assembly included in kit.
3. Bail assembly is ordered separately.
4. See following for appropriate junction strap. For DJ250-2 and DJ250-T1, order 2639524B01. For DJ250-T2, order 2638617C01. For DJ250-4, consult factory.

Use for Base Number

DE225
DS225

TABLE CR3
Cable Diameter (Insulation) Range

Cable Diameter Range		CABLE RANGE CODE
Inches	Millimeters	
0.531-0.685	13.5-17.4	**BA**
0.640-0.820	16.3-20.8	**DA**
0.770-0.950	19.6-24.1	**FA**
0.910-1.130	23.1-28.7	**HA**
1.100-1.320	27.9-33.5	**JA**

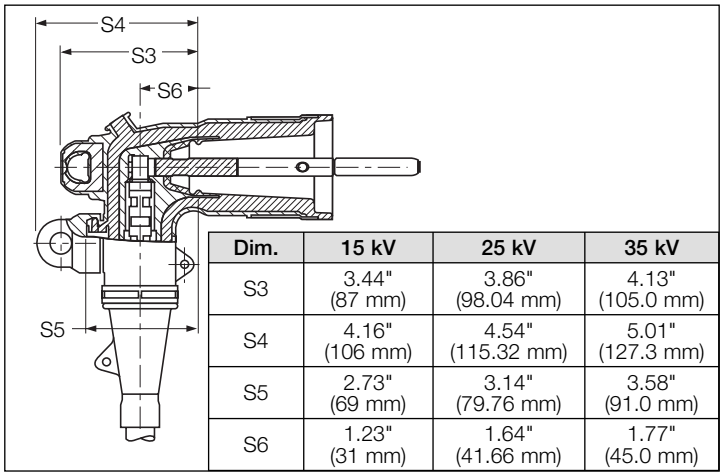
Use for Base Number

DE225
DS225
CC2C

TABLE CC1
Conductor Size and Type

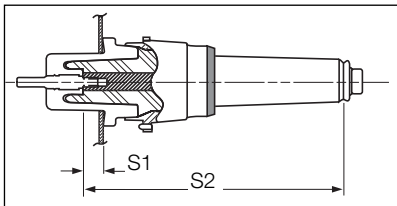
Concentric or Compressed		Compact or Solid		CONDUCTOR CODE
AWG	mm^2	AWG	mm^2	
No Connector				**00**
#6	16	#4	-	**01**
#4	-	#3	25	**02**
#3	25	#2	35	**03**
#2	35	#1	-	**04**
#1	-	1/0	50	**05**
1/0	50	2/0	70	**06**
2/0	70	3/0	-	**07**
3/0	-	4/0	95	**08**
4/0	95	250	120	**09**
250*	120	300	-	**10**

*Compressed stranding only.



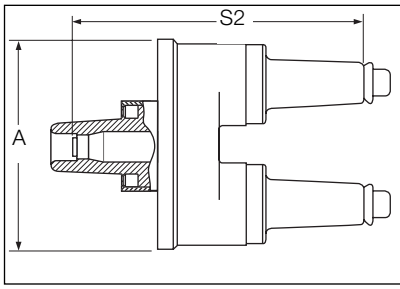
Dim.	15 kV	25 kV	35 kV
S3	3.44" (87 mm)	3.86" (98.04 mm)	4.13" (105.0 mm)
S4	4.16" (106 mm)	4.54" (115.32 mm)	5.01" (127.3 mm)
S5	2.73" (69 mm)	3.14" (79.76 mm)	3.58" (91.0 mm)
S6	1.23" (31 mm)	1.64" (41.66 mm)	1.77" (45.0 mm)

Elbow Connector (25 kV POSI-BREAK™ shown)



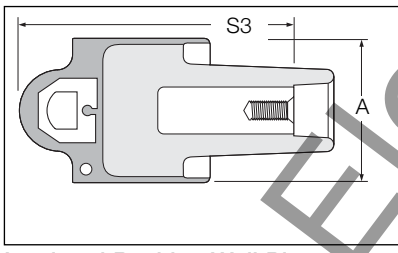
Dim.	15 kV	25 kV Short	25 kV Long
S1	0.76" (19.3 mm)	0.76" (19.3 mm)	0.76" (19.3 mm)
S2	6.3" (106 mm)	7.14" (181.4 mm)	9.97" (253.2 mm)

Bushing Insert with Latch Ring Indicator (25 kV shown)



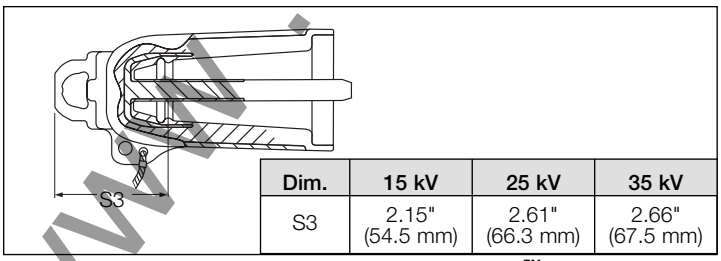
Dim.	15 kV	25 kV
A	7.1" (179 mm)	7.1" (179 mm)
S2	9.50" (241 mm)	11.0" (279 mm)

Rotatable Feedthru Insert (25 kV shown)



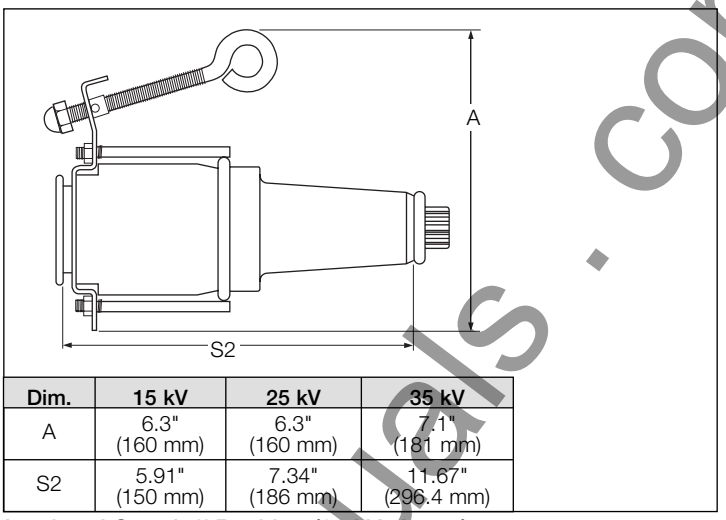
Dim.	15 kV/25 kV
S3	5.1" (130 mm)
A	2.7" (69 mm)

Insulated Bushing Well Plug



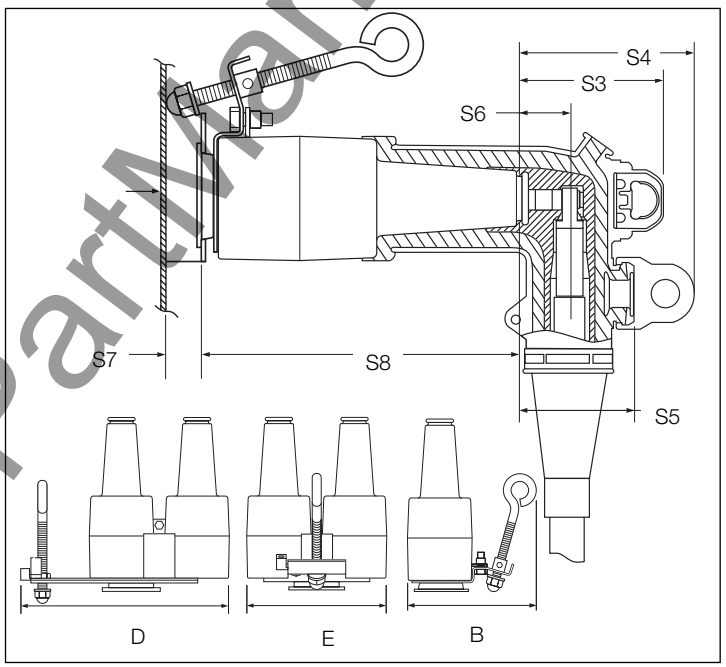
Dim.	15 kV	25 kV	35 kV
S3	2.15" (54.5 mm)	2.61" (66.3 mm)	2.66" (67.5 mm)

Loadbreak Protective Cap (25 kV POSI-BREAK™ shown)



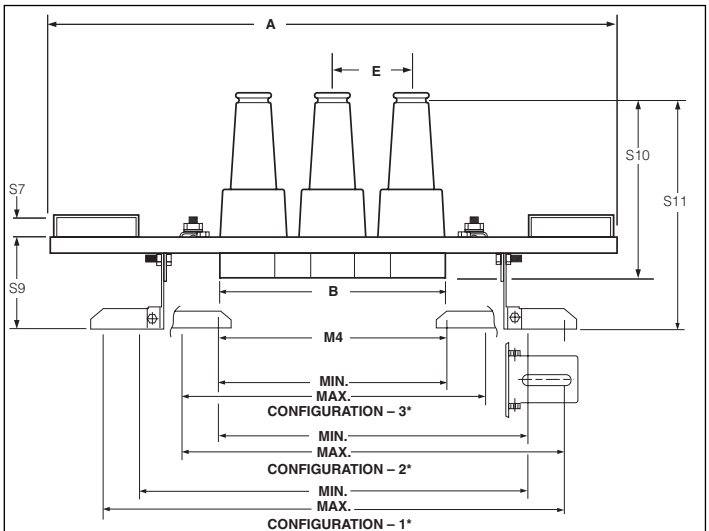
Dim.	15 kV	25 kV	35 kV
A	6.3" (160 mm)	6.3" (160 mm)	7.1" (181 mm)
S2	5.91" (150 mm)	7.34" (186 mm)	11.67" (296.4 mm)

Insulated Standoff Bushing (25 kV shown)



	15 kV		25 kV		35 kV	
Dim.	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
B	5.6" (142.2 mm)	–	5.6" (142.2 mm)	–	7.2" (182.9 mm)	–
D	–	8.9" (226 mm)	–	8.9" (226 mm)	–	11.6" (294 mm)
E	6.0" (153 mm)	–	6.7" (171 mm)	–	8.8" (224 mm)	–
S3	3.44" (87 mm)	3.44" (87 mm)	3.86" (98 mm)	3.86 (98 mm)	4.13" (105 mm)	4.13" (105 mm)
S4	4.16" (106 mm)	4.16" (106 mm)	4.54" (115 mm)	4.54" (115 mm)	5.01" (127.3 mm)	5.01" (127.3 mm)
S5	2.73" (69 mm)	2.73" (69 mm)	3.14" (80 mm)	3.14" (80 mm)	3.58" (91 mm)	3.58" (91 mm)
S6	1.23" (31 mm)	1.23" (31 mm)	1.64" (42 mm)	1.64" (42 mm)	1.77" (45 mm)	1.77" (45 mm)
S7	0.75" (19 mm)	0.75" (19 mm)	0.75" (19 mm)	0.75" (19 mm)	0.75" (19 mm)	0.75" (19 mm)
S8	7.07" (180 mm)	7.20" (183 mm)	8.63" (219 mm)	8.77" (223 mm)	11.8" (300 mm)	11.8" (300 mm)

Loadbreak Portable Feedthru (15 kV shown)



Dim.	15 kV	25 kV	35 kV
E	3.25" (83 mm)	4.0" (102 mm)	5.0" (127 mm)
S7	0.75" (19 mm)	0.75" (19 mm)	1.02" (26 mm)
S9	4.38" (111 mm)	4.38" (111 mm)	5.46" (139 mm)
S10	6.77" (172 mm)	8.34" (212 mm)	11.8" (299 mm)
S11	9.20" (234 mm)	10.77" (274 mm)	13.9" (163 mm)
M4	See Table 15 kV	See Table 25 kV	See Table 35 kV

TABLE 15 kV

Number of Interfaces	Physical Dimensions in./mm		M4 Mounting Dimensions in./mm					
			Configuration 1		Configuration 2		Configuration 3	
	A	B	Min.	Max.	Min.	Max.	Min.	Max.
2	12.5" (318 mm)	6.0" (152 mm)	10.8" (275 mm)	14.4" (366 mm)	7.2" (183 mm)	10.8" (275 mm)	3.6" (92 mm)	7.2" (183 mm)
3	19.6" (498 mm)	9.2" (230 mm)	14.7" (374 mm)	18.3" (465 mm)	11.1" (282 mm)	14.7" (374 mm)	7.4" (188 mm)	11.1" (282 mm)
4	22.9" (582 mm)	12.4" (315 mm)	17.9" (455 mm)	21.5" (547 mm)	14.3" (364 mm)	17.9" (455 mm)	10.7" (272 mm)	14.3" (364 mm)

Configuration 1. Both feet turned out.
Configuration 2. One foot turned out, one in.
Configuration 3. Both feet turned in.

TABLE 25 KV

Number of Interfaces	Physical Dimensions in./mm		M4 Mounting Dimensions in./mm					
			Configuration 1		Configuration 2		Configuration 3	
	A	B	Min.	Max.	Min.	Max.	Min.	Max.
2	14.2" (361 mm)	6.7" (170 mm)	11.9" (302 mm)	15.6" (396 mm)	8.0" (203 mm)	11.7" (297 mm)	4.2" (107 mm)	7.8" (198 mm)
3	23.0" (584 mm)	10.7" (272 mm)	16.8" (427 mm)	20.4" (518 mm)	12.9" (328 mm)	16.5" (419 mm)	9.0" (229 mm)	12.6" (320 mm)
4	27.0" (686 mm)	14.7" (373 mm)	20.8" (528 mm)	24.4" (620 mm)	16.9" (429 mm)	20.5" (521 mm)	13.0" (330 mm)	16.6" (422 mm)

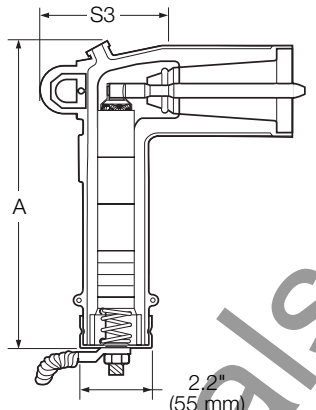
Configuration 1. Both feet turned out.
Configuration 2. One foot turned out, one in.
Configuration 3. Both feet turned in.

TABLE 35 kV

Number of Interfaces	Mounting Dimensions in./mm			
	A	B	C	D
2	23.1" (587 mm)	8.8": (223 mm)	**	**
3	33.3" (846 mm)	13.8" (350 mm)	**	**
4	38.5" (978 mm)	18.8" (477 mm)	**	**

** Refer to Catalog Section 500-51 for detailed drawing of 35 kV junction.

Loadbreak Junctions (15 kV shown)



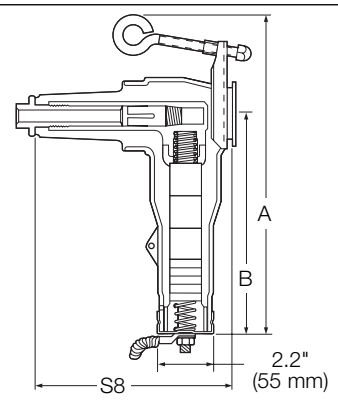
VariGAP® M.O.V.E.™ Arrester

Dim.	Duty Cycle (kV)	15 kV/25 kV	35 kV
A	9-15	8.5" (216 mm)	–
	18-27	10.9" (276 mm)	13.3" (338 mm)
S3	9-27	4.2" (107 mm)	4.7" (120 mm)

M.O.V.E. Arrester

Dim.	Duty Cycle (kV)	15 kV/25 kV	35 kV
A	3-27	8.5" (216 mm)	13.3" (338 mm)
S3	3-27	4.2" (107 mm)	4.7" (120 mm)

Underground Surge Arresters



VariGAP MOV Parking Stand Arrester

Dim.	Duty Cycle (kV)	15 kV	25 kV
A	9-15	11.9" (302 mm)	11.9" (302 mm)
	18-21	14.5" (368 mm)	14.5" (368 mm)
B	9-15	8.0" (203 mm)	8.0" (203 mm)
	18-21	10.6" (269 mm)	10.6" (269 mm)
S8	9-21	7.4" (188 mm)	7.4" (188 mm)

MOV Parking Stand Arrester

Dim.	Duty Cycle (kV)	15 kV	25 kV
A	3-21	11.9" (302 mm)	11.9" (302 mm)
B	3-21	8.0" (203 mm)	8.0" (203 mm)
S8	3-21	7.4" (188 mm)	7.4" (188 mm)

Parking Stand Arresters

600/900 A Deadbreak Connectors

Our 600/900 A Deadbreak Connector Systems are designed to fill the demand for a deadfront underground installation in 600/900 A main and lateral feeders. They provide a completely shielded, deadfront, fully submersible cable connection for high-voltage apparatus – such as transformers, switchgear, large motors, etc., and can also be used to make splices, junctions, taps and deadends for main underground, distribution feeders. They provide the same high degree of operating flexibility and reliability as our 200 A products. All components fit together easily and assembly variations are available.

These connector systems are designed for installation on various types of cables. The entire system can be applied to concentric neutral cable, and with our CS & SA Series Shield Adapter Kits to almost any other type of cable.

All of our Deadbreak Connectors meet the electrical, mechanical and dimensional requirements of **IEEE Standard 386**™ and are designed to be fully interchangeable with those currently available from other major manufacturers.

900 A RATING

A 900 A continuous rating can be achieved with Bol-T™, BT-TAP™ and T-OP™ II Systems when used with a coppertop compression connector and all copper mating components including apparatus bushing or junction. (See note 1 on page 17 for details when selecting a system.)

BOL-T™ Connector System

Our BOL-T Deadbreak Connector System is designed for use on applications where the terminations would not be operated after installation, would not need a 200 A interface for grounding or arrester provisions, and would not require direct conductor testing or the use of a hotstick. It is a bolted design that is interchangeable with other manufacturers' bolted 600/900 A systems and requires no special tools for installation.

BT-TAP™ Connector System

Our BT-TAP Deadbreak Connector System includes a 200 A loadbreak tap instead of the standard insulated plug. The other components of BT-TAP are the same as Bol-T, making it an ideal option to retrofit existing Bol-T (or other bolted systems that use unthreaded compression connectors) systems with a 200 A loadbreak tap for testing, grounding, or overvoltage protection.

T-OP™ II Connector System

Our T-OP II Deadbreak Connector System also has a 200 A loadbreak tap and has all the advantages of the BT-TAP System. In addition, the T-OP II is single-person hotstick operable, making it ideal for terminations that may require moving or sectionalizing to achieve a visible open or visible ground. The T-OP II design offers added reliability (900 A rated all copper alloy current path and copper top connector) and has several assembly/operating advantages.

PUSH-OP® Connector System

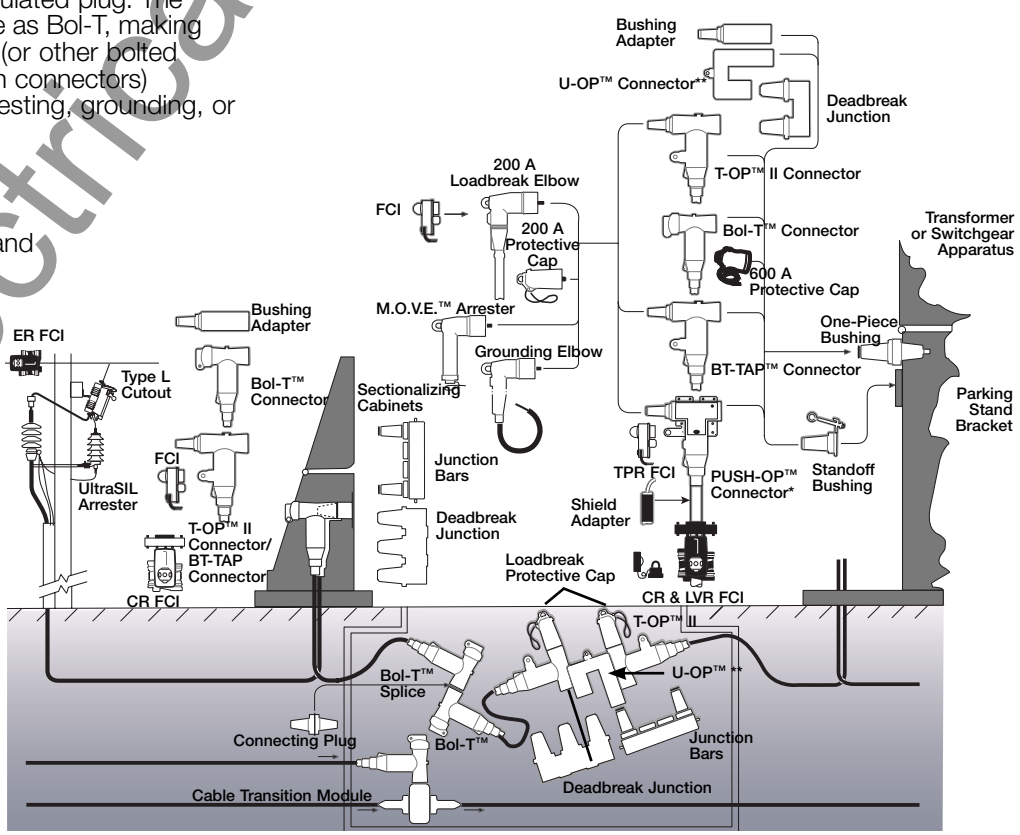
Our PUSH-OP Deadbreak Connector System is essentially a T-OP II Termination with a non-bolted design for use on any deadfront apparatus where the terminations may be operated frequently. The PUSH-OP 600 A deadbreak probe and finger

contact design eliminates cross-threading and normal thread wear during repeated sectionalizing operations. It is the only available system that allows operators to move the terminator while it is fully grounded. The PUSH-OP System provides stainless steel bracketry and a mechanical lever for the fastest and easiest one-person hotstick operation possible. The PUSH-OP System requires special apparatus bushings, which makes it suitable for new installations only.

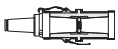
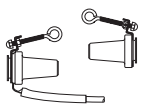
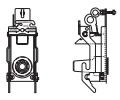
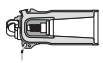
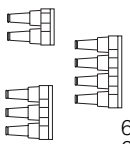
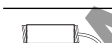
U-OP™ Connector System

Our U-OP Deadbreak Connector System is used with T-OP II and designed to provide a visible break and visible ground without having to move large 600 A cable. The U-OP System requires special apparatus bracketry, which makes it suitable for new installations only.

Note: 600 A Separable Splice kits can be found in the splice section on page 25.



* PUSH-OP requires modified bushing and tank hardware.
** U-OP requires frontplate stud provisions. Refer to Installation Instructions S600-14-1 for details.

Catalog Section	Description	kV Class	Base Part Number	Notes
 600-10 600-30 600-50	Bol-T Connector Kit	15/25 kV	**BT625 CR4 CC3** (see CR4 & CC3 Tables pg. 18)	1, 2, 3, 4, 14
		35 kV	**BT635 CR5 CC3** (see CR5 & CC3 Tables pg. 18)	1, 2, 3, 4, 14
 600-15 600-35 600-55	BT-TAP Connector Kit	15 kV	**BTP615 CR4 CC3** (see CR4 & CC3 Tables pg. 18)	1, 2, 6, 14, 15, 16, 17
		25 kV	**BTP625 CR4 CC3** (see CR4 & CC3 Tables pg. 18)	1, 2, 6, 14
		35 kV	**BTP635 CR5 CC3** (see CR5 & CC3 Tables pg. 18)	1, 2, 5, 6, 14
 600-12 600-32 600-52	T-OP II Connector Kit	15 kV	**TP615 CR4 CC3** (see CR4 & CC3 Tables pg. 18)	2, 5, 6, 14
		25 kV	**TP625 CR4 CC3** (see CR4 & CC3 Tables pg. 18)	2, 5, 6, 14
		35 kV	**TP635 CR5 CC3** (see CR5 & CC3 Tables pg. 18)	2, 5, 6, 14
 600-13 600-33 600-53	PUSH-OP Connector Kit	15 kV	**POP615 CR4 CC3** (see CR4 & CC3 Tables pg. 18)	2, 5, 6, 14
		25 kV	**POP625 CR4 CC3** (see CR4 & CC3 Tables pg. 18)	2, 5, 6, 14
		35 kV	**POP635 CR5 CC3** (see CR5 & CC3 Tables pg. 18)	2, 5, 6, 14
 600-34	U-OP Connector Kit	15/25 kV	**UOP625**	
 600-18 600-38 600-59	Bushing Adapter with LRTP (Stud-T Included)	15 kV	**DBA615**	
		25 kV	**DBA625**	
		35 kV	**DBA635**	
 600-19 600-39 600-58	PUSH-OP Bushing Adapter	15 kV	**PDBA615**	6
		25 kV	**PDBA625**	6
		35 kV	**PDBA635**	6
 600-44 600-64	Standoff Bushings	15/25 kV	**ISB625A** (Aluminum) **ISB625C** (Copper)	7 7, 8
		35 kV	**ISB635A** (Aluminum) **ISB635C** (Copper)	7, 8 7
 600-25 600-45 600-65	PUSH-OP Standoff Bushings	15/25 kV	**PISB625** **PISB625HP** (with hitch pin)	
		35 kV	**PISB635** **PISB635HP** (with hitch pin)	
 600-43 600-63	Standard Protective Cap (with Permanent Stud)	15/25 kV	**DPC625**	9
		35 kV	**DPC635**	9
 600-43 600-63	Protective Cap for T-OP II and U-OP	15/25 kV	**DPC625UT**	9
		35 kV	**DPC635UT**	9
 600-42 600-62	Deadbreak Junctions	15/25 kV	**DJ625A_** (Aluminum) **DJ625C_** (Copper)	10, 11 10, 11
		35 kV	**DJ635A_** (Aluminum) **DJ635C_** (Copper)	10, 11 10, 11
 500-95	SA Series Cold Shrinkable Metallic Shield Adapter Kit	15/25/35 kV	**SA CJ3** (see CJ3 Table pg. 18)	12, 13, 14
	Cold Shrinkable Cable Seal	15/25/35 kV	**CS CJ4** (see CJ4 Table pg. 18)	14

1. Determine whether aluminum or copper components – compression connector, stud, and insulating plug (Bol-T and BT-TAP only) is required. For **600 A rating** – Insert "**A**" in digit 9 (or digit 10 for BT-TAP) for **Aluminum**.

   For **900 A rating** – Insert "**C**" in digit 9 (or digit 10 for BT-TAP) for **Copper** (Includes coppertop compression connector).

2. To specify an **ALL copper connector**, add **50** to the conductor code from Table CC3 (page 18). **Example**: CC6C11T **becomes** CC6C61T.

3. To **include stud**, insert a "**1**" in digit 10, or insert a "**2**" for kit **without stud**.

4. For a T-body with **test point**, add a "**T**" in digit 11.

5. For T-OP II, BT-TAP and PUSH-OP kits only, to specify a T-body with **test point**, add "**T**" after the conductor code.

6. To add a **loadbreak protective cap**, insert a "**C**" as the last character in the part number.

7. To specify stud in kit, add "**SA**" for **aluminum stud** (only available with aluminum interface); add "**SC**" for **copper stud**; add "**ST**" for **T-OP II stud**; or add "**SU**" for **U-OP stud** as the last characters in the part number.

8. To specify a **grounded standoff bushing**, replace the "I" with a "**G**" as the first character in the part number.

9. For **individually packaged** product in a corrugated cardboard box, insert an "**X**" as the last character in the part number.

10. It is required to specify the number of interfaces by inserting a "**2**", "**3**", or "**4**" directly after the base part number.

11. To add a **stainless steel bracket**, insert a "**B**"; or to add **U-straps**, insert a "**U**" as the last character in the part number.

12. For use with tape shield, drain wire, linear corrugated, and Unishield® cable.

13. Each **SA Series Kit** includes: (1) Cold Shrinkable Sleeve (1) Tinned Copper Ground Strap with attached elbow drain wire (1) Constant Force Spring (1) Semi-Conductive Tape (3) Mastic Sealing Strips (1) Installation Instructions.

14. To add a **CS Series Sealing kit** or a **SA Series Adapter kit** to the 600 A connector kit, add a "**-CS _**" or "**-SA _**". Refer to table CJ3 or CJ4 on page 18.

15. For 600 A rating, add "**A**" in digit 10. For 900 A rating, add "**C**" in digit 10.

16. Specify "**S**" standard length stud or "**L**" for extended length.

17. Add "**T**" in digit 12 for a T-Body with Test Point.

Use for Base Number

BT625
BTP615
BTP625
TP615
TP625
POP615
POP625
CA625

TABLE CR4
Cable Diameter (Insulation) Range

Cable Diameter Range		
Inches	mm	CABLE RANGE CODE
0.640-0.760	16.3-19.3	A
0.720-0.845	18.3-21.5	B
0.785-0.970	19.9-24.6	C
0.910-1.065	23.1-27.1	D
0.980-1.140	24.9-29.0	E
1.080-1.280	27.4-32.5	F
1.220-1.420	31.0-36.1	G
1.360-1.560	34.5-39.6	H
1.480-1.700	37.6-43.2	J
1.640-1.840	41.7-46.7	K
1.780-1.965	45.2-49.9	L

Use for Base Number

BT635
BTP635
TP635
POP635
CA635

TABLE CR5
Cable Diameter (Insulation) Range

Cable Diameter Range		
Inches	mm	CABLE RANGE CODE
0.875-0.985	22.2-25.0	D
0.930-1.040	23.6-26.4	E
0.980-1.115	24.9-28.3	F
1.040-1.175	26.4-29.8	G
1.095-1.240	27.8-31.5	H
1.160-1.305	29.5-33.1	J
1.220-1.375	31.0-34.9	K
1.285-1.395	32.5-35.4	L
1.355-1.520	34.4-38.6	M
1.485-1.595	37.7-40.5	N
1.530-1.640	38.9-41.7	P
1.575-1.685	40.0-42.8	Q
1.665-1.785	42.3-45.3	R
1.755-1.875	44.6-47.9	S
1.845-1.965	46.9-50.0	T

Use for Base Number

BT625
BT635
BTP615
BTP625
BTP635
TP615
TP625
TP635
POP615
POP625
POP635
CC6A _ U
CC6C _ T
CC6C _ U

TABLE CC3
Conductor Size and Type

Concentric or Compressed		Compact or Solid		CONDUCTOR CODE
AWG or kcmil	mm^2	AWG or kcmil	mm^2	
No Connector				00
#2	35	1	–	11
#1	–	1/0	50	12
1/0	50	2/0	70	13
2/0	70	3/0	–	14
3/0	–	4/0	95	15
4/0	95	250	120	16
250	120	300	–	17
300	–	350	–	18
350	–	400	185	19
400	185	450	–	20
450	–	500[a]	240	21
500	240	600	300	22
600	300	700	–	23
650[b]	–	750[c]	–	24
750[d]	–	900	–	25
900	–	1000	500	26
1000	500	–	–	27

a. Also accepts 550 kcmil compact conductor.
b. Also accepts 700 kcmil compressed conductor.
c. Also accepts 800 kcmil compact conductor.
d. Also accepts 700 kcmil concentric conductor.

Use for Base Number

SA

TABLE CJ3
Cable Jacket (Outside Diameter) Range

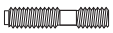
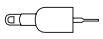
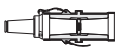
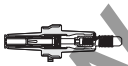
Cable Jacket OD (Inches)	JACKET CODE
0.590-1.050	1
0.830-1.640	2
1.270-2.170	3
1.700-2.600	4

Use for Base Number

CS

TABLE CJ4
Jacketed Concentric Neutral Cable

Minimum Seal Diameter (Inches)	Maximum Installed Diameter (Inches)	CODE
.950	1.94	1
1.28	2.67	2
1.60	3.50	3

Catalog Section		Description	kV Class	Base Part Number	Notes
	600-46 600-66	T-Body	15/25 kV	**DT625**	1, 2
			35 kV	**DT635**	1, 2
	600-46 600-66	Cap for Insulating Plug	15/25/35 kV	**DIPCAP**	
	600-46 600-66	Insulating Plug w/o Stud (cap included)	15/25 kV	**DIP625A** (Aluminum) **DIP625C** (Copper)	3, 7
			35 kV	**DIP635A** (Aluminum) **DIP635C** (Copper)	3, 7
	600-46 600-66	Connecting Plug w/o Stud	15/25 kV	**DCP625A** (Aluminum) **DCP625C** (Copper)	3, 7
			35 kV	**DCP635A** (Aluminum) **DCP635C** (Copper)	3, 7
	600-46	Bol-T Stud	15/25 kV	**STUD-A** (Aluminum) **STUD-C** (Copper)	
	600-66		35 kV	**STUD635-A** (Aluminum) **STUD635-C** (Copper)	
	600-46 600-66	T-OP II/BT-TAP Stud	15/25/35 kV	**STUD-T**	4
	600-46 600-66	U-OP Stud	15/25/35 kV	**STUD-U**	5
	600-46 600-66	$^{11}/_{16}$ in. Unthreaded Aluminum Compression Connector	15/25/35 kV	**CC6A CC3 U** (see CC3 Table pg. 18)	
	600-46 600-66	$^{15}/_{16}$ in. Threaded Coppertop Compression Connector	15/25/35 kV	**CC6C CC3 T** (see CC3 Table pg. 18)	6
	600-46 600-66	$^{11}/_{16}$ in. Unthreaded Coppertop Compression Connector	15/25/35 kV	**CC6C CC3 U** (see CC3 Table pg. 18)	6
	600-46 600-66	Cable Adapter	15/25 kV 35 kV	**CA625 CR4** (see CR4 Table pg. 18) **CA635 CR5** (see CR5 Table pg. 18)	
	600-46 600-66	BT-TAP and T-OP II Installation and Torque Tool	15/25 kV 35 kV	**TQHD625** **TQHD635**	8 8
	600-46 600-66	T-OP II Combination Operating, Test, and Torque Tool (For single person hotstick operation)	15 kV	**OTTQ615**	9
			25 kV	**OTTQ625**	9
			35 kV	**OTTQ635**	9
	600-46 600-66	T-WRENCH for BT-TAP/T-OP II	15/25/35 kV	**TWRENCH**	10
	600-18 600-38 600-59	$^{5}/_{16}$" Hex Shaft with 3/8" Socket Drive Tool	15/25 kV	**HD625**	11
			35 kV	**HD635**	11
	600-18 600-38 600-59	Bushing Extender	15/25 kV	**DBE625**	2
			35 kV	**DBE635**	2
	600-18 600-38 600-59	Loadbreak Reducing Tap Plug for T-OP II (Stud-T included)	15 kV	**LRTP615**	
			25 kV	**LRTP625**	
			35 kV	**LRTP635**	
	600-18 600-38 600-59	Bol-T Loadbreak Reducing Tap Plug for BT-TAP (Stud-T included)	15 kV	**BLRTP615**	12
			25 kV	**BLRTP625**	12
			35 kV	**BLRTP635**	

1. To specify a **test point** insert a "**T**" in the sixth digit.
2. To add stud to kit, add a "**SA**" for an **aluminum stud**, or a "**SC**" for a **copper stud** as the last characters in the part number.
3. To add **STUD** to kit, add a "**S**" after the base part number. Material of stud supplied will match with material of the plug conductor ordered.
4. Copper alloy stud for use with BT-TAP or T-OP II Connectors only.
5. Copper stud for use with U-OP Connector only.
6. To specify an **all copper connector**, add **50** to the conductor code from Table CC3 (page 18). Example: CC6C11T becomes CC6C61T.
7. Stud comes loose in kit, add a "**P**" as the last character for permanent **factory installation**.
8. TQHD6_ allows for installation of either BT-TAP or T-OP II Connector to 600 A bushing.
9. OTTQ6_ allows for installation and single hotstick operation of either the BT-TAP or T-OP II Connector.
10. TWRENCH allows for installation of loadbreak reducing tap plug for BT-TAP or T-OP II Connector.
11. HD6_ allows for installation of connecting plug in 600 A Separable Splices.
12. Specify "A" for 600 A rating or "C" for 900 A rating in digit 9.

Bol-T™ Connector System

The Bol-T™ Deadbreak Connector System is designed for use on applications that will not be operated, do not need grounding or arrester provisions, and do not require direct conductor testing or the use of a hotstick. It is a bolted design that is interchangeable with other manufacturers' bolted 600 A systems that require no special tools for installation.

The capacitive test point on the insulating plug provides a means of confirming an energized circuit without disturbing the bolted connection. In addition to the capacitive test point feature on the insulating plug, we offer a capacitive test point on the T-Body. This allows the use of our Type "TPR" Series Faulted Circuit Indicators, and provides a means of confirming that a circuit is energized when used with high impedance voltage sensing devices designed for test points.

Refer to Figure 1 for Bol-T Connector Kit Components.

Installation of Bol-T™ on a 600/900 A Bushing

The Bol-T Connector is installed on any 600/900 A bushing using a standard 1-inch socket. No special tools are required.

BOL-T™ Specification Information

To specify the Bol-T Connector System, include in your specification:

- The system must fully comply with **IEEE Standard 386**™.
- All cable adapters, insulating plugs, compression connectors and other component parts must be interchangeable with other manufacturers.
- For 900 A rating, full copper current carrying path with coppertop compression connector, copper stud and insulating plug with copper insert.
- Bol-T Connector System base part number BT625 for 15 kV and 25 kV systems and BT635 for 35 kV systems.

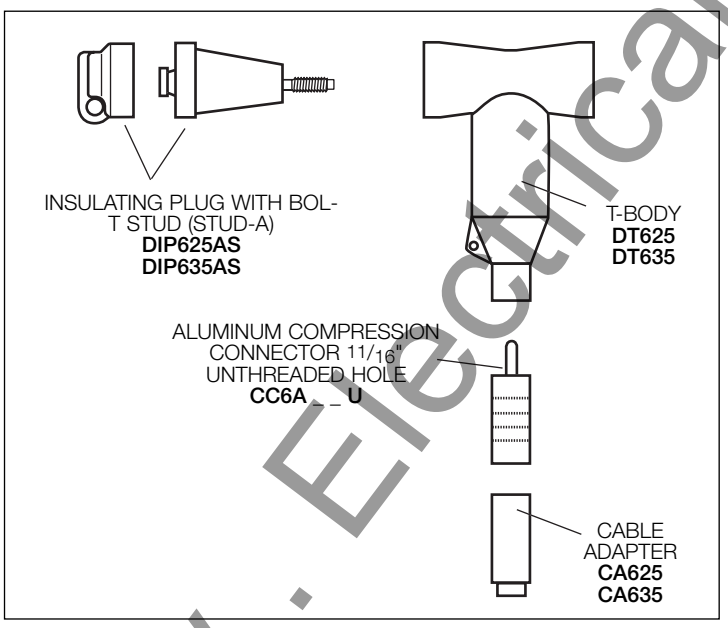


Figure 1.
Bol-T Connector Kit (BT6_5) Components. For more details, see catalog sections 600-10, 600-30 and 600-50.

BT-TAP™ Connector System

The BT-TAP™ Deadbreak Connector System is designed for use on applications where a 200 A interface is required for testing, grounding, or overvoltage protection. It is primarily used in retrofit applications of existing 600 A or 900 A Bol-T installations (or other bolted systems that use unthreaded compression connectors).

The BT-TAP Connector System uses the standard unthreaded compression connector, which makes it ideal for retrofitting existing Bol-T installations into a system with a 200 A tap.

The BT-TAP provides the following features:

- Visible ground and visible break
- 200 A Interface for:
  - addition of our M.O.V.E.™ Arresters for overvoltage protection
  - addition of our Grounding Elbows
  - access for direct conductor phasing and testing
  - hipot testing of switch or cables

Refer to Figure 2 for BT-TAP Connector Kit Components.

Installation of BT-TAP™ on a 600 A Bushing

The BT-TAP Connector is installed on an apparatus bushing using a 600 A Torque Tool.

BT-TAP™ Specification Information

To specify a BT-TAP Connector System, include in your specification:

- The system must fully comply with **IEEE Standard 386**™.
- The connector system must provide operation with hot line tools, direct conductor phasing and testing.
- It must provide a location to add overvoltage arresters and access for direct conductor phasing or hipot testing of switch or cables.
- Must be easy to install with proper torque such that concern for cross threading is eliminated.
- Loadbreak reducing tap plug must include latch indicator ring.
- BT-TAP Connector System base part number BTP615 (A) (C) for 15 kV, BTP625 (A) (C) for 25 kV and BTP635 for 35 kV.

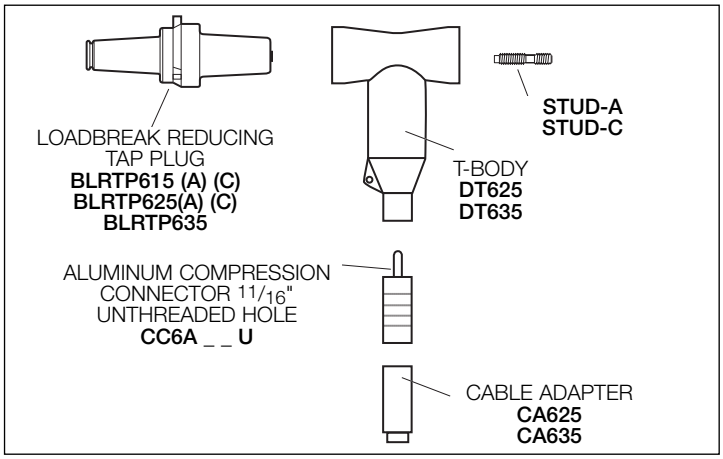


Figure 2.
BT-TAP Connector Kit (BTP6_5_) Components. For more details, see catalog sections 600-15, 600-35 and 600-55.

T-OP™ II Connector System

The T-OP™ II Deadbreak Connector System is designed for use on applications where a 200 A interface is required for testing, grounding, or overvoltage protection. It is single person hotstick operable and is ideal for terminations that may require moving to achieve a visible open or visible ground. One person can move the T-OP II Deadbreak Terminator from the apparatus bushing to a standoff bushing using a hotstick and Operating Test and Torque Tool (OTTQ6_5).

The T-OP II Connector System uses a threaded coppertop (bi-metal) compression connector for a threaded connection. It also has an alignment segment and internal rotating nut feature in the loadbreak reducing tap plug which, along with the extended length stud, eliminates cross threading and ensures proper torque.

The T-OP II system provides the following features:

- Single person hotstick operable
- Mechanical assist
- Copper alloy current path and copper-top connector
- 900 A continuous current rating
- Visible ground and visible break
- 200 A Interface for:
  - addition of our M.O.V.E Arresters for overvoltage protection
  - addition of our Grounding Elbows
  - access for direct conductor phasing and testing
  - hipot testing of switch or cables

Refer to Figure 3 for T-OP II Connector Kit Components.

Installation of T-OP™ II on a 600/900 A Bushing

The T-OP II Connector is installed on an apparatus bushing using a T-Wrench and a 600 A Torque Tool.

T-OP™ II Specification Information

To specify a 900 A T-OP II System, include in your specification:

- The system must fully comply with **IEEE Standard 386™**.
- Must include an all copper alloy current path and copper-top connector.
- System must include disconnecting back-off feature.
- The connector system must provide operation with live line tools, direct conductor phasing and testing, visible ground and visible break.
- It must provide a location to add overvoltage arresters and access for direct conductor phasing or hipot testing of switch or cables.
- Must be one-person hotstick operable and easy to install with proper torque such that concern for cross threading is eliminated.
- Loadbreak reducing tap plug must include extended length stud, internal rotating nut and an alignment segment feature to eliminate cross threading of this compression connector and ensure proper torque.
- Loadbreak reducing tap plug must include latch indicator ring.
- T-OP II Connector System base part number TP615 for 15 kV, TP625 for 25 kV and TP635 for 35 kV.

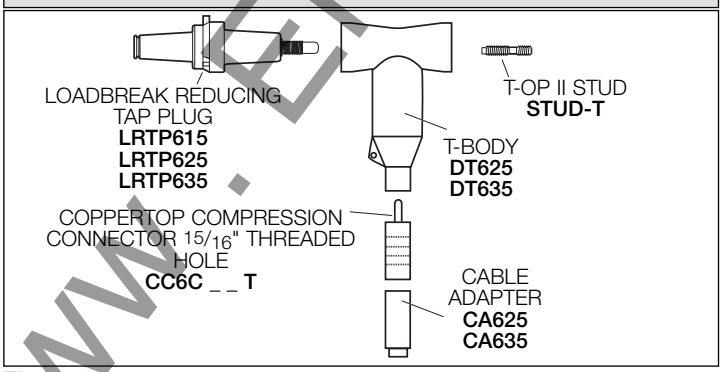


Figure 3.
T-OP II Connector Kit (TP6_5_) Components. For more details, see catalog sections 600-12, 600-32 and 600-52.

U-OP™ Connector System

The U-OP™ Connector System is used to provide a visible break and visible ground on 600 A distribution systems without having to move the heavy cable. The U-OP Connector is a deadbreak system rated for operation on 15 or 25 kV class equipment, including transformers, switches, switchgear, and other apparatus.

Under normal operating conditions, the current path is through the apparatus bushing, through the U-connector, through a two-way 600 A deadbreak junction, and through a T-OP II 600 A Connector (sold separately) to the underground cable. When isolating underground cable, a grounded standoff bushing can be put in the parking stand (with the system de-energized). The U-connector can then be removed, rotated 90°, and re-installed over the apparatus bushing and grounded standoff bushing, to ground the apparatus bushing.

A grounding elbow can be installed on the 200 A interface of the T-OP II Connector to ground the cable. A 600 A U-OP Protective Cap can then be put on the upper bushing of the deadbreak junction to insulate that bushing. Since all bushings of the connector system are then insulated or grounded, and if the cable is grounded on the other end, it is safe to perform work on the underground cable. See Figure 4 for a typical U-OP Connector configuration.

U-OP™ Specification Information

To specify a 600 A U-OP Connector System that achieves a visible break and visible ground without having to move heavy cable, include in your specification:

- The system must fully comply with **IEEE Standard 386™**.
- The system must provide a visible break and visible ground without having to move 600 A cable.
- A U-connection shall remain connected on the equipment even while performing repair to the underground cable to ensure the interfaces are not exposed to the environment and thus potentially contaminated.
- U-OP Connector System base part number UOP625 for both 15 and 25 kV.

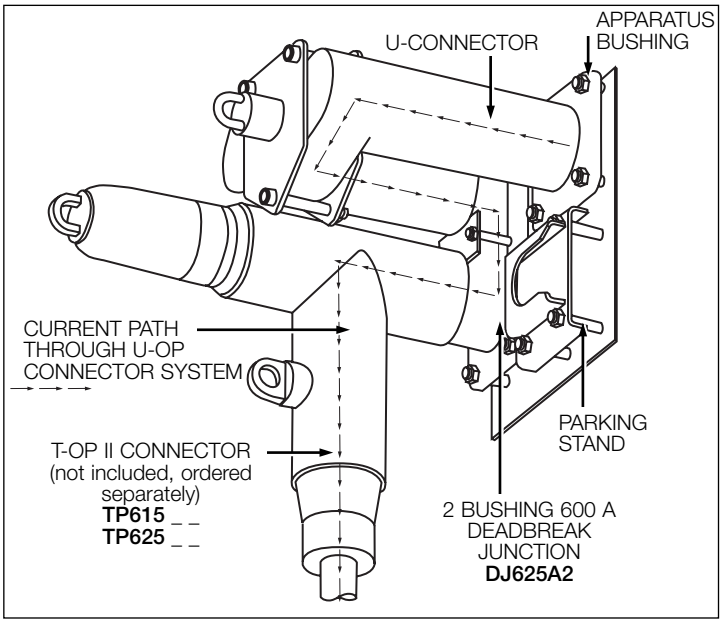
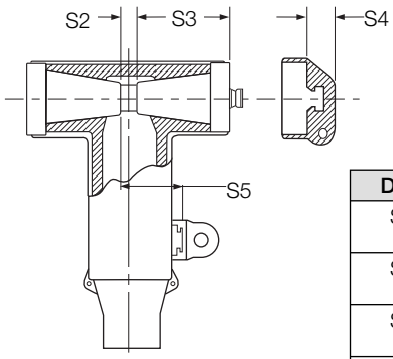


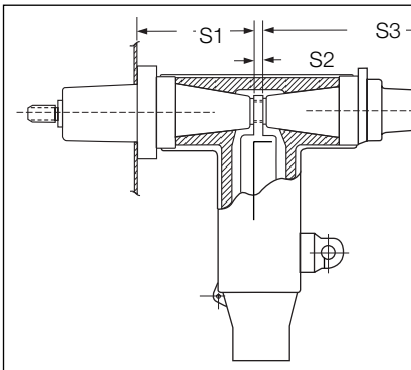
Figure 4.
U-OP Connector Kit (UOP625) Components. For more details, see catalog section 600-34.

600 A Stacking Dimensions



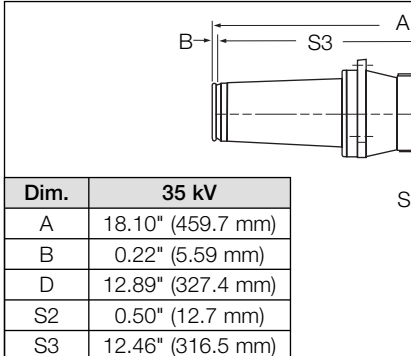
Dim.	15/25 kV	35 kV
S2	0.50" (12.7 mm)	0.50" (12.7 mm)
S3	3.87" (98.3 mm)	4.97" (126 mm)
S4	1.50" (38.1 mm)	1.50" (38 mm)
S5	2.4" (61 mm)	2.84" (72 mm)

Bol-T™ Deadbreak Connector



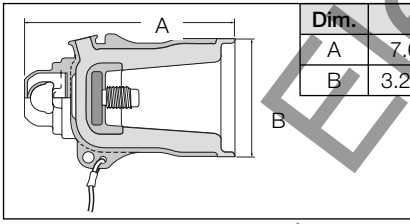
Dim.	15/25 kV
S1	4.93" (125.2 mm)
S2	0.50" (12.7 mm)
S3	8.29" (210.6 mm)

BT-TAP™ and T-OP™ II Deadbreak Connector 15 kV and 25 kV



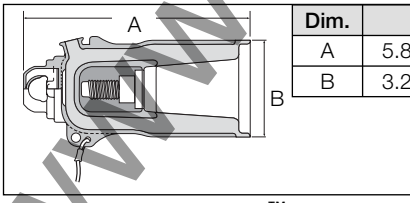
Dim.	35 kV
A	18.10" (459.7 mm)
B	0.22" (5.59 mm)
D	12.89" (327.4 mm)
S2	0.50" (12.7 mm)
S3	12.46" (316.5 mm)
S5	2.84" (72.1 mm)

BT-TAP™ and T-OP™ II Deadbreak Connector 35 kV



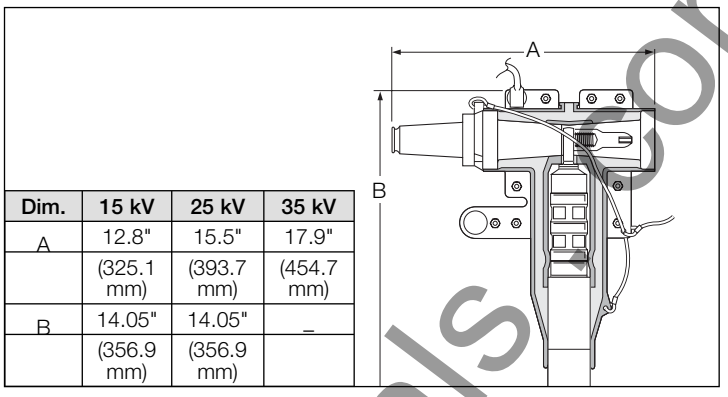
Dim.	15/25 kV	35 kV
A	7.6" (193 mm)	8.66" (220 mm)
B	3.25" (82.6 mm)	3.25" (82.6 mm)

Standard Protective Cap



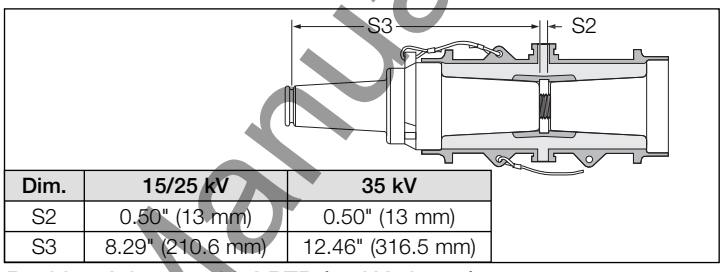
Dim.	15/25 kV	35 kV
A	5.8" (147.3 mm)	6.8" (173 mm)
B	3.25" (82.6 mm)	3.5" (88.9 mm)

Protective Cap for T-OP™ II and U-OP™ (15/25 kV shown)



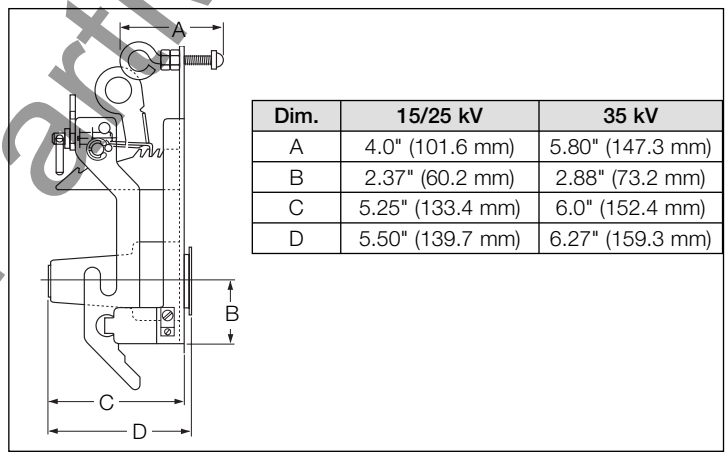
Dim.	15 kV	25 kV	35 kV
A	12.8" (325.1 mm)	15.5" (393.7 mm)	17.9" (454.7 mm)
B	14.05" (356.9 mm)	14.05" (356.9 mm)	–

PUSH-OP® Deadbreak Connector (15 kV shown)



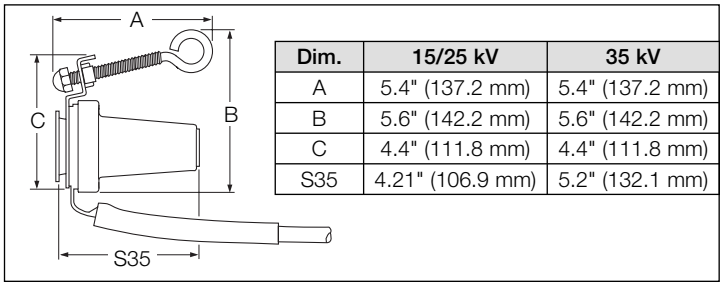
Dim.	15/25 kV	35 kV
S2	0.50" (13 mm)	0.50" (13 mm)
S3	8.29" (210.6 mm)	12.46" (316.5 mm)

Bushing Adapter with LRTP (15 kV shown)



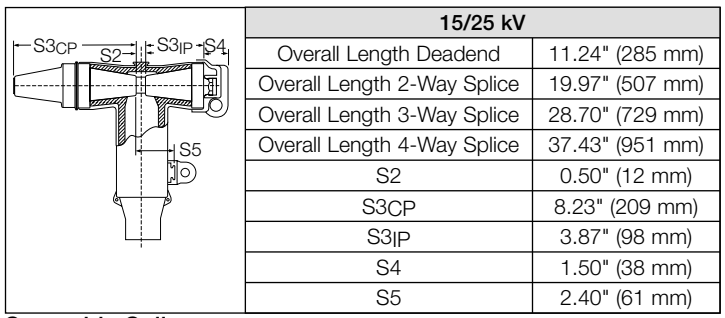
Dim.	15/25 kV	35 kV
A	4.0" (101.6 mm)	5.80" (147.3 mm)
B	2.37" (60.2 mm)	2.88" (73.2 mm)
C	5.25" (133.4 mm)	6.0" (152.4 mm)
D	5.50" (139.7 mm)	6.27" (159.3 mm)

PUSH-OP® Standoff Bushing (15/25 kV shown)



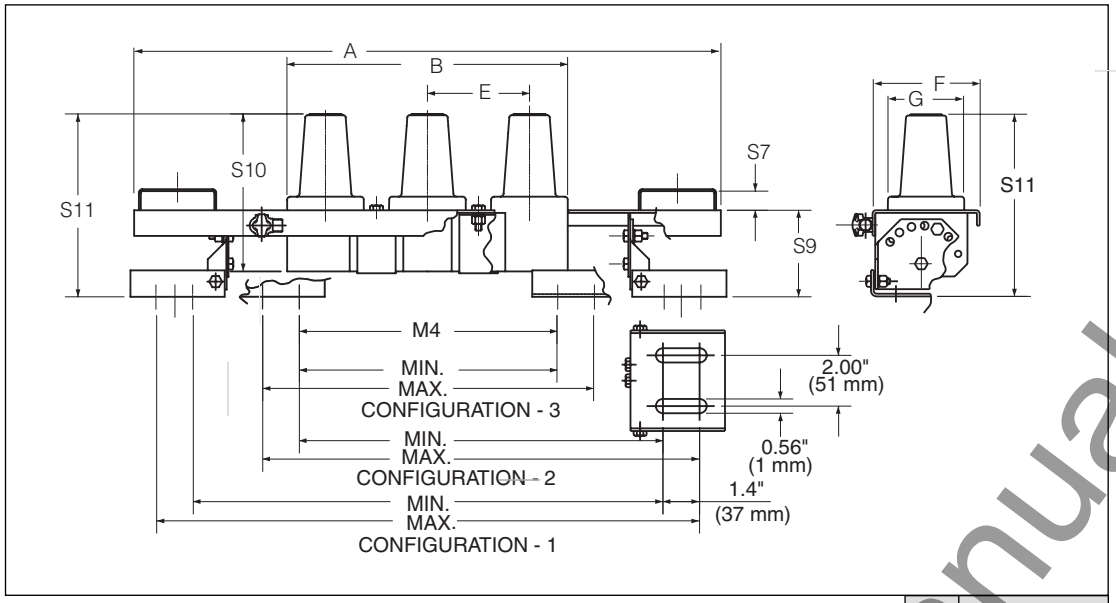
Dim.	15/25 kV	35 kV
A	5.4" (137.2 mm)	5.4" (137.2 mm)
B	5.6" (142.2 mm)	5.6" (142.2 mm)
C	4.4" (111.8 mm)	4.4" (111.8 mm)
S35	4.21" (106.9 mm)	5.2" (132.1 mm)

Standoff Bushing



	15/25 kV
Overall Length Deadend	11.24" (285 mm)
Overall Length 2-Way Splice	19.97" (507 mm)
Overall Length 3-Way Splice	28.70" (729 mm)
Overall Length 4-Way Splice	37.43" (951 mm)
S2	0.50" (12 mm)
S3CP	8.23" (209 mm)
S3IP	3.87" (98 mm)
S4	1.50" (38 mm)
S5	2.40" (61 mm)

Separable Splice



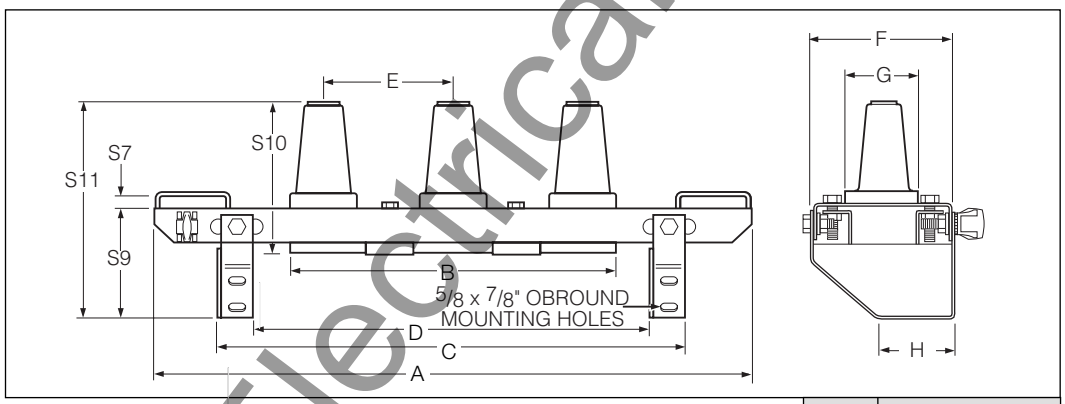
Deadbreak Junction (15/25 kV shown)

Dim.	15/25 kV
E	4.0" (101 mm)
F	4.1" (102 mm)
G	3.0" (76 mm)
S7	0.75" (19 mm)
S9	3.4" (86 mm)
S10	6.2" (157 mm)
S11	7.2" (182 mm)

TABLE 15/25 kV

Number of Interfaces	Physical Dimensions in./(mm)		M4 Mounting Dimensions in./(mm)					
			Configuration 1		Configuration 2		Configuration 3	
	A	B	Min.	Max.	Min.	Max.	Min.	Max.
2	19.0" (483 mm)	7.0" (178 mm)	5.6 " (142 mm)	8.5" (215 mm)	9.7" (248 mm)	12.6" (321 mm)	13.9" (354 mm)	16.8" (427 mm)
3	23.0" (584 mm)	11.0" (279 mm)	10.1" (257 mm)	13.0" (331 mm)	14.3" (363 mm)	17.2" (437 mm)	18.5" (469 mm)	21.4" (543 mm)
4	27.0" (686 mm)	15.0" (381 mm)	15.6" (397 mm)	18.5" (470 mm)	19.8" (507 mm)	22.7" (576 mm)	24.0" (609 mm)	23.0" (584 mm)

Configuration 1. Both feet turned out.
Configuration 2. One foot turned out, the other in.
Configuration 3. Both feet turned in.



Deadbreak Junction (35 kV shown)

Dim.	35 kV
E	6.0" (152 mm)
F	6.2" (158 mm)
G	3.0" (76 mm)
H	3.8" (96 mm)
S7	0.75" (19 mm)
S9	5.55" (141 mm)
S10	7.0" (178 mm)
S11	10.4" (264 mm)

TABLE 35 kV

Number of Interfaces	Physical Dimensions in. (mm)		Mounting Dimensions in. (mm)	
	A	B	C	D
2	21.5" (546 mm)	9.0" (229 mm)	15.5" (394 mm	12.5" (318 mm)
3	27.5" (699 mm)	15.0" (381 mm)	21.5" (546 mm)	18.5" (470 mm)
4	33.5" (851 mm)	21.0" (533 mm)	27.5" (699 mm)	24.5" (622 mm)

Note: C and D are minimum and maximum stud centerline separations for mounting.

We offer various types of splices for your underground needs on 200 A and 600 A systems. The EZ® II One-Piece Splices at 15, 25, and 35 kV include advantages for typical applications of repair, replacement, or extension of high voltage underground cables. These all peroxide-cured EPDM rubber splices provide a highly reliable, permanent, fully shielded, and submersible cable joint with a current rating equal to that of the mating cable. EZ II Splices can be installed in conduit, direct buried or in vault applications. The EZ II Splice line meets or exceeds all requirements of **IEEE Standard 404™**.

We offer a full line of 600/900 A Separable Splice kits for application on feeder circuits. These use standard Bol-T type components along with a peroxide-cured EPDM rubber connecting plug that allows for installation of multiple way splices. Separable splices are used to splice multiple cables or to deadend a single cable. The splices are rated for 600 A (900 A ratings are available) and are suitable for the repair or extension of underground feeders. Separable splice kits meet or exceed the requirements of **IEEE Standard 386™**.

EZ® II Splices

The EZ II One-Piece Splices offer a number of features and benefits, including:

Easiest to Install – The design features of the EZ II Splice including the tapered cable entrance, smooth bore, relieved conductive insert, and reformulated rubber provide for easier field installation. EZ II Splices have been shown to be 30% easier to install than other manufacturers' splices.

Wide Range Taking – The wide range taking cable entrances are sized to accept all common cable insulation diameters. The wider cable ranges increase installation flexibility.

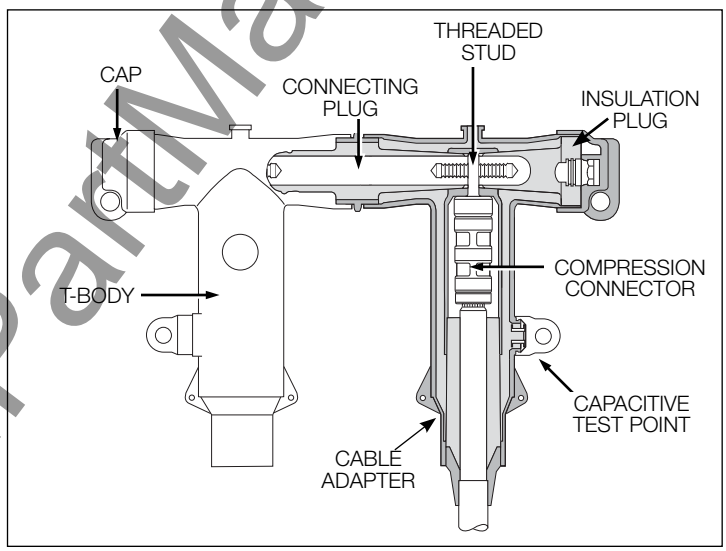
Sure Grip – The contoured EZ II Splice body provides an easy gripping location during installation.

Long Term Reliability – The EZ II Splice has successfully passed all requirements of the **IEEE Standard 404™** and our exclusive field-proven multi-stress test to show the long term reliability of the design.

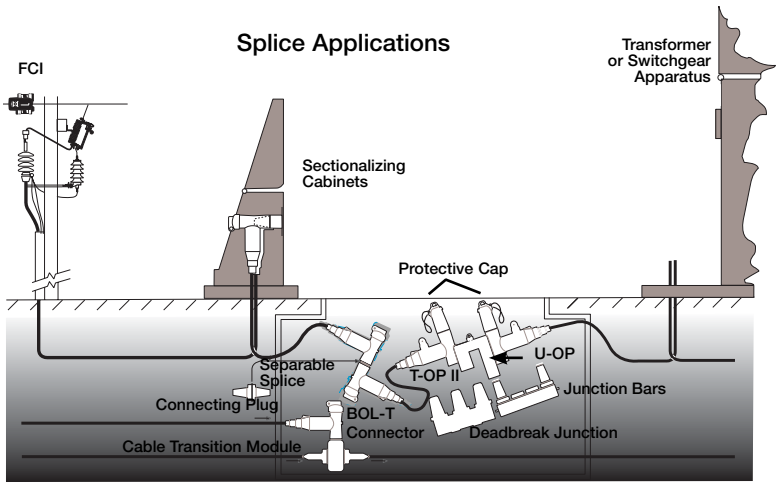
EZ® II Splice Specification Information

To ensure you have the most reliable, economical, installation friendly premolded one-piece splice available, your specification for EZ® II Splice should include:

- Manufactured in full compliance with all applicable **IEEE Standards 404™**.
- Manufactured from peroxide-cured EPDM rubber.
- Tapered ribs of the inside diameter of the conductive insert.
- Molded in compression connector diameters.
- Conductive insert ends encapsulated with insulating rubber.



Typical components of a 600 A 2-way separable splice.



Catalog Section	Description	kV Class	Base Part Number	Notes
 700-15	EZ II Splice	15 kV	**SP15 CR6 CC4** (see CR6 & CC4 Tables Below)	1, 2, 3, 4
		25 kV	**SP25 CR6 CC4** (see CR6 & CC4 Tables Below)	1, 2, 3, 4
		35 kV	**SP35 CR6 CC4** (see CR6 & CC4 Tables Below)	1, 2, 3, 4

Use for Base Number (both tables)
SP15 SP25 SP35

TABLE CR6
Cable Diameter (Insulation) Range

Cable Diameter Range		CABLE RANGE CODE
Inches	Millimeters	
0.640-0.910	16.3-23.1	**A**
0.750-1.010	19.1-25.7	**B**
0.890-1.140	22.6-29.0	**C**
0.840-1.110	21.3-28.2	**D**
1.000-1.310	25.4-33.3	**E**
1.140-1.450	29.0-36.8	**F**

TABLE CC4
Conductor Size and Type

Stranded or Compressed		Compact or Solid		CONDUCTOR CODE
AWG	mm^2	AWG	mm^2	
#3	25	#2	35	**001**
#2	35	#1	–	**002**
#1	–	1/0	50	**003**
1/0	50	2/0	70	**004**
2/0	70	3/0	–	**005**
3/0	–	4/0	95	**006**
4/0	95	250	120	**007**
250*	120	–	–	**008**

* Compressed stranding only

1. For an **all copper connector**, change digit six from a "0" to a "**C**".
2. For a **splice with a single-piece** rejacketing kit, insert a "S" or a **2-piece** rejacketing kit, insert a "**D**" as the ninth character in the part number.
3. For **individually packaged** product in a corrugated cardboard box, insert an "**X**" as the last character in the part number.
4. To splice different sized cables, refer to transition splice information in catalog section 700-15.
5. For **900 A rating** (copper components) replace the "A" with a "C".
6. For T-bodies with **test points**, insert a "**T**" directly after the base part number.
7. Studs are bagged and loose in kit. To have **studs permanently installed** at the factory, add a "P" after the test point designation (if applicable) or after the base part number.
8. Installation requires a standard $^{5}/_{16}$" hex key (HD625).
9. To include **200 A loadbreak protective cap**, add a "C" as the last character in the part number.

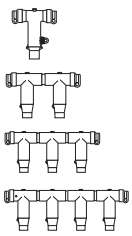
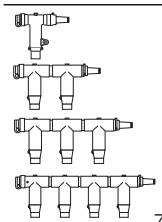
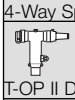
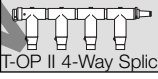
 700-22 700-31	600 A Separable Splices (Kits Do Not Include Cable Adapters or Compression Connector. Refer to 600 A Replacement Parts Page 19)	15/25 kV		
		Deadend Kit	**SSPL625A1**	5, 6, 7, 8
		2-way Splice Kit	**SSPL625A2**	5, 6, 7, 8
		3-way Splice Kit	**SSPL625A3**	5, 6, 7, 8
		4-way Splice Kit	**SSPL625A4**	5, 6, 7, 8
		35 kV		
		Deadend Kit	**SSPL635A1**	5, 6, 7, 8
		2-way Splice Kit	**SSPL635A2**	5, 6, 7, 8
		3-way Splice Kit	**SSPL635A3**	5, 6, 7, 8
		4-way Splice Kit	**SSPL635A4**	5, 6, 7, 8
 700-17 700-37 700-57	T-OP II 600 A Separable Splices with 200 A Tap (Kits Do Not Include Required Threaded and Unthreaded Compression Connectors or Cable Adapters. Refer to 600 A Replacement Parts Page 19)	15/25 kV		
		T-OP II Deadend Kit	**SSPLT625A1**	5, 6, 7, 8, 9
		T-OP II 2-way Splice Kit	**SSPLT625A2**	5, 6, 7, 8, 9
		T-OP II 3-way Splice Kit	**SSPLT625A3**	5, 6, 7, 8, 9
		T-OP II 4-way Splice Kit	**SSPLT625A4**	5, 6, 7, 8, 9
		35 kV		
		T-OP II Deadend Kit	**SSPLT635A1**	5, 6, 7, 8, 9
		T-OP II 2-way Splice Kit	**SSPLT635A2**	5, 6, 7, 8, 9
		T-OP II 3-way Splice Kit	**SSPLT635A3**	5, 6, 7, 8, 9
		T-OP II 4-way Splice Kit	**SSPLT635A4**	5, 6, 7, 8, 9

TABLE 4
Separable Splice Kits

Assembly	Splice Kit Contents					Order Separately (Refer to pg 19)		
	T-Body	Insulating Plug w/Cap	Insulating Plug w/Cap and Stud	Connecting Plug w/Stud	Loadbreak Reducing Tap Plug	Cable Adapter	Unthreaded Compression Connector	Threaded Coppertop Connector
 Deadend	1	1	1	–	–	1	1	–
 2-Way Splice	2	1	1	1	–	2	2	–
 3-Way Splice	3	1	1	2	–	3	3	–
 4-Way Splice	4	1	1	3	–	4	4	–
 T-OP II Deadend	1	1	–	—	1	1	–	1
 T-OP II 2-Way Splice	2	1	–	1	1	2	1	1
 T-OP II 3-Way Splice	3	1	–	2	1	3	2	1
 T-OP II 4-Way Splice	4	1	–	3	1	4	3	1

Our Metal Oxide Varistor Elbow (M.O.V.E.™) and Parking Stand Arresters are used in pad-mounted transformer and entry cabinets, vaults, switching enclosures and other installations to provide shielded deadfront arrester protection. These arresters are designed for use with 200 A loadbreak interfaces to limit overvoltages to acceptable levels, protect equipment and extend cable life.

The gapped structure of our VariGAP® M.O.V.E. Arrester provides excellent temporary overvoltage (TOV) characteristics while the MOV disks offer rapid front-of-wave response with virtually no power follow current. Extensive laboratory testing and over 15 years of field history have proven the hybrid VariGAP design offers the following advantages over standard ungapped MOV arresters:

- Lower Discharge Voltage Characteristics
- Increased Thermal Capacity
- Improved Front-of-Wave Response
- Higher Temporary Overvoltage Capability

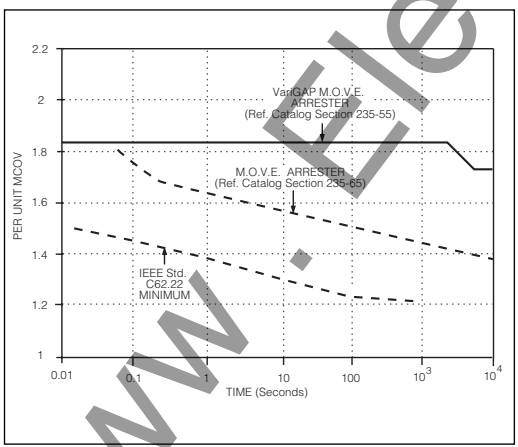
To experience the benefits of our VariGAP M.O.V.E. Arrester, see the following specification information.

VariGAP® M.O.V.E.™ Arrester Specification Information

- Total compliance to **IEEE Std 386**™.
- Total compliance to **IEEE Std C62.11**™, including full certification to the deadfront arrester failure mode safety test.
- Specify a maximum discharge voltage equal to the VariGAP published data (see Table 3).

  Example: for a 10 kV arrester, specify discharge voltage for a 20 kA 8/20 µs current wave to be 35 kV crest.
- Specify a minimum temporary overvoltage rating higher than 1.8 per unit for at least 1000 seconds.

  Example: for a 10 kV arrester, specify a TOV recovery voltage of at least 8.4 * 1.8 = 15.12 kV for 1000 seconds at 85° C.



Temporary overvoltage curve. No prior duty at 85° C ambient.

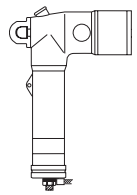
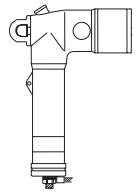
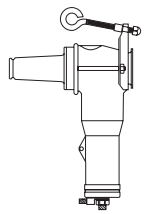
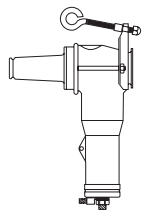
TABLE 1
Commonly Applied Voltage Ratings of M.O.V.E.™ and Parking Stand Arresters

System Voltage (V rms)		Commonly Applied Arrester Duty-cycle (MCOV) Voltage Rating (kV rms) on Distribution Systems		
Nominal Voltage	Maximum Voltage	4-Wire Multigrounded Neutral Wye	3-Wire Low Impedance Grounded	Delta and 3-Wire High Impedance Grounded
2400	2540	–	–	3 (2.55)
4160 Y/2400	4400 Y/2540	3 (2.55)	6 (5.1)	6 (5.1)
4260	4400	–	–	6 (5.1)
4800	5080	–	–	6 (5.1)
6900	7260	–	–	9 (7.65)
8320 Y/4800	8800 Y/5080	6 (5.1)	9 (7.65)	–
12000 Y/6930	12700 Y/7330	9 (7.65)	12 (10.2)	–
12470 Y/7200	13200 Y/7620	9 (7.65) or 10 (8.4)	15 (12.7)	–
13200 Y/7620	13970 Y/8070	10 (8.4)	15 (12.7)	–
13800 Y/7970	14520 Y/8388	10 (8.4) and 12 (10.2)	15 (12.7)	–
13800	14520	–	–	18 (15.3)
20780 Y/12000	22000 Y/12700	15 (12.7)	21 (17.0)	–
22860 Y/12000	22000 Y/12700	15 (12.7)	21 (17.0)	–
24940 Y/14400	26400 Y/15240	18 (15.3)	27 (22.0)	–
27600 Y/15935	29255 Y/16890	21 (17.0)	–	–
34500 Y/19920	36510 Y/21080	27 (22.0) or 30 (24.4)	–	–

TABLE 2
M.O.V.E.™ and Parking Stand Arrester Protective Characteristics

Duty Cycle Voltage Rating (kV)	MCOV (kV)	Equivalent Front-of-Wave (kV crest)*	Maximum Discharge Voltage (kV crest) 8/20 µs Current Wave				
			1.5 kA	3 kA	5 kA	10 kA	20 kA
3	2.55	13.7	10.7	12.0	12.8	13.4	15.7
6	5.1	27.4	21.9	24.5	26.2	28.6	34.9
9	7.65	37.4	27.4	29.9	31.4	34.7	38.4
10	8.4	39.7	28.4	30.6	32.9	36.7	40.4
12	10.2	56.1	41.1	44.8	47.1	52.0	57.6
15	12.7	63.0	45.0	49.2	52.5	57.8	66.0
18	15.3	74.8	54.7	59.7	62.7	69.3	76.8
21	17.0	81.7	58.7	64.2	68.2	75.2	85.2
24	19.5	95.8	69.7	76.1	80.2	88.6	98.8
27	22.0	105.0	75.0	82.0	87.4	96.2	110.0
30	24.4	112.0	79.5	85	91.8	100.0	115.0

* Equivalent front-of-wave voltage is the expected discharge voltage of the arrester when tested with a 5 kA current surge cresting in 0.5 µs.

Catalog Section	Description	kV Class	Base Part Number	MCOV (kV)
 235-55	VariGAP Metal Oxide Varistor Elbow (M.O.V.E.) Arrester	15 kV	**3238118C09M**	7.65
			3238118C10M	8.40
			3238118C12M	10.2
			3238118C15M	12.7
			3238118C18M	15.3
		25 kV	**3238119C09M**	7.65
			3238119C10M	8.40
			3238119C12M	10.2
			3238119C15M	12.7
			3238119C18M	15.3
			3238119C21M	17.0
		35 kV (Interface 1A Large Interface per **IEEE Std. 386**™)	**3238120C18M**	15.3
			3238120C21M	17.0
			3238120C24M	19.5
			3238120C27M	22.0
 235-65	Metal Oxide Elbow (M.O.V.E.) Arrester	15 kV	**3238018C03M**	2.55
			3238018C06M	5.10
			3238018C09M	7.65
			3238018C10M	8.40
			3238018C12M	10.2
			3238018C15M	12.7
			3238018C18M	15.3
		25 kV	**3238019C09M**	7.65
			3238019C10M	8.40
			3238019C12M	10.2
			3238019C15M	12.7
			3238019C18M	15.3
			3238019C21M	17.0
		35 kV (Interface 1A Large Interface per **IEEE Std. 386**™)	**3238020C18M**	15.3
			3238020C21M	17.0
			3238020C24M	19.5
			3238020C27M	22.0
			3238020C30M	24.4
 235-58	VariGAP Metal Oxide Varistor (MOV) Parking Stand Arrester	15 kV	**3238104C09M**	7.65
			3238104C10M	8.40
			3238104C12M	10.2
			3238104C15M	12.7
			3238104C18M	15.3
		25 kV	**3238105C09M**	7.65
			3238105C10M	8.40
			3238105C12M	10.2
			3238105C15M	12.7
			3238105C18M	15.3
			3238105C21M	17.0
 235-68	Metal Oxide (MOV) Parking Stand Arrester	15 kV	**3237686C03M**	2.55
			3237686C06M	5.10
			3237686C09M	7.65
			3237686C10M	8.40
			3237686C12M	10.2
			3237686C15M	12.7
			3237686C18M	15.3
		25 kV	**3237758C09M**	7.65
			3237758C10M	8.40
			3237758C12M	10.2
			3237758C15M	12.7
			3237758C18M	15.3
			3237758C21M	17.0

The following notes apply to all part numbers on this page.

- Digits 9 & 10 designate duty cycle voltage rating. For other protective characteristics, refer to Table 2 for M.O.V.E. and Parking Stand Arresters and Table 3 for VariGAP M.O.V.E. and Parking Stand Arresters.
- Refer to page 15 for dimensional information.

TABLE 3
VariGAP® M.O.V.E.™ and Parking Stand Arrester Protective Characteristics

Duty Cycle Voltage Rating (kV)	MCOV (kV)	Minimum 60 Hz Sparkover (kV crest/$\sqrt{2}$)	Front-of-Wave Protective Level* (kV crest)	Maximum Discharge Voltage 8/20 µs Current Wave (kV crest)						Maximum 1.2/50 µs Sparkover (kV crest)
				0.5 kA	1.5 kA	3 kA	5 kA	10 kA	20 kA	
9	7.65	13.5	25.8/28.5	19.5	21.2	23.8	24.7	28.5	33.3	24.2
10	8.4	15.0	27.1/30.0	20.5	22.3	25.0	26.0	30.0	35.0	25.5
12	10.2	18.0	35.5/39.5	25.0	27.0	29.6	31.4	36.8	43.2	31.3
15	12.7	22.5	37.8/41.0	30.0	31.3	33.7	36.2	40.4	44.5	36.0
18	15.3	27.0	48.8/59.3	35.8	40.2	44.4	46.8	49.4	60.5	42.8
21	17.0	31.5	60.1/65.3	39.4	44.3	48.9	51.5	54.4	66.6	51.3
24	19.5	36.0	64.4/70.0	44.1	47.3	51.7	55.2	60.7	69.4	55.0
27	22.0	40.5	70.9/79.0	49.8	54.0	57.9	62.8	73.4	86.2	62.5

* First number is the value of the sparkover of the gap assembly based on a wave rising 100 kV per µs per 12 kV of arrester rating. Second number is based on 5 kA current impulse that results in a discharge voltage cresting in 0.5 µs.

Cooper Power Systems, Kearney™ operation offers a wide variety of Hi-Line® Tools and maintenance equipment including Insulated Sticks, Fit-on Tools, Tree Trimmers, Fuse Pullers, Support and Tension Products, Tool Bags and Tool Racks, Cover-up Equipment, Jumpering/Grounding Equipment, Compression Tools, Cutters and Accessories.

Kearney also offers a wide range of connectors. Products include:

- Aqua Seal® and Airseal® Insulating and Sealing Material
- Compression Squeezon® Connectors, Tee-Taps, Stirrups, Terminals, Grounding Lugs, Spacers
- Secondary Terminal Connnectors, and a wide variety of sleeves

O-Tool Dies	
Catalog Number	
30554CPS	B
26994	D
48410	J
40495CPS	K
26993	O
30611CPS	P
40493CPS	T
30084	737
30450	781
30124	840
36181CPS	3/16
30154	1/4
30043	5/16
30042	3/8
30041	1/2
26958	9/16
30914	19/32
26992CPS	5/8-1
40114	11/16
Non-Bow Dies	
100625CPS	500
100600CPS	510
100613	620
100601	635
100618	702
100602	747
100609	845
100606	980
EEI Dies	
100603-7	7A
100603-9	9A
100603-11	11A
Other Dies & Accessories	
30744	BU-C
49341	Orange
36559	Plum
Wire Cutter Die for 2/0 ACSR Max	
30500	Plum

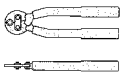
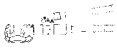
WH3 & PH13 Dies	
Catalog Number	
36457	D
36459	N
36467*	O
36472	U
36474*	15/16
36476*	840
36478*	781
36480*	737
36482CPS*	635
36484*	5/8-1
36486*	19/32
36488*	9/16
36490CPS*	1/2
36494CPS*	3/8
36496*	5/16
36498*	1/4
36828CPS*	P
36830CPS	C
36832CPS*	B-K-T
36834CPS*	747
36836*	572
36838*	510
40063*	727
40151CPS*	11/16
40517	1 1/4 (Hex)
49435*	3/4 (Hex)
49437*	29/32 (Hex)
100370CPS	15/16 (Hex)
100399	1-2 (Hex)
100400	1 1/8-2 (Hex)
100433CPS	1 5/16 (Hex)
100434CPS	1 1/2 (Hex)
100455	9/16 Wide
100456	840 Wide

* These dies may be used with adapter #100096 in PH3, PH4 and PH15 tools.

PH4 & PH15 Dies	
Catalog Number	
100472	D
100473	N
100474	U
100057	R
100470	1-2
100471	1-1/8-2
100440	1-5/16
100460	1-1/2
100459	1-5/8
100075	1-3/4
100096	Adapter
PH25 DIES	
100005	Die Holder
100006	3/8
100006-4	5/8-1
100006-6	11/16
100006-13	7/8
100006-14	15/16
100006-16	1- 1/8-1
100006-7	727
100006-8	737
100006-9	747
100006-12	840
100006-15	1.00 (Hex)
100006-18	D
100007-1	1 9/32 (Hex)
100007-2	1 5/16 (Hex)
100007-3	1 1/2 (Hex)
100007-4	1 5/8 (Hex)
100007-6	1 3/4 (Hex)
100007-9	2 1/8 (Hex)
100007-12	2 1/2 (Hex)
100007-13	N
100007-14	U
100007-23	R

Tool Bags and Cases for O-Tools

For Tool Model	Description	Catalog Number	Net Wt. Each
O-60 Series	Steel Carrying Case	26962-5	9 lbs.
O-60 Series	Die Case	30642CPS	1 lb.
17" Handle "O" Tools	Vinyl Bag Only	30680	2 lbs.
17" Handle "O" Tools	Vinyl Bag & Die Case	30758	2 lbs.
21" & Bent Handle "O" Tools	Vinyl Bag Only	30680-1	2 lbs.
21" & Bent Handle "O" Tools	Vinyl Bag & Die Case	30758-1	2 lbs.

Catalog Section	Description	kV Class	Base Part Number	Notes
	**TYPE "OS" TOOLS**			
	5/8 Fixed Die		**OS50**	
	620 Fixed Die		**OS-620**	
K-SEC 131	Vinyl Holster		**36692**	
	**TYPE O-62 TOOLS 5/8" FIXED NOSE DIE**			
	17" Straight Handles – Non-Insulated Head		**O-62F**	1, 4
	21" Straight Handles – Non-Insulated Head		**O-62-21F**	2, 4
K-SEC 131	17" Bent Handles – Non-Insulated Head		**O-62-50F**	3, 4
	**TYPE O-63 TOOLS WITH FIXED "O" NOSE DIE**			
	17" Straight Handles – Non-Insulated Head		**O-63F**	4, 5
	21" Straight Handles – Non-Insulated Head		**O-63-21F**	2, 4
K-SEC 131	17" Bent Handles – Non-Insulated Head		**O-63-50F**	3, 4
	**TYPE O-620 TOOLS WITH FIXED 620 NOSE DIE**			6
	17" Straight Handles – Non-Insulated Head		**O-620F**	4, 7
	21" Straight Handles – Non-Insulated Head		**O-620-21F**	2, 4
K-SEC 131	17" Bent Handles – Non-Insulated Head		**O-620-50F**	3, 4
	**TYPE O-65 TOOLS WITH FIXED 5/8" AND "D" DIE**			
	17" Straight Handles – Non-Insulated Head		**O-65FB**	8, 9
	21" Straight Handles – Non-Insulated Head		**O-65-21FB**	2, 8
K-SEC 131	17" Bent Handles – Non-Insulated Head		**O-65-50FB**	3, 8
	**TYPE O-68 TOOLS WITH FIXED "O" AND "D" DIE**			
	17" Straight Handles – Non-Insulated Head		**O-68FB**	8, 10
	21" Straight Handles – Non-Insulated Head		**O-68-21FB**	2, 8
K-SEC 131	17" Bent Handles – Non-Insulated Head		**O-68-50FB**	3, 8
	WH SERIES 12-TON COMPRESSION TOOLS			
	Type WH3 12 Ton Compression Tool 12" Handles w/Case		**WH3**	11, 12, 13
K-SEC 131				
	PH13 SERIES 12-TON REMOTE HYDRAULIC TOOLS			
	12 Ton, 4,000 PSI Remote Hydraulic Tool w/Case – 13" length		**PH13-4**	11
K-SEC 131	12 Ton, 10,000 PSI Remote Hydraulic Tool w/Case –12" length		**PH13-10**	11
K-SEC 131	RH15 Remote Head, 15 Ton, 10,000 PSI		**RH15-10**	14
	PH25 Ton Power Operated Head 4,000 PSI w/Carrying Case		**100017**	
K-SEC 131				

1. For an **insulated head**, insert a "**-3**" between the "2" and the "F". Example: 0-62-3F.
2. For an **insulated head**, replace the "**1**" with a "**2**".
3. For an **insulated head**, replace the "50" with a "**53**".
4. To accept **MD-6 dies**, which includes "D" insert die, add a "**B**" as the last character in the part number.
5. For an **insulated head**, insert a "**-3**" between the "3" and the "F" Example: 0-63-3F.
6. Consult customer service for availability.
7. For an **insulated head**, insert a "**-3**" between the "0" and the "F". Example: 0-620-3F.
8. Accepts Burndy Type "W" dies.
9. For an **insulated head**, insert a "**-3**" between the "5" and the "F". Example: 0-65-3FB.
10. For an **insulated head**, insert a "**-3**" between the "8" and the "F". Example: 0-68-3FB.
11. For **tool without case**, insert a "**K**" as the first character in the part number.
12. For tool with **18" handles**, add a "**-18**" at the end of the part number or for **24" handles**, add a "**-24**".
13. Case standard is 12" handles. For 18" or 24" handles, case is replaced with a vinyl bag.
14. To add a **complete set of die holder assemblies**, insert a "**K**" as the first character in the part number.

Catalog Section	Description	kV Class	Base Part Number	Notes
	Hand Operated Cutters			
	General Purpose Center Cut		**0190FC** **0113C** (Cutter Head)	
	Heavy-Duty		**0290MCX** **0213CX** (Cutter Head)	
	Ratchet – Type Soft Cable		**8690FSK** **8613FSK** (Cutter Head)	
	Ratchet – Type Hard Cable		**8690FH** **8613FH** (Cutter Head)	
	Ratchet – Type Guy Strand		**8690CK** **8613CK** (Cutter Head)	
	Ratchet – Type Wire Rope		**8690TN** **8613TN** (Cutter Head)	
	ACSR Wire Rope and Cable		**0290FHJ**	
	Shear – Type Hand Operated		**0290FCS** **0213CSS** (Cutter Head)	
	Compact Electric Cable		**0890CSJ**	
K-SEC 131	Compact Ratcheting Cable		**6990FHL**	
	Ratchet Cable Cutters			
	Cable Cutting Tool		**CK500A**	9
K-SEC 131			**CK750A**	10
	Hi-LINE® Tools			
	Clampsticks, Cam-EL™, External Rod			
	4' 8" Long w/o Fit-On Adapter		**132308-4**	1
	4' 10" Long with Fit-On Adapter		**132309-4**	2
	Clampsticks, Cam-EL™, Internal Rod			
	4' 8" Long w/o Fit-On Adapter		**132626-4**	1
	4' 10" Long with Fit-On Adapter		**132627-4**	2
	Clampsticks – Hinged			
	6' 0" Long w/o Fit-On Adapter		**132622CPS**	3
	6' 2" Long with Fit-On Adapter		**132623CPS**	4
	Clampsticks – Internal			
	4' 8" Long w/o Fit-On Adapter		**132620CPS**	5
	4' 10" Long w/Fit-On Adapter		**132621CPS**	6
	Clampsticks – External			
	4' 8" Long w/o Fit-On Adapter		**132630**	7
K-SEC 180	4' 10" Long w/Fit-On Adapter		**132631CPS**	8

Catalog Section	Description	kV Class	Base Part Number	Notes
	Sticks – Pole Fittings and Splices			
	Tool Hanger		**36666CPS**	
	1 1/4" Dia. Pole End Cap		**30804**	
	Tie Wire Assistant		**18210-2**	
	1 1/4" Dia. Pole Sleeve Splice		**4604-23**	
K-SEC 180	1 1/4" Dia. Pole Lox-Tite Splice		**3355**	
	Temporary Grounding Sets			
	Single-Phase Three-Clamp Set Pad-mounted		**133040** (1/0 Black Cable)	
	Three-Phase Four-Clamp Set Pad-mounted		**133040-1** (1/0 Black Cable) **133040-2** (2/0 Black Cable)	
	Single Replacement Clamp for 1/0 Cable		**133045CPS**	
K-SEC 200	Single Replacement Clamp for 2/0 Cable		**133045Z20**	
	**GROUNDING ELBOWS**			
	Grounding Elbow	15 kV	**GE215-1Y06**-1/0 Cable **GE215-2Y06**-2/0 Cable	11
		25 kV	**GE225-1Y06**-1/0 Cable **GE225-2Y06**-2/0 Cable	11
K-SEC 200		35 kV	**GE235-1Y06-1/0 Cable** **GE235-2Y06-2/0 Cable**	11
	Grounding Kit	15 kV	**GE215-1Y06-K1** **GE215-2Y06-K1** **GE215-1Y06-K3** **GE215-2Y06-K3**	12 13 14 15
		25 kV	**GE225-1Y06-K1** **GE225-2Y06-K1** **GE225-1Y06-K3** **GE225-2Y06-K3**	12 13 14 15
K-SEC 200		35 kV	**GE235-1Y06-K1** **GE235-2Y06-K1**	12 13
	INSULATING AND SEALING MATERIALS			
	Aqua Seal			
	3 3/4" x 3 3/4" Pads – 25 per Box 3 3/4" x 10' Roll		**104742-2** **104742**	16 16
	Air Seal			
K-SEC 137	4" x 4" Pads – 25 per Box 4" x 10' Roll		**18415-8** **18415-3**	16 16
	KEARNALEX™ INHIBITOR			
	Specification 118 (Non-Petroleum Base)			
	4 oz. Plastic Dispenser Bottle		**30584-25**	
	8 oz. Plastic Dispenser Bottle		**30584-3**	
K-SEC 131	8 oz. Plastic Dispenser Bottle – Gritless		**30584-30**	
	CONDUCTOR CLEANING BRUSHES			
	Hand Crescent Cleaner – 477 kcmil ACSR MAX		**48900**	
K-SEC 131	Hand Crescent Cleaner – 954 kcmil ACSR MAX		**48900-2**	
K-SEC 131	V-Brush with Handle and Guard		**118004**	
K-SEC 200	Single Replacement Brush for V-Brush		**19100**	

1. **For 6' 0" length**, replace the "4" with a "**61**". For **8' 0" length**, replace with "**81**". For **10' 0" length**, replace with "**101**".
2. For **6' 2" length**, replace the "4" with "**61**". For **8' 2" length**, replace with "**81**" and for **10' 2" length**, replace with "**101**".
3. For **8' 0" length**, add "**-1**". For **10' 0" length**, add "**-2**". For **12' 0" length**, add "**-3**" to end of part number.
4. For **8' 2" length,** add "**-1**". For **10' 2" length,** add "**-2**". For **12' 2" length**, add "**-3**" to the end of the part number.
5. For **6' 0" length**, add "**-10**"; for **8' 0" length**, add "**-11**"; for **10' 0" length**, add "**-13**"; for **12' 8" length**, add "**-4**" to end of part number.
6. For **6' 0" length**, add "**-10**"; for **8' 2" length**, add "**-11**"; for **10' 2" length**, add "**-13**"; for **12' 10" length**, add "**-4**" to end of part number.
7. For **6' 0" length**, add "**-1**"; for **8' 0" length**, add "**-2**"; for **10' 0" length**, add "**-3**"; for **12' 8" length**, add "**-4**" to end of part number.
8. For **6' 2" length**, add "**-1**"; for **8' 2" length**, add "**-2**"; for **10' 2" length**, add "**-3**"; for **12' 10" length**, add "**-4**" to end of part number.
9. Cutting capacity – Aluminum 1.2" O.D., Copper 600 kcmil.
10. Cutting capacity – Aluminum 1.75" O.D., Copper 750 kcmil.
11. Clamp and ferrule are not included with the grounding elbow.
12. Single kit with (1) elbow with 1/0 cable, (1) portable feedthru, (1) protective cap and (1) test probe in a carrying bag.
13. Single kit with (1) elbow with 2/0 cable, (1) portable feedthru, (1) protective cap and (1) test probe in a carrying bag.
14. Triple kit with (3) elbows with 1/0 cable, (3) portable feedthrus, (3) protective caps and (1) test probe in a carrying bag.
15. Triple kit with (3) elbows with 2/0 cable, (3) portable feedthrus, (3) protective caps and (1) test probe in a carrying bag.
16. Other material sizes available.

Cooper Power Systems has a full line of one piece bushings, bushing wells, bushing well inserts, and feed-thru inserts for installation on transformers and/or sectionalizing cabinets. The 15 kV and 25 kV class bushing inserts use a knurled piston providing maximum copper-to-copper current transfer and maximum thermal stability. After fault close operation, it locks the piston in the outward position, providing a visible indication against dangerous repetitive fault closure.

Type Primary Bushings	Current Rating (A)	Voltage Rating (kV)
Bushing wells	200	15, 25, 35
Integral loadbreak bushing 3Ø rated	200	35
Deadbreak apparatus bushing	600	15/25, 35
Deadbreak PUSH-OP® Apparatus Bushing	600	15/25, 35

200 A Integral Loadbreak Bushing Specification Information

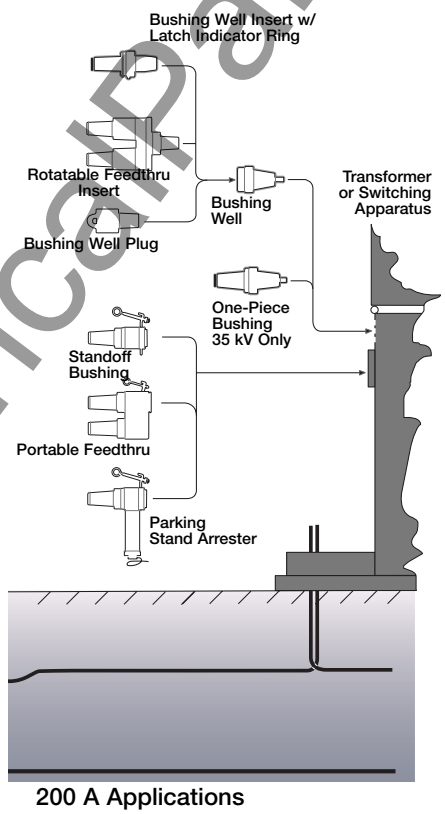
- 200 A, 35 kV three-phase rated integral load-break bushing meeting the requirements of **IEEE Standards 386**™ No. 1A (large 35 kV class interface).
- Voltage and current ratings in accordance with **IEEE Standards 386**™.

600 A PUSH-OP® Deadbreak Bushing Specification Information

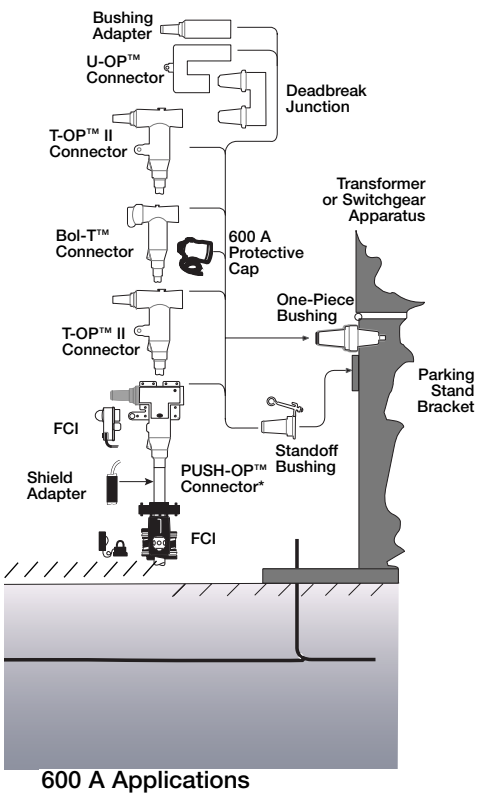
- 600 A Deadbreak Apparatus Bushing shall be compatible with Cooper 600 A PUSH-OP Connectors.
- Complete with plated copper finger contacts to accept PUSH-OP probe, to achieve a non-bolted connection.
- Voltage and current ratings in accordance with **IEEE Standards 386**™.

200 A HTN Tri-Clamp Bushing Well Specification Information

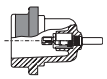
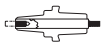
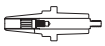
- Molded-In Semi-Conductive Shield.
- 35 kV, 150 kV BIL.
- HTN Material.
- Removable stud shall have provisions for easy removal of broken parts from both the bushing well and insert.
- Voltage and current ratings in accordance with **IEEE Standards 386**™.



200 A Applications



600 A Applications

Catalog Section		Description	kV Class	Base Part Number	Notes
	800-32	200 A Plastic (HTN) TRI-Clamp Bushing Well 2 8/16" Dia Hole Size	15/25/35 kV	**BW150F** (with fixed stud) **BW150R** (with removable stud)	2
	800-33	200 A Plastic (HTN) Bushing Well 2 9/16" Dia.Hole Size	15/25/28 kV	**2638372C01** (with fixed stud) **2638372C02R** (with removable stud)	1, 2, 5 1, 2, 5
	800-34	200 A Epoxy Bushing Well 2 9/16" Dia.Hole Size	15/25/28 kV	**2603973B02T** (with fixed stud) **2603973B02R** (with removable stud)	1, 2 1, 2
	800-39	200 A Three-Phase Integral Loadbreak Bushing	35 kV	**2637024C01M** (Externally Clamped – 2 3/4")	3
	800-45 800-47	600 A Deadbreak Bushing (Externally Clamped without Stud)	15/25 kV	**2637019B02** (Aluminum)	3
			15/25 kV	**2637019B04** (Copper)	3
			35 kV	**2637459C01** (Aluminum) (2 9/16")	3
			35 kV	**2637459C02** (Copper) (2 9/16")	3
	800-46 800-48	600 A Deadbreak PUSH-OP Bushing (Externally Clamped)	15/25 kV	**2637604C01** (2 9/16")	4
			35 kV	**2637939C01**	4
		**3-STUD CLAMPS**			
	800-33 800-34	4.688 B.C. w/flange 4 Bail Tabs	15/25/35 kV	**2085399A01** **2085399A02** (Stainless Steel)	
		**4-STUD CLAMPS**			
		3.25 C-C	15/25/28 kV	**2606821A01**	
	800-33 800-34	3.25 C-C 2 Bail Tabs	15/25/28 kV	**2606823A02**	
	800-39 800-45 800-46 800-47	3.25 C-C 4 Bail Tabs	15/25/28 kV	**2606823A04**	
		3.90 C-C	35 kV	**2603989B01**	
	800-48	3.43 C-C (600 A)	15/25/35 kV	**2637023B01**	
	800-32 800-33	2 9/16" Dia. Hole Gasket	15/25/28/35 kV	**0537980C22**	
	800-34	2 9/16" Dia. Hole Gasket	15/25 kV	**0537980C07**	
	800-39	2 3/4" Dia. Hole Gasket	35 kV	**0537980C12**	
	800-45 800-46 800-47 800-48	2 9/16" Dia. Hole Gasket	15/25/35 kV	**0537980C06**	
	800-32 800-33 800-34	Red Shipping Cap	15/25/35 kV	**2638640C01**	
	800-39	Red Shipping Cap	35 kV	**2606754A03**	
	800-45 800-46 800-47 800-48	Red Shipping Cap	15/25/35 kV	**2637700B02**	
	800-32 800-33 800-34	Removable Stud (Well) Replacement Kit	15/25/28/35 kV	**2639081B01B**	
		Removable Threaded Stud (600 A Bushings)	15/25 kV	**STUD-A** (Aluminum) **STUD-C** (Copper)	
	800-45 800-47		35 kV	**STUD635-A** (Aluminum) **STUD635-C** (Copper)	
	800-39	Contact Tube Assembly	35 kV	**2637407B03B**	
	800-39	Contact Tool Replacement Tool	35 kV	**2637585B01**	
	800-46 800-48	PUSH-OP Bail Bracket Assembly	15/25/35 kV	**2638772B03M**	6
	800-46 800-48	PUSH-OP Bracket Alignment Fixture	15/25/35 kV	**2637904C01**	
	800-32	Grounding tab	15/25/35 kV	**0739658A02**	

1. Clamp must be ordered separately.
2. Bushing includes gasket and shipping cap.
3. Clamp and gasket must be ordered separately.
4. Clamp, gasket and bracket assembly must be ordered separately.
5. For **35 kV (150 kV BIL)** add "**S**" to end of the part number.
6. Latch handle standard on left side. For **latch handle on right side**, change digit 10 from a "3" to a "**5**".

Cooper Power Systems offers fuses under multiple tradenames: Cooper, Kearney™, McGraw-Edison® and Combined Technologies™. We have the broadest range of overcurrent protective devices to meet your application needs.

Bay-O-Net Fuse Assembly

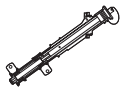
In the late 1960s, we introduced the Bay-O-Net Assembly and links to the industry for pad-mounted transformer protection. The Bay-O-Net Fuse has grown into the industry standard protection package for single- and three-phase transformers. The assembly combines the ease of hotstick operation with the safety of deadfront construction and is used with an isolation link to prevent line personnel from closing into a fault when replacing a blown Bay-O-Net Link. Alternately, a back-up, current-limiting fuse can be used in place of the isolation link to increase interrupting ratings to 50 kA.

Bay-O-Net Assembly Specification Information

- Bay-O-Net Assembly shall include a valve that will shut when the inner holder is removed from the housing and minimize oil from spilling out of the Bay-O-Net Assembly when the stabber is removed.

TABLE 1
Fuse Combinations

Bay-O-Net Fuse	Isolation Link
Current Sensing Fuses	
4000353C04	3001861A01M
4000353C06	3001861A02M
4000353C08	3001861A02M
4000353C10	3001861A03M
4000353C12	3001861A03M
4000358C14	3001861A05M
4000353C16	3001861A05M
4000353C17	3001861A05M
Dual Sensing Fuses	
4000358C03	3001861A01M
4000358C05	3001861A02M
4000358C08	3001861A03M
4000358C10	3001861A05M
4000358C12	3001861A06M
4000358C14	3001861A07M
4000358C16CB	3001861A07M
4000358C18CB	3001861A07M
Dual Element Fuses	
4038108C03	3001861A01M
4038108C04	3001861A01M
4038108C05	3001861A02M
4038108C06	3001861A02M
4038108C07	3001861A02M
4038108C09	3001861A03M
4038108C11	3001861A03M
4038108C12	3001861A03M
High Ampere Overload Fuses	
4038361C03CB	3001861A05M
4038361C04CB	3001861A05M
4038361C05CB	3001861A06M

Catalog Section	Description	kV Class	Base Part Number	Notes
	SIDE- AND COVER-MOUNTED BAY-O-NET FUSE ASSEMBLY			
	Flapper Side Wall-Mount		**4000361C99FV**	
	Side Wall		**4000361C99MC**	
	w/o Flapper Valve			
	Cover-Mount (Short)		**40001177B51MC**	
240-40	Cover-Mount (Long)		**40001177B53MC**	
	CURRENT SENSING BAY-O-NET FUSE LINK			
	6 A		**4000353C04**	1, 3, 4
	10 A		**4000353C06**	1, 3, 4
	15 A		**4000353C08**	1, 3, 4
	25 A		**4000353C10**	1, 3, 4
	40 A		**4000353C12**	1, 3, 4
	65 A		**4000353C14**	1, 3, 4
	100 A		**4000353C16**	1, 3, 4
240-45	140 A		**4000353C17**	1, 3, 4
	DUAL SENSING BAY-O-NET FUSE LINK			
	3 A		**4000358C03**	1, 3, 4
	8 A		**4000358C05**	1, 3, 4
	15 A		**4000358C08**	1, 3, 4
	25 A		**4000358C10**	1, 3, 4
	50 A		**4000358C12**	1, 3, 4
	65 A		**4000358C14**	1, 3, 4
	100 A		**4000358C16CB**	1, 3, 4
240-45	140 A		**4000358C18CB**	1, 3, 4
	DUAL ELEMENT BAY-O-NET FUSE LINK			
	5 A		**4038108C03**	1, 3, 4
	6 A		**4038108C04**	1, 3, 4
	8 A		**4038108C05**	1, 3, 4
	12 A		**4038108C06**	1, 3, 4
	15 A		**4038108C07**	1, 3, 4
	25 A		**4038108C09**	1, 3, 4
	40 A		**4038108C11**	1, 3, 4
240-48	50 A		**4038108C12**	1, 3, 4
	HIGH AMPERE OVERLOAD BAY-O-NET FUSE LINK			
	65 A		**4038361C03CB**	2, 3, 4
	100 A		**4038361C04CB**	2, 3, 4
	125 A		**4038361C05CB**	2, 3, 4
240-49	Shorting Bar (Solid Link)		**4038361C10CB**	2, 3, 4
	ELSG Full Range Current-Limiting Fuse		**359_ _ _ _M_ _M** (See Table 4 Below)	
240-82				

1. Add suffix "**B**" to order **individual fuse**; add "**M**" to order **bag of 50**.
2. When ordering high ampere overload Bay-O-Net Fuse Link, a silver-plated Bay-O-Net Fuse Assembly, part number 4038804B03M, must be ordered.
3. To coordinate an isolation link with a Bay-O-Net Fuse when an ELSP Fuse is not used, see Table 3.
4. For recommended ELSP backup CLF ratings, see Catalog Section 240-50.

TABLE 4
E-rated ELSG Fuse Ordering Information for 15 kV Wetwell Holder*

E-Rating	Continuous Current Rating (A)	Fuse kV and Catalog Number	
		8.3 kV	15.5 kV
4	9	3593004M02M	3594004M83M
8	14	3593008M02M	3594008M83M
12	18	3593012M02M	3594012M83M
15	24	3593015M02M	3594015M83M
20	34	3593020M02M	3594020M83M
25	35	3593025M02M	3594025M83M
30	46	3593030M02M	3594030M83M
40	53	3593040M02M	3594040M83M
50	65	3593050M02M	3594050M83M
60	76	3593060M02M	3594060M83M
65	92	–	3594065M83M
65	95	3593065M01M	–
80	106	–	3594080M83M
80	125	3593080M01M	–
100	130		3594100M83M
100	155	3593100M01M	–
120	150	–	3594120M83M
125	180	3593125M01M	–
150	200	–	3594150M83M

* 15 kV Wetwell Holder part numbers 3437322C01M (mild steel) and 3437322C02M (stainless steel). For 25 kV and 35 kV ordering information, refer to Catalog Section 240-82.

The MagneX Single-Phase Interrupter offers a solution to the utility wanting to eliminate oil exposure in the field when operation occurs due to transformer overloads. There is no need for replacement fuse links resulting in economic value to the user. In addition, a MagneX Interrupter in series with a back-up, current-limiting fuse offers additional protection.

TABLE 1
Voltage Ratings and Characteristics

Description	Rating
Impulse 1.2x50 Microsecond Wave	150 kV
60 Hz-1 Minute Voltage Withstand	50 kV
Continuous Current Rating	42 A
Switching Load Currents, 200 Times	42 A
Magnetizing Current Switching	200 Times

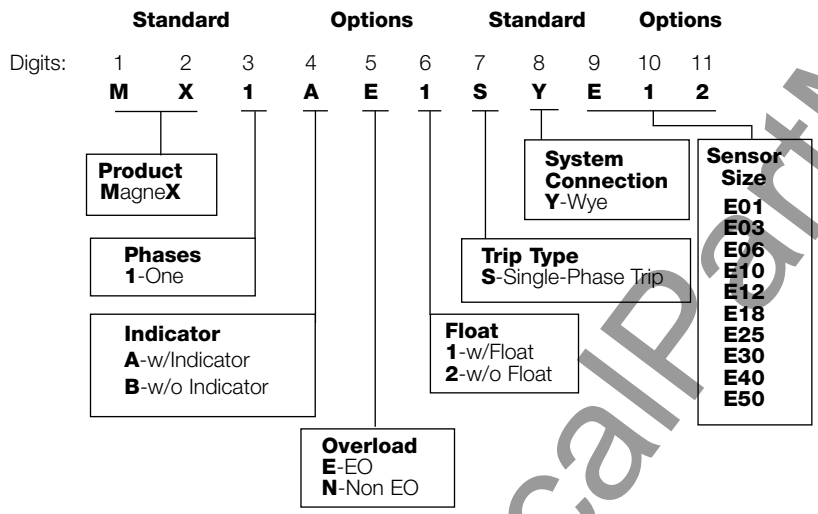
Continuous current ratings and dielectric testing are in accordance with **ANSI/IEEE Standard C57.12™**.
Switching and Fault Close **ANSI®** C37.41.
Overload Protection **IEEE Standard C57.41™**.

TABLE 2
Interrupting Rating

Voltage kV-LG	RMS Symmetric (A)	RMS Asymmetric (A)
8.3	2800	4200
15.5	1500	2250
23.0	500	750

TABLE 3
MagneX Significant Digit Catalog Number System

Example: To order a single-phase MagneX Interrupter without indicator, single-phase trip, with float and E12 sensor, the catalog number would be **MX1BN1SYE12.** (Refer to Catalog Section 240-34.)



To select the correct isloation link, use Table 1 to cross reference the isolation link to the selected MagneX sensor. **An isolation link is recommended if the MagneX is not in series with a current-limiting fuse.**

TABLE 4
Isolation Link – MagneX Correlation Chart

Sensor Number	Isolation Link
E01	3637803B01
E03	3637803B08
E06	3637803B02
E10	3637803B09
E12	3637803B10
E18	3637803B03
E25	3637803B03
E30	3637803B05
E40	3637803B05
E50	3637803B05

ORDERING INFORMATION

Use Table 6 to determine the correct MagneX Interrupter suffix (sensor number) for the application.

Use Table 3 to determine the catalog number.

When ordering a MagneX Interrupter with a standard handle, a hardware kit must be ordered separately. Use Table 7 to determine the hardware kit catalog number.

To select the correct isolation link, use Table 4 to cross reference the isolation link to the selected MagneX Interrupter. **An isolation link is recommended if the MagneX is not in series with a current-limiting fuse.**

Example – MagneX Interrupter with an emergency overload, indicator, and a float in series with an ELSP Current-Limiting Fuse for a single-phase, 7.2 kV phase-to-ground, 25 kVA transformer, specify:

1 – 40 A ELSP Fuse 3543040M61M
1 – MagneX Interrupter MX1AE1SYE06
1 – Hardware Kit (with Emergency Overload, indicator, and no adaptor) 3638535A05

See the following Catalog Sections for further information:

ELSP Fuse Holder 240-53

ELSP Current-Limiting Backup Fuse 240-50

MagneX with Current-Limiting Fuse

To order a MagneX Interrupter and current-limiting fuse combination, see Table 5.

TABLE 5
Hardware Kits

Description	Catalog Number
Without emergency overload	3638535A04
With emergency overload	3638535A05
With adaptor without emergency overload	3638535A07
With adaptor with emergency overload	3638535A08
Hotstick adaptor only	3639585A01

Using TCC Curves

To determine or confirm the MagneX Interrupter will coordinate with upstream and down stream system requirements, use the time-current characteristic curves (See R240-91-310). For full size TCC curves, contact your Cooper Power systems representative.

MagneX with hotstick adapter indicator

TABLE 6
Single-Phase Transformer (Phase-to-Ground) Applications Correlation Chart

	Primary Voltage kV										
kVA/kV	**2.4**	**4.16**	**4.8**	**6.9**	**7.2**	**7.62-7.97**	**8.32**	**12.00**	**12.47-13.2**	**13.8-14.4**	**19.92**
10	E06	E06	E03	E03	E03	E03	E03	E01	E01	E01	E01
15	E10	E06	E06	E03	E03	E03	E03	E03	E03	E03	E01
25	E18	E10	E10	E06	E06	E06	E06	E03	E03	E03	E03
37.5	E25	E18	E12	E10	E10	E10	E10	E06	E06	E06	E03
50	E30	E18	E18	E12	E12	E12	E10	E06	E06	E06	E06
75	E50	E30	E25	E18	E18	E18	E18	E10	E10	E10	E06
100	-	E40	E30	E25	E25	E25	E18	E12	E12	E12	E10
167	-	-	E50	E40	E40	E30	E30	E18	E18	E18	E12

Notes:
Recommendations are based on:
- Minimum trip curves, and Maximum trip and clear curves, R240-91-310.
- Deration factor of 0.5% per °C above 25 °C.
- Allowable loading greater than 140% for four hours in accordance with **IEEE Standard C57.91.1981**™ Guide for Loading Distribution Transformers, Table 6.

TABLE 7
Recommended MagneX Interrupter Sensor and ELSP Current-Limiting Fuse Combinations

	8.3 kV							15.5 kV			23 kV
Nominal Single Phase (kV Phase-to-ground)	**2.4**	**4.16**	**4.8**	**6.9**	**7.2**	**7.62-7.97**	**8.32**	**12.0-13.2**	**12.47**	**13.8-14.4**	**19.92**
10 kVA ELSP Rating MagneX Element	40 E06	40 E06	30 E03	30 E03	30 E03	30 E03	30 E03	30 E01	30 E01	30 E01	30 E01
15 kVA ELSP Rating MagneX Element	50 E10	40 E06	40 E06	30 E03	30 E03	30 E03	30 E03	30 E03	30 E03	30 E03	30 E01
25 kVA ELSP Rating MagneX Element	100 E18	50 E10	50 E10	40 E06	40 E06	40 E06	40 E06	30 E03	30 E03	30 E03	30 E03
37.5 kVA ELSP Rating MagneX Element	125 E25	100 E18	65 E12	50 E10	50 E10	50 E10	50 E10	40 E06	40 E06	40 E06	30 E03
50 kVA ELSP Rating MagneX Element	150 E30	100 E18	100 E18	65 E12	65 E12	65 E12	50 E10	40 E06	40 E06	40 E06	40 E06
75 kVA ELSP Rating MagneX Element	165 E50	150 E30	125 E25	100 E18	100 E18	100 E18	100 E18	50 E10	50 E10	50 E10	40 E06
100 kVA ELSP Rating MagneX Element	—	150 E40	150 E30	125 E25	125 E25	125 E25	100 E18	65 E12	65 E12	65 E12	50 E10
167 kVA ELSP Rating MagneX Element	—	—	165 E50	150 E40	150 E40	150 E30	150 E30	100 E18	100 E18	100 E18	65 E12

Note:
Table shows minimum recommended ELSP Fuse ratings. Recommended ELSP Backup Fuse (described in Catalog Section 240-50) will coordinate with the MagneX Interrupter and melt on internal transformer faults. The MagneX Interrupter recommendations are based on:
- Minimum trip curves, and Maximum trip and clear curves R240-91-310.
- Deration factor of 0.5% per °C above 25°C.
- Allowable loading greater than 140% for four hours in accordance with **IEEE Standard C57.41-1981**™ guide for Loading Distribution Transformers, Table 6.
- 30, 40, 50 and 65 A ELSP Fuses are the "Mini" Configuration (I.E. 354_ _ _ _ M61M Series).
- All coordinations are based on latest vintage ELSP designs. Catalog numbers for fuses larger than 65 A have M71M suffix, 3543_ _ _M71M for 8.3 kV fuses, 3544_ _ _M71M for 15.5 kV fuses and 3545_ _ _M71M for 23.0 kV fuses.

The Three-Phase MagneX Interrupter offers a solution to the utility wanting to eliminate oil exposure in the field when operation occurs due to transformer overloads. There is no need for replacement fuse links resulting in economic value to the user. In addition, a MagneX Interrupter in series with a back-up, current-limiting fuse offers additional protection.

MagneX® Interrupter Specification Information

- Breaker shall be installed on the primary side of transformer.
- Breaker shall have the capability to energize and de-energize the 3Ø transformer by one hotstick operation.

TABLE 1
Voltage Ratings and Characteristics

Description	kV	Rating
Impulse 1.2x50 Microsecond Wave	150 kV	-
60 Hz-1 Minute Voltage Withstand	50 kV	-
Continuous Current Rating	-	42
Switching Load Currents	-	42

Continuous current ratings and dielectric testing are in accordance with **ANSI**® Standard C57.12.
Switching and Fault Close **ANSI**® C37.41.
Overload Protection **ANSI**® C57.41.

TABLE 2
Interrupting Rating

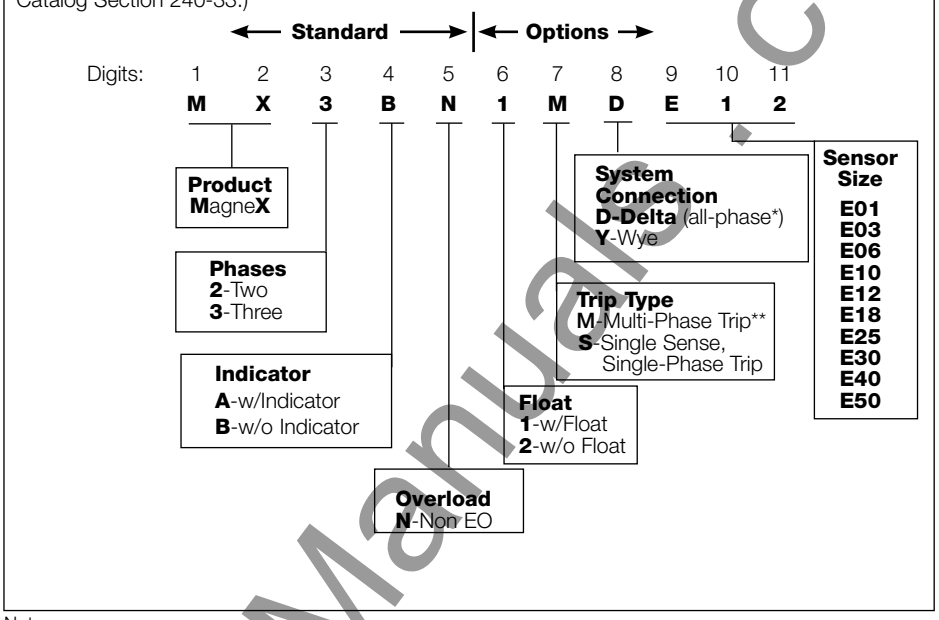
Voltage kV-LG (A)	RMS Symmetric (A)	RMS Asymmetric (A)
8.3	2800	4200
15.5	1500	2250
23.0	500	750

TABLE 3
Hardware Kits

Description	Catalog Number
Standard Handle Kit & Hardware without Emergency Overload	3638535A09

TABLE 4
MagneX Significant Digit Catalog Number System

Example: To order a two- or three- phase MagneX Interrupter without indicator, single- and three-phase trip, with float and E12 sensor, the catalog number would be **MX3BN1SYE12.** (Refer to Catalog Section 240-33.)



Notes:
* For a two-phase MagneX, digit 8 must be a "D".
** For a two-phase MagneX, digit 7 must be a "M".

ORDERING INFORMATION

Use Table 6 to determine the correct MagneX Interrupter suffix (sensor number) for the application.

Use Table 3 to determine the catalog number.

When ordering a MagneX Interrupter with a standard handle, a hardware kit must be ordered separately. Use Table 7 to determine the hardware kit catalog number.

To select the correct isolation link, use Table 4 to cross reference the isolation link to the selected MagneX Interrupter. An isolation link is recommended if the MagneX is not in series with a current-limiting fuse.

TABLE 9
Isolation Link – MagneX Correlation Chart

Sensor Number	Isolation Link	Sensor Number	Isolation Link
E01	3637803B01	E18	3637803B03
E03	3637803B08	E25	3637803B03
E06	3637803B02	E30	3637803B05
E10	3637803B09	E40	3637803B05
E12	3637803B10	E50	3637803B05

TABLE 7
Two-Phase MagneX Recommendations

	Primary Voltage kV										
kVA/kV	**2.4**	**4.16**	**4.8**	**6.9**	**7.2**	**7.62-7.97**	**8.32**	**12.00**	**12.47-13.2**	**13.8-14.4**	**19.92**
10 15	E06 E10	E06 E06	E03 E06	E03 E03	E03 E03	E03 E03	E03 E03	E01 E03	E01 E03	E01 E03	E01 E01
25 37.5	E18 E25	E10 E18	E10 E12	E06 E10	E06 E10	E06 E10	E06 E10	E03 E06	E03 E06	E03 E06	E03 E03
50 75	E30 E50	E18 E30	E18 E25	E12 E18	E12 E18	E12 E18	E10 E18	E06 E10	E06 E10	E06 E10	E06 E06
100 167	- -	E40 -	E30 E50	E25 E40	E25 E40	E25 E30	E18 E30	E12 E18	E12 E18	E12 E18	E10 E12

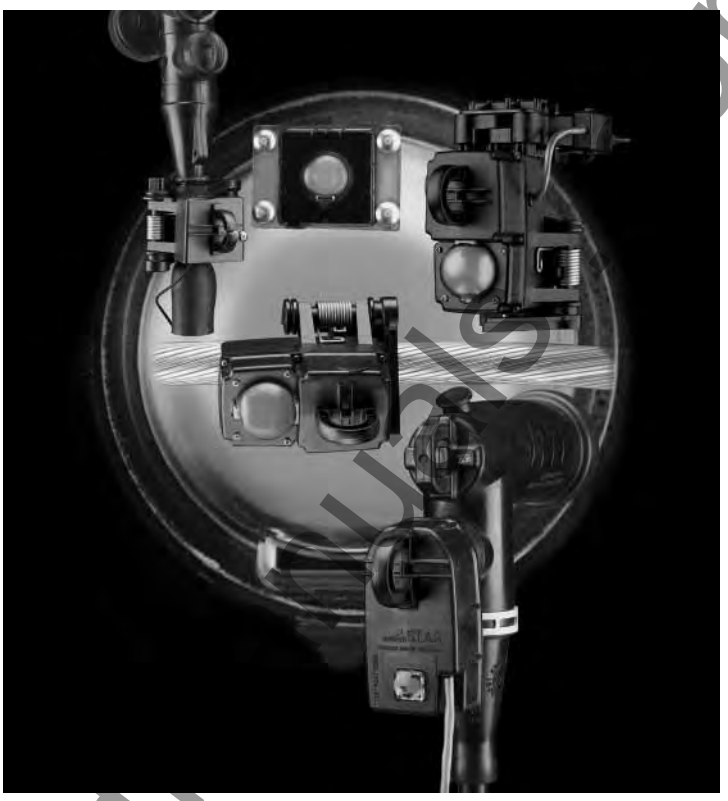
Notes:
Recommendations are based on:
- Minimum trip curves, and Maximum trip and clear curves, **R240-91-310**.
- Deration factor of 0.5% per °C above 25 °C.
- Allowable loading greater than 140% for four hours in accordance with **IEEE Standard C57.91.1981™** Guide for Loading Distribution Transformers, Table 6.

TABLE 8
Recommended Two-Phase MagneX Interrupter and ELSP Current-Limiting Fuse Combinations

	8.3 kV							15.5 kV			23 kV
Nominal Single Phase (kV Phase-to-ground)	**2.4**	**4.16**	**4.8**	**6.9**	**7.2**	**7.62-7.97**	**8.32**	**12.0-13.2**	**12.47**	**13.8-14.4**	**19.92**
10 kVA ELSP Rating MagneX Element	40 E06	40 E06	30 E03	30 E03	30 E03	30 E03	30 E03	30 E01	30 E01	30 E01	30 E01
15 kVA ELSP Rating MagneX Element	50 E10	40 E06	40 E06	30 E03	30 E03	30 E03	30 E03	30 E03	30 E03	30 E03	30 E01
25 kVA ELSP Rating MagneX Element	100 E18	50 E10	50 E10	40 E06	40 E06	40 E06	40 E06	30 E03	30 E03	30 E03	30 E03
37.5 kVA ELSP Rating MagneX Element	125 E25	100 E18	65 E12	50 E10	50 E10	50 E10	50 E10	40 E06	40 E06	40 E06	30 E03
50 kVA ELSP Rating MagneX Element	150 E30	100 E18	100 E18	65 E12	65 E12	65 E12	50 E10	40 E06	40 E06	40 E06	40 E06
75 kVA ELSP Rating MagneX Element	165 E50	150 E30	125 E25	100 E18	100 E18	100 E18	100 E18	50 E10	50 E10	50 E10	40 E06
100 kVA ELSP Rating MagneX Element	—	150 E40	150 E30	125 E25	125 E25	125 E25	100 E18	65 E12	65 E12	65 E12	50 E10
167 kVA ELSP Rating MagneX Element	—	—	165 E50	150 E40	150 E40	150 E30	150 E30	100 E18	100 E18	100 E18	65 E12

Note:
Table shows minimum recommended ELSP Fuse ratings. Recommended ELSP Backup Fuse (described in Catalog Section 240-50) will coordinate with the MagneX Interrupter and melt on internal transformer faults. The MagneX Interrupter recommendations are based on:
- Minimum trip curves, and Maximum trip and clear curves **R240-91-310**.
- Deration factor of 0.5% per °C above 25°C.
- Allowable loading greater than 140% for four hours in accordance with **IEEE Standard C57.41-1981™** guide for Loading Distribution Transformers, Table 6.
- 30, 40, 50 and 65 A ELSP Fuses are the "Mini" Configuration (I.E. 354_ _ _ _ M61M Series).
- All coordinations are based on latest vintage ELSP designs. Catalog numbers for fuses larger than 65 A have M71M suffix, 3543_ _ _M71M for 8.3 kV fuses, 3544_ _ _M71M for 15.5 kV fuses and 3545_ _ _M71M for 23.0 kV fuses.

Cooper Power Systems offers a wide variety of faulted circuit indicators (FCIs) ranging from basic circuitry models in the Delayed Reset style to the more sophisticated circuitry of the Test Point Reset and Electrostatic Reset types. Our S.T.A.R.™ Faulted Circuit Indicator product line offers six basic types of FCIs and each unit is tailored to be the most reliable for the intended application. Each type varies by reset method and the type of system it connects to.



Standard S.T.A.R. features include:

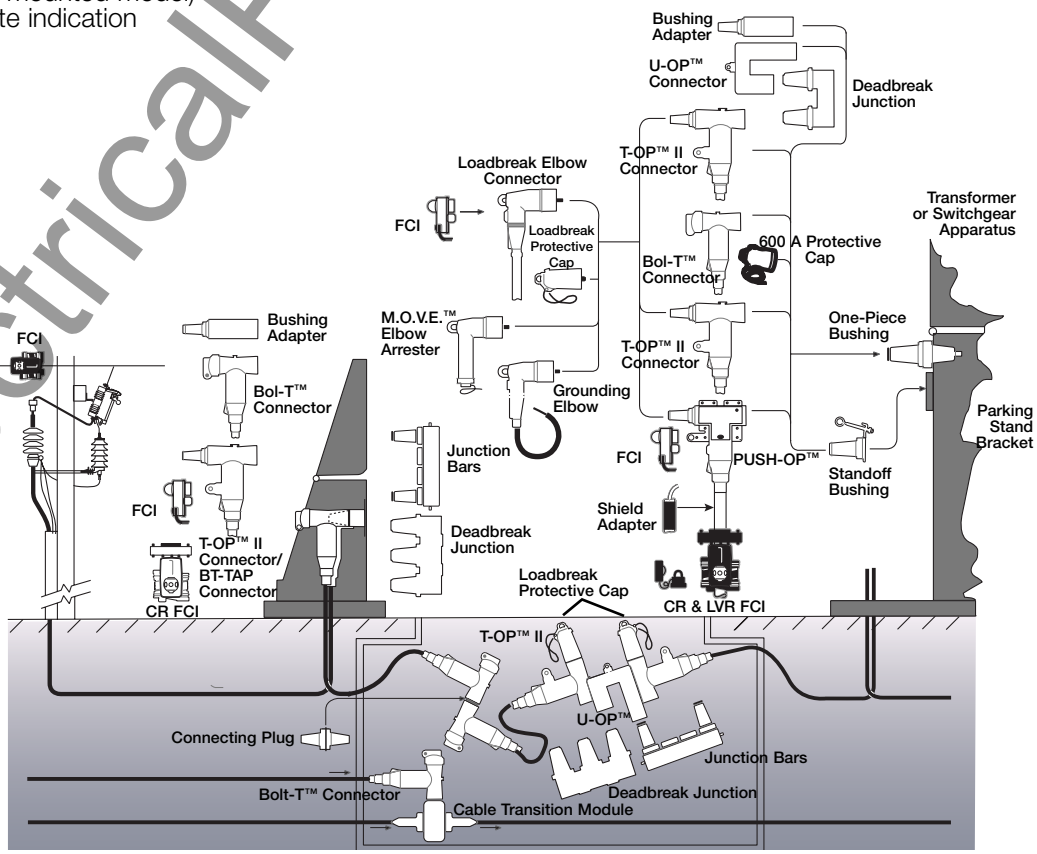
- **LO/HI Trip Rating Selection** – Innovative trip ratings greatly simplify FCI selection application
- **Current Transformer Sensing Design** – For maximum trip accuracy and elimination of false tripping on adjacent cable events
- **Inrush Restraint** – Eliminates false tripping by ignoring inrush currents caused by reclosing operations of protective devices on the system. A dead time of 200 ms will activate the inrush restraint feature.
- **Low-Pass Filter Technology** – Prevents false tripping due to capacitive cable discharge
- **Design Tested to IEEE Standard 495™ and Manufactured in ISO 9001 Facility** – To ensure highest performance and quality

In addition to the above features, the PATHFINDER™ FCIs include:

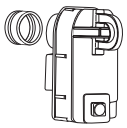
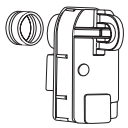
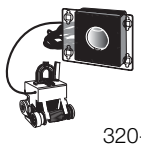
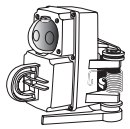
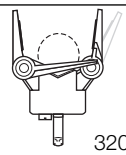
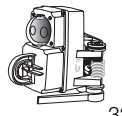
- **Variable Trip Technology** – Single trip rating for one-size-fits-all application
- **Self Adjusting Reset Restraint** (test point mounted model) – "Learns" your system voltage and won't allow false resetting due to backfeed voltage
- **BLOC™** – Battery Life Optimization Circuitry for maximizing battery life
- **Remote Fiber Optic Cable** (test point mounted model) – Optional remote for convenient remote indication

Pathfinder Test Point Faulted Circuit Indicator Specification Information

- Fault indication on minimum 100 A di/dt within 100 ms.
- Response time of 3 ms or less, for coordination with current-limiting fuses.
- Current transformer fault sensing design.
- Inrush restraint to prevent false tripping due to current inrush conditions.
- Low pass filter specifically tuned to prevent false tripping on high frequency transients, but to allow proper indication on systems using current-limiting fuses.
- Temperature compensation for accurate and reliable performance over a temperature range of -40° C to +85° C.
- Reset restraint to prevent false reset due to excessive voltage feedback levels up to 80% of nominal system voltage.
- Installation using single hotstick.



For 15 kV, 25 kV and 35 kV Class

Catalog Section	Description	Base Part Number	Notes
	**TEST POINT RESET**		
	Adapter Kit	**STAK**	**5**
	High (HI)-Trip	**STHI**	**1**
	High (HI)-Trip w/Aux. Contact	**STHIA**	**1**
	High (HI)-Trip w/Adapter Kit	**STHIK**	
	Low (LO)-Trip	**STLO**	**1**
	Low (LO)-Trip w/Aux. Contact	**STLOA**	**1**
320-40	Low (LO)-Trip w/Adapter Kit	**STLOK**	
	**PATHFINDER™ TEST POINT RESET**		
	Variable Trip	**STVT**	
	Variable Trip w/Aux. Contact	**STVTA**	
	Fiber Optic Remote Cable (6 ft.)	**SFOC**	**2**
	Reset Tool	**SMRT**	**5**
320-42	Adapter Kit	**STAK**	**5**
	**LOW VOLTAGE RESET**		
	High (HI)-Trip	**SLHI**	**3**
	High (HI)-Trip w/Aux. Contact	**SLHIA**	**3**
	Low (LO)-Trip	**SLLO**	**3**
320-50	Low (LO)-Trip w/Aux. Contact	**SLLOA**	**3**
	**ELECTROSTATIC RESET**		
	High (HI)-Trip	**SEHI**	
	High (HI) Trip with LED (LIght Emitting Diode) Indication	**SEHIL**	**6**
	High (HI) Trip with LED and replacemable Battery	**SEHILB**	**6**
	Low (LO)-Trip	**SELO**	
	Low (LO) Trip with LED (Light Emitting Diode) Indication	**SELOL**	**6**
	Low (LO) Trip with LED and Replaceable Battery	**SELOLB**	**6**
320-60	Replaceable Battery	**SRPB**	**5**
	**PATHFINDER ELECTROSTATIC RESET**		
	Variable Trip	**SEVT**	**6**
	Variable Trip with LED (Light Emitting Diode) Indication	**SEVTL**	**6**
	Variable trip with LED and Replaceable Battery	**SEVTLB**	**6**
	Manual Reset Tool	**SMRT**	**5**
	Variable Trip with 4-Minute Reset	**SEVTND**	
	Variable Trip with 24-Hour Reset	**SEVT24**	
	Variable Trip with 24-hour Reset, LED Light Indication	**SEVT24L**	
	Variable Trip with 24-hour reset, LED Light Indication with Replaceable Battery	**SEVT24LB**	
	Variable Trip with 4-minute reset, LED Light Indication	**SEVTNDL**	
	Variable Trip with 4-minute reset, LED Light Indication with Replaceable Battery	**SEVTNDLB**	
320-62	Replaceable Battery	**SRPB**	
	**DELAYED RESET**		
	High (HI)-Trip, 1-Hour Reset with 6' Fiber Optic Cable	**SDHI1F**	**2,7**
	Low (LO)-Trip 1-Hour Reset with 6' Fibre Optic Cable	**SDLO1F**	**2,7**
	Fiber Optic Remote	**SFOC**	**2,7**
320-65	Reset Tool	**SMRT**	**7**
	**MANUAL RESET**		
	High (HI)-Trip	**SMHI**	**7**
	Low (LO)-Trip	**SMLO**	**7**
	Reset Tool	**SMRT**	**7**
320-70			

(continued next page)

Notes:

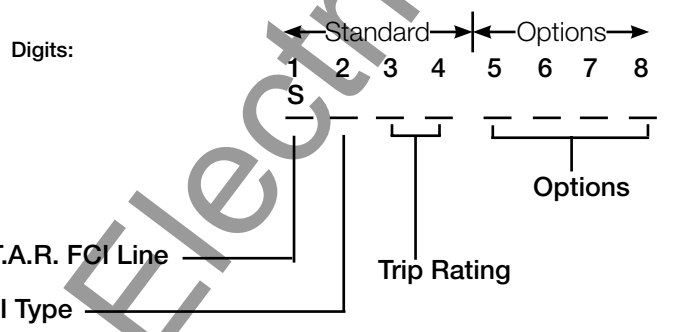
1. To add remote **FISHEYE™ display** add an "**R**" as the last character in the part number, or a "**S**" for the small remote display.
2. SFOC (Star Fiber Optic Cable) standard length is 6 ft. add "**09F**" **for 9 ft. fiber optic display**, "**12**" for **12 ft**., "**25**" for **25 ft.**
3. To add **universal power supply** (120, 208 or 277 VAC power connection), add a "**U**" as the last character in the part number.
4. To change the reset time, change the "1" in digit five to a "**2**" for **2-hours**, a "**4**" for **4-hours** or to a "**6**" for **6-hours**.
5. Accessories to be ordered separately.
6. To change **reset time**, in digits 5 and 6, add "**ND**" for "**No Delay: 4-minute reset**:, or "**24**" for "**24-hour reset**".
7. **Kit** for Adding a **reset too**l.

(continued from previous page)

Catalog Section	Description	Base Part Number	Notes
 320-75	**CURRENT RESET**		
	High (HI)-Trip	**SCHI**	**1**
	Low (LO)-Trip	**SCLO**	**1**
	High (HI) Trip with Auxiliary Contacts	**SCHIA**	**1,2**
	Low (LO) Trip with Auxiliary Contacts	**SCLOA**	**1,2**
 320-77	**PATHFINDER CURRENT RESET**		
	Variable Trip	**SCVT**	**1,2,4**
	Variable Trip with Auxiliary Contacts	**SCVTA**	**1**
 320-80	**TEST POINT HOT LINE INDICATOR**		
	Hot Line Indicator	**STHL**	

Type Description	Typical System Application	Physical Mounting Location	Voltage/Current Requirements
Test Point Reset	Underground	On the test point of the connector	Min 5 kV L-G (2.4 kV for Pathfinder)
Low-Voltage Reset	Underground	On the URD shielded cable below the connector	A secondary voltage source (min. 105 volts)
Electrostatic Reset	Overhead	On bare or insulated non-shielded cable	Min. 6.9 kV L-G (2.4 kV for Pathfinder)
Current Reset	Underground and Overhead	On the URD shielded cable below the connector and on bare or insulated non-shielded cable	Min. 2.4 A continuous
Delayed Reset	Underground and Overhead	On the URD shielded cable below the connector and on bare or insulated non-shielded cable	None (Lithium Ion battery powered with timed reset)
Manual Reset	Underground and Overhead	On the URD shielded cable below the connector and on bare or indulated non-shielded cable	None (Lithium Ion battery powered manually reset)

Catalog Number



T: Test point
E: Electrostatis
C: Current
L: Low Voltage
D: Delayed
M: for Manual

HI: High trip
LO: Low trip
VT: Variable trip

	Model/Type	PATHFINDER Test Point	PATHFINDER Current Reset	PATHFINDER Electrostatic	Test Point Reset	Current Reset	Electrostat-ic Reset	Low Voltage Reset	Delayed Reset	Manual Reset
	Base Part Numbers	STVT	SCVT	SEVT	STLO STHI	SCLO SCHI	SELO SEHI	SLLO SLHI	SDLO_ SDHI_	SMLO SMHI
	Catalog Section	320-42	320-77	320-62	320-40	320-75	320-60	320-50	320-65	320-70
Application	Overhead		•	•		•	•		•	•
	Underground/Pad-mounted	•	•		•	•		•	•	•
Trip Rating	High/Low Trip Rating				•	•	•	•	•	•
	Variable Trip Rating (Pathfinder™)	•	•	•						
Standard Features	Inrush Restraint	•	•	•	•	•	•	•		
	Temperature Compensation	•		•	•		•	•		•
	Low Pass Filter	•	•	•	•	•	•	•		•
	Battery Life Optimization Circuitry	•		•						
	Reset Restraint	•						•		
	Single Hot-Stick Installation	•	•	•	•	•	•	•	•	•
	Automatic Reset	•	•	•	•	•	•	•	•	
	Open-Core CT Design	•		•	•		•	•		•
	Closed-Core CT Design		•			•				
	Reed Switch Design								•	
Display Type	LED Display	•		Optional			Optional		•	
	FISHEYE ™Display		•	•		•	•	•		•
	Flag Display				•					
Available Options	Auxiliary Contacts for SCADA	•	•		•			•		
	Remote FISHEYE ™Display		•		•	•		Standard		
	Small Remote Display		•		•	•				
	Remote Fiber Optic Display	•							•	
	Manual Testing/Reset Tool	•		•					•	•
	Test Point Adapter Kit	•			•					
	Universal Power Supply							•		
Power Requirements	Battery Powered	•		•					•	•
	Line Powered		•		•	•	•			
	Secondary Source						•			
	Externally Replaceable Battery			Optional			Optional			
Reset Requirements	2.4 kV L-G	•		•						
	5 kV L-G				•					
	7.2 kV L-G						•			
	90 VAC							•		
	2.4 Amps Continuous					•				
	2.0 Amps Continuous		•							
	Other								Timed	Manual

Product/Feature unique to the Cooper Power Systems S.T.A.R. Faulted Circuit Indicators

Sectionalizing Cabinets

Our single- and three-phase SecTER™ Sectionalizing Cabinets and single-phase sectionalizing pedestals are designed as cable sectionalizing centers, or as permanent or temporary transformer pad covers.

The aesthetic low profile design provides unobtrusive installations for sectionalizing, tapping, or terminating underground cable. They are available in various sizes for use on 15 kV through 35 kV, 200 A or 600/900 A single-phase and three-phase rated systems. For highly corrosive environments, either stainless steel or aluminum is also available. Heavy mild steel gauge designs along with a continuous seam welding ensures a sturdy, smooth, long lasting cabinet.

Universal mounting plates with optional our two-, three- or four-way junctions can be factory installed. Junction installations are available in either 200 A or 600 A versions.

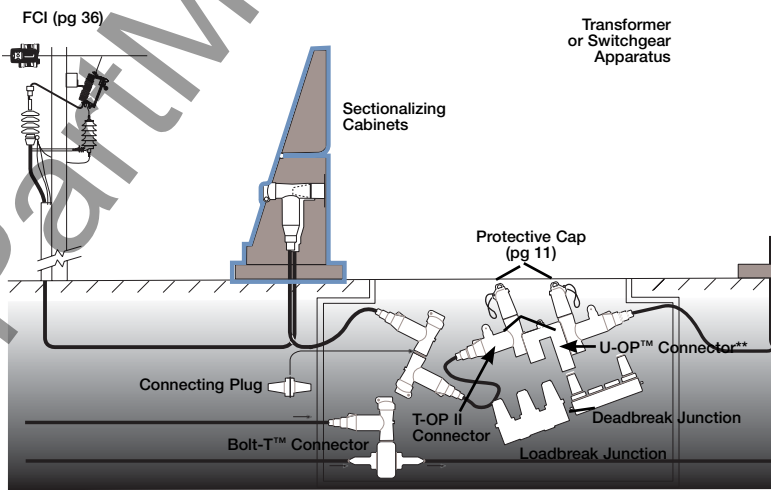
SecTER features:

- Munsell Green, TGIC powder paint finish
- Designed for easy one-person opening and improved access to interior terminations
- Door stop prevents accidentally closing
- Seams are designed to exceed ANSI tamperproof standards
- Optional installed junctions

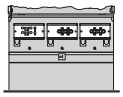
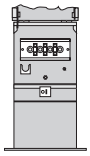
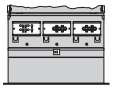
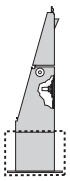
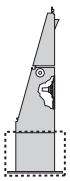
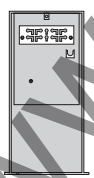
SecTER™ Specification Information

To capitalize on the benefits of our SecTER Sectionalizing Cabinets, include the following information in your specification:

- Diagonally cut removable cover and cabinet.
- Munsell Green TGIC powder paint finish.
- All welded, continuous seam construction.
- Cooper Power Systems 200 A or 600/900 A junctions or junction bars installed.



Catalog Number (cabinet only)	Dimensions	Cabinets with Junctions Installed Single-Phase Cabinets Include (1) Junction, Three-Phase Cabinets Include (3) Junctions											
		15 KV			25 KV			35 KV			600 A 15/25 KV		
		LJ215C2U	LJ215C3U	LJ215C4U	LJ225C2U	LJ225C3U	LJ225C4U	LJ235C2U	LJ235C3U	LJ235C4U	DJ625A2U	DJ625A3U	DJ625A4U
		15 KV LBC-2	15 KV LBC-3	15 KV LBC-4	25 KV LBC-2	25 KV LBC-3	25 KV LBC-4	35 KV LBC-2	35 KV LBC-3	35 KV LBC-4	VBJ -2	VBJ-3	VBJ-4
SERIES I SecTER™ 15/25/35 kV Class, 12 Gauge Steel Tank													
Single-Phase													
00400L00K54A	30H x 24W x 22D	00400L01K49A	00400L01K29A	00400L02K35B	00400L02K87A	00400L02K88A	00400L00K35A	00400L00K12D	00400L00K22D	00400L00K32D	00400L01K38A	00400L01K58A	00400L01K68A
00400L00K58A	30H x 30W x 22D	00400L02K24E	00400L02K37B	00400L02K81B	00400L02K17B	00400L02K27B	00400L02K47B	00400L00K72D	00400L00K82C	00400L00K92C	00400L01K22J	00400L01K32J	00400L01K42J
00400L00K62A	30H x 36W x 22D	00400L02K76A	00400L02K42B	00400L02K80B	00400L01K28A	00400L01K48A	00400L01K50A	00400L00K62D	00400L00K95D	00400L00K62C	00400L01K12M	00400L01K22M	00400L01K32M
Three-Phase													
00450L00K02A	30H x 48W x 22D	00450L00K21E	00450L00K14D	–	00450L00K29C	00450L00K83C	–	00450L00K28D	00450L00K38D	–	00450L01K71A	00450L00K01D	00450L00K53B
00450L00K06A	30H x 66W x 22D	00450L00K36D	00450L00K10D	00450L00K15D	00450L00K09D	00450L00K19D	00450L01K53A	00450L00K08D	00450L00K18D	–	00450L00K35C	00450L00K97B	00450L01K63A
00450L00K10A	30H x 84W x 22D	00450L00K82D	00450L00K92D	00450L00K33C	00450L00K74E	00450L00K84E	00450L00K84C	00450L00K96C	00450L00K97C	00450L00K36C	00450L00K55A	00450L01K65A	00450L00K41E
SERIES II SecTER™ 15/25 kv Class, 14 Gauge Steel Tank													
Single-Phase													
00400L00K72A	30H x 24W x 15D	00400L02K62A	00400L02K51A	00400L02K44A	00400L02K71A	00400L02K26A	00400L02K45A	–	–	–	–	–	–
00400L00K73A	30H x 30W x 18D	00400L02K57A	00400L01K10A	00400L01K44A	00400L02K91A	00400L01K16A	00400L02K55A	–	–	–	–	–	–
Three-Phase													
00450L00K28A	30H x 48W x 15D	00450L01K54A	00450L00K05C	–	00450L00K56B	00450L00K96B	–	–	–	–	–	–	–
00450L00K30A	30H x 60W x 15D	00450L00K89C	00450L00K04C	00450L00K80B	00450L00K66B	00450L00K86B	00450L00K64B	–	–	–	–	–	–
00450L00K29A	30H x 48W x 18D	00450L01K67A	00450L00K63B	–	00450L00K76B	00450L00K81B	–	–	–	–	–	–	–
00450L00K31A	30H x 60W x 18D	00450L00K49D	00450L00K82B	00450L00K83B	00450L00K36A	00450L01K26A	00450L00K54B	–	–	–	–	–	–
Single-Phase													
00400L02K12A	48H x 48W x 18D	00400L01K39P	00400L01K23A	00400L02K61A	00400L02K46N	00400L02K56B	00400L02K64B	–	–	–	–	–	–

Catalog Section	Description	kV Class	Base Part Number	Notes
	SERIES I SecTER			
	12 Gauge Steel Tank 1-Phase	15/25/35 kV	**00400L00K54A** (30H x 24W x 22D)	1
			00400L00K58A (30H x 30W x 22D)	1
			00400L00K62A (30H x 36W x 22D)	1
	12 Gauge Steel Tank 3-Phase	15/25/35 kV	**00450L00K02A** (30H x 48W x 22D)	1
			00450L00K06A (30H x 66W x 22D)	1
1000-05			**00450L00K10A** (30H x 84W x 22D)	1
	SERIES II SecTER			
	14 Gauge Steel Tank 1-Phase	15 kV	**00400L00K72A** (30H x 24W x 15D)	1
		15/25 kV	**00400L00K73A** (30H x 30W x 18D)	1
	14 Gauge Steel Tank 3-Phase	15 kV	**00450L00K28A** (30H x 48W x 15D)	1
			00450L00K30A (30H x 60W x 15D)	1
		15/25 kV	**00450L00K29A** (30H x 48W x 18D)	1
1000-05			**00450L00K31A** (30H x 60W x 18D)	1
	SERIES I GROUND SLEEVES			
	Ground Sleeve 1-Phase	15/25/35 kV	**00400L00K02G** (18H x 24W x 22D) (Figerglass)	2, 3
			**00400L00K05G** (30H x 24W x 22D) (Figerglass)	2, 4
			0400L00K10GM (24H x 24W x 22D) (Steel)	2, 5
	Ground Sleeve 3-Phase	15/25/35 kV	**00450L00K04G** (18H x 48W x 22D) (Figerglass)	2, 6
			00450L00K07G (30H x 48W x 22D) (Figerglass)	2, 7
1000-05			**0450L00K17GM** (24H x 48W x 22D) (Steel)	2, 8
	SERIES II GROUND SLEEVES			
	Ground Sleeve 1-Phase Fiberglass	15/25/35 kV	**00400L00K00G** (18H x 24W x 15D)	2
			00400L00K01G (18H x 30W x 18D)	2
	Ground Sleeve 3-Phase Fiberglass	15/25/35 kV	**00450L00K00G** (18H x 48W x 15D)	2
			00450L00K02G (18H x 60W x 15D)	2
			00450L00K01G (18H x 48W x 18D)	2
			**00450L00K03G** (18H x 60W x 18D)	2
	Ground Sleeve Steel 1-Phase	15/25/35 kV	**0400L00K13GM** (18H x 24W x 15D)	2
			0400L00K14GM (18H x 30W x 18D)	2
			0400L00K15GM (24H x 24W x 15D)	2
			0400L00K16GM (24H x 30W x 18D)	2
	Ground Sleeve Steel 1-Phase	15/25/35 kV	**0450L00K20GM** (18H x 48W x 15D)	2, 9
			0450L00K22GM (18H x 48W x 18D)	2, 10
			0450L00K24GM (24H x 48W x 15D)	2, 11
1000-05			**0450L00K26GM** (24H x 48W x 18D)	2, 12
	**SECTIONALIZING PEDESTAL**			
	14 Gauge Steel 1-Phase	15/25 kV	**00400L02K12A** (48H x 18W x 18D)	
1000-10				

Notes:
1. For **stainless steel tank** change the "A" in digit 12 to a "**S**". For **aluminum** tank change the "A" in digit 12 to a "L".
2. Width and depth dimensions must be matched to corresponding SecTER™ dimensions.
3. To **change width** of fiberglass ground sleeve, change digit 11 from a "2" to a "**3**" for **30" width**, to a "**4**" for **36" width**.
4. To **change width** of fiberglass ground sleeve, change digit 11 from a "5" to a "**6**" for **30" width** and to a "**7**" for **36" width**.
5. To **change width** of steel ground sleeve, change digit 11 from a "0" to a "**1**" for **30" width** and a "**2**" for **36" width**.
6. To **change width** of fiberglass ground sleeve, change digit 11 from a "4" to a "**5**" for **66" width** or to a "**6**" for **84" width**.
7. To **change width** of fiberglass ground sleeve, change digit 11 from a "7" to a "**8**" for **66" width** or to a "**9**" for **84" width**.
8. To **change width** of steel ground sleeve, change digit 11 from a "7" to a "**8**" for **66" width** or a "**9**" for **84" width**.
9. To **change width** of steel ground sleeve, change digit 11 from a "0" to a "**1**" for **60" width**.
10. To **change width** of steel ground sleeve, change digit 11 from a "2" to a "**3**" for **60" width**.
11. To **change width** of steel ground sleeve, change digit 11 from a "4" to a "**5**" for **60" width**.
12. To **change width** of steel ground sleeve, change digit 11 from a "6" to a "**7**" for **60" width**.

Part Number Index

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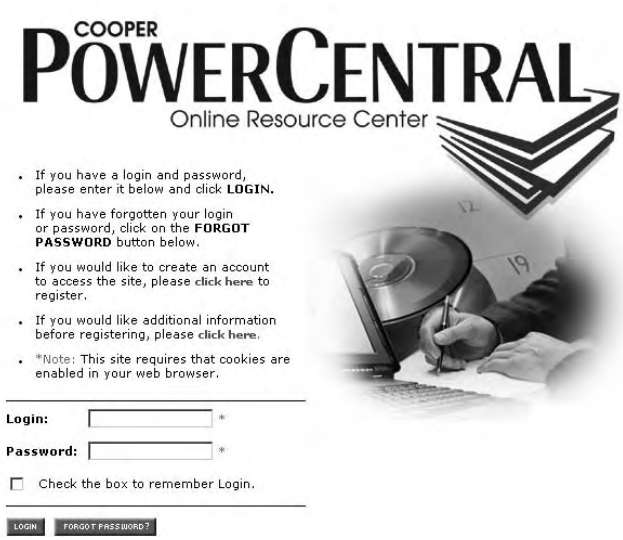

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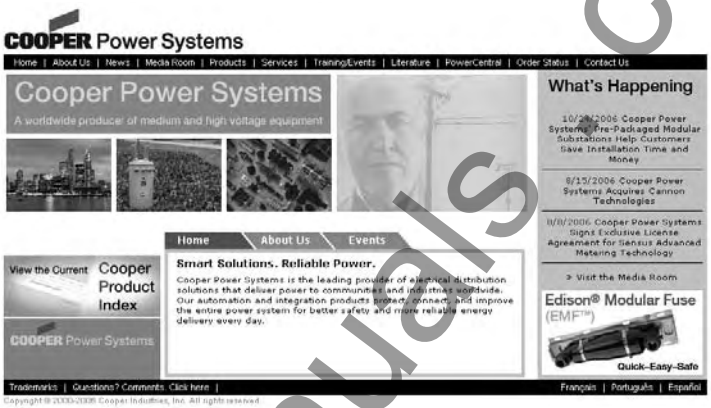

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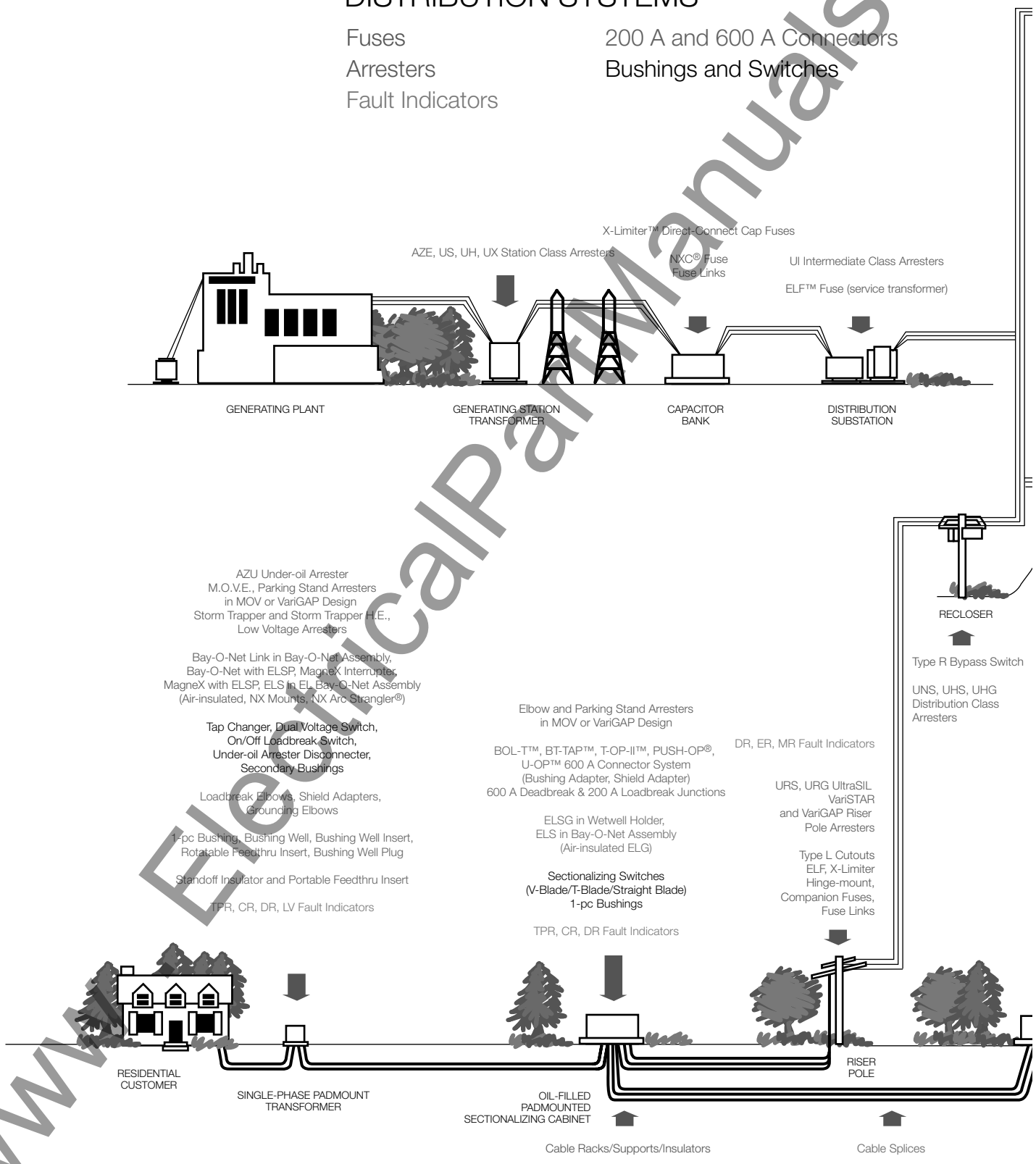

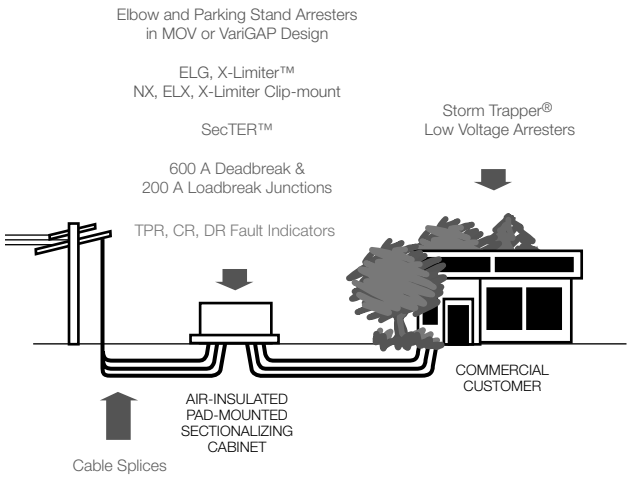

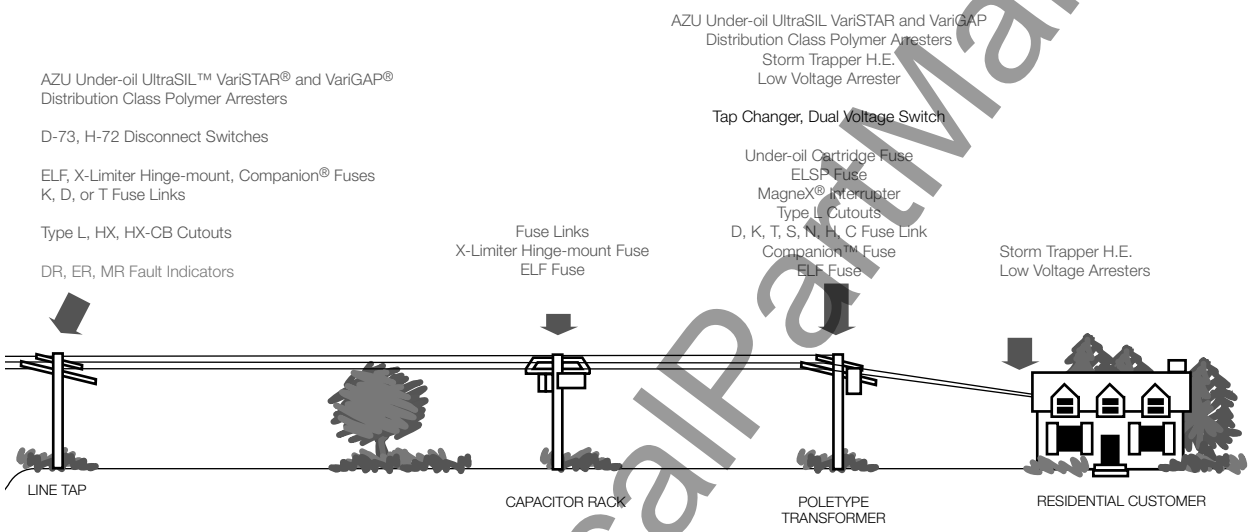

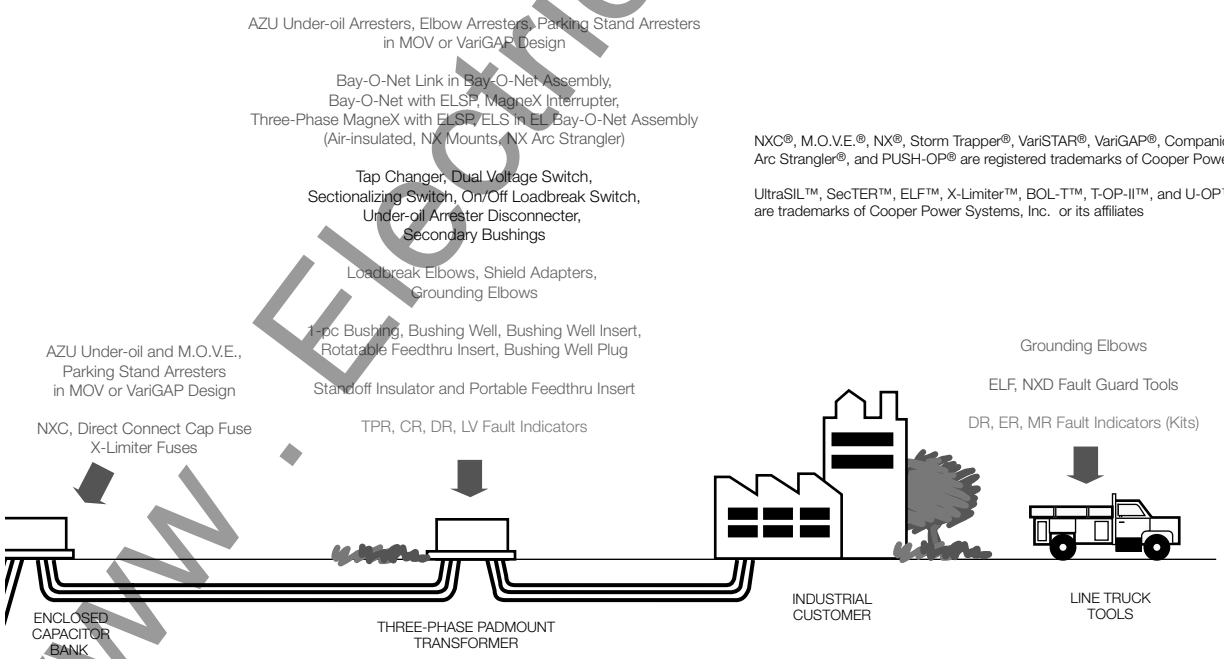

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