



**CEE Power System**

## **Catalog**

# **Cable Accessories**



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**June 2009**

# CABLE ACCESSORIES & COMPONENTS



Tee Connector



Premolded Cable Joint



Surge Arrester



Equipment Bushing



Loadbreak Switch



Elbow Connector



Fault Indicator



Shrouded Termination



FUJIAN CEE INSTALLATIONS CO.,LTD.



## ABOUT US

Established in 1993, Fujian CEE Installations Co., Ltd (doing business as CEE Power System) is the premiere cable accessories supplier in China. CEE is the biggest supplier in China and also the fastest growing company among the power distribution industry in the southeast of China for one reason: High quality products at competitive prices. CEE also works closely with customers to pioneer the new technique to meet their specific requirements. CEE products are widely employed by power utilities, commercial and industrial customers around the world. CEE Power System provides a complete range of products according to IEC and ANSI practices:

- ◆ 0.4kV-110kV Pre-Molded Cable Accessories
- ◆ 0.4kV-40.5kV Cold-shrinkable Cable Accessories
- ◆ 0.4kV-40.5kV Outdoor and Underground Cable Connection Pillars
- ◆ Pad-mounted Transformer Components
- ◆ Power Line And Cable Fault Indicators
- ◆ 12kV-40.5kV Ring Main Units and Switchgears
- ◆ SMC Cabinets

CEE Power System has established a global network, operating in over 30 countries. CEE global network of technical and sales representatives provides expert engineering assistance and continuous after-sales support. With cooperation in Australia, North America, South America, Middle East and Southeast Asia, CEE is constantly looking forward to further partnerships.




With certified ISO 9001:2000 quality management system, CEE Power System makes great efforts to improve its product R&D, operation and product quality control. Passed the IEC or ANSI/IEEE type tests with KEMA and LAPEM certification, all CEE products have sound field operation record in every employed cities around the world.



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<p>Quality IT SYSTEM</p> <p>00665Q10869ROM</p> <p>City/Fujian Province People's</p> <p>for Power Cable llar(Sector), ounted up to 35kV</p> <p>008</p> <p>ing Jiao</p> <p>ed.Nov.2007</p> <p>AF</p>	<div>  <p>编号 J2003J3500C015</p> <h1>标准产品标志证书</h1> <h2>INTERNATIONAL STANDARD PRODUCT MARKING CERTIFICATE</h2> <p>设备有限公司</p> <p>国际标准产品 <b>电力电缆附件</b></p> <p>采用国际标准产品标志条件，业已备案。</p> <p>B/T12706.4-2002</p> <p>先进标准编号：IEC60502-4: 1997</p> <p>年 <u>5</u> 月 <u>19</u> 日至 2008 年 <u>5</u> 月 <u>19</u> 日</p> <p>ify that your product <u>Power Cable Accessories</u></p> <p>_____ adopting International Standard has</p> <p>to be qualified for using the adopting</p> <p>ard product mark and has been registered.</p> <p>ity of this certificate from <u>2003-05-19</u></p> <p>_____ inclusive.</p> <div>   <p>2003 年 6 月 25 日</p> </div> <p>国家标准化管理委员会制</p> </div>
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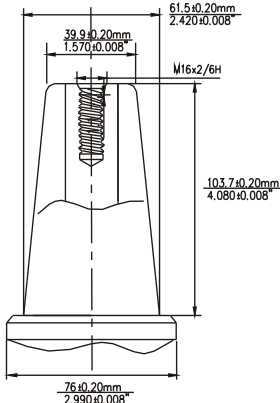
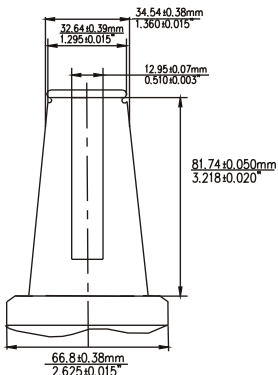
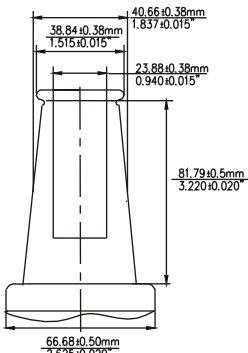
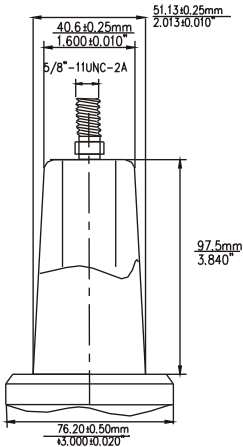
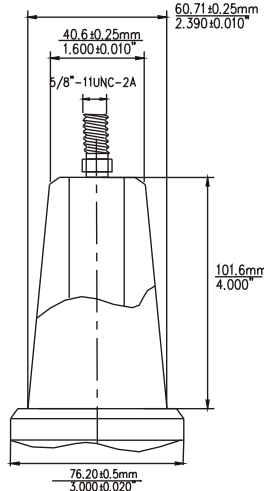


# Separable Connector Interface Size

TABLE 1

Interface	Interface A	Interface B
Interface Standard	(1) ANSI/IEEE std. 386-2006 Figure 4	(1) DIN std. 47636-1986
	(2) DIN std. 47636-1986 ATL 24-250, ATG 24-250 ASL 24-250, ASG 24-250	ATL 36-400, ATG 36-400 ASL 36-400, ASG 36-400
	(3) EN50180 & 50181 Interface A	(2) EN 50180 & 50181 Interface B
Interface Size		
Applied Products	CEE KZT-24/250 CEE BZTT-24/250	CEE ZT-25/400 CEE KQT-36/400
Interface	Interface C	Interface D
Interface Standard	(1) DIN std. 47636-1986 AT 36-400, AT 36-630 AS 36-400, AS 36-630	(1) ANSI/IEEE std. 386-2006 Figure 11
	(2) EN50180 & 50181 Interface C	(2) DIN std. 47636-1986 AT 24-800, AT 24-1250 AS 24-800, AS 24-1250
	(3) EN50180 & 50181 Interface D	
Interface Size		
Applied Products	CEE BQT-24/630 CEE KQT-24/630 CEE KQT-36/630	CEE TT-15/600 (M16 Threaded Stud) CEE TT-25/600 (M16 Threaded Stud)

TABLE 1 (CONTINUE)

Interface	Interface E		15kV, 200A Loadbreak	
Interface Standard	(1) ANSI/IEEE std. 386-2006			
	Figure 13			
	(2) DIN std. 47636-1986		IEEE 386-2006 Figure 5	
	AT 36-800, AT 36-1250			
	AS 36-800, AS 36-1250			
	(3) EN50180 & 50181			
	Interface E			
Interface Size				
Applied Products	CEE TT-35/600 (M16 Threaded stud)		CEE ZT-15/200	
Interface	25/35kV, 200A Loadbreak		15/25kV, 600A, Deadbreak	35kV, 600A Deadbreak
Interface Standard	IEEE 386-2006 Figure 7		IEEE 386-2006 Figure 11	IEEE 386-2006 Figure 13
Interface Size				
				
Applied Products	CEE ZT-25/200 CEE ZT-35/200		CEE TT-15/600 CEE TT-25/600	CEE TT-35/600

**Note:**

EN50180 & 50181 Interface D and IEEE386 standard for 15/25kV, 600A has the same outside interface size, the only difference is the thread, EN50180 & 50181 standard is M16 thread, and IEEE386 standard is 5/8" thread.

EN50180 & 50181 Interface E and IEEE386 standard for 35kV, 600A has the same outside interface size, the only difference is the thread, EN50180 & 50181 standard is M16 thread, and IEEE 386 standard is 5/8" thread.

TABLE 2

## IEC 60502.4 Test Sequences for Screened Deadbreak Separable Connectors

Tests <sup>1)</sup>	Requirements	Test Methods of IEC 61442	Test Sequences (See IEC 60502.4 Figure 4)			
			4.1	4.2	4.3	4.4
AC or DC Voltage	AC for 5 min at 4,5 U <sub>0</sub> or d.c. for 15 min at 4 U <sub>0</sub>	Clause 4or5	x	x	x	
Partial Discharge <sup>2)</sup>	10 pC max. at 1,73 U <sub>0</sub>	Clause 7	x			
Impulse at $\theta_t$ <sup>3)</sup>	10 impulses of each polarity	Clause 6	x			
Thermal Short-Circuit (Screen) <sup>6)</sup>	Two short-circuits at I <sub>sc</sub> of the cable screen. No visible deterioration	Clause 10		x	x <sup>7)</sup>	
Thermal Short-Circuit (Conductor)	Two short-circuits to raise conductor to $\theta_{sc}$ of the cable. No visible deterioration	Clause 11		x	x <sup>7)</sup>	
Dynamic Short-Circuit <sup>8)</sup>	One short-circuit at I <sub>d</sub> . No visible deterioration	Clause 12			x	
Heating Cycles in Air	30 cycles <sup>4)</sup> at $\theta_t$ <sup>3)</sup> and 2,5 U <sub>0</sub> <sup>12)</sup>	Clause 9	x			
Heating Cycles under Water	30 cycles <sup>4)</sup> at $\theta_t$ <sup>3)</sup> and 2,5 U <sub>0</sub> <sup>12)</sup>	Clause 9	x			
Disconnect/Connect <sup>9)</sup>	Five times. No visible damage to contact	~~	x	x	x	
Partial Discharge <sup>2)</sup> at $\theta_t$ <sup>3)5)</sup> and Ambient Temperature	10 pC max. at 1,73 U <sub>0</sub>	Clause 7	x			
Impulse	10 impulses of each polarity	Clause 6	x	x	x	
AC Voltage	15 min at 2,5 U <sub>0</sub>	Clause 4	x	x	x	
Operating Eye	Axial force 1300N for 1 min Torque 14 N•m	Clause 19				x
Partial Discharge <sup>2)</sup>	10 pC max. at 1,73 U <sub>0</sub>	Clause 7				x
Examination	For information only <sup>13)</sup>	~~	x	x	x	x
Screen Resistance <sup>10)</sup>	Maximum 5000 $\Omega$	Clause 15	Test 16 to 20 are carried out on separate samples. For tests 16 and 19, no cable is required. For tests 17, 18 and 20, appropriate cable lengths are to be used			
Screen Leakage Current <sup>10)</sup>	Maximum 0,5 mA at U <sub>m</sub>	Clause 16				
Fault Current Initiation	See notes <sup>10) 11)</sup>	Clause 17				
Operating Force	Force <900 N	Clause 18				
Capacitive Test Point	Capacitance of test point to cable conductor: C <sub>tc</sub> > 1,0 pF Ratio of capacitance of test point to earth C <sub>te</sub> and capacitance of test point to cable conductor C <sub>tc</sub> : C <sub>te</sub> / C <sub>tc</sub> ≤ 12,0	Clause 20				

- 1) Unless otherwise specified, tests shall be carried out at ambient temperature
- 2) Not required for accessories installed on 3.6/6(7.2)kV cables having unscreened insulation.
- 3)  $\theta_t$  is the maximum cable conductor temperature in normal operation +5K to 10K.
- 4) 8 h total with ≥ 2 h steady and ≥ 3 h cooling.
- 5) Measurement is made at the end of the heating period.
- 6) This test applies only to separable connectors that are equipped with a connection to, or adaptor for the metallic screen of the cable.
- 7) Thermal short-circuit may be combined with the dynamic short-circuit.
- 8) Only required for single-core cable accessories designed for initial peak currents  $i_p > 80$  kA and three-core accessories designed for  $i_p > 63$  kA. Value of I<sub>d</sub> shall be declared by the manufacturer.
- 9) The test shall be carried out only when the cable is de-energized.

- 10) The test is required for separable connectors without a metallic housing or with a removable metallic housing. The metallic housing shall be removed prior to the test. This test is not required for separable connectors which can only be used in service with the metallic housing in position.
- 11) For solidly earthed systems, the fault initiation shall occur within 3s. For unearthed or impedance earthed systems, the fault current shall flow continuously.
- 12) Current, see IEC 60502.4 Table 1.
- 13) It is advised that the accessory is examined for signs of any of the following:
  - I) cracking in the filling media and/or tape or tube components.
  - and/or II) a moisture path across a primary seal
  - and/or III) corrosion and/or tracking and/or erosion which would, in time, lead to failure of the accessory.
  - and/or IV) leakage of any insulating material.

TABLE 3

## IEEE 386 Design Test Sequences for Separable Insulated Connectors

Design Tests		Sequence <sup>(a)</sup>			Individual
		A	B	C	
	No.Samples <sup>(b)</sup>	10	4	30	Four Each <sup>(c)</sup>
	Reference <sup>(f)</sup>				
Thermal Cycle Withstand	7.2	X <sup>(d)</sup>			
Partial Discharge Test	7.4	X	X		
AC Withstand Voltage	7.5.1	X	X <sup>(e)</sup>		
DC Withstand Voltage	7.5.2	X			
Impulse Withstand Voltage	7.5.3	X	X <sup>(e)</sup>		
Short-Time Current	7.6				X
Switching	7.7			X	
Fault-Closure	7.8			X	
Current Cycling	7.9 to 7.11				X
Accelerated Sealing Life Test	7.12		X		
Cable Pull-Out (Tensile Strength)	7.13				X
Operating Force	7.14				X
Operating Eye	7.15				X
Test Point Cap	7.16				X
Test Point	7.17	X <sup>(c)</sup>	X <sup>(c)</sup>		
Shielding	7.18				X
Bushing Well Stud Torque	7.19				X
Impulse Withstand Voltage	7.5.3		X		

a: Sequence A=dielectric tests sequence.

Sequence B=accelerated life tests sequence.

Sequence C=switching tests sequence.

b: No failures are permitted except for switching and fault-closure tests in which none are permitted in 10 consecutive samples of a maximum lot size of 30.

c: Where applicable.

d: Applicable to non-elastomeric components.

e: May substitute impulse withstand voltage 7.5.3 for ac withstand voltage 7.5.1

f: Chapter of IEEE 386-2006.

TABLE 4

**IEEE 386 Voltage Ratings and Characteristics**

Maximum Voltage Rating (kV rms)	Withstand Voltages			
	BIL and Full Wave (kV crest)	AC 60 Hz for 1 Min (kV rms)	DC for 15 Min (kV)	Minimum Partial Discharge (kV rms)
15	95	34	53	11
25	125	40	78	19
35	150	50	103	26

TABLE 5

**IEC 60502.4 Voltage Ratings and Characteristics**

Maximum Voltage Rating (kV rms)	Withstand Voltages		
	BIL and Full Wave (kV crest)	AC 50 Hz for 5 Min (kV rms)	DC for 15 Min (kV)
12	95	39	35
24	125	54	48
36	170	81	72
			15
			20
			30

TABLE 6 **Cable Conductor Reference**

Conductor Diameters for Copper and Aluminum (Class B) Stranded, Compressed, Compact and solid Cables

Conductor Size Code (AWG or kcmil)	No. of Strands and their Nom. Strand Dia. (in.)	Cross-sectional Area (mm <sup>2</sup> )		Stranded Conductors (inches)	Compressed Conductors (inches)	Compact Conductors (inches)	Solid Conductors (inches)
		Square (inches)	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	-



TABLE 7 IEC 60502.2 Standard Insulation Size of 3.6/6kV~26/35kV, XLPE Insulated Power Cable

XLPE Insulated Power Cable Insulation Thickness(mm) and Diameter of Insulation (φ mm)								
Conductor Size Code (mm <sup>2</sup> )	Diameter of Conductor (mm)	3.6/6(7.2)kV	6/10(12) kV	8.7/15(17.5) kV	12/20(24) kV	18/30(36)kV	21/35(40.5) kV	26/35(40.5) kV
		Insulation Dia. Range ( mm ) Insulation Thickness=2.5mm	Insulation Dia. Range ( mm ) Insulation Thickness=3.4mm	Insulation Dia. Range ( mm ) Insulation Thickness=4.5mm	Insulation Dia. Range ( mm ) Insulation Thickness=5.5mm	Insulation Dia. Range ( mm ) Insulation Thickness=8.0mm	Insulation Dia. Range ( mm ) Insulation Thickness=9.3mm	Insulation Dia. Range ( mm ) Insulation Thickness=10.5mm
25	5.9~6.36	12.0~13.8	14.4~15.6	16.0~17.8				
35	7.0~7.5	13.2~15.0	15.0~16.7	17.0~19.0	18.0~20.0	23.0~25.0		
50	8.0~8.5	14.2~16.0	16.0~17.7	18.0~20.0	20.0~22.0	25.0~27.0	27.6~30.0	30.0~32.0
70	9.8~10.0	16.0~17.4	17.8~19.2	20.0~21.4	22.0~23.4	27.0~28.4	29.5~31.0	32.0~33.4
95	11.4~11.7	17.6~19.1	19.4~21.0	21.6~23.1	23.6~25.1	28.6~30.1	31.6~32.7	33.6~35.1
120	12.8~13.2	19.0~20.6	20.8~22.4	23.0~24.6	25.0~26.6	30.1~31.6	32.6~34.2	35.0~36.6
150	14.2~14.7	20.4~21.1	22.2~23.9	24.4~26.1	26.4~28.1	31.4~33.1	34.0~35.7	36.4~38.1
185	15.6~16.4	21.8~23.8	23.6~25.6	25.8~27.8	27.8~30.0	32.8~35.0	35.4~37.6	37.8~40.0
240	18.0~18.6	24.4~26.2	26.0~27.8	28.0~30.0	30.0~32.0	35.0~37.0	37.6~40.0	40.0~42.0
300	20.2~20.9	27.0~29.0	28.2~30.1	30.4~32.3	32.4~34.3	37.4~39.3	40.0~42.0	42.4~44.3
400	23.0~24.0	30.2~32.4	31.0~33.2	33.0~35.4	35.0~37.4	40.0~42.4	42.6~45.0	45.0~47.4
500	26.2~26.9	33.8~35.7	34.2~36.1	36.4~38.3	38.4~40.3	43.4~45.3	46.0~48.0	48.4~50.3
630	29.8~30.3			40.4~42.3	42.4~44.3	47.4~49.3	50.0~52.0	52.4~54.3
800	33.9~34.4			44.4~46.5	46.4~48.5	51.4~53.5	54.0~56.0	56.4~58.5

TABLE 8

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

Conductor Size AWG or kcmil	Cable Insulation Diameters for Standard ICEA Cables with 175,220,260 and 345 mil Insulation Wall Thickness									
	15kV					15kV				
	Insulation Thickness (Inches)		Insulation Dia. Range (Inches)			Insulation Thickness (Inches)		Insulation Dia. Range (Inches)		
			Concentric Stranded	Compacted Stranded	Solid			Concentric Stranded	Compacted Stranded	Solid
2	0.175	0.645~0.730	0.635~0.720	0.620~0.705	0.610~0.695	0.22	0.735~0.825	0.725~0.815	0.710~0.800	0.700~0.790
1	0.175	0.685~0.770	0.675~0.760	0.655~0.735	0.645~0.725	0.22	0.775~0.855	0.765~0.855	0.745~0.830	0.735~0.820
1/0	0.175	0.725~0.810	0.715~0.800	0.690~0.775	0.680~0.760	0.22	0.815~0.905	0.805~0.895	0.780~0.865	0.770~0.855
2/0	0.175	0.775~0.855	0.760~0.845	0.730~0.815	0.715~0.800	0.22	0.865~0.950	0.850~0.935	0.820~0.905	0.805~0.895
3/0	0.175	0.825~0.905	0.810~0.895	0.775~0.860	0.765~0.845	0.22	0.915~1.000	0.900~0.985	0.865~0.955	0.855~0.940
4/0	0.175	0.880~0.965	0.865~0.950	0.830~0.910	0.815~0.895	0.22	0.970~1.060	0.955~1.045	0.920~1.005	0.905~0.990
250	0.175	0.935~1.020	0.920~1.005	0.880~0.965		0.22	1.025~1.115	1.010~1.100	0.970~1.060	
350	0.175	1.045~1.130	1.025~1.110	0.980~1.065		0.22	1.135~1.220	1.115~1.200	1.070~1.155	
500	0.175	1.175~1.260	1.150~1.235	1.110~1.185		0.22	1.265~1.355	1.240~1.335	1.190~1.275	
600	0.175	1.265~1.350	1.235~1.325	1.185~1.270		0.22	1.365~1.445	1.325~1.415	1.275~1.365	
700	0.175	1.335~1.420	1.305~1.390	1.245~1.335		0.22	1.425~1.515	1.395~1.485	1.335~1.430	
750	0.175	1.370~1.456	1.340~1.425	1.280~1.365		0.22	1.460~1.550	1.430~1.520	1.370~1.460	
800	0.175	1.400~1.490	1.370~1.455	1.310~1.395		0.22	1.490~1.580	1.460~1.550	1.400~1.495	
900	0.175	1.465~1.550	1.430~1.520	1.370~1.455		0.22	1.555~1.645	1.520~1.610	1.460~1.550	
1000	0.175	1.520~1.610	1.485~1.575	1.430~1.515		0.22	1.610~1.705	1.575~1.670	1.520~1.610	

Conductor Size AWG or kcmil	Cable Insulation Diameters for Standard ICEA Cables with 175,220,260 and 345 mil Insulation Wall Thickness									
	25 kV					35 kV				
	Insulation Thickness (Inches)		Insulation Dia. Range (Inches)			Insulation Thickness (Inches)		Insulation Dia. Range (Inches)		
			Concentric Stranded	Compacted Stranded	Solid			Concentric Stranded	Compacted Stranded	Solid
2	0.260					0.345				
1	0.260	0.845~0.935	0.835~0.925	0.815~0.905	0.805~0.895	0.345				
1/0	0.260	0.885~0.980	0.875~0.965	0.850~0.940	0.835~0.925	0.345	1.055~1.155	1.045~1.145	1.020~1.120	1.010~1.110
2/0	0.260	0.935~1.025	0.920~1.010	0.890~0.980	0.875~0.965	0.345	1.105~1.200	1.090~1.190	1.060~1.160	1.045~1.145
3/0	0.260	0.985~1.075	0.970~1.060	0.935~1.030	0.925~1.015	0.345	1.155~1.255	1.140~1.240	1.105~1.205	1.095~1.195
4/0	0.260	1.040~1.135	1.025~1.115	0.990~1.080	0.975~1.065	0.345	1.210~1.310	1.195~1.295	1.160~1.260	1.145~1.245
250	0.260	1.095~1.190	1.080~1.175	1.040~1.135		0.345	1.265~1.370	1.250~1.350	1.210~1.315	
350	0.260	1.205~1.295	1.185~1.275	1.140~1.230		0.345	1.375~1.475	1.355~1.455	1.310~1.410	
500	0.260	1.335~1.430	1.310~1.405	1.260~1.350		0.345	1.505~1.605	1.480~1.580	1.430~1.530	
600	0.260	1.425~1.520	1.395~1.490	1.345~1.440		0.345	1.595~1.695	1.565~1.670	1.515~1.615	
700	0.260	1.495~1.590	1.465~1.560	1.405~1.500		0.345	1.665~1.765	1.635~1.735	1.575~1.680	
750	0.260	1.530~1.625	1.500~1.595	1.440~1.535		0.345	1.700~1.800	1.670~1.770	1.610~1.710	
800	0.260	1.560~1.655	1.530~1.625	1.470~1.565		0.345	1.730~1.835	1.700~1.805	1.640~1.740	
900	0.260	1.625~1.720	1.590~1.685	1.530~1.625		0.345	1.795~1.895	1.760~1.865	1.700~1.800	
1000	0.260	1.680~1.775	1.645~1.740	1.590~1.685		0.345	1.850~1.955	1.815~1.920	1.760~1.865	

TABLE 9

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

Conductor Size AWG or kcmil	Cable Insulation Diameters for Standard AEIC Cables with 175,220,260 and 345 mil Insulation Wall Thickness							
	15kV				15kV			
	Insulation Thickness ( Inches )	Insulation Dia. Range ( Inches )			Insulation Thickness ( Inches )	Insulation Dia. Range ( Inches )		
		Concentric Stranded	Compressed Stranded	Compact Stranded		Concentric Stranded	Compressed Stranded	Solid
2	0.175	0.670~0.730	0.665~0.725	0.65~0.710	0.22	0.760~0.820	0.775~0.815	0.740~0.800
1	0.175	0.710~0.770	0.700~0.760	0.680~0.740	0.22	0.800~0.860	0.790~0.850	0.770~0.830
1/0	0.175	0.755~0.815	0.740~0.800	0.715~0.775	0.22	0.845~0.905	0.830~0.890	0.805~0.865
2/0	0.175	0.800~0.860	0.785~0.845	0.755~0.815	0.22	0.890~0.950	0.875~0.935	0.845~0.905
3/0	0.175	0.850~0.910	0.835~0.895	0.805~0.865	0.22	0.940~1.000	0.925~0.985	0.895~0.955
4/0	0.175	0.910~0.970	0.890~0.950	0.855~0.915	0.22	1.000~1.060	0.980~1.040	0.945~1.005
250	0.175	0.965~1.025	0.950~1.010	0.910~0.970	0.22	1.055~1.115	1.040~1.100	1.000~1.060
350	0.175	1.070~1.130	1.050~1.110	1.005~1.065	0.22	1.160~1.220	1.140~1.200	1.095~1.155
500	0.175	1.205~1.265	1.180~1.240	1.125~1.185	0.22	1.295~1.355	1.270~1.330	1.215~1.275
600	0.175	1.295~1.355	1.265~1.325	1.215~1.275	0.22	1.385~1.445	1.335~1.415	1.305~1.365
700	0.175	1.365~1.425	1.335~1.395	1.275~1.335	0.22	1.455~1.515	1.425~1.485	1.365~1.425
750	0.175	1.400~1.460	1.370~1.430	1.310~1.370	0.22	1.490~1.550	1.460~1.520	1.400~1.460
800	0.175	1.430~1.490	1.400~1.460	1.340~1.400	0.22	1.520~1.580	1.490~1.550	1.430~1.490
900	0.175	1.495~1.555	1.460~1.520	1.400~1.460	0.22	1.585~1.645	1.550~1.610	1.490~1.550
1000	0.175	1.550~1.610	1.515~1.575	1.460~1.520	0.22	1.640~1.700	1.605~1.665	1.550~1.610

Conductor Size AWG or kcmil	Cable Insulation Diameters for Standard AEIC Cables with 175,220,260 and 345 mil Insulation Wall Thickness							
	25 kV				35 kV			
	Insulation Thickness ( Inches )	Insulation Dia. Range ( Inches )			Insulation Thickness ( Inches )	Insulation Dia. Range ( Inches )		
		Concentric Stranded	Compressed Stranded	Compact Stranded		Concentric Stranded	Compressed Stranded	Solid
2	0.260				0.345			
1	0.260	0.880~0.940	0.870~0.930	0.850~0.910	0.345			
1/0	0.260	0.925~0.985	0.910~0.970	0.885~0.945	0.345	1.095~1.155	1.080~1.140	1.055~1.115
2/0	0.260	0.970~1.030	0.955~1.015	0.925~0.985	0.345	1.140~1.200	1.125~1.185	1.095~1.155
3/0	0.260	1.020~1.080	1.005~1.065	0.975~1.035	0.345	1.190~1.250	1.175~1.235	1.145~1.205
4/0	0.260	1.080~1.140	1.060~1.120	1.025~1.085	0.345	1.250~1.310	1.230~1.290	1.195~1.255
250	0.260	1.145~1.205	1.130~1.190	1.095~1.150	0.345	1.320~1.380	1.305~1.365	1.265~1.325
350	0.260	1.250~1.310	1.230~1.290	1.185~1.245	0.345	1.425~1.485	1.405~1.465	1.360~1.420
500	0.260	1.385~1.445	1.360~1.420	1.305~1.365	0.345	1.560~1.620	1.535~1.595	1.480~1.540
600	0.260	1.475~1.535	1.445~1.505	1.395~1.455	0.345	1.650~1.710	1.625~1.680	1.570~1.630
700	0.260	1.545~1.605	1.515~1.575	1.455~1.515	0.345	1.720~1.780	1.690~1.750	1.630~1.690
750	0.260	1.580~1.640	1.550~1.610	1.490~1.550	0.345	1.755~1.815	1.725~1.785	1.665~1.725
800	0.260	1.610~1.670	1.580~1.640	1.520~1.580	0.345	1.785~1.845	1.755~1.815	1.695~1.755
900	0.260	1.675~1.735	1.640~1.700	1.580~1.640	0.345	1.850~1.910	1.815~1.875	1.755~1.815
1000	0.260	1.730~1.790	1.695~1.755	1.640~1.700	0.345	1.905~1.965	1.870~1.930	1.815~1.875

# 200 Amp Loadbreak Connectors



The CEE 200A 15, 25, 35kV Loadbreak Separable Insulated Connectors are fully-shielded and insulated plug-in terminations, can be used to connect underground cable with transformers, switchgear and 200 amps junctions equipped with loadbreak bushings. These connectors are molded using high quality peroxide-cured EPDM insulation.

They are essential components for high-voltage electrical connection of the padmounted transformers, submersible transformer and loadbreak junctions.

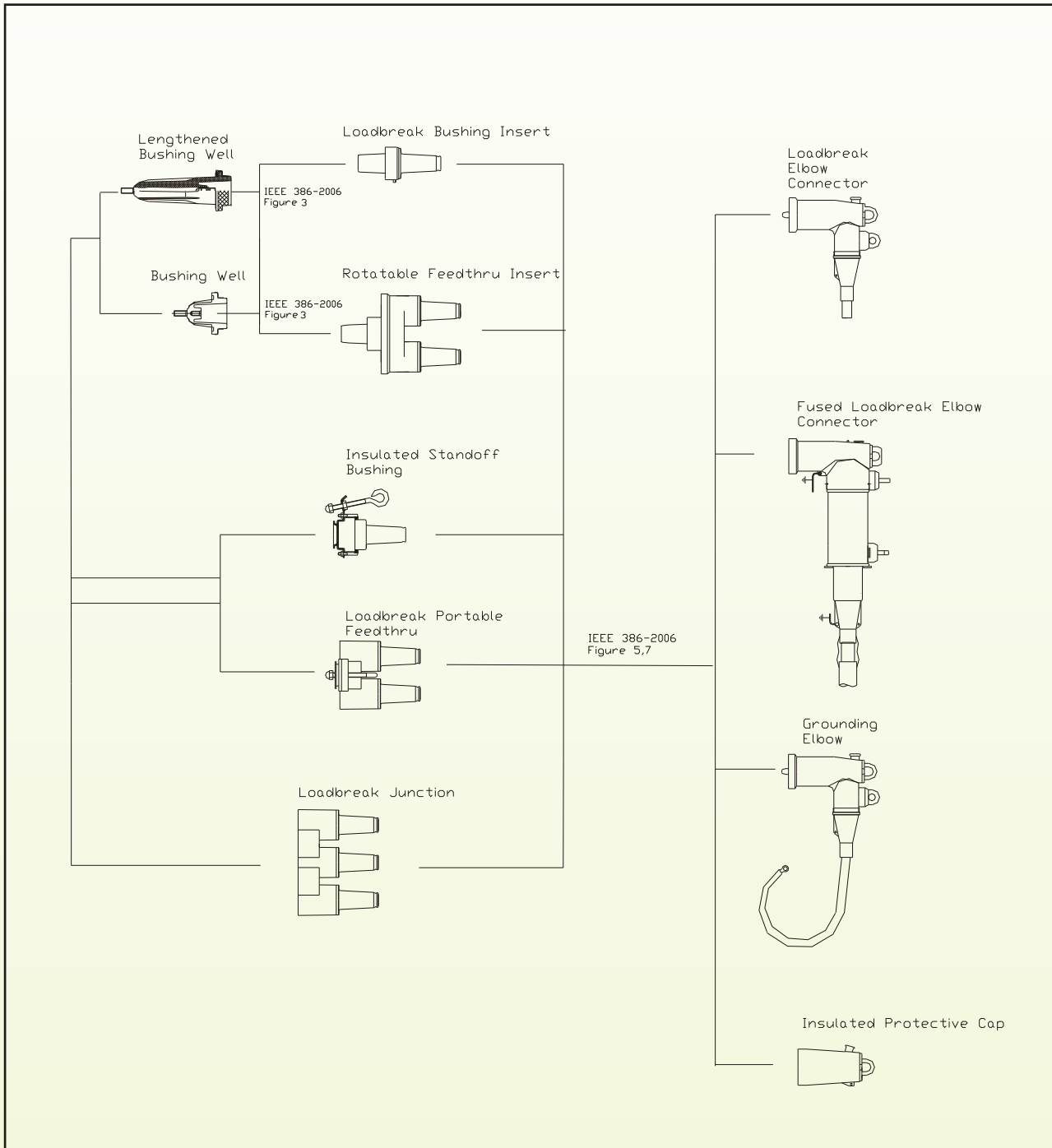
CEE Power System's 200A Loadbreak separable insulated connectors are in accordance with GB/T 12706.4-2002, ANSI/IEEE std 386-2006, their electrical, mechanical and dimension are all designed to be fully interchangeable with many major manufacturers which complying with IEEE std 386 and IEC 60502-4.

**TABLE 10**  
**200A Separable Connector Electrical Characteristics**

Voltage Rating	15kV	25kV	35kV
Standard Voltage Class	15	25	35
Max. Rating Phase-to-Phase	14.4	26.3	36.6
Max. Rating Phase-to-Ground	8.3	15.2	21.1
AC 60/50 Hz 1 Minute Withstand	34	40	50
DC 15 Minute Withstand	53	78	103
BIL and Full Wave Crest	95	125	150
Minimum Partial Discharge	11	19	26
Current Ratings	15kV	25kV	35kV
Continuous	200A	200A	200A
Switching	10 operations at 200A, 14.4kV	10 operations at 200A, 26.3kV	10 operations at 200A, 36.6kV
Fault Closure	10kA	10kA	10kA
Short Time	10kA rms sym. for 0.17s (60Hz)/0.2S(50Hz)	10kA rms sym. for 0.17s (60Hz)/0.2S(50Hz)	10kA rms sym. for 0.17s (60Hz)/0.2S(50Hz)
	3.5kA rms sym. for 3.0s	3.5kA rms sym. for 3.0s	3.5kA rms sym. for 3.0s

TABLE 11

## Stacking Application For 200A Loadbreak Separable Insulated Connector System




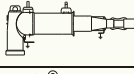
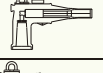






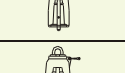


### Note:

1. Detailed information about separable connector interface size, see page 4, table 1.

# 200 Amp Loadbreak Connectors

TABLE 12

## 200A Loadbreak Separable Insulated Connector

Product	Description	Voltage (kV)	Base Part Number	Notes
	Loadbreak Elbow Connector	15kV	CEE ZT-15/200-①-②-③ (①see table 13)	1, 2, 3
	Loadbreak Elbow Connector	25kV	CEE ZT-25/200-①-②-③ (①see table 14)	1, 2, 3
	Loadbreak Elbow Connector	35kV	CEE ZT-35/200-①-②-③ (①see table 15)	1, 2, 3
	Fused Loadbreak Elbow Connector	15kV	CEE ZTRA-15/200-①-②-③-④ (①see table 16)	1, 2, 3, 4
	Loadbreak Elbow Connector, Cable Adapter with Jacket Seal	15kV	CEE ZT-15/200-J-①-②-③ (①see table 17)	1, 2, 3
	Grounding Elbow	15kV	CEE JDT-15/200	
	Grounding Elbow	25, 35kV	CEE JDT-25/200 CEE JDT-35/200	
	Loadbreak Bushing Insert	15kV	CEE DTT-15/200	
	Loadbreak Bushing Insert	25, 35kV	CEE DTT-25/200 CEE DTT-35/200	
	Rotatable Feedthru Insert	15kV	CEE STT-15/200	
	Rotatable Feedthru Insert	25, 35kV	CEE STT-25/200 CEE STT-35/200	
	Insulated Standoff Bushing	15kV	CEE DBG-15/200	
	Insulated Standoff Bushing	25, 35kV	CEE DBG-25/200 CEE DBG-35/200	
	Loadbreak Portable Feedthru	15kV	CEE STG-15/200	
	Loadbreak Junction	15kV	CEE MP⑤-15/200	5
	Mountin Bracketg with Adjustable Bracket for Loadbreak Junction	15kV	CEE MP⑤MB-15/200	5
	Insulated Protective Cap	15kV	CEE JYM-15/200	
	Insulated Protective Cap	25kV	CEE JYM-25/200	
	Insulated Protective Cap	35kV	CEE JYM-35/200	

**Note:**

- ①: For cable insulation. Add the cable insulation code or cable adapter code after the voltage and current.
- ②: For lug materials. Insert "B" after cable insulation code for Bimetal Lug, Blank for copper lug.
- ③: For Conductor Cross Section. Insert conductor code after the lug material.  
See page 9, table 7 for conductor size code in mm<sup>2</sup>, or page 8, table 6 for conductor size code in AWG/Kcmil.
- ④: For Fuse Current Rating, Insert Fuse Current Rating after lug material.
- ⑤: For the number of interfaces, Insert "2", "3" or "4" directly after the base part number.



TABLE 13

**Cable Insulation for  
CEE ZT-15/200**

CEE ZT-15/200	Cable Insulation Code	Cable Insulation Range	
		Inches	mm
	A	.55~.65	14.0~16.5
	B	.63~.73	16.0~18.5
	C	.69~.79	17.5~20.0
	D	.75~.85	19.0~21.5
	E	.78~.91	20.0~23.0
	F	.87~.98	22.0~25.0
	G	.87~.98	22.0~25.0

TABLE 14

**Cable Insulation for  
CEE ZT-25/200**

CEE ZT-25/200	Cable Insulation Code	Cable Insulation Range	
		Inches	mm
	A	.71~.79	18.0~20.0
	B	.79~.87	20.0~22.0
	C	.87~.93	22.0~23.5
	D	.93~.98	23.5~25.0
	E	.98~.106	25.0~27.0

TABLE 15

**Cable Insulation for  
CEE ZT-35/200**

CEE ZT-35/200	Cable Insulation Code	Cable Insulation Range	
		Inches	mm
	A	.94~1.10	24.0~28.0
	B	1.06~1.22	27.0~31.0
	C	1.14~1.30	29.0~33.0
	D	1.22~1.38	31.0~35.0
	E	1.34~1.50	34.0~38.0

TABLE 16

**Cable Insulation for  
CEE ZTRA-15/200**

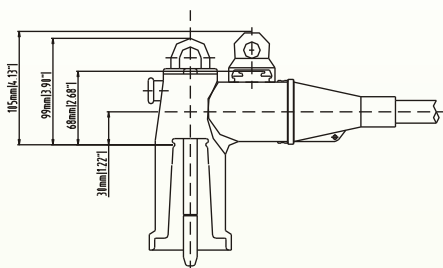
CEE ZTRA-15/200	Cable Insulation Code	Cable Insulation Range	
		Inches	mm
	A	.67~.73	17.0~18.5
	B	.73~.79	18.5~20.0
	C	.79~.87	20.0~22.0
	D	.87~.94	22.0~24.0
	E	.94~1.02	24.0~26.0

TABLE 17

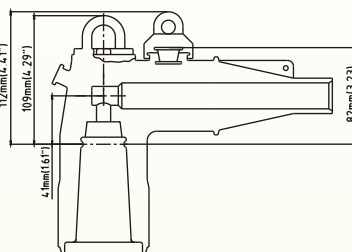
**Cable Insulation for  
CEE ZT-15/200-J**

CEE ZT-15/200-J	Cable Adapter Code	Cable Insulation Range	
		Inches	mm
	A	.53~.65	13.5~16.5
	B	.61~.73	15.5~18.5
	C	.71~.83	18.0~21.0
	D	.79~.91	20.0~23.0
	E	.87~.98	22.0~25.0
	F	.94~1.06	24.0~27.0

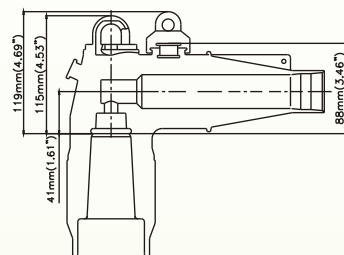
# 200 Amp Loadbreak Connectors



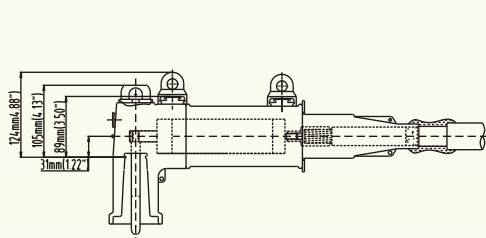
CEE ZT-15/200  
15kV 200A Loadbreak Elbow  
Connector



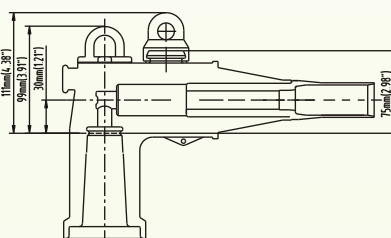
CEE ZT-25/200  
25kV 200A Loadbreak Elbow  
Connector



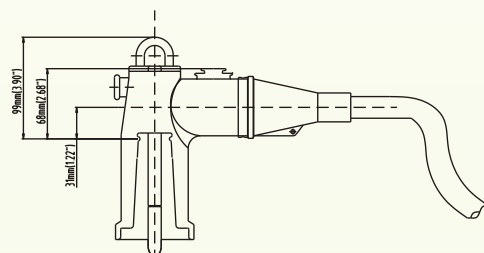
CEE ZT-35/200  
35kV 200A Loadbreak Elbow  
Connector



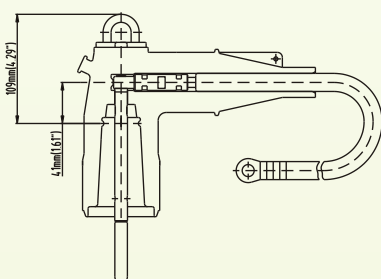
CEE ZTRA-15/200  
15kV 200A Fuse Loadbreak Elbow  
Connector



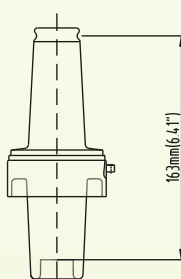
CEE ZT-15/200-J  
15kV 200A Loadbreak Elbow  
Connector  
Cable Adapter with Jacket Seal



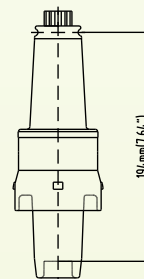
CEE JDT-15/200  
15kV 200A Ground Elbow  
Connector



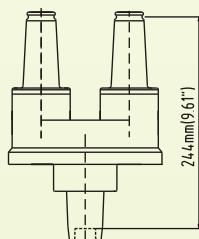
CEE JDT-25/200  
CEE JDT-35/200  
25/35kV 200A Ground Elbow  
Connector



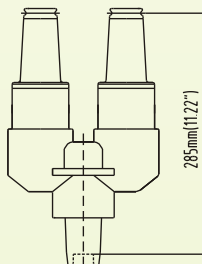
CEE DTT-15/200  
15kV 200A Loadbreak Bushing  
Insert



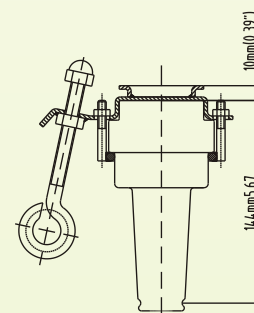
CEE DTT-25/200  
CEE DTT-35/200  
25/35kV 200A Loadbreak Bushing  
Insert



CEE STT-15/200  
15kV 200A Rotable Feedthru  
Insert



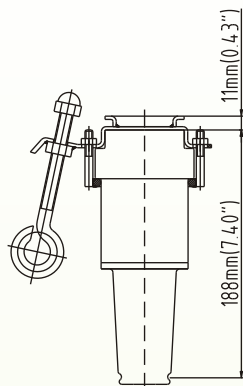
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CEE STT-35/200  
25/35kV 200A Rotable Feedthru  
Insert



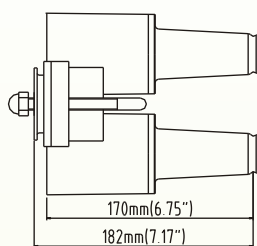
CEE DBG-15/200  
15kV 200A Insulated Standoff  
Bushing



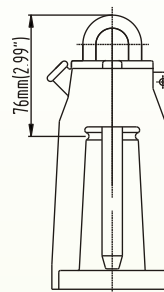
## 200 Amp Loadbreak Connectors



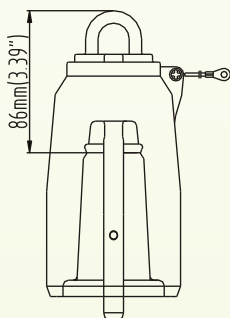
CEE DBG-25/200  
CEE DBG-35/200  
25/35kV 200A Insulated Standoff  
Bushing



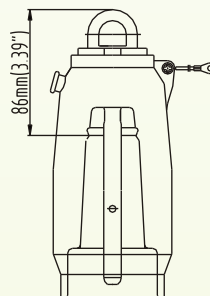
CEE STG-15/200  
15kV 200A Loadbreak Portable  
Feedthru



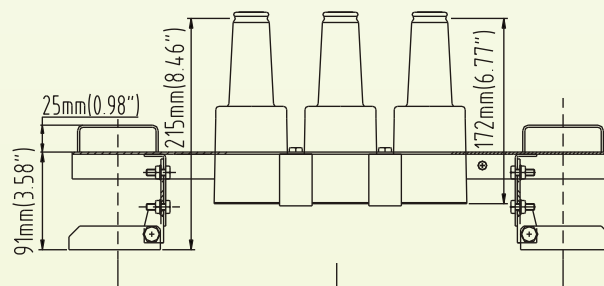
CEE JYM-15/200  
15kV 200A Insulated Protective  
Cap



CEE JYM-25/200  
25kV 200A Insulated Protective  
Cap



CEE JYM-35/200  
35kV 200A Insulated  
Protective Cap



Outlets	2	3	4
L	416mm(16.38")	499mm(19.65")	582mm(22.91")

CEE MP2-15/200  
CEE MP3-15/200  
CEE MP4-15/200  
15kV 200A Loadbreak Junction  
Mounting Bracket with Adjustable  
Bracket for 200A Loadbreak Junction

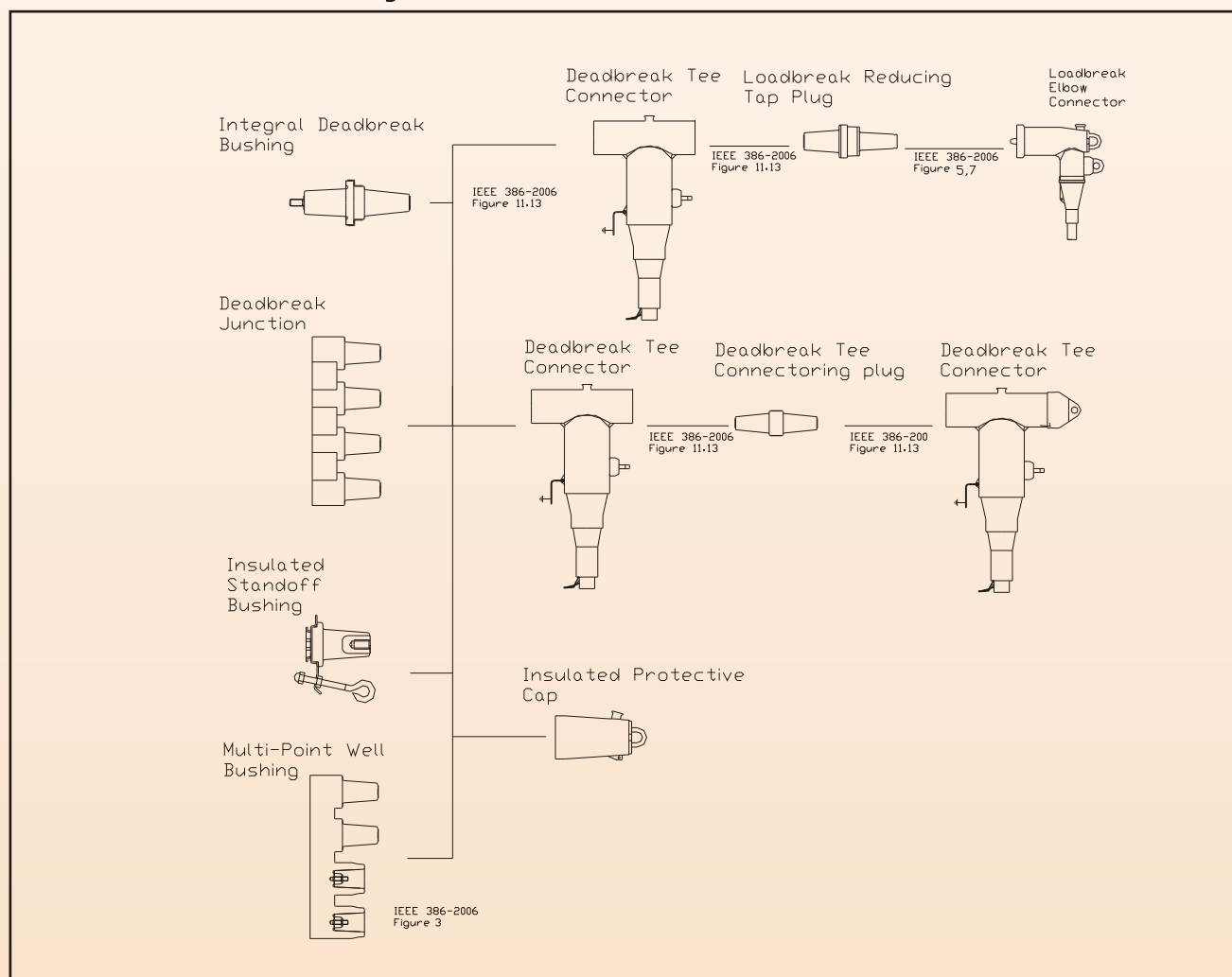
# 600 Amp Deadbreak Connectors



The CEE 600A Deadbreak Separable Insulated Connectors are molded using high quality peroxide-cured EPDM insulation. The connectors are fully-shielded and insulated, they are designed for the a deadfront underground installations in 600A distribution feeders. They can be used together to provide a completely shielded, deadfront and fully submersibles cable connection for apparatus, such as transformers and switchgear, etc.

CEE Power System's 600A Deadbreak separable insulated connectors are in accordance with GB/T 12706.4-2002, ANSI/IEEE std 386-2006 and IEC 60502-4:1997, their electrical, mechanical and dimension are all designed to be fully interchangeable with many major manufacturers which complying with IEEE std 386. All the 600A components can also be used together with CEE's 200A products, they can fit together easily to provide various assembly.

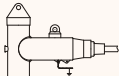
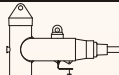
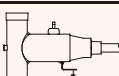
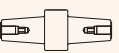
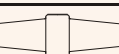
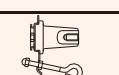


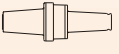
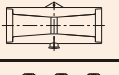




**TABLE 18**  
**Stacking Application For 600A Deadbreak Separable Insulated Connector System**



**Note:**

1. Detailed information about separable connector interface size, see page 4, table 1.

TABLE 19

Product	Description	Voltage (kV)	Base Part Number	Notes
	Deadbreak Tee Connector	15kV	CEE TT-15/600-①-②-③ (①see table 21)	1, 2, 3
	Deadbreak Tee Connector	25kV	CEE TT-25/600-①-②-③ (①see table 21)	1, 2, 3
	Deadbreak Tee Connector	35kV	CEE TT-35/600-①-②-③ (①see table 22)	1, 2, 3
	Deadbreak Tee Connecting Plug	15,25kV	CEE TTL-15/600 CEE TTL-25/600	
	Deadbreak Tee Connecting Plug	35kV	CEE TTL-35/600	
	Insulated Standoff Bushing	15,25kV	CEE DBG-15/600 CEE DBG-25/600	
	Insulated Protective Cap	15,25kV	CEE JYM-15/600 CEE JYM-25/600	
	Insulated Protective Cap	35kV	CEE JYM-35/600	
	Loadbreak Reducing Tap Plug	15kV	CEE ZHT-15/600/200	
	Bushing Extender	15,25kV	CEE YCG-15/600 CEE YCG-25/600	
	Deadbreak Junction	15,25kV	CEE MP④-15/600 CEE MP④-25/600	4
	Mounting Bracket with Adjustable Bracket for 600A Deadbreak Junction	15,25kV	CEE MP④MB-15/600 CEE MP④MB-25/600	4
	Multi-Point Well Bushing	15,25kV	CEE MPJ④-15/⑤ CEE MPJ④-25/⑤	4,5
	Mounting Bracket with Adjustable Bracket for Multi-Point Well Bushing	15,25kV	CEE MPJ④MB-15/⑤ CEE MPJ④MB-25/⑤	4,5

**Note:**

- ①: For Cable Adapter Size, Add the Cable Adapter Code after the voltage and current.
- ②: For lug materials, Insert "B" after Cable Adapter Code for Bimetal Lug, Blank for copper lug.
- ③: For Conductor Cross Section. Insert conductor code after the lug material. See page 9, table 7 for conductor size code in s.q.mm, or page 8, table 6 for conductor size code in AWG/Kcmil.
- ④: For the number of interfaces, Insert "2", "3" or "4" directly after the base part number
- ⑤: For the current rating of each interfaces, Insert "2" "6" directly after base part number, "2" stands for 200A and "6" for 600A.

# 600 Amp Deadbreak Connectors

TABLE 20  
**600A Separable Connector Electrical Characteristics**

Voltage Rating	15kV	25kV	35kV
Standard Voltage Class	15	25	35
Max. Rating Phase-to-Phase	14.4	26.3	36.6
Max. Rating Phase-to-Ground	8.3	15.2	21.1
AC 60/50Hz 1Minute Withstand	34	40	50
DC 15 Minute Withstand	53	78	103
BIL and Full Wave Crest	95	125	150
Minimum Partial Discharge	11	19	26
Current Ratings	15kV	25kV	35kV
Continuous current Rating (A, rms)	600A	600A	600A
24h Overload	900A	900A	900A
Short Time	25kA rms sym. for 0.17s (60Hz)/0.2S(50Hz)	25kA rms sym. for 0.17s (60Hz)/0.2S(50Hz)	25kA rms sym. for 0.17s (60Hz)/0.2S(50Hz)
	10kA rms sym. for 3.0s	10kA rms sym. for 3.0s	10kA rms sym. for 3.0s

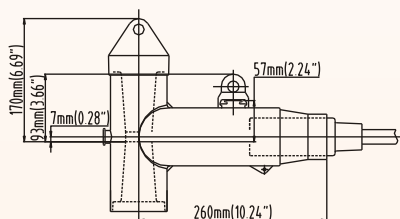
TABLE 21  
**Cable Adapter Size for  
CEE TT-15/600,CEE TT-25/600**

	Cable Adapter Code	Cable Insulation Range	
		Inches	mm
CEE TT-15/600 CEE TT-25/600	A	.70~. 74	18.0~19.0
	B	.74~. 80	19.0~20.5
	C	.80~. 88	20.5~22.5
	D	.88~. 94	22.5~24.0
	E	.94~0.98	24.0~25.0
	F	0.98~1.06	25.0~27.0
	G	1.06~1.14	27.0~29.0
	H	1.14~1.22	29.0~31.0
	J	1.22~1.32	31.0~33.5
	K	1.32~1.42	33.5~36.0

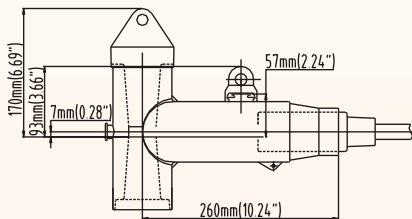
TABLE 22  
**Cable Adapter Size for  
CEE TT-35/600**

	Cable Adapter Code	Cable Insulation Range	
		Inches	mm
CEE TT-35/600	A	1.08~1.20	27.5~30.5
	B	1.14~1.26	29.0~32.0
	C	1.18~1.30	30.0~33.0
	D	1.24~1.36	31.5~34.5
	E	1.18~1.42	30.0~36.0
	F	1.36~1.48	34.5~37.5
	G	1.42~1.57	36.0~40.0
	H	1.54~1.69	39.0~43.0
	J	1.61~1.77	41.0~45.0

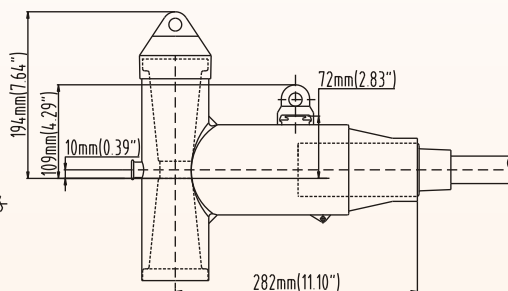
# 600 Amp Deadbreak Connectors



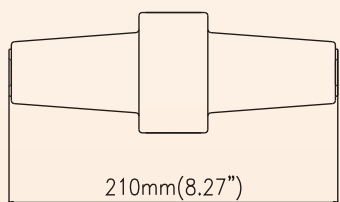
CEE TT-15/600  
15kV 600A Deadbreak T  
Connector



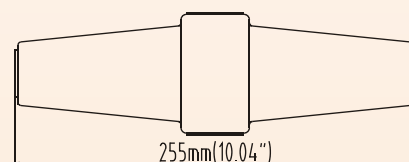
CEE TT-25/600  
25kV 600A Deadbreak T  
Connector



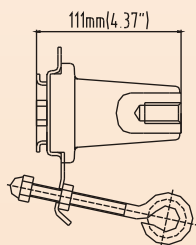
CEE TT-35/600  
35kV 600A Deadbreak T  
Connector



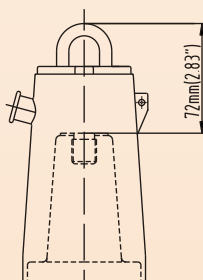
CEE TTL-15/600  
CEE TTL-25/600  
15kV 600A Deadbreak  
Tee Connecting Plug



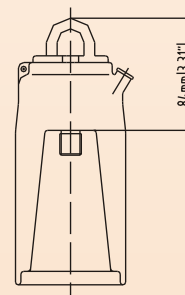
CEE TTL-35/600  
35KV 600A Deadbreak Tee  
Connecting Plug



CEE DBG-15/600  
CEE DBG-25/600  
15/25kV 600A Insulated Standoff  
Bushing

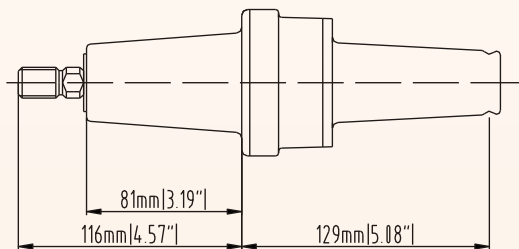


CEE JYM-15/600  
CEE JYM-25/600  
15/25kV 600A Insulated  
Protective Cap

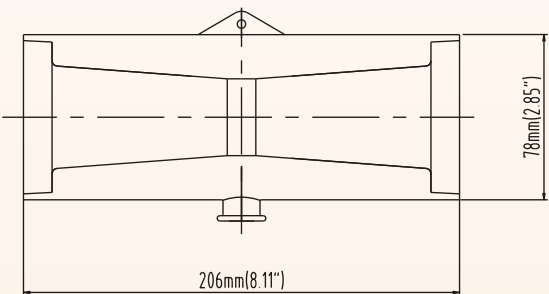


CEE JYM-35/600  
35kV 600A Insulated  
Protective Cap

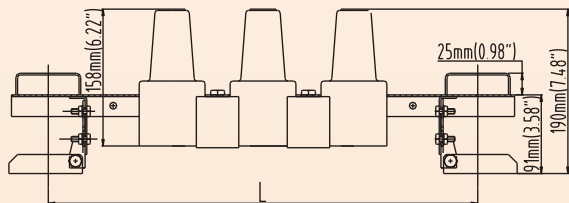
# 600 Amp Deadbreak Connectors



CEE ZHT-15/600/200  
15kV 600A Loadbreak  
Reducing Tap Plug

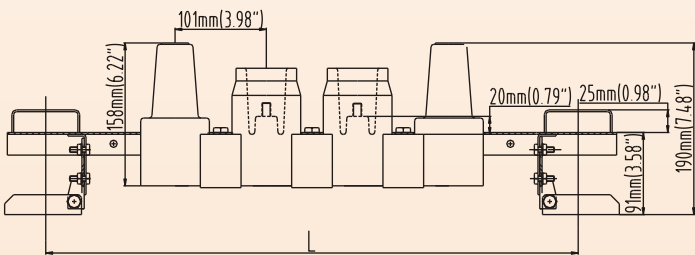


CEE YCG-15/600  
CEE YCG-25/600  
15/25kV 600A Bushing Extender



Outlets	2	3	4
L	476mm(18.74")	581mm(22.87")	686mm(27.01")

CEE MP3-15/600  
CEE MP3-25/600  
15/25kV 600A Deadbreak Junction  
Mounting Bracket with Adjustable Bracket for 600A  
Deadbreak Junction



Outlets	2	3	4	5	6
L	472mm(18.58")	573mm(22.56")	674mm(26.54")	775mm(30.51")	876mm(34.49")

CEE MPJ4-15  
CEE MPJ4-25  
15/25kV Multi-Point Well Bushing  
Mounting Bracket with Adjustable Bracket

# 250 Amp Deadbreak Connectors



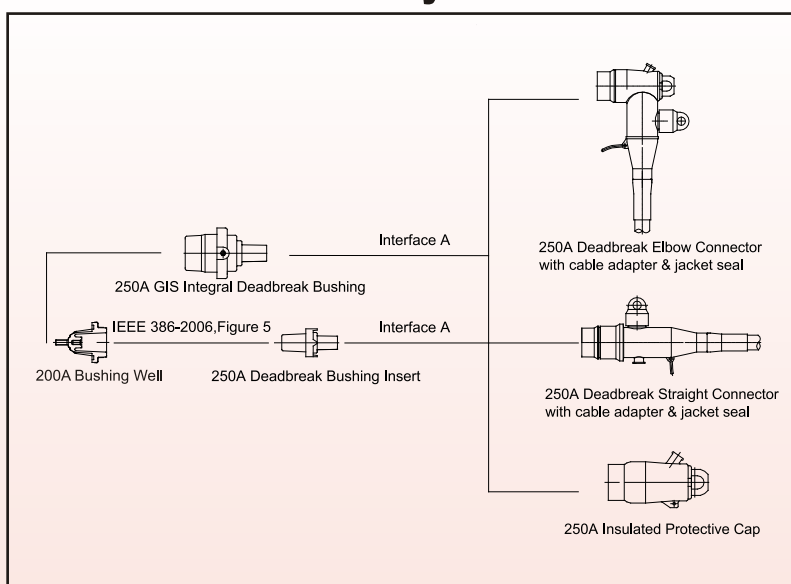
250 A Deadbreak Connectors and Accessories are fully-shielded and insulated plug-in termination, molded using high quality peroxide-cured EPDM insulation, connect underground cable to transformers, switchgear or Ring-Main-Units(RMU) equipped with mated Deadbreak bushings.

They provide a quick disconnect feature for cable and equipment connections on power distribution systems. All deadbreak connectors must be de-energized before operating and must be mechanically secured with bails when connected. All deadbreak connectors meet the electrical, mechanical, and dimensional requirements of IEC 60502.4 and EN50180 & 50181 standard.

TABLE 23

Voltage Ratings and Characteristics	
Description	kV
Voltage Class	24kV
Max Phase-to – Ground	12kV
BIL Impulse Withstand	125kV
AC 5 Minutes Withstand	54kV
DC15 Minutes Withstand	48kV
Partial Discharge	≤10pc@20kV
Current Ratings and Characteristics	
Description	Amperes
Continuous	250A

TABLE 24  
Stacking Application For 250A  
Deadbreak Connector System



**Note:**Detailed information about separable connector interface size, see page 4, table 1

TABLE 25

Picture	Description	Voltage Class	Part Number	Notes
	Deadbreak Elbow Connector with Cable Adapter & Jacket Seal	24kV	CEE KZT-24/250-J-①-②-③ (①See Table 26)	1,2,3,4
	Deadbreak Straight Connector with Cable Adapter & Jacket Seal	24kV	CEE BZTT-24/250-J-①-②-③ (①See Table 26)	1,2,3,4
	Deadbreak Bushing Insert	24kV	CEE ODTT-24/250	
	Insulated Protective Cap	24kV	CEE JYM-24/250	

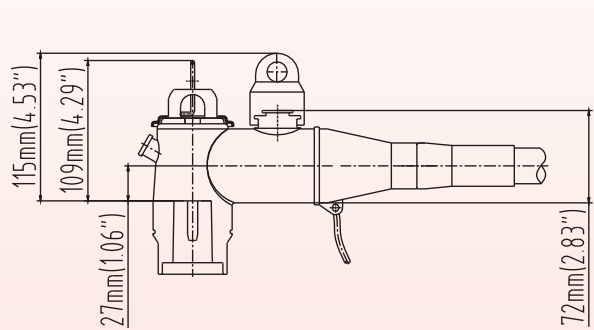
**Note:**

- ①: For cable insulation, add cable adapter code after character J.
- ②: For lug material, insert "B" after cable adapter code for bi-metal lug, blank for copper lug.
- ③: For conductor cross section, insert conductor code after lug material.  
See page 9, table 7 for conductor size code in mm<sup>2</sup>.
- ④: Maximum rated voltage is 24kV, for 8.7/15 kV and below voltage, only change cable adapter code.

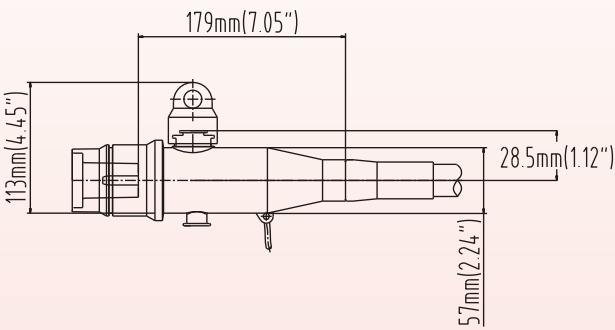
# 250 Amp Deadbreak Connectors

TABLE 26

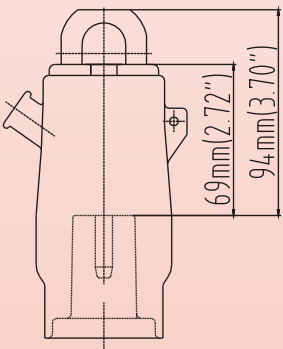
Cable Insulation Range Use for Part Number CEE KZT-24/250-J CEE BZTT-24/250-J	Cable Adapter Code	Cable Insulation Range	
		Inches	mm
	A	.53~.65	13.5~16.5
	B	.61~.73	15.5~18.5
	C	.71~.83	18.0~21.0
	D	.79~.91	20.0~23.0
	E	.87~.98	22.0~25.0
	F	.95~1.06	24.0~27.0



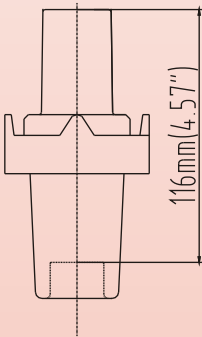
Deadbreak Elbow Connector with  
Cable Adapter&Jacket Seal



Deadbreak Straight Connector with  
Cable Adapter&Jacket Seal



Insulated Protective Cap



Deadbreak Bushing Insert



# 630 Amp Deadbreak Connectors



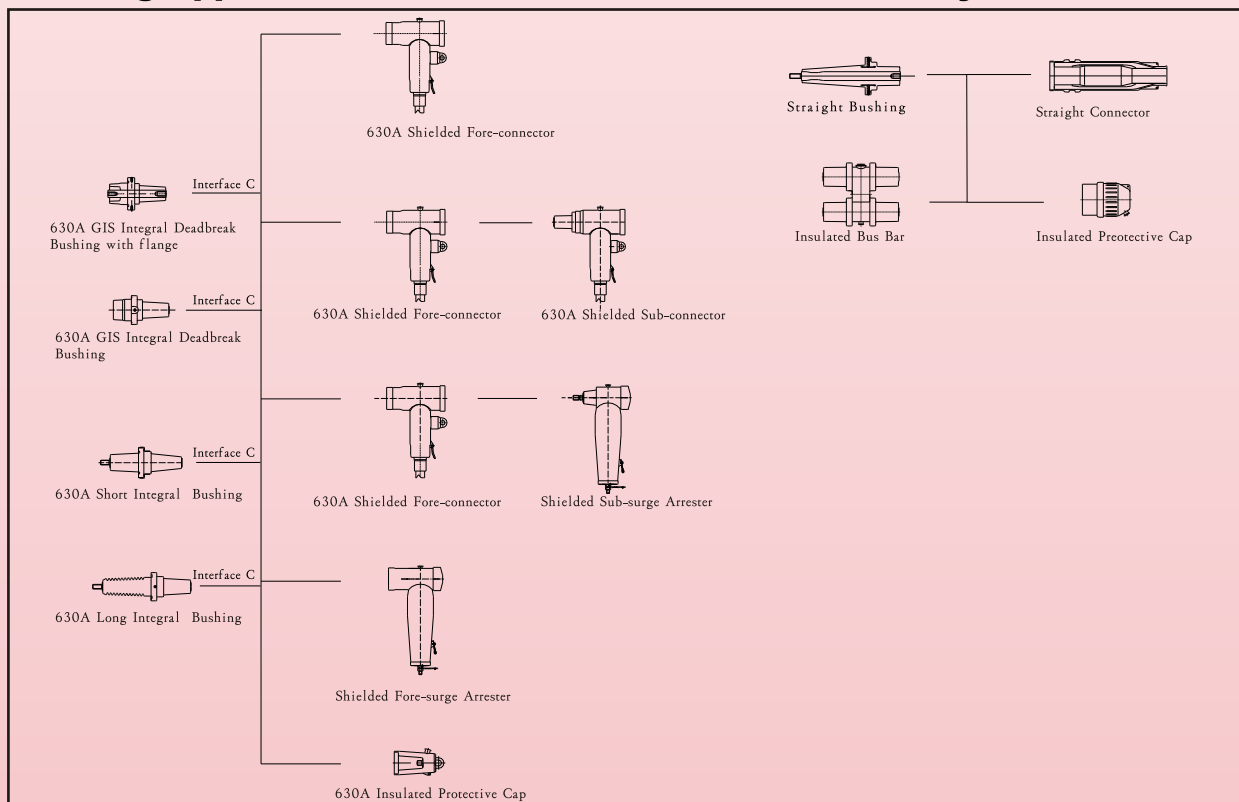
630 A Deadbreak Connectors and Accessories are fully-shielded and insulated termination, molded using high quality peroxide-cured EPDM insulation, connect underground cable to transformers, switchgear or Ring-Main-Units(RMU) equipped with mated Deadbreak bushings. Bolted connections and deadfront modular construction for maximum reliability, performance and versatility. De-energized connectors can be quickly and easily connected and disconnected using standard hand tools and equipment in accordance with accepted operating practices. All deadbreak connectors meet the electrical, mechanical, and dimensional requirements of IEC 60502.4 and EN50180 & 50181 standard.

**TABLE 27**

Voltage Ratings and Characteristics		
Description	kV	kV
Voltage Class	24kV	36kV
Max Phase-to-Ground	12kV	18kV
BIL Impulse Withstand	125kV	170kV
AC 5 Minutes Withstand	54kV	81kV
DC15 Minutes Withstand	48kV	72kV
Partial Discharge	≤10pc@20kV	≤10pc@30kV
Current Ratings and Characteristics		
Description	Amperes	Amperes
Continuous	630A	630A

**TABLE 28**












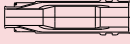



## Stacking Application For 630A Deadbreak Connector System



**Note:** Detailed information about separable connector interface size, see page 4, table 1

# 630 Amp Deadbreak Connectors

TABLE 29

Picture	Description	Voltage Class	Part Number	Notes
	Shielded Fore-Connector	24kV	CEE KQT-24/630-①-②-③ (①See Table 30)	1,2,3,4
	Shielded Fore-Connector	36kV	CEE KQT-36/630-①-②-③ (①See Table 31)	1,2,3,5
	Shielded Sub-Connector	24kV	CEE KHT-24/630-①-②-③ (①See Table 30)	1,2,3,4
	Shielded Sub-Connector	36kV	CEE KHT-36/630-①-②-③ (①See Table 31)	1,2,3,5
	Shielded Fore-Connector with Cable Adapter & Jacket Seal	24kV	CEE KQT-24/630-J-①-②-③ (①See Table 30)	1,2,3,4
	Shielded Fore-Connector with Cable Adapter & Jacket Seal	36kV	CEE KQT-36/630-J-①-②-③ (①See Table 31)	1,2,3,5
	Shielded Sub-Connector with Cable Adapter & Jacket Seal	24kV	CEE KHT-24/630-J-①-②-③ (①See Table 30)	1,2,3,4
	Shielded Sub-Connector with Cable Adapter & Jacket Seal	36kV	CEE KHT-36/630-J-①-②-③ (①See Table 31)	1,2,3,5
	Deadbreak Tee Connecting Plug	35kV	CEE TTL-35/600	
	Insulated Protective Cap	24kV	CEE JYM-24/630	
	Insulated Protective Cap	36kV	CEE JYM-36/630	
	Straight Connector	36kV	CEE YJZNPA-36/630-①-②-③ (①See Table 32)	1,2,3,5
	3-Way Insulated Bus Bar	36kV	CEE YJJD3-36/630	
	4-Way Insulated Bus Bar	36kV	CEE YJJD4-36/630	
	Insulated Protective Cap	36kV		

**Note:**

- ①: For cable insulation, add cable adapter code after the voltage and current.
- ②: For lug material, insert "B" after cable adapter code for bi-metal lug, blank for copper lug.
- ③: For conductor cross section, insert conductor code after lug material.  
See page 9, table 7 for conductor size code in
- ④: Maximum rated voltage is 24kV, for 8.7/15kV and below voltage application, only change cable adapter code.
- ⑤: Maximum rated voltage is 19/33(38)kV, for 18/30(36) or 12/20(24)kV and below voltage application, only change cable adapter code.

TABLE 30

Cable Insulation Range Use for Part Number CEE KQT-24/630 CEE KHT-24/630 CEE KQT-24/630-J CEE KQT-24/630-J	Cable Adapter Code	Cable Insulation Range	
		Inches	mm
	A	.37~.47	9.5~12.0
	B	.45~.55	11.5~14.0
	C	.53~.65	13.5~16.5
	D	.61~.73	15.5~18.5
	E	.71~.83	18.0~21.0
	F	.79~.91	20.0~23.0
	G	.87~.98	22.0~25.0
	H	.95~1.06	24.0~27.0
	I	1.02~1.18	26.0~30.0
	J	1.10~1.26	28.0~32.0
	K	1.22~1.34	31.0~34.0
	L	1.30~1.42	33.0~36.0
	M	1.38~1.54	35.0~39.0

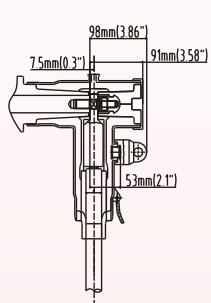
TABLE 31

Cable Insulation Range Use for Part Number CEE KQT-36/630 CEE KHT-36/630 CEE KQT-36/630-J CEE KQT-36/630-J	Cable Adapter Code	Cable Insulation Range	
		Inches	mm
	A	.85~.93	21.5~23.5
	B	.93~1.0	23.5~25.5
	C	1.0~1.14	25.5~29.0
	D	1.12~1.26	28.5~32.0
	E	1.24~1.42	31.5~36.0
	F	1.4~1.57	35.5~40.0
	G	1.52~1.69	38.5~43.0
	H	1.63~1.81	41.5~46.0

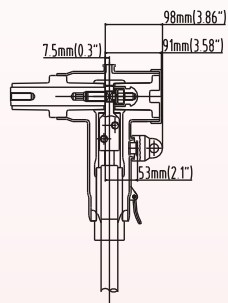
TABLE 32

Cable Insulation Range Use for Part Number CEE YJZNPA-19/33	Cable Adapter Code	Cable Insulation Range	
		Inches	mm
	A	.81~.87	20.5~22.0
	B	.87~.93	22.0~23.5
	C	.93~.98	23.5~25.0
	D	.98~1.02	25.0~26.0
	E	1.02~1.10	26.0~28.0
	F	1.10~1.18	28.0~30.0
	G	1.18~1.26	30.0~32.0
	H	1.26~1.36	32.0~34.5
	I	1.36~1.46	34.5~37.0
	J	1.46~1.57	37.0~40.0

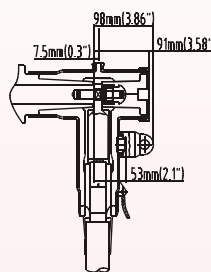
# 630 Amp Deadbreak Connectors



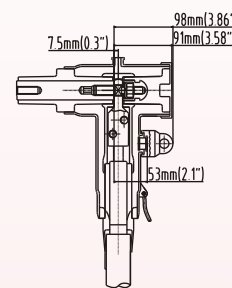
24kV 630A Shielded Fore-Connector



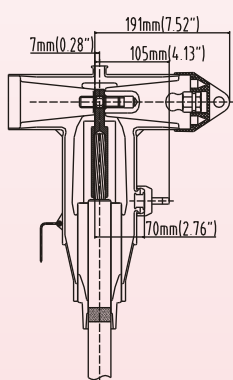
24kV 630A Shielded Sub-Connector



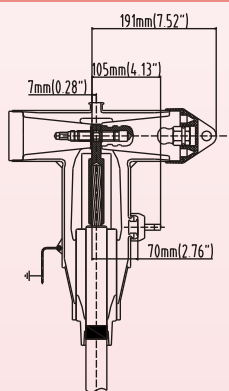
24kV 630A Shielded Fore-Connector with Cable Adapter&jacket Seal



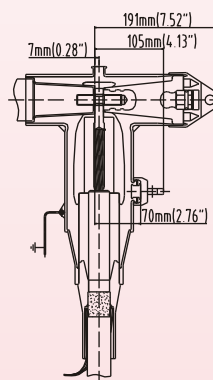
24kV 630A Shielded Sub-Connector with Cable Adapter&jacket Seal



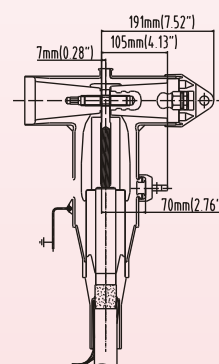
36kV 630A Shielded Fore-Connector



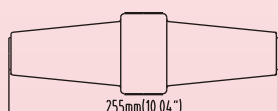
36kV 630A Shielded Sub-Connector



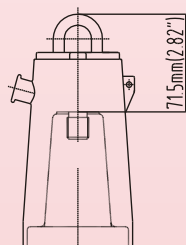
36kV 630A Shielded Fore-Connector with Cable Adapter&jacket Seal



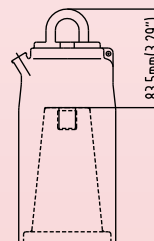
36kV 630A Shielded Sub-Connector with Cable Adapter&jacket Seal



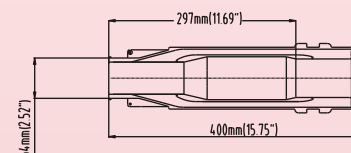
35kV 600A Deadbreak Connecting Plug



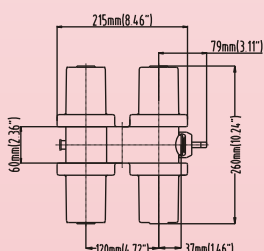
24kV 360A Insulated Protective Cap



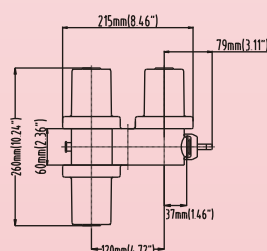
36kV 630A Insulated Protective Cap



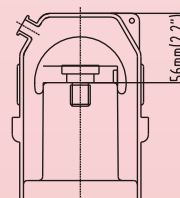
36kV 360A Straight Connector



36kV 360A 3-way Insulated Bus Bar



36kV 360A 4-way Insulated Bus Bar



36kV 360A Insulated Protective Cap for Bus Bar



CEE's Premolded Cable Joint is a fully-shielded, insulated and sealed straight joint splicing kit. It can be used for direct buried, vault, manhole, submersible and other severe service applications. It is for XLPE cable with copper wire screen or copper tape screen, rated up to 36 kV. Both copper and bi-metal crimped connectors are available for copper and aluminum cable conductors. Optional mechanical shear off links are designed for easy installation without compression tool.

The Premolded Cable joint is designed and tested as per IEC 60502-4 and IEEE 404 standard to assure system matched performance and ratings equal to the cable to which the joint will be installed.

**TABLE 33**  
**Electrical Characteristics:**

Voltage Ratings and Characteristics			
Unit	kV		
Rated Voltage	15	25	35
Maximum Rating Phase-to-Phase	17.5	24	36
Maximum Rating Phase-to-Ground	8.7	12	18
AC 50Hz 5 Minute Withstand	39	54	81
DC 15 Minute Withstand	35	48	72
Impulse Withstand	95	125	170
Partial Discharge Level	≤10pc@15kV	≤10pc@20kV	≤10pc@30kV
Current Rating and Characteristics			
Continuous Rating	Equal to the rating of the cable		
Note: Electrical characteristics are in accordance with or exceed IEC 60502-4 and IEEE 404 standards.			
100% Production tests include AC 5 minute withstand and partial discharge tests.			

**TABLE 34**

Diameter over Insulation (mm)		Base Part Number	Conductor Size, mm2 (for guidance only)		
			U0/U/Um		
Min.	Max.		8.7/15/17.5	12/20/24	18/30/36
17.0	19.5	CEE JYZY-A-①-②-③	50	35	
19.0	22.0	CEE JYZY-B-①-②-③	70	50	
21.5	24.0	CEE JYZY-C-①-②-③	95	70	
23.5	26.0	CEE JYZY-D-①-②-③	120,150	95	50
25.5	29.0	CEE JYZY-E-①-②-③	185	120,150	70
28.5	32.0	CEE JYZY-F-①-②-③	240,300	185,240	95,120
31.5	36.0	CEE JYZY-G-①-②-③	400	300	150,185
33.0	39.0	CEE JYZY-H-①-②-③	500	400	240,300
35.0	42.0	CEE JYZY-J-①-②-③		500	400
37.0	45.0	CEE JYZY-K-①-②-③			500

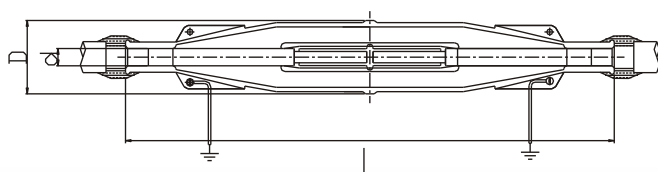
**Note:**

- ① Specify cable maximum insulation voltage Um in kV  
17.5 - 24 - 36
- ② Select the earthing device to suit the cable  
E1: Copper wires E2: Copper tapes
- ③ Select the crimped connector according to:  
(1) Material C: copper; A: Aluminium; B: Bi-metal  
(2) Conductor size in mm<sup>2</sup>

**Example:**

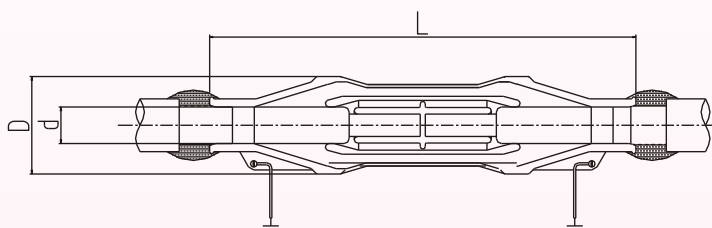
A premolded cable joint is required for an 8.7/15/17.5kV 185mm<sup>2</sup> copper conductor cable with copper wires earthing device, the catalogue number is CEE JYZY-E-17.5-E1-C185

# Premolded Cable Joint



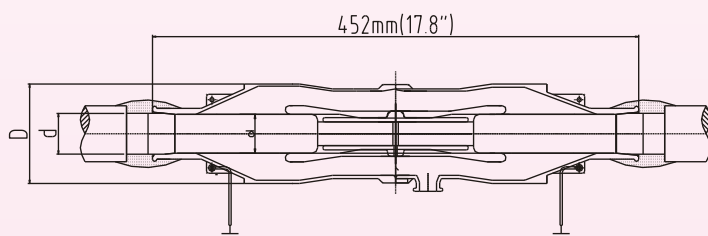
15kV Premolded Cable Joint

d (mm)	D (mm)	L (mm)	Cable Insulation Diameter (mm)	Cable Core Cross Section (mm <sup>2</sup> )
				8.7/10kV, 8.7/15kV
Ø12	Ø51	340	Ø14~ Ø16	25~35
Ø15	Ø54	340	Ø16~ Ø19	50
Ø18	Ø57	346	Ø19~ Ø24	70~95
Ø21	Ø60	360	Ø22~ Ø26	120~150
Ø25	Ø64	384	Ø26~ Ø31	185~300



25kV Premolded Cable Joint

d (mm)	D (mm)	L (mm)	Cable Insulation Diameter (mm)	Cable Core Cross Section (mm <sup>2</sup> )
Ø17	Ø70	330	Ø19~ Ø22	35, 50
Ø21	Ø70	330	Ø23~ Ø27	95, 120
Ø25	Ø70	340	Ø27~ Ø31	150, 185
Ø29	Ø79	350	Ø31~ Ø35	240, 300
Ø33	Ø79	350	Ø35~ Ø39	400
Ø37	Ø87	360	Ø39~ Ø43	500



35kV Premolded Cable Joint

d (mm)	D (mm)	Cable Insulation Diameter (mm)	Cable Core Cross Section (mm <sup>2</sup> )		
			18/30 (36) kV	19/33 (38) kV	21/35 (40.5) kV
Ø17	Ø79.4	Ø20~ Ø23	35, 50	35, 50	
Ø20	Ø79.4	Ø23~ Ø26	70, 95	70, 95	35
Ø23	Ø79.4	Ø26~ Ø29	120, 150	120, 150	50
Ø26	Ø79.4	Ø29~ Ø32	150, 185	150, 185	70, 95
Ø29	Ø79.4	Ø32~ Ø35	240, 300	240, 300	120, 150
Ø32	Ø91.4	Ø35~ Ø38	400	400	185, 240
Ø35	Ø91.4	Ø38~ Ø41	500	500	300
Ø38	Ø91.4	Ø41~ Ø44	630	630	400
Ø41	Ø91.4	Ø44~ Ø47	800	800	500










CEE's M.O.V surge arresters are designed for pad-mounted transformer, entry cabinets, switching enclosures and other installations to provide shielded deadfront arrester protection. M.O.V Elbow Surge Arrester and M.O.V Bushing Surge Arrester can be used with 200A loadbreak interfaces to protect the distribution systems from over-voltage, protect equipment and extend cable life.

The arresters are molded with high quality EPDM or silicone rubber insulating materials, they are designed as per IEC 60099-4:1991 standard.

**TABLE 35**  
**Main Electrical Characteristics:**

Duty Cycle Voltage Rating(kV)	MCOV(kV)	Maximum Discharge Voltage(kV Crest) 8/20 $\mu$ s Current Wave	standard nominal discharge current,ka
10	8	27	5
12	10.2	32.4	5
15	12.7	40.5	5
17	13.6	45	5
21	17	53.9	5 or 10
24	19.5	61.6	5 or 10
27	22	69.3	5 or 10
30	24.4	76.5	5 or 10

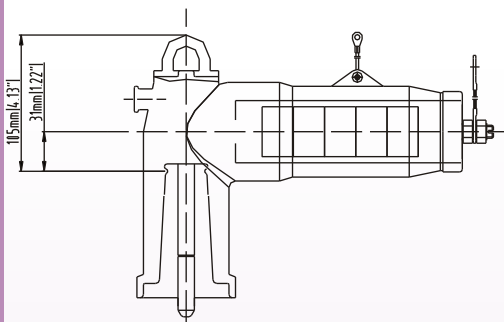
**TABLE 36**

Product	Description	Base Part Number	notes
	M.O.V Elbow Surge Arrester	CEE BLQ-①/②	1, 2, 3
	M.O.V Bushing Surge Arrester	CEE DTTBQ-①/②	1, 2, 3
	M.O.V Shielded sub-Surge Arrester	CEE AKBLQ-H-①/②	1, 2, 3
	M.O.V Shielded fore-Surge Arrester with Silicone Rubber	CEE GKBLQ-Q-①/②	1, 2, 4
	M.O.V Shielded sub-Surge Arrester with Silicone Rubber	CEE GKBLQ-H-①/②	1, 2, 4

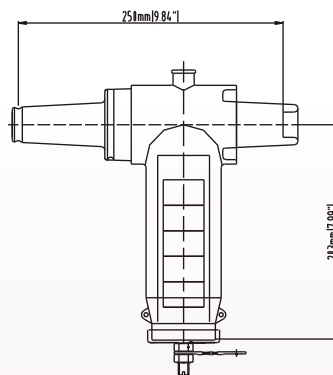
**Note:**

- ① For voltage rating, Insert duty cycle voltage rating directly after the base part number.
- ② For residual voltage value at 5kA or 10kA Impulse Current. Insert the value after the voltage and "/>.
- For M.C.O.V=8~13.6kv
- For M.C.O.V=17~24.4kv

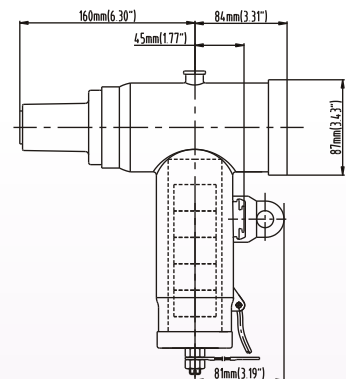
# Surge Arrester



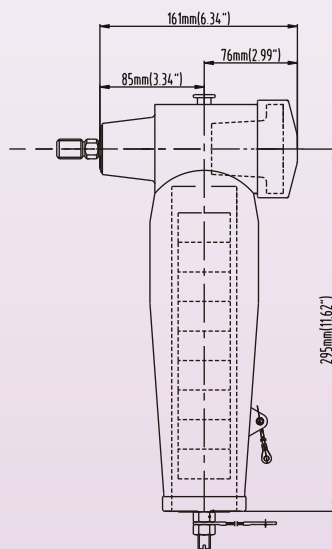
CEE BLQ-10/34.5  
CEE BLQ-12/47  
CEE BLQ-17/45  
M.O.V Elow Surge Arrester



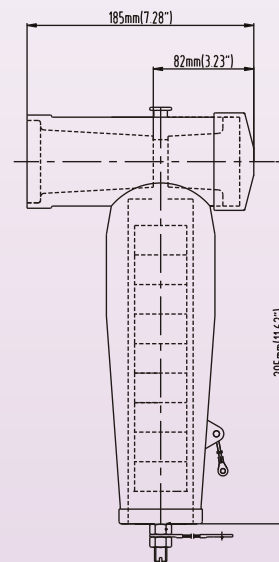
CEE DTTBQ-10/34.5  
CEE DTTBQ-12/47  
CEE DTTBQ-17/45  
M.O.V Bushing Surge Arrester



CEE AKBLQ-17/45  
M.O.V Shielded Sub-Surge



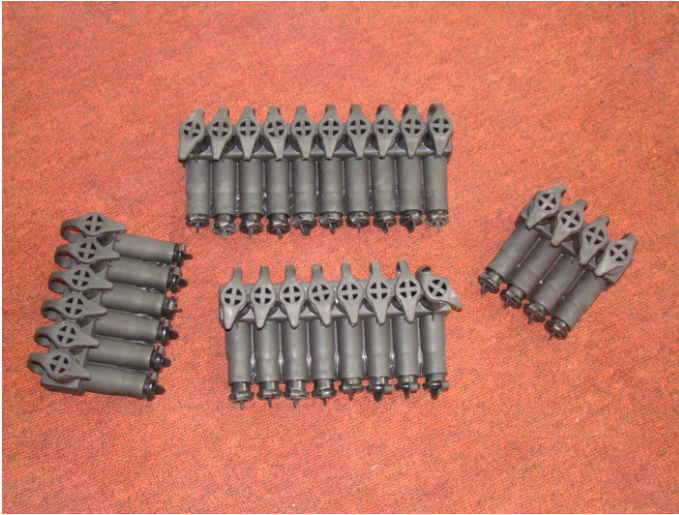
CEE GKBLQ-H-17/45  
M.O.V Shielded Sub-Surge  
Arrester with Silicone Rubber



CEE GKBLQ-Q-17/45  
M.O.V Shielded Fore Surge-  
Arrester with Silicone Rubber



## Rubberized Aluminum Bar

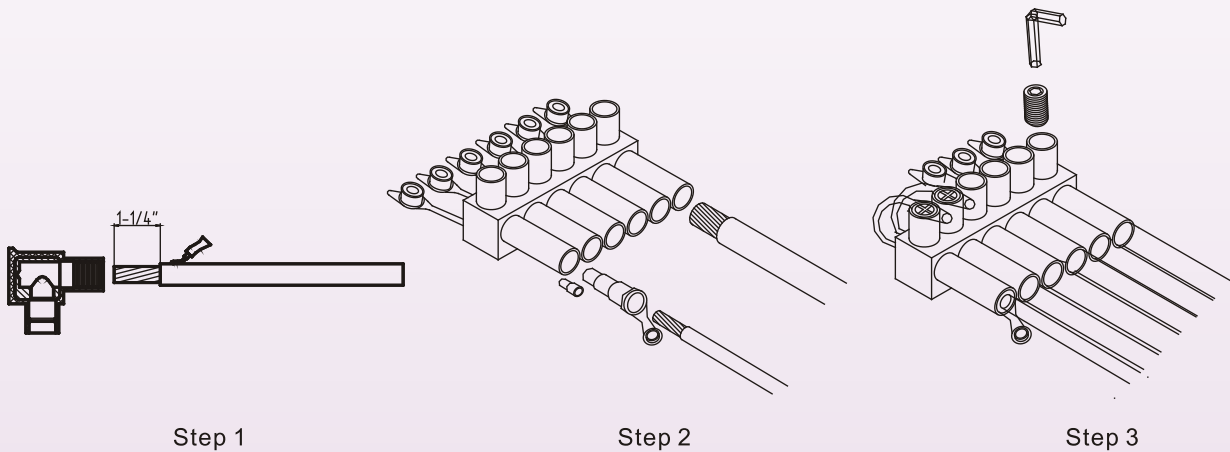


CEE's MXRAB rubberized aluminum bar is specially designed for low voltage underground cable connection, it functions for its extra rugged construction, that is the rubberized aluminum is fabricated from 6061-T6 aluminum with molded EPDM rubber insulation, so it is fully insulated and watertight, which make the direct bury, handhole and pedestal application available,

CEE's MXRAB rubberized aluminum bar has many features as follows:

- Fully insulated and watertight
- Easy to installation, use 5/16" hex wrench, molded into top of connector
- Ball bottom screw design, breaks up interstrand oxides
- Tethered screw plug, eliminate lost parts

### Installation:



### Base Part Number:

CEE MXRAB-①S

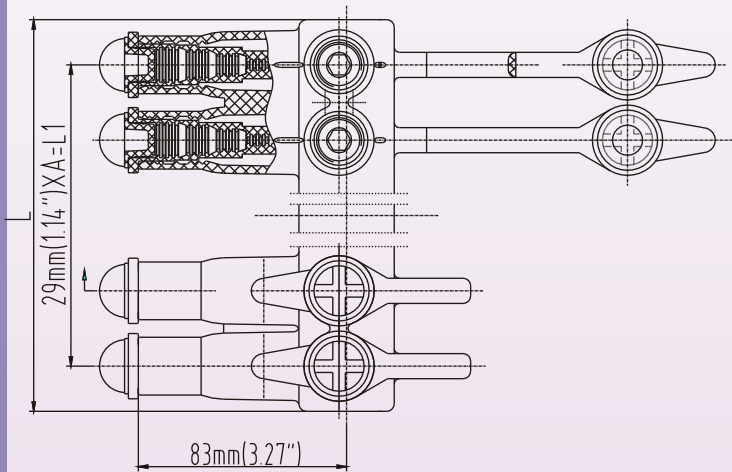
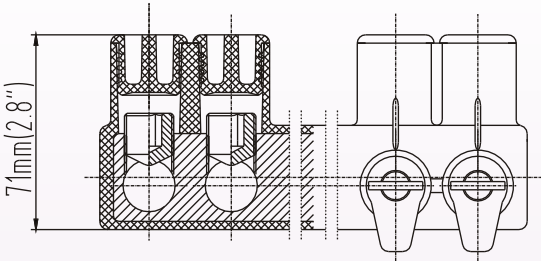
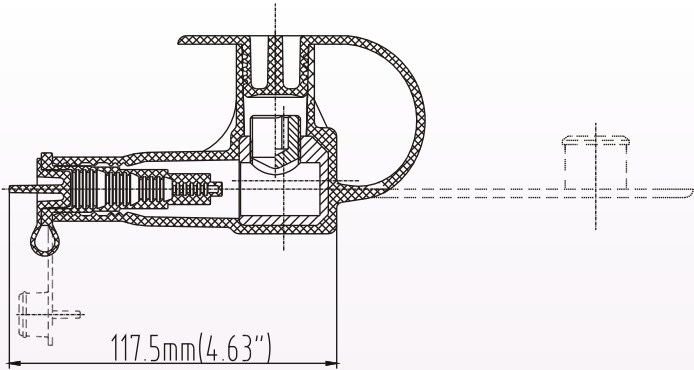
### Note:

①: For Cable outlets, Insert "4", "6", "8" or "10" between the base part number and "S".

TABLE 37

Catalog Number	Outlets	Cable Range	Length (L,mm)	Height (H,mm)
MXRAB-4S	4	12 AWG to 350 MCM	123	71
MXRAB-6S	6		181	
MXRAB-8S	8		239	
MXRAB-10S	10		297	

# Rubberized Aluminum Bar



Item	L	L1	A
1	123mm(4.84")	87mm(3.43")	3
2	181mm(7.13")	145mm(1.77")	5
3	239mm(9.41")	203mm(8")	7
4	297mm(11.7")	261mm(10.28")	9



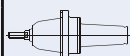
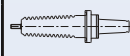



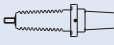
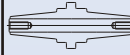
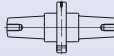
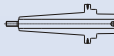
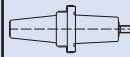
CEE MXRAB  
Rubberized Aluminum Bar



CEE has many bushings as bushing well, integral deadbreak bushing, feedthru bushing insert and integral deadbreak bushing with flange on 200A, 250A and 630A, they can be use for installation on padmounted transformers, switchgear and other apparatus filled with transformer oil, SF6 or an approved equivalent.

The Bushings are molded with high quality insulating material. When mated with comparably rated products, it provides a fully shielded, submersible and separable connection for deadbreak or loadbreak operation. The electrical characteristics are in accordance with or exceed GB/T 12706-2002, ANSI/IEEE 386-2006, IEC 60502-4:1997.

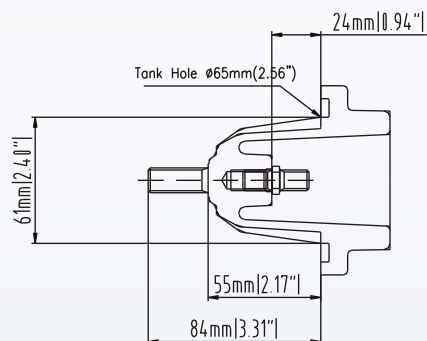
**TABLE 38**

Product	Description	Base Part No.	Interface Size (see note 1)
	15kV 200A Bushing Well	CEE TGZ-15/200	IEEE 386-2006 Figure 3
	15kV 200A Lengthened Bushing Well	CEE TGZB-15/200	IEEE 386-2006 Figure 3
	15kV 200A Integral Loadbreak Bushing	CEE YTGZA-15/200	IEEE 386-2006 Figure 5
	15kV 200A Lengthened Integral Loadbreak Bushing	CEE YTGZB-15/200	IEEE 386-2006 Figure 5
	10kV, 24kV 250A Integral Deadbreak Bushing	CEE YTGZA-10/250 CEE YTGZA-24/250	Interface A
	10kV, 24kV 630A Integral Deadbreak Bushing (GIS)	CEE YJSYC-10/630 CEE YJSYC-24/630	Interface C
	10kV, 24kV 630A Integral Deadbreak Bushing with Flange (GIS)	CEE YJSYCF-10/630 CEE YJSYCF-24/630	Interface C
	10kV, 24kV 630A Integral Deadbreak Bushing with Test Point	CEE YTGZBC-10/630 CEE YTGZBC-24/630	Interface C
	10kV, 24kV 630A Two Side Bushing	CEE CQTG-10/630 CEE CQTG-24/630	Interface C
	36kV 630A Two Side Bushing	CEE CQTG-36/630	Interface C
	36kV 630A Integral Loadbreak Bushing	CEE YJZNPB-36/630	
	35kV 600A Integral Deadbreak Bushing	CEE YTGZD-35/600	IEEE 386-2006 Figure 13

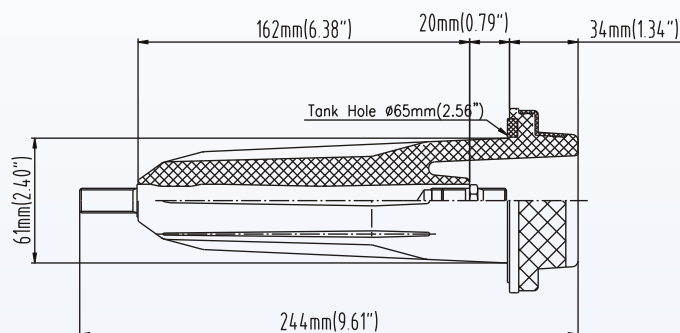
**Note:**

1. Detailed information about separable connector interface size, see page 4, table 1.

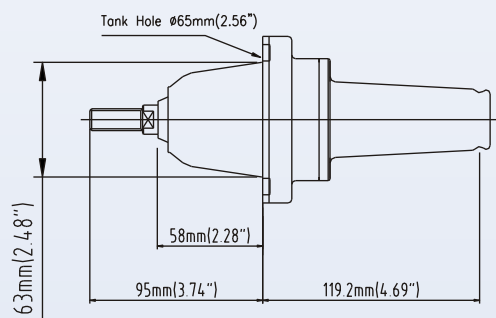
# Equipment Bushings



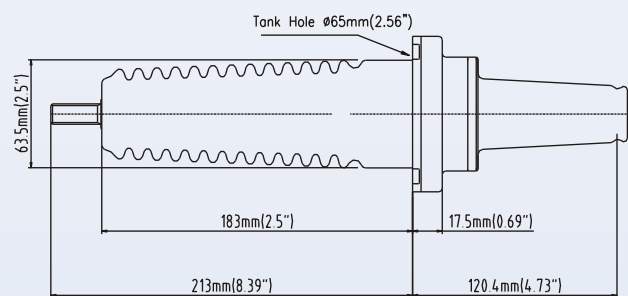
CEE TGZ-15/200  
15kV200A Bushing Well



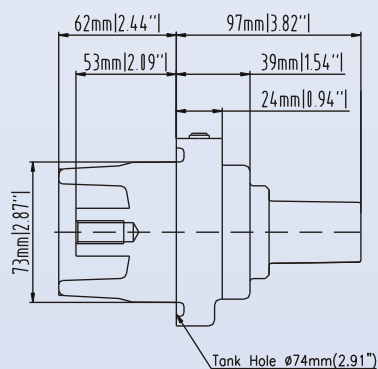
CEE TGZB-15/200  
15kV 200A Lengthened Bushing Well



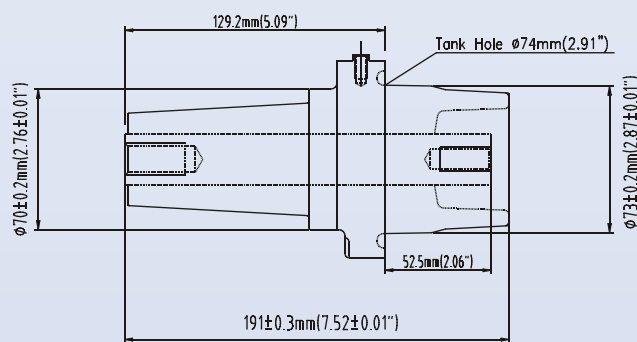
CEE YTGZA-15/200  
15kV 200A Integral Loadbreak Bushing



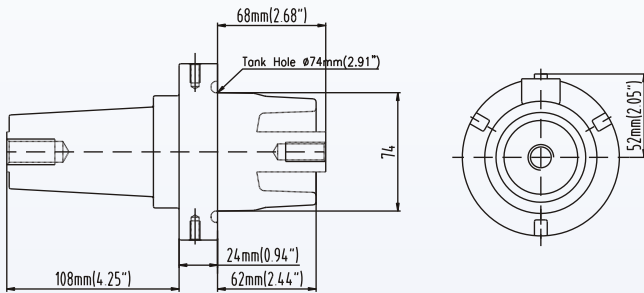
CEE YTGZB-15/200  
15kV 200A Lengthened Integral Loadbreak Bushing



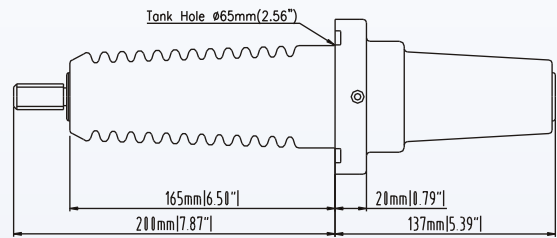
CEE YTGZA-10/250  
CEE YTGZA-24/250  
10kV,24kV 250A Integral Deadbreak Bushing



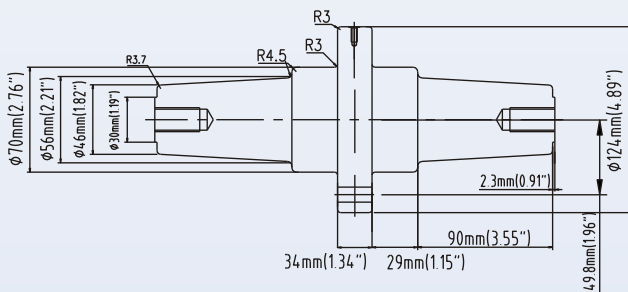
CEE YJSYC-10/630  
CEE YJSYC-24/630  
10kV,24kV 630A Integral Deadbreak Bushing (GIS)



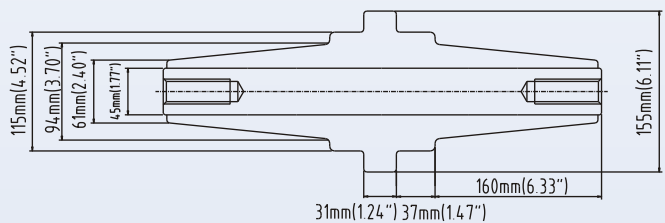
CEE YJSYCF-10/630  
CEE YJSYCF-24/630  
10kV, 24kV 630A Integral Deadbreak Bushing  
With Flange (GIS)



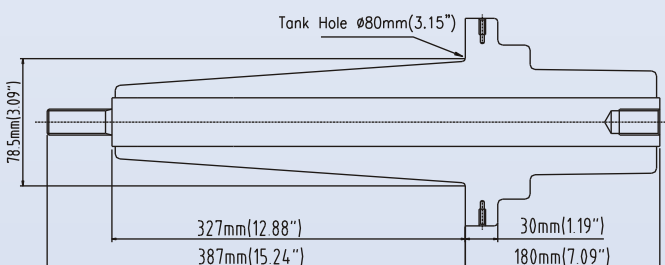
CEE YTGZBC-10/630  
CEE YTGZBC-24/630  
10kV, 24kV 630A Integral Deadbreak Bushing  
With Test Point



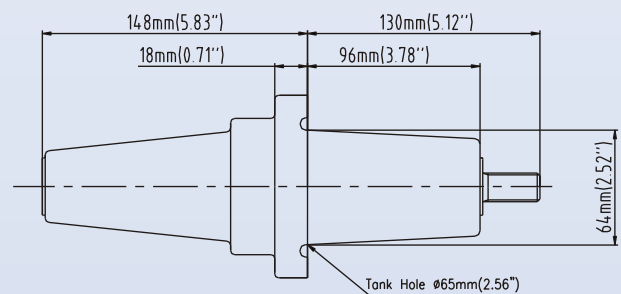
CEE CQTG-10/630  
CEE CQTG-24/630  
10kV, 24kV 630A Two Side Bushing



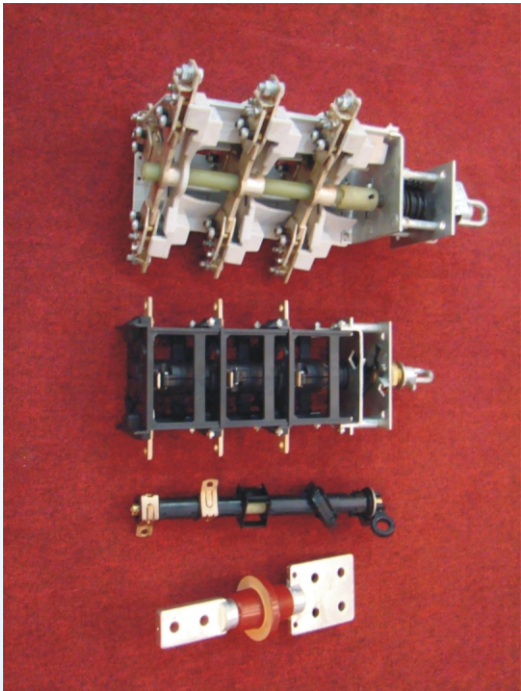
CEE CQTG-36/630  
36kV 630A Two Side Bushing



CEE YJZNPB-36/630  
36kV 630A Integral Deadbreak Bushing



35kV 600A  
CEE YTGZD-35/600  
35kV 600A Integral Deadbreak Bushing



CEE provide series of pad-mounted transformer components,including loadbreak switches, Bay-O-Net fuse assembly, secondary bushing.

■ Loadbreak Switches

Loadbreak switches include two position switch and four position switch.  
The two-position switch incorporates a weld-in bracket assembly and double “O” ring-shaft sealing system. Also incorporated into the switch mechanism are internal stops which restrict the handle orientation to only two positions.  
Four position switch is used in underground residential applications with loop feed, and in three-phase commercial industrial installations where the ability to use an alternative source of power is necessary. They can also be used to switch on and off a primary cable tap on a transformer.

■ Bay-O-Net Fuse Assembly

Bay-O-Net fuse assembly is used to protect transformers, the assembly combine the ease of hotstick operation with the safety of deadfront construction. Bay-O-Net fuse assembly include a flapper valve inside the housing which closes when the fuse holder is removed. Current sensing, dual sensing, dual element and high ampere overload fuse links can be used in a Bay-O-Net fuse assembly.

■ Secondary Bushing

Secondary Bushings are designed for external mounting on distribution transformer filled with oil and are available with spade connections. They are designed for use indoors or outdoors of fluid-filled transformers or switchgear.

TABLE 39  
Loadbreak Switches

Description	Unit	Two Position	Four Position	
Rated Voltage	kV	10	10	20
Maximum Voltage	kV	12	12	24
Rated Frequency	Hz	50	50	50
Rated Current	A	315	630	630
AC 1 Min Withstand	kV	42	42	55
BIL Impulse Withstand	kV	75	75	125
Mechanism Operation without Load	Times	≥2000	Each Position 1000	≥2000
Mechanism Operation with Rated Load	Times	20	20	20
Torque to Operate	N.m	≤50	≤50	≤60

TABLE 40  
Bay-O-Net Fuse Assembly





Description	Unit	Parameter
Rated Voltage	kV	15
AC 1 min Withstand	kV	50
BIL Impulse Withstand	kV	150
Short-Time Withstand Current	A	3500
Rated Current	A	150
Rated Fuse Current	A	6,10,15,25,40 50,65,100,140

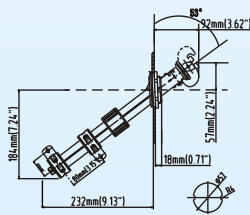
TABLE 41  
Secondary Bushing

Description	Unit	Parameter
Rated Voltage	kV	1
Rated Current	A	630,1000, 1250,1600
Rate Frequency	Hz	50
AC 1 min Withstand	kV	3.5

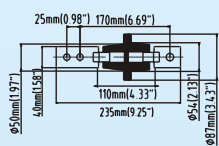


TABLE 42

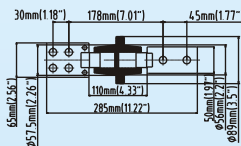
Picture	Description	Voltage Class	Part Number	Notes
	Two Position Switches	10 kV	CEE FKY1-12/315-2	
	T Type Four Position Switches	10 kV	CEE FKY1-12/630-T	
	I Type Four Position Switches	20 kV	CEE BFY3I2-20/630-20	
	Bay-O-Net Fuse Assembly	15 kV	CEE B-O-N SM	Sidewall Mounted
	Secondary Bushing	1 kV	CEE DTG-1/630	630A
	Secondary Bushing	1 kV	CEE DTG-1/1000	1000A
	Secondary Bushing	1 kV	CEE DTG-1/1250	1250A
	Secondary Bushing	1 kV	CEE DTG-1/1600	1600A



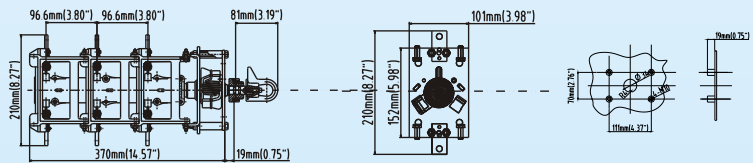
Bay-O-Net Fuse Assembly



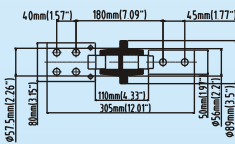
630A Secondary Bushing



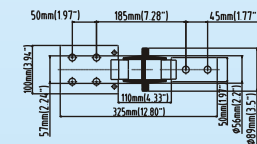
1000A Secondary Bushing



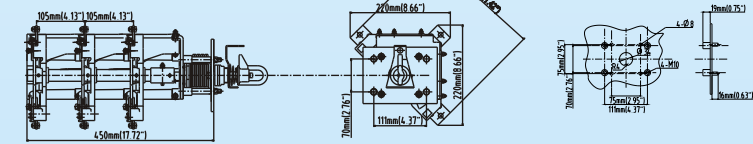
Two Position Switch



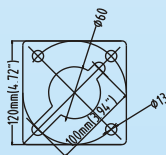
1250A Secondary Bushing



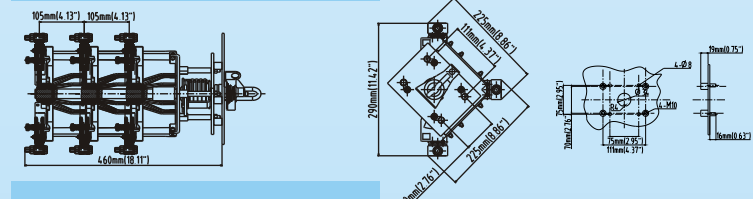
1600A Secondary Bushing



10kV T Type Four Position Switch



Clamp



20kV I Type Four Position Switch



CEE fault indicators are designed to quickly and easily indicate fault and identify fault locations. They are used in cable and overhead power lines up to 35kV. CEE fault indicators offer three basic types: cable short circuit fault indicator, overhead short circuit fault indicator and earth and short circuit fault indicator. The cable ones are used in pad-mounted transformer, switchgear Power cable connection pillar and etc, and the overhead type on the outdoor overhead power lines.

## Features and Functions:

1. Accurate indication with powerful anti-jamming
2. Adopting parts of auto minimum power consumption with long life expectancy and eco-friendly advantage
3. With the design of dormant function the appliance will be in its dormancy stage when system is running smoothly
4. Toughened solid polymer constitutes its outer case, durable and resistant to corrosion
5. The LED displays clearly in both daytime and night
6. It is immune to the load changes. One-installation benefits long future









## Specifications of Short Circuit Fault Indicator:

Voltage class:  $\leq 35\text{kV}$   
 Operating current:  $10 \sim 600\text{A}$   
 Trip current level:  $\geq 100\text{A}$   
 Automatic reset time: 2,4,6,8,12,24h optional  
 Reset current:  $\geq 10\text{A}$   
 Operating temperature:  $-40^{\circ}\text{C} \sim +60^{\circ}\text{C}$   
 Cable diameter: cable type:  $\phi 5 \sim \phi 30\text{mm}$   
 overhead type:  $\phi 5 \sim \phi 35\text{mm}$

## Specifications of Earth and Short Circuit Fault Indicator:

Earthing fault warning current:  $3 \sim 200\text{ amp} \pm 10\%$ ;  
 Short circuit warning current:  $150 \sim 1500\text{ amp} \pm 10\%$ ;  
 Ambient condition:  $-18^{\circ}\text{C} \sim +60^{\circ}\text{C}$   
 Power source: 3.6V lithium battery (duration more than 5 years)  
 Battery low voltage warning level:  $\leq 2.93\text{V}$   
 Automatic reset time: 1hr-4hr-8hr-12hr-16hr-24hr-48hr  
 IP Code: IP54  
 Output capacity of transfer relay:  $220\text{V AC} / 0.3\text{A}$   $30\text{V DC}/1\text{A}$   
 Normal Consuming current:  $10\mu\text{A}$   
 Operating current of indicator:  $\leq 0.8\text{mA}$   
 Max withstand current of short circuit current sensor:  $20\text{kA } 3\text{S}$   
 Earth fault sensor is used on three-core cable, outer diameter  $\leq 110\text{mm}$   
 Short circuit sensor is used on single-core cable, outer diameter  $\leq 35\text{mm}$   
 Dimension of the indicating unit (length\*height\*depth):  $94\text{mm} \times 48\text{mm} \times 88\text{mm}$   
 Dimension of the mounting hole on the panel (length\*height):  $90.5\text{mm} \times 42.5\text{mm}$

TABLE 43

Picture	Description	Voltage Class	Part Number	Notes
	Overhead Short Circuit Fault Indicator		HYI-AIV	
	Overhead Short Circuit Fault Indicator Tools		HYI-AIV-G	
	Cable Short Circuit Fault Indicator		HYI-BIII	
	Cable Short Circuit Fault Indicator		HYI-BIII-NA	1
	Cable Short Circuit Fault Indicator		HYI-BIII-NB	2
	Cable Short Circuit Fault Indicator		HYI-BIII-NC	3
	3-Phase Integrated Short Circuit Fault Indicator		HYI-BIIIX	
	Earth and Short Circuit Fault Indicator		DJD-1	4

**Note:**

1. An additional remote indication function is added to the integrated type of the fault indicator, owing to a 3-meter long cable for remote indication on the panel, the integrated type of the fault indicator can be co-functioned with CEE HYI-BIIIX 3-phase integrated short-circuit fault indication unit.
2. A signal light is attached to the end of remote signal cable. The light can be inlayed into the panel. Each phase is an individual system.
3. A combination of three NA fault indicators and one CEE HYI-BIIIX 3-phase integrated short circuit fault indicator is particularly suitable for eye-catching fault alert indicator on the equipment panel.
4. Include 3 pcs. short circuit sensors for each phase cable; 1 pc. earth fault sensor for three-phase cable; 1 pc. Indicating unit, which is connected with sensors by cables or optical fiber and is incorporated in a wholly sealed plastic housing together with the electronics for time reset and trip setting.

# Wire Shield Adapters, Cold-Applied Boot and Shrouded Termination

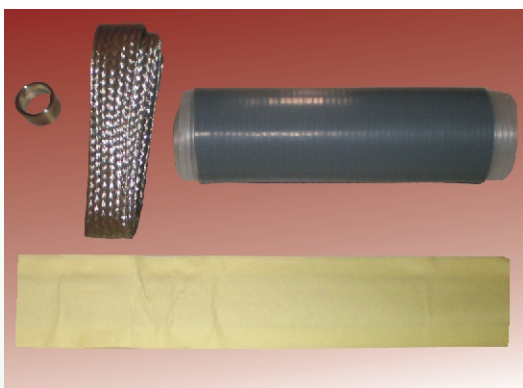


## Wire Shield Adapters

Wire shield adapter is designed for grounding of metallic wire shielded cable, it provides a fully shielded, submersible grounding device. This device eliminates the need for soldering and/or taping when grounding wire shielded cable.

## Copper Tape Shield Adapter Kit

Shield Adapter Kits are designed to accommodate the grounding of accessories installed on copper tape shielding power cables. The kits seals tight, accommodate a wide range of cable size. Each kit contains a cold shrink tube, a mastic tape, a constant force spring and a ground strap.

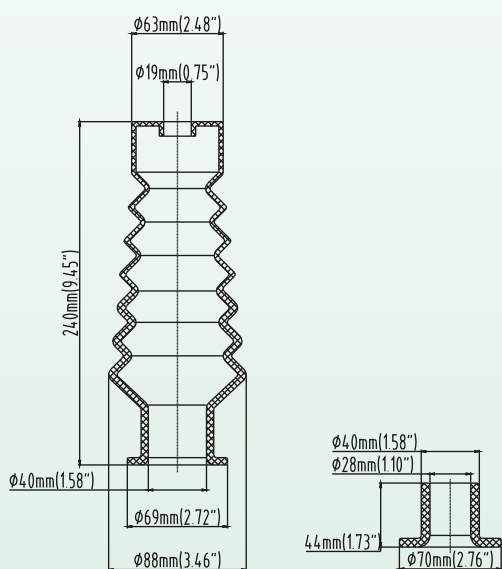


## Cold-Applied Boot

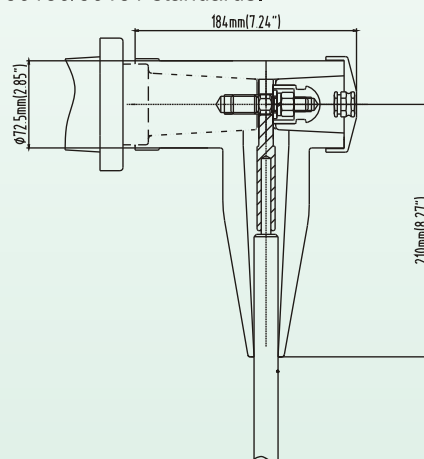
Cold-applied boot is moulded insulation to cover live parts of the bushings, they are suitable for the connection of the cable lug and the inline or right angle of switchgear or cable sector which can improve phase-to-phase and phase-to-ground insulation. They are used to ameliorate insufficient of the air clearances for normal operation, the clearances are adequate to keep the air entrapped well below corona extinction level or to prevent the flashover due to rodents or high humidity. They also can withstand normal and surge voltages induced during operational life of termination systems.

## Shrouded Termination

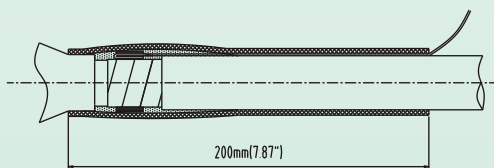
Shrouded termination (630A) provides perfect sealing, electrical insulation and an electrical connection between terminations and SF6-insulated switchgear up to 24 kV. The electrical connection is made with a terminal stud and the cable lug of the termination. Bushing interface confirm to DIN 47636 and EN 50180/50181 standards.



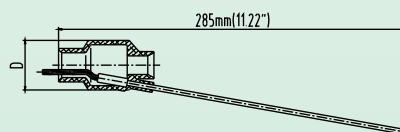
Cold-Applied Boot



Shrouded Termination



Copper Tape Shield Adapter Kit



Wire Shield Adapter

# Wire Shield Adapters, Cold-Applied Boot and Shrouded Termination

TABLE 44






Picture	Description	Voltage Class	Part Number	Notes
	Wire Shield Adapter		CEE DRSJ-① (①Inner Diameter Code See Table 45)	
	Copper Tape Shield Adapter Kit	Up to 35kV	CEE CTSJ-① (①Inner Diameter Code See table 46)	
	Cold-Applied Boot	Up to 17.5kV	CEE XT 115	1
	Cold-Applied Boot	Up to 17.5kV	CEE XT 215	2
	Shrouded Termination	Up to 24kV	CEE YLJF-1-43-630	

TABLE 45

Cable Insulation Range Use for Part Number CEE DRSJ	Inner Diameter Code(d)	Outer Diameter D	Cable Insulation Range	
			Inches	mm
	12	Φ34	0.53~0.68	13.4~17.3
	15	Φ37	0.64~0.82	16.3~20.8
	18	Φ40	0.76~0.95	19.3~24.1
	20	Φ43	0.85~1.05	21.6~26.7
	23	Φ46	0.98~1.18	24.9~30.0
	26	Φ49	1.03~1.31	27.7~33.3
	29	Φ53	1.18~1.46	30.0~37.2
	31	Φ55	1.28~1.43	32.5~36.3
	33	Φ57	1.37~1.63	34.8~41.4
	36	Φ60	1.515~1.78	38.5~45.2

TABLE 46

Cable Insulation Range Use for Part Number CEE CTSJ	Inner Diameter Code(d)	Outer Diameter D	Cable Insulation Range		Constant Force Spring
			Inches	mm	Diameter
	17	Ø50	0.79~0.98	20.0~25.0	Ø14
	22	Ø55	0.98~1.18	25.0~30.0	Ø14
	25	Ø60	1.18~1.38	30.0~35.0	Ø18
	29	Ø65	1.38~1.58	35.0~40.0	Ø18
	33	Ø75	1.58~1.97	40.0~50.0	Ø18

**Note:**

1. Include a collar, for interface A bushings.
2. No collar, for interface C bushings.

# Connectors, Cable Adapters, Insulated Plug and Clampsticks



## ■ CONNECTORS

Connectors are designed to used with CEE 15/25/35kV, 200A Loadbreak elbow connector, straight connector, 600A deadbreak tee connector and 24kV 250A deadbreak elbow connector, straight connector, 24/36kV 630A shielded connectors. Copper or bi-metal connector can be chosen.

## ■ CABLE ADAPTERS

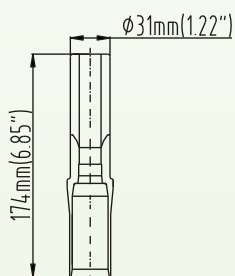
Cable adapters are designed to used with CEE 15/25/35kV 600A deadbreak tee connector and 24kV 250A deadbreak elbow connector, straight connector, 24/36kV shielded connectors.

## ■ INSULATED PLUG

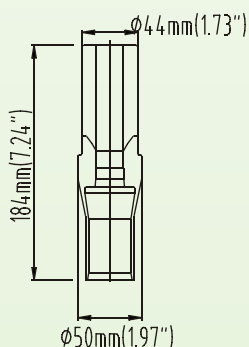
Used to insulated CEE 15/25/35kV 600A deadbreak tee connector and 24/36kV shielded fore-connectors.

## ■ CLAMPSTICKS

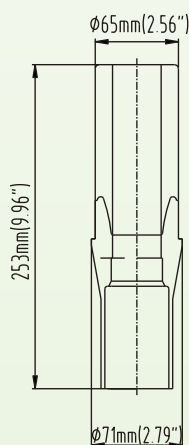
Clampsticks are most versatile insulated tools in a lineworker's hands. Although primarily designed for installing hot-line and grounding clamps, it serves both overhead and underground circuits. To operate the loadbreak switch of the Padmounted transformer or to operate the elbow connector, the clampsticks is an ideal tool for lineworkers.



Cable Adapter With Jacket Seal  
For 24kV, 250A Deadbreak Elbow,  
Straight Connector



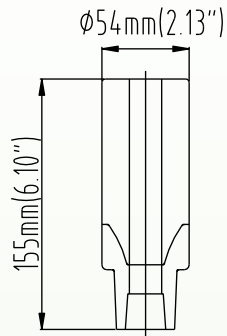
Cable Adapter With Jacket Seal  
For 24kV, 630A Shielded Connector



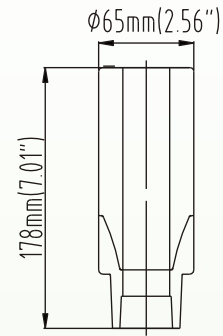
Cable Adapter With Jacket Seal  
For 36kV, 630A Shielded Connector



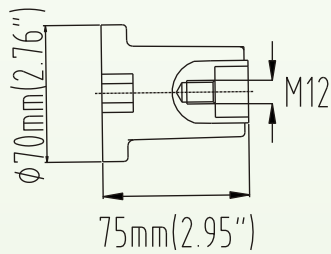
# Connectors, Cable Adapters, Insulated Plug and Clampsticks



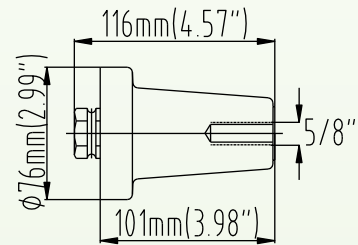
Cable Adapter  
For 15/25kV, 600A Tee Connector



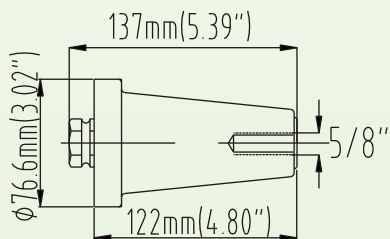
Cable Adapter  
For 35kV, 600A Tee Connector



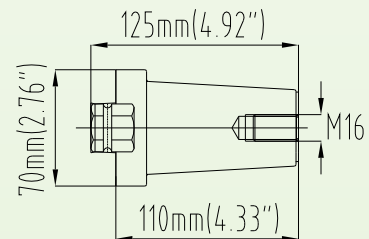
Insulated Plug  
For 24kV, 630A Shielded  
Fore-Connector



Insulated Plug  
For 15/25kV, 600A Tee Connector



Insulated Plug  
For 35kV, 600A Tee Connector



Insulated plug  
For 35kV, 630A Shielded  
Sub-connector



# Connectors, Cable Adapters, Insulated Plug and Clampsticks

TABLE 47

Picture	Description	Part Number	Notes
	Copper Connectors for 15/25/35kV 200A Loadbreak Elbow Connector & 24 kV 250A Deadbreak Elbow Connector See page 12 & 23	CEE BCL- ① (① Conductor Code,See Table 48)	1
	Bi-Metal Connectors for 15/25/35kV 200A Loadbreak Elbow Connector & 24 kV 250A Deadbreak Elbow Connector See page 12 & 23	CEE BBL- ① (① Conductor Code,See Table 49)	1
	Copper Connectors for 24kV 630A Shielded Connector See page 25	CEE ACL- ① (① Conductor Code,See Table 50)	
	Bi-Metal Connectors for 24kV 630A Shielded Connector See page 25	CEE ABL- ① (① Conductor Code,See Table 51)	
	Copper Connectors for 36kV 630A Shielded Connector& 15/25/35kV 600A Tee Connector See page 18 and 25	CEE DCL- ① (① Conductor Code,See Table 52)	1
	Bi-Metal Connectors for 36kV 630A Shielded Connector& 15/25/35kV 600A Tee Connector See page 18 and 25	CEE DBL- ① (① Conductor Code,See Table 53)	1
	Copper Connectors for 15kV 200A & 24kV 250A Deadbreak Straight Connector See Page 23	CEE CCL-① (① Conductor Code See Table 54)	1
	Bi-metal Connectors for 15kV 200A & 24kV 250A Deadbreak Straight Connector See Page 23	CEE CBL-① (① Conductor Code See Table 55)	1
	Shearoff Lug, Copper for elbow connector	CEE SOTL-C 35-50	
	Shearoff Lug, Aluminum for elbow connector	CEE SOTL-A 35-50	
	Shearoff Lug, Copper for straight connector	CEE SOSL-C 35-50	
	Shearoff Lug, Aluminum for straight connector	CEE SOSL-A 35-50,95	
	Shearoff Lug, Copper for deadbreak fore/sub connector	CEE SOQL-C 95-185	
	Shearoff Lug, Aluminum for deadbreak fore/sub connector	CEE SOQL-A 95-185	

# Connectors, Cable Adapters, Insulated Plug and Clampsticks

	Cable Adapter for 15/25kV 600A Tee Connector See page 18	CEE YLZ-15/25/600- ① (① Cable Adapter Code, See Table 56)	
	Cable Adapter for 35kV 600A Tee Connector See page 18	CEE YLZ-35/600- ① (① Cable Adapter Code, See Table 57)	
	Cable Adapter with Jacket Seal for 24 kV 250A Deadbreak Elbow, Straight Connector See page 23	CEE YLZ-24/250-J- ① (① Cable Adapter Code, See Table 58)	
	Cable Adapter with Jacket Seal for 24 kV 630A Shielded Connector See page 25	CEE YLZ-24/630-J- ① (① Cable Adapter Code, See Table 59)	
	Cable Adapter with Jacket Seal for 36 kV 630A Shielded Connector See page 25	CEE YLZ-36/630-J- ① (① Cable Adapter Code, See Table 60)	
	Insulated Plug for 15/25kV 600A Tee Connector See page 18	CEE JYS 15/600 CEE JYS 25/600	
	Insulated Plug for 35kV 600A Tee Connector & 36 kV 630A Shielded Fore-Connector See page 18 & 25	CEE JYS-35/600	
	Insulated Plug for 36kV 630A Shielded Sub-Connector See Page 25	CEE JYS-36/630	
	Insulated Plug for 24 kV 630A Shielded Fore-Connector See page 25	CEE JYS-24/630	
	Clampsticks	CEE G/CZG	

## Note:

- For AWG/KCM sized cable, add suffix conductor size to the part number.  
Example: CEE CCL-AWG2/0, CEE CCL-kcmil 550.

TABLE 48

Conductor Size Use for Part Number CEE BCL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	25	25
	35	35
	50	50
	70	70
	95	95
	120	120
	150	150
	185	185
	240	240
	300	300

TABLE 49

Conductor Size Use for Part Number CEE BBL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	35	35
	50	50
	70	70
	95	95
	120	120
	150	150

TABLE 50

Conductor Size Use for Part Number CEE ACL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	25	25
	35	35
	50	50
	70	70
	95	95
	120	120
	150	150
	185	185
	240	240
	300	300
	400	400

TABLE 51

Conductor Size Use for Part Number CEE ABL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	25	25
	35	35
	50	50
	70	70
	95	95
	120	120
	150	150
	185	185
	240	240
	300	300
	400	400

TABLE 52

Conductor Size Use for Part Number CEE DCL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	35	35
	50	50
	70	70
	95	95
	120	120
	150	150
	185	185
	240	240
	300	300
	400	400

TABLE 53

Conductor Size Use for Part Number CEE DBL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	35	35
	50	50
	70	70
	95	95
	120	120
	150	150
	185	185
	240	240
	300	300
	400	400

TABLE 54

Conductor size Use for Part number CEE CCL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	35	35
	50	50
	70	70
	95	95
	120	120

TABLE 55

Conductor size Use for Part number CEE CBL	Conductor Code	Conductor Cross Section mm <sup>2</sup>
	25	25
	35	35
	50	50
	70	70
	95	95
	120	120

# Connectors, Cable Adapters, Insulated Plug and Clampsticks

TABLE 56

Cable Insulation Range Use for Part number CEE YLZ-15/25/600	Cable Adapter	Cable Insulation Range	
	Code	Inches	mm
	A	.70~.74	18.0~19.0
	B	.74~.80	19.0~20.5
	C	.80~.88	20.5~22.5
	D	.88~.94	22.5~24.0
	E	.94~0.98	24.0~25.0
	F	0.98~1.06	25.0~27.0
	G	1.06~1.14	27.0~29.0
	H	1.14~1.22	29.0~31.0
	I	1.22~1.32	31.0~33.5
	J	1.32~1.42	33.5~36.0

TABLE 57

Cable Insulation Range Use for Part Number CEE YLZ-35/600	Cable Adapter	Cable Insulation Range	
	Code	Inches	mm
	A	1.08~1.20	27.5~30.5
	B	1.14~1.26	29.0~32.0
	C	1.18~1.30	30.0~33.0
	D	1.24~1.36	31.5~34.5
	E	1.30~1.42	33.0~36.0
	F	1.36~1.48	34.5~37.5
	G	1.42~1.58	36.0~40.0
	H	1.54~1.69	39.0~43.0
	I	1.61~1.77	41.0~45.0
	J	1.81~1.97	46.0~50.0

TABLE 58

Cable Insulation Range Use for Part Number CEE YLZ-24/250-J	Cable Adapter	Cable Insulation Range	
	Code	Inches	mm
	A	.53~.65	13.5~16.5
	B	.61~.73	15.5~18.5
	C	.71~.83	18.0~21.0
	D	.79~.91	20.0~23.0
	E	.87~.98	22.0~25.0
	F	.95~1.06	24.0~27.0

TABLE 59

Cable Insulation Range Use for Part Number CEE YLZ-24/630-J	Cable Adapter	Cable Insulation Range	
	Code	Inches	mm
	A	.37~.47	9.5~12.0
	B	.45~.55	11.5~14.0
	C	.53~.65	13.5~16.5
	D	.61~.73	15.5~18.5
	E	.71~.83	18.0~21.0
	F	.79~.91	20.0~23.0
	G	.87~.98	22.0~25.0
	H	.95~1.06	24.0~27.0
	I	1.02~1.18	26.0~30.0
	J	1.10~1.26	28.0~32.0
	K	1.22~1.34	31.0~34.0
	L	1.30~1.42	33.0~36.0
	M	1.38~1.54	35.0~39.0

TABLE 60

Cable Insulation Range Use for Part Number CEE YLZ-36/630-J	Cable Adapter	Cable Insulation Range	
	Code	Inches	mm
	A	.85~.93	21.5~23.5
	B	.93~1.0	23.5~25.5
	C	1.0~1.14	25.5~29.0
	D	1.12~1.26	28.5~32.0
	E	1.24~1.42	31.5~36.0
	F	1.4~1.57	35.5~40.0
	G	1.52~1.69	38.5~43.0
	H	1.63~1.81	41.5~46.0



# CABLE ACCESSORIES & COMPONENTS



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