

Grounding equipment



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Grounding elbow products

Eaton's Cooper Power™ series grounding elbows have become part of the preferred operating procedure for deadfront underground systems because they take advantage of the fault close-in characteristics of loadbreak terminators.

The grounding elbow is molded with high quality yellow EPDM insulating rubber and features a copper connector and tin-plated copper probe complete with an arc follower tip.

Each unit comes standard with 6 foot of either 1/0 or 2/0 600 volt grounding cable. See Ordering Information Table 1 for color choices.

A wide range of ground clamps are available to suit every application from the easy to install locking pliers to clampstick installed ground clamps. The ground clamps have wire ranges from # 8 Solid to 2 inch dia. All ground clamps meet or exceed ASTM F855 standards. See Table 3.

The 15 kV class grounding elbow is a tool that can be used either by itself or with a 200 A, 15 kV class (8.3/14.4 kV) rated feed-thru to visibly ground cables, transformers and switchgear. A grounding elbow at each end of a cable will isolate and ground the cable and keep bushings free from moisture and contamination during the grounding operation. 15 kV class grounding elbows are designed to mate with 200 A loadbreak bushings and accessories rated 8.3/14.4 kV.

The 25 kV class grounding elbow is a tool that can be used either by itself or with a 200 A, 25 kV class (15.2/26.3 kV) rated feed-thru to visibly ground cables, transformers and switchgear. 25 kV class grounding elbows are designed to mate with 200 A loadbreak bushings and accessories rated 15.2/26.3 kV and 35 kV.

The 35 kV Class three-phase grounding elbows are designed for use with 200 A loadbreak bushings and accessories with the same three-phase, 21.1/36.6 kV rating and an interface conforming to IEEE Std 386™ standard – 200 A Loadbreak Interface No. 1, 21.1/36.6 kV (large 35 kV Class interface). The elbow should not be used on 21.1 kV single-phase rated bushings or portable feedthrus. Consult factory for grounding elbows designed for use with large interface 21.1 kV single-phase rated products.

For quick identification, components 21.1/36.6 kV three-phase rated bushings and portable feedthrus are color coded with purple nosepieces; 21.1 kV single-phase rated products have tan nosepieces.

Voltage ratings are in accordance with IEEE Std 386™ standard, Separable Insulated Connector Systems.

Grounding elbows are short circuit rated for 10 kA rms symmetrical for 10 cycles with a X/R of 6 and 3 kA rms symmetrical for 3 seconds with a X/R of 6.

Copper ground cable

Our fine stranded copper cables are made to Class K rope lay for maximum flexibility and conforms to ASTM F855 standards. Standard length is 6 feet (2 meters) and available in several different colors. Other cable sizes and lengths are available. See Ordering Information.



Figure 1. 200 A Single-phase grounding elbow assembly.

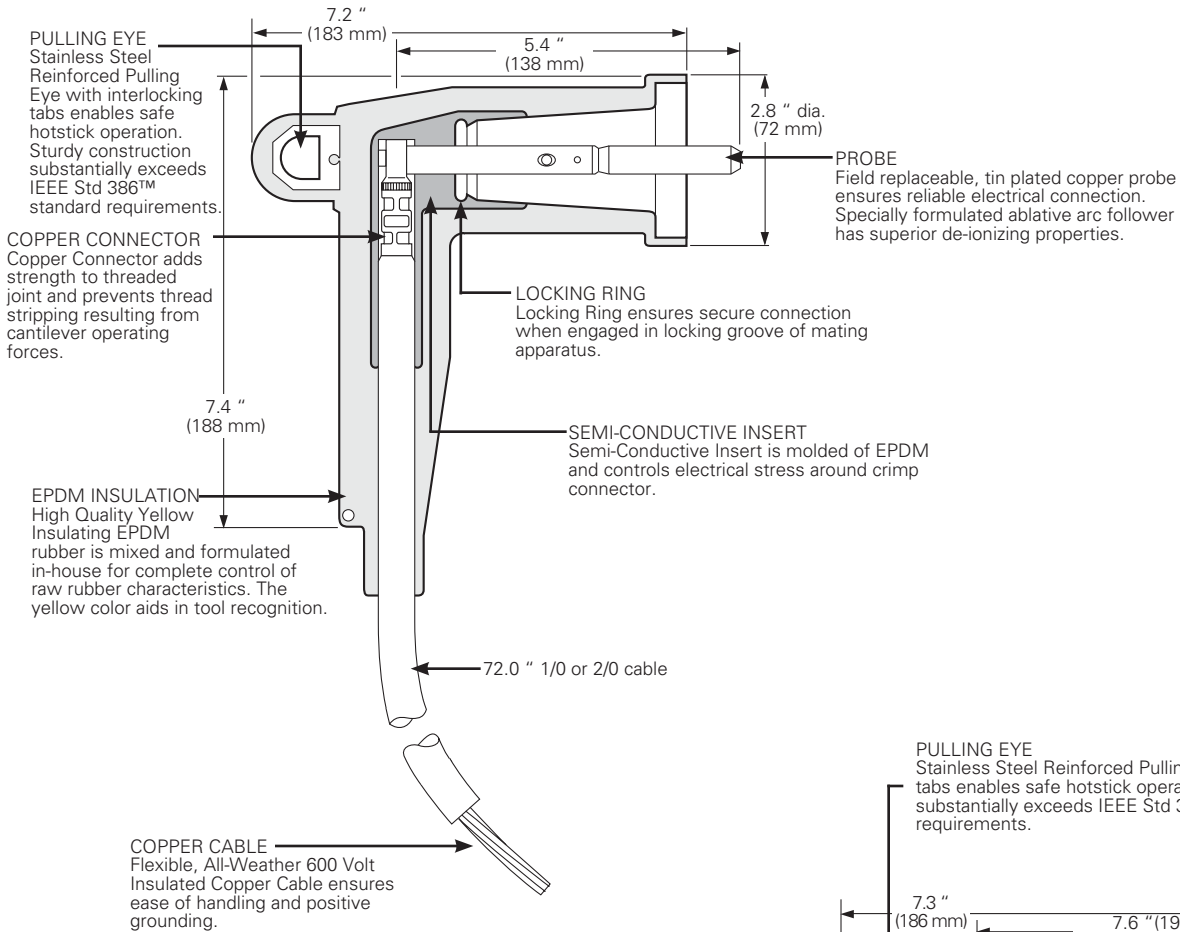


Figure 2. 15 kV grounding elbow.

Note: Dimensions given are for reference only.

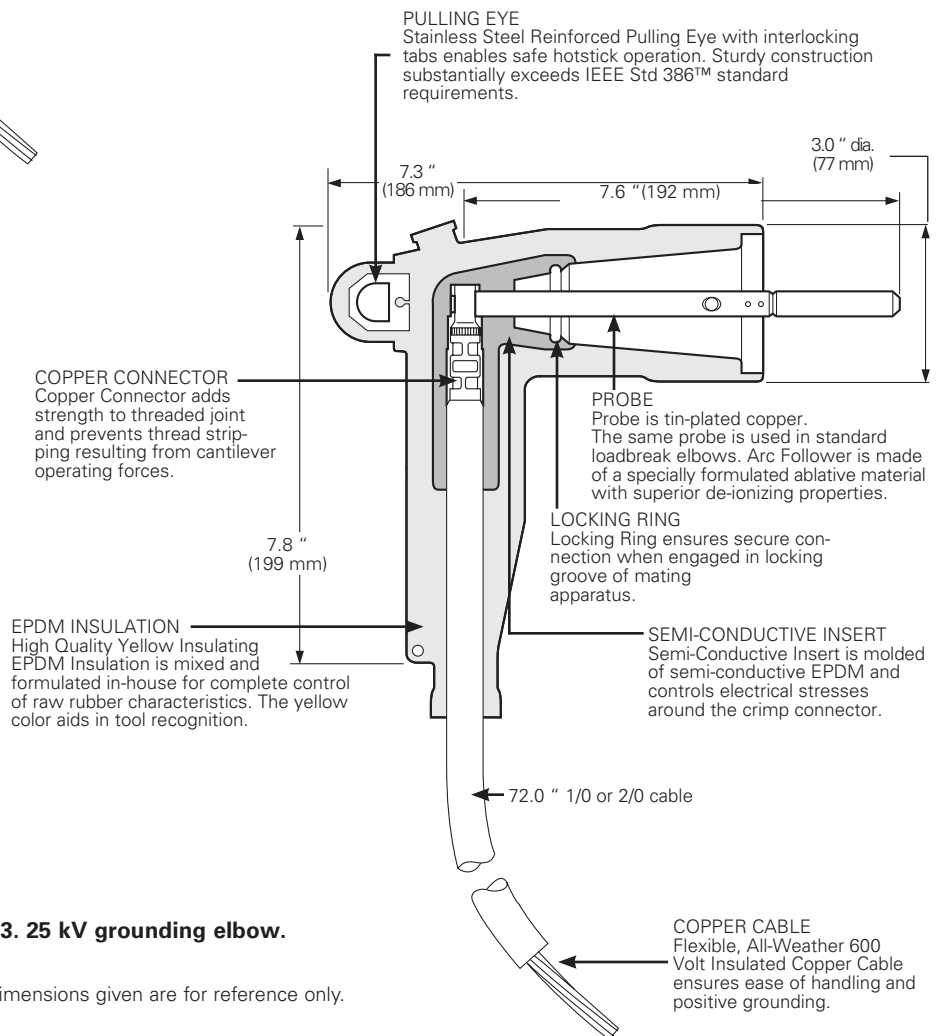


Figure 3. 25 kV grounding elbow.

Note: Dimensions given are for reference only.

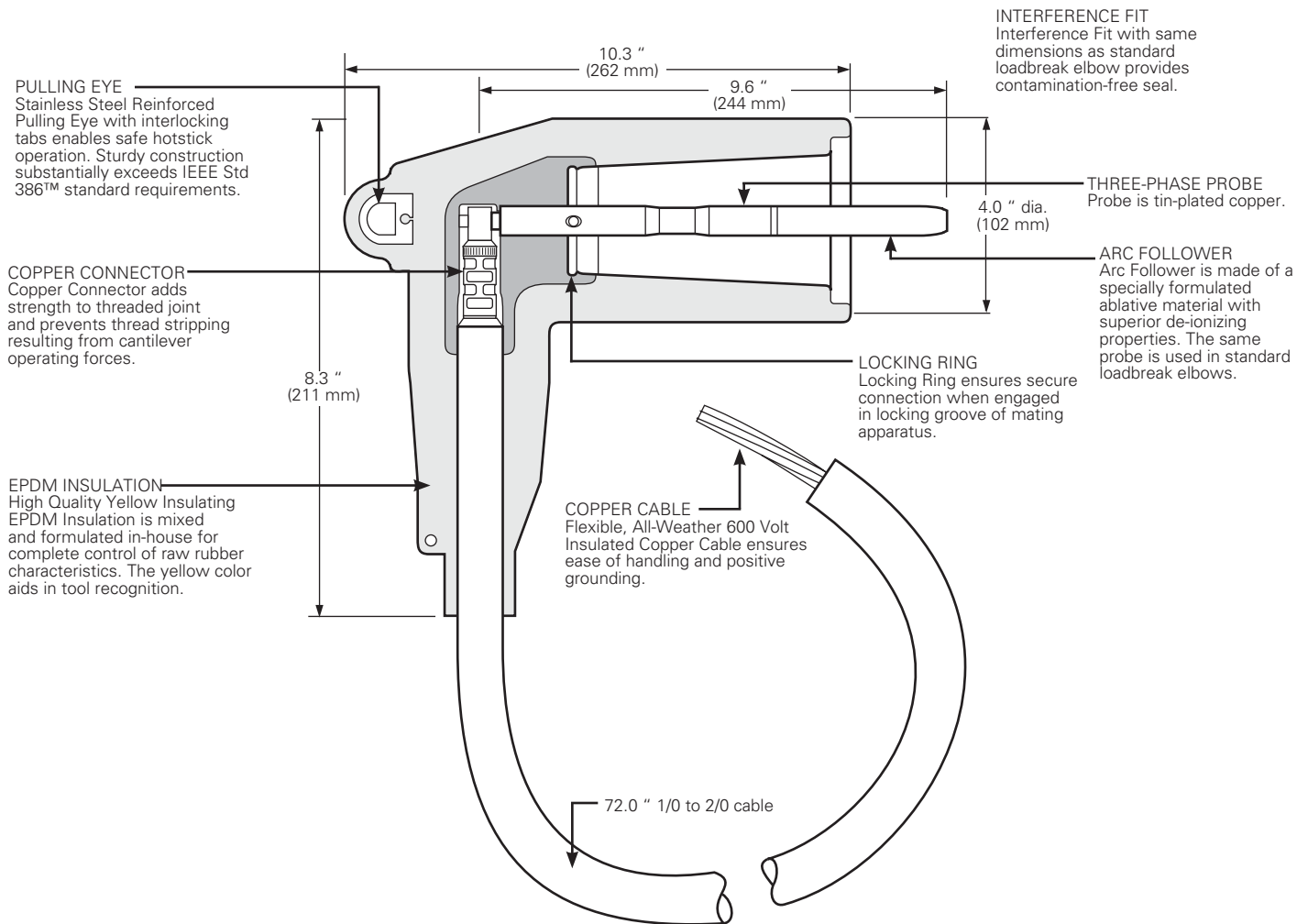


Figure 4. 35 kV grounding elbow.

Note: Dimensions given are for reference only.

Grounding elbow and kits product ratings

Grounding elbow fault closure rating:10,000 A RMS, symmetrical for 0.17s (per IEEE Std 386™ standard).

Table 1. Grounding elbow and kits product ratings ordering information

Digits	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	G	E	2	1	5	1	Y	0	6	0	2	C	K	1

Digits 1 - 3

GE2	Grounding elbow 200 A
------------	-----------------------

Digit 7 Cable color

Y	Yellow
B	Black
C	Clear

Digits 10 - 12 Clamp

From Table 3 determine the clamp to be used for the end of the cable assembly. Fill in digit 10-12 using the Clamp Style numbers shown in the first column of the table. If the clamp style has only one number and one letter, i.e. 2C, add a 0 in front of the number: 02C.

Digits 4 and 5 Voltage class

15	15 kV
25	25 kV
35	35kV Large

Digit 6 Cable size

1	1/0 Cable
2	2/0 Cable
4	4/0 Cable

Digits 8 and 9 Cable length

06	6 feet
08	8 feet
10	10 feet
12	12 feet

Digits 13 and 14, Single-phase or Three-phase Kit

K1	15 kV, 25 kV and 35 kV. See Table 2
K3	15 kV and 25 kV Only. See Table 2

Example: 15 kV elbow with 6' of yellow 1/0 cable and a 3668-100 clamp is: GE2151Y0602CK1

Table 2. Grounding elbow kit replacement parts

Replacement parts	15 kV		25 kV		35 kV
Elbow with 1/0 connector, probe and heatshrink sleeve	GE215-1		GE225-1		GE235-1
Elbow with 2/0 connector, probe and heatshrink sleeve	GE215-2		GE225-2		GE235-2
Probe kit with installation tool, silicone lubricant and installation instructions	PK215		PK225		PK235
Connector 1/0	2638018A06L		2638018A06L		2638018A06L
Connector 2/0	2638018A08L		2638018A08L		2638018A08L
Cable	See Table 5		See Table 5		See Table 5
Clamps	See Table 3		See Table 3		See Table 3
Ferrules	Depending on clamp used. See Table 11		Depending on clamp used. See Table 11		Depending on clamp used. See Table 11
Grounding elbow kits:	1-Phase kit (K1)	3-Phase kit (K3)	1-Phase kit (K1)	3-Phase kit (K3)	1-Phase kit only (K1)
Portable Feed-Thru	LPF215H (1)	LPF215H (3)	LPF225H (1)	LPF225H (3)	LPF235H (1)
Insulating protective cap	LPC215 (1)	LPC215 (3)	LPC225 (1)	LPC225 (3)	LPC235 (1)
Test Probe	2606602A01	2606602A01	2606602A01	2606602A01	2604088B01 (1)
Carrying bag, Small	134957-01	—	134957-02	—	N/A
Carrying bag, Large	—	134958-01	—	134958-02	134958-03
Silicone lubricant, 5.25 oz (150 g) tube	2605670A02M (1 per bag)		2605670A02M (1 per bag)		2605670A02M (1 per bag)

200 A grounding kits

General

The grounding kits provide the operating components required to isolate, test and visibly ground a loadbreak terminator system. The grounding kits are used in deadfront pad-mounted apparatus and underground vaults to isolate, test and ground circuits. Isolating, grounding and moisture sealing faulted cable for later repair is made easy when the grounding kit is used with Eaton's Cooper Power series 200 A, loadbreak products, or other manufacturers' 200 A, loadbreak products meeting the requirements of IEEE Std 386™ standard – Separable Insulated Connector Systems. When mated with similarly rated products, the grounding kit operating components provide a fully-shielded, submersible, separable grounding system.

A sturdy canvas carrying bag is supplied to ensure the operating components of the grounding kit remain clean and ready for service. The kV Class is clearly marked on the bag.

Installation

Determine whether the circuit is de-energized. Attach the grounding elbow cable to the system ground. Insertion of the portable feedthru into the parking stand on apparatus frontplate and movement of the grounding elbow, protective cap, and test probe are accomplished using a hotstick tool. Refer to Operating Instruction Sheet KS200-01-1 for details.



Figure 5. Grounding elbow is molded of bright yellow EPDM rubber for easy identification. Six-foot flexible copper, 600 volt insulated cable is available in 1/0 or 2/0. Elbow is fully rated for fault close to ensure operator safety.



Figure 6. Portable feedthru is used to isolate, test and ground a circuit. Horizontal feedthru is standard. Contact factory for optional vertical feedthru.



Figure 7. Insulated protective cap insulates, shields and moisture seals any loadbreak bushing interface.



Figure 8. Durable canvas carrying bag keeps operating components clean and ready to use. Contents and kV Class are clearly labeled.



Figure 9. Test probe has an eye for easy hotstick handling. It allows electrical access to the bushing contacts so that circuit condition can be confirmed using appropriate test equipment. It should not be used for grounding because it has no fault-close rating.

C-Type grounding clamps

Eaton offers a wide variety of its Cooper Power series grounding clamps in various styles and sizes for different applications. Because of the diversity of products, users are assured of being able to select the exact clamp for the application. Grounding sets can be supplied assembled to your specifications. Consult your Eaton representative or the factory.

Design features

Three general design considerations offer maximum application versatility:

- **Aluminum or bronze construction** – for the best conductivity regardless of conductor material
- **A variety of sizes to fit any job**
- **Sized for the job** – small clamps, ASTM rating 4, ultimate 47,000 A for 15 cycles; medium clamps, ASTM rating 5, ultimate 60,000 A for 15 cycles; large clamps, ASTM rating 6, ultimate 70,000 A for 15 cycles.
- **Resists burring and stripping** – brass eye screws have Acme threads.
- **Superior strain relief** – via stainless steel cable clamps.
- **Economical maintenance** – replaceable serrated jaw inserts save time and money.
- **Better conductivity and corrosion resistance** – brass jaw seats are plated when used in aluminum clamps.
- **Mounting flexibility** – threaded ferrule holes available for 1/2"-13 or 5/8"-11 threaded ferrules.
- **Identification ease** – wire range and catalog number are clearly marked on each clamp.

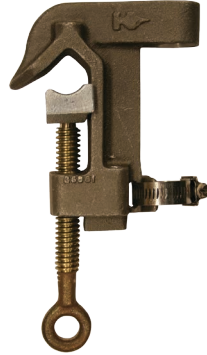


Figure 10.
 Cat. #133035-2AL-S6 (Aluminum), Sty. 15C
 Cat. #133035-2BRZ-S6 (Bronze), Sty. 16C
 Cat. #133035-8AL-S6 (Aluminum), Sty. 17C
 Cat. #133035-8BRZ-S6 (Bronze), Sty. 18C

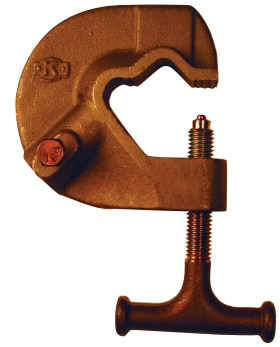


Figure 13.
 Cat. #3620-2-S6 (Aluminum), Sty. 21C
 Cat. #3620-3-S6 (Bronze), Sty. 22C



Figure 11.
 Cat. #133034-2AL-S6 (Aluminum), Sty. 11C
 Cat. #133034-2BRZ-S6 (Bronze), Sty. 12C
 Cat. #133034-8AL-S6 (Aluminum), Sty. 13C
 Cat. #133034-8BRZ-S6 (Bronze), Sty. 14C



Figure 14.
 Cat. #3688-2-S6 (Aluminum), Sty. 20C



Figure 12.
 Cat. #3668-1-S6 (Bronze), Sty. 1C
 Cat. #3668-100-S6 (Bronze), Sty. 2C
 Cat. #3654-100-S6 (Aluminum), Sty. 4C
 Cat. #3654-101-S6 (Aluminum), Sty. 5C



Figure 15.
 Cat. #3669-100-S6 (Bronze), Sty. 7C
 Cat. #3655-1-S6 (Aluminum), Sty. 8C
 Cat. #3655-100-S6 (Aluminum), Sty. 9C

Note: Please refer to Table 3 for grounding clamp styles.

Flat face grounding clamps

Eaton's Cooper Power series heavy-duty flat face ground clamps attach to flat metal surfaces such as busbars, towers, metal poles or other conductive structures.

Design features:

- **Aluminum or bronze construction** – for the best conductivity regardless of conductor material.
- **A variety of sizes fit any job**
- **Jaws with either smooth or serrated surfaces**
- **Sized for the job** – small clamps, ASTM rating 4, ultimate 47,000 A for 15 cycles; medium clamps, ASTM rating 5, ultimate 60,000 A for 15 cycles; large clamps, ASTM rating 6, ultimate 70,000 A for 15 cycles.
- **Resists burring and stripping** – brass eye screws have Acme threads, a superior thread design.
- **Superior strain relief** – via stainless steel cable clamps.
- **Better conductivity and corrosion resistance** – brass jaw seats are plated when used in aluminum clamps.
- **Mounting flexibility** – threaded ferrule holes available for 1/2"-13 or 5/8"-11 threaded ferrules.
- **Identification ease** – wire range and catalog number are clearly marked on each clamp.

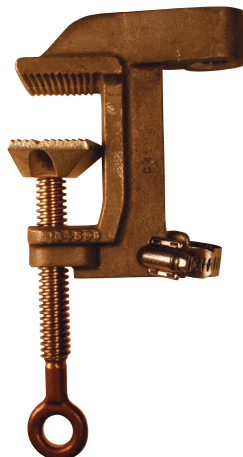


Figure 16.
Cat. #133036-8AL-S6 (Aluminum), Sty. 4F
Cat. #133036-8BRZ-S6 (Bronze), Sty. 5F



Figure 19.
Cat. #3659-S6 (Aluminum), Sty. 1F
Cat. #3673-100-S6 (Bronze), Sty. 3F

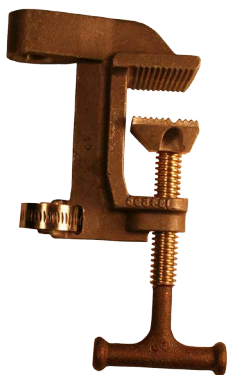


Figure 17.
Cat. #133042-8AL-S6 (Aluminum), Sty. 6F
Cat. #133042-8BRZ-S6 (Bronze), Sty. 7F



Figure 20.
Cat. #3672-100-S6 (Bronze), Sty. 2F

Miscellaneous clamps

Eaton also offers special locking clamp pliers in its Cooper Power series products. More information on the locking clamp pliers can be found on page 14.



Figure 18.
Cat. #133045-S6 (Steel), Sty. 1LP

Note: Please refer to Table 3 for grounding clamp styles.

Table 3. Grounding clamp styles

Clamp style	Material	Clamp range	Cable range	ASTM Rating 15 Cycle withstand	Eye screw Thread	Ferrule thread type	Figure	Catalog number
01C	Bronze	#8 Sol. to 1" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2" Thru Hole	12	3668-1-S6
02C	Bronze	#8 Sol. to 1" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2-13	12	3668-100-S6
04C	Aluminum	#8 Sol. to 1" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2-13	12	3654-100-S6
05C	Aluminum	#8 Sol. to 1" dia.	#2 to 4/0	4 (34 kA)	Acme	1/2-13	12	3654-101-S6
07C	Bronze	#8 Sol. to 2" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2-13	15	3669-100-S6
08C	Aluminum	#8 Sol. to 2" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2" Thru Hole	15	3655-1-S6
09C	Aluminum	#8 Sol. to 2" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2-13	15	3655-100-S6
21C	Bronze	#8 Sol. to 1-3/8" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2-13	13	3620-2-S6
22C	Bronze	#8 Sol. to 1" dia.	#2 to 4/0	4 (34 kA)	Fine	1/2-13	13	3620-3-S6
15C	Aluminum	#8 Sol. to 1" dia.	#2 to 250 MCM	5 (43 kA)	Acme	1/2-13	10	133035-2AL-S6
16C	Bronze	#8 Sol. to 1" dia.	#2 to 250 MCM	5 (43 kA)	Acme	1/2-13	10	133035-2BRZ-S6
17C	Aluminum	#8 Sol. to 1" dia.	#2 to 250 MCM	5 (43 kA)	Acme	5/8-11	10	133035-8AL-S6
18C	Bronze	#8 Sol. to 1" dia.	#2 to 250 MCM	5 (43 kA)	Acme	5/8-11	10	133035-8BRZ-S6
20C	Aluminum	#6 Sol. to 5" dia.	#2 to 4/0	5 (43 kA)	Acme	1/2-13	14	3688-2-S6
11C	Aluminum	#8 Sol. to 2" dia.	#2 to 250 MCM	6 (54 kA)	Acme	1/2-13	11	133034-2AL-S6
12C	Bronze	#8 Sol. to 2" dia.	#2 to 250 MCM	6 (54 kA)	Acme	1/2-13	11	133034-2BRZ-S6
13C	Aluminum	#8 Sol. to 2" dia.	#2 to 250 MCM	6 (54 kA)	Acme	5/8-11	11	133034-8AL-S6
14C	Bronze	#8 Sol. to 2" dia.	#2 to 250 MCM	6 (54 kA)	Acme	5/8-11	11	133034-8BRZ-S6
01F	Aluminum	#8 Sol. to 1-1/2" dia.	# 2 to 4/0	4 (34 kA)	Fine	1/2-13	19	3659-S6
02F	Bronze	#8 Sol. to 1-1/2" dia.	# 2 to 4/0	4 (34 kA)	Fine	1/2-13	20	3672-100-S6
03F	Bronze	#8 Sol. to 1-1/2" dia.	# 2 to 4/0	4 (34 kA)	Fine	1/2-13	19	3673-100-S6
04F	Aluminum	#8 Sol. to 2" dia.	# 2 to 250 MCM	4 (34 kA)	Acme	5/8-11	16	133036-8AL-S6
05F	Bronze	#8 Sol. to 2" dia.	# 2 to 250 MCM	4 (34 kA)	Acme	5/8-11	16	133036-8BRZ-S6
06F	Aluminum	#8 Sol. to 2" dia.	# 2 to 250 MCM	4 (34 kA)	Acme	5/8-11	17	133042-8AL-S6
07F	Bronze	#8 Sol. to 2" dia.	# 2 to 250 MCM	4 (34 kA)	Acme	5/8-11	17	133042-8BRZ-S6
1LP	Steel	.25" to 1.25" dia.	1/0 to 2/0	N/A	N/A	Bolted	18	133045-S6

* Electrical ratings are RMS, symmetrical.

Grounding components

Copper compression ferrules

Ferrules come threaded to match 1/2-13 or 5/8-11 ground clamps and conforms to ASTM F855 standards. Units come with a 6 inch length of transparent heat shrink tubing to provide extra protection against moisture, allow easy inspection of termination joints and provide strain relief. Other cable sizes, threading or plain studs can also be supplied to your specifications.

Shrouded ferrules are “sleeved” over the cable jacket, providing extra protection against flexing and the entrance of moisture into cable strands. Provided with 6 inch length of transparent heat shrink tubing



Figure 22. Plain stud kit.

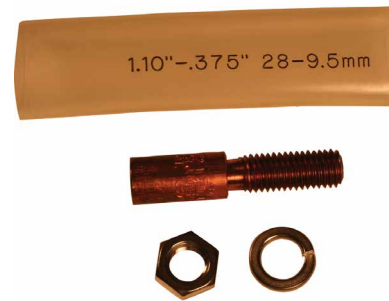


Figure 23. Typical threaded stud kit.

Table 4. Copper compression ferrules

Cable size AWG	Ferrule type	Ferrule style	Kearney™ Installing Die	Burndy® Installing Die	Approx. Wt. (oz.)	ASTM Ratings				Catalog number
						Grade	Continuous current A RMS 60 Hz	Withstand rating Symmetrical kA RMS 60 Hz		
							15 Cycles	30 Cycles		
5/8-11 UNC Thread										
# 2	Plain	58P	737	U677	4	1	200	14.5	10	133043-002-S6
1/0	Plain	58P	840	U168	4.25	2	250	21	15	133043-010-S6
2/0	Plain	58P	840	U168	5	3	300	27	20	133043-020-S6
4/0	Plain	58P	840	U168	5.5	5	400	43	30	133043-040-S6
250	Plain	58P	15/16	U161	6	6	450	54	39	133043-250-S6
1/2-13 UNC Thread										
# 2	Plain	12P	9/16	U164	4	1	200	14.5	13	133023-S6
1/0	Plain	12P	5/8-1	U165	4.25	2	250	21	15	133023-1-S6
2/0	Plain	12P	5/8-1	U165	5	3	300	27	20	133023-2-S6
4/0	Plain	12P	781	NE	5.5	5	400	43	30	133023-3-S6
# 2	Shrouded	12S	9/16 Barrel 737 Shroud	U164 Barrel U677 Shroud	4.5	1	200	14.5	10	133011-S6
1/0	Shrouded	12S	5/8-1 Barrel 840 Shroud	U165 Barrel U168 Shroud	5	2	250	21	15	133011-1-S6
2/0	Shrouded	12S	5/8-1 Barrel 840 Shroud	U165 Barrel U168 Shroud	5	3	300	27	20	133011-2-S6
4/0	Shrouded	12S	781 Barrel 840 Shroud	NE	5.5	5	400	43	30	133011-3-S6
Plain stud										
1/0	Plain	PSP	9/16	U164	4	2	250	21	15	135024-10-S6
2/0	Shrouded	PSS	5/8-1 Barrel 840 Shroud	U165 Barrel U168 Shroud	5	3	300	27	20	133011-2ST-S6

Copper ground cable

Eaton’s Cooper Power series copper grounding cable is available in black, clear and yellow for easy color-coded identification. Our fine stranded copper cables are made of Class K rope lay for maximum flexibility and resistance against damage from bending. The clear jacket cable allows inspection of stranding to spot damage, corrosion or moisture.

When ordering in bulk please specify length. Maximum continuous length is 500 feet.

Table 5. Copper ground cables

Cable size AWG	Jacket type	Class K stranding	Cable Dia.	Approx. Weight Per Ft.	ASTM Ratings		Catalog number	
					Continuous current A RMS 60 Hz	Withstand rating symmetrical kA RMS 60 Hz		
						15 Cycles	30 Cycles	
Black insulation								
# 2	Neoprene	665	0.337	.28 lbs.	200	14.5	10	3807CPS
1/0	Neoprene	1064	0.423	.43 lbs.	250	21	15	3807-1
2/0	Neoprene	1323	0.508	.51 lbs.	300	27	20	3807-3
4/0	Neoprene	2107	0.645	.76 lbs.	400	43	30	3807-2
Clear insulation								
# 2	PVC	665	0.337	.29 lbs.	200	14.5	10	3826-2
1/0	PVC	1064	0.423	.52 lbs.	250	21	15	3826-10
2/0	PVC	1323	0.508	.55 lbs.	300	27	20	3826-20
4/0	PVC	2107	0.645	.84 lbs.	400	43	30	3826-40
Yellow insulation								
# 2	Neoprene	665	0.337	.28 lbs.	200	14.5	10	3827-2
1/0	Neoprene	1064	0.423	.43 lbs.	250	21	15	3827-10
2/0	Neoprene	1323	0.508	.51 lbs.	300	27	20	3827-20
4/0	Neoprene	2107	0.645	.76 lbs.	400	43	30	3827-40

* Electrical ratings are RMS, symmetrical.

Grounding clamp assemblies

Table 6. Grounding clamp and cable assemblies ordering information

Digits	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	G	S	1	0	Y	0	6	F	T	5	8	P	1	8	C	1	8	C
Digits 1 and 2																		
GS		Grounding Clamp and Cable Assy.																
Digits 3 and 4 Voltage																		
02		#2 Cable																
10		1/0 Cable																
20		2/0 Cable																
40		4/0 Cable																
Digit 5 Cable color																		
Y		Yellow																
B		Black																
C		Clear																
Digit 10-12 Ferrule type																		
58P					5/8-11 UNC Thread, plain													
12P					1/2-13 UNC Thread, plain													
12S					1/2-13 UNC Thread, shrouded													
PSP					Plain Stud, No Shroud													
PSS					Plain Stud, Shrouded													
Digit 6 - 9 Cable length																		
04FT					4 feet													
05FT					5 feet													
06FT					6 feet													
08FT					8 feet													
10FT					10 feet													
12FT					12 feet													
15FT					15 feet													
20FT					20 feet													
40FT					40 feet													
Digit 13 - 18 Clamp style																		
					From Table 3 determine the clamp to be used for each end of the cable assembly. Fill in digit 13-18 using the Clamp Style numbers shown in the first column of the table. If the clamp style has only one number and one letter, i.e. 2C, add a 0 in front of the number: 02C.													



Figure 21. Typical grounding clamp and cable assembly.

Temporary grounding sets

Temporary grounding sets present an efficient, economical and easily installed means of temporarily grounding live front, pad-mounted UD transformers and switchgear. Catalog number 133040 employs three pliers and catalog number 133040-1, four pliers. #1/0 600 volt copper ground cables extend 18" on either side of an Eaton's Cooper Power series copper Squeezeon™ connector, to copper spade terminals bolted to copper overlays which are riveted to the stationary jaws of the locking pliers. This construction assures a low resistance current path between connection. Copper connections are compressed and encased in clear, heat shrink sleeves to greatly reduce fatigue at stress points. The locking pliers are steel-plated with jaws adaptable with equal efficiency to flat or round apparatus terminals. Alternate lengths and sizes of ground cable quoted on request.



Figure 25. Temporary grounding set.

An instruction tag wired to each set details installation instructions and cautions against improper application.

Note: The maximum jaw opening for the vise grip clamp is 1-1/4" with the handle locked.

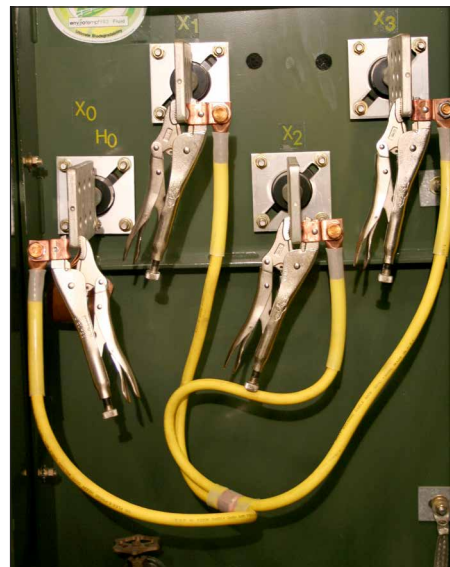


Figure 26. Applied to transformer secondary.

Table 7. Temporary grounding sets

Description	Number of clamps	Cable size	Leg length	Cable Approx. Wt. Each	Short circuit current withstand Symmetrical kA RMS 60 Hz		Catalog number
					15 Cycles	30 Cycles	
Single-Phase set	3	1/0 Black	18"	6.5 lbs.	15.8	13	133040
Three-Phase set	4	1/0 Black	18"	10 lbs.	15.8	13	133040-1
Three-Phase set	4	2/0 Yellow	18"	11 lbs.	15.8	13	133040-2
Accessories							
Replacement clamp assembly for 1/0				1.5 lbs.			133045CPS
Replacement clamp assembly for 2/0				1.5 lbs.			133045-20

Table 8. Temporary grounding sets ordering information

Digits	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	T	G	S	1	0	B	4	3	F	1	0	F	0	2	C	B

Digits 1 - 3

TGS	Ground Clamp & Cable Assy.
-----	----------------------------

Digit 7 Cable sections

3	3 sections
4	4 sections

Digits 10 - 12 Cable length**

02F	2 feet
03F	3 feet
04F	4 feet
05F	5 feet
06F	6 feet
07F	7 feet
08F	8 feet
09F	9 feet
10F	10 feet
15F	15 feet
20F	20 feet
25F	25 feet

Digit 16 - Optional bag

Digits 4 and 5 Cable size

10	1/0 Cable
20	2/0 Cable

Digit 6 Cable color

Y	Yellow
B	Black
C	Clear

Digits 8 and 9* Cable length

2F	2 feet
3F	3 feet
4F	4 feet
5F	5 feet
6F	6 feet
7F	7 feet
8F	8 feet
9F	9 feet
1F	10 feet

Digits 13 - 15 Clamp

From Table 3 determine the clamp for the cable ends. Fill in digit 13-15 with the clamp code. If the clamp style has only one number and one letter, i.e. 2C, add a 0 in front of the number: 02C.

TG1Y41F25F11C03F Add this if the 4th cable section requires a different clamp.

* This cable length applies to the first and second section in three-section set and first, second and third sections in a four-section set.
 ** This cable length applies to the last section only whether it's a two-, three- or four-section set.

Miscellaneous grounding equipment

Clamp clusters

Clamp clusters are an easy and convenient way to provide common point grounding for three-phase grounded neutral systems. They minimize space requirements and the expense of running separate ground lines. Clusters are rated 350 A continuous, 40 kA for 30 cycles.

Table 9. Clamp clusters

Ground clamps	Cluster bar	Catalog number
(3) 3654-100 C-type	36564	3656-1

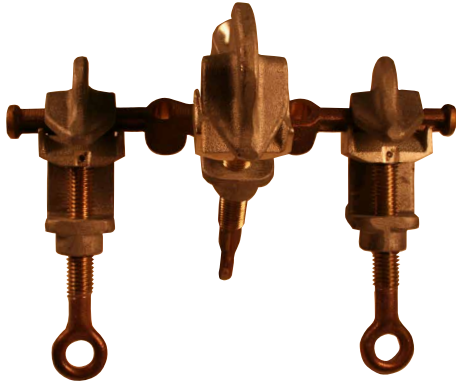


Figure 27. Clamp clusters (Catalog Number 3656-1).

Ground cluster block

High strength, lightweight aluminum cluster block is installed on the pole or structure. The 12” bar accepts up to four clamps, which can be removed with a clampstick and installed on conductors to be grounded. If ferrules are installed in holes provided, cables run from ground clamps to cluster block, and from cluster block to ground.

Table 10. Ground cluster block

Mounting	Catalog number
Poly Strap	3817-1



Figure 28. Ground cluster block (Catalog number 3817-1).

Temporary grounding rod

The temporary grounding rod is a timesaving product for maintenance or testing where there is no permanent ground. It can also be used for applications where there is no system neutral. Auger bit and handle are bronze alloy; shaft is copperweld—delivering high-tensile strength and excellent conductivity. A high-quality T-lug is provided for maximum 2/0 ground cable. If required, compression type threaded ferrules can also be used for ground cable connection.



Figure 29. Temporary grounding rod, 6ft long (Catalog number 133007).

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Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Power Systems Division
2300 Badger Drive
Waukesha, WI 53188
United States
Eaton.com/cooperpowerseries

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