



SAFETY AND GROUNDING CATALOG

INTRODUCTION

Maclean Power Systems Grounding Products have been manufactured for over 25 years for the Power Utility Industry. Our products have been developed by working in conjunction with several utilities to provide Temporary Grounding Products that meet their applications and safety requirements. Our products are recognized for their quality, reliability with the safety of workers as a first priority.

Maclean Power Systems Grounding Products are manufactured to the latest ASTM F855-2009, CAULC-61230 and IEC 61230 Standards. All products have been tested at independent laboratories to the above standards.

- * Grounding assemblies are provided with a certificate of registration that gives traceability for the end user.
- Grounding assemblies have sealing tape and heat shrink over the ferrules and cable end to inhibit moisture penetration and extend the life of the assembly.
- Ball Studs, Grounding Studs and ferrules are machined from 99.9% pure copper to give maximum strength and conductivity. Test reports are available upon request.

Maclean Power Systems products can be used for Temporary Grounding Applications in Generating Stations, in Transmission and Distribution sub stations, on Transmission and Distribution lines and also for underground applications.

Maclean Power Systems has recently tested to Grade 5H and 7H of the latest ASTM F855 Standard. These items are:

- Universal Clamps: 01M037, 01M044, 01M070A, 01M070AHO, HC10041 and HC10041A
- Ferrules: 01M03820 (3H), 01M03840 (5H), 01M03835034HC (7H) EPDM
- Cables: 2/0 cable (3H) 4/0 cable (5H) 350MCM cable (7H)

Maclean Power Systems is aware that the demand for electricity is forever increasing which means that the fault currents available are also increasing this is why we are continuing to develop innovative products that will meet the future demands.

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SINGLE PHASE ASSEMBLIES

D - B CABLE ENDS 1 & 2	2/0 CABLE SIZE	Y JACKET SIZE	10 CABLE LENGTH (L1)
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D-B CABLE ENDS 1 & 2

B = Universal Grounding Clamp 01-M-037

B2 = Two grounding ball studs 25 mm installed on clamp

BD = One grounding ball stud 25 mm installed on right hand side of clamp (jaw facing user)

BG = One grounding ball stud 25 mm installed on left hand side of clamp (jaw facing user)

H = Universal Grounding Clamp 01-M-034

H2 = Two grounding ball studs 20 mm installed on clamp

HD = One grounding ball stud 20 mm installed on right hand side of clamp (jaw facing user)

HG = One grounding ball stud 20 mm installed on left hand side of clam (jaw facing user)

D = Duck Bill Clamp HCDB-117

DS = Duck Bill Clamp with Serrated Jaws HCDB-117S

DP = With parking stud installed

DSP = With parking stud installed

P = 20mm Ball Stud Grounding Clamp HC10015

Q = 25 mm Ball stud Grounding Clamp HC10015-A

C = C-Clamp 01-M-044

C1 = C-Clamp 01-M-044W for 30 mm Ball stud

U = Universal Grounding Clamp HC-10041

UA = Universal Grounding Clamp HC-10041-A

M = Cable with ferrule

G = Universal Grounding Clamp 01-M-070A

V = Universal Grounding Clamp 01-M-080

VA = Universal Grounding Clamp 01-M-080A

J = Universal Grounding Clamp 01-M-070A-HO with fine thread

Note: Add "T" suffix after clamp for T-handle HC-10026

2/0 CABLE SIZE

1/0 = 1/0 AWG (2H)

2/0 = 2/0 AWG (3H)

4/0 = AWG (5H)

350 = 350 MCM (7H)

500 = 500 MCM*

* Special request with HC-10041A and 01-M-080A clamps

Y JACKET TYPE

B = (Class M) EPDM - black opaque

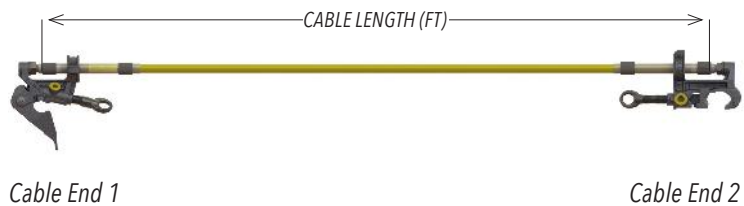
C = (Class M) - orange opaque

E = (Class K) - red opaque

Y = (Class K) EPDM - yellow opaque

10 CABLE LENGTH (L1)

Cable Length in Feet



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Scan code or visit our Resources page at macleanpower.com

THREE PHASE CLUSTER ASSEMBLIES

D - B CABLE ENDS	2/0 CABLE SIZE	Y JACKET TYPE	4 CABLE LENGTH (L1)	Y THREE PHASE ASSEMBLY	8 CABLE LENGTH (L2)
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D-B CABLE ENDS 1 & 2

B = Universal Grounding Clamp 01-M-037

B2 = Two grounding ball studs 25 mm installed on clamp

BD = One grounding ball stud 25 mm installed on right hand side of clamp (jaw facing user)

BG = One grounding ball stud 25 mm installed on left hand side of clamp (jaw facing user)

H = Universal Grounding Clamp 01-M-034

H2 = Two grounding ball studs 20 mm installed on clamp

HD = One grounding ball stud 20 mm installed on right hand side of clamp (jaw facing user)

HG = One grounding ball stud 20 mm installed on left hand side of clamp (jaw facing user)

D = Duck Bill Clamp HCDB-117

DS = Duck Bill Clamp with Serrated Jaws HCDB-117S

DP = With parking stud installed

DSP = With parking stud installed

P = 20mm Ball Stud Grounding Clamp HC10015

Q = 25 mm Ball stud Grounding Clamp HC10015-A

C = C-Clamp 01-M-044

C1 = C-Clamp 01-M-044W for 30 mm Ball stud

U = Universal Grounding Clamp HC-10041

UA = Universal Grounding Clamp HC-10041-A

M = Cable with ferrule

G = Universal Grounding Clamp 01-M-070A

V = Universal Grounding Clamp 01-M-080

VA = Universal Grounding Clamp 01-M-080A

J = Universal Grounding Clamp 01-M-070A-HO with fine thread

2/0 CABLE SIZE

1/0 = 1/0 AWG (2H)

2/0 = 2/0 AWG (3H)

4/0 = AWG (5H)

Y JACKET TYPE

B = (Class K) EPDM - black opaque

C = (Class M) - orange opaque

E = (Class K) - red opaque

Y = (Class K) EPDM - yellow opaque

4 CABLE LENGTH (L1)

Cable Length in Feet

SEQUENCE CONTINUES

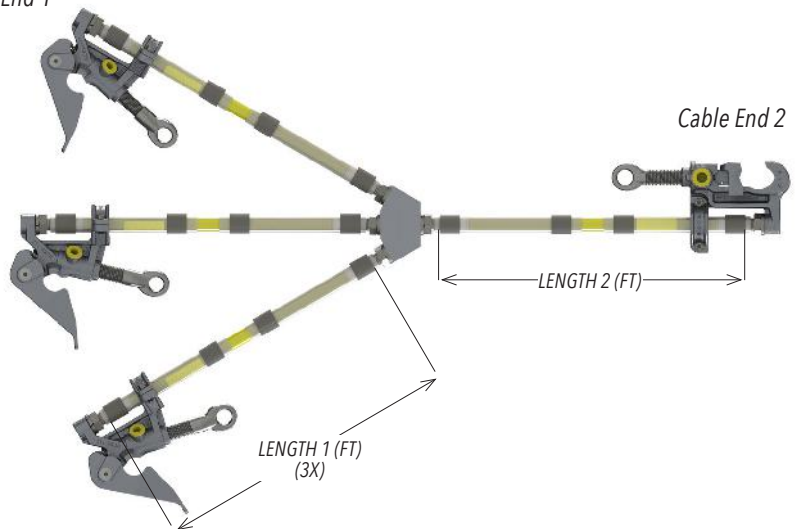
Y LETTER "Y"

Y = Three Phase Assembly

8 CABLE LENGTH (L2)

Cable Length in Feet

Cable End 1



Note: Add "T" suffix after clamp for T-handle HC-10026

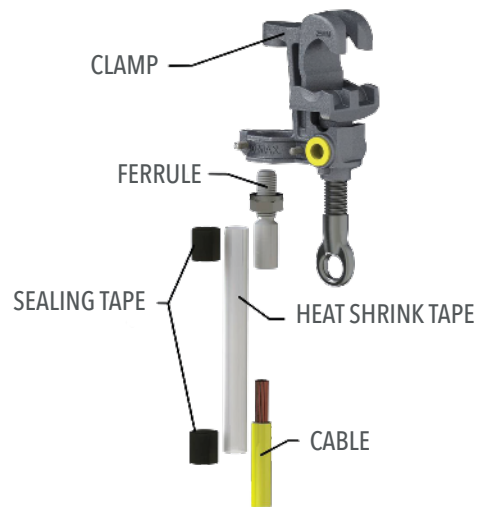


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GROUNDING ASSEMBLIES



CATALOG NUMBER	REQUIRED PER END	LENGTH (IN)
HC10068GC	1	6

NOTE:

- Can order complete 25ft roll HC-10068

TRANSPARENT SILICONE JACKET CABLE

CATALOG NUMBER	REQUIRED PER END	LENGTH (IN)	ID (IN)	FOR CABLE SIZE
HC1006711	1	5.0	1.1	#2 - 2/0
HC10067117	1	7.0	1.1	#2 - 2/0
HC1006715	1	6.0	1.5	4/0
HC10067157	1	7.3	1.5	4/0
HC1006720	1	9.6	1.5	350 - 500 MCM

TRANSPARENT SILICONE JACKET CABLE

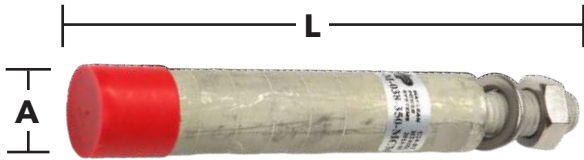
Each kit includes (1) ferrule, sheat shrink tube, and sealing tube

CATALOG NUMBER	FOR CABLE SIZE
KIT01M038352	#2 (1H)
KIT01M0385010	1/0 (2H)
KIT01M03820	2/0 (3H)
KIT01M03840	4/0 (5H)
KIT01M03835034	350 MC (7H)

GROUNDING ASSEMBLIES FEATURES:

- All grounding components can be sold separately
- For other components, see following pages

FERRULES



CATALOG NUMBER	CABLE CALIBER	COMP. DIE HUSKY	COMP. DIE BUNDY	DIM. A	DIM. L	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT
01M038352 (1H)	2 AWG	HT41CE	U-164*	0.625	3	15kA (ASTM) Peak 41kA	11.5kA (ASTM)	0.26 Lbs.
01M038501/0 (2H)	1/0 AWG	HT41CF	U-166	0.690	3	25kA (ASTM) Peak 65kA	18.4kA (ASTM)	0.23 Lbs.
01M0382/0 (3H)	2/0 AWG	HT41CF	U-166	0.750	3	22kA (IEC) 27kA (ASTM)	20kA (ASTM)	0.29 Lbs.
01M0384/0 (5H)	4/0 AWG	HT41CJ	U-168	0.940	3	35kA (IEC) 47kA (ASTM)	30kA (ASTM)	0.37 Lbs.
01M038350 (7H)	350 MCM	HT41BL	U34-RT	1.062	7	40kA (IEC) 75kA (ASTM)	53kA (ASTM)	1.05 Lbs.
01M038500	500 MCM	HT41BP	U39-RT	1.300	7	55kA (IEC) 86.3kA (ASTM)	61kA (ASTM)	1.46 Lbs.

NOTE: * - For 2 AWG transparent silicone jacket cable and 2 AWG yellow jacket cable, use Die U-165

FERRULES FEATURES:

- All ferrules are filled with inhibitive grease to prevent humidity infiltration
- Compression ferrules for 5/8 - 11 UNC threaded type terminal
- Stainless steel hardware (nut and lock washer) and grease cap included
- Tested and certified only with MPS components

MATERIALS:

- 99.9% electrolytic tin-plated copper

GROUNDING BALL STUDS (5H)



GROUNDING BALL STUDS (5H) FEATURES:

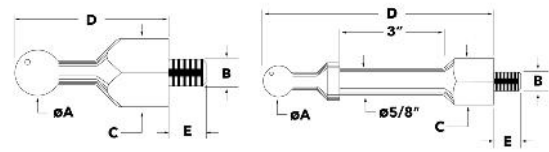
- Permanent grounding ball studs permit universal and ball stud clamps to be used for different electrical systems such as apparatus, bus bar, conductors, vehicles, reels, etc
- Spherical form of grounding ball stud permits installation of grounding clamp at various angles to reach the most inaccessible areas
- Meets ASTM and IEC standards
- Stainless steel hardware (washer, lock washer, and nut) included (if applicable)

MATERIALS:

- 99.9% electrolytic tin-plated copper

CONTINUE TO NEXT PAGE...

GROUNDING BALL STUDS (5H)



CATALOG NUMBER	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	WEIGHT	STD PKG
03M006	20mm	1/2 - 13	0.875	2.9375	No Screw	0.25 Lbs.	25
03M00605	20mm	1/2 - 13	0.875	2.9375	0.5	0.28 Lbs.	25
03M0061*	20mm	1/2 - 13	0.875	2.9375	1	0.38 Lbs.	25
03M026	20mm	1/2 - 13	0.875	4	No Screw	0.6 Lbs.	25
03M02605	20mm	1/2 - 13	0.875	4	0.5	0.7 Lbs.	25
03M02610*	20mm	1/2 - 13	0.875	4	1	0.7 Lbs.	25
HC30015	20mm	1/2 - 13	0.875	6	No Screw	0.8 Lbs.	25
HC3001505	20mm	1/2 - 13	0.875	6	0.5	0.9 Lbs.	25
HC300151*	20mm	1/2 - 13	0.875	6	1	0.9 Lbs.	25
03M027	20mm	5/8 - 11	1	4	No Screw	0.8 Lbs.	25
03M02705*	20mm	5/8 - 11	1	4	0.5	0.9 Lbs.	25
03M0271*	20mm	5/8 - 11	1	4	1	0.9 Lbs.	25
HC30028	20mm	5/8 - 11	1	2.625	No Screw	0.35 Lbs.	25
HC3002805	20mm	5/8 - 11	1	2.625	0.5	0.45 Lbs.	25
HC300281*	20mm	5/8 - 11	1	2.625	1	0.58 Lbs.	25
HC30029	25mm	1/2 - 13	1	3	No Screw	0.48 Lbs.	25
HC3002905	25mm	1/2 - 13	1	3	0.5	0.56 Lbs.	25
HC300291*	25mm	1/2 - 13	1	3	1	0.66 Lbs.	25
HC30036	25mm	1/2 - 13	1	6.25	No Screw	0.88 Lbs.	25
HC3003605	25mm	1/2 - 13	1	6.25	0.5	0.95 Lbs.	25
HC300361*	25mm	1/2 - 13	1	6.25	1	1.04 Lbs.	25
HC30037	25mm	5/8 - 11	1	3	No Screw	0.51 Lbs.	25
HC30033	25mm	5/8 - 11	1	3	0.5	0.46 Lbs.	1
HC300371*	25mm	5/8 - 11	1	3	1	0.74 Lbs.	25
HC30012	30mm	5/8 - 11	1.50	4.375	No Screw	1.15 Lbs.	25
HC3001205	30mm	5/8 - 11	1.50	4.375	0.5	1.35 Lbs.	25
HC300121*	30mm	5/8 - 11	1.50	4.375	1	1.55 Lbs.	25

* - Hardware required

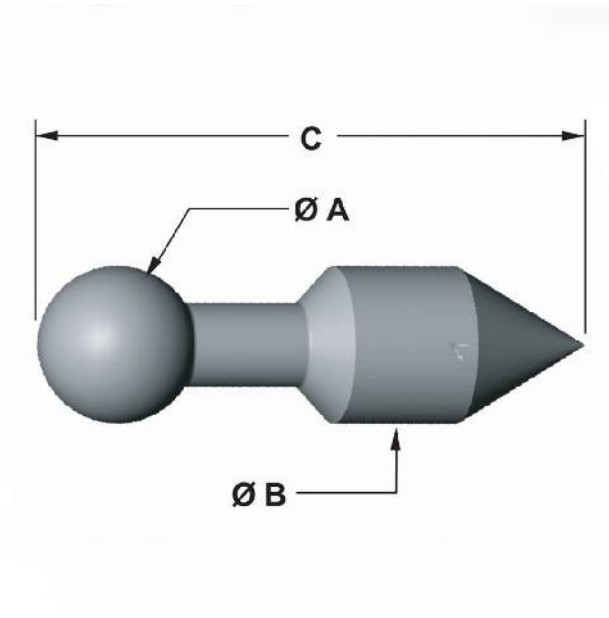
HC-30033 used as a grounding ball stud on 01-M-037

Other length for 'E' available upon request (e.g. HC-30029-3.5 for 3.5" length)

20mm and 25mm grounding ball studs are rated for 35kA per IEC 61230 and 47kA per ASTM F 855

30mm grounding ball studs are rated for 60kA per IEC 61230 and 74kA per ASTM F 855

GROUNDING BALL STUD FOR CADWELD CONNECTIONS



CATALOG NUMBER	DIM. A	DIM. B	DIM. C	WEIGHT	STD PKG
HC3005520	20mm	0.625	2.781	0.2 Lbs.	1
HC3005525	25mm	0.875	4.22	0.3 Lbs.	1
HC3005530	30mm	0.875	3.875	0.4 Lbs.	1

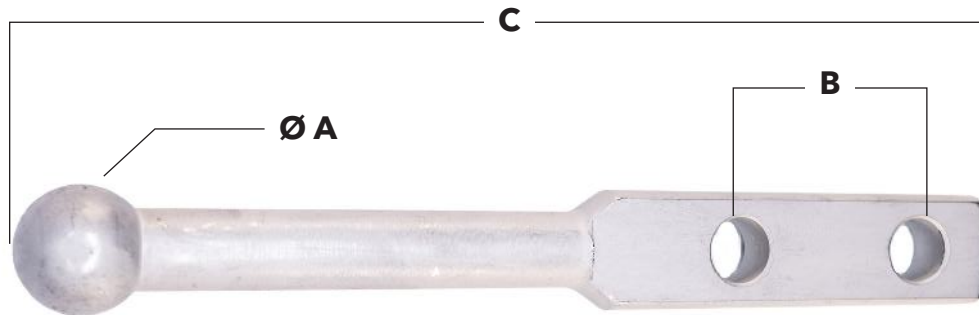
GROUNDING BALL STUD FOR CADWELD CONNECTIONS FEATURES:

- Permanent welded grounding ball stud allowing the installation of either a universal or ball stud grounding clamp to a steel structure
- Grounding ball stud can be installed in most inaccessible areas

MATERIALS:

- 99.9% electrolytic tin-plated copper

GROUNDING BALL STUD FOR NEMA PAD CONNECTIONS (5H)



CATALOG NUMBER	DIM. A	DIM. B	DIM. C	WEIGHT	STD PKG
HC30044	25mm	1.75	7.25	0.90 Lbs.	1
HC30044SCL	25mm	1.75	8.33	1.03 Lbs.	1

GROUNDING BALL STUD FOR NEMA PAD CONNECTIONS (5H) FEATURES:

- Grounding ball stud allowing the installation on NEMA Pad

MATERIALS:

- 99.9% electrolytic tin-plated copper

INSULATED PROTECTIVE CAP



CATALOG NUMBER	DIM. A	DIM. B	GROUND STUD	WEIGHT	STD PKG
01P064	2.50	4.625	20mm	0.20 Lbs.	1
01P06425	3.25	5.875	25mm	0.24 Lbs.	1
01P06430	4.625	7.25	30mm	0.40 Lbs.	1

INSULATED PROTECTIVE CAP FEATURES:

- Used to insulate 20 mm, 25 mm or 30 mm grounding ball studs and protects from contamination
- Handle for installation with a shotgun stick

MATERIALS:

- Polyurethane

GROUNDING CABLE

OPAQUE CLASS "K" YELLOW EDPM JACKET CABLE

CATALOG NUMBER	COLOR	CALIBUR AWG	CONDUCTOR DIAMETER	# OF STRANDS	CABLE DIAMETER	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	TEMP F°	SEPARATOR	WEIGHT LBS/500' REEL
MPSKY2	Yellow	2	.32	661/30	.49	12kA (IEC) 15kA (ASTM)	11.5kA (ASTM)	-58° to 221°	Paper	294
MPSKY10	Yellow	1/0	.42	1050/30	.59	20kA (IEC) 25kA (ASTM)	18.4kA (ASTM)	-58° to 221°	Paper	455
MPSKY201330	Yellow	2/0	.47	1323/30	.63	22kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	-58° to 221°	Paper	539
MPSKY40	Yellow	4/0	.59	2107/30	.80	35kA (IEC) 47kA (ASTM)	29.4kA (ASTM)	-58° to 221°	Paper	857

TRANSPARENT SILICONE JACKET CABLE

CATALOG NUMBER	COLOR	CALIBUR AWG	CONDUCTOR DIAMETER	# OF STRANDS	CABLE DIAMETER	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	TEMP F°	SEPARATOR	WEIGHT LBS/500' REEL
MPSS10	Clear	1/0	.44	1050/30	.65	20kA (IEC) 25kA (ASTM)	18.4kA (ASTM)	-58° to 221°	None	455
MPSS20	Clear	2/0	.50	1323/30	.70	22kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	-58° to 221°	None	565
MPSS40	Clear	4/0	.64	2107/30	.84	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	-58° to 221°	None	871

OPAQUE CLASS "K" RED EPDM JACKET CABLE

CATALOG NUMBER	COLOR	CALIBUR AWG	CONDUCTOR DIAMETER	# OF STRANDS	CABLE DIAMETER	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	TEMP F°	SEPARATOR	WEIGHT LBS/500' REEL
MPSKR2	Red	2	.32	651/30	.49	12kA (IEC) 15kA (ASTM)	11.5kA (ASTM)	-58° to 221°	Paper	294
MPSKR10	Red	1/0	.42	1050/30	.59	20kA (IEC) 25kA (ASTM)	18.4kA (ASTM)	-58° to 221°	Paper	455
MPSKR20	Red	2/0	.47	1323/30	.63	22kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	-58° to 221°	Paper	539
MPSKR40	Red	4/0	.59	2107/30	.80	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	-58° to 221°	Paper	857

OPAQUE CLASS "M" RED EPDM JACKET CABLE

CATALOG NUMBER	COLOR	CALIBUR AWG	CONDUCTOR DIAMETER	# OF STRANDS	CABLE DIAMETER	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	TEMP F°	SEPARATOR	WEIGHT LBS/500' REEL
MPSMO20	Orange	2/0	.47	3300/34	.65	22kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	-58° to 194°	Paper	549
MPSMO40	Orange	4/0	.59	5225/34	.83	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	-58° to 194°	Paper	871

OPAQUE CLASS "K" BLACK EPDM JACKET CABLE

CATALOG NUMBER	COLOR	CALIBUR AWG	CONDUCTOR DIAMETER	# OF STRANDS	CABLE DIAMETER	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	TEMP F°	SEPARATOR	WEIGHT LBS/500' REEL
MPSKB350	Black	350 mcm	.66	3432/30	1.06	40kA (IEC) 68kA (ASTM)	51.3kA (ASTM)	-58° to 194°	Paper	1369
MPSKB500	Black	500 mcm	.95	5054/30	1.25	55kA (IEC) 86.3kA (ASTM)	61kA (ASTM)	-58° to 194°	Paper	1949

GROUNDING CLAMPS

MacLean Grounding Solutions

The construction and maintenance of transmission and distribution overhead lines and substations require products that provide operator efficiency and safety.

MPS lightweight aluminum alloy safety grounds meet the requirements of IEC 61230 and ASTM F-855 for distribution and transmission applications. MacLean Power Systems offers a wide array of personal grounding products, safety and warning systems, hand tools and accessories that assist utilities in meeting OSHA 1910.269 requirements for worker safety.

Grounding Clamps

- Can be installed on all electrical facilities, apparatus, tubes, ball stud and various equipment (trucks, pulling equipment, etc)
- 2" IPS C-Clamp for substation application
- Versatile range of clamps including C-Clamp, duckbill, and ball stud
- Ability to install with hot stick (standard eye screw) or T-handle options
- Stress-relief to reduce cable damage and serve as a shock damper if fault occurs
- Lubrication chamber for upkeep of threads
- Grade 5H, 6H, and 7H certified
- All clamps use 5/8-11 Ferrule. (HC10041A and 01M080A uses 3/4-10 size ferrule)

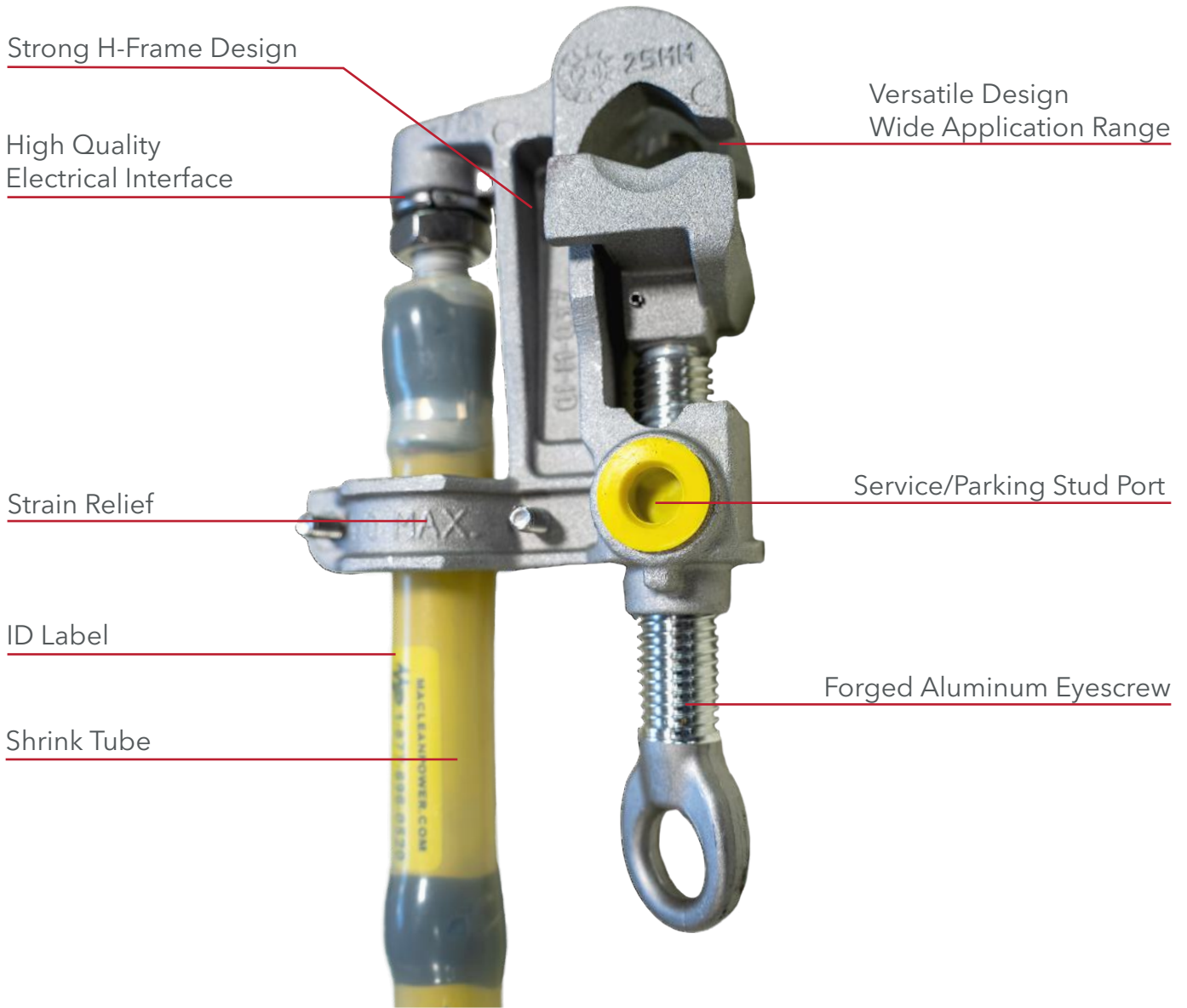


CATALOG NUMBER	JUMPER CABLE		MAIN CONDUCTOR (in.)		CLAMP DESCRIPTION	DISTRIBUTION	SUBSTATION	TRANS.	FAULT CURRENT RATING
	MIN.	MAX.	MIN.	MAX.					
HC-10015A	#2	4/0	25mm	25mm	Bronze Ball Stud Clamp	X	X	-	5H
			Grounding Ball Stud	Grounding Ball Stud					
01-M-070A*	#2	4/0	(0.16), #6	(2-3/8), 2" IPS	Universal C-Clamp 25&30mm Ball	X	X	X	
01-M-080	#4	4/0	(0.16), #6	(2.875)	Universal C-Clamp	X	X	X	
01-M-080A	350 MCM	350 MCM	(0.16), #6	(2.875)	Universal C-Clamp	X	X	X	6H

Grade 5H: 47kA current rating at 15 cycles, 126kA maximum peak, 70kA last cycle peak
 Grade 6H: 55kA current rating at 15 cycles, 148kA maximum peak, 82kA last cycle peak
 Grade 7H: 68kA current rating at 15 cycles, 183kA maximum peak, 101kA last cycle peak

*Add HO for Fine Thread option

UNIVERSAL GROUNDING CLAMPS' FEATURES



C-CLAMP, DISTRIBUTION (5H)



CATALOG NUMBER	GROUND STUD	JUMPER CABLE MIN	JUMPER CABLE MAX	MAIN COND. MIN	MAIN COND. MAX	JAW OPENING	TESTED 15 CYCLES	MAXIMUM PEAK	LAST CYCLE PEAK	WEIGHT	STD PKG
01M035 (5H)	20 mm	2 AWG	4/0 AWG	#8 (.13)	556 (.86)	1.38	35kA (IEC) 47kA (ASTM)	126kA (ASTM)	70kA	1.3 Lbs.	20
01M037 (5H)	25 mm	2 AWG	4/0 AWG	#8 (.13)	795 (1.13)	1.38	46kA (IEC) 47kA (ASTM)	126kA (ASTM)	70kA	1.4 Lbs.	20

NOTES:

- For "T" Handle screw, add suffix "-T" to catalog number
- HC30033 ball stud can be used as a Grounding Stud with 01M037

C-CLAMP, DISTRIBUTION (5H) FEATURES:

- Can be installed on all electrical facilities, apparatus, tubes, and conductors as well as various equipments (trucks, pulling equipment, etc.)
- Installation on conductor, round bus bar and grounding ball stud of 20 mm and 25 mm
- Tested to ASTM F-855-2009, IEC 61230, CAN-ULC 61230
- Stress relief to reduce cable damage and serve as a shock damper if fault occurs, which protects cable strands
- Locations on each side of clamp for 20 mm or 25 mm grounding ball studs installation, which serve as support studs for either a grounding cluster or cascade assembly
- Fitted to receive a 5/8-11 UNC threaded stud ferrule
- Lubrication chamber for upkeep of threads
- Installation eye for installing clamp with shotgun stick
- Double internal threads for fast removal
- Tested and certified only with MPS components

MATERIALS:

- Body and Eye Screw
- Aluminum A356T6

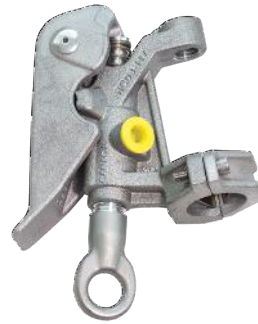
T-HANDLE OPTION:

- Used to attach grounding clamp by hand
- Fits all MPS grounding clamps and most industry grounding clamps

MATERIALS:

- Aluminum

DUCK BILL CLAMP, DISTRIBUTION (5H)



CATALOG NUMBER	DIMENSIONS	JUMPER CABLE MIN	JUMPER CABLE MAX	MAIN COND. MIN	MAIN COND. MAX	TESTED 15 CYCLES	MAXIMUM PEAK	LAST CYCLE PEAK	WEIGHT	STD PKG
HCDB117 (5H)	6.875 x 5.5 x 2.875	#2	4/0	6 AWG (.16)	900 MCM (1.162)	35kA (IEC) 47kA (ASTM)	126kA	70kA	1.2 Lbs.	20
HCDB117S (5H)	6.875 x 5.5 x 2.875	#2	4/0	6 AWG (.16)	900 MCM (1.162)	35kA (IEC) 47kA (ASTM)	126kA	70kA	1.2 Lbs.	20

NOTES:

- For Parking Stud, add suffix 'P' to catalog number
- For 'T' Handle screw, add suffix 'T' to catalog number

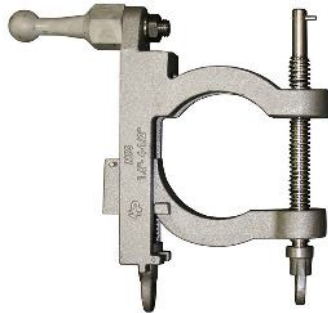
DUCK BILL CLAMP, DISTRIBUTION (5H) FEATURES:

- Tested on continuous current at 400A with 2/0 - 35kV jumper cable
- Tested and certified only with MPS components
- Stress relief to reduce cable damage and serve as a shock damper if fault occurs, which protects cable strands
- Lubrication chamber for upkeep of threads

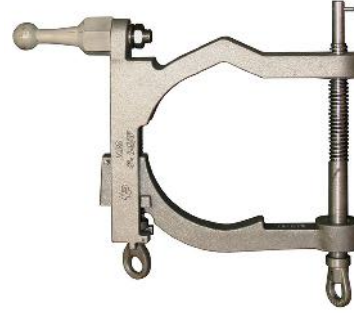
MATERIALS:

- Body and Eye Screw
- Aluminum A356T6

GROUNDING CONNECTOR FOR 1.5" - 4.5" TUBES OR BARS



01-M-047



01-M-062

CATALOG NUMBER	CONNECTION	CLAMPING RANGE (in.)		DISTRIBUTION	SUBSTATION	TRANS.	FAULT CURRENT RATING
		MIN.	MAX.				
01M046	03-M-015 Grnd Stud			X	X	X	5H
01M047	25mm Ball Stud	1.6 Round or Flat	4.5 Round or Flat	X	X	X	
01M048	30 mm Ball Stud			X	X	X	
01M061	03-M-015 Grnd Stud			X	X	X	
01M062	25 mm Ball Stud	4.5 Round or Flat	6.625 Round or Flat	X	X	X	
01M063	30 mm Ball Stud			X	X	X	

Grade 5H: 47kA current rating at 15 cycles, 126kA maximum peak, 70kA last cycle peak

GROUNDING CONNECTOR FOR 1.5" - 4.5" TUBES OR BARS FEATURES:

- Grounding stud connectors designed to fit either a 1.6" to 4.5" IPS or a 4.5" to 6.625" IPS tube or flatbar
- Installed with a hot stick without the weight of the grounding cable
- Allows use of a grounding cable with smaller clamps to minimize weight
- Available with 25 mm ball stud, 30 mm ball stud or parking stand
- Lubrication chamber for upkeep of threads
- Grade 5H certified

UNIVERSAL CLAMP, TRANSMISSION (5H/7H)



CATALOG NUMBER	DIMENSIONS	GROUND STUD	JUMPER CABLE MIN	JUMPER CABLE MAX	MAIN COND. MIN	MAIN COND. MAX	JAW OPENING	TESTED 15 CYCLES	LAST CYCLE PEAK	WEIGHT	STD PKG
HC10041 (5H)	15.5 x 6.5 x 3.25	30 mm	#2	4/0	1/0 (.40)	1796 (1.60)	2"	55kA (IEC) 47kA (ASTM)	70kA	3.9 Lbs.	6
HC10041A (5H)	15.5 x 6.5 x 3.25	30 mm	#2	350 MCM	1/0 (.40)	1796 (1.60)	2"	55kA (IEC) 68kA (ASTM)	101kA	3.9 Lbs.	6

NOTES:

- * HC10041A is threaded to receive 3/4 ferrules only
- For 'T' Handle screw, add suffix 'T' to catalog number

UNIVERSAL CLAMP, TRANSMISSION (5H/7H) FEATURES:

- Can be installed on all electrical facilities, apparatus, tubes, and conductors as well as various equipment (trucks, pulling equipment, etc.)
- Installation on conductor, round bus bar and grounding ball stud of 30 mm
- Tested to 5H (HC-10041) and 7H (HC-10041-A)
- Tested and certified only with MPS components
- Stress relief to reduce cable damage and serve as a shock damper if fault occurs, which protects cable strands
- Fitted to receive a 5/8-11 or 3/4-10 UNC threaded stud ferrule
- Lubrication chamber for upkeep of threads
- Double internal threads for fast installation and removal
- No exposed threads for minimal maintenance

MATERIALS:

- Body and Eye Screw
- Aluminum A356T6

UNIVERSAL CLAMP, 2" IPS 'C' CLAMP (5H)



CATALOG NUMBER	GROUND STUD	JUMPER CABLE MIN	JUMPER CABLE MAX	JAW OPENING	MAIN COND. MIN	MAIN COND. MAX	TESTED 15 CYCLES	MAXIMUM PEAK	LAST CYCLE PEAK	WEIGHT
01M044	25 mm	#2	4/0	2.50"	(0.13) 4 AWG	2.375"	47kA	126kA	70kA	2.6 Lbs.

NOTES:

- For 'T' Handle screw add suffix 'T' to catalog number
- 01-M-044 will fit 25 mm ball stud

UNIVERSAL GROUNDING CLAMP - 2" IPS 'C' CLAMP (5H) FEATURES:

- Can be installed on all electrical facilities, apparatus, round bus bar and flat bus bar as well as various equipment (trucks, pulling equipment etc.).
- Installation eye for use with shotgun stick
- This universal clamp can also be used on a jumper cable
- 01-M-044 fitted to receive a 5/8-11 UNC threaded stud ferrule
- Stress relief to reduce cable damage and serves as shock damper if fault occurs
- Lubrication chamber for upkeep of thread
- Tested and certified only with MPS components

BENEFITS:

- Lightweight and easy to use
- Compact design allows use in restrained areas
- Wide range taking allows for use in several grounding applications

MATERIALS:

- Aluminum body, keeper and eye screw A356T6

BALL STUD GROUNDING CONNECTOR (5H)



CATALOG NUMBER	CONDUCTOR	BALL STUD INCLUDED (CATALOG NUMBER)	BOLTA	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT (LBS)	STD PKG
HC3002520	1796 & 4000 MCM	20MM (03-M-006)	5/8 - 11 UNC	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	10.9 Lbs.	10
HC3002525	1796 & 4000 MCM	25MM (HC-30029)	5/8 - 11 UNC	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	10.9 Lbs.	10
HC3002530	1796 & 4000 MCM	30MM (HC-30012)	5/8 - 11 UNC	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	10.9 Lbs.	10

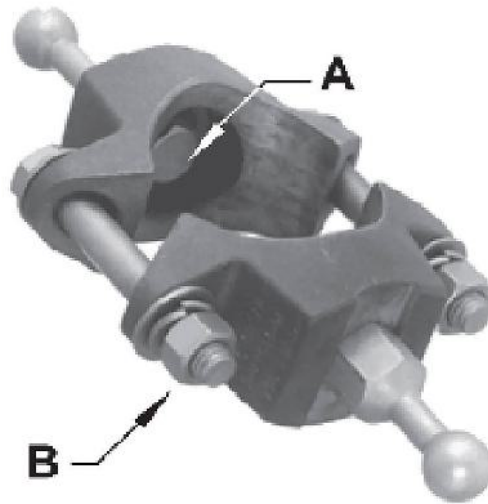
BALL STUD GROUNDING CONNECTOR (5H) FEATURES:

- Permanent ball grounding connector to install on conductor or tubes for easy installation of temporary ground sets
- Stainless steel hardware included

MATERIALS:

- Connector: Aluminum A356T6
- Ball Stud: 99.9% electrolytic tin-plated copper

GROUNDING CONNECTOR FOR TUBE



CATALOG NUMBER	TUBE (IPS)	EXTERNAL DIAMETER	BALL STUD INCLUDED (CATALOG NUMBER)	BOLT A	BOLT B	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT	STD PKG
HC30005125	1.50	1.875	1 x 25mm (HC30029)	1/2 - 13	3/8 - 16	35kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	4.5 Lbs.	10
HC30005225	1.50	1.875	2 x 25mm (HC30029)	1/2 - 13	3/8 - 16	35kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	5.0 Lbs.	10
HC30006125	2	2.375	1 x 25mm (HC30029)	1/2 - 13	1/2 - 13	35kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	4.5 Lbs.	10
HC30006225	2	2.375	2 x 25mm (HC30029)	1/2 - 13	1/2 - 13	35kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	5.1 Lbs.	10
HC30007125	2.5	2.875	1 x 25mm (HC30029)	1/2 - 13	1/2 - 13	35kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	4.5 Lbs.	10
HC30007225	2.5	2.875	2 x 25mm (HC30029)	1/2 - 13	1/2 - 13	35kA (IEC) 31kA (ASTM)	23.6kA (ASTM)	5.0 Lbs.	10

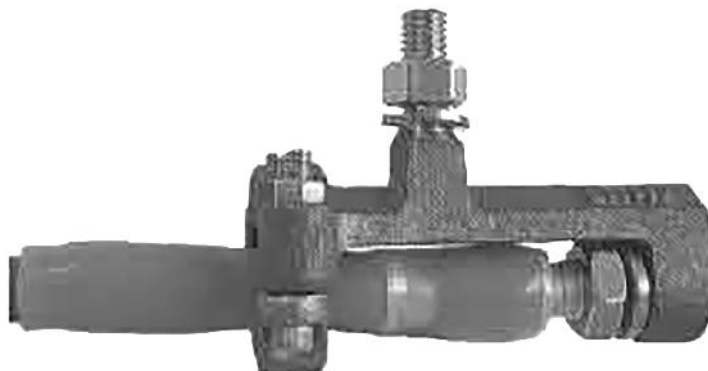
GROUNDING CONNECTOR FOR TUBE FEATURES:

- Permanent ball grounding connector to install on vertical riser tube, solid rod or connector for easy installation or temporary grounding sets
- Meets ASTM and IEC standards
- Stainless steel hardware included

MATERIALS:

- HC-30005/6/7
 - Connector: Bronze
 - Ball Stud: 99.9% electrolytic tin-plated copper
- HC-30008/9
 - Connector: Aluminum
 - Ball Stud: 99.9% electrolytic tin-plated copper

FERRULE ADAPTER



CATALOG NUMBER	JUMPER CABLE MIN	JUMPER CABLE MAX	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT
HC10043	#2	4/0	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	1.2 Lbs.

FERRULE ADAPTER FEATURES:

- Serves as an interface between jumper cable equipped with a stud ferrule, a grounding clamp or apparatus
- Fitted to receive a 5/8 - 11 UNC threaded stud ferrule
- Shock damper reduces stress to cable

MATERIALS:

- Bronze

GROUNDING ASSEMBLY CARRYING BAG



CATALOG NUMBER

01C02525

DIMENSIONS

25 x 25 x 2"

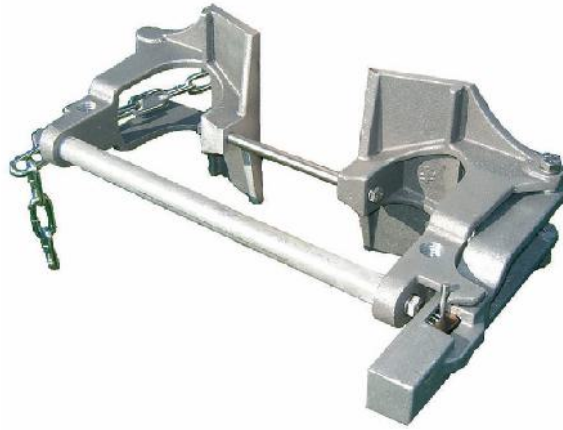
GROUNDING ASSEMBLY CARRYING BAG FEATURES:

- Orange carrying bag to permit storage and handling of up to three grounding assemblies

MATERIALS:

- Orange vinyl 19oz

GROUNDING CLUSTER BLOCK



CATALOG NUMBER	MOUNTING	WEIGHT	STD PKG
HC10111	Chain Tightener	6.7 Lbs.	2

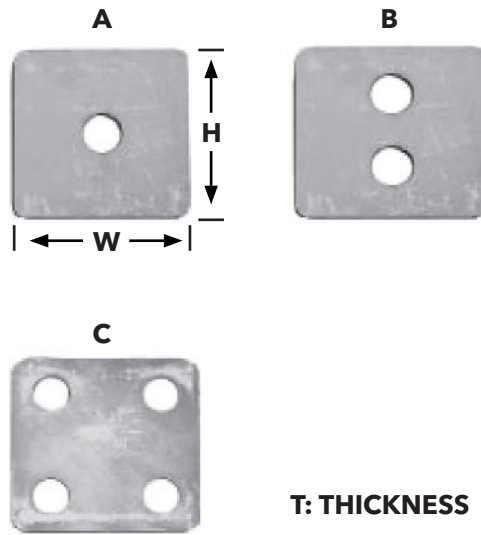
GROUNDING CLUSTER BLOCK FEATURES:

- For installation on a pole or structure. The 11.5" bar accepts up to four grounding clamps
- Block also has two threaded holes to accept 5/8 - 11 UNC ferrules
- Rating: 47kA ASTM F-855-2009

MATERIALS:

- Bar: 3/4" tinned copper

GROUNDING PLATES (5H)



CATALOG NUMBER	TYPE	DIM. T	DIM. W	DIM. H	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT
HC30022	A	0.375	3.0	3.0	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	0.9 Lbs.
HC30054	A	0.25	3.0	6.0	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	1.6 Lbs.
HC30017	A	0.25	3.0	3.0	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	0.4 Lbs.

NOTES:

- To specify for 5/8" hardware, add suffix "-5/8"
- To specify for 1/2" hardware, add suffix "-1/2"

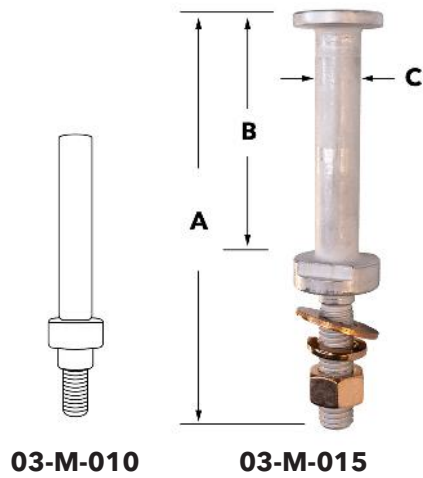
GROUNDING PLATES (5H) FEATURES:

- Permits installation of a grounding ball stud on a galvanized steel surface of any other surface to increase contact surface

MATERIALS:

- 99.9% electrolytic tin-plated copper

GROUNDING STUDS AND TERMINAL



CATALOG NUMBER	DESCRIPTION	CONNECTOR MATERIAL	DIM. A	DIM. B	DIM. C	DIM. THREAD	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT	STD PKG
03M010	Grounding Stud	Tin-Plated Copper	3.625	2.36	0.4375	3/8 - 16 UNC	12kA (IEC) 15kA (STM)	11.5kA (ASTM)	0.7 Lbs.	25
03M015	Grounding Stud	Tin-Plated Copper	7.125	4.125	0.75	5/8 - 11 UNC	55k (IEC) 68kA (ASTM) Grade 7H	51.3kA (ASTM)	1.24 Lbs.	25

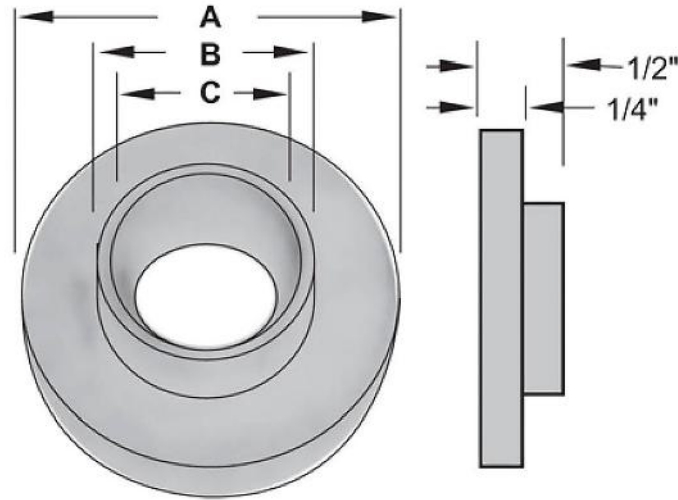
NOTES:

- 03M010 includes stainless steel hardware (lock washers, flat washers, and nut)
- 03M015 includes bronze hardware (lock washers, flat washers, and nut)

GROUNDING STUDS AND TERMINALS FEATURES:

- Can be installed on all electrical facilities such as apparatus, tubes, conductors, tracks, pulling equipment, etc

REDUCER SPACER



CATALOG NUMBER	DIM. A	DIM. B	DIM. C	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT
HC10016	1.07	0.625	0.531	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	0.1 Lbs.

REDUCER SPACER FEATURES:

- Reduces a 5/8" diameter hole in a grounding plate to a 1/2" hole for a grounding ball stud installation

MATERIALS:

- 99.9% electrolytic tin-plated copper

TEMPORARY GROUNDING ROD



CATALOG NUMBER	MAXIMUM CONDUCTOR SIZE	OVERALL DIMENSIONS	WEIGHT
133007	2/0 AWG Class "K"	1/2" Diameter x 6 Feet	29.0 Lbs.

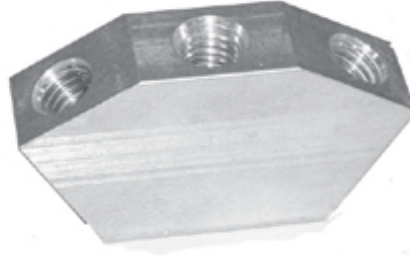
TEMPORARY GROUNDING ROD FEATURES:

- A time saving product for maintenance or testing where there is no permanent ground. It can also be used for applications where there is no system neutral
- T-Lug is provided for a maximum 2/0 ground cable
- If required, compression type threaded ferrules can also be used for ground cable connection

MATERIALS:

- Auger bit and handle: Bronze alloy
- Shaft: Copperweld

THREE WAY GROUNDING BLOCK (5H)



CATALOG NUMBER	JUMPER CABLE MIN	JUMPER CABLE MAX	DIM. A	DIM. B	DIM. C	DIM. THREAD	CAPACITY 15 CYCLES	CAPACITY 30 CYCLES	WEIGHT
HC10093 (5H)	2 AWG	4/0 AWG	3.75	2.375	2	1	35kA (IEC) 47kA (ASTM)	35.4kA (ASTM)	0.3 Lbs.

THREE WAY GROUNDING BLOCK (5H) FEATURES:

- Connection joint in a temporary grounding three phase assembly
- Tested up to 47kA (ASTM) and 35kA (IEC)
- Tested and certified only with MPS components

MATERIALS:

- Aluminum 6061-T6

JUMPERING ASSEMBLIES

DP CABLE END 1	D CABLE END 2	15 CABLE INSULATION (KV)	1/0 SIZE (AWG)	6 CABLE LENGTH
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DP CABLE END 1

D = Duck Bill Clamp HCDB-117
DP= Duck Bill Clamp With Parking Stud HCDB-117P
OC = Yellow Opaque #6 SOL-954 MCM Clamp
CC = CLeAr #6 SOL-954 ACSR CLamp
S = Cable With Ferrule

D CABLE END 2

D = Duck Bill Clamp HCDB-117
DP = Duck Bill Clamp With Parking Stud HCDB-117P
OC = Yellow Opaque #6 SOL-954 MCM Clamp
CC = CLeAr #6 SOL-954 ACSR CLamp
S = Cable With Ferrule

CABLE INSULATION AND SIZE

15 CABLE INSULATION (kV)

15	4/0	551	0.841	400	Black
15	#2	259	0.780	200	Red
15	1/0	259	0.865	250	Red
15	2/0	259	0.910	300	Red
15	4/0	437	1.052	400	Red
25	1/0	413	1.113	260	Red
25	2/0	266	1.116	300	Red
35	1/0	427	1.270	250	Red

CABLE INSULATION AND SIZE

1/0 SIZE (AWG)

2	4/0	551	0.841	400	Black
15	#2	259	0.780	200	Red
15	1/0	259	0.865	250	Red
15	2/0	259	0.910	300	Red
15	4/0	437	1.052	400	Red
25	1/0	413	1.113	260	Red
25	2/0	266	1.116	300	Red
35	1/0	427	1.270	250	Red

6 CABLE LENGTH

Cable Length in Feet

JUMPERING ASSEMBLIES FEATURES:

- All suggested clamps are rated 400 Amps continuous rating
- This rating depends on the jumper cable rating
- Pre-assembled with a 5/8 - 11 UNC ferrule at each end
- Ends sealed with sealing tapes and clear heat shrink tubes
- Storage straps included

JUMPER CABLE CARRIAGE BAG



CATALOG NUMBER

HC10094N

DIMENSIONS

4 x 21" Diameter

JUMPER CABLE CARRIAGE BAG FEATURES:

- Permits storage and handling of a jumper cable

MATERIALS:

- Orange canvas 19 oz

JUMPER SUPPORT



CATALOG NUMBER	DIM. A	DIM. B	DIM. C	CAPACITY (F1)	WEIGHT
HC10126	11	12	1	150	0.8 Lbs.

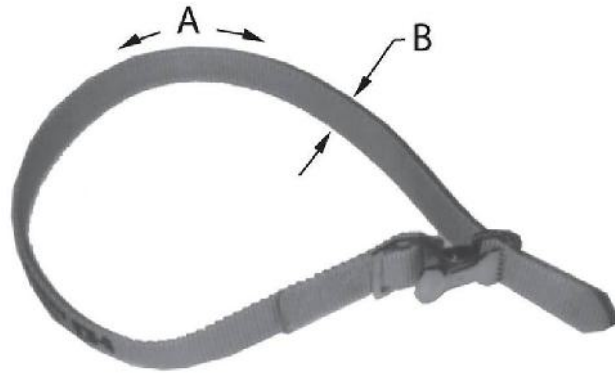
JUMPER SUPPORT FEATURES:

- Supports the weight of a jumper cable during installation
- Offers more working space at work site
- *Installation with insulated gloves or with shotgun stick

MATERIALS:

- Tube: Fiberglass with polyurethane foam
- Hooks and Installtion Eye: Polyurethane

SPRING BUCKLE STRAP



CATALOG NUMBER	DIM. A	DIM. B	WEIGHT
01PM060	24	1	0.1 Lbs.

SPRING BUCKLE STRAP FEATURES:

- Permits storage and handling of a jumper cable

MATERIALS:

- Strap:
 - Nylon Buckle: Zinc plated
- Spring: Stainless Steel

TEMPORARY UNDERGROUND ELBOW ASSEMBLIES

Z15 VOLTAGE	B CUSTOMIZED CABLE END	2/0 CABLE SIZE	Y JACKETTYPE	6 CABLE LENGTH
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Z15 VOLTAGE

Z15 = 15kV Elbow

Z25 = 25kV Elbow

Z35 = 35 kV Elbow

B CUSTOMIZED CABLE END

B = 25 mm Universal Grounding Clamp 01-M-037

H = 20 mm Universal Grounding Clamp 01-M-034

D = Duck Bill Clamp HCDB-117

C = 01-M-044 C Clamp

M = Cable with ferrule

E = Exception

2/0 CABLE SIZE

1/0 = 1/0 AWG (2H)

2/0 = 2/0 AWG (3H)

Y JACKETTYPE

Y = Grounding Cable - yellow opaque jacket

6 CABLE LENGTH

Cable length in feet

