

AAAC-6201		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
123.3 (1/0)	7	Azusa	0.398					
1/0	19	Annapolis	0.403					
4/0	7	Alliance	0.563	1007235505	11	0.927	1036090095	1036090070
4/0	19	Amarillo	0.570	1007235505	11	0.934	1036090095	1036090070
559.5	19	Darien	0.858					

AAC		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
#2	7	Iris	0.292					
1/0	7	Poppy	0.368					
1/0	19	-	0.373					
2/0	7	Aster	0.414					
3/0	7	Phlox	0.464					
4/0	7	Oxlip	0.522					
4/0	19	-	0.528					
214.0	7	-	0.524					
336.4	19	Tulip	0.666	1007236610	13	1.030	1036090118	1036090075
477.0	19	Cosmos	0.793	1007237020	11	1.293	1036090149	1036090095
477.0	37	Syringa	0.795	1007237020	11	1.295	1036090149	1036090095
500.0	37	Hyacinth	0.814					
556.5	19	Dahlia	0.856					
556.5	37	Mistletoe	0.858					
636.0	37	Orchid	0.918			1.429	11-1464	11-1440
795.0	37	Arbutus	1.026	1007237060	12	1.646	1036090204	1036090118
795.0	61	Lilac	1.028					
954.0	37	Magnolia	1.124					
1033.5	37	Bluebell	1.170	1007237070	13	1.790	1036090204	1036090136
1033.5	61	Larkspur	1.172	1007237070	13	1.792	1036090204	1036090136
1192.5	61	Hawthorn	1.258					
1272.0	61	Narcissus	1.300					11-1464
1431.0	61	Carnation	1.378					
1590.0	61	Coreopsis	1.453	072-370-80	12	2.184	1036090252	1036090204


ACAR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
1280.0	42/19	-	1.302	1007237077	12	2.032	1036090218	1036090136

ACCC		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
-	X/X	-	X	X	X	X	X	X

ACCR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
824-T16	26/19	Drake795	1.128	X	X	X	X	X

ACSR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
#6	6/1	Turkey	0.198					
#4	6/1	Swan	0.250					
#4	7/1	Swanate	0.257					
#3	6/1	Swallow	0.281					
#2	6/1	Sparrow	0.316			0.610	11-1424	11-1408
#2	7/1	Sparate	0.325					
#1	6/1	Robin	0.354					
1/0	6/1	Raven	0.398			0.747	11-1424	11-1408
2/0	6/1	Quail	0.447			0.797	11-1424	11-1408
3/0	6/1	Pigeon	0.502	1007235400	11	0.836	1036090095	1036090060
4/0	6/1	Penguin	0.563	1007235505	11	0.927	1036090095	1036090070
219.9	8/7	-	0.6079					
266.8	18/1	Waxwing	0.609			0.973	11-1440	11-1424
266.8	6/7	Owl	0.633			0.997	11-1440	11-1424
300.0	30/7	Piper **	0.700	1007236620	12	1.108	1036090136	1036090085
336.4	18/1	Merlin	0.684	1007236620	12	1.092	1036090118	1036090075
336.4	26/7	Linnet	0.721	1007236630	12	1.129	1036090136	1036090085
336.4	30/7	Oriole	0.741	1007236640	13	1.149	1036090136	1036090085
397.5	18/1	Chickadee	0.743					
397.5	26/7	Ibis	0.783					
477.0	18/1	Pelican	0.814	1007237020	11	1.314	1036090149	1036090095
477.0	26/7	Hawk	0.858	1007237026	12	1.358	1036090149	1036090095
477.0	30/7	Hen	0.883	1007237026	12	1.383	1036090149	1036090095
556.5	18/1	Osprey	0.879					
605.0	26/7	Squab	0.966					

CLAMPS WITH SOCKET FITTINGS ARE USED FOR PHASE CONDUCTOR APPLICATIONS AND CLAMPS WITHOUT SOCKET FITTINGS FOR STATIC WIRE APPLICATIONS. FOR OTHER APPLICATIONS, CONTACT ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.						Drawing Scale: N/A		
	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL		TRANSMISSION CONDUCTOR AND STATIC RELATED INFO SUSPENSION CLAMPS			Revision 00		
						Date / /2014		
Drwn. By: L.A. Best	Date Dr.: 10/10/2012	Checked By: Shepard/Becken/Hart	Date Ck.: / /2014	Approved By: Barry R. Hart	Date App.: / /2014	TM2.23.TJ-01-001		
						Sheet 1		

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ANSI B 11" X 17"

Clamp, Suspension, Aluminum, with socket eye connector

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
1036090060	OBSOLETE use 1036090070		HAS-62-S	0.20 - 0.62	17,000	LS-0-S	0.20 - 0.70	17,000
1036090070	6000111408		HAS-62-S	0.20 - 0.62	17,000	LS-0-S	0.20 - 0.70	17,000
1036090075	6000111424		HAS-85-S	0.40 - 0.85	18,000	LS-1-S	0.40 - 0.87	18,000
1036090085	6000111424		HAS-85-S	0.40 - 0.85	18,000	LS-1-S	0.40 - 0.87	18,000
1036090095			HAS-104-S	0.50 - 1.04	25,000	LS-2-S	0.40 - 1.05	25,000
1036090104	6000111426		HAS-104-S	0.50 - 1.04	25,000	LS-2-S	0.40 - 1.05	25,000
1036090118			HAS-118-S	0.70 - 1.18	25,000	LS-3-S	0.75 - 1.19	25,000
1036090129	use 1036090136							
1036090136	6000111440		HAS-139-S	0.90 - 1.39	25,000	LS-4-S	0.87 - 1.37	25,000
1036090139	use 1036090136,1036090149							
1036090149			HAS-147-S	1.00 - 1.47	25,000	LS-6-S	1.00 - 1.49	25,000
1036090177			HAS-162-S	1.10 - 1.62	25,000	LS-7-S	1.10 - 1.77	25,000
360-901-92	6000111464		HAS-182-S	1.25 - 1.82	25,000	LS-8-S	1.25 - 1.92	25,000
1036090204			HAS-204-S	1.40 - 2.04	25,000	LS-9-S	1.40 - 2.18	25,000
1036090218	6000111480		HAS-213-S	1.40 - 2.13	25,000	ACS-10-S	1.75 - 2.33	25,000
1036090252			HAS-252-S	2.00 - 2.52	30,000	ACS-11-S	2.00 - 2.55	25,000
1036090280						ACS-12-S	2.35 - 2.85	40,000
360-903-53								
	6000111490 *			1.00 - 1.18	25,000		1.00 - 1.18	25,000

* EHV 345kV CORONA FREE

Clamp, Suspension, Ductile Iron, with socket eye connector

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
1036097046	6000111376		MS-46-S	0.20 - 0.46	16,000	FSC-46	0.16 - 0.46	16,000
360-970-60			MS-60-S	0.20 - 0.60	17,000	FSC-60	0.20 - 0.60	17,000
1036097070	6000111392		MS-70-S	0.30 - 0.70	18,000	FSC-70	0.30 - 0.70	18,000
1036097082			MS-82-S	0.40 - 0.82	18,000	FSC-83	0.40 - 0.83	18,000
360-970-99			MS-104-S	0.50 - 1.04	25,000			
360-971-27								

Clamp, Suspension, Ductile Iron, without socket eye connector

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
1036098046			MS-46-N	0.20 - 0.46	16,000	FSC-46	0.16 - 0.46	16,000
1036098060			MS-60-N	0.20 - 0.60	17,000	FSC-60	0.20 - 0.60	17,000
1036098070			MS-70-N	0.30 - 0.70	18,000	FSC-70	0.30 - 0.70	18,000
1036098083			MS-82-N	0.40 - 0.82	18,000	FSC-83	0.40 - 0.83	18,000
360-980-99			MS-104-N	0.50 - 1.04	25,000			
360-981-27								

Clamp, Suspension, Aluminum, without socket eye connector

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
1036091060			HAS-62-N	0.20 - 0.62	17,000	LS-0-N	0.20 - 0.70	17,000
360-910-70			HAS-85-N	0.40 - 0.85	18,000	LS-1-N	0.40 - 0.87	18,000
360-910-85			HAS-85-N	0.40 - 0.85	18,000	LS-1-N	0.40 - 0.87	18,000
360-911-04			HAS-104-N	0.50 - 1.04	25,000	LS-2-N	0.40 - 1.05	25,000
360-911-18			HAS-118-N	0.70 - 1.18	25,000	LS-3-N	0.75 - 1.19	25,000
360-911-29			HAS-139-N	0.90 - 1.39	25,000	LS-4-N	0.87 - 1.37	25,000
360-911-36			HAS-147-N	1.00 - 1.47	25,000	LS-6-N	1.00 - 1.49	25,000
360-911-47			HAS-162-N	1.10 - 1.62	25,000	LS-7-N	1.10 - 1.77	25,000
360-911-77			HAS-182-N	1.25 - 1.82	25,000	LS-8-N	1.25 - 1.92	25,000
360-912-04			HAS-204-N	1.40 - 2.04	25,000	LS-9-N	1.40 - 2.18	25,000
360-912-18			HAS-213-N	1.40 - 2.13	25,000	LS-9-N	1.40 - 2.18	25,000
360-912-33						ACS-10-N	1.75 - 2.33	25,000
360-912-52			HAS-252-N	2.00 - 2.52	30,000	ACS-11-N	2.00 - 2.55	25,000
360-912-63								
360-912-80								
360-912-85						ACS-12-N	2.35 - 2.85	40,000
360-913-53								


Clamp, Suspension, Bronze, with socket eye connector

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
			BRS-60-S	0.20 - 0.60	16,000	LS-0-N	0.20 - 0.70	17,000
			BRS-83-S	0.40 - 0.83	18,000	LS-1-N	0.40 - 0.87	18,000
			BRS-100-S	0.625 - 1.00	22,000	LS-2-N	0.40 - 1.05	25,000
			BRS-118-S	0.70 - 1.18	25,000	LS-3-N	0.75 - 1.19	25,000

FOR ASSISTANCE: CONTACT ENGINEERING STANDARDS - TRANSMISSION OR ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.

Drawing Scale: N/A

	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL	TRANSMISSION CONDUCTOR AND STATIC WIRE INFO SUSPENSION CLAMPS PHYSICAL CHARACTERISTICS connect to NEMA class 52-3 or 52-5			Revision
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				Date	
				/ /2014	
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
L.A. Best	11/21/2012	Shepard/Becken/Hart	/ /2014	Barry R. Hart	/ /2014
TM2.23.TJ-01-002					Sheet 1

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ANSI B 11" X 17"

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

AAAC-6201		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
123.3 (1/0)	7	Azusa	0.398					
1/0	19	Annapolis	0.403					
4/0	7	Alliance	0.563	1007235505	11	0.927	1036160106	1036160084
4/0	19	Amarillo	0.570	1007235505	11	0.934	1036160106	1036160084
559.5	19	Darien	0.858					

AAC		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
#2	7	Iris	0.292					
1/0	7	Poppy	0.368					
1/0	19	-	0.373					
2/0	7	Aster	0.414					
3/0	7	Phlox	0.464					
4/0	7	Oxlip	0.522					
4/0	19	-	0.528					
214.0	7	-	0.524					
336.4	19	Tulip	0.666	1007236610	13	1.030	1036160150	1036160084
477.0	19	Cosmos	0.793	1007237020	11	1.293	1036160150	1036160084
477.0	37	Syringa	0.795	1007237020	11	1.295	1036160150	1036160084
500.0	37	Hyacinth	0.814					
556.5	19	Dahlia	0.856					
556.5	37	Mistletoe	0.858					
636.0	37	Orchid	0.918			1.429		
795.0	37	Arbutus	1.026	1007237060	12	1.646	1036160199	1036160150
795.0	61	Lilac	1.028					
954.0	37	Magnolia	1.124					
1033.5	37	Bluebell	1.170	1007237070	13	1.790	1036160199	1036160150
1033.5	61	Larkspur	1.172	1007237070	13	1.792	1036160199	1036160150
1192.5	61	Hawthorn	1.258					
1272.0	61	Narcissus	1.300					
1431.0	61	Carnation	1.378					
1590.0	61	Coreopsis	1.453	072-370-80	12	2.184	361-602-70	1036160150


ACAR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
1280.0	42/19	-	1.302	1007237077	12	2.032	1036160230	1036160150

ACCC		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
-	X/X	-	X	X	X	X	X	X

ACCR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
824-T16	26/19	Drake795	1.128	X	X	X	X	X

ACSR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
#6	6/1	Turkey	0.198					
#4	6/1	Swan	0.250					
#4	7/1	Swanate	0.257					
#3	6/1	Swallow	0.281					
#2	6/1	Sparrow	0.316			0.610		
#2	7/1	Sparate	0.325					
#1	6/1	Robin	0.354					
1/0	6/1	Raven	0.398			0.747		
2/0	6/1	Quail	0.447			0.797		
3/0	6/1	Pigeon	0.502	1007235400	11	0.836	1036160106	1036160057
4/0	6/1	Penguin	0.563	1007235505	11	0.927	1036160106	1036160057
219.9	8/7	-	0.6079					
266.8	18/1	Waxwing	0.609			0.973		
266.8	6/7	Owl	0.633			0.997		
300.0	30/7	Piper **	0.700	1007236620	12	1.108	1036160150	1036160084
336.4	18/1	Merlin	0.684	1007236620	12	1.092	1036160150	1036160084
336.4	26/7	Linnet	0.721	1007236630	12	1.129	1036160150	1036160084
336.4	30/7	Oriole	0.741	1007236640	13	1.149	1036160150	1036160084
397.5	18/1	Chickadee	0.743					
397.5	26/7	Ibis	0.783					
477.0	18/1	Pelican	0.814	1007237020	11	1.314	1036160150	1036160084
477.0	26/7	Hawk	0.858	1007237026	12	1.358	1036160150	1036160106
477.0	30/7	Hen	0.883	1007237026	12	1.383	1036160150	1036160106
556.5	18/1	Osprey	0.879					
605.0	26/7	Squab	0.966					

FOR ASSISTANCE: CONTACT ENGINEERING STANDARDS - TRANSMISSION OR ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.						Drawing Scale: N/A		
	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL		TRANSMISSION CONDUCTOR AND STATIC WIRE INFO POST INSULATOR (TRUNNION) CLAMPS				Revision	
							00	
Date Dr.: 10/10/2012		Checked By: Shepard/Becken/Hart		Date Ck.: / /2014		Approved By: Barry R. Hart		
Date App.: / /2014						Date App.: / /2014		
L.A. Best						TM2.23.TJ-02-001		
						Sheet 1		

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ANSI B 11" X 17"

ACSR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
636.0	18/1	Kingbird	0.940					
636.0	24/7	Rook	0.977					
636.0	26/7	Grosbeak	0.990					
636.0	30/7	Scoter	1.019					
636.0	30/19	Egret	1.019					
715.5	30/19	Redwing	1.081					
795.0	24/7	Cuckoo	1.092					
795.0	26/7	Drake	1.107	1007237068	12	1.728	1036160199	1036160150
795.0	36/1	Coot	1.040	1007237065	12	1.660	1036160199	1036160150
795.0	45/7	Tern	1.063	1007237065	12	1.684	1036160199	1036160150
795.0	54/7	Condor	1.092					
795.0	30/19	Mallard	1.140					
850.8	45/7	Heron	1.100		12	1.720		
900.0	54/7	Canary	1.162		13	1.782		
954.0	45/7	Rail	1.165					
954.0	54/7	Cardinal	1.196		13	1.816		
1033.5	36/1	Tanager	1.186	1007237070	13	1.806	1036160199	1036160150
1033.5	45/7	Ortolan	1.212	1007237075	12	1.943	1036160199	1036160150
1033.5	54/7	Curlew	1.245	1007237075	12	1.976	1036160199	1036160150
1113.0	45/7	Bluejay	1.258					
1192.5	45/7	Bunting	1.302	1007237077	12	2.032	1036160230	1036160150
1192.5	54/19	Grackle	1.337	072-370-79	13	2.068	1036160230	1036160150
1272.0	54/19	Pheasant	1.381	072-370-79	13	2.112	1036160230	1036160150
1431.0	45/7	Bobolink	1.427			2.229	361-602-70	1036160150
1431.0	54/19	Plover	1.465					
1590.0	45/7	Lapwing	1.502	072-370-80	12	2.374	361-602-70	1036160199
1590.0	54/19	Falcon	1.544					
2156.0	84/19	Bluebird	1.762	1007237086	14	2.634	361-602-70	1036160199

ACSR **		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
101.8	12/7	Petrel	0.461					1036160057
134.6	12/7	Leghorn	0.530					
190.8	12/7	Dorking	0.631					1036160084
211.3	12/7	Cochin	0.663	1007236610	13	1.028	1036160150	1036160084


** These are high mechanical strength wires.

ACSR/TW		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
477.0	22/7	X/TW	0.808					
568.4	22/7	X/TW	0.883					
602.5	20/7	Hen/TW	0.883	1007237026	12	1.383	1036160150	1036160106
636.0	20/7	Grosbeak/TW	0.906					
795.0	22/7	Drake/TW	1.011					
1272.0	33/7	Bittern/TW	1.215	1007237075	12	1.945	1036160199	1036160150

ACSS		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
795.0	26/7	Drake/ACSS	1.107					

AWLD		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
3#6			0.349					
7#10			0.306					
7#8 (3/8")			0.385			0.613		1036160057
7#7 (7/16")			0.433			0.648		
7#6 (1/2")			0.486			0.689		
19#10			0.509					
19#9			0.572					
19#8			0.642					
19#5			0.910					
6M			0.242					
8M			0.272					
12.5M			0.343					
20M			0.444					

FOR ASSISTANCE: CONTACT ENGINEERING STANDARDS - TRANSMISSION OR ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.						Drawing Scale: N/A	
	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL		TRANSMISSION CONDUCTOR AND STATIC WIRE INFO POST INSULATOR (TRUNNION) CLAMPS			Revision 00	
	Date Dr.: / / 2014		Checked By: Shepard/Becken/Hart		Date Ck.: / / 2014	Approved By: Barry R. Hart	
Date Dr.: / / 2014		Checked By: L.A. Best		Date Ck.: / / 2014	Approved By: Barry R. Hart		Date App.: / / 2014
TM2.23.TJ-02-001						Sheet 2	

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ANSI B 11" X 17"

CU		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
#6 MHD	Solid		0.162					
#4 MHD	Solid		0.204					
#3 MHD	Solid		0.229					
#2 MHD	Solid		0.258					
#1 MHD	Solid		0.289					
#2	Solid		0.2576					
1/0	Solid		0.3249					
2/0	Solid		0.3648					
4/0	Solid		0.460					
#3	0/1		0.2294					
#4	0/3		0.254					
#2	0/3		0.320					
#1	0/3		0.360					
#4 HD	0/7		0.232					
#3	0/7		0.260					
#2 HD	0/7		0.292					
#1 HD	0/7		0.328					
1/0	0/7		0.368					
2/0 HD	0/7		0.414	1007237505	10	0.700	1036167084	1036167057
3/0 HD	0/7		0.464					
4/0 HD	0/7		0.522					
4/0 HD	0/19		0.528					1036167057
300.0	0/19		0.629					1036167084
350.0	0/19		0.679					


CWLD		TYPE	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
#2	Solid	40% HS	0.2576					
3#8	3	30% EHS	0.277					
3#7	3	30% EHS	0.311					1036167057
3#6	3	30% EHS	0.349					
7#10	7	40% HS	0.306					
7#9	7	40% HS	0.343					
7#8 (3/8")	7	40% HS	0.385					1036167057
7#7	7	40% HS	0.433					
19#5 (7/8")	19	40% HS	0.910					1036167106
6M	7		0.237					
8M	7		0.276					
12.5M	7		0.345					

CWLD/CU		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
1/0f	1/6		0.388					
2/0f	1/6		0.436					
4/0e	7/12		0.613					
4/0ek	4/15		0.571					
2a	1/2		0.366					
2f	1/6		0.308					
4a	1/2		0.290					
7a	1/2		0.223					
7d	2/1		0.246					

STEEL (EHS)		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Post Clamp over PAR	MID for Post Clamp w/o PAR
Wire Size	Stranding							
1/4	3		0.2586					
5/16 **	3		0.312					1036167057
5/16 **	7		0.312					1036167057
3/8	7		0.360	1007243005	12	0.560	1036167084	1036167057
7/16	7		0.435	1007243013	12	0.675	1036167084	1036167057
1/2	7		0.495	1007243015	12	0.767	1036167084	1036167057
9/16	7		0.564	072-430-20	12			1036167084
9/16	19		0.565					1036167084

** 5/16" IS OBSOLETE - USE 3/8" EHS 7 STR STL.

FOR ASSISTANCE: CONTACT ENGINEERING STANDARDS - TRANSMISSION OR ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.				Drawing Scale: N/A			
	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL		TRANSMISSION CONDUCTOR AND STATIC WIRE INFO POST INSULATOR (TRUNNION) CLAMPS			Revision 00	
	Date Dr.: 10/10/2012		Checked By: Shepard/Becken/Hart	Date Ck.: / /2014	Approved By: Barry R. Hart	Date App.: / /2014	Date / /2014
Drwn. By: L.A. Best		Date Dr.: 10/10/2012	Checked By: Shepard/Becken/Hart	Date Ck.: / /2014	Approved By: Barry R. Hart	Date App.: / /2014	Sheet 3
TM2.23.TJ-02-001							

Clamp, Trunnion (Post), Aluminum, Tangent and Angles to 15°

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
1036160057			TSC-57	0.25 - 0.57	2,800	ACTS-057	0.25 - 0.57	
1036160084			TSC-86	0.35 - 0.86	2,800	ACTS-084	0.35 - 0.84	
1036160106			TSC-106	0.50 - 1.06	2,800	ACTS-118	0.50 - 1.18	
1036160150			TSC-150	1.00 - 1.50	2,800	ACTS-150	0.93 - 1.50	
1036160199	6000111371		TSC-200	1.50 - 2.00	2,800	ACTS-200	1.50 - 2.00	
1036160230						ACTS-230	1.90 - 2.30	
361-602-70						ACTS-270	2.00 - 2.70	

Clamp, Trunnion (Post), Ductile Iron, Tangent and Angles to 15°

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
1036167057			2706503001	0.25 - 0.56	2,800	LPS-57-F	0.25 - 0.57	
1036167084						LPS-86-F	0.35 - 0.86	
1036167106			2706513001	0.50 - 1.06	2,800	LPS-118	0.50 - 1.18	
361-671-50			2706523001	1.06 - 1.50	2,800	LPS-150	0.93 - 1.50	
361-671-99	Lapp 47105-S2	1.50 - 2.00						


Clamp, Trunnion (Post), Bronze, Tangent and Angles to 15°

NYSEG MID	CMP MID	RG&E MID	HUBBELL PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)	MACLEAN PART NO.	Wire Diameter Range (inches)	Ultimate Strength (pounds)
						LPS-57-B	0.25 - 0.57	
						LPS-86-B	0.35 - 0.86	

FOR ASSISTANCE: CONTACT ENGINEERING STANDARDS - TRANSMISSION OR ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.

Drawing Scale: N/A

	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL		TRANSMISSION CONDUCTOR AND STATIC WIRE DETAILS POST INSULATOR (TRUNNION) CLAMPS PHYSICAL CHARACTERISTICS ALUMINUM, DUCTILE IRON, BRONZE				Revision 00
							DATE / /2014
Drwn. By: L.A. Best	Date Dr.: 11/21/2012	Checked By: Shepard/Becken/Hart	Date Ck.: / /2014	Approved By: Barry R. Hart	Date App.: / /2014	TM2.23.TJ-02-002	Sheet 1

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ANSIA 8-1/2" X 11"

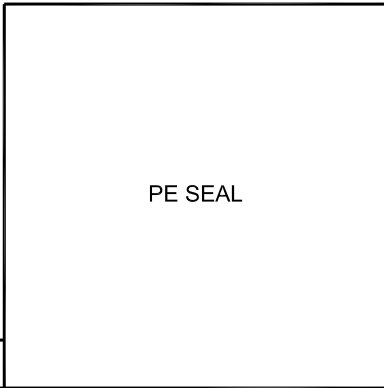
Armor Rods: ALUMINUM

For use on ACSR, Compacted ACSR, Aluminum Alloy All-Aluminum, AWAC Compacted All-Aluminum, ACAR, ACSS (AW & TW)

'S' = SINGLE SUPPORT
'D' = DOUBLE SUPPORT
(CONTACT PLP IF THE MAXIMUM DISTANCE BETWEEN DOUBLE SUPPORTS EXCEEDS 12" ON DOUBLE CROSSARM CONSTRUCTION)

FOR ASSISTANCE:
CONTACT SYSTEM ENGINEERING - TRANSMISSION SECTION.

Preformed Armor Rod 'Single'	Preformed Armor Rod 'Double'	Range (inches)		Rod Diameter (inches)	Rod Length (inches)		Rods per Set	Color Code	Preformed Line Products 'S'	Preformed Line Products 'D'	Helical Line Products 'S'	Helical Line Products 'D'	NYSEG P/N Preformed Line Products	NYSEG P/N Helical Line Products
		Lower	Upper		'S'	'D'								
		0.194	0.207	0.121	40	52	7	Blue	AR-0106	AR-0306	AAR-510	AAR-610		
		0.208	0.219	0.121	40	52	7	Black	AR-0107	AR-0307	AAR-511	AAR-611		
		0.220	0.227	0.121	40	52	8	White	AR-0108	AR-0308	AAR-512	AAR-612		
		0.229	0.243	0.121	40	52	8	Brown	AR-0109	AR-0309	AAR-513	AAR-613		
		0.244	0.259	0.146	40	52	7	Orange	AR-0110	AR-0310	AAR-514	AAR-614		
		0.260	0.273	0.146	42	54	7	Green	AR-0111	AR-0311	AAR-515	AAR-615		
		0.274	0.289	0.146	42	54	8	Yellow	AR-0112	AR-0312	AAR-516	AAR-616		
		0.290	0.308	0.146	42	54	8	Purple	AR-0113	AR-0313	AAR-517	AAR-617		
22-0050	22-0080	0.309	0.326	0.136	44	56	9	Red	AR-0114	AR-0314	AAR-518	AAR-618		
		0.327	0.346	0.146	46	58	9	Blue	AR-0115	AR-0315	AAR-519	AAR-619		
		0.347	0.366	0.146	48	60	9	Green	AR-0116	AR-0316	AAR-520	AAR-620		
		0.367	0.389	0.146	50	62	10	Black	AR-0117	AR-0317	AAR-521	AAR-621		
752871		0.390	0.413	0.167	52	64	9	Yellow	AR-0118	AR-0318	AAR-522	AAR-622		
		0.414	0.436	0.146	52	64	10	Brown	AR-0119	AR-0319	AAR-523	AAR-623		
22-0170		0.437	0.463	0.167	54	66	10	Blue	AR-0120	AR-0320	AAR-524	AAR-624		
		0.464	0.490	0.167	54	66	10	Green	AR-0121	AR-0321	AAR-525	AAR-625		
1007235400	072-354-01	0.491	0.521	0.167	56	68	11	Orange	AR-0122	AR-0322	AAR-526	AAR-626		
		0.522	0.551	0.167	58	70	11	Black	AR-0123	AR-0323	AAR-527	AAR-627		
1007235505	1007235506	0.552	0.585	0.182	60	72	11	Red	AR-0124	AR-0324	AAR-528	AAR-628		
		0.586	0.606	0.182	62	74	12	Black	AR-0125	AR-0325	AAR-529	AAR-629		
22-0290		0.607	0.630	0.182	64	76	12	Purple	AR-0126	AR-0326	AAR-530	AAR-630		
22-0320		0.631	0.655	0.182	64	76	12	Yellow	AR-0127	AR-0327	AAR-531	AAR-631		
60 1007236610		0.656	0.679	0.182	66	78	13	Brown	AR-0128	AR-0328	AAR-532	AAR-632	AR-MS-9248	60-AAR-432
60 1007236620		0.680	0.703	0.204	68	80	12	Blue	AR-0129	AR-0329	AAR-533	AAR-633	AR-MS-5409	60-AAR-433
60 1007236630	22-0380 (s)	0.704	0.740	0.204	72	84	12	Green	AR-0130	AR-0342	AAR-534	AAR-634	AR-MS-6871	60-AAR-434



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	TRANSMISSION CONSTRUCTION STANDARDS MANUAL TM.2.23		TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS PREFORMED ARMOR RODS		ISSUE
					0
				DATE	
				/ /2012	
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
L.A. Best	8/30/2012		/ /2012	Barry R. Hart	/ /2012
TJ-05-001					Sheet 1

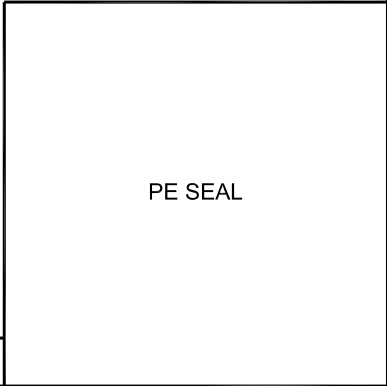
Armor Rods: ALUMINUM


For use on ACSR, Compacted ACSR, Aluminum Alloy
All-Aluminum, AWAC Compacted All-Aluminum,
ACAR, ACSS (AW & TW)

'S' = SINGLE SUPPORT
'D' = DOUBLE SUPPORT
(CONTACT PLP IF THE MAXIMUM DISTANCE BETWEEN DOUBLE
SUPPORTS EXCEEDS 12" ON DOUBLE CROSSARM CONSTRUCTION)

FOR ASSISTANCE:
CONTACT SYSTEM ENGINEERING - TRANSMISSION SECTION.

	Preformed Armor Rod 'Single'	Preformed Armor Rod 'EHV'	Range (inches)		Rod Diameter (inches)	Rod Length (inches)		Rods per Set	Color Code	Preformed Line Products 'S'	Preformed Line Products 'EHV'	Helical Line Products 'S'	NYSEG P/N Preformed Line Products	NYSEG P/N Helical Line Products
			Lower	Upper		'S'	'D'							
60	1007236640	22-0350 (S)	0.741	0.782	0.204	72	N/A	13	Orange	AR-0131		AAR-535	AR-MS-6691	60-AAR-435
60	1007237020	22-0410 (S)	0.783	0.814	0.250	76	N/A	11	Purple	AR-0132		AAR-536	AR-MS-5407	60-AAR-436
			0.815	0.845	0.250	76	N/A	11	Red	AR-0133		AAR-537		
60	1007237026		0.846	0.907	0.250	78	N/A	12	Blue	AR-0134		AAR-538	AR-MS-5408	60-AAR-438
			0.908	0.929	0.250	80	N/A	13	Green	AR-0135		AAR-539		
			0.930	0.976	0.250	88	N/A	13	White	AR-0136		AAR-540		
			0.977	1.016	0.310	92	N/A	11	Yellow	AR-0137	AR-0500	AAR-541		
60	1007237060		1.017	1.035	0.310	94	N/A	12	Brown	AR-0138	AR-0501	AAR-542	AR-MS-6249	60-AAR-442
60	1007237065	22-0440 (S)	1.036	1.064	0.310	96	N/A	12	Blue	AR-0139	AR-0502	AAR-543	AR-MS-5808	60-AAR-443
			1.065	1.098	0.310	96	N/A	12	Green	AR-0140	AR-0503	AAR-544		
60	1007237068	22-0470 (S)	1.099	1.139	0.310	100	N/A	12	Orange	AR-0141	AR-0504	AAR-545	AR-MS-5860	60-AAR-445
			1.140	1.161	0.310	100	N/A	13	Purple	AR-0142	AR-0505	AAR-546		
60	1007237070	22-0480 (S)	1.162	1.208	0.310	100	N/A	13	Red	AR-0143	AR-0506	AAR-547	AR-MS-5410	60-AAR-447
60	1007237075	22-0490 (S)	1.209	1.269	0.365	100	N/A	12	Black	AR-0144	AR-0507	AAR-548	AR-MS-5411	60-AAR-448
60	1007237077	22-0500 (S)	1.270	1.327	0.365	100	N/A	12	White	AR-0145	AR-0508	AAR-549	AR-MS-6815	60-AAR-449
60	1007237079		1.328	1.390	0.365	100	N/A	13	Yellow	AR-0146	AR-0509	AAR-550	AR-MS-9537	60-AAR-450
			1.391	1.440	0.436	100	N/A	11	Brown	AR-0147	AR-0510	AAR-551		
60	072-370-80		1.441	1.508	0.436	100	N/A	12	Blue	AR-0163	AR-0511	AAR-552	AR-MS-6261	60-AAR-452
			1.509	1.578	0.436	100	N/A	12	Green	AR-0164	AR-0512	AAR-553		
			1.579	1.651	0.436	100	N/A	13	Orange	AR-0165	AR-0513	AAR-554		
			1.652	1.728	0.436	100	N/A	13	Purple	AR-0166	AR-0514	AAR-555		
	1007237086		1.729	1.809	0.436	100	N/A	14	Red	AR-0167	AR-0516	AAR-556		
			1.810	1.898	0.436	100	N/A	14	Black	AR-0168	AR-0517	AAR-557		
			1.899	1.991	0.436	100	N/A	15	White	AR-0169	AR-0518			
			1.992	2.090	0.436	100	N/A	15	Yellow	AR-0170	AR-0519			
			2.091	2.193	0.468	100	N/A	15	Brown	AR-0171	AR-0520			
60	072-370-87		1.209	1.269									AR-MS-6905	
78	1007237090		1.729	1.809									AR-MS-5240	



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Contact System Engineering - Transmission Section for the creation of new standards and CUs.				Drawing Scale: N/A	
	TRANSMISSION CONSTRUCTION STANDARDS MANUAL TM.2.23		TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS PREFORMED ARMOR RODS		ISSUE 0
					DATE / /2012
Drwn. By: L.A. Best	Date Dr.: 8/30/2012	Checked By:	Date Ck.: / /2012	Approved By: Barry R. Hart	Date App.: / /2012
TJ-05-001					Sheet 2

Armor Rods: ALUMINUM-CLAD STEEL								For use on Aluminum-Clad Steel Strands				
Preformed Armor Rod 'Single'	Preformed Armor Rod 'Double'	Range (inches)		Rod Diameter (inches)	Rod Length (inches)		Rods per Set	Color Code	Preformed Line Products 'S'	Preformed Line Products 'D'	Helical Line Products 'S'	Helical Line Products 'D'
		Lower	Upper		'S'	'D'						
		0.169	0.178	0.102	40	52	7	Orange	AR-2113	AR-2313	AWAR-510	AWAR-610
		0.196	0.207	0.102	40	52	7	Black	AR-2116	AR-2316	AWAR-513	AWAR-613
		0.218	0.225	0.102	40	52	8	Green	AR-2118	AR-2318	AWAR-515	AWAR-615
		0.237	0.249	0.102	40	52	9	Yellow	AR-2120	AR-2320	AWAR-517	AWAR-617
		0.264	0.277	0.114	42	54	9	Blue	AR-2122	AR-2322	AWAR-519	AWAR-619
		0.296	0.314	0.114	46	58	9	Black	AR-2124	AR-2324	AWAR-521	AWAR-621
		0.334	0.352	0.114	50	62	10	Yellow	AR-2126	AR-2326	AWAR-523	AWAR-623
		0.373	0.392	0.128	50	62	10	Orange	AR-2128	AR-2328	AWAR-525	AWAR-625
		0.409	0.425	0.128	54	66	11	Black	AR-2130	AR-2330	AWAR-526	AWAR-626
		0.426	0.450	0.128	56	68	12	Green	AR-2131	AR-2331	AWAR-528	AWAR-628
		0.477	0.504	0.144	56	68	11	Blue	AR-2133	AR-2333	AWAR-530	AWAR-630
		0.535	0.565	0.162	60	72	12	Yellow	AR-2135	AR-2335	AWAR-532	AWAR-632
		0.593	0.625	0.183	60	72	11	Black	AR-2137	AR-2337	AWAR-534	AWAR-634


'S' = SINGLE SUPPORT
'D' = DOUBLE SUPPORT
(CONTACT PLP IF THE MAXIMUM DISTANCE BETWEEN DOUBLE SUPPORTS EXCEEDS 12" ON DOUBLE CROSSARM CONSTRUCTION)

FOR ASSISTANCE:
CONTACT SYSTEM ENGINEERING - TRANSMISSION SECTION.

Armor Rods: GALVANIZED STEEL								For use on Steel Reinforced Copper Conductors with Right-Hand lay				
Preformed Armor Rod 'Single'	Preformed Armor Rod 'Double'	Range (inches)		Rod Diameter (inches)	Rod Length (inches)		Rods per Set	Color Code	Preformed Line Products 'S'	Preformed Line Products 'D'	Helical Line Products 'S'	Helical Line Products 'D'
		Lower	Upper		'S'	'D'						
		0.244	0.259	0.070	40	52	12	Orange	AR-1154	AR-1354		
		0.309	0.326	0.086	44	56	12	Red	AR-1158	AR-1358	GAR-576	GAR-676
		0.347	0.373	0.086	48	60	13	Black	AR-1160	AR-1360	GAR-578	GAR-678
		0.390	0.413	0.100	52	64	13	Yellow	AR-1162	AR-1362	GAR-580	GAR-680
		0.437	0.463	0.119	54	66	12	Blue	AR-1164	AR-1364	GAR-582	GAR-682
		0.491	0.521	0.119	56	68	13	Orange	AR-1166	AR-1366	GAR-584	GAR-684
		0.552	0.585	0.138	60	72	13	Red	AR-1168	AR-1368	GAR-586	GAR-686

Armor Rods: GALVANIZED STEEL								For use on Galvanized Steel Strand with Left-Hand lay		
Preformed Armor Rod 'Single'	Range (inches)		Rod Diameter (inches)	Rod Length (inches)		Rods per Set	Color Code	Preformed Line Products 'S'	Helical Line Products 'S'	
	Lower	Upper		'S'	'D'					
	0.229	0.243	0.086	40	N/A	10	Black	AR-1123		
	0.244	0.259	0.086	40	N/A	10	Yellow	AR-1124	GAR-524	
	0.309	0.326	0.100	44	N/A	11	Black	AR-1128	GAR-526	
40	1007243005	0.347	0.373	0.100	48	N/A	12	Orange	AR-1130	GAR-528
	1007243013	0.414	0.436	0.119	52	N/A	12	Green	AR-1133	GAR-531
44	1007243015	0.491	0.521	0.138	56	N/A	12	Blue	AR-3139	GAR-534

PE SEAL

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Contact System Engineering - Transmission Section for the creation of new standards and CUs.								Drawing Scale: N/A	
		TRANSMISSION CONSTRUCTION STANDARDS MANUAL TM.2.23		TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS PREFORMED ARMOR RODS				ISSUE 0	
								DATE / /2012	
Drwn. By: L.A. Best	Date Dr.: 8/30/2012	Checked By:		Date Ck.: / /2012	Approved By: Barry R. Hart	Date App.: / /2012	TJ-05-001		Sheet 3

Armor Rods: COPPERWELD

For use on Copperweld Strand, Copper
Copperweld/Copper Composite

Preformed Armor Rod 'Single'	Preformed Armor Rod 'Double'	Range (inches)		Rod Diameter (inches)	Rod Length (inches)		Rods per Set	Color Code	Preformed Line Products 'S'	Preformed Line Products 'D'	Helical Line Products 'S'	Helical Line Products 'D'
		Lower	Upper		'S'	'D'						
		0.106	0.168	0.102	38	50	7	Green	AR-5100	AR-5300	CAR-503	CAR-603
		0.169	0.178	0.102	40	52	7	Red	AR-5101	AR-5301	CAR-504	CAR-604
		0.179	0.188	0.102	40	52	7	Black	AR-5102	AR-5302	CAR-505	CAR-605
		0.196	0.207	0.102	40	52	7	Gray	AR-5104	AR-5304	CAR-507	CAR-607
		0.218	0.225	0.102	40	52	8	Red	AR-5106	AR-5306	CAR-508	CAR-608
		0.226	0.236	0.102	40	52	8	Black	AR-5107	AR-5307	CAR-510	CAR-610
		0.237	0.249	0.102	42	54	9	Blue	AR-5108	AR-5308	CAR-511	CAR-611
		0.250	0.263	0.102	42	54	9	Gray	AR-5109	AR-5309	CAR-512	CAR-612
		0.264	0.277	0.102	42	54	9	Green	AR-5110	AR-5310	CAR-513	CAR-613
		0.278	0.295	0.102	42	54	10	Red	AR-5111	AR-5311	CAR-514	CAR-614
		0.296	0.314	0.114	44	56	9	Black	AR-5112	AR-5312	CAR-515	CAR-615
		0.315	0.333	0.128	46	58	9	Blue	AR-5113	AR-5313	CAR-516	CAR-616
		0.334	0.352	0.128	48	60	9	Gray	AR-5114	AR-5314	CAR-517	CAR-617
072-375-04		0.353	0.372	0.128	50	62	10	Green	AR-5115	AR-5315	CAR-518	CAR-618
		0.373	0.392	0.144	52	64	9	Red	AR-5116	AR-5316	CAR-519	CAR-619
1007237505		0.409	0.425	0.144	54	66	10	Blue	AR-5118	AR-5318	CAR-521	CAR-621
		0.426	0.450	0.162	54	66	10	Gray	AR-5119	AR-5319	CAR-522	CAR-622
		0.451	0.476	0.162	56	68	10	Green	AR-5120	AR-5320	CAR-523	CAR-623
		0.477	0.504	0.162	56	68	11	Red	AR-5121	AR-5321	CAR-524	CAR-624
		0.505	0.534	0.162	58	70	11	Black	AR-5122	AR-5322	CAR-525	CAR-625
		0.535	0.565	0.162	58	70	12	Blue	AR-5123	AR-5323	CAR-526	CAR-626
		0.566	0.592	0.162	60	72	12	Gray	AR-5124	AR-5324	CAR-527	CAR-627
		0.593	0.625	0.162	60	72	13	Green	AR-5125	AR-5325	CAR-528	CAR-628

'S' = SINGLE SUPPORT
'D' = DOUBLE SUPPORT
(CONTACT PLP IF THE MAXIMUM DISTANCE BETWEEN DOUBLE
SUPPORTS EXCEEDS 12" ON DOUBLE CROSSARM CONSTRUCTION)

FOR ASSISTANCE:
CONTACT SYSTEM ENGINEERING - TRANSMISSION SECTION.

Armor Rods: PHOSPHOR BRONZE

For use on Copper
Copperweld/Copper Composite

Preformed Armor Rod 'Single'	Preformed Armor Rod 'Double'	Range (inches)		Rod Diameter (inches)	Rod Length (inches)		Rods per Set	Color Code	Preformed Line Products 'S'	Preformed Line Products 'D'	Helical Line Products 'S'	Helical Line Products 'D'
		Lower	Upper		'S'	'D'						
		0.160	0.168	0.099	38	50	7	Green	ARB-1103	ARB-1303		
		0.169	0.178	0.099	40	52	7	Red	ARB-1104	ARB-1304		
		0.179	0.188	0.099	40	52	7	Black	ARB-1105	ARB-1305		
		0.196	0.207	0.099	40	52	8	Gray	ARB-1107	ARB-1307		
		0.218	0.225	0.099	40	52	8	Red	ARB-1109	ARB-1309		
		0.226	0.236	0.099	40	52	8	Black	ARB-1110	ARB-1310		
		0.237	0.249	0.099	42	54	9	Blue	ARB-1111	ARB-1311		
		0.250	0.263	0.099	42	54	9	Gray	ARB-1112	ARB-1312		
		0.264	0.277	0.099	42	54	9	Green	ARB-1113	ARB-1313		
		0.278	0.295	0.099	42	54	10	Red	ARB-1114	ARB-1314		
		0.296	0.314	0.111	44	56	9	Black	ARB-1115	ARB-1315		

PE SEAL

Contact System Engineering - Transmission Section for the creation of new standards and CUs.

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Drawing Scale: N/A



**TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL TM.2.23**

TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS
PREFORMED ARMOR RODS

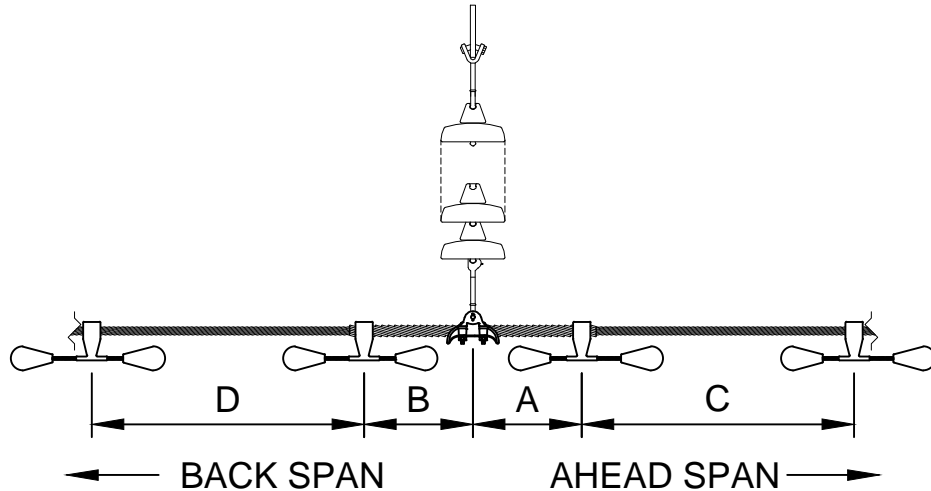
ISSUE
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DATE
/ /2012

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
L.A. Best	8/30/2012		/ /2012	Barry R. Hart	/ /2012

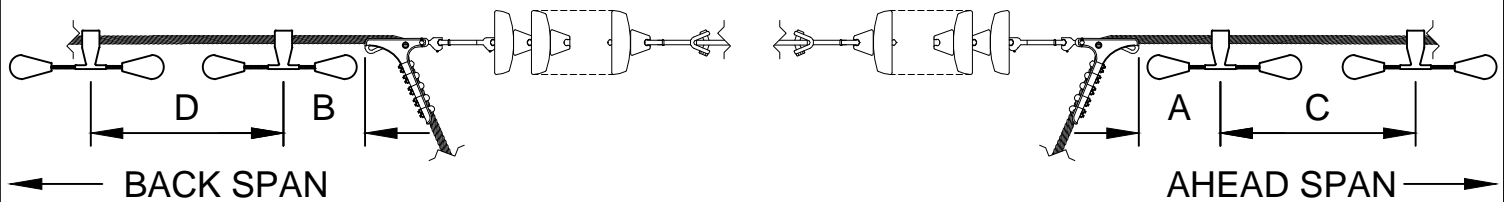
TJ-05-001

Sheet 4

CONDUCTOR	BARE CABLE DIAM. (IN.)	CABLE DIAM. OVER RODS (IN.)	STOCKBRIDGE DAMPER CLAMP ON TO BARE CONDUCTOR		STOCKBRIDGE DAMPER CLAMP ON TO ARMOR RODS OVER CONDUCTOR	
			CU	MID	CU	MID
477 18/1 ACSR	0.814	1.314	C*CT-TJ-DST-BB-CB	1036312117	C*CT-TJ-DST-BO-CB	1036312271
795 26/7 ACSR	1.107	1.727	C*CT-TJ-DST-BB-CX	6000221910	C*CT-TJ-DST-BO-CX	1036312265
1033 45/7 ACSR	1.212	1.832	X	X	C*CT-TJ-DST-BO-CF	1036312276
1113 45/7 ACSR	1.258	1.988	X	X	C*CT-TJ-DST-BO-CY	6000221968
1192.5 45/7 ACSR	1.302	2.032	C*CT-TJ-DST-BB-CK	1036312271	C*CT-TJ-DST-BO-CK	754436
1590 54/19 ACSR	1.544	2.416	C*CT-TJ-DST-BB-CL	6000221972	C*CT-TJ-DST-BO-CL	6000221973
7#8 ALUMOWELD	0.385	0.641	C*CT-TJ-DST-BB-SL	1036312115	C*CT-TJ-DST-BO-SL	754435
7#7 ALUMOWELD	0.433	0.689	C*CT-TJ-DST-BB-SH	1036312113	C*CT-TJ-DST-BO-SL	754435
7/16" EH STEEL	0.435	0.673			C*CT-TJ-DST-BO-SH	1036312116



CONDUCTOR ON SUSPENSION CLAMP WITH ARMOR RODS
STOCKBRIDGE DAMPERS



CONDUCTOR IN DEADEND CLAMP STOCKBRIDGE DAMPERS

CU FUNCTION: TL69 FOR 35kV & 46kV, TG96 FOR 69kV THRU 344kV, T345 FOR 345kV

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: NOT ALL SPANS WILL HAVE TWO DAMPERS IN EACH DIRECTION. PLEASE SEE SHEET TJ-08-003 FOR SECTION SPECIFIC DAMPER INSATLLATION INFORMATION.

NOTE B: FOR CONDUCTORS SUPPORTED BY POST INSULATORS PLEASE REFERENCE THE SAME SPACING AS FOR CONDUCTORS SUPPORTED BY SUSPENSION INSULATORS.

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Contact System Engineering - Transmission Section for the creation of new standards and CUs.

Drawing Scale: N/A



TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL

TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS
VIBRATION DAMPERS
STOCKBRIDGE DAMPERS

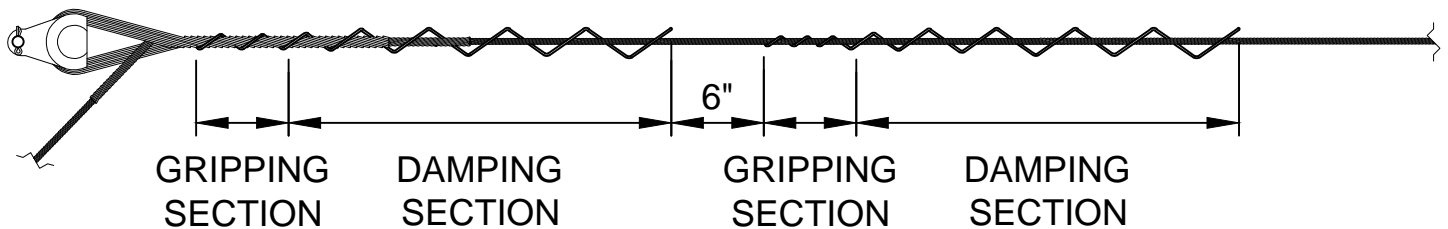
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DATE
5/21/2015

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
B. Franklin	7/10/2014	Shepard/Becken/Hart	12/24/2014	Barry R. Hart	12/24/2014

TM2.23.TJ-08-001

Sheet 1

CONDUCTOR	BARE CABLE DIAM. (IN.)	CABLE DIAM. OVER RODS (IN.)	SPRIAL VIBRATION DAMPER GRIP ON	
			CU	MID
STANDARD 36 FIBER OPGW	0.538	X	C*CT-TJ-DSP-GB-OO	754290
CMP MAINT. ONLY 36 FIBER OPGW A	0.473	X	C*CT-TJ-DSP-GB-OQ	6000222180
CMP MAINT. ONLY 36 FIBER OPGW B	0.602	X	C*CT-TJ-DSP-GB-OR	6000222181



OPGW/SHIELD WIRE IN FORMED WIRE DEADEND ASSEMBLY SPIRAL DAMPERS

CU FUNCTION: TL69 FOR 35kV & 46kV, TG96 FOR 69kV THRU 344kV, T345 FOR 345kV

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E IN PLACE OF ASTERISK (C*_).

NOTE A: NOT ALL SPANS WILL HAVE TWO DAMPERS IN EACH DIRECTION. REFER TO SHEET TJ-08-003 FOR SECTION SPECIFIC DAMPER INSTALLATION INFORMATION.

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.

Drawing Scale: N/A



TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL

TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS
VIBRATION DAMPERS
SPIRAL DAMPERS

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5/21/2015

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
B. Franklin	7/10/2014	Becken/Hart	12/24/2014	Barry R. Hart	12/24/2014

TM2.23.TJ-08-002

Sheet 1

VIBRATION DAMPER INSTALLATION REQUIREMENTS

LINE SECTION NAME: _____ VOLTAGE: _____

CONDUCTOR/STATIC WIRE: _____


STR. NO.	DAMPER TYPE	DAMPER SPACING (IN.)								COMMENTS
		DIM. "A"	OVER RODS?	DIM. "B"	OVER RODS?	DIM. "C"	OVER RODS?	DIM. "D"	OVER RODS?	

NOTE A: REFER TO TJ-08-001 AND TJ-08-002 FOR DAMPER CU AND MID INFORMATION.

NOTE B: REFER TO TJ-08-001 AND TJ-08-002 FOR DAMPER SPACING ILLUSTRATIONS.

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY

Contact Engineering Standards - Transmission Section for the creation of new standards and CUs. Drawing Scale: N/A

	TRANSMISSION CONSTRUCTION STANDARDS MANUAL	TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS VIBRATION DAMPERS PLACEMENT SPACING CHART	REVISION 00
			DATE 5/21/2015
	Drwn. By: B. Franklin	Date Dr.: 7/18/2014	Checked By: Becken/Hart
		Approved By: Barry R. Hart	Date App.: 5/20/2015
TM2.23.TJ-08-003			Sheet 1

CU Type: CNDO (all macros)

CUs limited to 17 characters

TJ-08 - Standard CU Format

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
C	X1	C	T	-	T	J	-	D	X3	-	X4	X5	-	X6	X7	

X1	OpCo
5	NYSEG
6	CMP
9	RG&E

X2	Voltage
5	35kV
4	46kV
6	69kV
1	115kV
2	230kV
3	345kV
9	Multi-Use

X7	Conductor (If X6=C)
A	4/0 AAAC 19
B	477 ACSR 18/1
C	477 AAC 19
D	477 ACSR 30/7
E	1033 AAC 37
F	1033 ACSR 45/7
G	602.5 ACSR/TW 20/7
H	336.4 ACSR 30/7
I	795 ACSR 45/7
J	1033 ACSR 54/7
K	1192 ACSR 45/7
L	1590 ACSR 54/19
M	1280 ACAR 42/19
N	2156 ACSR 84/19
O	4/0 ACSR 6/1
P	336.4 ACSR 18/1
Q	2/0 CU 7
R	2A CWLD/CU 1/2
S	1/0 ACSR 6/1
T	3/0 ACSR 6/1
U	1590 AAC 61
V	4/0 EK CWLD/CU
W	795 ACSR 36/1
X	795 ACSR 26/7
Y	1113 ACSR 45/7
Z	477 ACSR 26/7
1	900 ACSR 45/7
2	1272 AAC 61
3	4/0 AAAC 7

X3	Damper Type
ST	Stockbridge
SP	Spiral

X4	Conductor Connection
B	Bolted On
F	Fired On
G	Grip On

X5	Conductor Attachment
B	Attach to Bare Conductor
O	Attached to Conductor Over Armor Rods

X6	Type of Conductor
A	ADSS
C	Conductor
S	Static Wire
O	OPGW

X7	OPGW (If X6=O)
O	Standard 36 Fiber OPGW 754278
S	.913" 36 Fiber OPGW 6000205466
Q	.472" 36 Fiber OPGW 6000205460
R	.602" 36 Fiber OPGW 6000205461

X7	Static Wire (If X6=S)
L	7#8 (3/8") Alumoweld or 3#6 Alumoweld
H	7#7 (7/16) Alumoweld
X	3/8" EHS 7 Strand Steel
Y	7/16" EHS 7 Strand Steel
Z	4/0 AAAC 19 or 4/0 ACSR 6/1

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

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Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.

Drawing Scale: N/A



TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL

CONDUCTOR AND STATIC RELATED DETAILS
CONDUCTOR DAMPERS
STANDARD CU FORMAT
AND NAMING CONVENTION

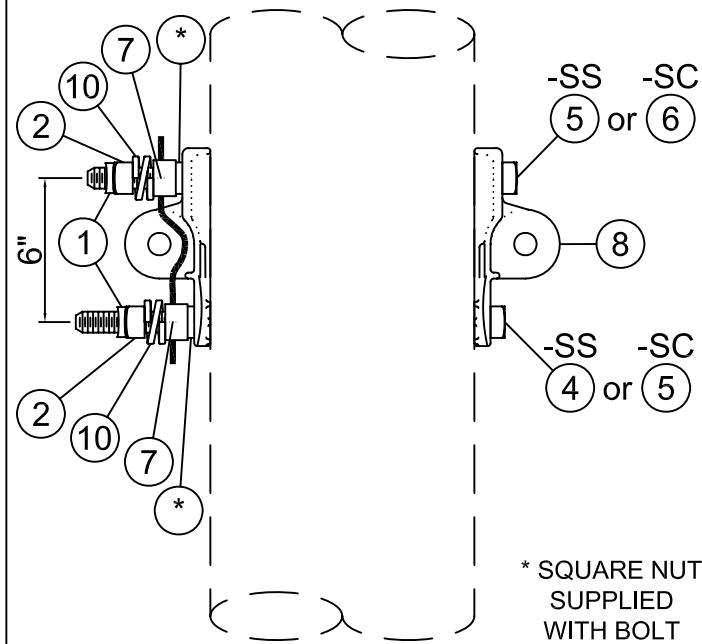
REVISION
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DATE
5/21/2015

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
B. Franklin	6/25/2014	Becken/Hart	12/24/2014	Barry R. Hart	12/24/2014

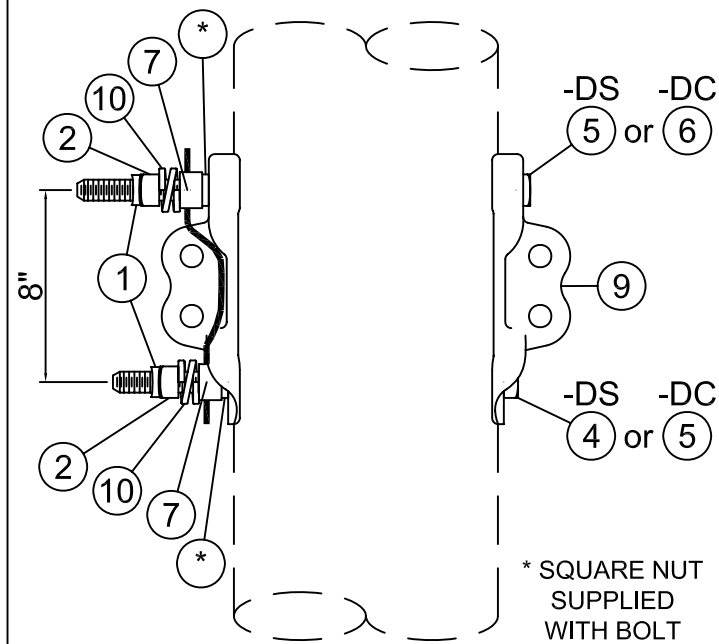
TM2.23.TJ-08-CU

Sheet 1

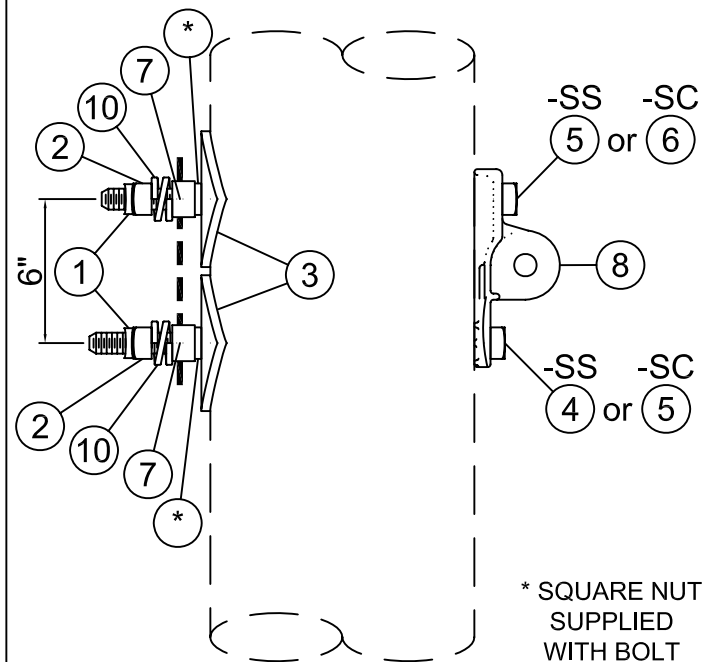
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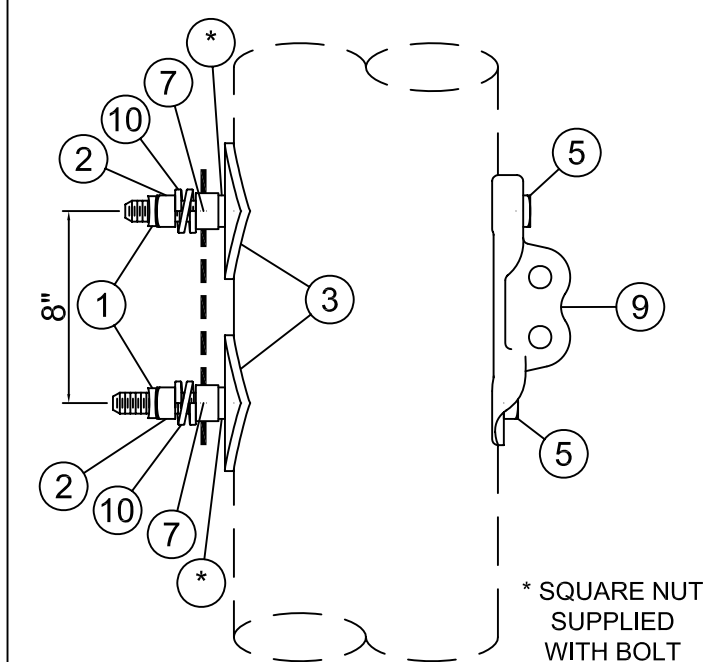
TJ-09-001-DS or TJ-09-001-DC



TJ-09-001-SG



TJ-09-001-DG



NOTE: HOLE DIAMETER = 15/16"

FOR GUYING REFER TO "TR" SECTION OF TRANSMISSION MANUAL.

NOTE: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION FOR ASSISTANCE.

mark	-SS	-SC	-SG	-DS	-DC	-DG	BILL OF MATERIAL			CU TYPE: POLE
ITEM NO.				QTY.	QTY.	QTY.	UOM	NYSEG MID	CMP MID	CU: C*PT-TJ-09-001-(mark)
1	2	2	2	2	2	2	EA	1000910800	6000273690	NUT LCK MF SQ 7/8 BOLT GALV
2	2	2	2	2	2	2	EA	1000911900	6000273770	NUT SQ 7/8 BOLT GALV
3			2			2	EA	1000943700		WSHR CRV 4 SQ X 3/8 THK 15/16 H GALV
4	1			1			EA	1035475014	6000272350	BOLT MACH GALV SQHD SQNT 7/8 X 14
5	1	1		1	1		EA	1035475016	6000272360	BOLT MACH GALV SQHD SQNT 7/8 X 16
6		1	2		1	2	EA	1035475018	6000272370	BOLT MACH GALV SQHD SQNT 7/8 X 18
7	2	2	2	2	2	2	EA	1036200007	6000251031	CLMP GRND WIRE U-CLIP 15/16 H
8	2	2	1				EA		6000274040	PLT POLE SGL EYE - 15/16 H
9				2	2	1	EA		6000274044	PLT POLE DBL EYE - (2) 15/16 H
10	2	2	2	2	2	2	EA		6000274612	WSHR HELICAL 7/8

WHEN USED AT THE STATIC LOCATION:
TOP BOLT TO BE LOCATED 9" FROM TOP OF POLE.

WHEN USED AT THE CONDUCTOR LOCATION:
SEE STRUCTURE STANDARD FOR DIMENSION TO TOP BOLT.

CU Function:
TL69 for 35kV & 46kV,
TG69 for 69kV - 344kV,
T345 for 345kV & greater

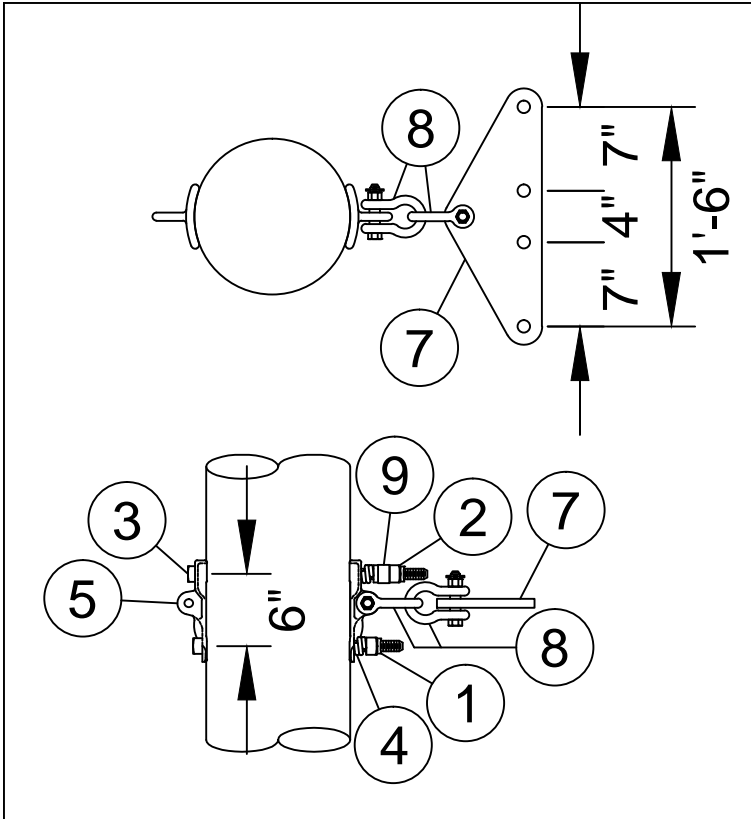
For correct CU:
substitute 5 for NYSEG,
6 for CMP or 9 for RG&E
in place of asterisk (C*_).

THIS IS A COMPUTER GENERATED DRAWING - DO NOT REVISE MANUALLY					
Contact Engineering Standards - Transmission for the creation of new standards and CUs.				Drawing Scale: 1-1/2" = 1'-0"	
	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL TM2.23.00		TRANSMISSION CONDUCTOR AND STATIC RELATED DETAILS		ISSUE
			GUY PLATE ATTACHMENT DETAILS ON WOOD STRUCTURE		0
Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
L.A. Best	6/14/2011	Bartczak/Becken/Shepard	11/3/2011	Barry R. Hart	12/13/2012
TJ-09-001					Sheet 1

CU TYPE: POLE

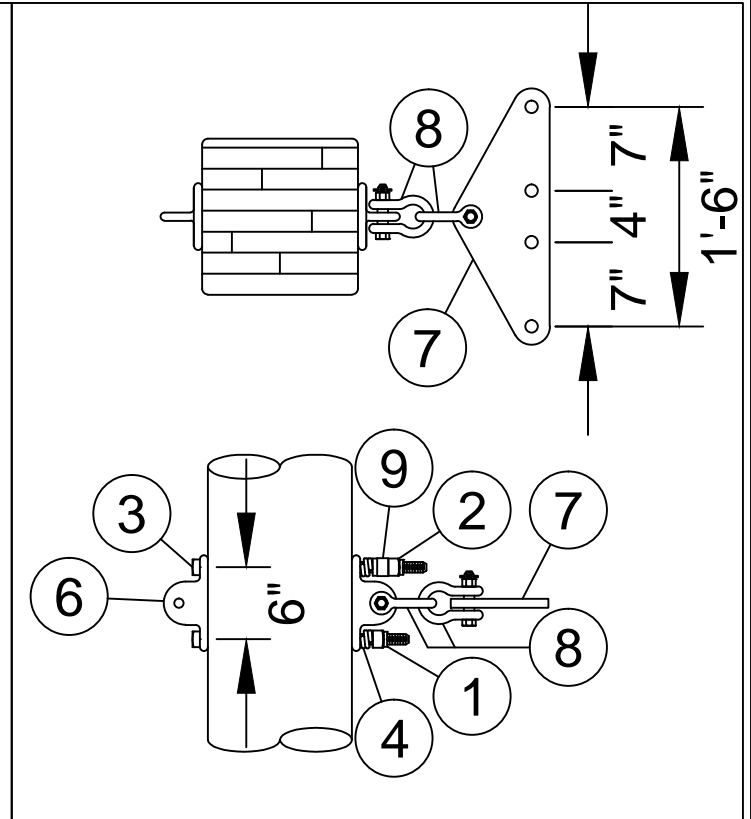
BILL OF MATERIAL

ITEM NO.	QTY. -R	QTY. -L	QTY. -S	UOM	IUSA MID	CU: C*PT-TJ-09-002-X
1	2	2		EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	1	1		EA	6000273770	NUT SQ 7/8 BOLT GALV
3	2	2		EA	1035475016	BOLT SQ HEAD 7/8 X 16 W/ SQ NUT (NOTE A)
4	2	2		EA	6000274612	WASHER HELICAL (7/8")
5	2			EA	6000274040	PLT POLE EYE 15/16 H
6		2		EA	6000274505	DEAD END TEE, 60K
7	1	1	1	EA	6000274071	YOKE AL TRIANGLE 40K
8	2	2	2	EA	1039220531	SHCKL ANCH 7/8 BNK 1-1/4 OPNG
9	1	1		EA	1036200007	CLMP GRD WIRE U-CLIP 15/16" H



TJ-09-002-R

FOR USE ON ROUND WOOD POLE



TJ-09-002-L

FOR USE ON LAMINATED WOOD POLE

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344 KV, T345 FOR 345KV & GREATER

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E, IN PLACE OF ASTERISK (C*_)

NOTE A: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT SYSTEM ENGINEERING-TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE B: TJ-09-002-S IS FOR USE ON STEEL STRUCTURES AND ALL OTHER STRUCTURES THAT DO NOT REQUIRE ADDITIONAL POLE EYE PLATES OR DEADEND TEES.

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Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.

Drawing Scale: 1" = 15"



**TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL**

**CONDUCTOR AND STATIC RELATED DETAILS
SPECIAL AERIAL DEADEND
WITHOUT GUYING**

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DATE
5/21/2015

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
B. Franklin	4/15/2013	Becken/Hart	12/24/2014	Barry R. Hart	12/24/2014

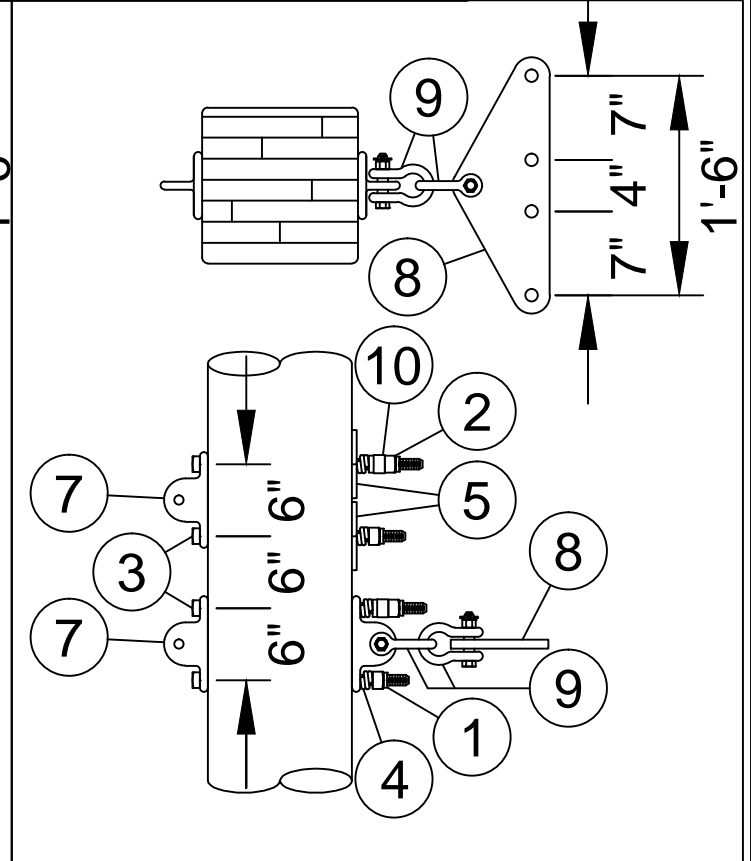
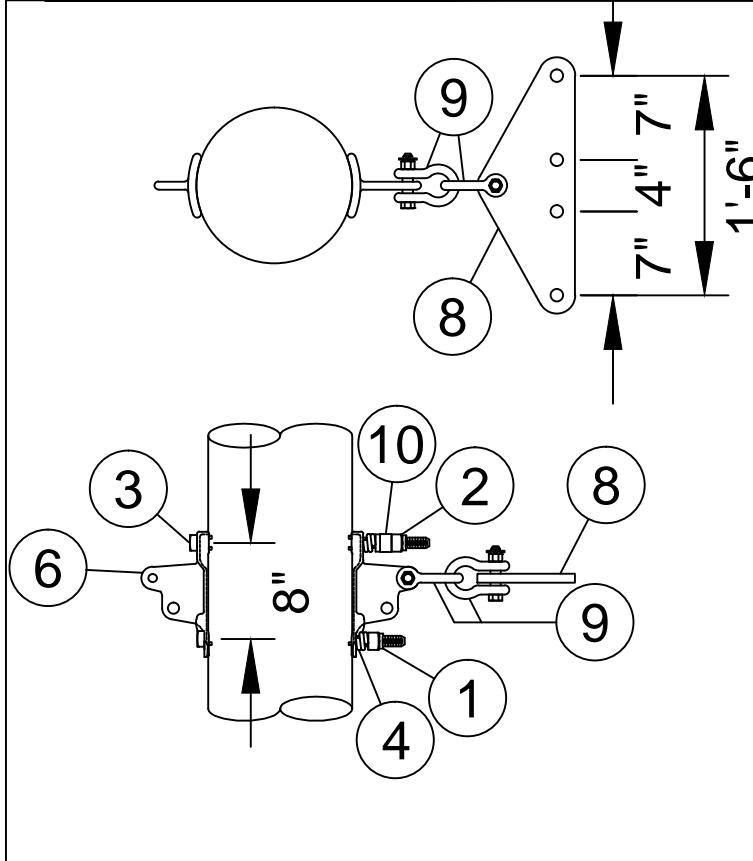
TM2.23.TJ-09-002

Sheet 1

CU TYPE: POLE

BILL OF MATERIAL

ITEM NO.	QTY. -RG	QTY. -LG	UOM	IUSA MID	CU: C*PT-TJ-09-002-X
1	2	4	EA	1000910800	NUT LCK MF SQ 7/8 BOLT GALV
2	1	2	EA	6000273770	NUT SQ 7/8 BOLT GALV
3	2	4	EA	1035475016	BOLT SQ HEAD 7/8 X 16 W/ SQ NUT (NOTE A)
4	2	4	EA	6000274612	WASHER HELICAL (7/8")
5		2	EA	1000946500	WASHER 4" SQ. FLAT (7/8")
6	2		EA	6000274044	DOUBLE PLT POLE EYE 15/16 H
7		3	EA	6000274505	DEAD END TEE, 60K
8	1	1	EA	6000274071	YOKE AL TRIANGLE 40K
9	2	2	EA	1039220531	SHCKL ANCH 7/8 BNK 1-1/4 OPNG
10	1	1	EA	1036200007	CLMP GRD WIRE U-CLIP 15/16" H



TJ-09-002-RG

FOR USE ON ROUND WOOD POLE

TJ-09-002-LG

FOR USE ON LAMINATED WOOD POLE

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344 KV, T345 FOR 345KV & GREATER

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E, IN PLACE OF ASTERISK (C*_)

NOTE A: LARGER OR SMALLER BOLTS MAY BE REQUIRED DEPENDING ON THE ACTUAL DIAMETER OF THE POLE USED. SUBSTITUTE MATERIAL ID (MID) ON THE WORK ORDER COMPONENTS PAGE FOR THE LENGTH NEEDED IF DIFFERENT THAN THE GENERIC LENGTH SHOWN IN THE BILL OF MATERIALS. CONTACT SYSTEM ENGINEERING-TRANSMISSION SECTION IF YOU NEED ASSISTANCE.

NOTE B: REFER TO SECTIONS TH AND TR FOR GUYING AND ANCHORING INFORMATION. WHEN USING 20M GUY WIRE USE INSULATED GUY ASSEMBLIES.

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Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.

Drawing Scale: 1" = 15"



**TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL**

**CONDUCTOR AND STATIC RELATED DETAILS
SPECIAL AERIAL DEADEND
WITH GUYING**

REVISION
00
DATE
5/21/2015

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
B. Franklin	4/15/2013	Becken/Hart	12/24/2014	Barry R. Hart	12/24/2014

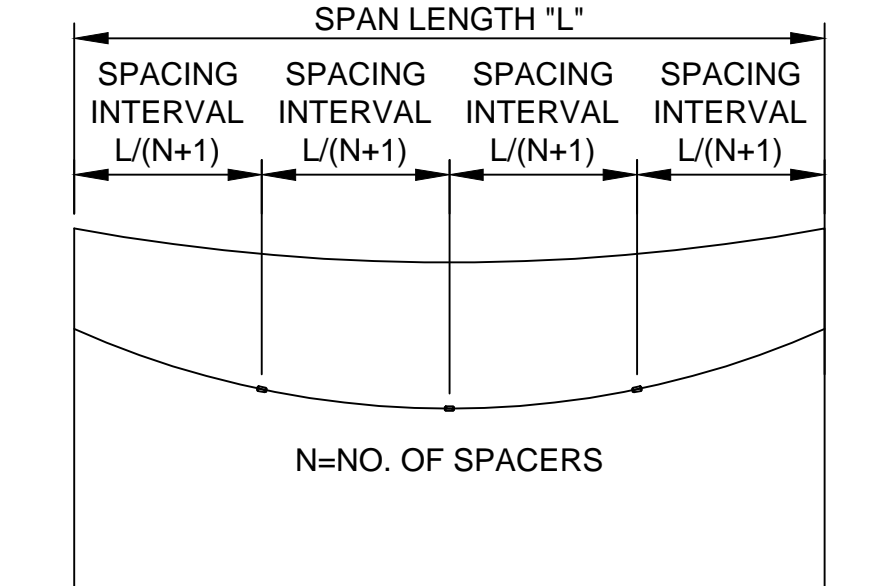
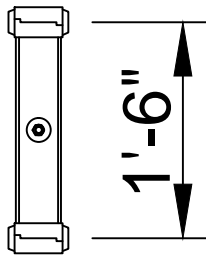
TM2.23.TJ-09-002

Sheet 2

CU TYPE: CNDO

BILL OF MATERIAL

MARK	QTY.	UOM	IUSA MID	CU: C*PT-TJ-9SS-C2-(MARK)
I	1	EA	6000221550	SPCR BNDL COND RIGID 18SPC 1.108
B	1	EA	6000221540	SPCR BNDL COND RIGID 18SPC 0.792-0.831
X	1	EA	6000221550	SPCR BNDL COND RIGID 18SPC 1.108
F	1	EA	6000221560	SPCR BNDL COND RIGID 18SPC 1.212
K	1	EA	6000221570	SPCR BNDL COND RIGID 18SPC 1.302
L	1	EA	6000221585	SPCR BNDL COND RIGID 18SPC 1.545



CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344 KV, T345 FOR 345KV & GREATER

FOR CORRECT CU: SUBSTITUTE 5 FOR NYSEG, 6 FOR CMP OR 9 FOR RG&E, IN PLACE OF ASTERISK (C*_)

NOTE A: SPACERS ARE EQUIPPED WITH SNAP-OFF BOLTS ENABLING INSTALLATION WITH A HOT-STICK.

NOTE B: SPACERS HAVE CUSHION GRIPS IN THE CONDUCTOR ATTACHMENT AREA.

NOTE C: SPACERS SHALL BE INSTALLED AT EVEN INTERVALS ALONG EACH BUNDLED CONDUCTOR SPAN. THE INTERVAL BETWEEN SPACERS SHALL NOT EXCEED 250 FEET.

SPAN LENGTH	SPACERS PER PHASE
≤750'	2
≤1000'	3
≤1250'	4
≤1500'	5

NOTE D: SPACERS SHALL BE INSTALLED AT THE SAME POINT IN THE SPAN ON EACH PHASE.

NOTE E: SPACERS SHALL BE INSTALLED WITHIN 72 HOURS OF THE CONDUCTORS BEING CLIPPED IN.

NOTE F: THE CONDUCTORS SHALL BE UNDER CONSTANT SURVEILLANCE BETWEEN CLIPPING IN AND SPACER INSTALLATION. IF CONDUCTOR CONTACT OCCURS THE CONDUCTOR SHALL BE INSPECTION AND ANY DAMAGE SHALL BE REPAIRED OR CONDUCTOR REPLACED PRIOR TO INSTALLATION OF SPACERS.

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Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.

Drawing Scale: 1" = 15"



**TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL**

**CONDUCTOR AND STATIC RELATED DETAILS
BUNDLED CONDUCTOR SPACERS**

REVISION
00
DATE
5/21/2015

Drwn. By:	Date Dr.:	Checked By:	Date Ck.:	Approved By:	Date App.:
B. Franklin	9/11/2014	Becken/Hart	12/24/2014	Barry R. Hart	12/24/2014

TM2.23.TJ-10-001

Sheet 1

CU Type: CNDO (all macros)

CUs limited to 17 characters

TJ-10-1 - Standard CU Format

1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th
C	X1	C	T	-	T	J	-	X2		X3	-	X4	X5	X6		

X1	OpCo
5	NYSEG
6	CMP
9	RG&E

X2	Voltage
5	35kV
4	46kV
6	69kV
1	115kV
2	230kV
3	345kV
9	Multi-Use

X6	Conductor
A	4/0 AAAC 19
B	477 ACSR 18/1
C	477 AAC 19
D	477 ACSR 30/7
E	1033 AAC 37
F	1033 ACSR 45/7
G	602.5 ACSR/TW 20/7
H	336.4 ACSR 30/7
I	795 ACSR 45/7
J	1033 ACSR 54/7
K	1192 ACSR 45/7
L	1590 ACSR 54/19
M	1280 ACAR 42/19
N	2156 ACSR 84/19
O	4/0 ACSR 6/1
P	336.4 ACSR 18/1
Q	2/0 CU 7
R	2A CWLD/CU 1/2
S	1/0 ACSR 6/1
T	3/0 ACSR 6/1
U	1590 AAC 61
V	4/0 EK CWLD/CU
W	795 ACSR 36/1
X	795 ACSR 26/7
Y	1113 ACSR 45/7
Z	477 ACSR 26/7
1	900 ACSR 45/7
2	1272 AAC 61
3	4/0 AAAC 7

X3	Spacer Type
SS	Standard Conductor Spacer
SD	Conductor Spacer-Damper*

X4	Spacer Construction
A	Helical Formed Wire
B	Bolted
C	Cushion Grip

X5	Number of Conductors
2	2 Conductors per Phase
3	3 Conductors per Phase
4	4 Conductors per Phase
6	6 Conductors per Phase

CU FUNCTION: TL69 FOR 35KV & 46KV, TG69 FOR 69KV THRU 344KV, T345 FOR 345KV & GREATER.

* FOR BUNDLES OF THREE (3) SUBCONDUCTORS OR MORE.

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Contact Engineering Standards - Transmission Section for the creation of new standards and CUs.

Drawing Scale: N/A



TRANSMISSION
CONSTRUCTION
STANDARDS
MANUAL

CONDUCTOR AND STATIC RELATED DETAILS
CONDUCTOR SPACERS
STANDARD CU FORMAT
AND NAMING CONVENTION

REVISION
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5/21/2015

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B. Franklin	6/10/2014	Becken/Hart	12/24/2014	Barry R. Hart	12/24/2014

TM2.23.TJ-10-1-CU

Sheet 1

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ANSI B 11" X 17"

ACSR		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
636.0	18/1	Kingbird	0.940					
636.0	24/7	Rook	0.977					
636.0	26/7	Grosbeak	0.990					
636.0	30/7	Scoter	1.019					
636.0	30/19	Egret	1.019					
715.5	30/19	Redwing	1.081					
795.0	24/7	Cuckoo	1.092					
795.0	26/7	Drake	1.107	1007237068	12	1.728	1036090204	1036090136
795.0	36/1	Coot	1.040	1007237065	12	1.660	1036090204	1036090118
795.0	45/7	Tern	1.063	1007237065	12	1.684	1036090204	1036090118
795.0	54/7	Condor	1.092					
795.0	30/19	Mallard	1.140					
850.8	45/7	Heron	1.100		12	1.720	6000111480	11-1488
900.0	54/7	Canary	1.162		13	1.782	6000111480	11-1506
954.0	45/7	Rail	1.165					
954.0	54/7	Cardinal	1.196		13	1.816	6000111480	11-1464
1033.5	36/1	Tanager	1.186	1007237070	13	1.806	1036090204	1036090136
1033.5	45/7	Ortolan	1.212	1007237075	12	1.943	1036090204	1036090136
1033.5	54/7	Curlew	1.245	1007237075	12	1.976	1036090218	1036090136
1113.0	45/7	Bluejay	1.258					
1192.5	45/7	Bunting	1.302	1007237077	12	2.032	1036090218	1036090136
1192.5	54/19	Grackle	1.337	072-370-79	13	2.068	1036090218	1036090149
1272.0	54/19	Pheasant	1.381	072-370-79	13	2.112	360-902-40	1036090149
1431.0	45/7	Bobolink	1.427			2.229	360-902-40	1036090149
1431.0	54/19	Plover	1.465					
1590.0	45/7	Lapwing	1.502	072-370-80	12	2.374	1036090252	1036090070
1590.0	54/19	Falcon	1.544					
2156.0	84/19	Bluebird	1.762	1007237086	14	2.634	1036090204	1036090070

ACSR **		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
101.8	12/7	Petrel	0.461					1036090060
134.6	12/7	Leghorn	0.530					
190.8	12/7	Dorking	0.631					1036090075
211.3	12/7	Cochin	0.663	1007236610	13	1.028	1036090118	1036090075


** These are high mechanical strength wires.

ACSR/TW		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
477.0	22/7	X/TW	0.808					
568.4	22/7	X/TW	0.883					
602.5	20/7	Hen/TW	0.883	1007237026	12	1.383	1036090149	1036090095
636.0	20/7	Grosbeak/TW	0.906					
795.0	22/7	Drake/TW	1.011					
1272.0	33/7	Bittern/TW	1.215	1007237075	12	1.945	1036090204	1036090136

ACSS		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
795.0	26/7	Drake/ACSS	1.107					

AWLD		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
3#6			0.349					11-1376, -1408
7#10			0.306					
7#8 (3/8")			0.385			0.613		1036098046
7#7 (7/16")			0.433			0.648		
7#6 (1/2")			0.486			0.689		11-1408
19#10			0.509					11-1408
19#9			0.572					
19#8			0.642					
19#5			0.910					
6M			0.242					
8M			0.272					
12.5M			0.343					
20M			0.444					

CLAMPS WITH SOCKET FITTINGS ARE USED FOR PHASE CONDUCTOR APPLICATIONS AND CLAMPS WITHOUT SOCKET FITTINGS FOR STATIC WIRE APPLICATIONS. FOR OTHER APPLICATIONS, CONTACT ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.						Drawing Scale: N/A	
		IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL		TRANSMISSION CONDUCTOR AND STATIC RELATED INFO SUSPENSION CLAMPS		Revision	
						00	
Drwn. By: L.A. Best Date Dr.: 10/10/2012		Checked By: Shepard/Becken/Hart		Date Ck.: / /2014		Date	
						/ /2014	
Approved By: Barry R. Hart		Date App.: / /2014		TM2.23.TJ-01-001		Sheet 2	

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ANSI B 11" X 17"

CU		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
#6 MHD	Solid		0.162					
#4 MHD	Solid		0.204					11-1376
#3 MHD	Solid		0.229					11-1376
#2 MHD	Solid		0.258					11-1376
#1 MHD	Solid		0.289					11-1376
#2	Solid		0.2576					
1/0	Solid		0.3249					
2/0	Solid		0.3648					
4/0	Solid		0.460					
#3	0/1		0.2294					
#4	0/3		0.254					
#2	0/3		0.320					
#1	0/3		0.360					11-1376
#4 HD	0/7		0.232					
#3	0/7		0.260					
#2 HD	0/7		0.292					
#1 HD	0/7		0.328					
1/0	0/7		0.368					11-1376
2/0 HD	0/7		0.414	1007237505	10	0.700	360-970-82	1036097046
3/0 HD	0/7		0.464					
4/0 HD	0/7		0.522					11-1392
4/0 HD	0/19		0.528					1036097060
300.0	0/19		0.629					1036097070
350.0	0/19		0.679					


CWLD		TYPE	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
#2	Solid	40% HS	0.2576					
3#8	3	30% EHS	0.277					11-1376
3#7	3	30% EHS	0.311					1036098046
3#6	3	30% EHS	0.349					
7#10	7	40% HS	0.306					
7#9	7	40% HS	0.343					
7#8	7	40% HS	0.385					1036098046
7#7	7	40% HS	0.433					
19#5	19	40% HS	0.910					360-980-99
6M	7		0.237					
8M	7		0.276					
12.5M	7		0.345					

CWLD/CU		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
1/0f	1/6		0.388					
2/0f	1/6		0.436					11-1392
2a	1/2		0.366					
2f	1/6		0.308					
4/0e	7/12		0.613					
4/0ek	4/15		0.571					1036097070
4a	1/2		0.290					
7a	1/2		0.223					
7d	2/1		0.246					

STEEL (EHS)		Wire Code Word	Conductor Diameter (inches)	Preformed Armor Rod MID	Rods per Set	Overall Diameter with Armor Rod (inches)	MID for Suspension Clamp over PAR	MID for Suspension Clamp w/o PAR
Wire Size	Stranding							
1/4	3		0.2586					
5/16 **	3		0.312					
5/16 **	7		0.312					1036098046
3/8	7		0.360	1007243005	12	0.560	1036098070	1036098046
7/16	7		0.435	1007243013	12	0.675	1036098083	1036098046
1/2	7		0.495	1007243015	12	0.767	360-980-82	1036098060
9/16	7		0.564	072-430-20	12			1036098070
9/16	19		0.565					1036098070

** 5/16" IS OBSOLETE - USE 3/8" EHS 7 STR STL.

CLAMPS WITH SOCKET FITTINGS ARE USED FOR PHASE CONDUCTOR APPLICATIONS AND CLAMPS WITHOUT SOCKET FITTINGS FOR STATIC WIRE APPLICATIONS. FOR OTHER APPLICATIONS, CONTACT ELECTRIC SYSTEM ENGINEERING - TRANSMISSION SECTION.

Contact Engineering Standards - Transmission for the creation of new standards and CUs.						Drawing Scale: N/A	
	IBERDROLA USA TRANSMISSION CONSTRUCTION STANDARDS MANUAL		TRANSMISSION CONDUCTOR AND STATIC RELATED INFO SUSPENSION CLAMPS			Revision 00	
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Date Dr.: 10/10/2012		Checked By: Shepard/Becken/Hart		Date Ck.: / /2014	Approved By: Barry R. Hart		Date App.: / /2014
TM2.23.TJ-01-001						Sheet 3	