



**CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
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NEW YORK, NY 10003**

**DISTRIBUTION ENGINEERING DEPARTMENT
OVERHEAD STANDARDS AND PLANNING**

**SPECIFICATION EO-100186
REVISION 11
May 2015**

**EFFECTIVE DATE
May 15, 2015**

**NON-TENSION OVERHEAD CONNECTORS FOR ALUMINUM OR COPPER
SECONDARY CONDUCTORS**

FILE: PURCHASE & TEST MANUAL NO. 6 – SECT. 4

TARGET AUDIENCE	DISTRIBUTION ENGINEERING OVERHEAD CONSTRUCTION SUPPLY CHAIN - PROCUREMENT
NESC REFERENCE	NONE

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Filing Information		Purchase & Test Manual		Manual No. 4	
		Field Manual		Field Manual No. 9 – Sect. 15	
				Field manual No. 23 – Sect. 6.5	

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1.0 **PURPOSE**

This specification covers non-tension connectors to join secondary and/or service conductors used in the overhead distribution system.

2.0 **APPLICATION**

This specification applies to all regions, except Manhattan.

3.0 **GENERAL**

Non-tension secondary connectors make electrical connection between aluminum-to-aluminum or aluminum-to-copper or copper-to-copper conductors. They must meet electrical and mechanical requirement of ANSI C119.4 (latest revision) for Heavy Duty (Class A) application. Connectors included are parallel groove clamps and compression connectors. When applicable, each connector and cover ordered as a kit shall be supplied in a properly marked and sealed bag. For installation guide of secondary connectors, see [EO-2140](#). For connectors used on primary lines, see [EO-100169](#).

4.0 **MATERIAL REQUIREMENTS**

- 4.1 Aluminum connectors shall be made from high quality, high strength AA6061 aluminum alloy or other approved material.
- 4.2 Copper connectors shall be made of a copper alloy containing not less than 80% copper. The copper alloy shall meet requirements of ASTM B584-93a (latest revision). Bolts, nuts and lock washers shall be of silicone bronze.
- 4.3 Connectors with inside surface coated with corrosion-resistant inhibiting compound shall be prepackaged in properly sealed bags printed with applicable connector sizes.
- 4.4 Pre-insulated connectors shall be made with a moisture proof body, fully insulated and color-coded.
- 4.5 Body of bolted connector shall have interlocking finger design and captive hardware.
- 4.6 Plastic cover/casing shall be made of polypropylene or other approved insulating material, which does not deform/soften under normal operating

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temperature up to 90 degrees C and voltage up to 600V. Permanent locking feature required.

5.0 APPROVED TYPES

Connectors and covers, if applicable, approved for system use are tabulated in the tables below by type, size, material, stock number and manufacturer's catalogue number.

6.0 ALTERNATE MANUFACTURERS

Connectors manufactured by vendors other than listed may be submitted for evaluation and approval. Should such products and vendors be found acceptable, they will be included in subsequent revisions of this specification.

7.0 ATTACHMENTS

The following tables are attached:

- Table #1 - Parallel Groove Clamps
- Table #2 - Service Entrance Compressor Connectors

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<p>REVISION 11: -Removed TYCO Miniwedges -Removed Table 1 for TYCO Miniwedges and renumbered tables 2 and 3 -Burndy approved for service entrance compression connectors</p>	<p>FILE: Purchase & Test Manual No. 6, Section No. 4—Cable Accessories Field Manual No. 9, Overhead Construction, Section No. 15--Specifications Field Manual No. 23, Overhead Construction, Section No. 6.5--Connectors</p>
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TABLE #1

PARALLEL GROOVE CLAMPS

STOCK # (Clamp Only, No Cover/Kit)	WIRE SIZE (ALUM. TO ALUM. OR ALUM. TO CU)				ITEM CAT. #	MFG.	KIT C/S#(**)
	MAIN RUN		TAP				
	MAX.	MIN.	MAX.	MIN.			
--	1/0 Str.	#8 Sol.	#2 Str.	#8 Sol.	LC51A-XB52PT	ANDERSON	571-5404+
--	1/0 Str.	#8 Sol.	1/0 Str.	#8 Sol.	WCG25RSCEKIT	BURNDY	571-5404+
--	2/0 Str.	#8 Sol.	2/0 Str.	#8 Sol.	LC52A-XB52PT	ANDERSON	571-5412+
--	400 Kcmil	#1 Sol.	2/0 Str.	#8 Sol.	LC52C-XB52PT	ANDERSON	571-5420+
571-4878++	400 Kcmil	1/0 Str.	400 Kcmil	1/0 Str.	LC66A-XB	ANDERSON	--
007-7214++	400 Kcmil	3/0 Str.	400 Kcmil	3/0 Str.	382.2P	ALCOA	--
007-7214++	400 Kcmil	3/0 Str.	400 Kcmil	3/0 Str.	APC3972I	CMC	
571-7798+	954 Kcmil	398 Kcmil	2/0 Str.	#8 Sol.	LC83A-XB	ANDERSON	--
571-7798+	1000 Kcmil	450 Kcmil	3/0 Str.	#6 Sol.	393.6P	ALCOA	--
571-5909++	1000 Kcmil	450 Kcmil	400 Kcmil	3/0 Str.	483.2P	ALCOA	--
571-5909++	1000 Kcmil	400 Kcmil	400 Kcmil	3/0 Str.	PAE 9939	BLACKBURN	
571-5909++	1000 Kcmil	400 Kcmil	400 Kcmil	3/0 Str.	APR1000-2I	CMC	
WIRE SIZE (COPPER TO COPPER)							
--	1/0 Str.	#6 Sol.	1/0 Str.	#6 Sol.	UC6W25CONKIT	BURNDY	007-9590
--	4/0 Str.	#4 Sol.	4/0 Str.	#4 Sol.	UC4W28CONKIT	BURNDY	007-4120

*---3-BOLT CLAMP
 +...SINGLE-BOLT CLAMP
 ++...DOUBLE-BOLT CLAMP
 (**)...INCLUDES CONNECTOR WITH COVER

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TABLE #2

SERVICE ENTRANCE COMPRESSION CONNECTORS

STOCK #	WIRE SIZE - INSULATED CONNECTOR		MANUFACTURERS/ITEM CATALOGUE NUMBERS			
	SIZE "A"	SIZE "B"	HOMAC	PENN UNION	THOMAS & BETTS	BURNDY
571-0405	#4 Str. - #2 Sol.	#2 Sol. - #4 Str.	U1N44	PIK22	ICS681	ES2W2W
571-0397	#4 Str. - #2 Sol.	#4 Sol. - #6 Str.	U1N46	PIK24	ICS671	ES2W4W
571-0389	#4 Str. - #2 Sol.	#6 Sol. - #8 Str.	U1N48	PIK26	ICS661	ES2W6W
571-0371	#4 Str. - #2 Sol.	#8 Sol. - #10 Str.	U1N41	PIK28	ICS651	ES2W8W
571-0348	#6 Str. - #4 Sol.	#6 Sol. - #8 Str.	U1N68	PIK46	ICS631	ES4W6W
571-0355	#6 Str. - #4 Sol.	#4 Sol. - #6 Str.	U1N66	PIK44	ICS641	ES4W4W
571-0454	1/0 Str.	#2 Sol. - #4 Str.	U1N104	PIK02	ICS761	ES25R2W
571-0439	1/0 Str.	#6 Sol. - #8 Str.	U1N108	PIK06	ICS741	ES25R6W
571-0447	1/0 Str.	#4 Sol. - #6 Str.	U1N106	PIK04	ICS751	ES25R4W
571-0462	1/0 Str.	#2 Str.	U1N102	PIK01	ICS771	ES25R2R
571-0470	1/0 Str.	1/0 Str.	U1N1010	PIK00	ICS781	ES25R25R
571-0413	#2 Str.	#2 Sol.	U1N24	PIK12	ICS721	ES2R2W
571-0421	#2 Str.	#2 Str. - #1 Str.	U1N22	PIK11	ICS731	ES2R2R
	WIRE SIZE - UNINSULATED CONNECTOR					
571-1742	1/0 Str.	#2 Sol. - #4 Str.	U1B104	PSK02	CS76	YSU25R2W
571-1767	1/0 Str.	#2 Str. - #1 Str.	U1B102	PSK01	CS77	YSU25R2R
571-1759	#1 Str. - #2 Str.	#2 Sol. - #4 Str.	U1B24	PSK12	CS72	YSU2R2W
571-5289	2/0 Str.	1/0 Str.	X1N2010	PS200	CS84	YSD26R25R
571-5941	1/0 Str.	1/0 Str.	U1B1010	PSK00	CS78	YSU25R25R

Note: These connectors are acceptable when installed using tools and dies as recommended by the connectors' manufacturers.

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