

**Thomas and Betts Corporation  
Product Guide Specification**

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

This section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers are from *MasterFormat 2010 Update*.

**SECTION 26 05 83.14  
WIRING CONNECTIONS: ALUMINUM AND COPPER COMPRESSION LUGS AND SPLICES**

Specifier Notes: Delete any information below in Parts 1, 2 or 3 which is not required or relevant for the project.

**PART 1 – GENERAL**

**1.01 SUMMARY**

- A. This section includes aluminum and copper compression lugs and splices for termination of aluminum and copper wire.
- B. Related Sections:
  - 1. Section 26 05 83.17 Wiring Connections: Crimp Tools for Aluminum and Copper Lugs and Splices

**1.02 REFERENCES**

- A. Underwriters Laboratories, Inc. (UL):
  - 1. UL486A-486B Wire Connectors
  - 2. UL486C Splicing Wire Connectors
- B. Canadian Standard Association (CSA):
  - 1. CSA C22.2-65 Wire Connectors
  - 2. CSA C22.2-188 Splicing Wire Connectors
  - 3. CSA C22.1 Canadian Electrical Code Part I (CEC)
- C. National Fire Protection Association (NFPA):
  - 1. NFPA 70 National Electrical Code (NEC)
- D. American National Standard Institute (ANSI):
  - 1. ANSI C119.4 Electric connectors - connectors to use between aluminum-to-aluminum or aluminum-to-copper conductors

**1.03 SUBMITTALS**

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data:
  - 1. Submit manufacturer's descriptive literature and product specifications for each product.
  - 2. Manufacturer's product drawings.

**WIRING CONNECTIONS:  
ALUMINUM AND COPPER COMPRESSION LUGS AND SPLICES  
26 05 83.14-1  
REVISION 0**

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**1.04 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Products shall be free of defects in material and workmanship.
- B. Furnished products as identified in the PRODUCTS section are listed, classified or approved by third party agencies as suitable for the intended purpose.

**1.05 WARRANTY**

- A. Product is warranted free of defects in material and workmanship.
- B. Product is warranted to perform the intended function within design limits.

**PART 2 – PRODUCTS**

**2.01 GENERAL**

- A. Where noted in the DESIGN AND PERFORMANCE REQUIREMENTS section aluminum compression lugs and splices shall be identified as;
  - 1. Aluminum compression lugs and splices that meet or exceed ANSI C119.4 specifications; and may include UL Listing to UL486A-486B, UL 486C and/or CSA Certification to C22.2 No. 65 and 188.
  - 2. Aluminum compressions lugs and splices that are UL Listed to UL486A-486B, UL 486C and CSA Certified to C22.2 No. 65 and 188.
- B. Where noted in the DESIGN AND PERFORMANCE REQUIREMENTS section copper lugs and splices shall be UL Listed to UL486A-486B, UL 486C and CSA Certified to C22.2 No. 65 and 188.
- C. All lugs and splices must use the appropriate Thomas & Betts crimping tool and die to assure the correct mechanical and electrical connection, and to maintain any third party approvals.

**2.02 MANUFACTURERS**

- A. Acceptable Manufacturers:  
Thomas & Betts Corporation  
8155 T&B Blvd  
Memphis, TN 38125  
800-816-7809, 901-252-5000  
[www.tnb.com](http://www.tnb.com)  
  
Products:
  - 1. Blackburn® Compression Connectors

**2.03 DESIGN AND PERFORMANCE REQUIREMENTS**

(Aluminum lugs and splices that meet or exceed ANSI C119.4 requirements and UL/CSA listing were noted)

- A. Aluminum NEMA Lugs:
  - 1. All aluminum NEMA lugs shall be dual-rated for use with both aluminum and copper conductors.
  - 2. All aluminum NEMA lugs shall be made from high strength, high conductive aluminum alloy.
  - 3. All aluminum NEMA lugs shall be prefilled with oxide inhibitor to prevent oxidation and keep out moisture.
  - 4. All aluminum NEMA lugs shall be marked with conductor sizes and die references for easy identification.

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5. Aluminum one-hole NEMA lugs:
  - a. Aluminum one-hole NEMA lugs shall be of the AL\_\_ series.
  - b. Aluminum one-hole NEMA lugs shall cover the following wire ranges
    - 1) Concentric: #6 to 1000 kcmil
    - 2) Compact: 350, 400 and 600 kcmil
    - 3) ACSR: 4/0 to 954 (45/7)
  - c. Tin-plated aluminum one-hole NEMA lugs (-TN suffix) shall be UL listed.
  - d. Aluminum one-hole NEMA lugs shall be available with bolt hole sizes of ¼", 5/16", 3/8", ½" and 5/8".
6. Aluminum two-hole NEMA lugs:
  - a. Aluminum two-hole NEMA lugs shall be of the SA\_\_N series.
  - b. Aluminum two-hole NEMA lugs shall be available in a stacking lug construction as the ASL 6 N series.
  - c. Aluminum two-hole NEMA lugs shall cover the following wire ranges:
    - 1) Concentric: #6 to 2000 kcmil
    - 2) Compressed: #6, #4 and #1 AWG
    - 3) Compact: #6 to 795 kcmil
    - 4) ACSR: #6 to 1192.5 (45/7) kcmil
  - d. Tin-plated aluminum two-hole NEMA lugs (-TN suffix) shall be UL listed.
  - e. Aluminum two-hole NEMA lugs shall be available with bolt hole sizes of ¼", 5/16", 3/8", ½" and 5/8".
7. Aluminum four-hole NEMA lugs:
  - a. Aluminum four-hole NEMA lugs shall be of the AL\_\_-4N series.
  - b. Aluminum four-hole NEMA lugs shall cover the following wire ranges:
    - 1) Concentric: 1000 to 2500 kcmil
    - 2) ACSR: 900 to 2167 kcmil
  - c. Tin-plated aluminum four-hole NEMA lugs shall be available with a -TN suffix added to the catalog number.
  - d. Aluminum four-hole NEMA lugs shall be available with ½" bolt holes.
8. Aluminum one-hole NEMA lugs – common die series:
  - a. Aluminum one-hole NEMA lugs – common die series shall be the SA\_\_-48 series.
  - b. Aluminum one-hole NEMA lugs – common die series shall be available in a stacking lug construction (five version) as the SASL\_\_-48 series.
  - c. Aluminum one-hole NEMA lugs – common die series shall cover the following wire ranges:
    - 1) Concentric: #12 to 400 kcmil
    - 2) Compressed: #6 to 400 kcmil
    - 3) Compact: #4 to 500 kcmil
    - 4) ACSR: #6 to 397.5 (18/1) kcmil
  - d. Tin-plated aluminum one-hole NEMA lugs – common die series shall be available with a -TN suffix added to the catalog number.
  - e. Aluminum one-hole NEMA lugs – common die series shall be available with ½" bolt holes.
  - f. Aluminum one-hole NEMA lugs – common die series shall be available with 3/8" bolt holes by changing the -48 to -38 in the catalog number.
  - g. Aluminum one-hole NEMA lugs – common die series shall be used for installation on Homac® 125 series insulated buses.
  - h. Aluminum one-hole NEMA lugs – common die series shall be installed by three die sizes to lessen the die inventory.
9. Aluminum two-hole NEMA lugs – common die series:
  - a. Aluminum two-hole NEMA lugs – common die series shall be the SAK\_\_N series.
  - b. Aluminum two-hole NEMA lugs – common die series shall cover the following wire ranges:
    - 1) Concentric: #4 to 600 kcmil
    - 2) Compressed: 2/0 AWG

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- 3) Compact: 2/0, 350, 500 and 600 kcmil
  - 4) ACSR: #2 to 556.6 (18/1) kcmil
  - c. Aluminum two-hole NEMA lugs – common die series shall be available with ½” bolt holes.
  - d. Aluminum two-hole NEMA lugs – common die series shall be installed by three die sizes to lessen the die inventory.
10. Aluminum two-hole NEMA lugs – common die series:
- a. Aluminum two-hole NEMA lugs – common die series shall be the SAM\_\_-4N series.
  - b. Aluminum two-hole NEMA lugs – common die series shall cover the following wire ranges:
    - 1) Concentric: 3/0 to 1033 kcmil
    - 2) Compact: 954 and 1000 kcmil
    - 3) ACSR: 4/0 to 954 (45/7) kcmil
  - c. Aluminum two-hole NEMA lugs – common die series shall be available with ½” bolt holes.
  - d. Aluminum two-hole NEMA lugs – common die series shall be installed by two die sizes to lessen the die inventory.
- B. Aluminum Specialty Lugs:
- 1. Aluminum specialty lugs shall be dual rated for both aluminum and copper conductors.
  - 2. Aluminum specialty lugs shall be prefilled or bores coated with oxide inhibitor to prevent oxidation.
  - 3. Aluminum specialty lugs shall be made from high strength, high conductive aluminum alloy.
  - 4. Aluminum shrouded one-hole lugs:
    - a. Aluminum shrouded one-hole lugs shall be marked with conductor sizes and die references for easy identification.
    - b. Aluminum shrouded one-hole lugs shall cover the following wire ranges:
      - 1) Concentric: #6 to 350 kcmil
      - 2) Compact: #4 to 350 kcmil
    - c. Aluminum shrouded one-hole lugs series shall be installed by three common dies to lessen die inventory.
    - d. Aluminum shrouded one-hole lugs shall be shrouded to provide rain protection for insulated cables.
    - e. Aluminum shrouded one-hole lugs shall be available with ½” bolt holes, 3/8” bolt holes shall be available by changing the -48 to -38 in the catalog number.
    - f. Aluminum shrouded one-hole lugs shall be available with tin plating by adding a – TN suffix to the catalog number.
  - 5. Aluminum tin-plated one-hole lugs.
    - a. Aluminum tin-plated one-hole lugs shall be marked with conductor sizes and die references for easy identification.
    - b. Aluminum tin-plated one-hole lugs shall be a 90° left-hand (AL\_\_-48 LTN series) or right-hand (AL 1/0-48 RTN series).
    - c. Aluminum tin-plated one-hole lugs shall be used in meter pans and metal enclosed gear where wiring clearances are minimal.
    - d. Aluminum tin-plated one-hole lugs shall cover the following wire ranges:
      - 1) Concentric: 1/0 to 750 kcmil
      - 2) Compressed: 1/0 to 800 kcmil
      - 3) Compact: 2/0 to 800 kcmil
    - e. Aluminum tin-plated one-hole lugs shall be available in NEMA drilled lugs by changing the -48\_TN to –NLTN.
    - f. Aluminum tin-plated one-hole lugs shall be available with ½” bolt holes.
  - 6. Aluminum multi-range die-less lugs:
    - a. Aluminum multi-range die-less lugs shall be marked with conductor sizes for easy identification.

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- b. Aluminum multi-range die-less lugs shall cover the following multi-wire ranges:
    - 1) #6 to 1/0 AWG
    - 2) #2 to 4/0 AWG
    - 3) 1/0 to 300 kcmil
    - 4) 4/0 to 500 kcmil
    - 5) 4/0 to 750 kcmil
  - c. Aluminum multi-range die-less lugs shall be available with 1/2" bolt holes.
  - d. Aluminum multi-range die-less lugs shall be available with 5/8" bolt holes by replacing the -48 with a -58 in the catalog number.
  - e. Aluminum multi-range die-less lugs shall be tin plated.
  - 7. Aluminum meter socket lugs – 840 common die series:
    - a. Aluminum meter socket lugs – 840 common die series shall be of the SAKM\_\_-48 series.
    - b. Aluminum meter socket lugs – 840 common die series shall be marked with conductor sizes and die references for easy identification.
    - c. Aluminum meter socket lugs – 840 common die series shall be used for meter pan and general applications.
    - d. Aluminum meter socket lugs – 840 common die series shall have a 1/2" bolt hole.
    - e. Aluminum meter socket lugs – 840 common die series shall be available with a 3/8" bolt hole by changing the -48 to a -38 in the catalog number.
    - f. Aluminum meter socket lugs – 840 common die series shall all be crimped with one die to lessen die inventory.
    - g. Aluminum meter socket lugs – 840 common die series shall have the following wire ranges:
      - 1) Concentric: #6 to 350 kcmil
      - 2) Compressed: #6 to 350 kcmil
      - 3) Compact: #6 to 350 kcmil
      - 4) Solid: #1 to 3/0 AWG
    - h. Aluminum meter socket lugs – 840 common die series shall be available with tin plating by adding a -TN suffix to the catalog number.
  - 8. Aluminum tin plated meter socket lugs – star hole:
    - a. Aluminum tin plated meter socket lugs – star hole shall be of the MSL\_\_ series.
    - b. Aluminum tin plated meter socket lugs – star hole be made from high strength, high conductive aluminum alloy.
    - c. Aluminum tin plated meter socket lugs – star hole shall be marked with conductor sizes and die references for easy of identification.
    - d. Aluminum tin plated meter socket lugs – star hole series shall all be crimped with two dies to lessen die inventory.
    - e. Aluminum tin plated meter socket lugs – star hole shall have a wire range of #4 to 500 ksmil compact.
- C. Aluminum Splices and Tees:
- 1. Aluminum splices and tees shall be made from high strength, high conductive aluminum alloy.
  - 2. Aluminum splices and tees shall be dual rated for both aluminum and copper conductors.
  - 3. Aluminum splices and tees shall be prefilled or bore coated with oxide inhibitor to prevent oxidation.
  - 4. Aluminum splices shall have solid center stops to insure proper cable insertion depth.
  - 5. Aluminum splices and tees shall be marked with conductor sizes and die references for easier identification.
  - 6. Aluminum tin plated straight splices:
    - a. Aluminum tin plated straight splices shall be of the ASC\_\_-TN series.
    - b. Aluminum tin plated straight splices shall cover the following wire ranges:
      - 1) Concentric: #6 to 1500 kcmil
      - 2) Compact: 300, 350, 400 and 600 kcmil

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- 3) ACSR: 4/0 to 954 (45/7) kcmil
  - c. Aluminum tin plated straight splices shall be UL listed through 1000 kcmil concentric.
  - d. Aluminum tin plated straight splices shall be available without tin plating by removing the –TN suffix from the catalog number.
7. Aluminum straight splices – long:
- a. Aluminum straight splices – long shall be of the AC\_\_ series.
  - b. Aluminum straight splices – long shall cover the following wire ranges:
    - 1) Concentric: #4 to 1000 kcmil
    - 2) Compact: 250 and 600 kcmil
    - 3) ACSR: 4/0 to 954 (45/7) kcmil
  - c. Aluminum straight splices – long shall be available with tin plating by adding a –TN suffix to the catalog number.
  - d. Tin plated aluminum straight splices – long shall be UL listed.
8. Aluminum straight reducing splices:
- a. Aluminum straight reducing splices shall be of the AC\_\_ R\_\_ series.
  - b. Aluminum straight reducing splices shall reduce the following wire sizes:
    - 1) Large side range: #2 to 1000 kcmil
    - 2) Small side range: #4 to 750 kcmil
  - c. Aluminum straight reducing splices shall be available with tin plating by adding a –TN suffix to the catalog number.
9. Aluminum straight splices – common die series:
- a. Aluminum straight splices – common die series shall be of the SAC\_\_ series.
  - b. Aluminum straight splices – common die series shall be for general URD applications.
  - c. Aluminum straight splices – common die series shall cover the following wire ranges:
    - 1) Concentric: #4 to 1000 kcmil
    - 2) Compressed: #4 to 400 kcmil
    - 3) Compact: #4 to 600 kcmil
    - 4) Solid: #1 to 3/0 AWG
  - d. Aluminum straight splices – common die series shall use six common dies to lessen die inventory.
10. Aluminum straight reducing splices – common die series:
- a. Aluminum straight reducing splices – common die series shall be of the SAC\_\_ R\_\_ series.
  - b. Aluminum straight reducing splices – common die series shall have the following reducing wire ranges:
    - 1) Side A: #4 to 1000 kcmil
    - 2) Side B: #6 to 750 kcmil
  - c. Aluminum straight reducing splices – common die series shall be UL listed.
  - d. Aluminum straight reducing splices – common die series shall be available with tin plating by adding a –TN suffix to the catalog number.
  - e. Aluminum straight reducing splices – common die series shall use six common dies to lessen die inventory.
11. Aluminum tin-plated straight reducing splices – 5/8 common die series:
- a. Aluminum tin-plated straight reducing splices – 5/8 common die series shall be of the SG\_\_ series.
  - b. Aluminum tin-plated straight reducing splices – 5/8 common die series shall have color-coded end caps to seal splice ends from contaminants.
  - c. Aluminum tin-plated straight reducing splices – 5/8 common die series splices shall use the 5/8 common die series to lessen die inventory.
  - d. Aluminum tin-plated straight reducing splices – 5/8 common die series shall reduce the following wire ranges:
    - 1) Side A: #8 to 2/0

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- 2) Side B: #8 to 2/0
- e. Aluminum tin-plated straight reducing splices – 5/8 common die series shall be dual rated on both sides up to the 1/0 AWG wire size.
- 12. Aluminum tapered splices:
  - a. Aluminum tapered splices shall be of the ATC\_\_ series.
  - b. Aluminum tapered splices shall be used for high-voltage applications up to 69kV.
  - c. Aluminum tapered splices shall have a wire range from #3 to 2000 kcmil concentric.
  - d. Aluminum tapered splices shall be available with tin plating by adding a –TN suffix to the catalog number.
- 13. Aluminum tapered reducing splices:
  - a. Aluminum tapered reducing splices shall be of the ATC\_\_R\_\_ series.
  - b. Aluminum tapered reducing splices shall be used for high-voltage applications up to 69kV.
  - c. Aluminum tapered reducing splices shall reduce the following wire ranges:
    - 1) A side: #2 to 1250 kcmil
    - 2) B side #4 to 750 kcmil
  - d. Aluminum tapered reducing splices shall be available with tin plating by adding a –TN suffix to the end of the catalog number.
  - e. Aluminum tapered reducing splices shall use eight common dies to lessen die inventory.
- 14. Aluminum tapered splices – common die series:
  - a. Aluminum tapered splices – common die series shall be of the SATC\_\_ series.
  - b. Aluminum tapered splices – common die series shall be used for high-voltage applications up to 69kV.
  - c. Aluminum tapered splices – common die series shall cover a wire range of #4 to 750 kcmil.
  - d. Aluminum tapered splices – common die series shall use six common dies to lessen die inventory.
  - e. Aluminum tapered splices – common die series shall be available with tin plating by adding a –TN suffix to the catalog number.
- 15. Aluminum Tees:
  - a. Aluminum Tees shall be of the AT\_\_ series.
  - b. Aluminum Tees shall have the following run and tap wire ranges:
    - 1) Run: #2 to 1000 kcmil
    - 2) Tap: #4 to 1000 kcmil
  - c. Aluminum Tees shall be available with tin plating by adding a –TN suffix to the end of the catalog number.
- 16. Aluminum tapered Tees:
  - a. Aluminum tapered Tees shall be of the ATT\_\_ series.
  - b. Aluminum tapered Tees shall be used for high-voltage application up to 69kV.
  - c. Aluminum tapered Tees shall have the following run and tap wire ranges:
    - 1) Run: #2 to 1500 kcmil
    - 2) Tap: #4 to 1500 kcmil
  - d. Aluminum tapered Tees shall be available with tin plating by adding a –TN suffix to the end of the catalog number.

**2.04 DESIGN AND PERFORMANCE REQUIREMENTS**

(Aluminum lugs and splices with UL/CSA listing.)

- A. Aluminum lugs and splices shall be dual rated for both aluminum and copper conductors.
- B. Aluminum lugs and splices shall be made from seamless high conductive aluminum tubing.
- C. Aluminum lugs and splices shall be tin plated for added corrosion resistance.

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- D. Aluminum lugs and splices shall be acceptable for use in 35kV applications.
- E. Aluminum lugs and splices shall be color coded for ease of identification of conductor sizes and die reference.
- F. Aluminum lugs and splices shall be prefilled with oxide inhibitor.
- G. Aluminum lugs and splices shall have chamfered barrels for ease of wire installation.
- H. Aluminum one-hole lugs:
  - 1. Aluminum one-hole lugs shall be available with stud hole sizes #10, ¼", 5/16", 3/8", ½" and 5/8".
  - 2. Aluminum one-hole lugs shall have a wire range of #8 to 750 kcmil concentric, compressed and compact wire types.
  - 3. Aluminum one-hole lugs shall be marked on the tongue with the basic catalog number, bolt hole size and "BKB".
  - 4. Aluminum one-hole lugs shall be of the ATL8-10 series.
- I. Aluminum two-hole lugs:
  - 1. Aluminum two-hole lugs shall be available with stud hole sizes 3/8" or ½".
  - 2. Aluminum two-hole lugs shall have a wire range of 1/0 to 750 kcmil concentric, compressed and compact wire types.
  - 3. Aluminum two-hole lugs shall be marked on the tongue with the basic catalog number, bolt hole size and "BKB".
  - 4. Aluminum two-hole lugs shall be of the ATL102 series.
- J. Aluminum splices:
  - 1. Aluminum splices shall have center stops to insure proper wire insertion.
  - 2. Aluminum splices shall have a wire range of #8 to 1000 kcmil concentric, compressed and compact wire types.
  - 3. Aluminum splices shall be of the ASP8 series.

**2.05 DESIGN AND PERFORMANCE REQUIREMENTS**  
(Copper lugs and splices with UL/CSA listing were noted)

- A. Copper Lugs:
  - 1. Copper tin plated one-hole NEMA lugs:
    - a. Copper tin-plated one-hole NEMA lugs shall be the L\_\_ series.
    - b. Copper tin plated one-hole NEMA lugs shall be made from seamless electrolytic high-conductive copper tubing.
    - c. Copper tin plated one-hole NEMA lugs shall be marked with conductor sizes and die references for easy identification.
    - d. Copper tin plated one-hole NEMA lugs shall be UL listed and CSA certified.
    - e. Copper tin plated one-hole NEMA lugs shall be available with bolt hole sizes 10, ¼", 5/16" 3/8" and ½"
    - f. Copper tin plated one-hole NEMA lugs shall have a wire range of #8 to 2/0 AWG copper wire.
  - 2. Copper tin plated two-hole NEMA lugs:
    - a. Copper tin-plated two-hole NEMA lugs shall be the L\_\_-214 series.
    - b. Copper tin-plated two-hole NEMA lugs shall be made from seamless electrolytic high-conductive copper tubing.
    - c. Copper tin-plated two-hole NEMA lugs shall be marked with conductor sizes and die references for easy identification.
    - d. Copper tin-plated two-hole NEMA lugs shall be UL listed and CSA certified.

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- e. Copper tin-plated two-hole NEMA lugs shall also be available in a stacking lug construction as the SL\_\_N series.
  - f. Copper tin-plated two-hole NEMA lugs shall have bolt sizes of ¼", 5/16", 3/8" and ½".
  - g. Copper tin-plated two-hole NEMA lugs shall have a wire range of #6 to 2000 kcmil copper wire.
3. Copper tin plated four-hole NEMA lugs:
- a. Copper tin plated four-hole NEMA lugs shall be the L\_\_4N series.
  - b. Copper tin plated four-hole NEMA lugs shall be marked with conductor sizes and die references for easy identification.
  - c. Copper tin plated four-hole NEMA lugs shall have a ½" bolt hole size.
  - d. Copper tin plated four-hole NEMA lugs shall have a wire range from 750 to 2000 kcmil copper wire.
4. Copper heavy-duty two-hole NEMA lugs:
- a. Copper heavy-duty two-hole NEMA lugs shall be the HDL\_\_N series.
  - b. Copper heavy-duty two-hole NEMA lugs shall be made from heavy-wall electrolytic seamless copper tubing.
  - c. Copper heavy-duty two-hole NEMA lugs shall have large inside chamfers to ease cable insertion.
  - d. Copper heavy-duty two-hole NEMA lugs shall used for grounding and other critical applications.
  - e. Copper heavy-duty two-hole NEMA lugs shall have ½" bolt holes.
  - f. Copper heavy-duty two-hole NEMA lugs shall have a wire range of #2 to 1000 kcmil copper wire.
5. Copper heavy-duty four-hole NEMA lugs:
- a. Copper heavy-duty four-hole NEMA lugs shall be of the HDL\_\_4N series.
  - b. Copper heavy-duty four-hole NEMA lugs shall be made of heavy-wall electrolytic seamless copper tubing.
  - c. Copper heavy-duty four-hole NEMA lugs shall be for grounding and other critical applications.
  - d. Copper heavy-duty four-hole NEMA lugs shall have large inside chamfers to ease cable insertion.
  - e. Copper heavy-duty four-hole NEMA lugs shall have a bolt hole size of ½"
  - f. Copper heavy-duty four-hole NEMA lugs shall be available with tin plating by adding a -TN suffix to the catalog number.
  - g. Copper heavy-duty four-hole NEMA lugs shall have a wire range of 4/0 to 1000 kcmil copper wire.
- B. Copper Splices and Tees:
1. Copper tin plated straight splices:
- a. Copper tin plated straight splices shall be of the SC 8 (standard barrel) and C 8 (long barrel).
  - b. Copper tin plated straight splices shall be made from electrolytic seamless copper tubing.
  - c. Copper tin plated straight splices shall have a dimpled center stop for proper cable insertion.
  - d. Copper tin plated straight splices shall be marked with conductor sizes and die references for easy identification.
  - e. Copper tin plated straight splices shall be UL listed and CSA certified up through the 750 kcmil sizes. .
  - f. Copper tin plated straight splices shall have a wire range of #8 to 2000 kcmil copper wires.
2. Copper tin plated straight oil-stop splices:
- a. Copper tin plated straight oil-stop splices shall be of the PC 6 series.

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- b. Copper tin plated straight oil-stop splices shall be made from electrolytic seamless copper tubing.
  - c. Copper tin plated straight oil-stop splices shall have a solid center stop to prevent oil seepage.
  - d. Copper tin plated straight oil-stop splices shall be marked with conductors sizes and die references for ease of identification,
  - e. Copper tin plated straight oil-stop splices shall have a wire range of #6 to 1000 kcmil copper wire.
3. Copper tin plated tapered splices:
- a. Copper tin plated tapered splices shall be of the TC\_\_ or PTC\_\_ series.
  - b. Copper tin plated tapered splices shall be used for high-voltage applications up to 69 kV.
  - c. TC 6 series copper tin plated tapered splices shall have a dimpled center stop for proper cable insertion.
  - d. PTC 6 series copper tin plated tapered splices shall have a solid center stop to prevent oil seepage.
  - e. Copper tin plated tapered splices shall be marked with conductors sizes and die references for easy of identification,
  - f. Copper tin plated tapered splices shall have a wire range of #6 to 2000 kcmil copper wire.
4. Copper tin plated Tees:
- a. Copper tin plated Tees shall be made from high conductive copper alloy.
  - b. Copper tin plated Tees shall be marked with conductor sizes and die references for easy identification.
  - c. Copper tin plated Tees shall have a run and tap wire range of #2 to 1000 kcmil copper wire.
5. Copper tin plated tapered Tees:
- a. Copper tin plated tapered Tees shall be of the TT\_\_ series.
  - b. Copper tin plated tapered Tees shall be made from high conductive seamless copper tubing.
  - c. Copper tin plated tapered Tees shall be used for high-voltage applications up to 69 kV.
  - d. Copper tin plated tapered Tees shall have a run and tape wire range of #2 to 1000 kcmil copper wire.

**PART 3 – EXECUTION**

**3.1 INSTALLATION**

- A. Installation shall be in accordance with the NEC and CEC guidelines where applicable and manufacturer's instructions.
  - 1. All lugs, splices and Tees must have the cable stripped to the proper length as defined by the manufacturer.
  - 2. For the correct compression tool and die reference die markings on lug, splice or Tee body and manufacturer's supplied literature.

**END OF SECTION**

**WIRING CONNECTIONS:  
ALUMINUM AND COPPER COMPRESSION LUGS AND SPLICES  
26 05 83.14-10  
REVISION 0**