

# nVent ERICO Cu-Bond Composite Cable



nVent ERICO Cu-Bond is a bare concentric stranded conductor that consists of peripheral tinned copper plated steel which protects and conceals the internal copper stranding.

This conductor is ideal for exposed electrical grounding applications where copper theft may occur due to its tinned outer strands. The conductor is difficult to cut with hand tools, but the copper core makes it easier to install than other theft deterrent conductors. The outer stranding is magnetic, which further deters thieves looking for copper.

The CC5A05CB (19 strand) is electrically equivalent to a 4 AWG (25 mm<sup>2</sup>), the CC5A20CB is electrically equivalent to a 2/0 AWG (70 mm<sup>2</sup>) and the CC5A40CB is electrically equivalent to a 4/0 AWG (120 mm<sup>2</sup>). These conductors are ideal for transmission tower, distribution pole and a wide range of above and below grade grounding applications.

## FEATURES

Outer strands comprised of tinned copper-bonded steel for theft deterrence and improved corrosion resistance

Inner copper stranding is tinned for superior corrosion resistance

Copper stranding inside of conductor increases conductivity and conductor flexibility

Available in three sizes/configurations with electrical equivalency to 4 AWG, 2/0 and 4/0 AWG copper

Suitable for direct burial applications

More flexible and easier to work with than copper clad steel conductors

**Material:** Copper;Copper-Bonded Steel

**Insulated:** No

**Finish:** Tinned

## SPECIFICATIONS

Table 1/2

| Catalog Number | Stranding                                                              | Resistance   | Fusing Capacity<br>Equivalency | Cable<br>Diameter<br>Range | Cable<br>Length | Conductor<br>Code |
|----------------|------------------------------------------------------------------------|--------------|--------------------------------|----------------------------|-----------------|-------------------|
| CC5A40CB       | (161) Strands: (133) Tinned Copper,<br>(27) Tinned Copper-Bonded Steel | 0.18Ω/k<br>m | 120mm <sup>2</sup>             | 16.5 mm                    | 61m             | S7                |

| Catalog Number | Stranding                                                                     | Resistance   | Fusing Capacity<br>Equivalency | Cable<br>Diameter<br>Range | Cable<br>Length | Conductor<br>Code |
|----------------|-------------------------------------------------------------------------------|--------------|--------------------------------|----------------------------|-----------------|-------------------|
| CC5A20CB       | (154) Strands: (133) Tinned Copper,<br>(21) Tin Plated Copper-Bonded<br>Steel | 0.28Ω/k<br>m | 70mm <sup>2</sup>              | 13.3 mm                    | 61m             | S5                |
| CC5A05CB       | (19) Strands: (3) Tinned Copper,<br>(16) Tin Plated Copper-Bonded<br>Steel    | 1.23Ω/k<br>m | 25mm <sup>2</sup>              | 8.100 - 8.4<br>mm          | 76.2m           | S1                |

Table 2/2

| Catalog Number | nVent ERICO Hammerlock | Unit Weight |
|----------------|------------------------|-------------|
| CC5A40CB       |                        | 79 kg       |
| CC5A20CB       |                        | 51 kg       |
| CC5A05CB       | EHL58C2G, EHL34C2G     | 28 kg       |

## ADDITIONAL PRODUCT DETAILS

Weight does not include reel.

Please contact your nVent ERICO Customer Service Representative for other nVent ERICO Cadweld configurations.

| ERICO CADWELD Connections for ERICO CU-BOND Composite Cable |                               |                                |                                     |                               |                               |              |
|-------------------------------------------------------------|-------------------------------|--------------------------------|-------------------------------------|-------------------------------|-------------------------------|--------------|
| Part Number                                                 | ERICO CU-BOND Composite Cable | ERICO CADWELD Welding Material | ERICO CADWELD PLUS Welding Material | ERICO CADWELD Connection Type | Connects To                   | Handle Clamp |
| SSCS1                                                       | CC5A05CB                      | 32                             | 32PLUSF20                           | SS                            | T1 Cable                      | L160         |
| SSCS5                                                       | CC5A20CB                      | 90                             | 90PLUSF20                           | SS                            | T2 Cable                      | L160         |
| SSCS7                                                       | CC5A40CB                      | 150                            | 150PLUSF20                          | SS                            | T3 Cable                      | L160         |
| GRC16S1                                                     | CC5A05CB                      | 65                             | 65PLUSF20                           | GR                            | 5/8" Copper-Bonded Ground Rod | L160         |
| GRC16S5                                                     | CC5A20CB                      | 90                             | 90PLUSF20                           | GR                            | 5/8" Copper-Bonded Ground Rod | L160         |
| GRC16S7                                                     | CC5A40CB                      | 115                            | 115PLUSF20                          | GR                            | 5/8" Copper-Bonded Ground Rod | L160         |
| GRC18S1                                                     | CC5A05CB                      | 90                             | 90PLUSF20                           | GR                            | 3/4" Copper-Bonded Ground Rod | L160         |
| GRC18S5                                                     | CC5A20CB                      | 90                             | 90PLUSF20                           | GR                            | 3/4" Copper-Bonded Ground Rod | L160         |
| GRC18S7                                                     | CC5A40CB                      | 115                            | 115PLUSF20                          | GR                            | 3/4" Copper-Bonded Ground Rod | L160         |
| GLCCES1                                                     | CC5A05CB                      | 32                             | 32PLUSF20                           | GL                            | B121CE or B122CE Lug          | L160         |
| GLCCES5                                                     | CC5A20CB                      | 45                             | 45PLUSF20                           | GL                            | B121CE or B122CE Lug          | L160         |
| GLCCES7                                                     | CC5A40CB                      | 65                             | 65PLUSF20                           | GL                            | B121DE or B122DE Lug          | L160         |
| GTC16S1                                                     | CC5A05CB                      | 90                             | 90PLUSF20                           | GT                            | 5/8" Copper-Bonded Ground Rod | L160         |
| GTC16S5                                                     | CC5A20CB                      | 115                            | 115PLUSF20                          | GT                            | 5/8" Copper-Bonded Ground Rod | L160         |
| GTC16S7                                                     | CC5A40CB                      | 200                            | 200PLUSF20                          | GT                            | 5/8" Copper-Bonded Ground Rod | L160         |
| GTC18S1                                                     | CC5A05CB                      | 90                             | 90PLUSF20                           | GT                            | 3/4" Copper-Bonded Ground Rod | L160         |
| GTC18S5                                                     | CC5A20CB                      | 115                            | 115PLUSF20                          | GT                            | 3/4" Copper-Bonded Ground Rod | L160         |
| GTC18S7                                                     | CC5A40CB                      | 200                            | 200PLUSF20                          | GT                            | 3/4" Copper-Bonded Ground Rod | L160         |
| LACS1CE                                                     | CC5A05CB                      | 45                             | 45PLUSF20                           | LA                            | B101CEOL or B102CEOL Lug      | L160         |

|         |          |    |           |    |                             |      |
|---------|----------|----|-----------|----|-----------------------------|------|
| LACS5CE | CC5A20CB | 65 | 65PLUSF20 | LA | B101CEOL or<br>B102CEOL Lug | L160 |
| LACS7DE | CC5A40CB | 90 | 90PLUSF20 | LA | B101DEOL or<br>B102DEOL Lug | L160 |

| Conductor Sizes |                   |               |                              |
|-----------------|-------------------|---------------|------------------------------|
| Cable           | Diameter (Inches) | Diameter (mm) | Cross Sectional Area (mm²)   |
| 35 mm²          | 0.305             | 7.8           | 35                           |
| CCA05CB         | 0.32              | 8.1           | 33.2 (Steel) / 6.8 (Copper)  |
| 1 AWG           | 0.332             | 8.4           | 42.4                         |
| 50 mm²          | 0.365             | 9.3           | 50                           |
| 95 mm²          | 0.505             | 12.8          | 95                           |
| CC5A20CB        | 0.524             | 13.3          | 43.6 (Steel) / 49.9 (Copper) |
| 4/0 AWG         | 0.528             | 13.4          | 107.2                        |
| 120 mm²         | 0.567             | 14.4          | 120                          |
| 300 kcmil       | 0.63              | 16            | 152.1                        |
| 150 mm²         | 0.63              | 16            | 150                          |
| CC5A40CB        | 0.651             | 16.5          | 56.0 (Steel) / 86.9 (Copper) |
| 350 kcmil       | 0.681             | 17.3          | 177.3                        |
| 185 mm²         | 0.7               | 17.8          | 185                          |

## WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at [www.nvent.com](http://www.nvent.com) and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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