

CONNECT AND PROTECT

Theft Deterrent Composite Cable


nvent

ERICO

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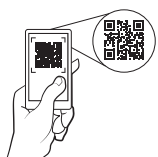
Theft deterrent composite cables are bare or insulated concentric stranded conductors that consist of peripheral galvanized steel stranding, which protects and conceals the internal tinned copper strands.

These conductors are ideal for exposed electrical distribution grounding leads where copper theft may occur. These conductors are difficult to cut with hand tools and the outer steel stranding is magnetic, which further deters thieves looking for copper.

The conductors are suited for use in substation risers to connect the grounding grid to substation equipment and structures. The insulated conductors can be used on power and grounding connections to rail tracks. The CC5A04 (7-strand) and CC5A05 (19-strand) are electrical equivalents to a 4 AWG (16 mm²) and are ideal for transmission tower, distribution pole and street-light, bridge-light or platform-light grounding.

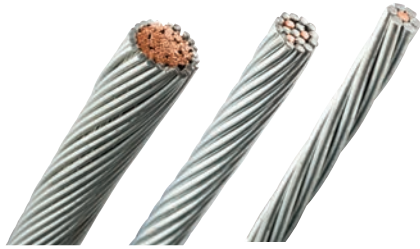
The CC5A04 and CC5A05 have the same outside cable diameter and are compatible with connectors and cable lugs designed for use with 1 AWG (35 mm²) copper cable. The CC5A30 and the cable core of CC5A30INS, have the same outside diameter as 250 kcmil (equivalent diameter to 120 mm² copper cable). They offer an equivalent fusing capacity to 70 mm² copper cable and are compatible with connectors and cable lugs designed for use with 250 kcmil / 120 mm² copper cable.

The black jacket of the insulated cable is a thermoplastic elastomer with UV absorber. The insulation meets 600 V usage and UL® 80°C requirements at a minimum.



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product page

Cable Parts Overview



FEATURES

- Copper stranding inside of conductor increases conductivity and conductor flexibility
- Copper stranding is tinned for superior corrosion resistance
- Copper strands are hidden by outer galvanized steel strands
- Outer strands comprised of galvanized steel for corrosion resistance
- Insulation meets 600 V usage and UL 80°C resistance
- Insulated version is popular for railway applications and is DB approved
- Available in four configurations

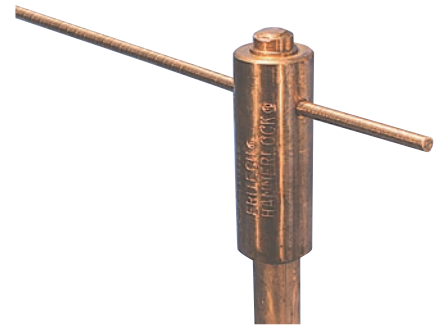
| Global Part Number | Stranding | Cross Section | Resistance | Outside Diameter of Bare Conductor | Fusing Capacity Equivalency | Standard Packaging Quantity | Net Weight | nVent ERICO Cadweld Connection Cable Code |
|--------------------|--|---------------|---------------------------------|------------------------------------|--|-----------------------------|---------------------|---|
| CC5A04 | (1) Tinned Copper, (6) Galvanized Steel | | 0.485 Ω/1,000 ft; 1.499 Ω/km | 0.330 in (0.838 cm) | 112% of 4 AWG (100% of 16 mm ²) | 250 ft (76 m) | 57 lbs (26 kg)* | S1 |
| CC5A05 | (3) Tinned Copper, (16) Galvanized Steel | | 0.457 Ω/1,000 ft; 1.591 Ω/km | 0.334 in (0.848 cm) | 113% of 4 AWG (100% of 16 mm ²) | 250 ft (76 m) | 58 lbs (27 kg)* | S1 |
| CC5A20 | (133) Tinned Copper, (21) Galvanized Steel | | 0.098 Ω/1,000 ft; 0.320 Ω/km | 0.526 in (1.336 cm) | 100% of 2/0 AWG (> 50 mm ²) | 200 ft (60 m) | 109 lbs (50 kg)* | S5 |
| CC5A20INS | (133) Tinned Copper, (21) Galvanized Steel | | 0.098 Ω/1,000 ft; 0.320 Ω/km | 0.526 in (1.336 cm) | 100% of 2/0 AWG (> 50 mm ²) | 200 ft (60 m) | 135 lbs (61 kg)* | S5 |
| CC5A30 | (133) Tinned Copper, (24) Galvanized Steel | | 0.076 Ω/1,000 ft; 0.249 Ω/km | 0.572 in (1.453 cm) | 100% of 3/0 AWG (> 70 mm ²) | 200 ft (60 m) | 135 lbs (61 kg)* | S6 |
| CC5A30INS | (133) Tinned Copper, (24) Galvanized Steel | | 0.076 Ω/1,000 ft; 0.249 Ω/km | 0.572 in (1.453 cm) | 100% of 3/0 AWG (> 70 mm ²) | 200 ft (60 m) | 151 lbs (69 kg)* | S6 |
| CC5A40 | (133) Tinned Copper, (28) Galvanized Steel | | 0.057 Ω/1,000 ft; 0.188 Ω/km | 0.656 in (1.666 cm) | 100% of 4/0 AWG (> 95 mm ²) | 200 ft (60 m) | 172 lbs (78 kg)* | S7 |
| CC5A40INS | (133) Tinned Copper, (28) Galvanized Steel | | 0.057 Ω/1,000 ft; 0.188 Ω/km | 0.656 in (1.666 cm) | 100% of 4/0 AWG (> 95 mm ²) | 200 ft (60 m) | 200 lbs (90 kg)* | S7 |

*Weight does not include reel.

Connections to Theft Deterrent Composite Cable

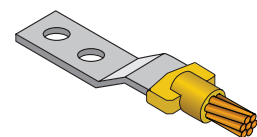
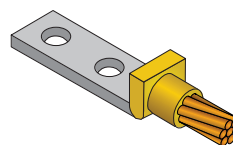
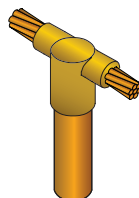
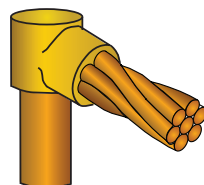
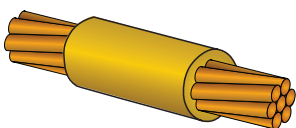
NVENT ERICO HAMMERLOCK

| Part Number | Conductor Size | Ground Rod |
|-------------|------------------|----------------------------|
| EHL58C2G | CC5A04 or CC5A05 | Nominal 5/8" Copper-bonded |
| EHL34C2G | CC5A04 or CC5A05 | Nominal 3/4" Copper-bonded |

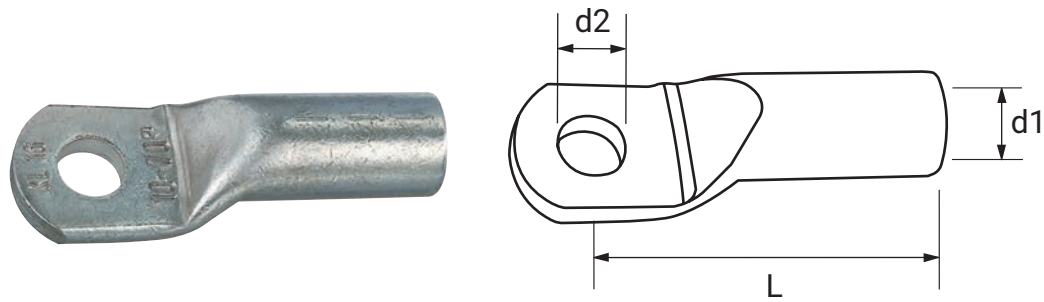


CADWELD CONNECTIONS

| Conductor Size | Weld | CADWELD Mold | Ground Rod or Lug | Welding Material |
|------------------|------------|--------------|----------------------------|------------------|
| CC5A04 or CC5A05 | "SS" Style | SSCS1 | | 32 |
| CC5A20 | | SSCS5 | | 90 |
| CC5A30 | | SSCS6 | | 115 |
| CC5A40 | | SSCS7 | | 150 |
| CC5A04 or CC5A05 | "GR" Style | GRC16S1 | Nominal 5/8" Copper-bonded | 65 |
| CC5A20 | | | Nominal 5/8" Copper-bonded | 90 |
| CC5A30 | | GRC16S6 | Nominal 5/8" Copper-bonded | 90 |
| CC5A40 | | GRC16S7 | Nominal 5/8" Copper-bonded | 115 |
| CC5A04 or CC5A05 | "GT" Style | GRC18S1 | Nominal 3/4" Copper-bonded | 90 |
| CC5A20 | | GRC18S5 | Nominal 3/4" Copper-bonded | 90 |
| CC5A30 | | GRC18S6 | Nominal 3/4" Copper-bonded | 90 |
| CC5A40 | | GRC18S7 | Nominal 3/4" Copper-bonded | 115 |
| CC5A04 or CC5A05 | "GT" Style | GTC16S1 | Nominal 5/8" Copper-bonded | 90 |
| CC5A20 | | GTC16S5 | Nominal 5/8" Copper-bonded | 115 |
| CC5A30 | | GTC16S6 | Nominal 5/8" Copper-bonded | 150 |
| CC5A40 | | GTC16S7 | Nominal 5/8" Copper-bonded | 200 |
| CC5A04 or CC5A05 | "GT" Style | GTC18S1 | Nominal 3/4" Copper-bonded | 90 |
| CC5A20 | | GTC18S5 | Nominal 3/4" Copper-bonded | 115 |
| CC5A30 | | GTC18S6 | Nominal 3/4" Copper-bonded | 150 |
| CC5A40 | | GTC18S7 | Nominal 3/4" Copper-bonded | 200 |
| CC5A04 or CC5A05 | "GL" Style | GLCCES1 | B121CE or B122CE | 32 |
| CC5A20 | | GLCCES5 | B121CE or B122CE | 45 |
| CC5A30 | | GLCCES6 | B121CE or B122CE | 65 |
| CC5A40 | | GLCCES7 | B121DE or B122DE | 65 |
| CC5A04 or CC5A05 | "LA" Style | LACS1CE | B101CEOL or B102CEOL | 45 |
| CC5A20 | | LACS5CE | B101CEOL or B102CEOL | 65 |
| CC5A30 | | LACS6CE | B101CEOL or B102CEOL | 65 |
| CC5A40 | | LACS7DE | B101DEOL or B102DEOL | 90 |



Cable Lugs



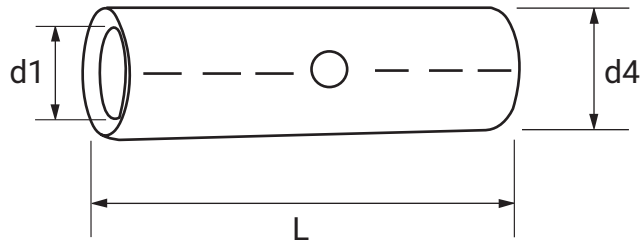
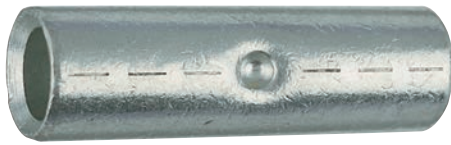
TUBULAR CRIMPING LUGS

| Part Number | Description | Inside Dia. "d1" | Hole Dia. "d2" | Length "L" | Composite Cable Code | Std. Pkg. Unit | Approx. Weight 100 pc. |
|-------------|--------------------------------|---------------------|--------------------|------------------|------------------------|----------------|------------------------|
| 716654 | Lug, Cable, Tubular, RKS35/12 | 8.5 mm 0.335 in | 13.0 mm 0.51 in | 38 mm 1.30 in | CC5A04 | 100 | 2.12 kg 4.67 lbs |
| 716655 | Lug, Cable, Tubular, RKS50/12 | 10.0 mm 0.394 in | 13.0 mm 0.51 in | 43 mm 1.70 in | CC5A05 | 50 | 3.23 kg 7.12 lbs |
| 716557 | Lug, Cable, Tubular, RKS95/12 | 13.5 mm 0.531 in | 13.5 mm 0.51 in | 49 mm 1.93 in | CC5A20 or CC5A20INS | 50 | 5.56 kg 12.26 lbs |
| 715121 | Lug, Cable, Tubular, RKS120/12 | 15.0 mm 0.591 in | 13.0 mm 0.51 in | 51 mm 2.00 in | CC5A30 or CC5A30INS | 50 | 6.38 kg 14.06 lbs |
| 716659 | Lug, Cable, Tubular, RKS120/16 | 15.0 mm 0.591 in | 17.0 mm 0.66 in | 54 mm 2.12 in | CC5A30 or CC5A30INS | 50 | 6.51 kg 14.35 lbs |

COMPRESSION CABLE LUGS, HEAVY-DUTY VERSION (DIN46235)

| Part Number | Description | Inside Dia. "d1" | Hole Dia. "d2" | Length "L" | Composite Cable Code | Std. Pkg. Unit | Approx. Weight 100 pc. |
|-------------|-------------------------------|---------------------|--------------------|------------------|------------------------|----------------|------------------------|
| 715135 | Lug, Cable, Comp, PKS50/12-H | 10.0 mm 0.394 in | 13.0 mm 0.51 in | 52 mm 2.05 in | CC5A04 & CC5A05 | 50 | 4.40 kg 9.70 lbs |
| 715105 | Lug, Cable, Comp, PKS50/16-H | 10.0 mm 0.394 in | 17.0 mm 0.66 in | 52 mm 2.05 in | CC5A04 & CC5A05 | 25 | 4.57 kg 10.08 lbs |
| 715125 | Lug, Cable, Comp, PKS95/12-H | .531 | 13.0 mm 0.51 in | 65 mm 2.56 in | CC5A20 or CC5A20INS | 50 | 8.62 kg 19.00 lbs |
| 715120 | Lug, Cable, Comp, PKS95/16-H | .531 | 17.0 mm 0.66 in | 65 mm 2.56 in | CC5A20 or CC5A20INS | 50 | 9.00 kg 19.84 lbs |
| 715115 | Lug, Cable, Comp, PKS120/12-H | 15.5 mm 0.610 in | 13.0 mm 0.51 in | 70 mm 2.76 in | CC5A30 or CC5A30INS | 50 | 11.31 kg 24.93 lbs |
| 715110 | Lug, Cable, Comp, PKS120/16-H | 15.5 mm 0.610 in | 17.0 mm 0.66 in | 70 mm 2.76 in | CC5A30 or CC5A30INS | 50 | 11.24 kg 24.78 lbs |
| 715106 | Lug, Cable, Comp, PKS150/12-H | 0.67 | 13.0 mm 0.51 in | 78 mm 3.07 in | CC5A40 or CC5A40INS | 25 | 16.29 kg 35.92 Lbs |
| 715122 | Lug, Cable, Comp, PKS150/16-H | .67 | 17.0 mm 0.66 in | 78 mm 3.07 in | CC5A40 or CC5A40INS | 10 | 16.17 kg 35.65 lbs |

Cable Connections



CABLE CONNECTORS STRAIGHT

| Part Number | Description | Inside Dia. "d1" | Hole Dia. "d4" | Length "L" | Composite Cable Code | Std. Pkg. Unit | Approx. Weight 100 pc. |
|-------------|--------------------------|---------------------|---------------------|------------------|------------------------|----------------|------------------------|
| 716714 | Connector, Cable, RKC35 | 8.5 mm 0.335 in | 12.0 mm 0.470 in | 45 mm 1.77 in | CC5A04 | 50 | 2.24 kg 4.94 lbs |
| 716715 | Connector, Cable, RKC50 | 10.0 mm 0.394 in | 14.0 mm 0.551 in | 50 mm 1.97 in | CC5A05 | 50 | 3.36 kg 7.41 lbs |
| 716717 | Connector, Cable, RKC95 | 13.5 mm 0.531 in | 18.0 mm 0.709 in | 60 mm 2.36 in | CC5A20 or CC5A20INS | 25 | 5.91 kg 13.03 lbs |
| 716718 | Connector, Cable, RKC120 | 15.0 mm 0.591 in | 19.5 mm 0.767 in | 65 mm 2.56 in | CC5A30 or CC5A30INS | 25 | 7.00 kg 15.43 lbs |

CABLE CONNECTORS, HEAVY-DUTY VERSION (DIN46247-1)

| Part Number | Description | Inside Dia. "d1" | Hole Dia. "d4" | Length "L" | Composite Cable Code | Std. Pkg. Unit | Approx. Weight 100 pc. |
|-------------|----------------------------|---------------------|---------------------|------------------|------------------------|----------------|------------------------|
| 716625 | Connector, Heavy, PKC50-H | 10.0 mm 0.394 in | 14.5 mm 0.570 in | 56 mm 2.20 in | CC5A04 & CC5A05 | 50 | 4.26 kg 9.39 lbs |
| 716627 | Connector, Heavy, PKC95-H | 13.5 mm 0.531 in | 19.0 mm 0.748 in | 70 mm 2.76 in | CC5A20 or CC5A20INS | 25 | 8.62 kg 19.00 lbs |
| 716628 | Connector, Heavy, PKC120-H | 15.5 mm 0.610 in | 21.0 mm 0.826 in | 70 mm 2.76 in | CC5A30 or CC5A30INS | 25 | 9.66 kg 21.30 lbs |
| 716629 | Connector, Heavy, PKC150-H | 17.0 mm 0.669 in | 23.5 mm 0.925 in | 80 mm 3.15 in | CC5A40 or CC5A40INS | 10 | 14.5 kg 31.97 lbs |



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