# Duraclad® Type AC THHN/THWN Circuit Size Copper Conductor 120/208V Colors

14 AWG through 10 AWG THHN/THWN Insulated Singles Wrapped in Moisture-Resistant, Flame-Retardant Paper. 16 AWG Aluminum Bond Wire. UL Listed. 600 Volts. Rated VW-1. Galvanized Steel Interlocking Armor.

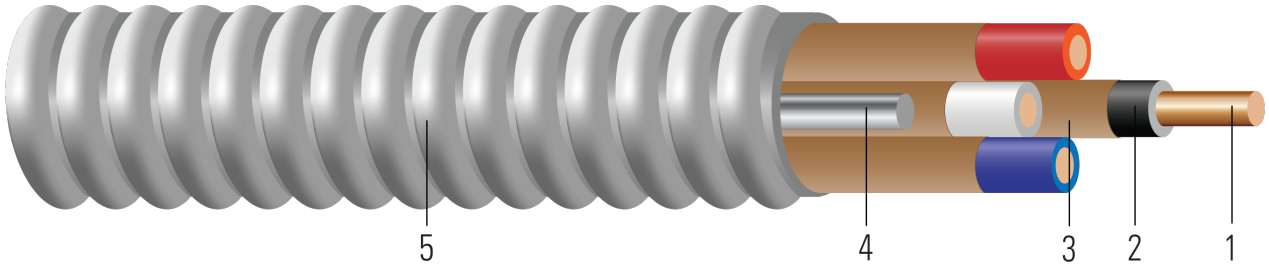



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3
2. **Insulation:** Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Paper Covering:** Moisture-resistant, flame-retardant paper covering
4. **Bond Wire:** Solid 16 AWG aluminum per ASTM B800
5. **Armor:** Galvanized Steel Interlocking Armor

## APPLICATIONS AND FEATURES:

**Southwire Duraclad® Type AC Cable is suitable for use as follows:**

- Branch and service power distribution in commercial, industrial, institutional, and multi-residential buildings
- Fished or embedded in plaster
- Concealed or exposed installations
- Dry locations only
- Environmental air-handling spaces per NEC 300.22 (C)
- Installation in cable tray and approved raceways
- Under raised floors for information technology equipment conductors and cables per NEC Article 645
- Conductors are individually wrapped with a moisture-resistant, flame-retardant paper covering
- Type THHN/THWN rated 90ºC dry
- Anti-Short bushing are required

**Southwire Armorlite® Type AC Cable meets or exceeds the following requirements:**

- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) ( www.ul.com )
- Federal Specification A-A59544 (formerly J-C-30B)
- NFPA 70 (National Electrical Code), Article 320
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems

## SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B800 8000 Series Aluminum Alloy Wire
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 4 Armored Cables


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- RoHS-2 (European Directive 2011/65/EU)
- Buy American: Compliant with Buy American Requirements, found in 49 U.S.C. § 5323(j); specify "Made in the USA Only!" when ordering to ensure your project receives American made products.

## SAMPLE PRINT LEGEND:

TYPE AC-THHN ST ARMOR COPPER THHN CONDUCTORS W/ ALUMINUM BOND WIRE MAXIMUM VOLTS 600V, FOR USE IN CABLE TRAYS-90(D) C - DRY LOCATIONS( AL.BOND WIRE)

### Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Conductor Number | Color | Diameter Over Conductor | Conductor Stranding | Insulation Thickness | Diameter Over Armor | Copper Weight | Overall Weight |
|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | | | inch | | mils | inch | lbs/1000ft | lbs/1000ft |
| 14 AWG \| SOLID Strands | | | | | | | | | |
| 552783 | 14 | 2 | BK,WE | 0.064 | SOLID | 15 | 0.468 | 25 | 184 |
| 552785 | 14 | 3 | BK,RD,WE | 0.064 | SOLID | 15 | 0.488 | 37 | 208 |
| 553184 | 14 | 4 | BK,RD,BE,WE | 0.064 | SOLID | 15 | 0.52 | 50 | 240 |
| 12 AWG \| SOLID Strands | | | | | | | | | |
| 552749 | 12 | 2 | BK,WE | 0.081 | SOLID | 15 | 0.502 | 40 | 212 |
| 552758 | 12 | 2 | GY,BN | 0.081 | SOLID | 15 | 0.49 | 40 | 210 |
| 552788 | 12 | 2 | GY,OE | 0.081 | SOLID | 15 | 0.49 | 40 | 210 |
| 552792 | 12 | 2 | GY,YW | 0.081 | SOLID | 15 | 0.505 | 40 | 217 |
| 552750 | 12 | 3 | BK,RD,WE | 0.081 | SOLID | 15 | 0.524 | 59 | 249 |
| 552787 | 12 | 3 | GY,BN,OE | 0.081 | SOLID | 15 | 0.528 | 59 | 250 |
| 552757 | 12 | 4 | BK,RD,BE,WE | 0.081 | SOLID | 15 | 0.561 | 79 | 287 |
| 679260 | 12 | 4 | BK,WE,RD,GY | 0.081 | SOLID | 15 | 0.561 | 79 | 287 |
| 552790 | 12 | 4 | BN,OE,YW,GY | 0.081 | SOLID | 15 | 0.561 | 79 | 287 |
| 10 AWG \| SOLID Strands | | | | | | | | | |
| 552782 | 10 | 2 | BK,WE | 0.102 | SOLID | 20 | 0.559 | 61 | 265 |
| 552756 | 10 | 3 | BK,RD,WE | 0.102 | SOLID | 20 | 0.586 | 92 | 313 |
| 552789 | 10 | 4 | BK,RD,BE,WE | 0.102 | SOLID | 20 | 0.629 | 123 | 366 |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item


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## Table 2 – Electrical and Engineering Data

| Cond. Size | Conductor Number | Min. Bend Radius | DC Resistance at 25°C | AC Resistance at 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity Raceway 75°C | Allowable Ampacity Raceway 90°C |
|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | | Inches | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp |
| 14 AWG \| SOLID Strands | | | | | | | |
| 14 | 2 | 3.3 | 2.631 | 3.265 | 0.058 | 20 | 25 |
| 14 | 3 | 3.4 | 2.631 | 3.265 | 0.058 | 20 | 25 |
| 14 | 4 | 3.6 | 2.631 | 3.265 | 0.058 | 16 | 20 |
| 12 AWG \| SOLID Strands | | | | | | | |
| 12 | 2 | 3.5 | 1.662 | 2.063 | 0.054 | 25 | 30 |
| 12 | 2 | 3.4 | 1.662 | 2.063 | 0.054 | 25 | 30 |
| 12 | 2 | 3.4 | 1.662 | 2.063 | 0.054 | 25 | 30 |
| 12 | 2 | 3.5 | 1.662 | 2.063 | 0.054 | 25 | 30 |
| 12 | 3 | 3.7 | 1.662 | 2.063 | 0.054 | 25 | 30 |
| 12 | 3 | 3.7 | 1.662 | 2.063 | 0.054 | 25 | 30 |
| 12 | 4 | 3.9 | 1.662 | 2.063 | 0.054 | 20 | 24 |
| 12 | 4 | 3.9 | 1.662 | 2.063 | 0.054 | 20 | 24 |
| 12 | 4 | 3.9 | 1.662 | 2.063 | 0.054 | 20 | 24 |
| 10 AWG \| SOLID Strands | | | | | | | |
| 10 | 2 | 3.9 | 1.04 | 1.291 | 0.05 | 35 | 40 |
| 10 | 3 | 4.1 | 1.04 | 1.291 | 0.05 | 35 | 40 |
| 10 | 4 | 4.4 | 1.04 | 1.291 | 0.05 | 28 | 32 |

***** Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

***** Ampacities have been adjusted for more than Three Current-Carrying Conductors.



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