

# Round Water Well 600 Volt Cable Type THW

600V Extreme, Oil-Resistant, Moisture Resistant Conditions. Rated 75°C

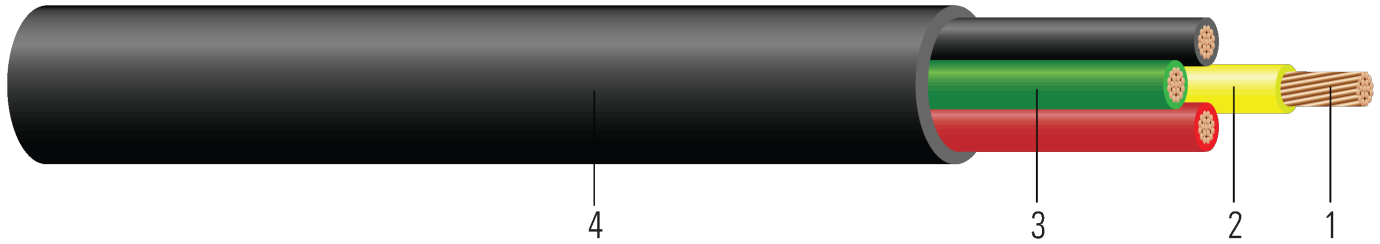


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Stranded class B compressed bare copper ASTM B8
2. **Insulation:** Polyvinyl Chloride (PVC) Type THW
3. **Jacket:** Thermoplastic elastomer (TPE)

## APPLICATIONS AND FEATURES:

For use in residential, farm and industrial water well applications. Used in both Grounded and ungrounded water well cable systems. Conductors are parallel and insulated with PVC colored black, red, and yellow. Insulated and jacketed with a premium thermoplastic elastomer (TPE) material. Oil resistant. Used in both high temperature and low temperature wells

## SPECIFICATIONS:

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables

## SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE® SUBMERSIBLE PUMP CABLE TYPE THW XX AWG (X.XX{mm<sup>2</sup>}) W/GRD 600 VOLTS {UL}

**Table 1 – Weights and Measurements**

| Stock Number | Cond. Size<br>AWG/Kcmil | Cond. Number<br>No. | Cond. Strands<br>No. | Diameter Over Conductor<br>inch | Insul. Thickness<br>mil | Ground<br>No. x AWG | Approx. OD<br>inch | Approx. Weight<br>lb/1000ft |
|--------------|-------------------------|---------------------|----------------------|---------------------------------|-------------------------|---------------------|--------------------|-----------------------------|
| 566483◇      | 12                      | 3                   | 19                   | 0.090                           | 45                      | 1 x 12              | 0.494              | 154                         |
| 566484◇      | 10                      | 3                   | 19                   | 0.117                           | 45                      | 1 x 10              | 0.550              | 213                         |
| 566486◇      | 6                       | 3                   | 19                   | 0.179                           | 60                      | 1 x 8               | 0.764              | 446                         |
| 566487◇      | 4                       | 3                   | 19                   | 0.226                           | 60                      | 1 x 8               | 0.856              | 614                         |
| 584705◇      | 12                      | 3                   | 19                   | 0.090                           | 45                      | x None              | 0.448              | 105                         |
| 584707◇      | 10                      | 3                   | 19                   | 0.117                           | 45                      | x None              | 0.498              | 148                         |
| 584708◇      | 8                       | 4                   | 19                   | 0.143                           | 60                      | 1 x 10              | 0.632              | 260                         |
| 584709◇      | 6                       | 3                   | 19                   | 0.179                           | 60                      | x None              | 0.709              | 369                         |
| 584710◇      | 4                       | 3                   | 19                   | 0.226                           | 60                      | x None              | 0.811              | 537                         |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

\* Cond. Number does not include ground conductor.





**Table 2 – Electrical and Engineering Data**

| Cond. Size    | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance | Max Pull Tension | Max Pull Tension | Min Bending Radius | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|---------------|----------------------|----------------------|---------------------|------------------|------------------|--------------------|----------------------------|----------------------------|
| AWG/<br>Kcmil | Ω/1000ft             | Ω/1000ft             | Ω/1000ft            | lb               | lb               | inch               | Amp                        | Amp                        |
| 12            | 1.662                | 2.002                | 0.054               | 167              | 167              | 2.0                | 20                         | 24                         |
| 10            | 1.040                | 1.253                | 0.050               | 265              | 265              | 2.2                | 28                         | 32                         |
| 6             | 0.411                | 0.495                | 0.051               | 671              | 671              | 3.1                | 52                         | 60                         |
| 4             | 0.258                | 0.310                | 0.048               | 1068             | 1068             | 3.4                | 68                         | 76                         |
| 12            | 1.662                | 2.002                | 0.054               | 156              | 156              | 1.8                | 25                         | 30                         |
| 10            | 1.040                | 1.253                | 0.050               | 249              | 249              | 2.0                | 35                         | 40                         |
| 8             | 0.653                | 0.786                | 0.052               | 422              | 422              | 2.5                | 40                         | 44                         |
| 6             | 0.411                | 0.495                | 0.051               | 629              | 629              | 2.8                | 65                         | 75                         |
| 4             | 0.258                | 0.310                | 0.048               | 1001             | 1001             | 3.2                | 85                         | 95                         |

\* Inductive impedance is based on non-ferrous conduit with one diameter spacing.

