

Soft annealed copper solid conductor (14-8 AWG) or stranded class "B" (14 AWG – 1000 kcmil), PVC insulation of 60°C (TW) or 75°C (THW).



FILE NUMBER E 125531



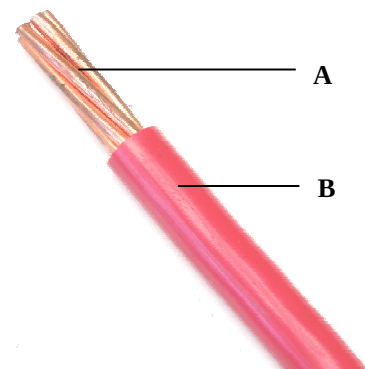
## Aplication

Type TW and THW may be used for general purpose wiring for power and lighting, for insulation in air, conduit, duct or other recognized raceways, in wet or dry locations.

Maximum voltage rating= 600 V.

## Construction elements

- A. Solid or stranded bare copper conductor
- B. PVC insulation



## MAXIMUM CONDUCTOR TEMPERATURE

Normas: UL 83 / UL 1581 / COVENIN 397

| TYPE | OIL  | WET  | DRY  |
|------|------|------|------|
| TW   | 60°C | 60°C | 60°C |
| THW  | 75°C | 75°C | 75°C |
| *MTW | 60°C | 60°C | 90°C |

\* 1 AWG and larger only

| Size<br>AWG /<br>kcmil | Construction   |                               | Conductor<br>Diameter<br>(inches) | Insulation<br>Thickness<br>(inches) | Aprox.<br>outside<br>Diameter<br>(inches) | Aprox. outside<br>diameter<br>(pounds/kft) |      | Ampacity (A) ① |               |               | Conductors in Conduit ②      |                    |
|------------------------|----------------|-------------------------------|-----------------------------------|-------------------------------------|-------------------------------------------|--------------------------------------------|------|----------------|---------------|---------------|------------------------------|--------------------|
|                        | N° of<br>wires | Diameter of<br>wires (inches) |                                   |                                     |                                           | TW                                         | THW  | TW<br>(60°C)   | THW<br>(75°C) | MTW<br>(90°C) | Diameter Conduit<br>(inches) | Number of<br>Cond. |
| 14                     | 1              | 0,0641                        | 0,064                             | 0,031                               | 0,128                                     | 18                                         | 18   | 20             | 20            | -             | 1/2                          | 8                  |
| 12                     | 1              | 0,0808                        | 0,081                             | 0,031                               | 0,144                                     | 26                                         | 26   | 25             | 25            | -             | 1/2                          | 6                  |
| 10                     | 1              | 0,1019                        | 0,102                             | 0,031                               | 0,165                                     | 39                                         | 39   | 30             | 35            | -             | 1/2                          | 5                  |
| 8                      | 1              | 0,1285                        | 0,129                             | 0,046                               | 0,222                                     | 65                                         | 65   | 40             | 50            | -             | 3/4                          | 5                  |
| 14                     | 7              | 0,0242                        | 0,073                             | 0,031                               | 0,136                                     | 19                                         | 19   | 20             | 20            | -             | 1/2                          | 8                  |
| 12                     | 7              | 0,0305                        | 0,092                             | 0,031                               | 0,156                                     | 28                                         | 28   | 25             | 25            | -             | 1/2                          | 6                  |
| 10                     | 7              | 0,0385                        | 0,116                             | 0,031                               | 0,179                                     | 42                                         | 42   | 30             | 35            | -             | 1/2                          | 5                  |
| 8                      | 7              | 0,0486                        | 0,146                             | 0,046                               | 0,238                                     | 69                                         | 69   | 40             | 50            | -             | 3/4                          | 5                  |
| 6                      | 7              | 0,0612                        | 0,184                             | 0,062                               | 0,309                                     | 111                                        | 112  | 55             | 65            | -             | 3/4                          | 3                  |
| 4                      | 7              | 0,0772                        | 0,232                             | 0,062                               | 0,356                                     | 166                                        | 167  | 70             | 85            | -             | 1                            | 3                  |
| 2                      | 7              | 0,0974                        | 0,292                             | 0,062                               | 0,417                                     | 252                                        | 253  | 95             | 115           | -             | 1 1/4                        | 4                  |
| 1/0                    | 19             | 0,0744                        | 0,362                             | 0,082                               | 0,526                                     | 396                                        | 398  | 125            | 150           | 125           | 1 1/2                        | 3                  |
| 2/0                    | 19             | 0,0839                        | 0,407                             | 0,082                               | 0,571                                     | 492                                        | 494  | 145            | 175           | 145           | 1 1/2                        | 3                  |
| 3/0                    | 19             | 0,0941                        | 0,457                             | 0,082                               | 0,620                                     | 608                                        | 611  | 165            | 200           | 165           | 2                            | 4                  |
| 4/0                    | 19             | 0,1055                        | 0,512                             | 0,082                               | 0,675                                     | 753                                        | 755  | 195            | 230           | 195           | 2                            | 3                  |
| 250                    | 37             | 0,0823                        | 0,559                             | 0,096                               | 0,752                                     | 897                                        | 900  | 215            | 255           | 215           | 2                            | 3                  |
| 300                    | 37             | 0,0902                        | 0,612                             | 0,096                               | 0,805                                     | 1064                                       | 1067 | 240            | 285           | 240           | 2 1/2                        | 4                  |
| 350                    | 37             | 0,0972                        | 0,661                             | 0,096                               | 0,854                                     | 1226                                       | 1230 | 260            | 310           | 260           | 2 1/2                        | 4                  |
| 400                    | 37             | 0,1039                        | 0,707                             | 0,096                               | 0,900                                     | 1390                                       | 1394 | 280            | 335           | 280           | 2 1/2                        | 3                  |
| 500                    | 37             | 0,1161                        | 0,789                             | 0,096                               | 0,982                                     | 1716                                       | 1720 | 320            | 380           | 320           | 2 1/2                        | 3                  |
| 600                    | 61             | 0,0992                        | 0,866                             | 0,096                               | 1,059                                     | 2041                                       | 2045 | 355            | 420           | 355           | 3                            | 3                  |
| 750                    | 61             | 0,1110                        | 0,970                             | 0,112                               | 1,195                                     | 2565                                       | 2570 | 400            | 475           | 400           | 3                            | 3                  |
| 1000                   | 61             | 0,1280                        | 1,118                             | 0,112                               | 1,343                                     | 3365                                       | 3372 | 455            | 545           | 455           | 3 1/2                        | 3                  |

Option: Consult factory for cables marked with MTW or UL.

① Ampacity of not more than three conductors in race way or directly buried, based on ambient temperature of 30°C (86°F), table 310-16 of the National Electrical Code. (TW and THW) and table 11 of Electrical Standard for Industrial Machinery NFPA 79-1994 (MTW)

② Maximum number of conductors in electrical metallic tubing, Table C1 of National Electrical Code.

Colors: Black, White, Red, Green, Orange, Grey, Yellow and Brown for Sizes 14 – 2 AWG. Other Sizes black color.

Standard put – ups= 500R/1000R/2500R. (R= Reels)

The data listed above is approximate and subject to normal manufacturing tolerances. Specifications are subject to change without notice.

HC504 / 05 / NOV-05