

PVC/Nylon 600 Volts 90°C Overall Shield and PVC Jacket

| PART NUMBER | NO. OF CONDS. | 14 AWG | | | PART NUMBER | NO. OF CONDS. | 12 AWG | | |
|-------------|---------------|------------------------------|-------------------------------|----------------------------------|-------------|---------------|------------------------------|-------------------------------|----------------------------------|
| | | OVERALL JACKET THICK. (MILS) | APPROX. OUTSIDE DIAMETER (IN) | APPROX. WEIGHT 1000 FT. (POUNDS) | | | OVERALL JACKET THICK. (MILS) | APPROX. OUTSIDE DIAMETER (IN) | APPROX. WEIGHT 1000 FT. (POUNDS) |
| 02-0136A | 2 | 45 | .325 | 85 | 02-0136B | 2 | 45 | .363 | 107 |
| 02-0137A | 3 | 45 | .342 | 102 | 02-0137B | 3 | 45 | .383 | 128 |
| 02-0138A | 4 | 45 | .372 | 122 | 02-0138B | 4 | 45 | .417 | 160 |
| 02-0139A | 5 | 45 | .463 | 144 | 02-0139B | 5 | 45 | .514 | 195 |
| 02-0140A | 6 | 45 | .498 | 162 | 02-0140B | 6 | 60 | .585 | 219 |
| 02-0141A | 7 | 45 | .498 | 180 | 02-0141B | 7 | 60 | .585 | 243 |
| 02-0142A | 8 | 60 | .563 | 204 | 02-0142B | 8 | 60 | .626 | 288 |
| 02-0143A | 9 | 60 | .598 | 241 | 02-0143B | 9 | 60 | .666 | 324 |
| 02-0144A | 10 | 60 | .620 | 257 | 02-0144B | 10 | 60 | .692 | 347 |
| 02-0145A | 11 | 60 | .633 | 277 | 02-0145B | 11 | 60 | .708 | 377 |
| 02-0146A | 12 | 60 | .648 | 291 | 02-0146B | 12 | 60 | .725 | 408 |
| 02-0147A | 13 | 60 | .669 | 313 | 02-0147B | 13 | 60 | .749 | 433 |
| 02-0148A | 14 | 60 | .690 | 336 | 02-0148B | 14 | 60 | .773 | 462 |
| 02-0149A | 15 | 60 | .706 | 360 | 02-0149B | 15 | 60 | .792 | 486 |
| 02-0150A | 16 | 60 | .723 | 381 | 02-0150B | 16 | 60 | .812 | 525 |
| 02-0151A | 17 | 60 | .741 | 400 | 02-0151B | 17 | 80 | .874 | 555 |
| 02-0152A | 18 | 60 | .758 | 418 | 02-0152B | 18 | 80 | .893 | 583 |
| 02-0153A | 19 | 60 | .758 | 433 | 02-0153B | 19 | 80 | .893 | 606 |
| 02-0154A | 20 | 60 | .778 | 449 | 02-0154B | 20 | 80 | .917 | 672 |
| 02-0155A | 21 | 60 | .793 | 475 | 02-0155B | 21 | 80 | .934 | 705 |
| 02-0156A | 22 | 60 | .814 | 499 | 02-0156B | 22 | 80 | .958 | 736 |
| 02-0157A | 23 | 80 | .868 | 518 | 02-0157B | 23 | 80 | .974 | 763 |
| 02-0158A | 24 | 80 | .880 | 538 | 02-0158B | 24 | 80 | .989 | 794 |
| 02-0159A | 25 | 80 | .891 | 554 | 02-0159B | 25 | 80 | 1.001 | 820 |
| 02-0160A | 26 | 80 | .903 | 612 | 02-0160B | 26 | 80 | 1.014 | 847 |
| 02-0161A | 27 | 80 | .913 | 631 | 02-0161B | 27 | 80 | 1.023 | 875 |
| 02-0162A | 28 | 80 | .927 | 651 | 02-0162B | 28 | 80 | 1.043 | 910 |
| 02-0163A | 29 | 80 | .939 | 670 | 02-0163B | 29 | 80 | 1.057 | 937 |
| 02-0164A | 30 | 80 | .959 | 696 | 02-0164B | 30 | 80 | 1.077 | 968 |
| 02-0165A | 31 | 80 | .963 | 710 | 02-0165B | 31 | 80 | 1.082 | 994 |
| 02-0166A | 32 | 80 | .976 | 732 | 02-0166B | 32 | 80 | 1.096 | 1020 |
| 02-0167A | 33 | 80 | .993 | 748 | 02-0167B | 33 | 80 | 1.115 | 1052 |
| 02-0168A | 34 | 80 | 1.000 | 767 | 02-0168B | 34 | 80 | 1.125 | 1080 |
| 02-0169A | 35 | 80 | 1.011 | 786 | 02-0169B | 35 | 80 | 1.140 | 1103 |
| 02-0170A | 36 | 80 | 1.028 | 810 | 02-0170B | 36 | 80 | 1.165 | 1136 |
| 02-0171A | 37 | 80 | 1.028 | 824 | 02-0171B | 37 | 80 | 1.165 | 1160 |

SCOPE:

This specification covers multiconductor shielded cables having VW-1 TFFN or THHN/THWN (PVC/Nylon) conductors, an aluminum polyester tape shield with drain wire, and an overall gas/vapor-tight polyvinyl chloride (PVC) jacket; conforming to Article 318 "Cable Trays" and Article 340 "Power and Control Cable Type TC" of the 1999 National Electrical Code, and Standard 1277 of Underwriters Laboratories, Inc. They meet the requirements of the ICEA T-29-520 and T-30-520 flame tests as well as the 70,000 BTU "Cable Tray Propagation Test" per IEEE-383 and show reserve capabilities by also passing the 210,000 BTU flame test. Rated 600 volts, 90°C dry and 75°C wet. They also meet the CSA FT4 and the IEEE 1202 70,000 BTU flame test.

APPLICATIONS:

UL listed and OSHA acceptable. Recognized for use in Class 1 or 2, Division 2 hazardous locations and for installation in trays, wireways, troughs, channels, ducts and conduit. Specifically approved for direct burial, wet or dry locations and outdoors in cable trays where a sunlight resistant rating is required. Designed for control, power, lighting, telemetering, signals and relay or traffic control where shielding against external interference is required.

CONSTRUCTION:

CONDUCTORS

Bare, soft annealed copper per ASTM B-3

Sizes 18 and 16 AWG (TFFN)

Bunch stranded, Size 18 (16/.010") and Size 16 (19/.0117") UL-62 paragraph 10.2

Sizes 14, 12 and 10 AWG (THHN/THWN)

Concentric stranded, class B (7 strands) per ASTM B-8 and UL-83 table 13.1

INSULATION:

High dielectric polyvinyl chloride

UL-1581 table 50.145 (THWN 75°C)

UL-1581 table 50.155 (THHN 90°C)

UL-1581 table 50.155 Class 12B (TFFN 90°C)

Thickness: UL-83 table 15.5 for THHN/THWN and UL-62 table 6.2 for TFFN

INSULATION ARMOR

Nylon: UL-83 paragraph 25.1 for THHN/THWN & UL-62 paragraph 22.1 for TFFN

Thickness: UL-83 table 15.5 for THHN/THWN and UL-62 paragraph 26.4 for TFFN

CABLING:

Two or more conductors are assembled round with fillers as needed. A tape binder is applied over assembly.

DRAIN WIRE:

Tinned copper per ASTM B-33

Sizes 20, 18 and 16 AWG

Concentric stranded, class B (7 strands), ASTM B-8

SHIELDING:

A .00035 aluminum foil/.001 polyester tape shield is applied helically with a 15% minimum overlap.

OVERALL JACKET:

Gas/vapor-tight Polyvinyl Chloride (black) - UL 1277 table 10.1 Thickness - Specified herein

COLOR CODING:

ICEA Method 3 Table E-2, except colors and numbers are printed on solid base colors for easy identification.

CONSTRUCTION OPTIONS:

Consult factory for specifications on cables with copper tape shield or copper braid (tinned or bare) shields.

Indicate AWG required, when ordering.

»Information on this sheet is subject to change without notice. All diameters are nominal values. All diameters and weights are subject to normal manufacturing tolerances.

CONDUCTOR DATA

| SIZE (AWG) | STRANDS NO./O.D. (INCHES) | PVC INSULATION (INCHES) | NYLON ARMOR (INCHES) | APPROX. O.D. (INCHES) |
|------------|---------------------------|-------------------------|----------------------|-----------------------|
| 18 | 16/.010 | .015 | .004 | .089 |
| 16 | 19/.0117 | .015 | .004 | .100 |
| 14 | 7/.0242 | .015 | .004 | .113 |
| 12 | 7/.0305 | .015 | .004 | .132 |
| 10 | 7/.0385 | .020 | .004 | .166 |

CABLE IDENTIFICATION:

Sizes 18 and 16 AWG
Ink print on one side of jacket
"Shielded (size) AWG Type TC 90°C dry 75°C wet, Sunlight Resistant, 600V (UL) Direct Burial"

DRAIN WIRE DATA

| SIZE (AWG) | STRANDS NO./O.D. (INCHES) |
|------------|---------------------------|
| 20 | 7/.0121 |
| 18 | 7/.0152 |
| 16 | 7/.0192 |

