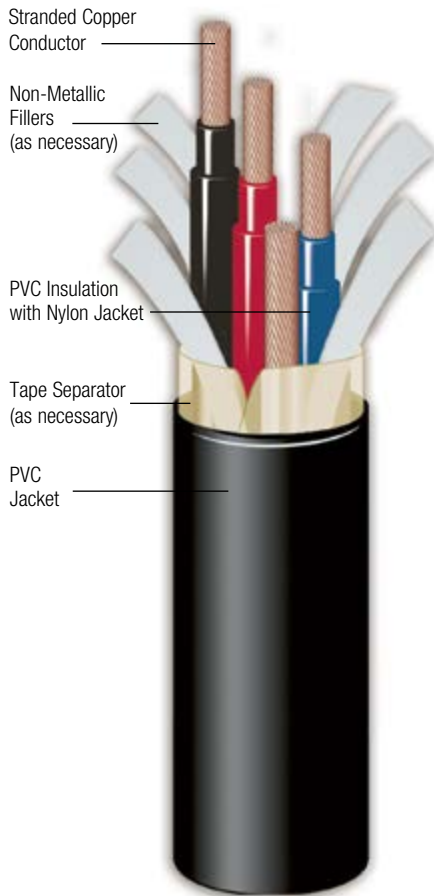


# TYPE TC-POWER & CONTROL CABLE-WITH GROUND-THHN/THWN-2 INNERS



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code, NEC Article 336  
 NEMA WC 57/ICEA 5-73-532  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8 and UL-83

### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous use at 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where a sunlight-resistant rating is required. Cable constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without an insulated bare ground, and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Color-coded insulation with ICEA Method 1 with printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

## Type TC - Power & Control Cable With Insulated Ground - THHN/THWN-2 Inners 600V

| Size (AWG) | Size of Ground Wire (AWG) | Outer Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|------------|---------------------------|---------------------------------|-----------------------|--------------------------------------|-------------------------|
| 14/2       | 14 AWG Green Insulated    | 0.045                           | 0.350                 | 79                                   | 1000' 5000' Reels       |
| 14/3       | 14 AWG Green Insulated    | 0.045                           | 0.380                 | 99                                   | 1000' 5000' Reels       |
| 14/4       | 14 AWG Green Insulated    | 0.045                           | 0.413                 | 118                                  | 1000' 5000' Reels       |
| 12/2       | 12 AWG Green Insulated    | 0.045                           | 0.390                 | 101                                  | 1000' 5000' Reels       |
| 12/3       | 12 AWG Green Insulated    | 0.045                           | 0.420                 | 130                                  | 1000' 5000' Reels       |
| 10/2       | 10 AWG Green Insulated    | 0.045                           | 0.460                 | 152                                  | 1000' 5000' Reels       |
| 10/3       | 10 AWG Green Insulated    | 0.045                           | 0.500                 | 207                                  | 1000' 5000' Reels       |

## Type TC - Power & Control Cable With Bare Ground - THHN/THWN-2 Inners 600V

| Size (AWG) | Size of Ground Wire (AWG) | Outer Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|------------|---------------------------|---------------------------------|-----------------------|--------------------------------------|-------------------------|
| 14/2       | 14 AWG Bare               | 0.045                           | 0.330                 | 76                                   | 1000' 5000' Reels       |
| 14/3       | 14 AWG Bare               | 0.045                           | 0.350                 | 96                                   | 1000' 5000' Reels       |
| 12/2       | 12 AWG Bare               | 0.045                           | 0.360                 | 98                                   | 1000' 5000' Reels       |
| 12/3       | 12 AWG Bare               | 0.045                           | 0.390                 | 127                                  | 1000' 5000' Reels       |
| 10/2       | 10 AWG Bare               | 0.045                           | 0.430                 | 149                                  | 1000' 5000' Reels       |
| 10/3       | 10 AWG Bare               | 0.045                           | 0.470                 | 204                                  | 1000' 5000' Reels       |
| 10/4       | 10 AWG Bare               | 0.060                           | 0.569                 | 252                                  | 1000' 5000' Reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

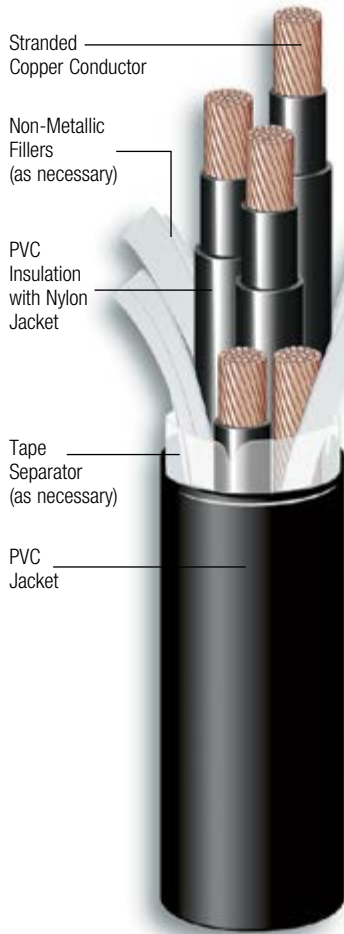
**PRINT LEGEND:** ENCORE WIRE CORPORATION (size) W/6 TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

# TYPE TC-POWER CABLE-WITH GROUND-THHN/THWN-2 INNERS

## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
ASTM Stranding Class B3, B8, B787  
NFPA 70: National Electrical Code, NEC Article 336  
NEMA WC 57/ICEA 5-73-532  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant  
NEMA WC-70/ICEA S-95-658

### CONSTRUCTION:

#### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787 and UL-83

#### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous use at 90°C dry or wet to meet UL-83 requirements for Type THHN or THWN-2 wire.

#### Ground Conductor:

Soft, uncoated copper per ASTM-B787; insulated green ground on 6 and 8 AWG construction

#### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduit. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

#### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

#### Color Coding:

Black insulation with ICEA Method 4 printed number

#### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

## Type TC - Power Cable With Ground - THHN/THWN-2 Inners 600V

| Size (AWG) | Number of Conductors |   | Size of Ground Wire (AWG) | Outside Jacket Thickness PVC (in) |       | Outside Diameter (in) |       | Approximate Net Weight (lbs/1000 ft) |      | Standard Packaging (ft) |
|------------|----------------------|---|---------------------------|-----------------------------------|-------|-----------------------|-------|--------------------------------------|------|-------------------------|
|            |                      |   |                           | 3                                 | 4     | 3                     | 4     | 3                                    | 4    |                         |
| 8          | 3                    | 4 | 10 Green Insulated        | 0.060                             | 0.060 | 0.610                 | 0.660 | 315                                  | 385  | 1000' 5000' Reels       |
| 6          | 3                    | 4 | 8 Green Insulated         | 0.060                             | 0.060 | 0.690                 | 0.760 | 452                                  | 558  | 1000' 4000' Reels       |
| 4          | 3                    | 4 | 8                         | 0.060                             | 0.060 | 0.880                 | 0.965 | 704                                  | 844  | 1000' 3000' Reels       |
| 2          | 3                    | 4 | 6                         | 0.080                             | 0.080 | 1.008                 | 1.115 | 1029                                 | 1287 | 1000' 2000' Reels       |
| 1          | 3                    | 4 | 6                         | 0.080                             | 0.080 | 1.135                 | 1.258 | 1203                                 | 1642 | 1000' 2000' Reels       |
| 1/0        | 3                    | 4 | 6                         | 0.080                             | 0.080 | 1.225                 | 1.355 | 1517                                 | 1931 | 1000' 2000' Reels       |
| 2/0        | 3                    | 4 | 6                         | 0.080                             | 0.080 | 1.328                 | 1.468 | 1831                                 | 2426 | 500' 1000' 2000' Reels  |
| 3/0        | 3                    | 4 | 4                         | 0.080                             | 0.080 | 1.438                 | 1.588 | 2249                                 | 2879 | 1000' 2000' Reels       |
| 4/0        | 3                    | 4 | 4                         | 0.080                             | 0.080 | 1.558                 | 1.788 | 2740                                 | 3531 | 1000' 1500' Reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

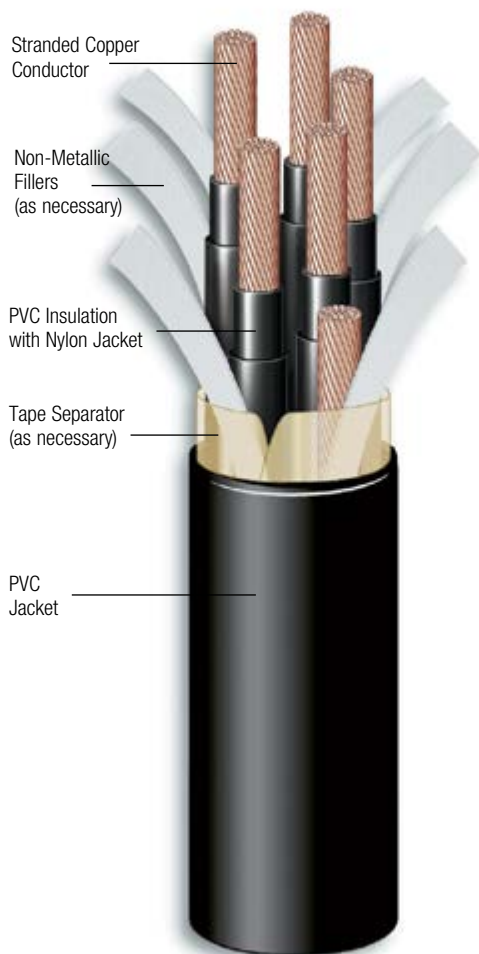
8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code, NEC Article 336  
 NEMA WC 57/ICEA 5-73-532  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant  
 NEMA WC-70/ICEA S-95-658

## CONSTRUCTION:

### Conductors:

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8 and UL-83

### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous at 90°C dry or wet to meet UL-83 requirements for Type THHN or THWN-2 wire.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787; bare ground conductor

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Black insulation with ICEA Method 4 printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

Type TC - Power Cable THHN/THWN-2 Inners with Ground 600V

| Size (AWG) | Number of Conductors |   | Size of Ground Wire (AWG) | Outside Jacket Thickness PVC (in) |       | Outside Diameter (in) |       | Approximate Net Weight (lbs/1000 ft) |       | Standard Packaging (ft) |
|------------|----------------------|---|---------------------------|-----------------------------------|-------|-----------------------|-------|--------------------------------------|-------|-------------------------|
|            |                      |   |                           | 3                                 | 4     | 3                     | 4     | 3                                    | 4     |                         |
| 250        | 3                    | 4 | 4                         | 0.080                             | 0.110 | 1.797                 | 1.991 | 3155                                 | 3991  | 1000' 1500' reels       |
| 300        | 3                    | 4 | 3                         | 0.110                             | 0.110 | 1.982                 | 2.191 | 3802                                 | 4865  | 1000' 1500' reels       |
| 350        | 3                    | 4 | 3                         | 0.110                             | 0.110 | 2.096                 | 2.318 | 4317                                 | 5562  | 1000' 1500' reels       |
| 400        | 3                    | 4 | 3                         | 0.110                             | 0.110 | 2.202                 | 2.437 | 4861                                 | 6224  | 1000' 1500' reels       |
| 500        | 3                    | 4 | 2                         | 0.110                             | 0.110 | 2.397                 | 2.655 | 5955                                 | 7587  | 1000' 1500' reels       |
| 600        | 3                    | 4 | 2                         | 0.110                             | 0.110 | 2.757                 | 3.058 | 7197                                 | 9376  | 1000' 1500' reels       |
| 750        | 3                    | 4 | 1                         | 0.110                             | 0.110 | 3.011                 | 3.341 | 8749                                 | 11474 | 1000' 1500' reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

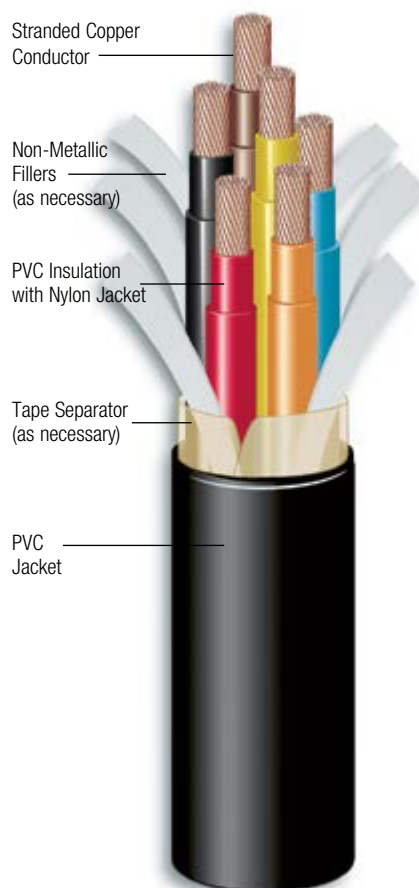
60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

**PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC



## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code, NEC Article 336  
 NEMA WC 57/ICEA 5-73-532  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant

## CONSTRUCTION:

### Conductors:

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8 and UL-83

### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous use at 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where a sunlight-resistant rating is required. Cable constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without an insulated green ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Color-coded insulation with ICEA Method 1 with printed number

### Overall Jacket:

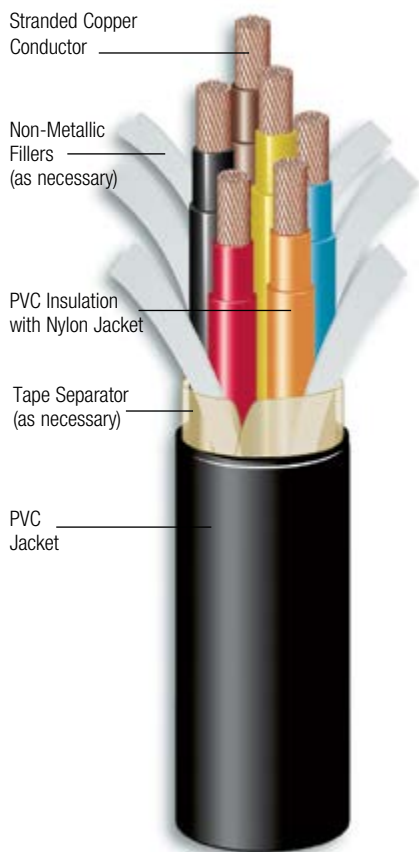
A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

## Type TC - Power & Control Cable - Without Ground - THHN/THWN-2 Inners - 14 AWG 600V

| Size (AWG) | Number of Conductors | Outside Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|------------|----------------------|-----------------------------------|-----------------------|--------------------------------------|-------------------------|
| 14 AWG     | 2                    | 0.045                             | 0.230 x 0.340         | 58                                   | 1000' 5000' Reels       |
|            | 3                    | 0.045                             | 0.350                 | 79                                   | 1000' 5000' Reels       |
|            | 4                    | 0.045                             | 0.380                 | 99                                   | 1000' 5000' Reels       |
|            | 5                    | 0.045                             | 0.410                 | 118                                  | 1000' 5000' Reels       |
|            | 6                    | 0.045                             | 0.450                 | 139                                  | 1000' 5000' Reels       |
|            | 7                    | 0.045                             | 0.460                 | 148                                  | 1000' 5000' Reels       |
|            | 8                    | 0.045                             | 0.490                 | 178                                  | 1000' 5000' Reels       |
|            | 9                    | 0.045                             | 0.525                 | 199                                  | 1000' 5000' Reels       |
|            | 10                   | 0.045                             | 0.600                 | 238                                  | 1000' 5000' Reels       |
|            | 11                   | 0.045                             | 0.615                 | 257                                  | 1000' 5000' Reels       |
|            | 12                   | 0.045                             | 0.620                 | 275                                  | 1000' 5000' Reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.  
 For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):  
 60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.  
 75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.  
 90°C for ampacity derating purposes.  
 The above data is approximate and subject to normal manufacturing tolerances.

**PRINT LEGEND:** ENCORE WIRE CORPORATION (size) TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code, NEC Article 336  
 NEMA WC 57/ICEA 5-73-532  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8 and UL-83

### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous use at 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where a sunlight-resistant rating is required. Cable constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without an insulated green ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Color-coded insulation with ICEA Method 1 with printed number

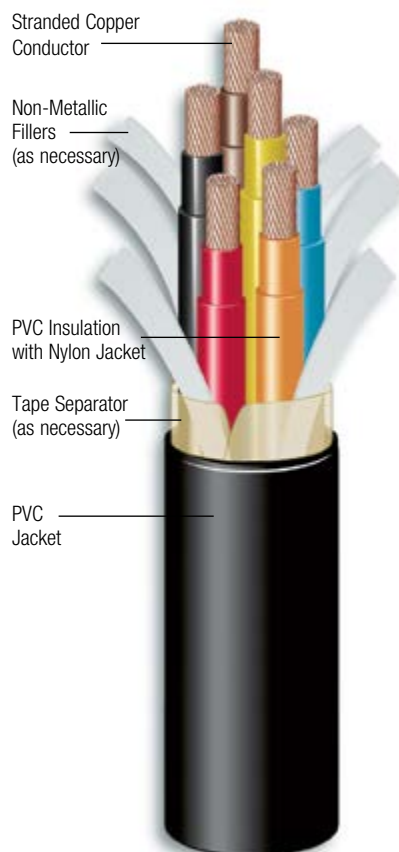
### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

## Type TC - Power & Control Cable - Without Ground - THHN/THWN-2 Inners - 12 AWG 600V

| Size (AWG)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Number of Conductors | Outside Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------|-----------------------|--------------------------------------|-------------------------|
| 12 AWG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2                    | 0.045                             | 0.250 X 0.380         | 78                                   | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3                    | 0.045                             | 0.390                 | 101                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4                    | 0.045                             | 0.420                 | 130                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5                    | 0.045                             | 0.470                 | 162                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6                    | 0.045                             | 0.510                 | 194                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7                    | 0.045                             | 0.540                 | 220                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 8                    | 0.045                             | 0.590                 | 272                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 9                    | 0.045                             | 0.630                 | 304                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10                   | 0.045                             | 0.680                 | 336                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 11                   | 0.045                             | 0.700                 | 365                                  | 1000' 5000' Reels       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12                   | 0.045                             | 0.710                 | 393                                  | 1000' 5000' Reels       |
| For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.<br>For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):<br>60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.<br>75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.<br>90°C for ampacity derating purposes.<br>The above data is approximate and subject to normal manufacturing tolerances. |                      |                                   |                       |                                      |                         |

**PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code, NEC Article 336  
 NEMA WC 57/ICEA 5-73-532  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8 and UL-83

### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous use at 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire.

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where a sunlight-resistant rating is required. Cable constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without an insulated green ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Color-coded insulation with ICEA Method 1 with printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

## Type TC - Power & Control Cable Without Ground - THHN/THWN-2 Inners - 10 AWG 600V

| Size (AWG) | Number of Conductors | Outside Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|------------|----------------------|-----------------------------------|-----------------------|--------------------------------------|-------------------------|
| 10 AWG     | 2                    | 0.045                             | 0.260 x 0.430         | 115                                  | 1000' 5000' Reels       |
|            | 3                    | 0.045                             | 0.460                 | 152                                  | 1000' 5000' Reels       |
|            | 4                    | 0.045                             | 0.500                 | 207                                  | 1000' 5000' Reels       |
|            | 5                    | 0.045                             | 0.585                 | 260                                  | 1000' 5000' Reels       |
|            | 6                    | 0.045                             | 0.650                 | 320                                  | 1000' 5000' Reels       |
|            | 7                    | 0.045                             | 0.655                 | 362                                  | 1000' 5000' Reels       |
|            | 8                    | 0.045                             | 0.705                 | 412                                  | 1000' 5000' Reels       |
|            | 9                    | 0.045                             | 0.755                 | 459                                  | 1000' 5000' Reels       |
|            | 10                   | 0.045                             | 0.820                 | 512                                  | 1000' 5000' Reels       |
|            | 11                   | 0.045                             | 0.850                 | 558                                  | 1000' 5000' Reels       |
|            | 12                   | 0.045                             | 0.855                 | 572                                  | 1000' 5000' Reels       |

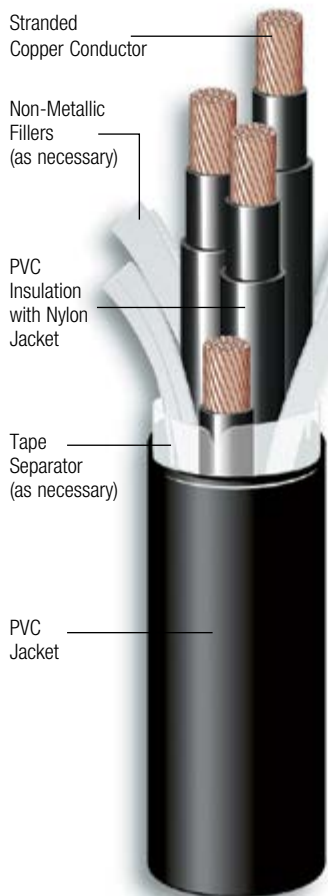
For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.  
 For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):  
 60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.  
 75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.  
 90°C for ampacity derating purposes.  
 The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
ASTM Stranding Class B3, B8, B787  
NFPA 70: National Electrical Code, NEC 336 Article  
NEMA WC 57/ICEA 5-73-532  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant

## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787 and UL-83

### Insulation:

High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous use at 90°C dry or wet to meet UL-83 requirements for Type THHN or THWN-2 wire.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787.

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduit. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Black insulation with ICEA Method 4 printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

Type TC-Power & Control Cable-Without Ground-THHN/THWN-2 Inners-600V

| Size (AWG) | Number of Conductors |   | Outer Jacket Thickness PVC (in) |      | Outside Diameter (in) |       | Approximate Net Weight (lbs/1000 ft) |      | Standard Packaging (ft) |
|------------|----------------------|---|---------------------------------|------|-----------------------|-------|--------------------------------------|------|-------------------------|
|            |                      |   | 3                               | 4    | 3                     | 4     | 3                                    | 4    |                         |
| 8          | 3                    | 4 | .060                            | .060 | .610                  | .655  | 282                                  | 351  | 1000' 5000' reels       |
| 6          | 3                    | 4 | .060                            | .060 | .685                  | .750  | 400                                  | 504  | 1000' 4000' reels       |
| 4          | 3                    | 4 | .080                            | .080 | .875                  | .961  | 652                                  | 826  | 1000' 3000' reels       |
| 2          | 3                    | 4 | .080                            | .080 | 1.004                 | 1.105 | 947                                  | 1204 | 1000' 2000' reels       |
| 1          | 3                    | 4 | .080                            | .080 | 1.140                 | 1.255 | 1121                                 | 1478 | 1000' 2000' 5000' reels |
| 1/0        | 3                    | 4 | .080                            | .080 | 1.225                 | 1.355 | 1436                                 | 1802 | 1000' 2000' reels       |
| 2/0        | 3                    | 4 | .080                            | .080 | 1.325                 | 1.465 | 1750                                 | 2207 | 1000' 2000' reels       |
| 3/0        | 3                    | 4 | .080                            | .080 | 1.435                 | 1.585 | 2120                                 | 2712 | 1000' 2000' 5000' reels |
| 4/0        | 3                    | 4 | .080                            | .080 | 1.555                 | 1.785 | 2610                                 | 3426 | 1000' 1500' 5000' reels |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

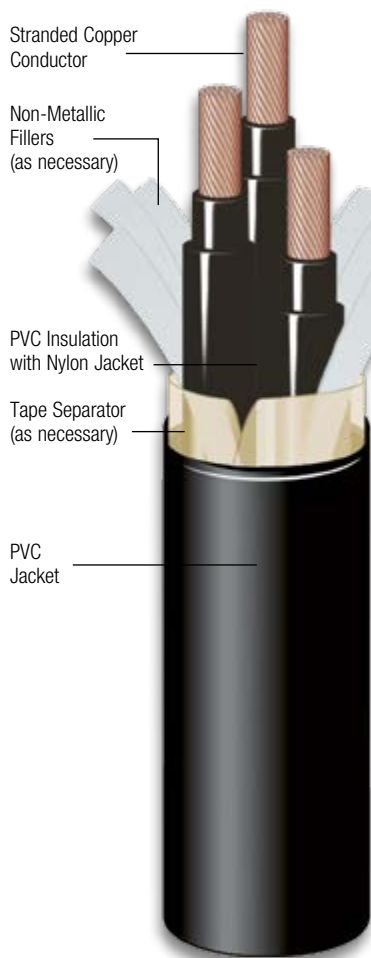
90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

# TYPE TC-POWER CABLE-WITHOUT GROUND-THHN/THWN-2 INNERS



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-83  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code, NEC Article 336  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 NEMA WC 57/ICEA 5-73-532  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

**Conductors:** Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8 and UL-83

**Insulation:** High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC) rated for continuous at 90°C dry or wet to meet UL-83 requirements for Type THHN or THWN-2 wire.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787; bare ground conductor

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Black insulation with ICEA Method 4 printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request.

Type TC-Power Cable-Without Ground-THHN/THWN-2 Inners 600V

| Size (AWG) | Number of Conductors |   | Outside Jacket Thickness PVC (in) |       | Outside Diameter (in) |       | Approximate Net Weight (lbs/1000 ft) |       | Standard Packaging (ft) |
|------------|----------------------|---|-----------------------------------|-------|-----------------------|-------|--------------------------------------|-------|-------------------------|
|            |                      |   | 3                                 | 4     | 3                     | 4     | 3                                    | 4     |                         |
| 250        | 3                    | 4 | 0.080                             | 0.080 | 1.792                 | 1.981 | 3026                                 | 3865  | 1000' 1500' reels       |
| 300        | 3                    | 4 | 0.110                             | 0.110 | 1.977                 | 2.160 | 3640                                 | 4703  | 1000' 1500' reels       |
| 350        | 3                    | 4 | 0.110                             | 0.110 | 2.091                 | 2.308 | 4155                                 | 5400  | 1000' 1500' reels       |
| 400        | 3                    | 4 | 0.110                             | 0.110 | 2.197                 | 2.432 | 4699                                 | 6062  | 1000' 1500' reels       |
| 500        | 3                    | 4 | 0.110                             | 0.110 | 2.392                 | 2.650 | 5750                                 | 7382  | 1000' 1500' reels       |
| 600        | 3                    | 4 | 0.110                             | 0.110 | 2.752                 | 3.053 | 6992                                 | 9171  | 1000' 1500' reels       |
| 750        | 3                    | 4 | 0.110                             | 0.110 | 3.009                 | 3.336 | 8491                                 | 11216 | 1000' 1500' reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

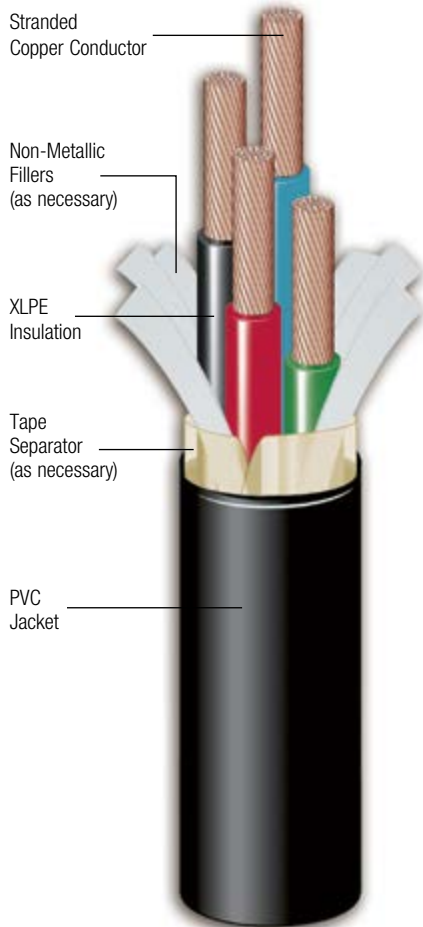
PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE THHN OR THWN-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

# TYPE TC-POWER CABLE-WITH INSULATED GROUND-XHHW-2 INNERS

## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
ASTM Stranding Class B3, B8, B787  
NFPA 70: National Electrical Code, NEC Article 336  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant

### CONSTRUCTION:

#### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

#### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

#### Ground Conductor:

Soft, uncoated copper per ASTM-B787 or XLPE Insulated Green Ground

#### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

#### Assembly:

The insulated conductors are cabled together with or without an insulated green ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

#### Color Coding:

Colored insulation with ICEA Method 1 with printed number

#### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

### Type TC-Power Cable-With Insulated Ground-XHHW-2 Inners 600V

| Size (AWG) | Size of Ground Wire (AWG) | Outer Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000ft) | Standard Packaging (ft) |
|------------|---------------------------|---------------------------------|-----------------------|-------------------------------------|-------------------------|
| 14/2       | 14 AWG Green Insulated    | 0.045                           | 0.386                 | 89                                  | 1000' 5000' Reels       |
| 14/3       | 14 AWG Green Insulated    | 0.045                           | 0.422                 | 110                                 | 1000' 5000' Reels       |
| 12/2       | 12 AWG Green Insulated    | 0.045                           | 0.430                 | 120                                 | 1000' 5000' Reels       |
| 12/3       | 12 AWG Green Insulated    | 0.045                           | 0.471                 | 153                                 | 1000' 5000' Reels       |
| 10/2       | 10 AWG Green Insulated    | 0.045                           | 0.480                 | 167                                 | 1000' 5000' Reels       |
| 10/3       | 10 AWG Green Insulated    | 0.045                           | 0.525                 | 220                                 | 1000' 5000' Reels       |

### Type TC-Power Cable-With Bare Ground-XHHW-2 Inners 600V

| Size (AWG) | Size of Ground Wire (AWG) | Outer Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000ft) | Standard Packaging (ft) |
|------------|---------------------------|---------------------------------|-----------------------|-------------------------------------|-------------------------|
| 14/2       | 14 AWG Bare               | 0.045                           | 0.379                 | 84                                  | 1000' 5000' Reels       |
| 14/3       | 14 AWG Bare               | 0.045                           | 0.416                 | 106                                 | 1000' 5000' Reels       |
| 12/2       | 12 AWG Bare               | 0.045                           | 0.423                 | 115                                 | 1000' 5000' Reels       |
| 12/3       | 12 AWG Bare               | 0.045                           | 0.464                 | 141                                 | 1000' 5000' Reels       |
| 10/2       | 10 AWG Bare               | 0.045                           | 0.473                 | 161                                 | 1000' 5000' Reels       |
| 10/3       | 10 AWG Bare               | 0.045                           | 0.514                 | 207                                 | 1000' 5000' Reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

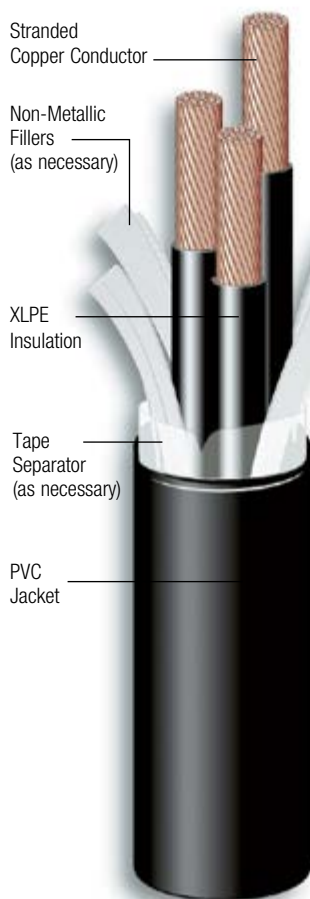
75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND: ENCORE WIRE CORP (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

# TYPE TC-POWER CABLE-WITHOUT GROUND-XHHW-2 INNERS



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
Federal Specification A-A-59544, NEMA WC-70/ICEA S-95-658  
NFPA 70: National Electrical Code, NEC Article 336  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
NEMA WC 57/ICEA 5-73-532  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, raceways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Black insulation with ICEA Method 4 printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

## Type TC-Power Cable-Without Ground-XHHW-2 Inners 600V

| Size<br>(AWG) | Number of<br>Conductors |   | Outside Jacket<br>Thickness PVC (in) |       | Outside Diameter<br>(in) |       | Approximate Net Weight<br>(lbs/1000 ft) |       | Standard Packaging<br>(ft) |
|---------------|-------------------------|---|--------------------------------------|-------|--------------------------|-------|-----------------------------------------|-------|----------------------------|
|               |                         |   | 3                                    | 4     | 3                        | 4     | 3                                       | 4     |                            |
| 250           | 3                       | 4 | 0.080                                | 0.080 | 1.777                    | 1.969 | 3029                                    | 3865  | 1000' 1500' reels          |
| 300           | 3                       | 4 | 0.110                                | 0.110 | 1.963                    | 2.151 | 3681                                    | 4684  | 1000' 1500' reels          |
| 350           | 3                       | 4 | 0.110                                | 0.110 | 2.076                    | 2.292 | 4158                                    | 5403  | 1000' 1500' reels          |
| 400           | 3                       | 4 | 0.110                                | 0.110 | 2.182                    | 2.411 | 4695                                    | 6126  | 1000' 1500' reels          |
| 500           | 3                       | 4 | 0.110                                | 0.110 | 2.378                    | 2.629 | 5753                                    | 7385  | 1000' 1500' reels          |
| 600           | 3                       | 4 | 0.110                                | 0.110 | 2.692                    | 2.980 | 7153                                    | 9173  | 1000' 1500' reels          |
| 750           | 3                       | 4 | 0.110                                | 0.110 | 3.010                    | 3.337 | 8494                                    | 11049 | 1000' 1500' reels          |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

**PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

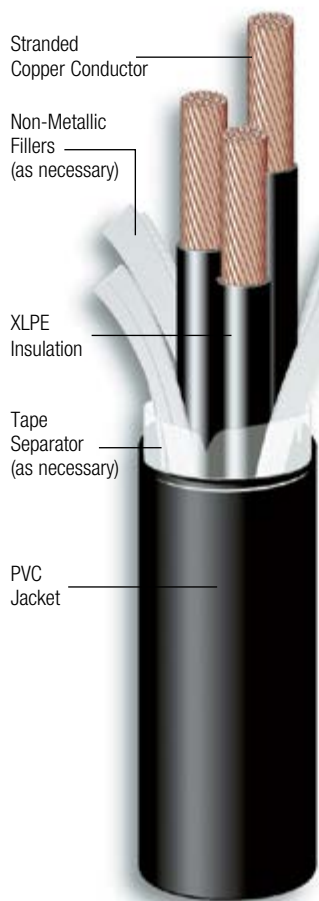
## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
Federal Specification A-A-59544, NEMA WC-70/ICEA S-95-658  
NFPA 70: National Electrical Code; NEC Article 336  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
NEMA WC 57/ICEA 5-73-532  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, raceways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Black insulation with ICEA Method 4 printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

## Type TC Power Cable-Without Ground-XHHW-2 Innors 600V

| Size (AWG) | Number of Conductors |   | Outer Jacket Thickness PVC (in) |       | Outside Diameter (in) |       | Approximate Net Weight (lbs/1000 ft) |      | Standard Packaging (ft) |
|------------|----------------------|---|---------------------------------|-------|-----------------------|-------|--------------------------------------|------|-------------------------|
|            |                      |   | 3                               | 4     | 3                     | 4     | 3                                    | 4    |                         |
| 8          | 3                    | 4 | 0.060                           | 0.060 | 0.660                 | 0.705 | 285                                  | 354  | 1000' 5000' reels       |
| 6          | 3                    | 4 | 0.060                           | 0.060 | 0.735                 | 0.800 | 403                                  | 507  | 1000' 4000' reels       |
| 4          | 3                    | 4 | 0.080                           | 0.080 | 0.925                 | 1.001 | 655                                  | 829  | 1000' 3000' reels       |
| 2          | 3                    | 4 | 0.080                           | 0.080 | 1.054                 | 1.155 | 950                                  | 1207 | 1000' 2000' reels       |
| 1          | 3                    | 4 | 0.080                           | 0.080 | 1.182                 | 1.252 | 1124                                 | 1435 | 1000' 2000' reels       |
| 1/0        | 3                    | 4 | 0.080                           | 0.080 | 1.272                 | 1.322 | 1439                                 | 1829 | 1000' 2000' reels       |
| 2/0        | 3                    | 4 | 0.080                           | 0.080 | 1.375                 | 1.425 | 1753                                 | 2236 | 500' 1000' 2000' reels  |
| 3/0        | 3                    | 4 | 0.080                           | 0.080 | 1.485                 | 1.535 | 2123                                 | 2723 | 1000' 2000' reels       |
| 4/0        | 3                    | 4 | 0.080                           | 0.080 | 1.605                 | 1.655 | 2613                                 | 3443 | 1000' 1500' reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

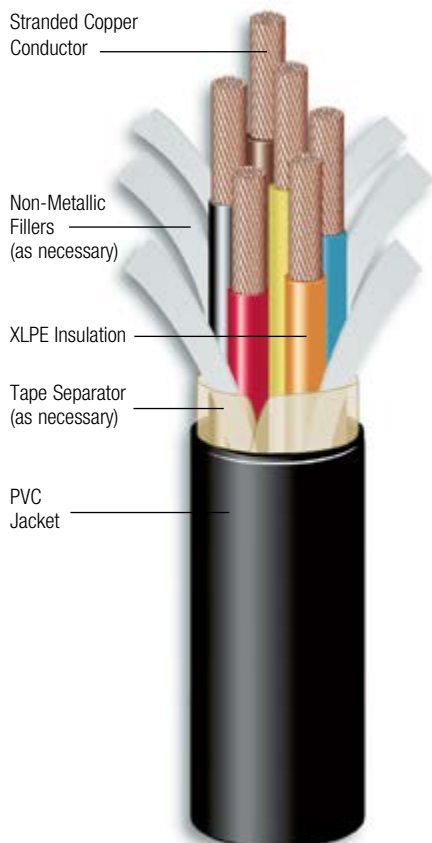
8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
ASTM Stranding Class B3, B8, B787  
NFPA 70: National Electrical Code, NEC Article 336  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
NEMA WC 57/ICEA 5-73-532  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant

## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without an insulated green ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Colored insulation with ICEA Method 1 with printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

Type TC-Power & Control Cable-Without Ground-XHHW-2 Inners-14 AWG 600V

| Size (AWG) | Number of Conductors | Outer Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|------------|----------------------|---------------------------------|-----------------------|--------------------------------------|-------------------------|
|            | 2                    | .045                            | .262 x .370           | 61                                   | 1000' 5000' reels       |
|            | 3                    | .045                            | .373                  | 86                                   | 1000' 5000' reels       |
|            | 4                    | .045                            | .413                  | 104                                  | 1000' 5000' reels       |
|            | 5                    | .045                            | .432                  | 124                                  | 1000' 5000' reels       |
|            | 6                    | .045                            | .472                  | 145                                  | 1000' 5000' reels       |
| 14 AWG     | 7                    | .045                            | .472                  | 166                                  | 1000' 5000' reels       |
|            | 8                    | .045                            | .550                  | 199                                  | 1000' 5000' reels       |
|            | 9                    | .045                            | .590                  | 222                                  | 1000' 5000' reels       |
|            | 10                   | .045                            | .639                  | 245                                  | 1000' 5000' reels       |
|            | 11                   | .045                            | .645                  | 268                                  | 1000' 5000' reels       |
|            | 12                   | .045                            | .660                  | 284                                  | 1000' 5000' reels       |

Note: ampacities are based on Table 310.15(B)(16) of the NEC. \*Ampacities shown are for general use as specified by the NEC, Section 310.15.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

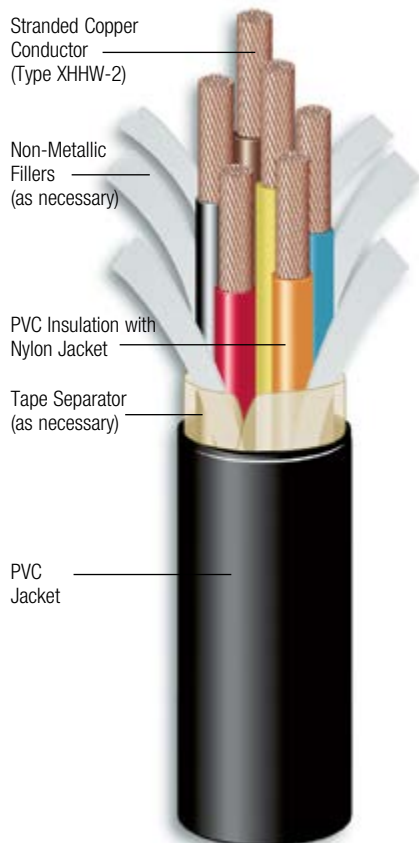
75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

When the neutral is considered current-carrying conductor, the ampacity of 4/C cables shall be reduced by a factor of 0.80 per NEC 310.15(B)(2)(a).

The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
 ASTM Stranding Class B3, B8, B787  
 NFPA 70: National Electrical Code, NEC Article 336  
 UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
 NEMA WC 57/ICEA 5-73-532  
 ICEA T-29-520 (210,000 Btu/hr) Flame Test  
 ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without an insulated green ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Colored insulation with ICEA Method 1 with printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

Type TC-Power & Control Cable-Without Ground-XHHW-2 Inners-12 AWG 600V

| Size (AWG) | Number of Conductors | Outer Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|------------|----------------------|---------------------------------|-----------------------|--------------------------------------|-------------------------|
|            | 2                    | .045                            | .282 x .410           | 84                                   | 1000' 5000' reels       |
|            | 3                    | .045                            | .411                  | 116                                  | 1000' 5000' reels       |
|            | 4                    | .045                            | .447                  | 148                                  | 1000' 5000' reels       |
|            | 5                    | .045                            | .492                  | 169                                  | 1000' 5000' reels       |
|            | 6                    | .045                            | .568                  | 216                                  | 1000' 5000' reels       |
| 12 AWG     | 7                    | .045                            | .568                  | 245                                  | 1000' 5000' reels       |
|            | 8                    | .045                            | .612                  | 275                                  | 1000' 5000' reels       |
|            | 9                    | .045                            | .653                  | 305                                  | 1000' 5000' reels       |
|            | 10                   | .045                            | .715                  | 339                                  | 1000' 5000' reels       |
|            | 11                   | .045                            | .726                  | 371                                  | 1000' 5000' reels       |
|            | 12                   | .045                            | .738                  | 395                                  | 1000' 5000' reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

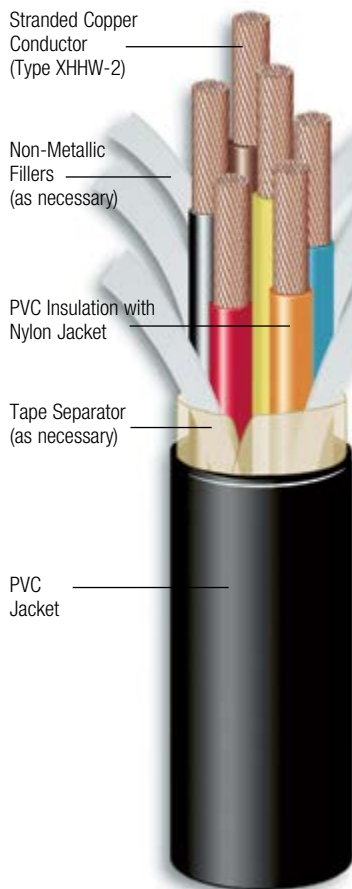
The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

## ENGINEERING SPECIFICATIONS:



Listed E-179429



### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
ASTM Stranding Class B3, B8, B787  
NFPA 70: National Electrical Code, NEC Article 336  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
NEMA WC 57/ICEA 5-73-532  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant

## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, wireways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without an insulated green ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Colored insulation with ICEA Method 1 with printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

Type TC-Power & Control Cable-Without Ground-XHHW-2 Inners-10 AWG 600V

| Size (AWG) | Number of Conductors | Outer Jacket Thickness PVC (in) | Outside Diameter (in) | Approximate Net Weight (lbs/1000 ft) | Standard Packaging (ft) |
|------------|----------------------|---------------------------------|-----------------------|--------------------------------------|-------------------------|
|            | 2                    | .045                            | .292 x .460           | 114                                  | 1000' 5000' reels       |
|            | 3                    | .045                            | .464                  | 161                                  | 1000' 5000' reels       |
|            | 4                    | .045                            | .506                  | 208                                  | 1000' 5000' reels       |
|            | 5                    | .045                            | .578                  | 262                                  | 1000' 5000' reels       |
|            | 6                    | .045                            | .630                  | 306                                  | 1000' 5000' reels       |
| 10 AWG     | 7                    | .045                            | .630                  | 348                                  | 1000' 5000' reels       |
|            | 8                    | .045                            | .684                  | 395                                  | 1000' 5000' reels       |
|            | 9                    | .045                            | .738                  | 440                                  | 1000' 5000' reels       |
|            | 10                   | .045                            | .810                  | 486                                  | 1000' 5000' reels       |
|            | 11                   | .045                            | .851                  | 536                                  | 1000' 5000' reels       |
|            | 12                   | .045                            | .877                  | 597                                  | 1000' 5000' reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

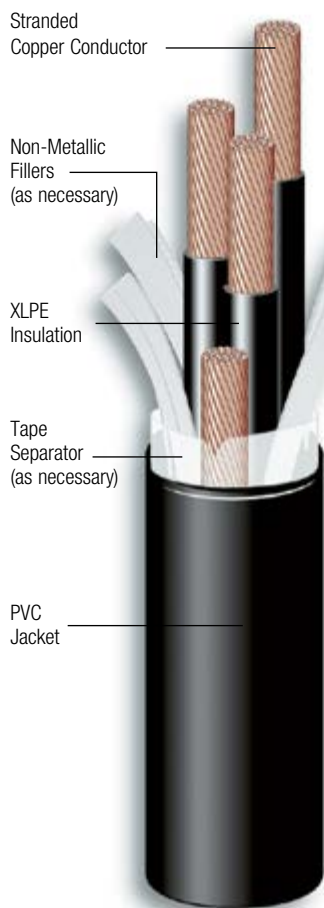
60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
Federal Specification A-A-59544, NEMA WC-70/ICEA S-95-658  
NFPA 70: National Electrical Code, NEC Article 336  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
NEMA WC 57/ICEA 5-73-532  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787; 8 AWG and 6 AWG have an insulated green ground conductor

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, raceways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Black insulation with ICEA Method 4 printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

Type TC-Power Cable-With Ground-XHHW-2 Inners 600V

| Size (AWG) | Number of Conductors |   | Size of Ground Wire (AWG) | Outer Jacket Thickness PVC (in) |       | Outside Diameter (in) |       | Approximate Net Weight (lbs/1000 ft) |      | Standard Packaging (ft) |
|------------|----------------------|---|---------------------------|---------------------------------|-------|-----------------------|-------|--------------------------------------|------|-------------------------|
|            |                      |   |                           | 3                               | 4     | 3                     | 4     | 3                                    | 4    |                         |
| 8          | 3                    | 4 | 10 AWG Green Insulated    | 0.060                           | 0.060 | 0.660                 | 0.710 | 318                                  | 388  | 1000' 5000' reels       |
| 6          | 3                    | 4 | 8 AWG Green Insulated     | 0.060                           | 0.060 | 0.740                 | 0.810 | 455                                  | 561  | 1000' 4000' reels       |
| 4          | 3                    | 4 | 8                         | 0.060                           | 0.060 | 0.930                 | 1.080 | 707                                  | 903  | 1000' 3000' reels       |
| 2          | 3                    | 4 | 6                         | 0.080                           | 0.080 | 1.058                 | 1.165 | 1032                                 | 1290 | 1000' 2000' reels       |
| 1          | 3                    | 4 | 6                         | 0.080                           | 0.080 | 1.185                 | 1.308 | 1206                                 | 1645 | 1000' 2000' reels       |
| 1/0        | 3                    | 4 | 6                         | 0.080                           | 0.080 | 1.275                 | 1.405 | 1520                                 | 1934 | 1000' 2000' reels       |
| 2/0        | 3                    | 4 | 6                         | 0.080                           | 0.080 | 1.378                 | 1.518 | 1834                                 | 2429 | 500' 1000' 2000' reels  |
| 3/0        | 3                    | 4 | 4                         | 0.080                           | 0.080 | 1.488                 | 1.638 | 2252                                 | 2882 | 1000' 2000' reels       |
| 4/0        | 3                    | 4 | 4                         | 0.080                           | 0.080 | 1.608                 | 1.758 | 2743                                 | 3552 | 1000' 1500' reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

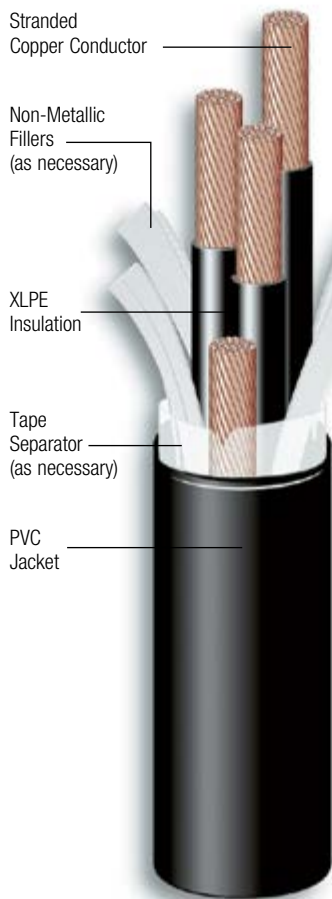
90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

8 AWG THROUGH 4/0 AWG ARE 19 STRANDS PER CONDUCTOR

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC

# TYPE TC-POWER CABLE-WITH GROUND-XHHW-2 INNERS



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standard UL-1277, UL-44  
Federal Specification A-A-59544, NEMA WC-70/ICEA S-95-658  
NFPA 70: National Electrical Code, NEC Article 336  
UL 1685-FT4/IEEE 1202 (70,000 Btu/hr) Flame Test  
NEMA WC 57/ICEA 5-73-532  
ICEA T-29-520 (210,000 Btu/hr) Flame Test  
ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-179429



## CONSTRUCTION:

### Conductors:

Bare, soft-annealed stranded copper conductors per ASTM-B787

### Insulation:

Cross-linked polyethylene (XLPE) High Heat Water Resistant. Rated for continuous use in wet or dry locations at temperatures not to exceed 90°C dry or wet to meet UL-44 requirements for type XHHW-2 wire. Suitable for use in low-leaking circuits requiring a dielectric constant of 3.5 or less.

### Ground Conductor:

Soft, uncoated copper per ASTM-B787

### Applications:

Primarily used for connecting power devices in an industrial environment. Suitable for installation in channels, ducts, raceways, cable trays, and conduits. Approved for direct burial in wet or dry locations and outdoors in cable trays where sunlight-resistant rating is required. Cables constructed and listed for applications requiring TC-ER rating. Approved for Class I Division II Hazardous Locations.

### Assembly:

The insulated conductors are cabled together with or without a bare ground and with or without fillers as required to form a round compact core. Nylon rip-cord is supplied for easy stripping.

### Color Coding:

Black insulation with ICEA Method 4 printed number

### Overall Jacket:

A flame retardant sunlight-resistant black PVC jackets is applied over shielded core. Sunlight-resistant overall jacket available in all colors by request. Also available in chlorinated polyethylene jacket (CPE) by request.

Type TC-Power Cable-With Ground-XHHW-2 Inners 600V

|     | Number of Conductors (lbs/1000 ft) |   | Size of Ground Wire (AWG) | Outside Jacket Thickness PVC (in) |       | Outside Diameter (in) |       | Approximate Net Weight (lbs/1000 ft) |       | Standard Packaging (ft) |
|-----|------------------------------------|---|---------------------------|-----------------------------------|-------|-----------------------|-------|--------------------------------------|-------|-------------------------|
|     |                                    |   |                           | 3                                 | 4     | 3                     | 4     | 3                                    | 4     |                         |
| 250 | 3                                  | 4 | 4                         | 0.080                             | 0.080 | 1.782                 | 1.974 | 3158                                 | 3994  | 1000' 1500' reels       |
| 300 | 3                                  | 4 | 3                         | 0.110                             | 0.110 | 1.968                 | 2.156 | 3843                                 | 4846  | 1000' 1500' reels       |
| 350 | 3                                  | 4 | 3                         | 0.110                             | 0.110 | 2.081                 | 2.302 | 4320                                 | 5565  | 1000' 1500' reels       |
| 400 | 3                                  | 4 | 3                         | 0.110                             | 0.110 | 2.187                 | 2.421 | 4857                                 | 6288  | 1000' 1500' reels       |
| 500 | 3                                  | 4 | 2                         | 0.110                             | 0.110 | 2.383                 | 2.639 | 5958                                 | 7590  | 1000' 1500' reels       |
| 600 | 3                                  | 4 | 2                         | 0.110                             | 0.110 | 2.697                 | 2.990 | 7358                                 | 9378  | 1000' 1500' reels       |
| 750 | 3                                  | 4 | 1                         | 0.110                             | 0.110 | 3.015                 | 3.347 | 8752                                 | 11307 | 1000' 1500' reels       |

For ampacities see Table 310.15(B)(16) of the NEC. Also see Table 310.15(b)(2)(a) for adjustment factors for more than three current carrying conductors.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

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75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

The above data is approximate and subject to normal manufacturing tolerances.

PRINT LEGEND: ENCORE WIRE CORPORATION (SIZE) TYPE TC-ER CABLE XHHW-2 CDRS SUN-RES 600 VOLTS DIR-BUR (UL) DATE/TIME/OPER/QC