



**ENCORE WIRE®**

*Nobody does it like Encore.*

COPPER & ALUMINUM CATALOG

## TO OUR VALUED PARTNERS:

Over the last three decades, Encore Wire has developed a reputation for providing value and service beyond the expectations of our industry. We operate in a culture of confidence in our people, along with a commitment to excellence; this drives every thought and action.

*Daniel L Jones*

President & CEO  
Encore Wire Corporation



# COPPER

Introduction to Encore Wire .....	2-3
Services & Capabilities .....	6
Codes & Standards .....	7

## Residential Wire

NM-B.....	9
NM-B PCS .....	9
UF-B.....	9
SE-U.....	10
SE-R.....	10
TC-ER SE-R Hybrid®.....	10

## Commercial Wire

Soft-Drawn Bare .....	15
THHN/MTW/THWN-2/T90.....	15
XHHW-2/RW90 .....	15
USE-2/RHH/RHW-2 .....	15
Flexcore®.....	16
Photovoltaic .....	16
Tracer Wire .....	16
MTW/AWM/TEW Machine Tool & Appliance Wire .....	17
TFFN/TFN/TEWN .....	17
TW-#8 Solid Green .....	17

## Metal-Clad Cable

MC-LED Lighting Cable.....	21
MC-LED Healthcare .....	21
<b>Aluminum Armor</b>	
THHN/THWN-2.....	21-22
XHHW-2 .....	22
<b>Smartground®</b>	
THHN/THWN-2.....	23
<b>HCF-Smartground®</b>	
THHN/THWN-2.....	23
<b>Fire Alarm Cable</b>	
THHN/THWN-2 .....	23

## Metal-Clad Cable SmartColorID®

### Aluminum Armor

#### THHN/THWN-2

Isolated Ground.....	24
Multiple Neutral .....	24
Multi-Circuit.....	24

### Armor-Clad Cable

THHN/THWN-2.....	25
------------------	----

### AC-HCF

THHN/THWN-2.....	25
------------------	----

### MC-PVC Jacket

THHN/THWN-2.....	25
XHHW-2 .....	25

## Industrial Wire

### Tray Cable

#### Power & Control Cable

Power & Control THHN/THWN-2.....	28
Control THHN/THWN-2 .....	28-29
Power & Control THHN/THWN-2 (No Ground) .....	29
Power & Control XHHW-2 .....	29
Power XHHW-2 .....	30
Power & Control XHHW-2 (No Ground) .....	30

## Packaging

The Reel Payoff®.....	34
The Reel Payoff® Premium.....	35
The Reel Deal® .....	36
MC Barrel Packs® .....	37
Cyclone Barrel Packs® .....	38
Single Conductor Barrel Packs .....	39
PullPro® .....	40
Pulling Heads .....	41

# ALUMINUM

## Residential Wire

SE Style U.....	44
SE Style R.....	44
TC-ER SE-R Hybrid®.....	44

## Commercial Wire

THHN/THWN-2/T90 - SuperSlick Elite®.....	48
XHHW-2/RW90.....	48
USE-2/RHH/RHW-2.....	48
Photovoltaic - SmartSun®.....	48

## Metal-Clad Cable

### Aluminum Armor

THHN/THWN-2.....	52
------------------	----

### PVC Jacket

THHN/THWN-2.....	52
XHHW-2.....	52

## Energy Distribution Wire

### Underground Distribution Cable

#### Single Rated - XLPE Insulated

Single Conductor 1350 Aluminum.....	56
Duplex 1350 Aluminum.....	56
Triplex 1350 Aluminum.....	56
Quadruplex 1350 Aluminum.....	57

#### Triple Rated - XLPE Insulated

Duplex AA-8000 Aluminum.....	57
Triplex AA-8000 Aluminum.....	57
Quadruplex AA-8000 Aluminum.....	58

## Mobile Home Feeder Cable

Triple Rated - USE-2/RHH/RHW-2.....	58
-------------------------------------	----

## Overhead Service Drop

### ACSR

ACSR Bare Overhead Supporting Neutral.....	58
Duplex 1350 Overhead Service Drop.....	59
Triplex 1350 Overhead Service Drop.....	59
Quadruplex 1350 Overhead Service Drop.....	59

## Industrial Wire

### Tray Cable

### Power & Control Cable

Power THHN/THWN-2.....	62
Power XHHW-2.....	62

## Reference Tools

Digital Tools.....	66
Colors.....	66
Installation Guide.....	67
Reel Reference.....	68
Reel Size Chart.....	68-71
Master Pallets Chart.....	72-73
Receiving, Handling and Storage.....	74-75
Glossary.....	76-79
Social Media.....	79
Limited Warranty & Limitation of Liability.....	80
SuperSlick Elite® Style Cables - Limited Warranty...	81

## LEGEND



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



ENVIRONMENTAL  
AIR SPACE



PLENUM

# SERVICES & CAPABILITIES

IT'S WHAT SETS US APART!

## ASK YOUR LOCAL REP ABOUT:

- Cut-to-length paralleling
- Twisting/cabling
- Special print legend
- Custom-color striping
- Custom-color PVC jacket
- Colors
- Custom-palletized orders
- Parallel customized labels
- Master reels in roll-off position on 4-way pallets for increased maneuverability
- Special labeling
- Insulation-resistance testing
- SuperSlick Elite® lube-free jacketing
- Pulling heads attached at factory on various sizes from 8 AWG to 1000 KCMIL
- SmartCut® (Asterisk shows where to cut)
- Smart Count® (Reverse footage count)
- Sequential Foot Markings
- Weather-resistant end caps



**ENCORE WIRE'S SCRAP PROGRAM  
HELPS YOU UTILIZE WASTE ON  
JOB SITES AND PUT MONEY BACK  
IN YOUR POCKET.**

Encore Wire Scrap Program accepts bare copper and PVC-insulated copper. Our post-consumer thermoplastic-insulated conductors contain enough recycled materials to qualify contractors for LEED® incentives.

### CONTACT

Prior to shipment, please contact our Purchasing Department at 1.800.962.9473 ext. 1226 or e-mail [scrap@encorewire.com](mailto:scrap@encorewire.com) for a purchase order number.

## Value-Added Services to Engineers, Electrical Contractors & Inspection Associations

- UL Tests 2556 – Describe the various wire & cable tests
- Flame Tests – Describe the various flame tests for wire & cable
- Pulling Calculation Assistance
- Analysis of Copper to Aluminum Conversions
- Describe the various Stranding Types and Configurations
- Megohm meter – Long Term Insulation Test vs. Field Test
- Job site Solutions Team
- Guide to uses and understanding of Thermoplastic vs. Thermoset Wire
- NFPA 70 – 310.15(B)(2) and (B)(3) Ampacity Adjustment Factor Assistance
- Expert National Electrical Code Interpretations
- Wire and Cable Engineering Specification Analysis
- Inspector, Contractor, and Engineer Mediation (Code Conflicts)
- NEC Code Education

CONTACT CODES & STANDARDS AT [CODES@ENCOREWIRE.COM](mailto:CODES@ENCOREWIRE.COM)



## ENCORE TECHLAB®



The Encore TechLab ensures products leaving Encore Wire are capable of performing in the most demanding of applications and meet all UL requirements for performance and specifications.

### COMPOUNDING LAB

With our triple mixing blade, variable speed, and high-intensity mixer, all aspects of dry blending insulation and jacket materials can be properly completed.

### FLAME LAB

Encore Wire's state-of-the-art flame laboratory conducts testing in accordance with Underwriters Laboratories (UL)® specifications.

### WET LAB

Encore Wire's wet lab is designed to test products for their ability to function in rainy or damp environments. Tests include dielectric voltage-withstand, dielectric breakdown, and stability factor.

### OVEN LAB

Encore Wire's oven lab utilizes sophisticated equipment that is capable of conducting tests for both sunlight and heat resistance.



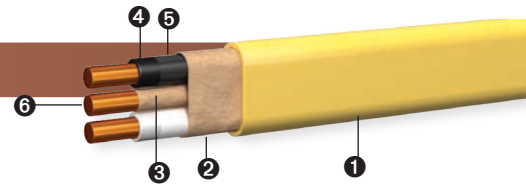


# ***COPPER RESIDENTIAL WIRE***

## NM-B (NON-METALLIC SHEATHED CABLE)

### Sizes 14 AWG - 2 AWG

- Commonly used for residential fixtures, switches, and loads rated for at least 90°C
- Ampacity limitation in accordance with the 60°C conductor temperature rating
- May be installed or fished in air voids and joints and in masonry block or tile walls
- Permitted for 600-volt applications for both exposed and concealed work



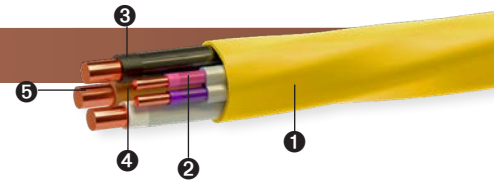
- 1 SuperSlick Elite® Color-Coded PVC Jacket
- 2 Paper Sheath
- 3 Nylon Jacket
- 4 PVC Insulation
- 5 Treated Paper Separator
- 6 Annealed Solid or Stranded Copper Conductor



## NM-B PCS (NON-METALLIC SHEATHED CABLE)

### Sizes 14 AWG - 10 AWG

- Commonly used for residential wiring of luminaries, devices and appliances
- Ampacity limitation in accordance with the 60°C conductor temperature rating
- May be installed or fished in air voids and joints and in masonry block or tile walls
- Permitted for 600-volt applications for both exposed and concealed work



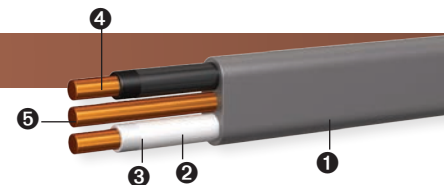
- 1 SuperSlick Elite® Color-Coded PVC Jacket
- 2 Nylon Jacket
- 3 PVC Insulation
- 4 Treated Paper Separator
- 5 Annealed Solid Copper Conductor



## UF-B (UNDERGROUND FEEDER CABLE)

### Sizes 14 AWG - 6 AWG

- May be used in applications permitted for Type NM-C construction in accordance with Article 334.10 B of the National Electrical Code (NEC)
- May be installed as interior wiring at temperatures not to exceed 90°C (with ampacity limited to that for 60°C conductors) as specified by the NEC
- Permitted for 600-volt applications



- 1 Gray, Sunlight-Resistant PVC Jacket
- 2 Nylon Jacket
- 3 PVC Insulation
- 4 Annealed Solid Copper Conductor
- 5 Bare Grounding Conductor

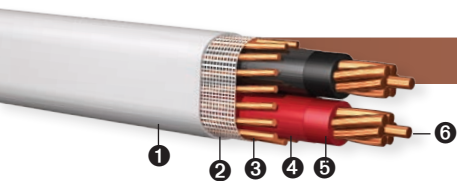


E-123776



ENCORE WIRE | 800.962.9473

RESIDENTIAL WIRE



- ① Gray, Sunlight-Resistant PVC Jacket
- ② Glass-Reinforced Tape
- ③ Bare Grounding Conductors
- ④ Nylon Conductor Jacket
- ⑤ PVC Insulation
- ⑥ Stranded or Solid Copper Conductor

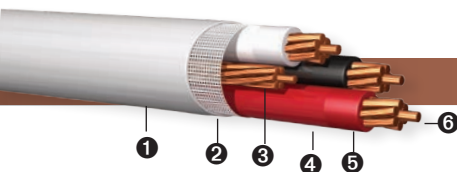


UL LISTED E-174428

## SE-STYLE U

**Sizes** 10 AWG - 4/0 AWG

- For above-ground electrical service use from the electric utility power service point to the meter or service entrance equipment
- Installed in accordance with Article 230 and 338 of the NEC
- Manufactured to the requirements of Underwriters Laboratories Standard 854
- Permitted for 600-volt applications



- ① Gray, Sunlight-Resistant PVC Jacket
- ② Glass-Reinforced Tape
- ③ Bare Grounding Conductor
- ④ Nylon Conductor Jacket
- ⑤ PVC Insulation
- ⑥ Stranded Copper Conductor

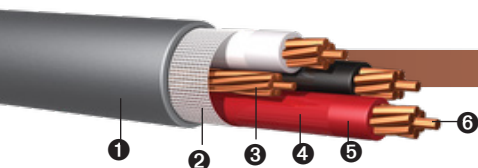


UL LISTED E-174428

## SE-STYLE R

**Sizes** 6 AWG - 4/0 AWG

- For above-ground electrical service use from the electric utility power service point to the meter or service entrance equipment
- Used for interior wiring as branch circuit to ranges, ovens, cooking units, or clothes dryers, under special conditions as permitted by NEC
- Manufactured in accordance with Article 338 of the NEC and approved for installation in accordance with Article 230 of the NEC
- Permitted for 600-volt applications



- ① Gray, Sunlight-Resistant PVC Jacket
- ② Glass-Reinforced Tape
- ③ Bare Grounding Conductor
- ④ Nylon Conductor Jacket
- ⑤ PVC Insulation
- ⑥ Stranded Copper Conductor



UL LISTED E-174428

## TC-ER SE-R HYBRID®

**Sizes** 6 AWG - 4/0 AWG

- For above ground electrical service use from service disconnecting means to remote distribution equipment
- Used for interior wiring as branch circuit to ranges, ovens, cooking units, or clothes dryers
- Manufactured in accordance with Articles 215, 225, 230, and 338 of the NEC
- Permitted for 600-volt applications



# AREN'T YOU A SLICK ONE!

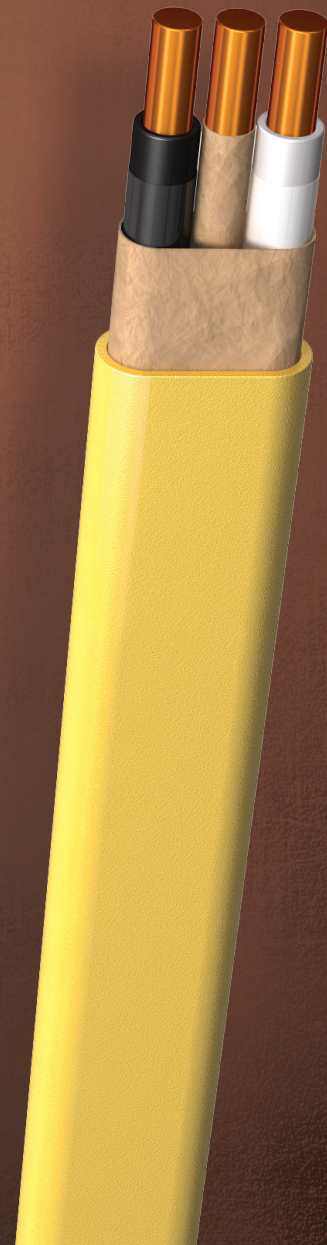


## ENCORE WIRE'S NEW NM-B HAS NEVER BEEN SO EASY TO PULL.

NM-B has been around for years, but with our SuperSlick Elite® technology, our NM-B is quicker and easier to pull than ever before. By reducing the amount of friction created during a wire pull, SuperSlick Elite can increase your ability to maintain a productive, safe, and cost-effective job site. SuperSlick Elite features a slick but never slippery or greasy outer jacket for easy pulling. Put it to the test.

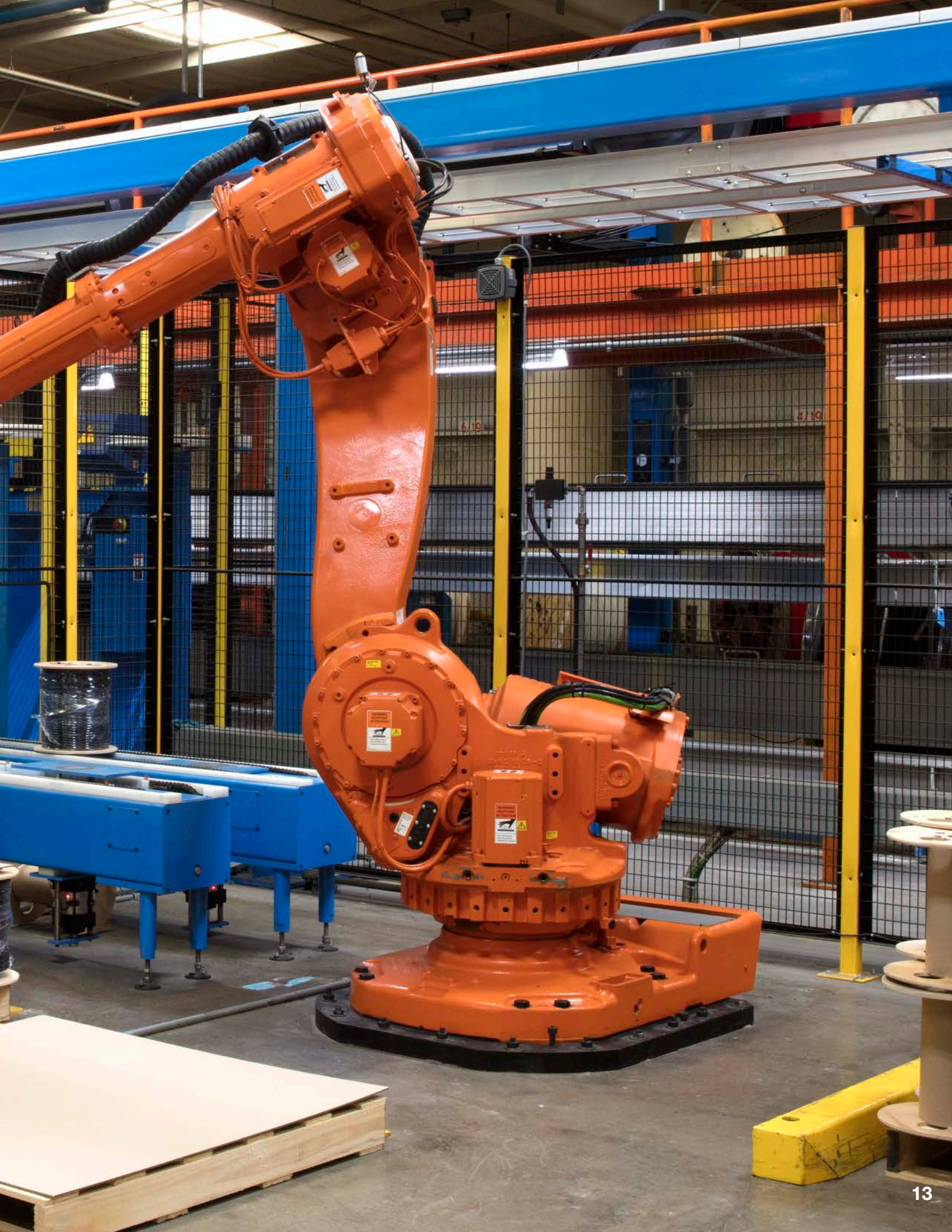


***Don't Pull Without It!***

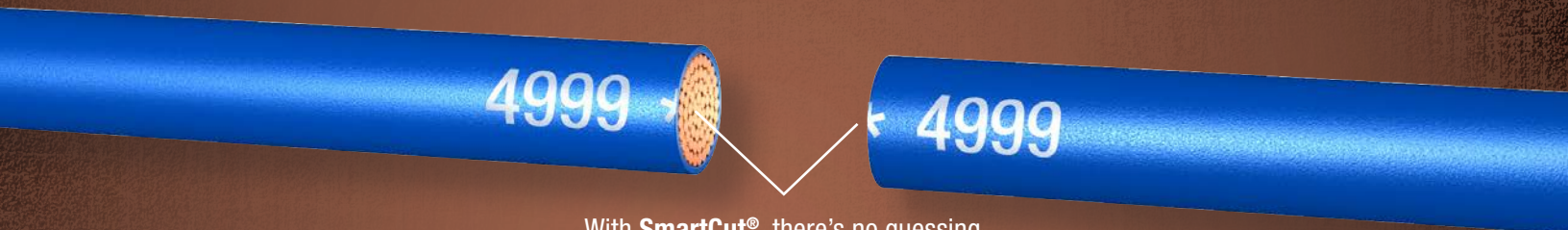




# ***COPPER COMMERCIAL WIRE***



# DON'T PLAY THE GUESSING GAME.



With **SmartCut®**, there's no guessing.  
Cut on the asterisk for precise footage!

## LAST THING YOU WANT IS TO COME UP SHORT!

SmartCount® footage marks are designed to help you quickly and easily cut correct lengths of wire on sizes 1 AWG and larger. SmartCount® master reels are printed with the total value at the beginning of the reel and count down foot by foot to zero. SmartCount® guarantees the full purchased wire length, reducing the amount of random lengths and lessening the amount of scrap.

## *BENEFITS FOR DISTRIBUTORS & CONTRACTORS*

- Precise footage cut using SmartCut® asterisk
- Quicker inventory count
- Eliminates miscounting
- Guarantees the full purchased wire length
- Theft deterrent
- Reduces the amount of random lengths
- Lessens the amount of scrap

# **SMART\*COUNT**

## SOFT-DRAWN BARE

**Sizes** 14 AWG - 1000 KCMIL

- Used in overhead electrical transmission and distribution systems for grounding electrical systems, and where high-conductivity and flexibility are required for equipment, circuit-grounding, and bonding
- Highest conductivity per unit area of all common commercial metals
- Excellent corrosion resistance; easily worked and formed into place



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



1

- 1 Stranded or Solid Copper Conductor  
(Copper purity of 99.95% or higher)



## THHN / MTW / THWN-2 / T90

**Sizes** 14 AWG - 1000 KCMIL

- Intended for general purpose applications as defined by the NEC
- Appropriate for use at temperatures not to exceed 90°C or not to exceed 75°C in oil or coolants
- Permitted for new construction or rewiring for 600-volt applications



UV  
DIRECT SUN\*



WET  
LOCATION\*

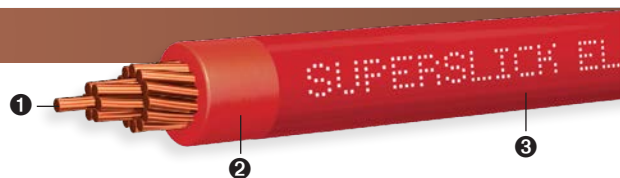


DAMP  
LOCATION\*



DRY  
LOCATION

\*In Raceways



1

2

3

- 1 Stranded Copper Conductor  
2 PVC Insulation  
3 SuperSlick Elite® Nylon Jacket



E-123774  
E-156879



## XHHW-2 / RW90

**Sizes** 14 AWG - 1000 KCMIL

- Intended for general purpose applications utilized in raceways and underground in raceways for services, feeders, and branch-circuit wiring in accordance with the NEC
- Permitted for 600-volt and 1000-volt applications; suitable for applications requiring low-leaking circuits and a dielectric constant of 3.5 or less



WET  
LOCATION\*



DAMP  
LOCATION\*



DRY  
LOCATION

\*In Raceways



1

2

- 1 Stranded Copper Conductor  
2 SuperSlick Elite® XLPE Insulation



E-177544

## USE-2 / RHH / RHW-2

**Sizes** 12 AWG - 1000 KCMIL

- Suitable for use underground, in raceways installed underground, and where condensation and moisture accumulations do not exceed 90°C
- Permitted for 600-volt applications



UV  
DIRECT SUN\*



WET  
LOCATION



DAMP  
LOCATION

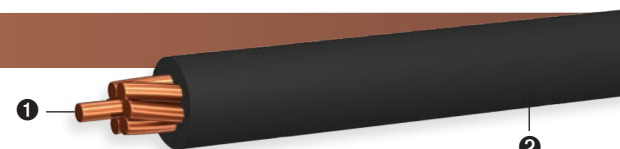


DRY  
LOCATION



DIRECT  
BURIAL

\*10 AWG and larger



1

2

- 1 Stranded Copper Conductor  
2 XLPE Insulation



E-174428

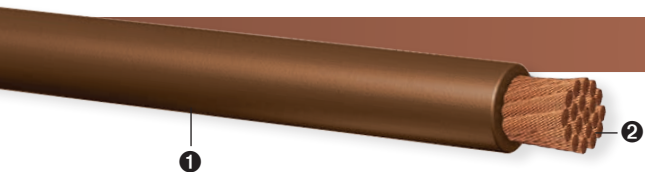


ENCORE WIRE

800.962.9473

COMMERCIAL WIRE

15



- ① PVC Insulation
- ② Stranded Copper Conductor



**UL LISTED** E-123774  
E-156879

## FLEXCORE® - TYPE MTW/ THW-2 / AWM / TEW

### Sizes 6 AWG - 750 KCMIL

- Intended for applications utilized in raceways for services, feeders, and branch-circuit wiring as specified by the NEC
- Permitted for 600-volt applications
- May also be used in control cabinets, in machine tool applications, data centers, and as AWM in appliance wiring applications
- Ultra-flexible stranding ideal for tight spaces



WET  
LOCATION



DAMP  
LOCATION

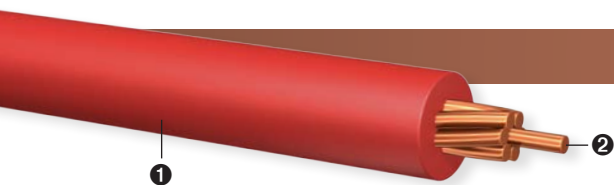


DRY  
LOCATION



UV  
DIRECT SUN

DATA CENTERS



- ① XLPE Insulation
- ② Stranded Copper Conductor



**UL LISTED** E-326525

## PHOTOVOLTAIC / RHH / RHW-2

### Sizes 14 AWG - 1000 KCMIL

- Suitable for outdoor rooftop PV source and output circuits without raceways
- Suitable for use underground, with or without raceways, where temperatures do not exceed 90°C
- Permitted for 600-volt and 1000/2000-volt applications
- PV Source and Output conductors that are listed and labeled as Photovoltaic (PV) wire, of any size, are permitted in cable trays located outdoors when installed in accordance with NEC 690.31(C)(2)



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



- ① HMWPE Insulation
- ② Stranded or Solid Copper Conductor



**UL LISTED** 43TB  
E-225933

## TRACER WIRE

### Sizes 14 AWG - 8 AWG

- 30-volt styles have a 30 MIL insulation wall
- 600-volt styles have a 45 MIL insulation wall
- Primarily used in the detection of underground piping and other underground utility installations
- High Molecular Weight Polyethylene (HMWPE) insulation has excellent moisture, chemical, oil, crush, and abrasion resistance
- Carries -40 C rating
- Colors in accordance with the American Public Works Administration Uniform Color Code



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION

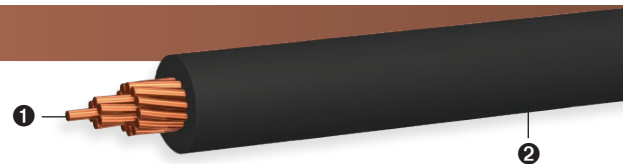


DIRECT  
BURIAL

## MTW / AWM / TEW MACHINE TOOL & APPLIANCE WIRE

### Sizes 18 AWG - 2 AWG

- Type MTW or TEW conductors are primarily used in control cabinets, in machine tool applications, and in appliance wiring applications at temperatures -25°C to 105°C
- For use in accordance with the NEC and NFPA Standard 79
- Permitted for 600-volt applications
- Insulation is color-coded Polyvinyl Chloride (PVC), heat- and moisture-resistant, flame-retardant compound per UL-1063



- 1 Stranded Copper Conductor
- 2 PVC Insulation



E-156878  
E-156879

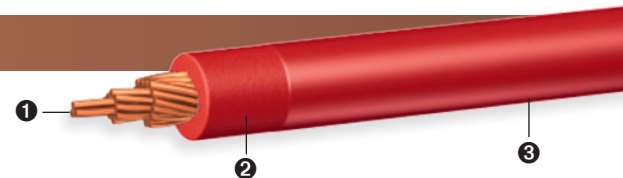
**C** **RU**  
18 & 16 AWG

**C** **UL** **US**  
**LISTED**  
14 - 2 AWG

## TFFN / TFN / TEWN

### Sizes 18 AWG - 16 AWG

- Type TFFN (stranded) or TFN (solid) conductors are primarily used as fixture wire in accordance with the NEC at temperatures not to exceed 90°C
- Permitted for new construction or rewiring for 600-volt applications
- For applications requiring Type MTW, the conductor is permitted for use in dry locations at 90°C or not to exceed 60°C in wet locations or where exposed to oils or coolants
- All sizes are rated gasoline and oil-resistant II



- 1 Stranded or Solid Copper Conductor
- 2 PVC Insulation
- 3 Nylon Jacket



**LISTED** E-156878

## TW-#8 SOLID GREEN

### Sizes 8 AWG

- Suitable for use in raceways for services, feeders, and branch-circuit wiring
- Suitable for use where temperatures do not exceed 75°C
- Insulation is color-coded Polyvinyl Chloride (PVC), heat- and moisture-resistant, flame-retardant compound per UL-83



- 1 Solid Copper Conductor
- 2 PVC Insulation



**LISTED** E-123774



ENCORE WIRE

| 800.962.9473

COMMERCIAL WIRE

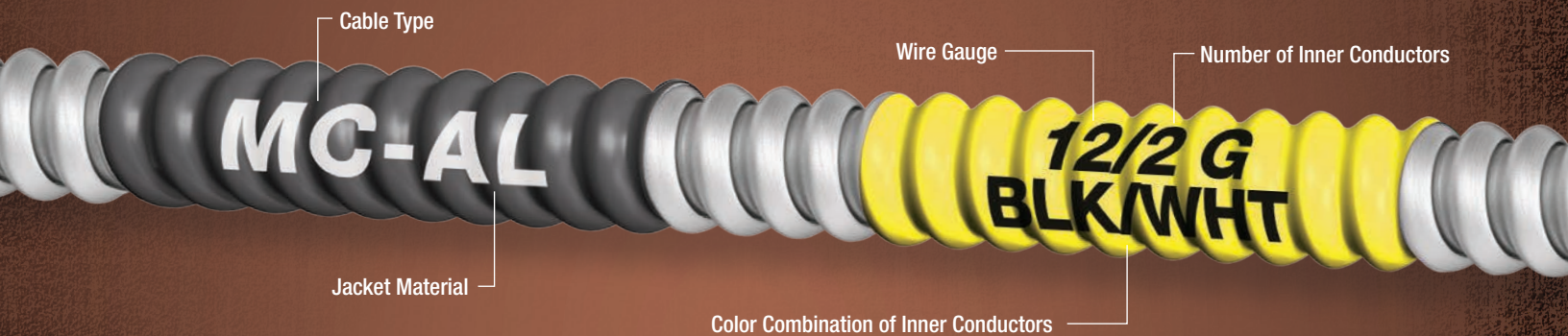
17



# ***COPPER METAL-CLAD CABLE***



# SHOW ME SOME ID.



## THAT'S NOT A PROBLEM WHEN USING THE BEST LABELING SYSTEM IN THE INDUSTRY.

- Quickly and accurately identify cable
- Verify wire gauge, number of conductors, cable type and jacket material, and colors of inner conductors
- No need for cutting, splitting or slashing into cable, causing damage, just to identify inner conductors
- Labels repeated every 24 inches throughout length of cable
- Easy to use and read

Wire Gauge	Jacket Material	Cable Type
8 AWG	STEEL	MC-LED
10 AWG	ALUMINUM	HEALTHCARE
12 AWG		FIRE ALARM
14 AWG		SMARTGROUND
<b>Cable Type</b>		
MC-ISG	Isolated Ground	
MC-MLC	Multi-Circuit	
MC-MLN	Multi-Neutral	

**SMART COLOR iD<sup>®</sup>**

## MC-LED (MC-PCS) LIGHTING CABLE - THHN/THWN-2 INNERS

### Sizes 12 AWG - 10 AWG

- For use with LED and Fluorescent dimming systems and smart building technology that offers optimal control over building's lighting systems including outdoors, such as parking decks, sporting arenas, and parking lots where PVC-jacketed
- Eliminates the need to install a separate low-voltage cable and traditional lighting/power MC Cable to a single luminaire or other permitted device



WET LOCATION\*



DAMP LOCATION\*



DRY LOCATION



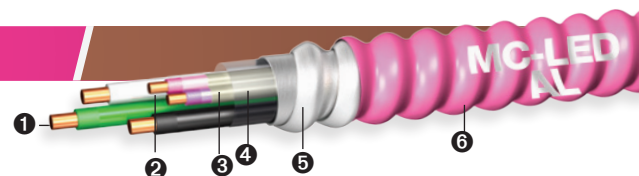
DIRECT BURIAL\*



ENVIRONMENTAL AIR SPACE



\*With PVC Jacket



- THHN/THWN-2 Solid or Stranded Copper Conductors
- TFN or Equivalent Copper Conductors
- PVC Nonmetallic Sheathing
- Separator Tape
- Interlocked Aluminum Armor
- Removable SmartColorID® Label



SMART COLOR ID®



LISTED E-301130

## MC-LED HEALTHCARE (MC-LED-SG) - THHN/THWN-2 INNERS

### Sizes 12 AWG - 10 AWG

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry
- All sizes contain a green, insulated grounding conductor
- For use with LED and Fluorescent dimming systems and power management systems in smart building technology for patient care areas/spaces of healthcare facilities to aid in optimal control over the building's lighting management systems
- Eliminates the need to install a separate low-voltage cable and traditional lighting/power MC Cable to a single luminaire or other permitted device



WET LOCATION\*



DAMP LOCATION\*



DRY LOCATION

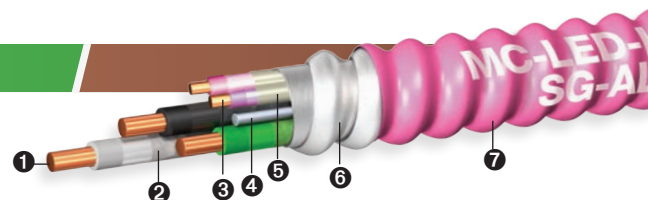


DIRECT BURIAL\*



ENVIRONMENTAL AIR SPACE

\*With PVC Jacket



- THHN/THWN-2 Solid or Stranded Copper Conductors
- Color-Matched Paper Tape
- TFN or Equivalent Copper Conductors
- Aluminum Grounding/Bonding Wire
- PVC Nonmetallic Sheathing
- Interlocked Aluminum Armor
- Removable SmartColorID® Label



SMART COLOR ID®



LISTED E-301130

## MC - THHN/THWN-2 INNERS

### Sizes 14 AWG - 1 AWG

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry
- Sizes 14 AWG through 1 AWG contain a green, insulated grounding conductor
- Larger sizes are supplied with a bare ground conductor
- All conductors are cabled together with separator tape containing the identification print legend to form the cable core
- Interlocked aluminum armor is applied over the entire assembly



WET LOCATION\*



DAMP LOCATION\*



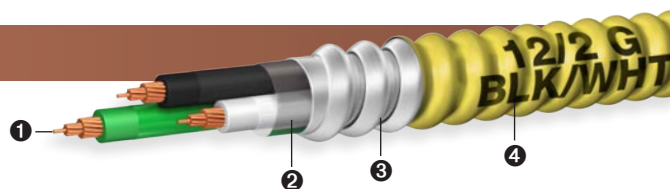
DRY LOCATION



ENVIRONMENTAL AIR SPACE



\*When PVC Jacketed



- THHN/THWN-2 Stranded or Solid Copper Conductors
- Separator Tape
- Interlocked Aluminum Armor
- Removable SmartColorID® Label



SMART COLOR ID®



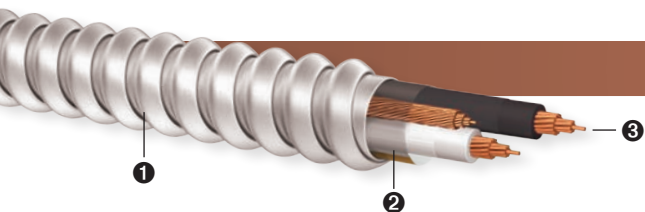
LISTED E-301130



ENCORE WIRE | 800.962.9473

COMMERCIAL WIRE

21



- ① Interlocked Aluminum Armor
- ② Separator Tape
- ③ THHN/THWN-2 Copper Conductors



## MC - THHN/THWN-2 INNERS

### Sizes 1/0 AWG - 750 KCMIL

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry
- Sizes 1/0 AWG through 750 KCMIL contain a bare grounding conductor
- Conductors are cabled together with separator tape containing the identification print legend to form the cable core
- Interlocked aluminum armor is applied over the entire assembly



WET LOCATION\*



DAMP LOCATION\*



DRY LOCATION



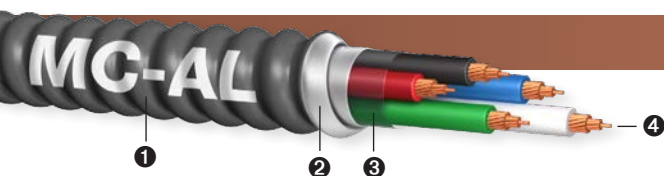
ENVIRONMENTAL AIR SPACE



\*DIRECT BURIAL



\*With PVC Jacket



- ① Removable SmartColorID® Label
- ② Interlocked Aluminum Armor
- ③ Separator Tape
- ④ XHHW-2 Stranded Copper Conductors



SMART COLOR ID



LISTED E-301130

## MC - XHHW-2 INNERS

### Sizes 14 AWG - 1 AWG

- Constructed with soft-drawn copper, Type XHHW-2 conductors rated 90°C dry
- Sizes 14 AWG through 1 AWG contain a green, insulated grounding conductor
- Larger sizes are supplied with a bare grounding conductor
- Conductors are cabled together with separator tape containing the identification print legend to form the cable core
- Interlocked aluminum armor is applied over the entire assembly



WET LOCATION\*



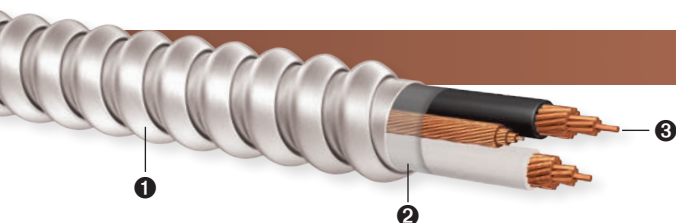
DAMP LOCATION\*



DRY LOCATION



\*When PVC Jacketed



- ① Interlocked Aluminum Armor
- ② Separator Tape
- ③ XHHW-2 Stranded Copper Conductors



## MC - XHHW-2 INNERS

### Sizes 1/0 AWG - 750 KCMIL

- Constructed with soft-drawn copper, Type XHHW-2 conductors rated 90°C dry
- Sizes 1/0 AWG through 750 KCMIL contain a bare grounding conductor
- Conductors are cabled together with separator tape containing the identification print legend to form the cable core
- Interlocked aluminum armor is applied over the entire assembly



WET LOCATION\*



DAMP LOCATION\*



DRY LOCATION



ENVIRONMENTAL AIR SPACE

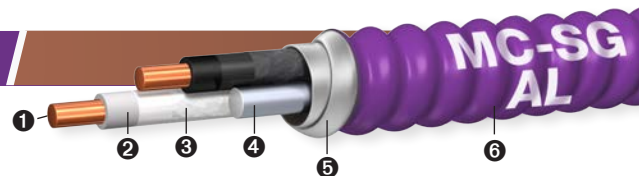


\*When PVC Jacketed

## MC-SG (SMARTGROUND®) - THHN/THWN-2 INNERS

**Sizes** 14 AWG - 10 AWG

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry
- Conductors are individually wrapped with flame-retardant, colored protective paper with print legend and cabled together to form the cable core
- The bare aluminum grounding/bonding conductor is located outside the paper wrap and is cabled with the insulated conductors and in constant contact with sheathing
- Interlocked aluminum armor is applied over the entire assembly



- 1 THHN/THWN-2 Copper Conductor
- 2 PVC Insulation with Nylon Jacket
- 3 Colored, Flame-Retardant Protective Paper Covering
- 4 Aluminum Bonding Wire
- 5 Interlocked Aluminum Armor
- 6 Removable SmartColorID® Label



**SMART COLOR ID®**



LISTED E-301130

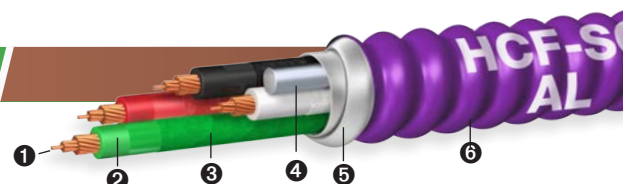
## MC HCF-SG (SMARTGROUND®) - THHN/THWN-2 INNERS

**Sizes** 12 AWG - 10 AWG

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors
- Permitted for 600-volt applications
- Conductors are individually wrapped with flame-retardant, colored protective paper with print legend
- Contains a green grounding conductor same size as circuit conductors
- The bare aluminum grounding/bonding conductor is located outside the paper wrap and is cabled with the insulated conductors and in constant contact with sheathing



HEALTHCARE



- 1 THHN/THWN-2 Copper Conductor
- 2 PVC Insulation with Nylon Jacket
- 3 Colored, Flame-Retardant Protective Paper Covering
- 4 Aluminum Bonding Wire
- 5 Interlocked Aluminum Armor
- 6 Removable SmartColorID® Label



**SMART COLOR ID®**

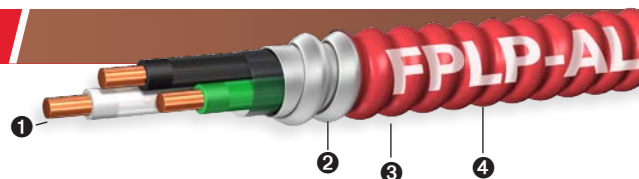


LISTED E-301130

## MC - EMERGMC® FIRE ALARM AND CONTROL CABLE

**Sizes** 18 AWG - 12 AWG

- Constructed with soft-drawn copper and classified as type TFN (18 & 16 AWG) conductors
- Permitted for 600-volt and 300-volt applications
- Sizes with 14 AWG through 12 AWG conductors are classified as type THHN/THWN-2 conductors
- Contains a green, insulated grounding conductor
- Conductors are cabled together with separator tape containing the identification print legend to form the cable core



- 1 THHN/THWN-2 Solid Copper Conductors
- 2 Separator Tape
- 3 Interlocked Aluminum
- 4 Removable SmartColorID® Label



**SMART COLOR ID®**



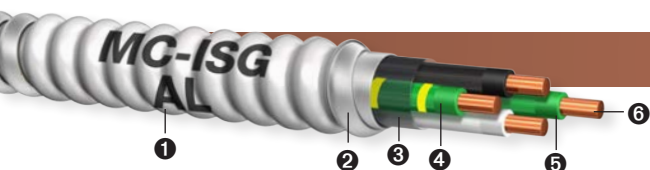
LISTED E-331832



ENCORE WIRE | 800.962.9473

COMMERCIAL WIRE

23



- ① Removable SmartColorID® Label
- ② Interlocked Aluminum Armor
- ③ Separator Tape
- ④ Isolated Ground featuring SmartStripe
- ⑤ Ground Conductor
- ⑥ THHN/THWN-2 Solid or Stranded Copper Conductor



**SMARTCOLORID**



LISTED E-301130

## MC - ISOLATED GROUND - THHN/THWN-2 INNERS

**Sizes** 12 AWG & 10 AWG

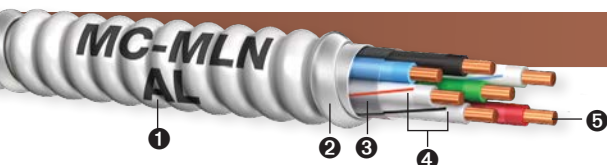
- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry
- Permitted for 600-volt applications
- The two insulating grounding conductors are distinguished by color code: one (1) solid green, and one (1) solid green with yellow stripe
- All conductors are cabled together with a separator tape containing the identification print legend to form the cable core



DRY  
LOCATION



ENVIRONMENTAL  
AIR SPACE



- ① Removable SmartColorID® Label
- ② Interlocked Aluminum Armor
- ③ Separator Tape
- ④ Multiple Neutrals featuring SmartStripe
- ⑤ THHN/THWN-2 Solid Copper Conductors



**SMARTCOLORID**



LISTED E-301130

## MC - MULTIPLE NEUTRAL - THHN/THWN-2 INNERS

**Sizes** 12 AWG & 10 AWG

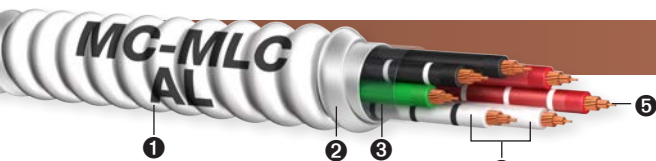
- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C
- Permitted for 600-volt applications
- Includes oversized neutral conductors or one neutral per phase and one insulated grounding conductor
- All conductors are cabled together with a separator tape containing the identification print legend to form the cable core



DRY  
LOCATION



ENVIRONMENTAL  
AIR SPACE



- ① Removable SmartColorID® Label
- ② Interlocked Aluminum Armor
- ③ Separator Tape
- ④ Multiple Neutrals featuring SmartStripe
- ⑤ THHN/THWN-2 Solid or Stranded Copper Conductors



**SMARTCOLORID**



LISTED E-301130

## MC - MULTI-CIRCUIT - THHN/THWN-2 INNERS

**Sizes** 12 AWG & 10 AWG

- Includes an insulated, green grounding conductor
- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C
- Permitted for 600-volt applications
- All conductors are cabled together with a separator tape containing the identification print legend to form the cable core



DRY  
LOCATION



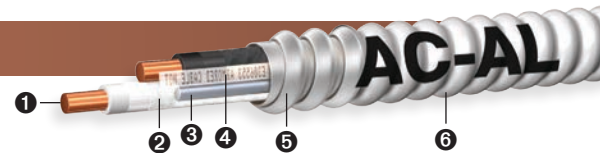
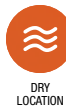
ENVIRONMENTAL  
AIR SPACE



## AC - THHN/THWN-2 INNERS

**Sizes** 14 AWG - 2 AWG

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors
- Each insulated conductor is individually wrapped with a moisture-resistant paper covering which has flame-retardant properties
- A 16 AWG solid aluminum bond wire is placed longitudinally underneath the armor and remains in contact with the armor throughout the entire length
- Interlocked aluminum armor is applied over the entire assembly



- 1 THHN/THWN-2 Solid or Stranded Copper Conductor
- 2 Individually Paper-Wrapped Conductors
- 3 Aluminum Bonding/Grounding Wire
- 4 Marker Tape Print Legend
- 5 Interlocked Aluminum Armor
- 6 Removable SmartColorID® Label



**SMARTCOLOR id**



E-301130

## AC-HCF - THHN/THWN-2 INNERS

**Sizes** 14 AWG - 10 AWG

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors
- Each insulated conductor is individually wrapped with a moisture-resistant paper covering which has flame-retardant properties



- 1 THHN/THWN-2 Solid or Stranded Copper Conductor
- 2 Individually Paper-Wrapped Conductors
- 3 Marker Tape Print Legend
- 4 Aluminum Bonding/Grounding Wire
- 5 Interlocked Aluminum Armor
- 6 Removable SmartColorID® Label



**SMARTCOLOR id**

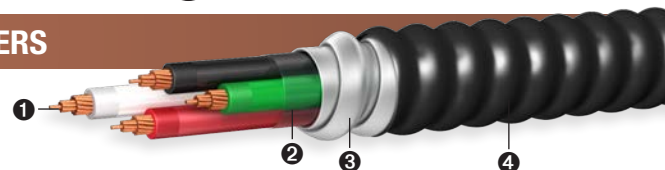


E-306553

## MC - ALUMINUM ARMOR - PVC JACKET - THHN/THWN-2 INNERS

**Sizes** 14 AWG - 750 KCMIL

- Constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C
- Sizes 14 AWG through 1 AWG contain a green, insulated grounding conductor
- Larger sizes are supplied with a bare grounding conductor
- All conductors are cabled together with separator tape containing the identification print legend to form the cable core



- 1 THHN/THWN-2 Solid or Stranded Copper Conductor
- 2 Separator Tape
- 3 Interlocked Aluminum Armor
- 4 Black PVC Jacket

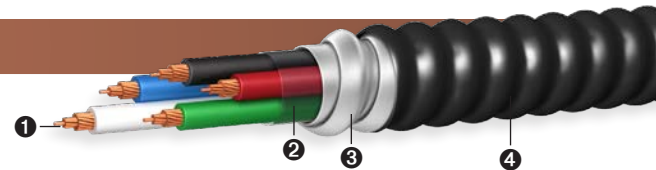


E-301130

## MC - ALUMINUM ARMOR - PVC JACKET - XHHW-2 INNERS

**Sizes** 14 AWG - 750 KCMIL

- Constructed with soft-drawn copper, Type XHHW-2 conductors rated 90°C
- Sizes 14 AWG through 1 AWG contain a green, insulated grounding conductor
- Larger sizes are supplied with a bare grounding conductor
- All conductors are cabled together with separator tape containing the identification print legend to form the cable core



- 1 XHHW-2 Stranded Copper Conductor
- 2 Separator Tape
- 3 Interlocked Aluminum Armor
- 4 Black PVC Jacket



E-301130



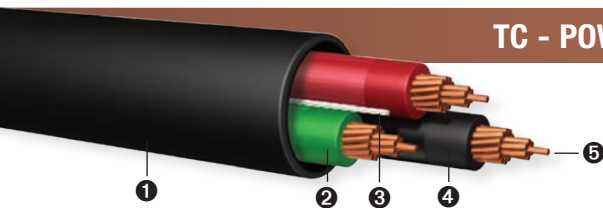
**ENCORE WIRE** | 800.962.9473

**COMMERCIAL WIRE**



# ***COPPER INDUSTRIAL WIRE***





- 1 PVC Jacket
- 2 Green Insulated Grounding Conductor
- 3 Rip Cord
- 4 PVC Insulation w/ Nylon Jacket
- 5 THHN/THWN-2 Stranded Copper Conductors



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

### Sizes 14 AWG - 10 AWG

- Primarily used for connecting power devices in commercial and industrial environments
- Suitable for installation in channels, ducts, cable trays, and raceways
- Constructed and listed for applications requiring TC-ER-JP rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC)
- Not to exceed 90°C to meet UL-83 requirements for type THHN or THWN-2 wire



UV  
DIRECT SUN



WET  
LOCATION



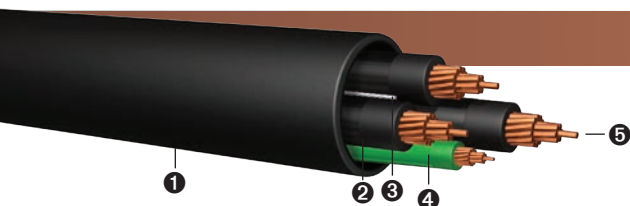
DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



- 1 PVC Jacket
- 2 PVC Insulation w/ Nylon Jacket
- 3 Rip Cord
- 4 Green Insulated Grounding Conductor
- 5 THHN/THWN-2 Stranded Copper Conductors



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

### Sizes 8 AWG - 2 AWG

- Primarily used for connecting power devices in an industrial environment
- Suitable for installation in channels, ducts, cable trays, and raceways
- Constructed and listed for applications requiring TC-ER-JP rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC)
- Not to exceed 90°C to meet UL-83 requirements for type THHN or THWN-2 wire



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



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

**Sizes** 1 AWG - 750 KCMIL

- Primarily used for connecting power devices in commercial and industrial environments
- Suitable for installation in channels, ducts, cable trays, and raceways
- Constructed and listed for applications requiring TC-ER-JP rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC)
- Not to exceed 90°C dry or wet to meet UL-83 requirements for type THHN or THWN-2 wire



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION

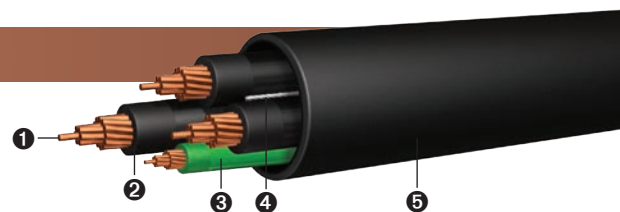


DRY  
LOCATION



DIRECT  
BURIAL

AVAILABLE  
WITHOUT  
GROUND



- 1 THHN/THWN-2 Stranded Copper Conductors
- 2 PVC Insulation w/ Nylon Jacket
- 3 Green Insulated Grounding Conductor
- 4 Rip Cord
- 5 PVC Jacket



LISTED E-179429

## TC - POWER & CONTROL CABLE - THHN/THWN-2 INNERS - NO GROUND

**Sizes** 14 AWG - 10 AWG

- Primarily used for connecting power devices in commercial and industrial environments
- Suitable for installation in channels, ducts, cable trays, and raceways
- Constructed and listed for applications requiring TC-ER-JP rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- High dielectric strength, heat and moisture-resistant, colored Polyvinyl Chloride (PVC)
- Not to exceed 90°C to meet UL-83 requirements for type THHN or THWN-2 wire



UV  
DIRECT SUN



WET  
LOCATION



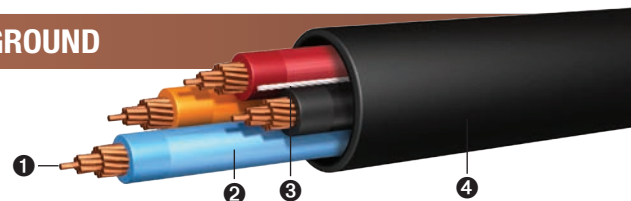
DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



- 1 THHN/THWN-2 Stranded Copper Conductors
- 2 PVC Insulation w/ Nylon Jacket
- 3 Rip Cord
- 4 PVC Jacket



LISTED E-179429

## TC - POWER & CONTROL CABLE - XHHW-2 INNERS - WITH GROUND

**Sizes** 14 AWG - 10 AWG

- Primarily used for connecting power devices in an industrial environment
- Suitable for installation in channels, ducts, cable trays, and raceways
- Constructed and listed for applications requiring TC-ER-JP rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- Cross-linked polyethylene (XLPE) High Heat Water Resistant
- 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



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION

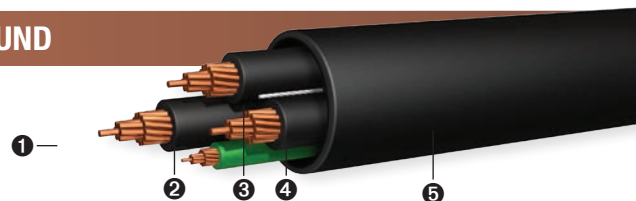


DRY  
LOCATION



DIRECT  
BURIAL

AVAILABLE  
WITHOUT  
GROUND



- 1 XHHW-2 Stranded Copper Conductors
- 2 Green Insulated Grounding Conductor
- 3 Rip Cord
- 4 XLPE Insulation
- 5 PVC Jacket



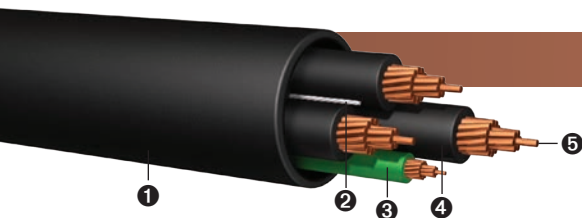
LISTED E-179429



ENCORE WIRE | 800.962.9473

COMMERCIAL WIRE

29



- 1 PVC Jacket
- 2 Rip Cord
- 3 Green Insulated Grounding Conductor
- 4 XLPE Insulation
- 5 XHHW-2 Stranded Copper Conductors



E-179429

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

### Sizes 6 AWG - 900 KCMIL

- Primarily used for connecting power devices in a commercial and industrial environment
- Suitable for installation in electrical channels, ducts, cable trays, and raceways not exceeding 600-volts
- Cable constructed and listed for applications requiring type TC-ER rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- Permitted for 1,000-volt applications



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION

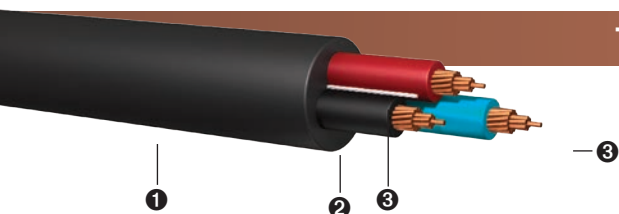


DRY  
LOCATION



DIRECT  
BURIAL

AVAILABLE  
WITHOUT  
GROUND



- 1 PVC Jacket
- 2 XLPE Insulation
- 3 Rip Cord
- 4 XHHW-2 Stranded Copper Conductors



E-179429

## TC - POWER & CONTROL CABLE - XHHW-2 INNERS - NO GROUND

### Sizes 14 AWG - 10 AWG

- Primarily used for connecting power devices in commercial and industrial environments
- Suitable for installation in channels, ducts, cable trays, and raceways
- Constructed and listed for applications requiring TC-ER-JP rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- Cross-linked polyethylene (XLPE) High Heat Water Resistant
- 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



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL

# TAKE IT DOWN TO THE GROUND.



## **SPEED UP THE JOB SITE WITH EASY TO STRIP TRAY CABLE.**

Encore Wire's updated Tray Cable has never been simpler to strip and is the perfect solution when you need to quickly terminate wires. It's also more flexible, making it easier to get the wire to where you need it, while maintaining the same rugged toughness. Make the job site a little easier with Encore Wire's tray cable.





The background image shows an industrial manufacturing environment. On the left, a blue machine with a 'KRELEX' label is visible. In the center, a yellow and black safety cage surrounds a piece of machinery. In the foreground, several large spools of red wire are stacked on a green conveyor belt. A brown metal box with a red emergency stop button is also on the conveyor. The overall scene is a factory floor with various industrial components.



***PACKAGING***





## THE INDUSTRY'S FIRST SELF-SPINNING WOODEN REEL

### THE INDUSTRY'S FIRST SELF-SPINNING WOODEN REEL!

No jack-stand needed! The Reel Payoff® allows you to pull directly from the pallet. **When off the pallet**, the Reel Payoff® rotates within its own axis for 360-degree maneuverability; perfect for small spaces.

### CUSTOMIZATION

Whether your job calls for single conductors or parallels, we can customize your Reel Payoff® using our custom colors to fit any job you come across.

### ROLL-OFF POSITION

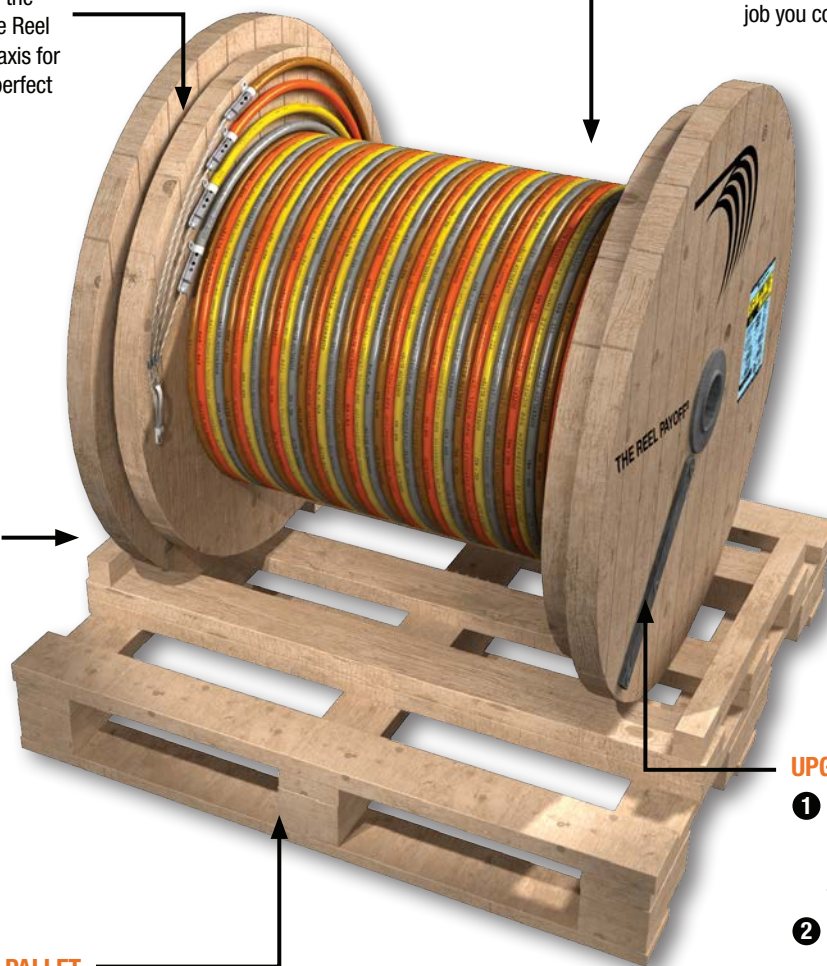
All Reel Payoff®s are shipped in **roll-off position**, reducing material handling costs and possible damage.

### 4-WAY PALLET

Pull straight from the pallet with no tools! Position our exclusive 4-way pallet in your desired location and get ready to pull!

### UPGRADED FEATURES

- 1 Engineered **polymer spacers** placed between reel flanges prevent seizing due to moisture and allow larger reels to handle heavier weights more easily.
- 2 **Reel legs** lock inner flange in place during loading and transit. Legs also work as chocks off the pallet.





## MORE MOBILITY, PREMIUM PULLS, REEL SAVINGS

### OUR NEWEST VERSION OF THE REEL PAYOFF®

The new, premium version is now available and is **more durable** with enhanced weatherability! Similar to the original, the Reel Payoff® Premium allows you to pull directly from the cradle pallet. When off the pallet, it rotates within its own axis for 360-degree maneuverability; perfect for small spaces. Also, there's no jack-stand needed!

### SINGLE SHEET HARD WOOD

With its single sheet, hard wood design, this enhanced version of the Reel Payoff® allows for **decreased pulling tension** and is more stable overall.

### METAL BAND

Maneuvering has never been easier! With our upgraded metal band, you can easily position our Reel Payoff® Premium in your desired location and get ready to pull! The metal band also reduces moisture absorption on the reel flanges.

### ROLL-OFF POSITION

All Reel Payoff® Premiums are shipped in **roll-off position**, reducing material handling costs and possible damage. No need to flip the reel!

### UPGRADED FEATURES

- 1 The metal drum is **pre-cut** with wire-tail slots, accommodating virtually any wire size. Slots are also contained and clean, which maintains the integrity of the reel.
- 2 The Reel Payoff® Premium is designed for increased usage versus the original Reel Payoff®, which means even more pulls!\*

*\*Results may vary based on job specific situations or applications.*



ENCORE WIRE | 800.962.9473

PACKAGING

35



## CUSTOMIZED THE WAY YOU WANT IT

### PRE-LOADED REELS

Order your Reel Deal® pre-loaded in single or parallel runs from the factory on a 32", 36", 42" or 48" reel. Choose from a 3-Bay or 4-Bay reel.

### PULLING HEADS

Minimize your pull time and maximize your profits by adding color-coded pulling heads from Encore Wire. Reduce your setup time and pull your wire with ease; one compartment at a time or all at once.

### SUPERSLICK ELITE®

Backed by our industry-leading warranty and unmatched fill-rates, our SuperSlick Elite® technology is available in all COLORS and SIZES in THHN/THWN-2 and XHHW-2.

### CUSTOMIZATION

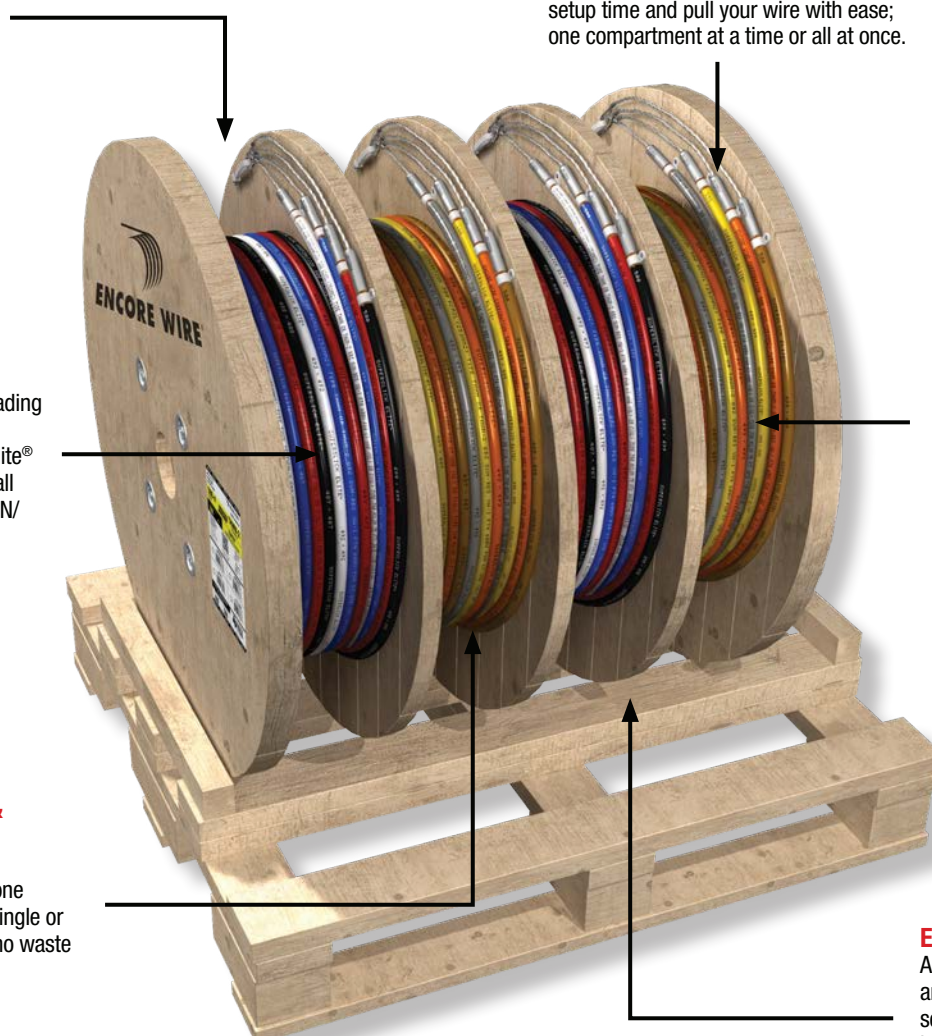
Whether your job calls for single conductors or parallels, we can customize your Reel Deal® using our custom colors to fit any job you come across.

### SINGLE CONDUCTOR & PARALLEL REEL DEAL

The Reel Deal® converts a traditional reel setup into one pre-loaded reel. Manage single or parallel pulls with little to no waste left behind to clean-up.

### EFFICIENCY WINS

Access to all of your parallels at any time, regardless of your pull sequence. Minimize downtime between wire pulls by eliminating the need to unload and reload reels for each run.



# METAL CLAD BARREL PACKS

## GRAB-AND-GO CABLE PULLING MADE SIMPLE

### NO TANGLE AT ANY ANGLE

With barrel sitting in middle of room, wire can be paid out in a 360° radius. No readjustment needed, just pull.

### NO TOOLS REQUIRED

No tangles, no tools, just pull!! Barrel serves as an instant payoff system.

### PORTABLE & EASY TO SET UP

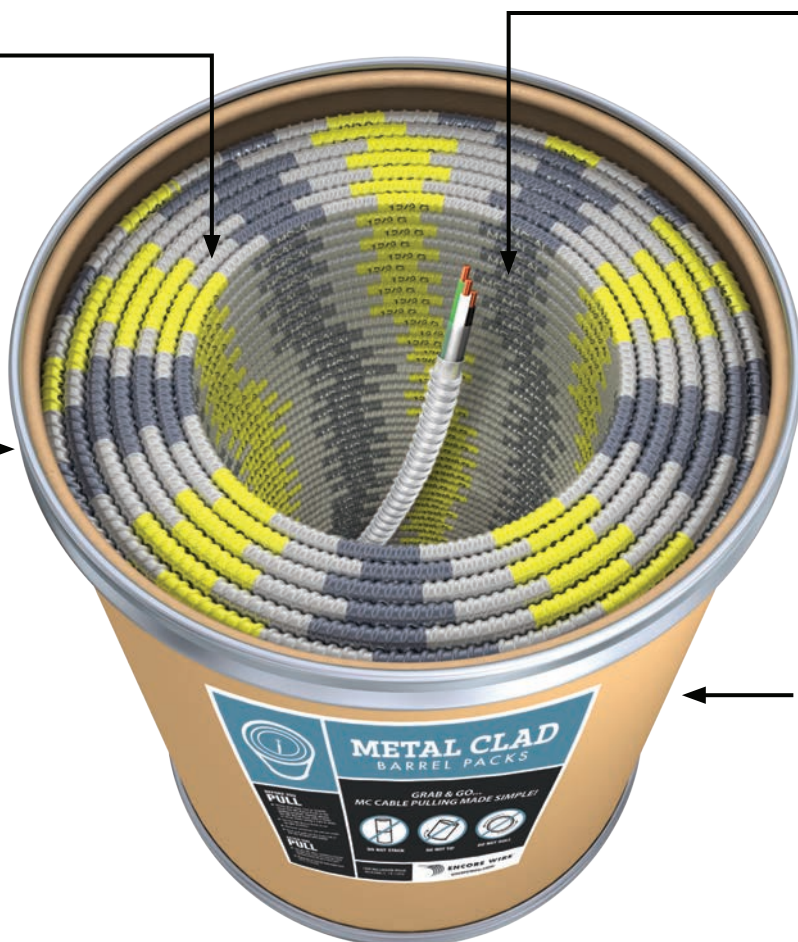
Easily maneuver the MC Barrel Pack with any industrial dolly or cart; no need to buy special equipment or tools.

### PROPRIETARY PACKAGING TECHNIQUE

Smaller container, with 10% more footage than competitors.

### MORE FOR LESS

Longer put-up and continuous footage equals less setup, less packaging, and less scrap.



ENCORE WIRE

| 800.962.9473

PACKAGING

37



## NO TOOLS - JUST PULL STRAIGHT FROM THE BARREL

### PORTABLE & EASY TO SET UP

Handle the Cyclone Barrel Pack® with any industrial dolly or cart; no need to buy special equipment or

### FULLY CUSTOM BARREL PACK

Available in 14 AWG through 10 AWG up to 7 conductors. Multiple conductors eliminate the need for numerous reels.

### AVAILABLE IN 55 AND 75 GALLON DRUMS



### NO EXTRA TOOLS NEEDED

Remove the Cyclone Barrel Pack® lid, detach the wire from its secured position and attach to your pull rope.

### CYCLONE DESIGN

No tangles, no tools, just pull! The Cyclone Barrel Pack® features a center cone for tool-free, effortless pulling.

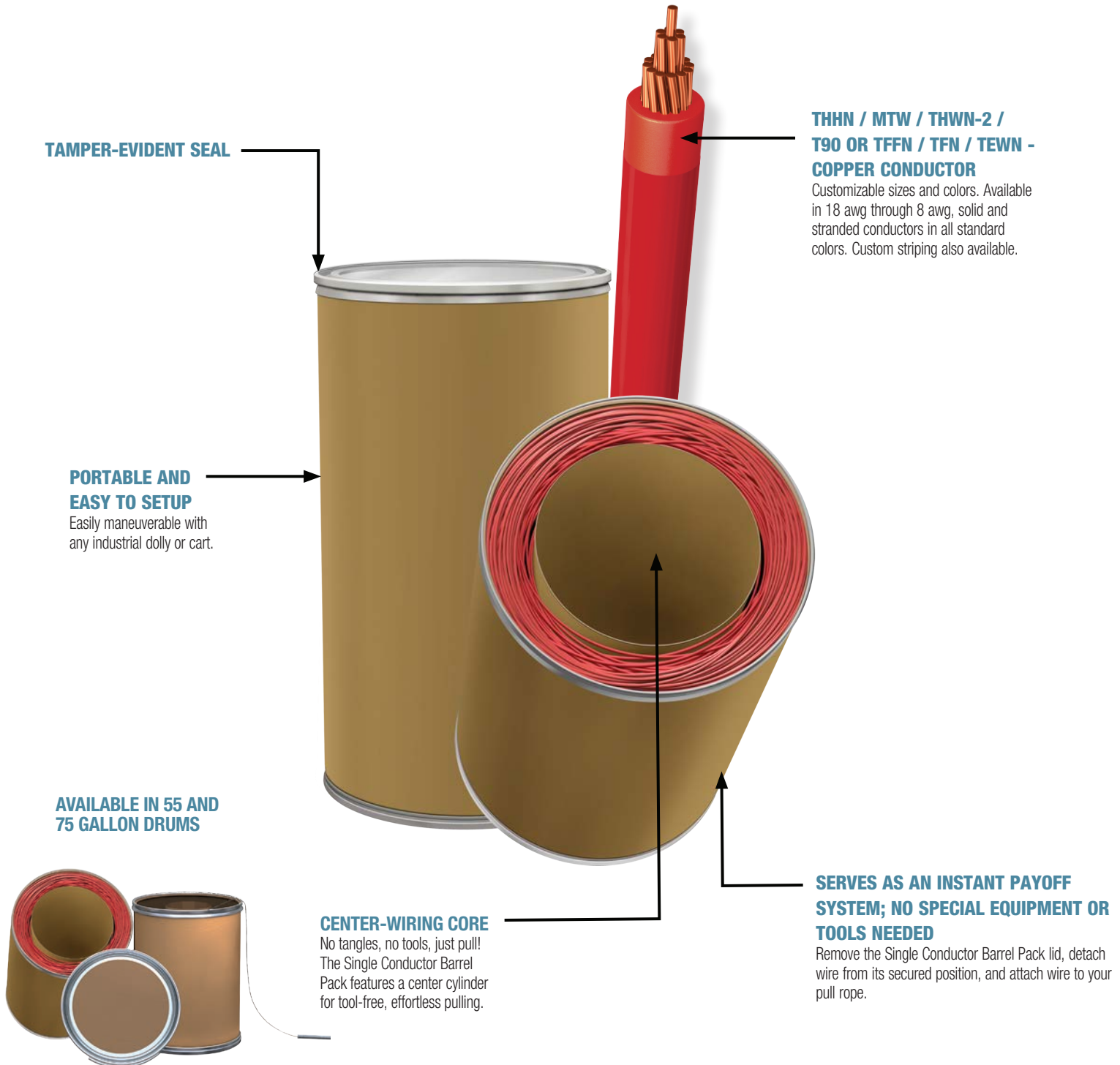
### ENVIRONMENTAL RESPONSIBILITY

Lower the amount of wire scrap produced, while decreasing the waste produced by packaging.

# SINGLE CONDUCTOR

## BARREL PACKS

NO TOOLS - JUST PULL STRAIGHT FROM THE BARREL



# PULLPro®

LIGHTER, STRAIGHTER, FASTER...IT'S JUST THAT SIMPLE®

## PACKAGING FEATURES

- 1 Shrink-wrapped inner coil allows wire to be pulled with or without the case
- 2 Centered, form-fitting grip handle
- 3 Pocket to secure wire in between pulls
- 4 Reduced coiling memory

## EVERYTHING YOU NEED IN A PACKAGE

Available in 14 AWG, 12 AWG and 10 AWG, Solid and Stranded. All PullPro® circuit wire comes in our lube-free SuperSlick Elite® and weighs less than 30 lbs for better handling and increased safety.

## IMPROVED BALANCE

Packaging sits upright making it safer and easier to lift. PullPro® retains weight distribution during pull,



## FOOTAGE ESTIMATOR

Track your remaining wire with the Footage Estimator.

## PULLING & STACKING WITH THE PULLPRO®



Stack PullPro® Cases for a horizontal pull

OR



Arrange PullPro® Cases in an "X" pattern or side-by-side for a vertical pull



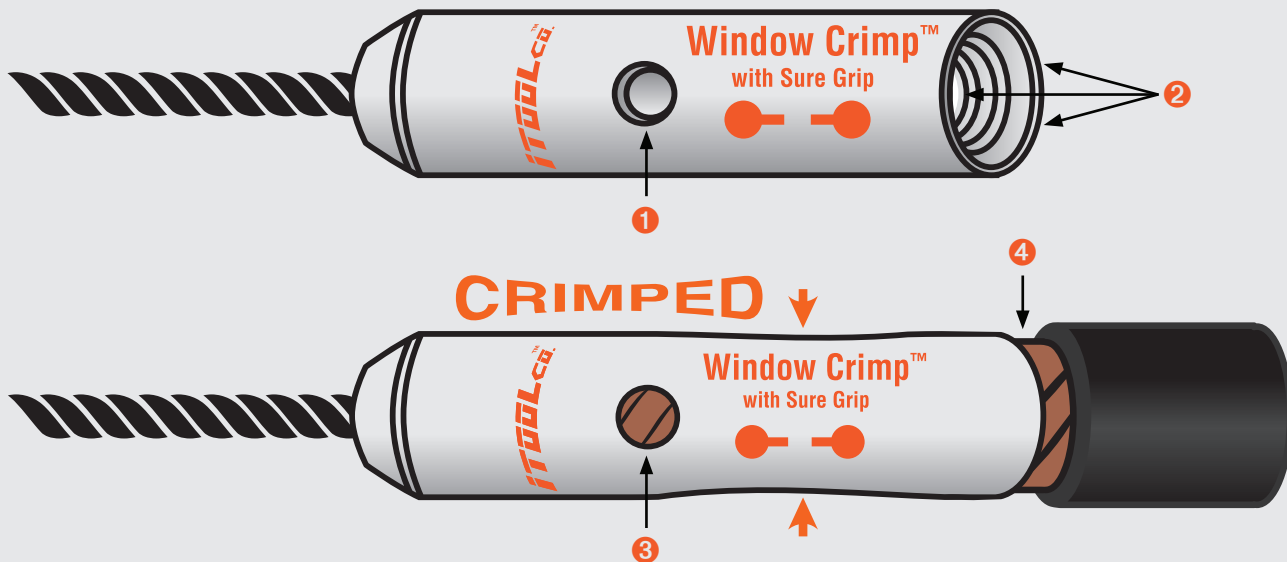
**IToolCo.**

# Window Crimp™ with Sure Grip



**THESE SINGLE-USE PULLING CRIMPS  
ARE THE FASTEST, EASIEST, STRONGEST,  
AND MOST FOOLPROOF MEANS OF  
MAKING UP HEADS FOR WIRE PULLS.**

## HOW TO USE



- ❶ **Window** - Allows for easy visual inspection of wire placement in head before crimping.
- ❷ **Sure Grip** - Note the internal threads which offer more surface area when crimped, giving these heads their "sure grip" on the wire.

- ❸ **Insert** - Strip the wire to allow full insertion into the head.
- ❹ **Window** - Insert the bare wire into the head past the window.

**IToolCo GUARANTEES THESE CRIMPS TO PERFORM TO SPECS WHEN INSTALLED BY ONE OF IToolCo's CERTIFIED INSTALLERS. FOR CERTIFICATION CALL 865.670.3713.**



**ENCORE WIRE**

| 800.962.9473

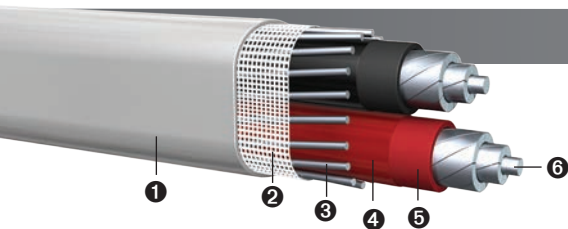
PACKAGING

41



# ***ALUMINUM RESIDENTIAL WIRE***





- ① Gray, Sunlight-Resistant PVC Jacket
- ② Glass-Reinforced Tape Shield
- ③ Helical Bare Grounding Conductor
- ④ Nylon Jacket
- ⑤ PVC Insulation
- ⑥ Compact Stranded Conductor, AA-8000



## SE STYLE U

### Sizes 8 AWG - 4/0 AWG

- For above-ground electrical service use from the electric utility power service point to the meter or service entrance equipment
- Manufactured in accordance with Underwriters Laboratories UL-854 and installed in accordance with Article 338 of the NEC
- Approved for installation in accordance with Article 230 of the NEC and has a 600-volt rating



UV  
DIRECT SUN



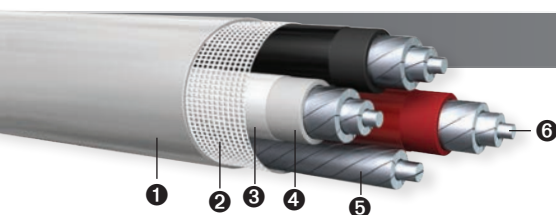
WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



- ① Gray, Sunlight-Resistant PVC Jacket
- ② Glass-Reinforced Tape Shield
- ③ Nylon Jacket
- ④ PVC Insulation
- ⑤ Bare Grounding Conductor, AA-8000 Series
- ⑥ Compact Stranded Conductor, AA-8000



## SE STYLE R

### Sizes 8 AWG - 300 KCMIL

- For above-ground electrical service use from the electric utility power service point to the meter or service entrance equipment
- Under special conditions as permitted, can be used for interior wiring as branch circuits to ranges, ovens, cooking units, or clothes dryers
- Manufactured in accordance with Underwriters Laboratories UL-854 and installed in accordance with Article 338 of the NEC and has a 600-volt rating



UV  
DIRECT SUN



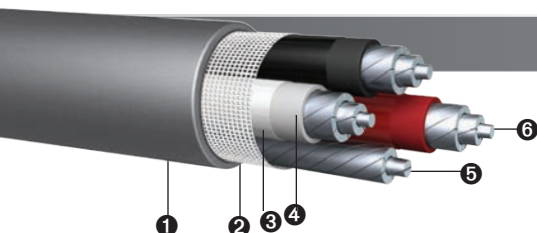
WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



- ① Gray, Sunlight-Resistant PVC Jacket
- ② Glass-Reinforced Tape
- ③ Bare Grounding Conductor
- ④ Nylon Conductor Jacket
- ⑤ PVC Insulation
- ⑥ Stranded Copper Conductor



## TC-ER SE-R HYBRID CABLE®

### Sizes 6 AWG - 4/0 AWG

- For above ground electrical service use from service disconnecting means to remote distribution equipment
- Used for interior wiring as branch circuit to ranges, ovens, cooking units, or clothes dryers
- Manufactured in accordance with Articles 215, 225, and 230 of the NEC
- Permitted for 600-volt applications



UV  
DIRECT



WET  
LOCA-



DAMP  
LOCATION



DRY  
LOCATION



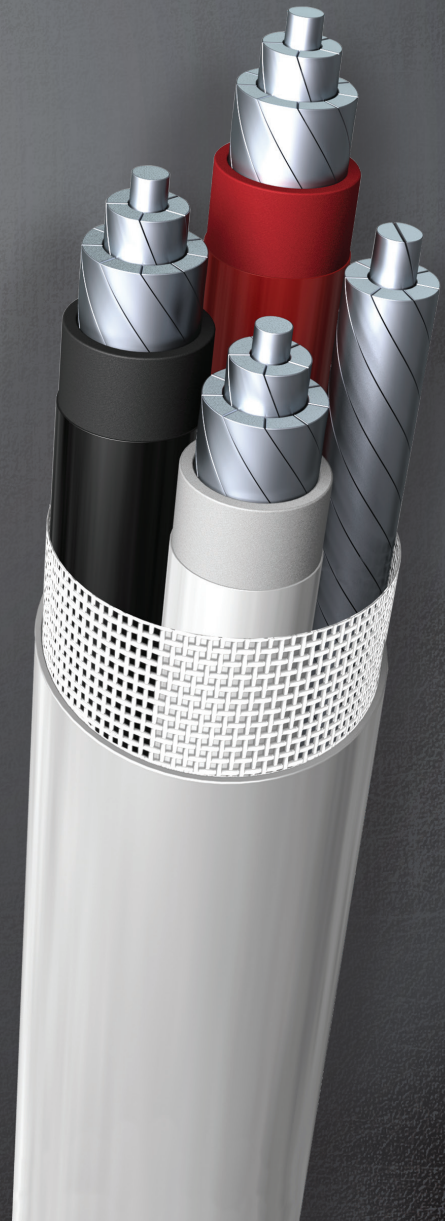
DIRECT  
BURIAL

# MAKE A GRAND ENTRANCE.



## POWER YOUR HOME WITH ENCORE WIRE'S SE-R.

SE-R is ready for business when entering a home. It is widely used to supply panel boards in individual dwelling units of multi-family buildings. SE-R can be used for interior wiring as branch circuits to ranges, ovens, cooking units, or clothes dryers. A resourceful wire that makes a statement.





# ***ALUMINUM COMMERCIAL WIRE***





- ① SuperSlick Elite® Nylon Jacket
- ② PVC Insulation
- ③ Compact Stranded Conductor, AA-8000 Series



E-156879

## THHN/THWN-2 / T90 / AWM - SUPERSLICK ELITE

**Sizes** 8 AWG - 1000 KCMIL

- Type THHN/THWN-2 building wire is intended for general purpose applications in accordance with the NEC
- Permitted for new construction or rewiring for 600-volt applications



UV  
DIRECT SUN\*



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION

\*6 AWG and larger



- ① SuperSlick Elite® XLPE Insulation
- ② Compact Stranded Conductor, AA-8000 Series



E-177544



## XHHW-2 / RW90 - SUPERSLICK ELITE

**Sizes** 8 AWG - 1000 KCMIL

- Type XHHW-2 building wire is intended for general purpose applications utilized in raceways for services, feeders, and branch-circuit wiring in accordance with the NEC
- Permitted for 600-volt and 1000-volt applications



UV  
DIRECT SUN



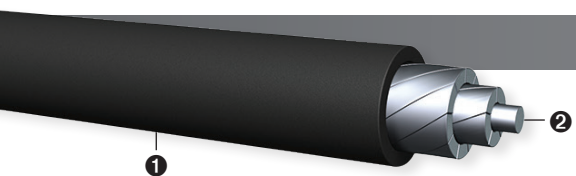
WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



- ① XLPE Insulation
- ② Compact Stranded Conductor, AA-8000 Series



E-174428

## USE-2 / RHH / RHW-2

**Sizes** 8 AWG - 1000 KCMIL

- Type USE-2 or RHH or RHW-2 cables with Aluminum Alloy 8000 Series conductors are suitable for use in raceways installed underground in wet locations, and where condensation and moisture accumulations do not exceed 90°C
- Permitted for 600-volt applications



UV  
DIRECT SUN



WET  
LOCATION



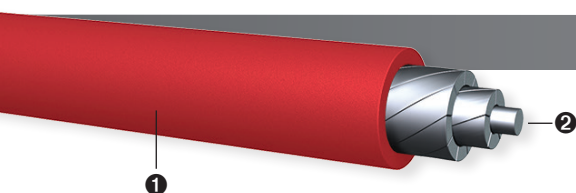
DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



- ① XLPE Insulation
- ② Compact Stranded Conductor, AA-8000 Series



E-326525

## PHOTOVOLTAIC / RHH / RHW-2

**Sizes** 8 AWG - 1000 KCMIL

- Type Photovoltaic building wire is suitable for outdoor rooftop applications without raceways and for use in raceways installed underground, in wet locations, and where condensation and moisture accumulations do not exceed 90°C
- Permitted for 1000V- and 2000V-applications



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL

# PASS WITH FLYING COLORS.



## SPEED UP THE JOB AND INSPECTION USING ENCORE WIRE'S "TRUE COLORS".

Encore Wire first introduced colored feeder in 1999. Since then, we have expanded our color reach to include not only NM-B, THWN-2, XHHW-2, USE-2, and PV, but also colored jackets and inner conductors for Tray Cable and PVC Jacketed MC. Our "true colors" make it easy for you to terminate and install on any job site. When placed in cable trays, the value of our colors will last long after the job is done. No hassles when inspecting; what you see is what you get. "True Colors" is one of the quickest ways to ensure safety and accuracy on the job site.

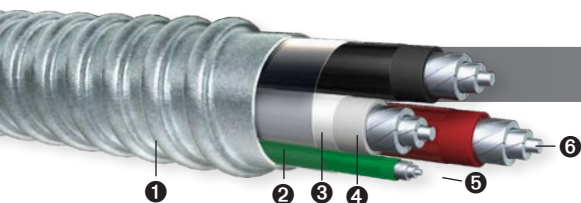




# ***ALUMINUM METAL-CLAD CABLE***







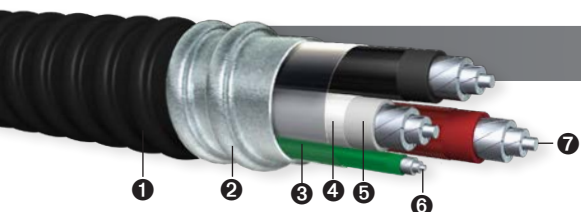
- 1 Interlocked Aluminum Armor
- 2 Separator Tape
- 3 Nylon Jacket
- 4 PVC Insulation
- 5 Bare Compact Stranded Grounding Conductor
- 6 Compact Stranded Conductor, AA-8000 Series



## MC - THHN/THWN-2 CONDUCTORS

### Sizes 6 AWG - 750 KCMIL

- Constructed with Compact Stranded Conductors, Aluminum Alloy 8000 Series
- Type THHN/THWN-2 conductors rated 90°C dry
- Permitted for 600-volt applications
- Sizes 6 AWG through 750 KCMIL contain a bare, aluminum grounding conductor
- Conductors are cabled together with separator tape, which contains the identification print legend



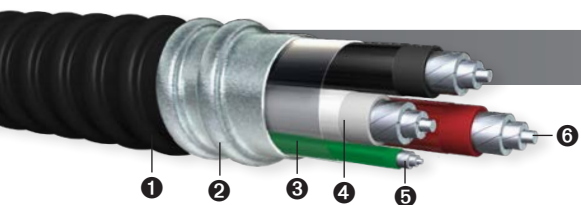
- 1 Black PVC Jacket
- 2 Interlocked Aluminum Armor
- 3 Separator Tape
- 4 Nylon Jacket
- 5 PVC Insulation
- 6 Bare Compact Stranded Grounding Conductor
- 7 Compact Stranded Conductor, AA-8000 Series



## MC - THHN/THWN-2 - PVC JACKET

### Sizes 6 AWG - 750 KCMIL

- Constructed with Compact Stranded Conductors, Aluminum Alloy 8000 Series
- Type THHN/THWN-2 conductors rated 90°C dry
- Permitted for 600-volt applications
- All sizes contain a bare, aluminum grounding conductor
- Conductors are cabled together with separator tape, which contains the identification print legend
- Overall sunlight-resistant, flame-retardant black PVC jacket



- 1 Black PVC Jacket
- 2 Interlocked Aluminum Armor
- 3 Separator Tape
- 4 XLPE Insulation
- 5 Bare Compact Stranded Grounding Conductor
- 6 Compact Stranded Conductor, AA-8000 Series



## MC - XHHW-2 - PVC JACKET

### Sizes 6 AWG - 750 KCMIL

- Constructed with Compact Stranded Conductors, Aluminum Alloy 8000 Series per ASTM B800, ASTM B801 and ASTM B836
- Type XHHW-2 conductors rated 90°C dry
- Permitted for 600-volt applications
- Conductors are cabled together with separator tape, which contains the identification print legend
- Overall sunlight-resistant, flame-retardant black PVC jacket

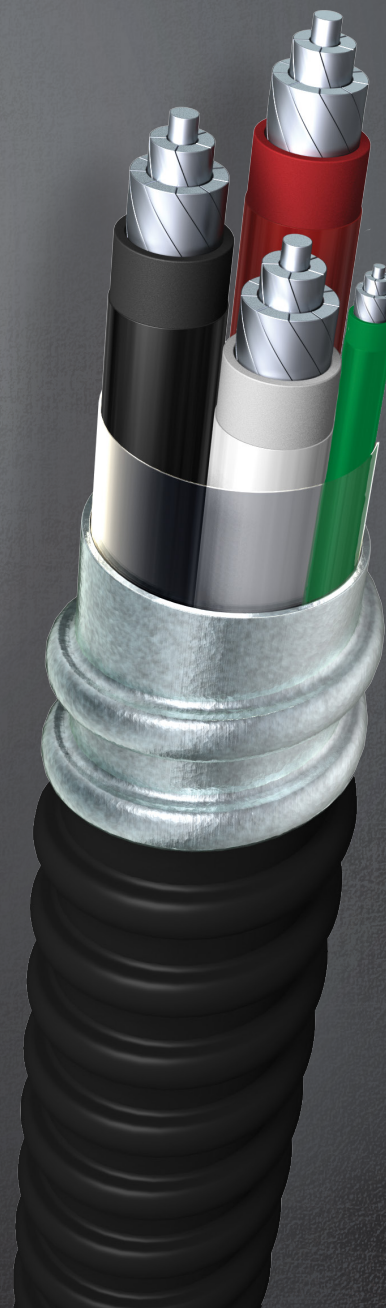


# IT'S ALL IN THE DELIVERY.



## NO ONE DELIVERS BETTER THAN ENCORE WIRE.

At Encore Wire, our dedicated Customer Service and Shipping teams understand that your time is money. We also know you can't do your job until we have done ours. That's why we ensure your order is filled, shipped, and delivered to you faster than anyone in the industry. The goal is to keep your job ahead of schedule and to put more money in your pocket. Don't take our word for it; let us prove it to you.





# **ALUMINUM ENERGY DISTRIBUTION WIRE**

#2 TEST TANK

REEL ONLY  
NO PERSONNEL

ALUMINUM

TRIPLEX



## URD / RDC - SINGLE CONDUCTOR - 1350 SERIES ALUMINUM



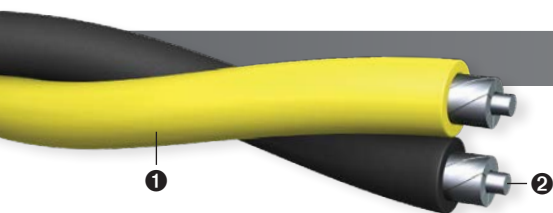
- ① XLPE Insulation
- ② Compact Stranded Conductor, EC-1350 Series



LISTED E-174428

### Sizes 6 AWG - 1000 KCMIL

- Single-conductor, XLPE-insulated conductor for utility underground applications
- Permitted for 600-volt applications
- For NEC applications when used as USE-2 per UL 854 and NEC 310.104(A) and non-NEC applications, including installation in electrical ducts or raceways
- Not to exceed 90°C in normal operation, 130°C for emergency overloads not to exceed 100 hours within 12 consecutive months
- Not for use in buildings per NEC



- ① XLPE Insulation
- ② Compact Stranded Conductor, EC-1350 Series



LISTED E-174428

## URD / RDC - DUPLEX - 1350 SERIES ALUMINUM

### Sizes 8 AWG - 4 AWG

- Duplex construction, single-rated USE-2 cables for underground service entrance applications not exceeding 600 volts
- May be used as single-rated type USE-2 for NEC applications, as well as non-NEC applications, including installation in ducts or raceways
- Not to exceed 90°C for normal operation, 130°C for emergency overloads, and 250°C under short circuit conditions
- Not for use in buildings per NEC



- ① XLPE Insulation
- ② Compact Stranded Conductor, EC-1350 Series



LISTED E-174428

## URD / RDC - TRIPLEX - 1350 SERIES ALUMINUM

### Sizes 6 AWG - 750 KCMIL

- Triplex Construction, XLPE-insulated conductor for utility underground applications not exceeding 600 volts
- For NEC applications when used as USE-2 per UL 854 and NEC 310.104(A) and non-NEC applications, including installation in electrical ducts or raceways
- Not to exceed 90°C for normal operation, 130°C for emergency overloads not to exceed 100 hours within 12 consecutive months
- Not for use in buildings per NEC



## URD / RDC - QUADRUPLIX - 1350 SERIES ALUMINUM

### Sizes 4 AWG - 750 KCMIL

- Quadruplex Construction, XLPE-insulated conductor for utility underground
- Permitted for 600-volt applications
- For NEC applications when used as USE-2 per UL854 and NEC 310.104(A) and non-NEC applications, including installation in electrical ducts or raceways
- Not to exceed 90°C for normal operation, 130°C for emergency overloads not to exceed 100 hours within 12 consecutive months
- Not for use in buildings per NEC



UV  
DIRECT SUN



WET  
LOCATION



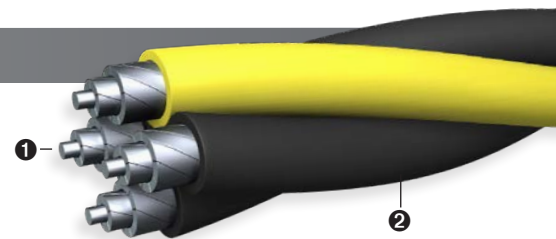
DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



- 1 Compact Stranded Conductor, EC-1350 Series
- 2 XLPE Insulation



## URD / RDC - DUPLEX - AA-8000 SERIES ALUMINUM

### Sizes 8 AWG - 4 AWG

- Triple-rated USE-2/RHH/RHW-2 conductors are suitable for underground service entrance applications and in raceways for general purpose lighting and power circuits
- Permitted for 600-volt applications
- Triple-rated conductors can also be installed on both sides of the service point and when the service is located inside the building envelope for size 4 AWG
- For NEC applications when used as USE-2 per UL 854 and NEC 310.104(A) and non-NEC applications, including for installation in electrical ducts



UV  
DIRECT SUN



WET  
LOCATION



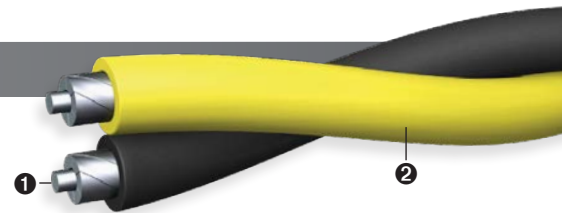
DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



- 1 Compact Stranded Conductor, AA-8000 Series
- 2 XLPE Insulation



## URD / RDC - TRIPLEX - AA-8000 SERIES ALUMINUM

### Sizes 6 AWG - 750 KCMIL

- Triple-rated USE-2/RHH/RHW-2 conductors are suitable for underground service entrance applications and in raceways for general purpose lighting and power circuits
- Triple-rated conductors can also be installed on both sides of the service point and when the service point is located inside the building envelope for sizes 4 AWG and larger
- Permitted for 600-volt applications
- May be used for NEC applications, as well as non-NEC applications including installation in electrical ducts and raceways



UV  
DIRECT SUN



WET  
LOCATION



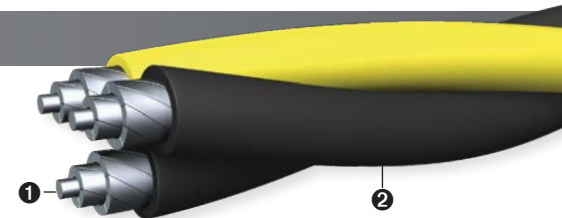
DAMP  
LOCATION



DRY  
LOCATION



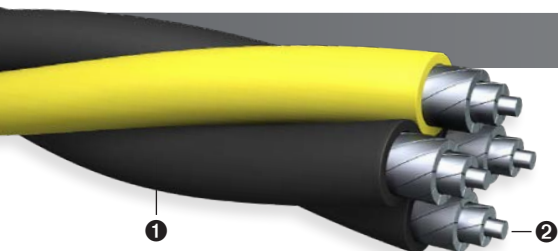
DIRECT  
BURIAL



- 1 Compact Stranded Conductor, AA-8000 Series
- 2 XLPE Insulation



## URD / RDC - QUADRUPLIX - AA-8000 SERIES ALUMINUM



- ① XLPE Insulation
- ② Compact Stranded Conductor, AA-8000 Series



E-174428

### Sizes 4 AWG - 750 KCMIL

- Triple-rated USE-2/RHH/RHW-2 conductors are suitable for underground service entrance applications and in raceways for general purpose lighting and power circuits
- Triple-rated conductors can also be installed on both sides of the service point and when the service is located inside the building envelope
- Permitted for 600-volt applications
- For NEC applications when used as USE-2 per UL 854 and NEC 310.104(A) and non-NEC applications, including installation in electrical ducts or raceways



UV  
DIRECT SUN



WET  
LOCATION



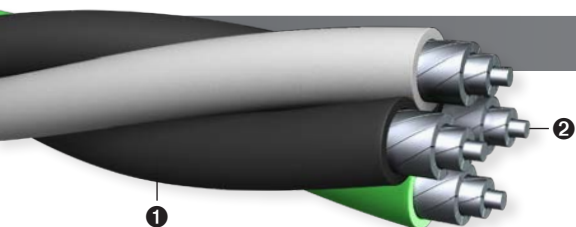
DAMP  
LOCATION



DRY  
LOCATION



DIRECT  
BURIAL



- ① XLPE Insulation
- ② Compact Stranded Conductor, AA-8000 Series



E-174428

## ALUMINUM MOBILE HOME FEEDER CABLE

### Sizes 6 AWG - 4/0 AWG

- Quadruplex type USE-2/RHH/RHW-2 with Compact Stranded Aluminum Alloy 8000 Series conductors per ASTM B800; ASTM B801; ASTM B836
- Suitable for electrical connections in mobile homes for permanent wiring in accordance with the NEC
- Suitable where temperatures do not exceed 90°C
- XLPE insulation is sunlight-resistant for 8 AWG and larger



UV  
DIRECT SUN\*



WET  
LOCATION



DAMP  
LOCATION

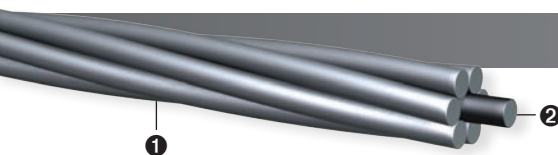


DRY  
LOCATION



DIRECT  
BURIAL

\*8 AWG and larger



- ① Stranded Aluminum Coated Steel Reinforced (ACSR), 1350 Series Alloy
- ② Steel Support Center Wire



## ACSR BARE OVERHEAD SUPPORTING NEUTRAL

### Sizes 6 AWG - 4/0 AWG

- Suitable for overhead transmission and distribution applications that require rated strengths for steel support
- Encore's ACSR overhead neutrals include Class AA for bare conductors commonly used in overhead lines, and/or Class A for conductors to be covered with weather-resistant materials



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION

## OVERHEAD SERVICE DROP - DUPLEX - EC-1350 SERIES ALUMINUM

**Sizes** 6 AWG - 1/0 AWG

- Duplex overhead service drop cable with ACSR 1350 Series alloy supporting neutral is designed for applications not exceeding 600 volts with a maximum conductor operating temperature of 90°C
- Primarily used for delivering single-phase power from utility power lines or transformers to the service point of a building or structure
- Suitable for 120-volt aerial service for outdoor lighting or for temporary service at construction sites



UV  
DIRECT SUN



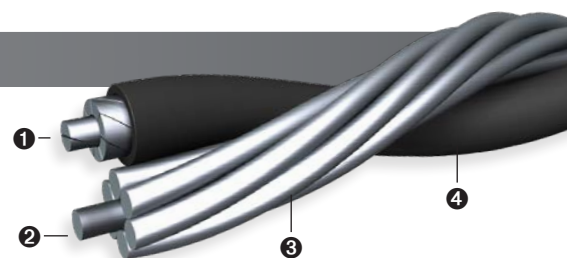
WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



- 1 Compact Stranded Conductor, EC-1350 Series
- 2 Steel Support Center Wire
- 3 Stranded Aluminum Conductor Steel Reinforced Supporting Neutral (ACSR), EC-1350 Series
- 4 XLPE Insulation



## OVERHEAD SERVICE DROP - TRIPLEX - EC-1350 SERIES ALUMINUM

**Sizes** 4 AWG - 750 KCMIL

- Triplex overhead service drop cable with ACSR 1350 Series alloy supporting neutral is designed for applications not exceeding 600 volts with a maximum conductor operating temperature of 90°C
- Primarily used for delivering single-phase power from utility power lines or transformers to the service point of a building or structure
- Suitable for 120/240V aerial service for outdoor lighting or for temporary service at construction sites



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



- 1 Steel Support Center Wire
- 2 Stranded Aluminum Conductor Steel Reinforced Supporting Neutral (ACSR), EC-1350 Series
- 3 Compact Stranded Conductor, EC-1350 Series
- 4 XLPE Insulation



## OVERHEAD SERVICE DROP - QUADRUPLIX - EC-1350 SERIES ALUMINUM

**Sizes** 6 AWG - 4/0 AWG

- Quadruplex overhead service drop cable with ACSR 1350 Series alloy supporting neutral is designed for applications not exceeding 600 volts with a maximum conductor operating temperature of 90°C
- Primarily used for delivering single- and three-phase power from utility power lines or transformers to the service point of a building or structure
- Suitable for 120/240V, 120/208V, and 277/480V aerial service for outdoor lighting or for temporary service at construction sites



UV  
DIRECT SUN



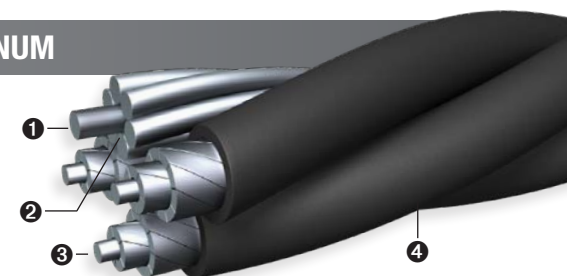
WET  
LOCATION



DAMP  
LOCATION



DRY  
LOCATION



- 1 Steel Support Center Wire
- 2 Compact Stranded Conductor, EC-1350 Series
- 3 Stranded Aluminum Conductor Steel Reinforced Supporting Neutral (ACSR), EC-1350 Series
- 4 XLPE Insulation



ENCORE WIRE | 800.962.9473

ENERGY DISTRIBUTION

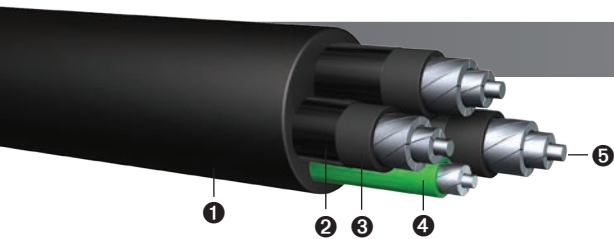
59



# ALUMINUM INDUSTRIAL WIRE



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

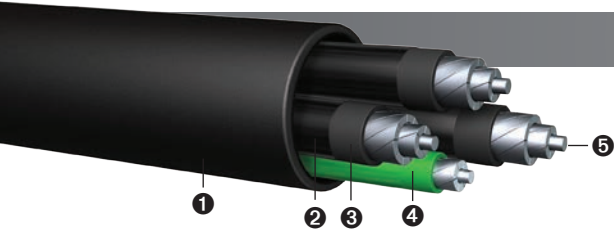


- ① PVC Jacket
- ② Nylon Jacket
- ③ PVC Insulation
- ④ Green Insulated Compact Stranded Grounding Conductor, AA-8000 Series (as required)
- ⑤ Compact Stranded Conductor, AA-8000 Series



### Sizes 6 AWG - 2 AWG

- Primarily used for connecting power devices in a commercial and industrial environment
- Suitable for installation in electrical channels, ducts, cable trays, and raceways not exceeding 600 volts
- Cable constructed and listed for applications requiring type TC-ER rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- Permitted for 1,000-volt applications



- ① PVC Jacket
- ② Nylon Jacket
- ③ PVC Insulation
- ④ Green Insulated Compact Stranded Grounding Conductor, AA-8000 Series (as required)
- ⑤ Compact Stranded Conductor, AA-8000 Series



### Sizes 1 AWG - 900 KCMIL

- Primarily used for connecting power devices in a commercial and industrial environment
- Suitable for installation in electrical channels, ducts, cable trays, and raceways not exceeding 600 volts
- Cable constructed and listed for applications requiring type TC-ER rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- Permitted for 1,000-volt applications



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

### Sizes 6 AWG - 2 AWG

- Primarily used for connecting power devices in a commercial and industrial environment
- Suitable for installation in electrical channels, ducts, cable trays, and raceways not exceeding 600 volts
- Cable constructed and listed for applications requiring type TC-ER rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- Permitted for 1,000-volt applications



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION

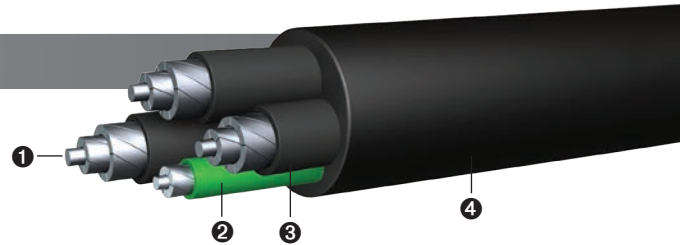


DRY  
LOCATION



DIRECT  
BURIAL

AVAILABLE  
WITHOUT  
GROUND



- 1 Compact Stranded Conductor, AA-8000 Series
- 2 Green Insulated Compact Stranded Grounding Conductor, AA-8000 Series (as required)
- 3 XLPE Insulation
- 4 PVC Jacket



LISTED E-179429

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

### Sizes 1 AWG - 900 KCMIL

- Primarily used for connecting power devices in a commercial and industrial environment
- Suitable for installation in electrical channels, ducts, cable trays, and raceways not exceeding 600 volts
- Cable constructed and listed for applications requiring type TC-ER rating
- Available optional construction suitable for use in Class 1 Division II Hazardous Locations upon request.
- Permitted for 1,000-volt applications



UV  
DIRECT SUN



WET  
LOCATION



DAMP  
LOCATION

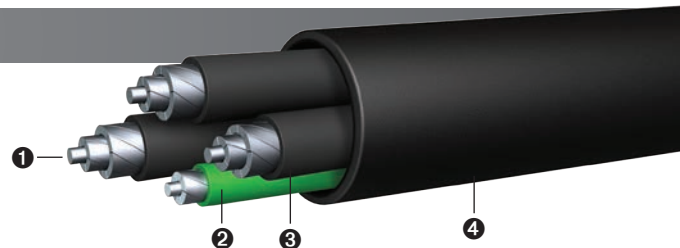


DRY  
LOCATION



DIRECT  
BURIAL

AVAILABLE  
WITHOUT  
GROUND



- 1 Compact Stranded Conductor, AA-8000 Series
- 2 Green Insulated Compact Stranded Grounding Conductor, AA-8000 Series (as required)
- 3 XLPE Insulation
- 4 PVC Jacket



LISTED E-179429



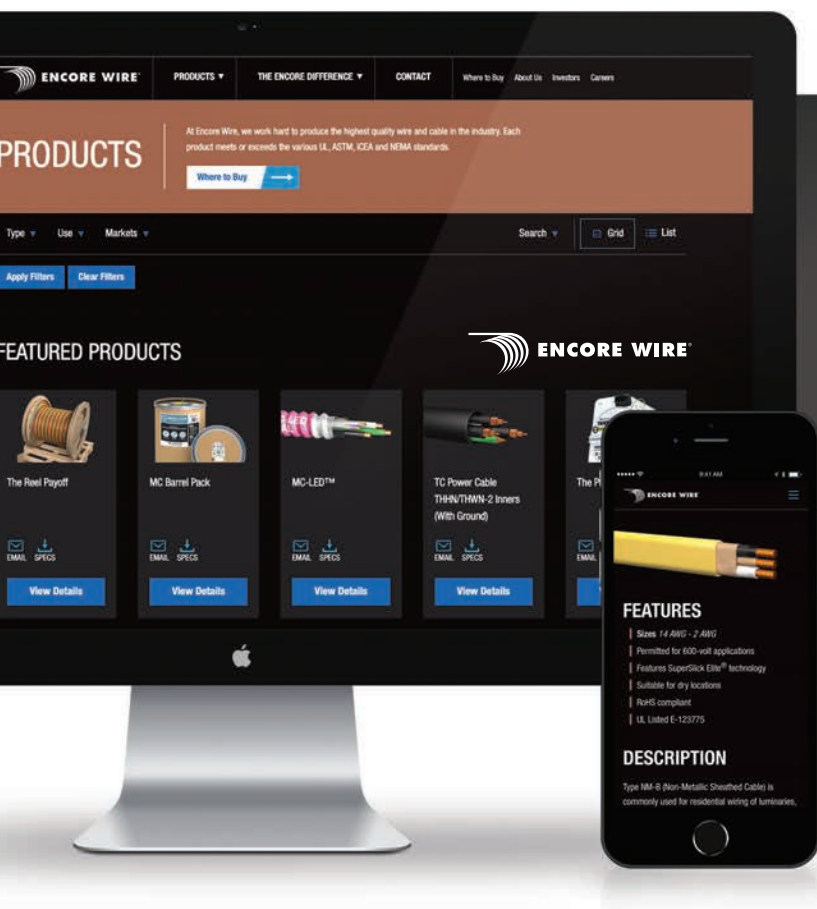
ENCORE WIRE | 800.962.9473

ENERGY DISTRIBUTION



# ***REFERENCE TOOLS***





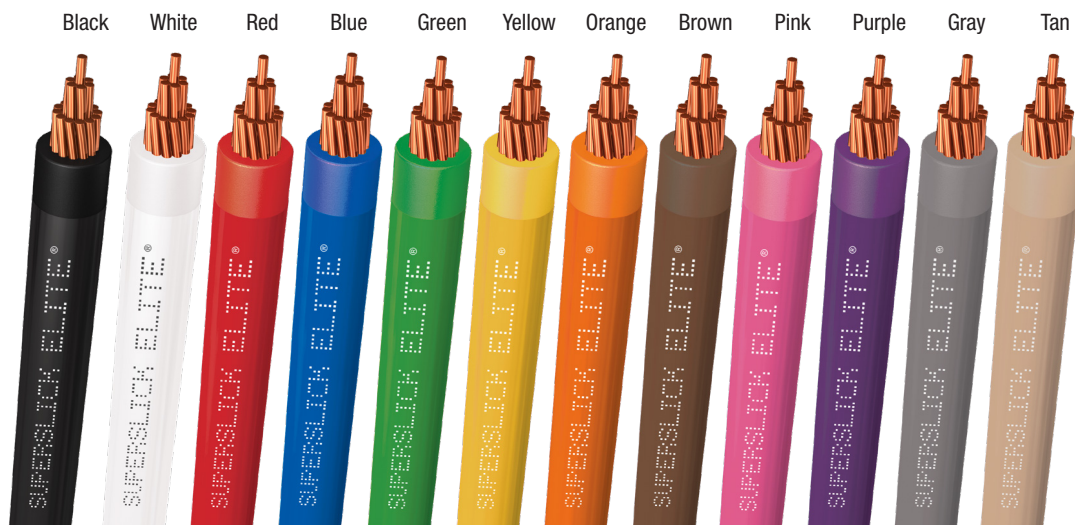
# TOOLS AT YOUR FINGERTIPS!

- **CALCULATORS**
- **PRODUCTS**
- **PRODUCT SPECIFICATIONS**
- **WHERE TO BUY**
- **MARKETING MATERIALS**

Check out Encore Wire's mobile-friendly website for the latest news, products, and engineering specifications.

## COLORS

Standard  
Color  
Selection



The recommended practices detailed below are based on information compiled from field studies and experience installing electrical conductors that are recognized by applicable codes and standards. These recommendations are intended to optimize a conductor or cable's life.

Conductors and cables must not be installed below the minimum installation temperature without warming. When installing in cold weather, conductors and cables should be stored in a heated environment for a period of *at least* 24 hours prior to installation.

Jacket/Insulation Type	Minimum Installation Temperature	
PVC	-10°C	14°F
XLPE	-40°C	-40°F
NYLON	-3.9°C	25°F

## Guidelines for Installing Conductors in Cable Tray or Raceways

Before installation, be sure the raceway is sized in accordance with the requirements of the National Electrical Code (NEC). Care should be taken to ensure that no sharp edges exist to cut the conductor's insulation as it is being installed. It is essential to run a clean brush through the raceway to remove or loosen any burrs. When finished, pull a swab through to clean out foreign objects.

When installing conductors or cables in wet, underground locations, the conductor or cable ends must be sealed to prevent entry of moisture into the conductor strands. These seals should be left intact or remade after pulling is disrupted, until splicing, terminating, or testing is to be done. This practice is recommended to avoid unnecessary corrosion of the conductors and to safeguard against entry of moisture into the conductor strands, which would generate steam under overload, or emergency loadings, or short circuit conditions after the conductor or cable is energized.

Another important consideration is to not exceed the maximum allowable tensile strength or the minimum bending radius of the conductor or cable. The force required for pulling a given length can be reduced by the application of a pulling compound on conductors or cables in raceways and the use of rollers in cable trays.

### A. Maximum Pulling Tension on Conductors or Cables

The maximum pulling tension on a conductor or cable should never exceed the rated tension of the pulling device. Maximum pulling tension can be calculated by the following formulas:

**Single Conductor:  $T = S \times A$**

**Multi-Conductors:  $T = N \times S \times A$**

Where: T = Maximum Pulling Tension (lbs)

S = Conductor Stress (lbs/cmil)\*

A = Area (cmils)

N = Number of Conductors

\*Copper: S = .008

\*8000 Series Aluminum Alloy: S = .006

\*1350 Series Aluminum Alloy (½ Hard): S = .003

\*1350 Series Aluminum Alloy (Hard): S = .008

Example: (4) 500 KCMIL THHN/THWN-2 Copper Conductors

S = .008

N = 4

A = 500,000 CMILS

$T = N \times S \times A$

Solution:  $4 \times .008 \times 500,000 = 16,000$  lbs. Tension\*

\*Encore Wire recommends not to exceed 75% of the maximum pulling tension calculated.

### B. Maximum Side Wall Pressure

For conductors 8 AWG and smaller the SWP should not exceed 300 lbs. per foot of bend radii for one single conductor and 500 lbs. per foot of bend radii for two or more conductors paralleled or plexed.

For conductors 6 AWG and larger the SWP should not exceed 500 lbs. per foot of bend radii for one single conductor and 1000 lbs. per foot of bend radii for two or more conductors paralleled or plexed.

For single- or multi-conductor cables (like Type TC) it would be 500 lbs. per foot of bend radii for one single cable or 1000 lbs. per foot for two or more cables.

### C. Minimum Bending Radius for Cables

The minimum bending radii for both single and multiple conductor cable, without metallic sheathing, can be calculated using the below table:

Thickness of Conductor Insulation (in)	Outside Diameter of Cable		
	(in)	(in)	(in)
	1.00 or less	1.001 - 2.000	2.001 or more
Minimum Bending Radius as a Multiple of Cable Diameter			
.156 and less	4	5	6
.157 to .312	5	6	7
.313 and larger	x	7	8

### D. Minimum Bending Radius for Conductors

The minimum bending radii for single insulated conductor:

14 AWG through 4/0 AWG : 6 x O.D. of largest individual conductor

250 KCMIL through 500 KCMIL : 7 x O.D. of largest individual conductor

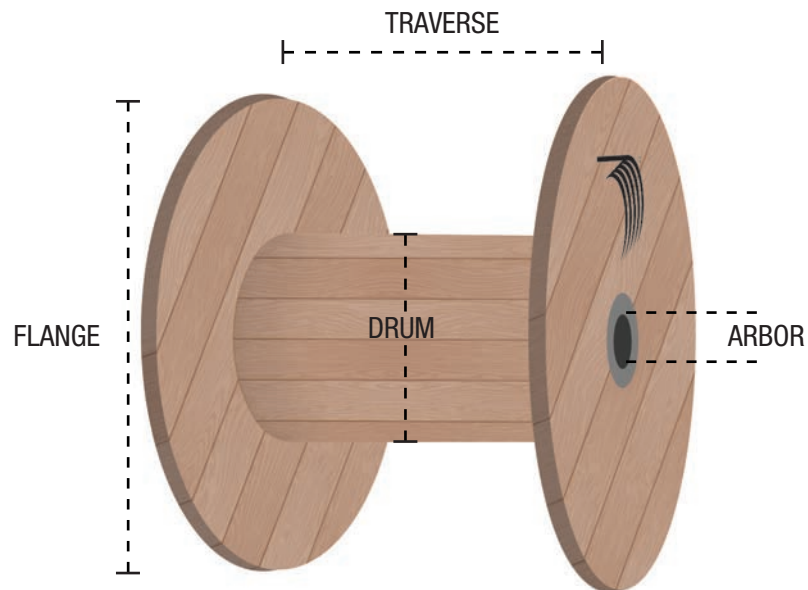
600 KCMIL through 1000 KCMIL : 8 x O.D. of largest individual conductor

The information presented here is, to the best of our knowledge, true and accurate; however, since conditions of use are beyond our control, all recommendations or suggestions are presented without guarantee or responsibility on our part.

We disclaim all liability in connection with the use of information contained herein or otherwise.



## REEL REFERENCE



## REEL SIZE CHART

Reference	Flange (in)	Traverse (in)	Drum (in)	Arbor (in)
A (12 x 4.88 x 5) Plastic	12	4.88	5	2
B (12 x 8 x 5) Plastic	12	8	5	2
C (12 x 11 x 4)	12	11	4	2
D (12 x 12 x 5) Plastic	12	12	5	2
E (13.5 x 11 x 5) Plastic	13.5	11	5	2
F (15 x 11 x 5)	15	11	5	2
G (15.75 x 11 x 5) Plastic	15.75	11	5	2
H (16 x 11 x 8)	16	11	8	3
I (18 x 11 x 5)	18	11	5	2
J (18 x 11 x 5)	18	11	5	3
K (18 x 14 x 8)	18	14	8	3
L (24 x 12 x 10)	24	12	10	3
M (24 x 16 x 12)	24	16	12	3
N (30 x 18 x 14)	30	18	14	3
O (32 x 22 x 14)	32	22	14	3
P (36 x 22 x 14)	36	22	14	3
Q (42 x 23 x 16)	42	23	16	3
R (48 x 23 x 16)	48	23	16	3
S (54 x 32 x 28)	54	32	28	3
T (60 x 32 x 28)	60	32	28	3
U (72 x 36 x 40)	72	36	40	3
V (78 x 48 x 40)	78	48	40	3
W (12 x 11 x 8)	12	11	8	3
X (24 x 14 x 5)	24	14	5	3

Wire Size	Put-Up (ft)	NM-B	UF-B	THHN	XHHW	USE	BARE COPPER	METAL CLAD
14/2 P&G	500	D	D					
14/2 P&G	1000	D	D					K
14/2 P&G	5000	X	M					
14/3 P&G	500	D	E					
14/3 P&G	1000	F	J					K
14/3 P&G	5000	N	N					
14/4 G	1000	E						L
12/2 P&G	500	D	D					
12/2 P&G	1000	E	E					L
12/2 P&G	2500		L					N
12/2 P&G	4000	X						
12/2 P&G	5000		N					
12/3 P&G	500	E	E					
12/3 P&G	1000	F	J					L
12/3 P&G	5000	N	O					
12/4 G	1000	J						L
10/2 P&G	500	D	E					
10/2 P&G	1000	F	J					L
10/2 P&G	2500		M					
10/2 P&G	5000	N	N					
10/3 P&G	500	E	J					
10/3 P&G	1000	J	L					M
10/3 P&G	2500	N						
10/3 P&G	5000	O	O					
10/4 G	1000	L						N
8/2 P&G	500	E	J					M
8/2 P&G	1000	L	L					N
8/2 P&G	2500	N	N					
8/2 P&G	5000							
8/3 P&G	500	J	L					M
8/3 P&G	1000	L	M					N
8/3 P&G	2500	N	O					
8/3 P&G	5000		Q					
6/2 P&G	500	J	J					M
6/2 P&G	1000	L	L					N
6/2 P&G	2500	N	O					
6/2 P&G	5000							
6/3 P&G	500	L	L					M
6/3 P&G	1000	M	N					N
6/3 P&G	2500	O	O					
4/3 P&G	250	L						
4/3 P&G	500	M						N
4/3 P&G	1000	N						O
2/3 P&G	250	M						
2/3 P&G	500	N						O
2/3 P&G	1000	O						P
2/4	500'							O
1/3	1000							Q
1/4	1000							Q
1/0-3	1000							Q
1/0-4	1000							R
2/0-3	1000							R
2/0-4	1000							R
3/0-3	1000							R
3/0-4	1000							S
4/0-3	1000							S
4/0-4	1000							S
250-3	1000							S
250-4	1000							T



## REEL SIZE CHART

Wire Size	Put-Up (ft)	NM-B	UF-B	THHN	XHHW	USE	BARE COPPER	METAL CLAD
300-3	1000							T
300-4	1000							T
350-3	1000							T
350-4	1000							U
400-3	1000							T
400-4	1000							U
500-3	1000							U
500-4	1000							U
600-3	1000							U
600-4	1000							V
750-3	1000							V
750-4	1000							V
18 AWG Solid	2500			B				
16 AWG Solid	2500			B				
14 AWG Solid	2500			B				
12 AWG Solid	1000			A				
12 AWG Solid	2500			B				
10 AWG Solid	1000			A				
10 AWG Solid	2500			E				
18 AWG Std	2500			B				
16 AWG Std	2500			B				
14 AWG Std	2500			B	B			
12 AWG Std	1000			A	B			
12 AWG Std	2500			B	E	E		
10 AWG Std	500				A	A		
10 AWG Std	1000			A	B	D		
10 AWG Std	2500			E	E	E		
8 AWG Std	500			A	B	D		
8 AWG Std	1000			B	H	H	B	
8 AWG Std	2500			K	K	L	H	
8 AWG Std	5000			M	M	M	K	
8 AWG Std	40000			R				
6 AWG Std	500			B	D	H	B	
6 AWG Std	1000			D	H	H	B	
6 AWG Std	2500			L	L	L	H	
6 AWG Std	5000			M	M	N	L	
6 AWG Std	25000			R				
4 AWG Std	500			D	H	H	B	
4 AWG Std	1000			H	H	K	H	
4 AWG Std	2500			M	M	M	L	
4 AWG Std	5000			N	N	N	M	
4 AWG Std	20000			R				
3 AWG Std	500			H	H	H	H	
3 AWG Std	1000			K	K	K	H	
3 AWG Std	2500			M	M	N	M	
3 AWG Std	5000			O	O	O	N	
3 AWG Std	15000			R				
2 AWG Std	500			H	H	H	H	
2 AWG Std	1000			L	L	L	K	
2 AWG Std	2500			N	N	N	M	
2 AWG Std	5000			O	O	O	N	
2 AWG Std	14000			R				
1 AWG Std	500			K	K	K	H	
1 AWG Std	1000			L	L	L	K	
1 AWG Std	2500			N	N	N	M	
1 AWG Std	5000			O	O	P	O	
1 AWG Std	22000			T				
1/0 AWG Std	500			K	K	K	H	
1/0 AWG Std	1000			L	L	L	K	

Wire Size	Put-Up (ft)	NM-B	UF-B	THHN	XHHW	USE	BARE COPPER	METAL CLAD
1/0 AWG Std	2500			O	O	O	N	
1/0 AWG Std	5000			P	P	P	O	
1/0 AWG Std	16000			T				
2/0 AWG Std	500			L	L	L	K	
2/0 AWG Std	1000			M	M	M	L	
2/0 AWG Std	2500			O	O	O	N	
2/0 AWG Std	5000			Q	Q	Q	P	
2/0 AWG Std	14000			T				
3/0 AWG Std	500			L	L	L	K	
3/0 AWG Std	1000			M	M	N	L	
3/0 AWG Std	2500			O	O	O	O	
3/0 AWG Std	5000			Q	Q	Q	P	
3/0 AWG Std	12000			T				
4/0 AWG Std	500			L	L	L	L	
4/0 AWG Std	1000			N	N	N	M	
4/0 AWG Std	2500			P	P	P	O	
4/0 AWG Std	5000			R	R	R	Q	
4/0 AWG Std	9000			T				
250 KCMIL	500			M	M	M	M	
250 KCMIL	1000			N	N	N	M	
250 KCMIL	2500			P	P	P	P	
250 KCMIL	4000			R	R	R	R	
250 KCMIL	8500			T				
300 KCMIL	500			M	M	M	M	
300 KCMIL	1000			N	N	N	M	
300 KCMIL	3500			R	R	R	R	
300 KCMIL	7000			T				
350 KCMIL	500			N	N	N	M	
350 KCMIL	1000			O	O	O	N	
350 KCMIL	3000			R	R	R	R	
350 KCMIL	6000			T				
400 KCMIL	500			N	N	N	M	
400 KCMIL	1000			O	O	O	N	
400 KCMIL	3000			R	R	R	R	
400 KCMIL	5000			T				
500 KCMIL	500			N	N	N	N	
500 KCMIL	1000			P	O	O	O	
500 KCMIL	2500			R	R	R	Q	
500 KCMIL	4000			T				
600 KCMIL	500			O	O	O	N	
600 KCMIL	1000			P	P	P	P	
600 KCMIL	2000			R	R	R	Q	
600 KCMIL	3000			T				
750 KCMIL	500			P	O	P	O	
750 KCMIL	1000			Q	Q	Q	P	
750 KCMIL	1500			R	R	R		
750 KCMIL	2500			T				
1000 KCMIL	500			P	P	P	P	
1000 KCMIL	1000			Q	Q	Q	Q	
1000 KCMIL	2000			T				



## MASTER PALLETS

### NM-B

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
14/2 G NM-B	250	EZ PACK		33,750
14/2 G NM-B	500	EZ PACK		31,500
14/2 G NM-B	1000	REEL	12 x 12 x 5 P	32,000
12/2 G NM-B	250	EZ PACK		33,750
12/2 G NM-B	500	EZ PACK		31,500
12/2 G NM-B	1000	REEL	13.5 x 11 x 5 P	27,000
10/2 G NM-B	250	EZ PACK		24,750
10/2 G NM-B	1000	REEL	13.5 x 11 x 5 P	18,000
8/2 G NM-B	125	EZ PACK		7,875
8/2 G NM-B	500	REEL	13.5 x 11 x 5 P	13,500
8/2 G NM-B	1000	REEL	24 x 12 x 10	12,000
6/2 G NM-B	125	EZ PACK		7,875
6/2 G NM-B	500	REEL	18 x 11 x 5	7,500
6/2 G NM-B	1000	REEL	24 x 12 x 10	12,000
14/3 G NM-B	250	EZ PACK		31,500
14/3 G NM-B	1000	REEL	13.5 x 11 x 5 P	27,000
12/3 G NM-B	250	EZ PACK		24,750
12/3 G NM-B	1000	REEL	15 x 11 x 5	27,000
10/3 G NM-B	100	EZ PACK		10,800
10/3 G NM-B	250	EZ PACK		15,750
10/3 G NM-B	500	REEL	13.5 x 11 x 5 P	13,500
10/3 G NM-B	1000	REEL	18 x 11 x 5	15,000
8/3 G NM-B	125	EZ PACK		7,875
8/3 G NM-B	500	REEL	18 x 11 x 5	7,500
8/3 G NM-B	1000	REEL	24 x 12 x 10	12,000
6/3 G NM-B	125	EZ PACK		7,875
6/3 G NM-B	500	REEL	24 x 12 x 10	6,000
6/3 G NM-B	1000	REEL	24 x 16 x 12	8,000
12/2-2 G NM-B	250	EZ PACK		24,750
14/2-2 G NM-B	250	EZ PACK		24,750

### THWN-2 COPPER SOLID AND STRANDED

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
14 SOL & STR THWN-2	2000	CARTON	6.5 x 4.5 x 2.13	108,000
14 SOL & STR THWN-2	2500	REEL	12 x 8 x 5 P	120,000
12 SOL & STR THWN-2	2000	CARTON	6.5 x 4.5 x 2.13	108,000
12 SOL & STR THHN	1000	REEL	12 x 4.88 x 5 P	80,000
12 SOL & STR THHN	2500	REEL	12 x 8 x 5 P	120,000
10 SOL & STR THHN	1000	CARTON	6.5 x 6.5 x 1.88	72,000
10 SOL & STR THHN	1000	REEL	12 x 4.88 x 5 P	80,000
10 SOL & STR THHN	2500	REEL	13.5 x 11 x 5 P	67,500
8 STR THWN-2	500	REEL	12 x 4.88 x 5 P	40,000
8 STR THWN-2	1000	REEL	12 x 8 x 5 P	48,000
8 STR THWN-2	2500	REEL	18 x 14 x 8	25,000
8 STR THWN-2	5000	REEL	24 x 16 x 12	20,000
6 STR THWN-2	500	REEL	12 x 8 x 5 P	32,000
6 STR THWN-2	1000	REEL	12 x 12 x 5 P	32,000
6 STR THWN-2	2500	REEL	24 x 12 x 10	20,000
6 STR THWN-2	5000	REEL	24 x 16 x 12	20,000
4 STR THWN-2	500	REEL	12 x 12 x 5 P	16,000
4 STR THWN-2	1000	REEL	16 x 11 x 8	18,000
4 STR THWN-2	2500	REEL	24 x 16 x 12	10,000
4 STR THWN-2	5000	REEL	30 x 18 x 14	10,000
3 STR THWN-2	500	REEL	16 x 11 x 8	9,000
3 STR THWN-2	1000	REEL	18 x 14 x 8	10,000
3 STR THWN-2	2500	REEL	24 x 16 x 12	10,000
3 STR THWN-2	5000	REEL	32 x 22 x 14	5,000
2 STR THWN-2	500	REEL	16 x 11 x 8	9,000
2 STR THWN-2	1000	REEL	24 x 12 x 10	8,000
2 STR THWN-2	2500	REEL	30 x 18 x 14	5,000
2 STR THWN-2	5000	REEL	32 x 22 x 14	5,000
1 STR THWN-2	500	REEL	18 x 14 x 8	5,000
1 STR THWN-2	1000	REEL	24 x 12 x 10	8,000
1 STR THWN-2	2500	REEL	30 x 18 x 14	5,000
1 STR THWN-2	5000	REEL	32 x 22 x 14	5,000
1/0 STR THWN-2	500	REEL	18 x 14 x 8	5,000
1/0 STR THWN-2	1000	REEL	24 x 12 x 10	8,000
1/0 STR THWN-2	2500	REEL	32 x 22 x 14	2,500
1/0 STR THWN-2	5000	REEL	36 x 22 x 14	5,000
2/0 STR THWN-2	500	REEL	24 x 12 x 10	4,000
2/0 STR THWN-2	1000	REEL	24 x 16 x 12	4,000
2/0 STR THWN-2	2500	REEL	32 x 22 x 14	2,500
2/0 STR THWN-2	5000	REEL	42 x 23 x 16	5,000
3/0 STR THWN-2	500	REEL	24 x 12 x 10	4,000
3/0 STR THWN-2	1000	REEL	24 x 16 x 12	4,000
3/0 STR THWN-2	2500	REEL	32 x 22 x 14	2,500
3/0 STR THWN-2	5000	REEL	42 x 23 x 18	5,000
4/0 STR THWN-2	1000	REEL	30 x 18 x 14	2,000
4/0 STR THWN-2	2500	REEL	36 x 22 x 14	2,500
4/0 STR THWN-2	5000	REEL	48 x 23 x 16	5,000
250 KCMIL THWN-2	1000	REEL	30 x 18 x 14	2,000
250 KCMIL THWN-2	2500	REEL	36 x 22 x 14	2,500
350 KCMIL THWN-2	1000	REEL	32 x 22 x 14	1,000
350 KCMIL THWN-2	2500	REEL	42 x 23 x 16	2,500
350 KCMIL THWN-2	3000	MASTER	48 x 23 x 16	3,000
500 KCMIL THWN-2	1000	REEL	36 x 22 x 14	1,000
500 KCMIL THWN-2	2500	MASTER	48 x 23 x 16	2,500
600 KCMIL THWN-2	2000	MASTER	48 x 23 x 16	2,000

**UF-B**

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
14/2 G UF-B	250	EZ PACK		31,500
14/2 G UF-B	1000	REEL	12 x 11 x 4	32,000
12/2 G UF-B	250	EZ PACK		31,500
12/2 G UF-B	500	REEL	12 x 11 x 4	24,000
12/2 G UF-B	1000	REEL	15 x 11 x 5	27,000
10/2 G UF-B	250	EZ PACK		20,250
10/2 G UF-B	1000	REEL	18 x 11 x 5	15,000
14/3 G UF-B	250	EZ PACK		15,750
12/3 G UF-B	250	EZ PACK		15,750
12/3 G UF-B	1000	REEL	18 x 11 x 5	15,000
10/3 G UF-B	250	EZ PACK		13,500
10/3 G UF-B	1000	REEL	24 x 12 x 10	12,000

**TFN/TFFN**

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
18 SOL & STR TFN/TFFN	2000	CARTON		108,000
18 SOL & STR TFN/TFFN	2500	REEL	12 x 8 x 5 P	120,000
16 SOL & STR TFN/TFFN	2000	CARTON		108,000
16 SOL & STR TFN/TFFN	2500	REEL	12 x 8 x 5 P	120,000

**BARE COPPER SOLID**

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
8 SOL BARE COPPER	500	SPOOL		64,000
6 SOL BARE COPPER	315	SPOOL		40,320
6 SOL BARE COPPER	500	REEL	12 x 11 x 8	16,000
6 SOL BARE COPPER	1000	REEL	12 x 11 x 8	18,000
4 SOL BARE COPPER	200	SPOOL		25,600

**BARE COPPER STRANDED**

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
4 STR BARE COPPER	200	SPOOL		25,600
4/0 STR BARE COPPER	500	REEL	24 x 12 x 10	4,000
4/0 STR BARE COPPER	1000	REEL	24 x 16 x 12	4,000

**COPPER XHHW-2**

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
14 STR XHHW-2	2500	REEL	12 x 8 x 5 P	120,000
12 STR XHHW-2	1000	CARTON		72,000
10 STR XHHW-2	500	SPOOL	12 x 4.88 x 5 P	40,000
10 STR XHHW-2	2500	REEL	13.5 x 11 x 5 P	67,500

**ALUMINUM XHHW-2**

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
AL 2 STR XHHW-2	1000	REEL	18 x 14 x 8	10,000
AL 2 STR XHHW-2	5000	REEL	30 x 18 x 14	10,000
AL 4/0 STR XHHW-2	1000	REEL	30 x 18 x 14	2,000
AL 500 KCMIL XHHW-2	2500	REEL	48 x 23 x 16	2,500
AL 250 KCMIL XHHW-2	1000	REEL	30 x 18 x 14	2,000

**MC-AL SOLID & STRANDED THWN-2**

Product	Put-Up Footage	Packaging	Reel Size	Footage Per Pallet
14/2 MC-AL SOL & STR	250	COIL		15,750
14/2 MC-AL SOL & STR	1000	REEL	18 x 14 x 8	10,000
12/2 MC-AL SOL & STR	250	COIL		15,750
12/2 MC-AL SOL & STR	1000	REEL	24 x 12 x 10	12,000
10/2 MC-AL SOL & STR	250	COIL		6,250
10/2 MC-AL SOL & STR	1000	REEL	24 x 12 x 10	12,000
12/3 MC-AL SOL & STR	250	COIL		15,750
12/3 MC-AL SOL & STR	1000	REEL	24 x 12 x 10	12,000
10/3 MC-AL SOL & STR	250	COIL		6,250
10/3 MC-AL SOL & STR	1000	REEL	24 x 16 x 12	8,000
12/4 MC-AL SOL & STR	250	COIL		11,250
12/4 MC-AL SOL & STR	1000	REEL	24 x 12 x 10	12,000


**PULLPRO®**

Product	Put-Up Footage	Packaging	Footage Per Pallet
14 SOL & STR THHN	3000	PULLPRO	54,000
12 SOL & STR THHN	2500	PULLPRO	45,000
10 SOL & STR THHN	1500	PULLPRO	27,000



## RECEIVING, HANDLING, AND STORAGE

The following procedures are recommended to prevent damage of cable during receiving, handling, and storage, and to prevent possible deterioration prior to installation.

### Receiving

Upon receipt and before accepting delivery, visually inspect each item for obvious damage as well as for indications of hidden damage.

Be especially cautious if any of the following conditions exist:

- Reels are poorly stacked
- Cable covering is removed or damaged (If damaged, inspect underneath layers of cable)
- Reel flanges are broken
- Cable ends are loose and not secured
- Evidence the reel has been dropped
- Broken or damaged pallet

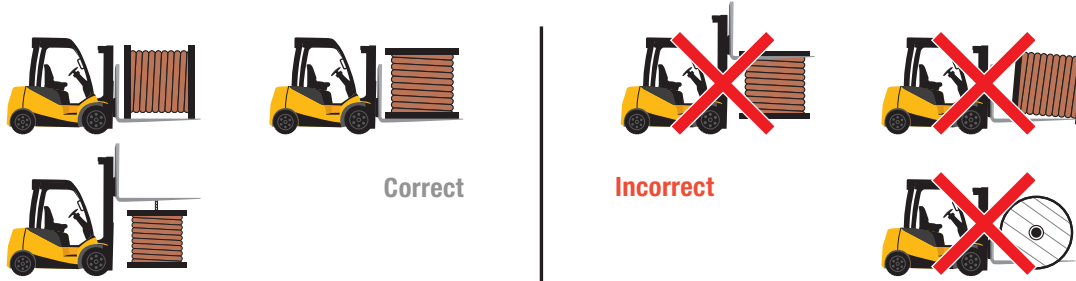
### Handling

- Always make sure the cable ends are secure before moving. An unsecured cable end can cause damage and personal injury.
- Reels are moved by rolling, examine the route and clear the path of any debris such as rocks, wooden blocks, pipes, or other equipment.
- Roll reels only in the same direction it was turned when the cable was wound onto the reel. Rolling in this direction tends to tighten the layers of cable on the reel. Rolling in the incorrect direction may cause loosening or loops, resulting in tangles or overlapping which can cause difficulty during installation.
- Do not let the flanges straddle items that may damage the cable.

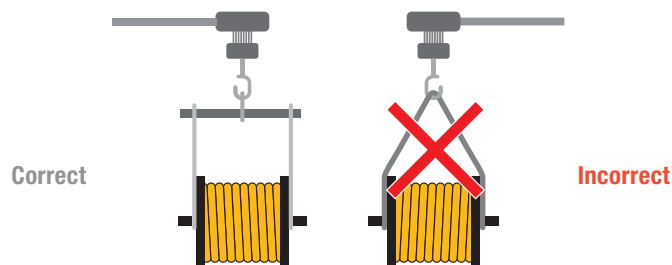


In some facilities, it may be necessary to roll reels of cable up or down an inclined ramp. Ensure the ramp has adequate load-bearing capabilities and is wide enough to accommodate the width of the reel flanges with an adequate margin of safety. Beware when a heavy reel is rolled down even a slight incline, as the momentum may make it difficult to stop. Select a method for controlling and stopping the reel safely, one that does not allow the cable or protective covering to contact any potentially damaging objects or exert sufficient force on the reel flanges, which could cause damage.

When using a forklift to move reels, only lift from the sides and only if the forks are of sufficient length to securely capture both flanges. Never lift with the forks between the reel flanges or let the forks contact the cable or the protective covering. If the reel is on its side and it is absolutely necessary to lift in this position, place the forks underneath the bottom flange. An alternative method is to use a suitable holding device inserted in the arbor hole of the top flange. Care must be exercised when lifting by this method. Undue stress could result in failure of the rods holding the flanges together.



When lifting by crane or other overhead lifting device, insert steel lifting bars of a suitable diameter and length through the arbor hole in the center of the flange. The use of a lifting yoke or spreader bar is required to prevent the lifting chain or cable from applying pressure to the reel flanges. Side pressure can crush the reel flanges, resulting in damage to the cable. Also, the use of a yoke or spreader bar can prevent tipping or slipping, especially with heavy reels or reels that may be unbalanced.



### Storage

Reels should be stored indoors on a smooth, hard, and dry surface. The area should be readily accessible to forklifts, but away from work areas and heavy traffic or where the cable is exposed to chemicals, oil or grease spills, welding operations, open flames, and excessive heat. If outside storage is necessary, the same guidelines apply as indoor storage. If a hard surface is not available, reels should be supported off the ground by a suitable means to prevent the flanges from becoming embedded and allowing the weight of the cable to rest directly on the ground. A suitable weatherproof material should be used to cover the reels to protect the cable insulation from solar degradation and wooden reels from moisture.

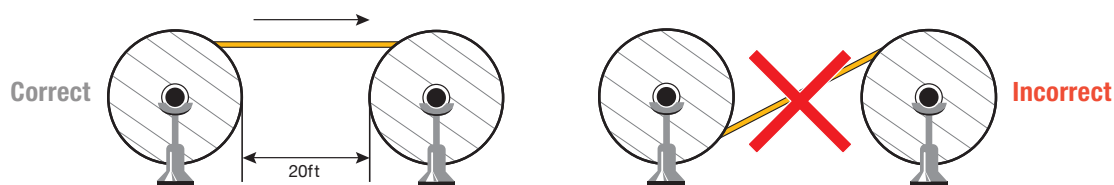
- Each reel should be chocked from both sides.
- Align reels flange to flange.
- Store reels in an orderly manner to allow easy access for moving and lifting.

After cutting from master lengths, all cable ends should be resealed with weatherproof tape to prevent the entrance of moisture. Ends should be secured to prevent becoming unwound during moving.

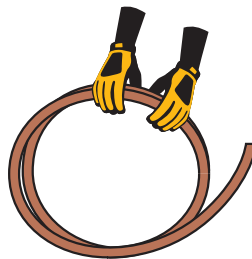
### Removal of Cable from Reel

Cable may be unwound from the bottom or top of the reel; however, if cable is to be re-reeled from one reel to another, position the reels to allow the cable to follow the natural cast in the cable. The reels should be supported on jacks or stands with a suitable bar through the arbor holes, which will allow the reels to be easily turned. A minimum of twenty (20) feet between the reel flanges is recommended. This will allow the cable to straighten before it is wound on the take up reel. Reverse bending and twisting can cause difficulty and possible internal damage, which can affect the performance of the cable.

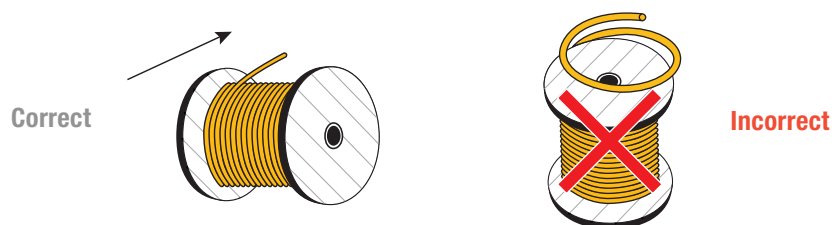
### Reel-to-Reel Rewinding



Coils of cable can be handled in a similar fashion. Position the coil upright in a vertical orientation. Rotate and unwrap the desired length by hand.



Never pull the cable over the reel flange or the side of a coil. This can produce undesirable kinks and twists in the cable.



The information presented here is, to the best of our knowledge, true and accurate. However, since conditions of use are beyond our control, all recommendations or suggestions are presented without guarantee or responsibility on our part. We disclaim all liability in connection with the use of information contained herein or otherwise.

**AAC**

Aluminum Alloy Conductor. Bare aluminum supporting neutral normally for overhead service applications consisting of 1350 alloy and concentric-lay stranding per ASTM B231.

**AAAC**

All Aluminum Alloy Conductor. Bare aluminum supporting neutral normally for overhead service applications consisting of 6201 alloy and concentric-lay stranding per ASTM B399.

**ACSR**

Aluminum Conductor, Steel Reinforced. Bare aluminum supporting neutral with steel reinforced center wire(s) normally for overhead service applications. Consists of 1350 alloy conductors stranded around coated steel supporting center wire(s). Concentric-lay stranding per ASTM B232.

**AL**

The chemical symbol for aluminum

**Ambient Temperature**

Any all-encompassing temperature within a given area

**American Wire Gauge**

A standard used to describe the physical size of a conductor

**Ampacity**

The maximum current an insulated wire or cable can safely carry without exceeding either the insulation or jacket material limitations (Same as *Current-Carrying Ampacity*)

**ANSI**

The American National Standards Institute

**Appliance Wire and Cable**

Appliance wiring material is a classification of Underwriters Laboratories, Inc., covering insulated wire and cable intended for internal wiring of appliances and equipment

**Area of Conductor**

A conductor's cross-sectional area, usually measured in circular mils

**ARRA 2009**

American Recovery and Reinvestment Act of 2009

**ASA**

The American Standards Association; formerly ANSI

**ASTM**

The American Society for Testing and Materials

**ASTM B800**

Standard Specification for 8000 Series Aluminum Alloy Wire for Electrical Purposes - Annealed and Intermediate Tempers

**ASTM B801**

Standard Specification for Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy for Subsequent Covering for Insulation

**ASTM B836**

Standard Specification for Compact Round Stranded Aluminum Conductors Using Single Input Wire Construction

**ASTM B609**

Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

**ASTM B230**

Standard Specification for Aluminum 1350-H19 Wire for Electrical Purposes

**ASTM B231**

Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors

**ASTM B232**

Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Reinforced (ACSR)

**ASTM B233**

Standard Specification for Aluminum 1350 Drawing Stock for Electrical Purposes

**ASTM B398**

Standard Specification for Aluminum-Alloy 6201-T81 Wire for Electrical Purposes

**ASTM B399**

Standard Specification for Concentric-Lay-Stranded Aluminum Alloy 6201-T81 Conductors

**AWG**

Abbreviation for American Wire Gauge. A standard system used in the United States for designing the size of an electrical conductor based on geometric progression between two conductor sizes. Based on a circular mil system. 1 mil equals .001 inch.

**AWM**

Designation for appliance wiring material

**Bare Conductor**

A conductor having no covering. A conductor with no coating or cladding on the aluminum.

**Bending Radius**

A term used to denote the minimum radius that an insulated cable or cables may be safely bent during installation

**Binder**

A helically-applied tape or thread used for holding assembled cable components in place while awaiting subsequent manufacturing operations

**Buried Cable**

A cable installed directly into the earth without use of underground raceway. Also called "direct-burial cable".

**Cable Filler**

The material used in multiple conductor cables to occupy the spaces formed by the assembly of components, thus forming a core of the desired shape (normally cylindrical).

**Cabling**

The twisting together of two or more insulated conductors to form a cable

**Circuit**

A path along which electrons from a voltage or current source flow

**Circular Mil (cmil)**

A unit of area equal to the area of a circle that is one mil (.001") in diameter. The area of a circle (in circular mils) is equal to the square of the diameter (in mils).

**Cold Bend Test**

Method for determining the resistance of a cable's insulation or jacket to cracking during bending at low temperatures

**Color Code**

A system for a circuit identification through use of solid colors and contrasting tracers

**Combination Unilay**

A stranding configuration that uses two strand sizes to achieve a 3% reduction in the conductor diameter without compression

**Compact Stranded Conductor**

A unidirectional, unilay, or conventional concentric conductor that is constructed with a central core surrounded by one or more layers of helically applied wires. Compact stranded conductors are approximately 8 to 10% below the nominal diameter of a conventional non-compact conductor of the same cross-sectional area.

**Compressed Stranded Conductor**

A unidirectional or unilay or conventional concentric conductor manufactured to a specified nominal diameter 3% less than the calculated diameter of non-compressed conductor of the same construction and cross-sectional area.

**Compound**

An insulating or jacketing material made by mixing two or more ingredients

**Concentric-Lay Conductor**

Conductor constructed with a central core surrounded by one or more layers of helically applied wires.

**Conductor**

An uninsulated wire suitable for carrying electrical current

**Conduit**

A channel for holding and protecting conductors and cables made of metal or an insulating material, usually circular in cross section, as in pipe.

**Control Cable**

A multi-conductor cable made for operation in control or signal circuits

**CSA**

Abbreviation for Canadian Standards Association. The Canadian counterpart of the Underwriters Laboratories.

**Cu**

The chemical symbol for copper

**Damp Location**

An outdoor location that is partially protected from weather or an indoor location, subject to a moderate degree of moisture

**Direct-Burial Cable**

A cable installed directly in the earth

**Direct Current (DC)**

An electric current that flows in only one direction

**Direct Current Resistance (DCR)**

The resistance offered by a circuit to the flow of direct current

**Duct**

An underground or overhead tube for carrying electrical conductors

**Feeder**

The circuit conductor between the service equipment and the final branch circuit over current device

**Filler**

A material used in multi-conductor cables to occupy large interstices formed by the assembled conductors.

**Flame-Resistance**

The ability of a material to restrict the spread of combustion to a low rate of travel, so that the flame will not be conveyed

**FT1 Vertical Flame Test**

Vertical flame test that determines the resistance of a wire, cable, or cord to the vertical propagation of a flame as proscribed in UL 2556 / CSA C22.2 No. 2556-07. Test is performed over 5 continuous cycles of 15 second on/off exposures to flame. Similar to VW-1 flame test.

**FT2 Horizontal Flame Test**

Horizontal flame test that determines the resistance of a wire, cable, or cord to the horizontal propagation of flame and the dropping of flame particles as proscribed in UL 2556 / CSA C22.2 No. 2556-07. Test is performed and values

attained after a 30 second continuous exposure to flame.

**FT4/IEEE 1202 Flame Test**

Vertical tray flame test proscribed in UL 1685 that determines values of cable damage height and/or smoke release when cables are subjected to 70,000 btu/hr over a 20 minute period. Basic cable tray rating for single conductors 1/0 AWG and larger, and multi-conductor power and control cables.

**Gauge**

A term used to denote the physical size of a wire

**Ground**

A conducting connection between an electrical circuit and the earth or other large conducting body to serve as an earth, thus making a complete electrical circuit

**HCF**

Health Care Facility

**Hi Pot**

(See *Dielectric Voltage Withstand*)

**ICEA**

Insulated Cable Engineers Association (formerly IPCEA)

**ICEA T-29-520**

Vertical tray flame test proscribed in ICEA Publication T-29-520 that determines values of cable damage height and/or smoke release when cables are subjected to 210,000 btu/hr over a 20 minute period

**IEEE**

Institute of Electrical and Electronics Engineers

**IEEE 1202 Flame Test**

(See *FT4/IEEE 1202 Flame Test*)

**Insulation**

A covering material having high resistance to the flow of electric current

**Insulation-Resistance (IR)**

The ability of a conductor's insulation to resist or prevent current flow (leakage) through the insulation itself, normally expressed in megohms

**Insulation Thickness**

The wall thickness of the applied insulation

**Jacket**

An outer covering, usually non-metallic, mainly used for protection against the environment

**KCMIL**

One thousand circular mils

**Lay**

The axial distance required for one cabled conductor or conductor strand to complete one

revolution about the axis around which it is cabled

**Lay Direction**

The direction of the twist in a cable as indicated by the top strands while looking along the axis of the cable away from the observer. Described as "right hand" or "left hand" lay.

**Leakage Current**

The undesirable loss of current through or over the surface of insulation

**LEED**

Leadership in Energy & Environmental Design; program of the U.S. Green Building Council

**Listed**

Conductors or other equipment included in a list that is certified and published by a nationally recognized testing laboratory.

**MC Cable (Metal-Clad)**

The construction of 600 Volt MC cable consists of aluminum circuit and grounding conductors covered with thermoplastic insulation and an overall protective polypropylene cable assembly tape under an outer galvanized steel or aluminum interlocked armor

**MCM**

One thousand circular mils

**Messenger**

The linear supporting member, usually a high-strength steel wire, used as the supporting element of a suspended aerial cable. The messenger may be an integral part of the cable or exterior to it.

**Metal-Clad Cable**

(See *MC Cable*)

**Moisture-Resistance**

The ability of a material to resist absorbing moisture from the air or when immersed in water

**Multi-Conductor**

More than one conductor within a single cable complex

**National Electrical Code (NEC)**

A consensus standard published by the National Fire Protection Association (NFPA) and incorporated in OSHA regulations

**NEC**

National Electrical Code

**NEMA**

National Electrical Manufacturers Association

**NFPA**

National Fire Protection Association



**NM-B**

Type NM, Non-metallic Sheathed Cable. A cable assembly consisting of insulated conductors jacketed with a nonmetallic material (usually PVC)

**Nylon**

A group of polyamide polymers that are used for wire and cable protective jackets

**OD**

Outside diameter

**Oil-Resistance**

The ability of a conductor or cable insulation to resist physical degradation caused by exposure to oil

**OSHA**

Occupational Safety and Health Administration

**Overall Diameter**

Finished diameter over wire and cable

**Pair**

Two insulated wires of a single circuit associated together

**Polyethylene**

A thermoplastic material having the chemical identity of polymerized ethylene

**Polyvinyl Chloride (PVC)**

A thermoplastic material composed of polymers of vinyl chloride, which may be rigid or elastomeric, depending on specific formulation

**Put-Up**

Refers to packaging of wire and cable. The term itself refers to the packaged product that is ready to be stored or shipped.

**PVC**

(See *Polyvinyl Chloride*)

**Quad**

A four-conductor cable

**Raceway**

An enclosed channel, such as a conduit, tubing, and wireways designed expressly for holding wires, cables, or busbars, with additional functions as permitted in this Code.

**Rated Temperature**

The maximum temperature at which an electric component can operate for extended periods without undue degradation or safety hazard

**Rated Voltage**

The maximum voltage at which an electric component can operate for extended periods without loss of its basic properties

**Resistance**

In DC circuits, the opposition a material offers to current, measured in ohms. In AC circuits,

resistance is the real component of impedance, and may be higher than the value measured at DC.

**RH**

Type RH. A rubber or XLPE-insulated conductor for use at 75°C in dry locations.

**RHH**

Type RHH. A rubber or XLPE-insulated conductor for use at 90°C in dry locations.

**RHW**

Type RHW. A rubber or XLPE-insulated conductor for use at 75°C in dry and wet locations.

**RHW-2**

Type RHW-2. A rubber or XLPE-insulated conductor for use at 90°C in dry and wet locations.

**RoHS**

European directive for the Restriction of Hazardous Substances

**Separator**

A layer of insulating material such as textile, paper, polyester, etc., used to improve stripping qualities, flexibility, mechanical or electrical protection to the components

**Service Drop**

The overhead conductors between the utility electrical supply system and the service point of a structure

**Sheath**

The outer covering or jacket of a multi-conductor cable

**Shield**

A metallic layer placed around a conductor or group of conductors to prevent electrostatic interference between the enclosed wires and external fields

**Single Input Wire Construction**

A stranded conductor design which varies the number of wires within a range of conductor sizes in order to permit that range of conductor sizes to be constructed from wires of a single diameter

**Single-Rated**

Normally used in reference to underground secondary distribution cables with aluminum conductors of 1350 series alloy and bear the solitary UL rating of "USE-2". Not allowed inside the building envelope

**SmartSun®**

Encore Wire's Photovoltaic Wire. UL-4703 certified and sunlight-resistant in all colors and sizes. SmartSun® carries a 20-year warranty for compact aluminum stranded conductors.

**Solid Conductor**

A single unit not divided into parts

**Spacing**

Distance between the closest edges to two adjacent conductors

**Spiral Wrap**

The helical wrap of a material over a core

**Stranded Conductor**

A conductor composed of a group of wires, usually twisted, or of any combination of such groups of wires

**Sunlight-Resistance**

The ability of a conductor or cable insulation to resist degradation caused by exposure to ultraviolet rays

**SuperSlick Elite®**

Slick, nylon outer jacket on THHN/THWN-2, XHHW-2 & USE-2 products. Eliminates the need for lube.

**Tape Wrap**

A helically applied protective tape over insulated or uninsulated wires

**TC**

Tray Cable

**Temperature Rating**

The maximum temperature rating of an insulation whereby the cable may be used in continuous operation without loss of properties

**Tensile Strength**

The maximum load per unit of original cross-sectional area that a conductor attains when tested in tension to rupture

**TFFN**

Fixture wire; thermoplastic covered, stranded with a Nylon sheath. 90°C

**Thermoplastic**

A material that softens when heated and becomes firm on cooling

**THHN**

90°C, 600V, nylon-jacketed building wire for dry and damp locations. Older Reference for THWN-2.

**THHN-2**

Incorrect reference, commonly misapplied when THWN-2 is called out

**THW-2**

Thermoplastic, vinyl-insulated building wire. Flame-retardant, moisture and heat-resistant. 90°C. Dry and wet locations. No nylon jacket.

**THWN**

75°C, 600V, nylon-jacketed building wire for dry or wet locations. Older reference for THWN-2.

**THWN-2**

90°C, 600V, nylon-jacketed building wire for dry or wet locations.

**Tinned Copper**

Tin coating added to copper to aid in soldering and inhibiting corrosion

**Tray Cable**

A factory-assembled, multi-conductor or multi-pair control, signal, or power cable specifically approved under the National Electrical Code for installation in trays or for direct burial

**Triple-Rated**

Normally used in reference to underground secondary distribution cables with aluminum conductors of 8000 series alloy and which bear the triple UL ratings of "USE-2/RHH/RHW-2". Allowed inside the building envelope.

**Twisted Pair**

A twisted pair is composed of two small separately insulated wires twisted together without a common covering

**UF**

Thermoplastic underground feeder and branch circuit cable

**UL**

Abbreviation for Underwriters Laboratories Inc., an independent organization that operates safety certification services for electrical and electronic materials and equipment

**Underground Secondary Distribution**

The underground conductors between the utility electrical supply system and the service point of a structure

**USE**

Underground Service Entrance cable, rubber-insulated, neoprene or XLPE-jacketed

**Volt**

A unit of electrical pressure. One volt is the amount of pressure that will cause one ampere of current in one ohm of resistance.

**Voltage**

Electrical potential or electromotive force expressed in volts

**Voltage Drop**

The amount of voltage loss from original input in a conductor of given size and run length

**VW-1**

Vertical flame test that determines the resistance of a wire, cable, or cord to the vertical propagation of flame and the dropping of flame particles as proscribed in UL 2556. Test is performed with potentially having up to 5 continuous cycles of 15 second on/off exposures to flame. The cable must self-extinguish during each of the 15 second intervals when flame is removed.

**Wall Thickness**

The thickness of the applied insulation or jacket

**Wire Gauge**

A measure of the diameter or size of wires. The sizes are expressed by numbers.

**XHHW-2**

High temperature (90°C), chemically cross-linked, polyethylene-jacketed

**XLPE**

Cross-linked polyethylene

## SOCIAL MEDIA

# LET'S GET SOCIAL.

Connect with us on social media to stay up to date on all the latest Encore Wire news, information, and products.



LIKE

@EncoreWireCorp



SUBSCRIBE

@EncoreWireCorp



FOLLOW

@EncoreWireCorp



TWEET

@EncoreWireCorp



CONNECT

@EncoreWireCorp





## **Limited Warranty & Limitation of Liability:**

Encore Wire Corporation warrants to you as its customer that for a period of 12 months from the date of shipment to you by Encore Wire, its products are free of defects in workmanship or material and are in conformity with applicable specifications and descriptions referred to or set out herein. Encore Wire's warranty shall not apply to any misuse of its products, including use contrary to Encore Wire's specifications or applicable building codes. The limited warranty stated in this paragraph is the sole and exclusive warranty made or given by Encore Wire and, except as hereinafter provided, is made in lieu of all other warranties, written or oral, expressed or implied, none of which shall apply to the sale of Encore Wire's products. Any implied warranty of merchantability or fitness for a particular purpose or other warranty implied by law on Encore Wire's products is not herein disclaimed, but is limited in duration to the warranty period specified above. Some states do not allow limitations on how long an implied warranty lasts, so these limitations and exclusions may not apply to you.

By purchasing Encore Wire's products, you agree that if any product you purchase from Encore Wire appears to be defective, you will discontinue its use and notify Encore Wire promptly so that the matter may be investigated without delay. You also agree that no claim shall be maintained hereunder unless the facts giving rise to it are discovered within 12 months of shipment and written notice thereof is given to Encore Wire Corporation within 30 days of discovery at P.O. Box 1149, McKinney, Texas 75069. By purchasing Encore Wire's products, you agree that the sole and exclusive remedy for breach of the above warranty shall be to refund the purchase price of, or at Encore Wire's sole option, to repair or replace, the product concerned by F.O.B. Encore Wire's factory or such other place as Encore Wire shall designate. You also agree that Encore Wire will not be liable for any other loss or expense (including labor) not specifically described, and will not be liable for incidental or consequential damages. Lengths of cable that are replaced by Encore Wire in accordance with the foregoing shall become the property of Encore Wire and you agree that you will return to Encore Wire such cable by F.O.B. point of shipment.

This warranty and limitation of liability give you specific legal rights and you may also have other rights, which vary state to state.



## SuperSlick Elite® Style Cables – Limited Warranty

Encore Wire Corporation is pleased to extend our published Limited Warranty / Limitation of Liability when using our SuperSlick Elite® style cables.

Encore Wire Corporation warrants title to the SuperSlick Elite® products it sells and warrants to our customer for a period of 12 months from the date of shipment by us that our SuperSlick Elite® products are free of defects in workmanship or material and are in conformity with applicable specifications and descriptions referred to or set out herein. If our SuperSlick Elite® products appear to be defective, discontinue their use and notify us promptly so that the matter may be investigated without delay.

In addition to our standard warranty, Encore Wire Corporation guarantees that our SuperSlick Elite® brand of cables may be installed without additional lubrication to ease the pulling of cables through PVC or metal raceways. If our SuperSlick Elite® product is found to be defective, Encore Wire agrees to reimburse the contractor for direct cost to replace defective product. Encore Wire reserves the right to inspect any installed product in question prior to its removal.

This warranty is null and void unless contractor follows Encore Wire Corporation's Pre-Installation / Installation Guides. Also the warranty shall not apply to any misuse of our products, including use contrary to our specifications, guides, or applicable building codes.

We at Encore Wire pride ourselves on our commitment to customer service and customer satisfaction and are pleased to stand behind our SuperSlick Elite® products with this additional warranty. If you have any questions or comments, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "William T. Bigbee", is shown within a light gray rectangular box.

William T. Bigbee

Vice President, Production and Research & Development Services  
Encore Wire Corporation



1.800.962.9473 | [encorewire.com](https://encorewire.com)