

1. CONDUCTOR

Material: See Table 1
 Construction: See Table 1
 Diameter: See Table 1

2. INSULATION

Material: Radiation Crosslinked Polyethylene
 Wall thickness
 Nominal: 0.023"
 Minimum: 0.018"
 Min Average: 0.020"
 Diameter: See Table 1
 Color: See Table 2
 Marking: RU AWM 3239 105C 4 KVDC VW-1 JUDD
 WIRE XX AWG ROHS

XX denotes AWG size

3. PHYSICAL CHARACTERISTICS

Temperature rating: 105 °C
 Voltage rating: 4.0 kV_{dc}
 Weight: See Table 1

4. PERFORMANCE PROPERTIES

Mechanical
 Tensile Strength – UL 1581
 Unaged 1500 psi, min
 Aged (168 hrs @ 136°C) 70% retention, min
 Elongation – UL 1581
 Unaged 150%, min
 Aged (168 hrs @ 136°C) 50% retention, min
 Deformation
 UL (1hr @ 121°C, 250g)
 50% thickness decrease, max

PERFORMANCE PROPERTIES (cont'd)

Thermal
 Heat Shock – UL 758
 (1 hr @ 136°C) No Cracks
 Shrinkage
 UL 758 (18 hrs @ 136°C) Less than 3.0mm

Flame – UL 758
 VW-1 60 sec, max

Electrical

High Voltage Dielectric Test (UL 758 Method I)
 Unaged 30 min @ 8.0 kV_{DC}
 Aged (168 hrs @ 136°C) 30 min @ 8.0 kV_{DC}
 High Voltage Dielectric Test (UL 758 Method II)
 Unaged 7 hrs @ 5.0 kV_{DC}
 Aged (168 hrs @ 136°C) 7 hrs @ 5.0 kV_{DC}
 High Voltage Cut-Through
 UL 758 7 hrs @ 6.0 kV_{DC}
 Spark Test – UL 758 5.0 kV_{AC}

Chemical

Ozone Resistance No Cracks
 (3 hrs @ 25°C, 0.010% to 0.015% Concentration)

Environmental

Directive 2002/95/EC(RoHS) Complies

5. REFERENCE SPECIFICATIONS

UL AWM Style 3239
 UL Standard 758
 UL Standard 1581
 The European Parliament and the Council of the
 European Union Directive 2002/95/EC

Table 1

| Conductor | | | | Insulation | | |
|-----------|----------|--------------|-----------------------|----------------|----------------|-------------------------|
| AWG | Material | Construction | Diameter (in), nom | Diameter (nom) | Diameter (Max) | Weight Lbs/kft (nom) |
| 24 | TOC | 7/32 | 0.025" | 0.071" | 0.073" | 4.25 |
| 22 | TPC | 19/34 | 0.030" | 0.076" | 0.078" | 5.04 |
| 22 | TOP | 19/34 | 0.031" | 0.077" | 0.079" | 5.45 |
| 22 | TOC | 19/34 | 0.031" | 0.077" | 0.079" | 5.45 |
| 22 | TPC | 7/30 | 0.030" | 0.076" | 0.078" | 4.96 |
| 22 | TOC | 7/30 | 0.030" | 0.076" | 0.078" | 5.12 |

Table 2

| | | | | | |
|-------|--------|------|--------|--------|-------|
| Black | Brown | Red | Orange | Yellow | Green |
| Blue | Violet | Gray | White | Tan | Pink |

Special colors and stripes available upon request



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| | | | | | | |
|--------------------|-----|------|-------|---------|---|-----------------|
| Date | Rev | By | Appr' | ECN | Description: HIGH VOLTAGE HOOKUP, XLPE, 4kV | |
| 09/17/10 | C | ARJP | EJK | 10-837 | | |
| 11/16/10 | D | CJS | GT | 16-1766 | | |
| 04/11/22 | E | GT | CNL | 22-2097 | | |
| Customer Approval: | | | | | Specification Number: JW1122-06 | Page: 1 of 1 |